National Bank of Serbia

2023

August

INFLATION REPORT

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Introductory note

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

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

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

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

The August *Inflation Report* was considered and adopted by the NBS Executive Board at its meeting of 10 August 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 4 August.

Contents

I Overview

Global economic growth decelerated this year as expected, though estimates are now slightly more favourable than in April.

As expected, global economic activity and trade slowed down this year, primarily as a consequence of heightened uncertainty amid pronounced geopolitical tensions and energy crisis, persistently high inflation and tighter global financial conditions. The adverse impact of the said factors was partly offset by the reduced global supply bottlenecks and the preserved labour market. Faster than expected growth was recorded in emerging economies (China excepted) and the USA, while on the other hand, the euro area stagnated in Q1. At the level of the year, the IMF expects slightly higher global growth (3%) than in April, given that the recent turmoil in the banking sectors of advanced economies has so far not had any major consequences, while the risks to the projection are still assessed as skewed to the downside. The IMF also revised slightly up its forecast of the euro area economic growth relative to April, but this growth will be largely driven by services and less so by manufacturing, with Germany being poised for a mild recession.

Global inflation slowed down, driven mainly by reduced global energy and food prices, while core inflation still shows signs of resilience, which is why many central banks, primarily those of advanced economies, continue tightening their monetary conditions.

Lower global demand contributed to the further fall in global energy and primary commodity prices in Q2. Though this and the reduced global supply bottlenecks are bringing **headline inflation** down in many countries, its level is still relatively high. Under the influence of higher inflation expectations, labour market factors – primarily rising wages and record low unemployment rate, as well as high corporate profit margins, **core inflation** is persistent and declining more slowly than headline inflation in many countries, particularly in the euro area. Against such backdrop, many central banks, mostly in advanced economies, continued to **raise their policy rates**, though at a slower pace than in 2022.

The NBS proceeded with moderate monetary tightening as well.

In the period since the last *Inflation Report,* **the NBS Executive Board kept increasing the key policy rate moderately**, by 25 bp in June and July each, to 6.5%. The aim was to curb market agents' inflation expectations and ensure inflation's sustainable downward path over the monetary policy horizon, i.e. accelerate its return to the target tolerance band. In August, the key policy rate was kept unchanged as the full effects of the implemented measures are yet to play out.

The pass-through of monetary policy tightening to interest rates in the money, loan and savings markets indicates the efficiency of the transmission mechanism through the interest rate channel.

NBS monetary policy tightening **passed through to interest rates in the dinar segment of the interbank money and loan markets**. Lending to the non-monetary sector decelerated to 0.8% y-o-y in June also on account of the higher ECB interest rates, which spilled over to interest rates on euro-indexed loans, and the maturity of guarantee scheme loans as a part of the overall support to the economy aimed at mitigating the consequences of the pandemic. We estimate that the maturity of these loans had the most intense effect in H2 last year and H1 2023, when lending started losing pace. **The share of NPLs in total loans** in June remained close to the minimum level of around 3%, indicating that a rise in the cost of loan repayment and termination of measures which supported the private sector during the pandemic have not produced an adverse impact on bank asset quality so far.

Improvement of the country's external position continued in Q2, mostly on account of commodity exchange where the deficit narrowed significantly. Trade in services and secondary income also improved as their surpluses increased.

The current account deficit remained low in Q2, amounting to only EUR 527 mn or 1.6% of GDP from the beginning of the year, which is by EUR 2.4 bn lower than in the same period of 2022 and the lowest level so far. The greatest improvement in external position was recorded in trade in goods on account of lower energy balance deficit owing to reduced global prices of energy, lower quantity of imports and higher electricity exports. The deficit decrease was also supported by the sustained high growth rates of manufacturing exports, as a confirmation of Serbia's resilience to lower external demand. Given a significantly lower current account deficit in the year so far, we now project it to around 2.5% of GDP at the level of the year, instead of the 4.5% forecast in May, though we stressed even then that there was a great probability that it could turn out lower. According to our projection, the expected acceleration of the investment cycle and the related import of equipment and intermediate goods which will, nevertheless, be largely offset by the rise in export capacities and the recovery of external demand, will generate a current account deficit of 4% of GDP in the medium term, a level that ensures external sustainability.

Foreign capital inflow exceeded the current account deficit multiple times, contributing to stronger appreciation pressures and record levels of FX reserves (EUR 23.1 bn at end-July).

Foreign capital inflow in the first six months of the year outstripped the current account deficit multiple times, stoking appreciation pressures. The highest inflow of capital came from FDI (over EUR 2.1 bn gross or EUR 2 bn net). We estimate that, as in the past eight years, net FDI inflow will continue to fully cover the current account deficit in the medium run, thus contributing to the sustainability of our external position. We also expect FDI to remain highly geographically and project-diversified and channelled mostly into export-oriented sectors. In the first seven months of the year, the NBS bought foreign currency worth EUR 2,455 mn net, which helped increase FX reserves to EUR 23.1 bn at end-July, their highest level on record.

In the year to date, fiscal performance again exceeded expectations, owing to higher than planned revenues, supported by the stepped-up corporate profitability in the prior year, as well as savings on funds intended for overcoming the energy crisis. At the consolidated level, in the first six months a surplus of RSD 45 bn was recorded (1.2% of GDP), whereas, at the annual level, the share of the fiscal deficit is projected at around 3% of GDP. General government public debt stood at 52.1% of GDP at end-June, down by 3.5 pp from end-2022. A lower than anticipated deficit creates room for support to domestic investment and consumption, without jeopardising the downward trajectory of public debt or causing major inflationary pressures. The medium-term fiscal framework, anchored with the adopted fiscal rules limiting the growth in public sector wages and pensions and the share of public debt in GDP, envisages a further decline in deficit to around 1.5% in 2025, with a substantial amount of budgetary funds still earmarked for boosting investment in transport infrastructure and the energy sector.

In H1, fiscal performance exceeded expectations again.

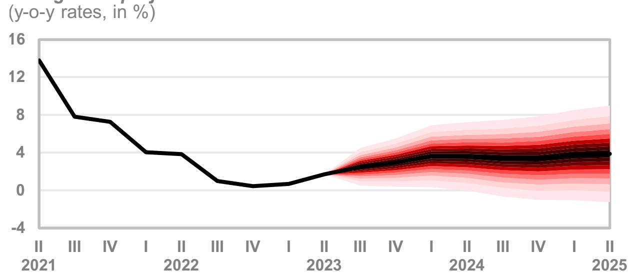
According to the initial SORS estimates, despite persisting global uncertainty and continued tightening of global financial conditions, **GDP rose by 1.7% y-o-y in Q2**, guided by the recovery in the construction sector, gradual easing of the effects of high production costs and resolution of global supply bottlenecks. On the production side, we estimate that, besides construction, growth was also guided by services sector, agriculture and industry. On the expenditure side, as in Q1, growth was led by net exports, which reflect the real growth in goods and services exports and a fall in imports, and by fixed investment, though to a lesser degree. Consumption and inventories gave a negative contribution, mirroring the trends recorded in our regional peers.

Y-o-y GDP growth accelerated to 1.7% in Q2. We estimate that growth measured 1.0% s-a relative to Q1.

We have kept the projected **GDP growth rate for this year between 2% and 3%**, staying closer to the lower bound of the projected range. Growth will be led by net exports, reflecting real export growth and lower imports of goods and services in the year so far, followed by fixed investment, owing to higher corporate profitability and FDI inflow, as well as due to more intensive government investment into transport infrastructure. Personal consumption is also expected to provide a positive contribution, though to a lesser extent than in May. Assuming lower inflationary pressures, a rebound of the global economy and, by extension, external demand, as well as the planned implementation of investment projects in transport, 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% p.a. thereafter.

Despite numerous challenges from the international environment, prospects for economic growth at home are still favourable – real GDP growth is expected to pick up from around 2–3% this year to 3–4% in 2024 and thereafter resume its pre-pandemic growth trajectory of around 4%.

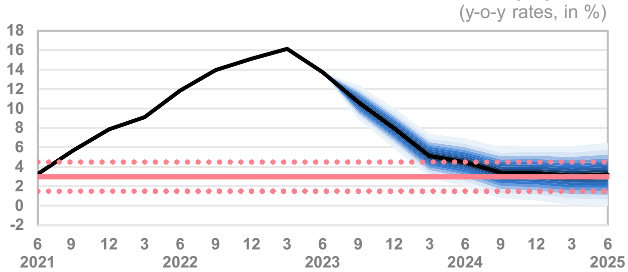
GDP growth projection
(y-o-y rates, in %)



Y-o-y inflation in Serbia has been on a downward path as of April, supported by lower energy and food prices, as well as lower core inflation, which returned to a single-digit level.

Consistent with our expectations from the May *Inflation Report*, **y-o-y inflation has been on a downward trajectory since April** and measured 13.7% in June. Inflation slowdown mostly reflects a slower rise in the prices of processed food and energy, as well as **lower core inflation**, which fell to a single-digit level in June (9.9%), supported by the weakening of global cost-push pressures and the tightening of monetary conditions. The decline in y-o-y inflation would have been even stronger had it not been for an atypical hike in vegetable prices in May and June due to unfavourable agrometeorological conditions (excessive rain).

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



Under our new projection, inflation will slow down further, and after retreating to around 8% at year end, it will return within the bounds of the target tolerance band in Q2 2024. The new inflation projection is somewhat lower than in May, primarily for the next year.

Under our new projection, **y-o-y inflation will slow down further until the end of the projection horizon**, supported by the past tightening of monetary conditions, further weakening of global cost-push pressures and high base effects from energy and food prices. It will also be driven by the slower pace of imported inflation, as well as lower demand amid slower global economic growth. The projected inflation is somewhat lower than in May, mostly for 2024, reflecting a further tightening of monetary conditions and a faster than expected decline in core inflation. We now expect inflation to return within the bounds of the target tolerance band in Q2 2024, somewhat earlier than previously projected. Y-o-y inflation is still expected to hover around 8% at end-2023.

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.

Uncertainty surrounding the inflation and GDP projection remains largely associated with factors from the international environment – global growth outlook, persisting global inflation and by extension the degree of monetary policy tightening by leading central banks, and to a certain extent, geopolitical relations, and global energy and primary commodity prices. When it comes to factors at home, the risks to the projection are associated with FDI inflows, investments in the energy sector and infrastructure, as well as the pace of recovery of coal production, and, to a certain degree, the outcome of this year's agricultural season. 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-based approach to future monetary policy decisions**, taking into account the expected effects of past monetary tightening on inflation going forward. Delivering price and financial stability in the medium term will remain a monetary policy priority, along with supporting further economic growth and development, as well as a rise in employment and the preservation of a favourable investment environment.

II Monetary policy since the May *Report*

Although global cost-push pressures abated further, and the prices of energy, food and industrial raw materials declined relative to last year, global inflation is more resilient than expected and still relatively high. With this in mind, and its commitment to ensure that inflation expectations decrease and inflation strikes a sustainable downward path and returns within the target tolerance band by mid-2024, in June and July, the Executive Board decided to continue with moderate tightening of monetary conditions. The key policy rate was kept unchanged in August, keeping in mind the fact that the full effects of the previously implemented measures are yet to play out.

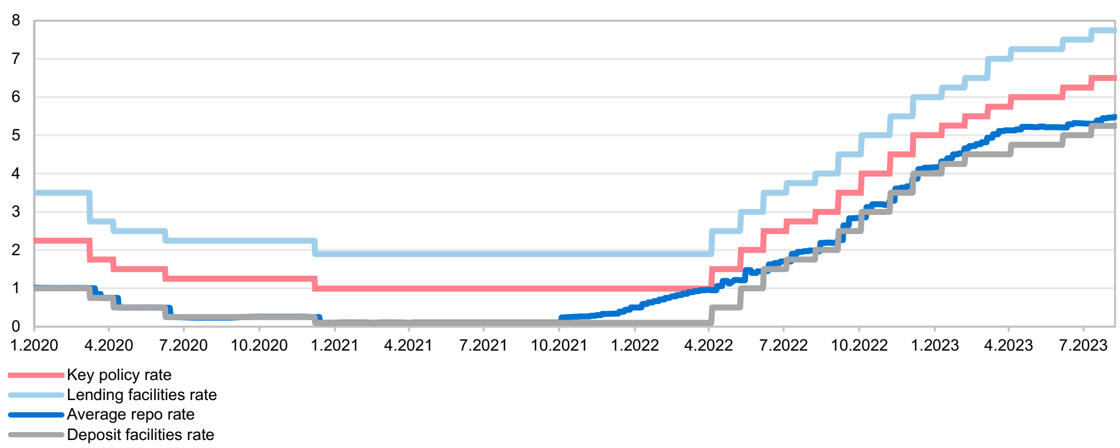
In the period since the May *Report*, the NBS Executive Board **continued to raise the key policy rate moderately. In June and July, the rate was raised by 25 bp each, to 6.5%**. The July hike was the 15th consecutive in the current cycle (since April 2022), resulting in a 550 bp higher key policy rate overall. The deposit and lending facility rates were lifted as well – to 5.25% and 7.75%, respectively.

Since the May *Report*, the weighted average repo rate was also raised, by 22 bp to 5.46% in early August. By further raising its interest rates, the NBS responds to the persisting cost-push pressures, mainly 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.

The Executive Board decisions in June and July were based on the **May medium-term inflation projection**, according to which y-o-y inflation would strike a downward trajectory in Q2, with a major decline in H2 this year. Therefore, by the end of the year, it should be two times lower than in March, i.e. at around 8%. The May projection envisaged the retreat within the bounds of the target tolerance band in mid-2024. The disinflation process was expected to be supported by the past tightening of monetary conditions, the weakening of the effects of global factors underpinning the past growth in energy and food prices, the slackening of imported inflation, as well as lower external demand amid the expected global slowdown.

Inflation profile in Q2 was consistent with our May projection – it has been on a downward path as of April

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



Source: NBS.

and measured 13.7% in June (vs. 16.2% in March). Y-o-y inflation slowed down in Q2, mostly reflecting a slower y-o-y rise in the prices of processed food and energy, guided by lower global prices of primary agricultural commodities and crude oil. By contrast, due to unfavourable agrometeorological conditions (heavy rainfall), vegetable prices did not record the typical decrease in the domestic market, expected with the onset of the new agricultural season as of May.

Core inflation (headline inflation excluding the prices of food, energy, alcohol and cigarettes), which is most affected by monetary policy, **also slowed** down in Q2. Still moving below the headline inflation, core inflation dropped to a single-digit level in June (from 11.3% in March to 9.9% y-o-y), reflecting lower costs of imports and production. The slide was also considerably aided by the **tightening of monetary conditions at home and abroad**.

In deciding to continue with moderate policy rate hike in June and July, the Executive Board primarily sought to influence market agents' inflation expectations and ensure that inflation strikes a sustainable downward path, i.e. to accelerate its return within the target band. Inflation expectations of the financial and corporate sectors have been relatively stable since October last year, but still stand above the upper bound of the target tolerance band for both one and two years ahead. However, the qualitative expectations indicate that the net percentage of corporates expecting a fall in the prices of their products and services over the next twelve months is on the rise.

In its monetary policy making, the Executive Board had in mind that **inflation abroad is more persistent than anticipated**. Although inflation has been gradually subsiding in many countries, it is still relatively high. The Executive Board considered that further moderate monetary tightening is still mandated, as global inflation shows signs of stronger-than-expected resilience. **Particular caution is also mandated by core inflation**, which is subsiding at a slower pace than headline inflation in many countries, on the back of higher inflation expectations, labour market factors, notably a further rise in wages, as well as companies' high profit margins. Against such backdrop, many central banks, mostly in advanced economies, continued to raise their key policy rates, though at a slower pace than in 2022.

Headline inflation in the **euro area**, our key trade partner, slowed down further to 5.3% in July, its lowest level since January 2022, which is still considerably above the ECB's target. The divergence in the movement of headline and core inflation is particularly concerning, i.e. persistently high core inflation, which excludes energy and food, and which jumped to 5.5% in July. The greatest upside risk to core inflation in the period ahead continues to be the possible opening up of the wage-price spiral, given the significant increase in nominal wages and record-low unemployment in the euro area.

Stating that inflation is decreasing, with projections indicating it would remain at a high level over a longer period, the **ECB** emphasized its commitment to bringing inflation back to the target in a timely manner, and further tightened monetary policy in June and July. Since July 2022, when the cycle of rate hikes began, the policy rate was raised nine times, by a total of 425 bp, and reached 4.25% in July. The rates on lending and deposit facilities came at 4.50% and 3.75%, respectively. The contractionary effect of euro area monetary policy tightening has become evident in the aggregate demand components which are most sensitive to changes in interest rates, primarily investments and durable goods consumption, while the effect on other components of aggregate demand can be expected in the coming period.

Inflation is somewhat lower in the USA. This justifies the **FED**'s decision to keep the federal funds rate unchanged in June, after ten consecutive increases. However, it raised the rate in July by 25 bp, to 5.25–5.50%, its highest level in 22 years. The FED does not rule out the possibility of further increases in the federal funds rate in the coming period.

In deciding to gradually tighten its monetary policy, the Executive Board took into account that **tighter global financial conditions** could dampen capital inflows to emerging economies. As for Serbia, a **high FDI inflow** is encouraging, **as is the fact that Serbia made a successful presentation at the international financial market in early 2023**, when it issued two eurobonds in dollars. In addition, the Executive Board emphasized that Serbia's credit rating was maintained one notch below the investment grade in the face of numerous global challenges. The rating agencies assess that Serbia has a coherent economic policy framework, credible monetary policy, preserved and moderate public debt levels, adequate FX reserves, and a stable banking sector.

Among the challenges from the international environment, the Executive Board also highlighted **geopolitical tensions and uncertainty regarding the duration of the Ukraine conflict**, and thus the uncertainty regarding energy availability and prices in the coming period. Also, **China's economic performance** will affect global prices not only of energy but also of most other primary commodities, thus being one of the important factors of inflation movements in the period ahead that the Executive Board must reckon with.

In deciding on the key policy rate, the Executive Board made sure that monetary policy tightening does not threaten the continuity of economic growth. As expected, lending activity slowed down as of H2 2022, reflecting tighter financial conditions in the European and home market, the consequently dented loan demand, as well as the maturing of guarantee scheme loans to corporates. 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. The real sector indicators signalled that Q2 will also see economic growth both in q-o-q and y-o-y terms. This was confirmed by the preliminary estimate of the SORS, which places GDP growth in Q2 at 1.7% y-o-y. The pick-up in growth is chiefly supported by favourable foreign trade movements despite lower external demand – commodity exports expressed in euros rose by 9.3% y-o-y, while commodity imports expressed in euros dropped by 5.0% y-o-y in H1. Within goods exports, manufacturing and electricity exports recorded growth, whereas contracted goods imports reflect mainly lower imports of energy and intermediate goods. The easing of inflationary pressures in the international and domestic markets, as indicated by lower producer prices, should have a positive effect on economic growth in the period ahead.

At its August meeting, the NBS Executive Board kept the key policy rate unchanged at 6.5%, on the back of further easing of global inflationary pressures which should lead to a more significant fall in imported inflation. At the same time, the Executive Board expects inflation at home to remain on the downward path and return within the target tolerance band over the monetary policy horizon. When making the decision, the Board also relied on the fact that the full effects of the previously implemented measures are yet to play out.

As the main risks to inflation and other economic developments continue to emanate from the international environment, the NBS will continue to monitor and analyse trends in the international commodity and financial markets and assess whether there is a need for further tightening of monetary conditions. Such assessments will also depend on the movement of key monetary and macroeconomic factors in the domestic and international environment and will take into account the anticipated effects of past monetary tightening on the future inflation profile. Delivering price stability in the medium term will remain a priority of the NBS's monetary policy, along with working on its secondary objective – preserving and strengthening financial stability. Without prejudice to the two mentioned objectives, the NBS will also support continued growth and development of our economy, as well as a further rise in employment and a favourable investment environment.

III Inflation movements

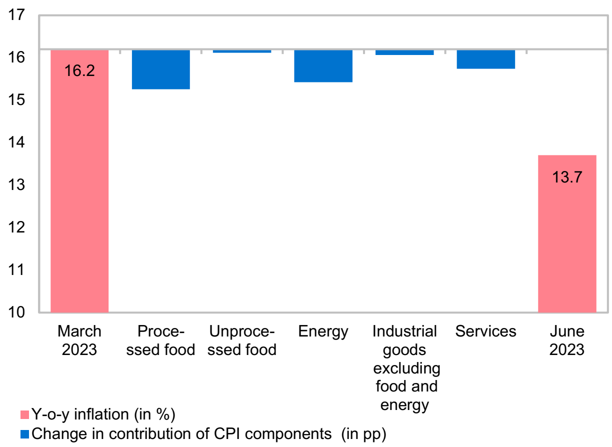
Consistent with our expectations from the previous Inflation Report, y-o-y inflation in Serbia has been on a downward trajectory as of April and measured 13.7% in June. This was largely driven by the effects of monetary policy tightening to date and the weakening of global cost-push pressures. The same factors led to a slowdown in core inflation to a single-digit level in June.

Inflation movements in Q2

Y-o-y inflation hit a downward trajectory in Q2, falling from 16.2% in March to 13.7% in June, in line with our expectations in the May Report. The deceleration in y-o-y inflation in Q2 mostly reflects the slower rise in the prices of processed food and energy, whose contribution to y-o-y inflation in June edged down by 0.9 pp and 0.8 pp, respectively, relative to March. This was supported by the decrease in the global prices of primary agricultural commodities and crude oil, which spilled over to lower input prices in domestic food production and transportation. The prices of unprocessed food gave a similar contribution to y-o-y inflation in June as in March. The fresh meat and fruit prices decreased their contribution to y-o-y inflation in June relative to March (by 0.3 pp), whereas the prices of fresh vegetables increased their contribution in June to the same extent, due to unfavourable agrometeorological conditions (heavy rainfall) and consequently dampened supply of vegetables in the domestic market. The prices of services and industrial products (excluding food and energy) also decreased their contribution to inflation in Q2 – by 0.5 pp and 0.1 pp, respectively, on account of the monetary policy tightening. In addition to headline inflation, **core inflation** (CPI excluding food, energy, alcohol and cigarettes) decelerated in Q2 from 11.3% y-o-y in March to 9.9% y-o-y in June, reflecting lower costs of import and production. The core inflation slide to a single-digit level in June was considerably aided by the NBS monetary policy tightening.

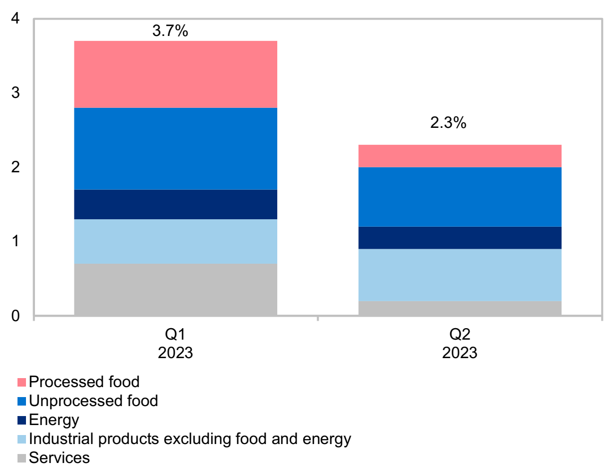
In quarterly terms, **consumer prices** slackened to 2.3% **in Q2** (from 3.7% in Q1), mainly driven by the slower hike in the prices of **food and non-alcoholic beverages**, which measured 3.5% in Q2 (relative to 6.2% in Q1), in line with our expectations in the May Report. In

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



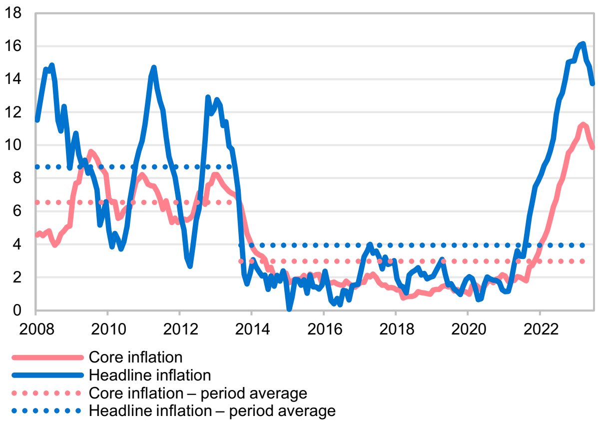
Sources: SORS and NBS calculation.

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



Sources: SORS and NBS calculation.

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



Sources: SORS and NBS calculation.

particular, **processed food** prices slowed down from 4.1% in Q1 to 1.6% in Q2, owing to a drop in the prices of bread and cereals, a significantly weaker growth in the prices of milk and dairy products, oils and fats, as well as lower prices of processed meat, indicating the easing of cost-push pressures in food production. **Unprocessed food** prices grew by 7.3% in Q2, still driven by higher prices of fresh vegetables (10.9% with a 0.5 pp contribution). Though recording almost three times lower growth relative to Q1, fresh vegetable prices increased much more than usual for the season mainly due to unfavourable weather conditions. In addition, Q2 saw higher prices of fresh meat (7.8%), mirroring the dynamics of their global counterparts, as well as the prices of fresh fruit (4.3%), with a 0.4 pp aggregate contribution to inflation.

Energy prices rose by 1.7% in Q2, on account of the previously announced increase in the prices of **gas** (9.6%) and **electricity** (7.2%), with a 0.4 pp aggregate contribution to inflation. In contrast, the prices of petroleum products in the domestic market fell by 1.2% in Q2, reflecting the fall in global crude oil prices, while the prices of solid fuels (firewood and coal) recorded a seasonal 3.6% decline with a -0.1 pp cumulative contribution to inflation.

The **prices of industrial products (excluding food and energy)** rose 2.4% in Q2 (similar to Q1), owing to the seasonal hike in the prices of clothes and footwear (5.4%), higher prices of alcoholic beverages (4.4%) and furniture, household appliances and maintenance products (2.9%), with a 0.4 pp aggregate contribution to inflation. The prices of other industrial products also edged up in Q2, but this rise was significantly lower than in Q1, which speaks in favour of the easing of cost-push pressures in industry.

Table III.0.1 **Growth and contribution of CPI components to consumer price growth in Q2 2023**
(quarterly)

	Growth rates (in %)	Contribution (in pp)
Consumer prices (CPI)	**2.3**	**2.3**
Unprocessed food	7.3	0.8
Processed food	1.6	0.3
Industrial products excluding food and energy	2.4	0.7
Energy	1.7	0.3
Services	0.8	0.2
CPI excluding energy, food, alcohol and cigarettes	1.6	0.7
Administered prices	1.7	0.3

Sources: SORS and NBS calculation.

The **prices of services** increased by 0.8% in Q2, driven by the seasonal rise in the prices of tourist packages in June (23.7%) and medical services, with a 0.2 pp aggregate contribution to inflation. Conversely, the prices of transport services, notably Belgrade public transportation, decreased significantly in Q2 (24.7%), as well as the prices of rent (4.4%), giving a -0.2pp aggregate contribution to inflation. The prices of other services recorded lower growth in Q2 relative to Q1.

Administered prices grew 1.7% in Q2, owing to the already mentioned hike in the prices of gas and electricity, while the drop in the prices of transportation services worked in the opposite direction.

Prices within core inflation increased by 1.6% in Q2, mostly on account of the mentioned hike in the prices of clothes and footwear, household cleaning products, medical services and travel packages, while the decline in the prices of transportation services and rents acted in the opposite direction.

Text box 1: Real-time inflation nowcasting at NBS using online prices

A good inflation nowcast enables a more reliable analysis of inflation movements, a better inflation forecast and timeliness in decision-making by monetary policy makers, which is very important in turbulent times such as these, characterised by high inflation globally. The fact that the prices of a large number of products and services that statistical offices monitor to calculate inflation are available online makes it possible to forecast inflation not only before official data are published, but also in real time. This is particularly useful for monetary policy makers, since the time lag between price recording by statistical offices and the publication of official data on inflation is several weeks, or over a month in case of some product categories.

In 2021, we started a project at the NBS to nowcast inflation using online prices, first for individual components, and from March 2022 for headline inflation as well. The prerequisite was to (programmatically) set up a system that automatically downloads such a large quantity of data (web scraping) and processes them by using adequate methods. The technical and other aspects are elaborated in the NBS Working Papers Bulletin of March 2023, in the paper “Nowcasting inflation using prices from the web”. This text box elucidates only the most important aspects of web scraping these data.

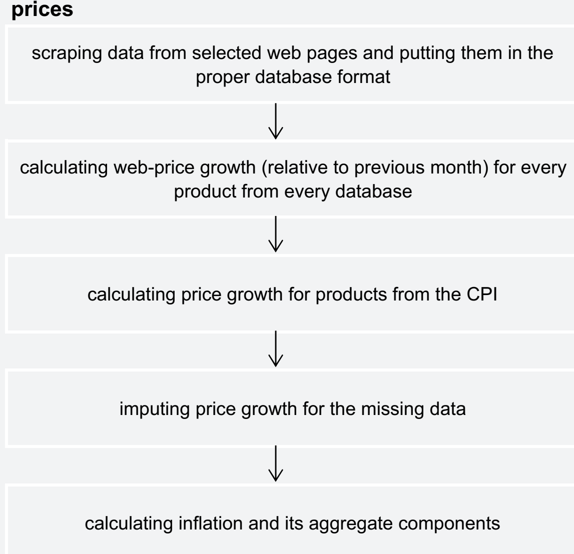
In the first step, it was necessary to identify the websites containing data on the prices of products and services from the SORS CPI basket. To nowcast inflation at the NBS, we use all information sources that can make the nowcast more robust. Those can be retailers’ websites that display prices for online shopping or informatively, or websites that compare the prices of various retailers, as well as websites of government authorities that list the prices of their services. Websites may contain data on only a single price from the CPI, while some may contain over a hundred.

Products and services that we judged to be representative of items from the CPI basket were taken from the selected websites, and were linked to the same products and services by assigning them the same code, because most products from the CPI have several representative products in databases from websites. For instance, sunflower oil from the CPI is represented with “Dijamant”, “Iskon” and “Vital” brands, therefore all of them are assigned the relevant product code. If we were unable to find an identical online match for a product, we chose the most similar one to that from the CPI as the representative product. For instance, a 40-inch TV set can be represented with a 43-inch set, assuming that prices of such similar products co-move.

The nowcasting process begins by downloading prices from selected websites. For the purpose of one nowcast, we download around 30 thousand prices of products and services from around 130 websites. For each of the representative products and services, we calculate the growth rate compared to the previous month, and based on that – the growth rate of products and services from the CPI basket. We approximate the part of prices that we did not cover with online sources (around 10% of the CPI basket) using various imputation methods, depending on price movements of specific product categories. Finally, based on thus obtained growth rates of the prices of individual products and services (660 of them according to the SORS methodology), we calculate the rate of inflation and its components.

In producing nowcasts we try to mimic what the SORS does as much as possible: we collect web prices for certain categories in the periods when the SORS

Diagram O.1.1 **Inflation nowcasting based on web prices**



Source: NBS.

does the same. In line with the SORS methodology, we exclude the prices of temporary discounts, and we use the SORS weights from the CPI to calculate measures of web-inflation based on individual price changes. On the other hand, unlike the SORS, we generally do not scrape prices by cities as most often it is not even possible to find data by cities (retailers publish unique prices for the entire country). It is reasonable to assume that changes in prices across cities are similar, while having too many sources would make the whole process more difficult to follow and maintain, without significantly contributing to the nowcasting precision.

Although a period of less than a year and a half is not sufficient to make a final judgment, the hitherto results of method application are encouraging. Of 16 months, during which we used the method, in 13 cases (81%) the absolute nowcasting error was up to 0.2 pp (rounded to one decimal point). The only significant deviation was recorded in July 2022, when inflation based on web prices was 0.6 pp higher than the official SORS figure as the SORS recorded on-site a sharp drop in fruit and vegetable prices.

From March 2022 to June 2023, our inflation nowcasts were on average very close to the official SORS data, indicating no systematic bias. In the period observed, the mean absolute nowcasting error was 0.20 pp, while the median was 0.16 pp.

Table O.1.1 **Number of estimates with relevant deviation**

Absolute deviation	Number of estimates	% of total
0.0	1	6.3
0.1	7	43.8
0.2	5	31.3
0.3	1	6.3
0.4	1	6.3
0.6	1	6.3
Total	16	100

Source: NBS.

Table O.1.2 **Statistics of deviation of web inflation from SORS**

	Average deviation	Average absolute deviation in pp	Median absolute deviation
Y-o-y inflation	0.02	0.22	0.18
Monthly inflation	0.01	0.20	0.16
Fuel	-0.04	0.18	0.02
Food excl. fruits and veg.	-0.11	0.41	0.42
Fruits and vegetables	-0.31	1.50	1.19
Administered prices	0.04	0.16	0.12
Industrial products excl. food and services	0.00	0.23	0.18

Source: NBS.

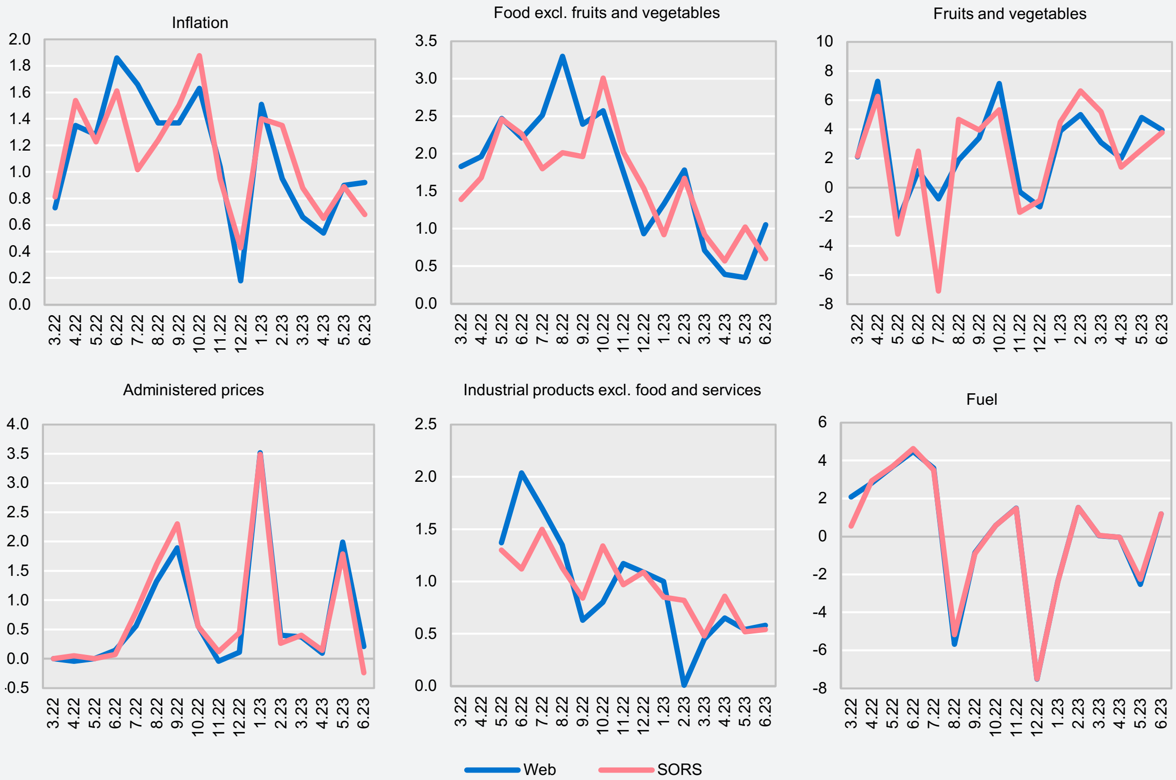
There was no systematic bias in terms of component either. The largest mean absolute error was recorded for fruit and vegetable prices, which is normal since this group features the strongest volatility.

Here it is important to take into account that these nowcasts were produced in the most turbulent period in the past decade when it comes to inflation, with the average m-o-m inflation amounting to 1.1%, which makes nowcasting particularly challenging, regardless of the method.

In fact, the inflation nowcasting method is most useful precisely in unstable times, when classic models with an autoregressive component and the tendency to return to equilibrium, most often underestimate changes.

Going forward, we will continue to monitor the nowcasting performance. As so far, we will include new data sources from the web in the process and exclude the existing ones, depending on their reliability, timeliness and availability, in an effort to improve the precision of our nowcasts. In line with world's best practice and trends in the field of modelling, the NBS will continue to develop its analytical toolkit by using other models as well, in order to ensure the highest possible reliability of macroeconomic projections and adequate monetary policy decision-making.

Chart O.1.1 **Comparison of projected and actual monthly growth of CPI and its components**
(y-o-y rates, in %)



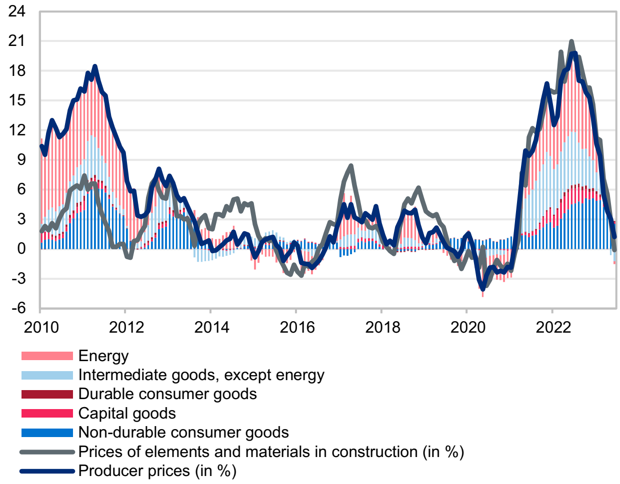
Sources: SORS and NBS calculation.

Producer and import prices in Q2

Industrial producer prices in the domestic market slowed down further their y-o-y growth in Q2, from 5.5% in March to 1.2% in June, partly owing to the materialisation of the effect of high last year's base, but also to further easing of cost-push pressures, notably in manufacturing, which in June posted a y-o-y drop in the prices of production (-1.1%) for the first time since January 2021. As in Q1, the decelerated rise in industrial producer prices at home was mostly driven by the y-o-y fall in the **production prices of crude oil and petroleum products** in Q2 and a drop in the **prices of intermediate goods** (mostly base metals and chemicals). The **prices of non-durable consumer goods** (notably prices in food and beverages production) slackened significantly in Q2, and to a lesser extent, the growth in the **prices of durable consumer goods** and **capital goods**. At quarterly level, industrial producer prices in the domestic market recorded a 0.5% decline. Cost-push pressures in construction weakened in parallel with those in industry, as the **prices of elements and materials in construction**, after rising 7.1% y-o-y in March, recorded a mild 0.1% decline y-o-y in June, for the first time since February 2021.

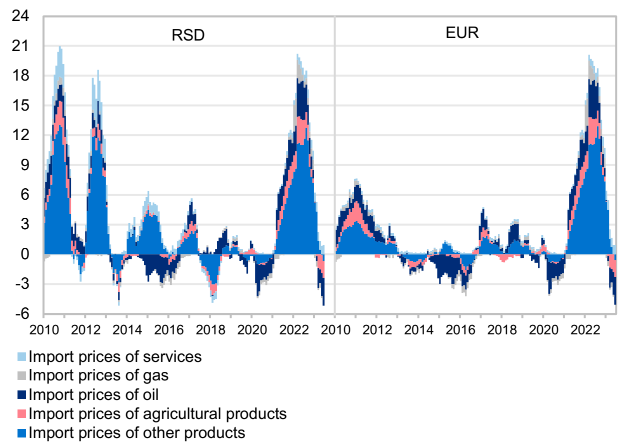
Import prices expressed in dinars[1] declined in Q2, by 4.3% y-o-y in June. For the first time since January 2021, the fall in import prices was driven chiefly by lower global prices of crude oil and primary agricultural commodities, with a 4.5 pp negative aggregate contribution. A negative contribution to the y-o-y dynamics of import prices denominated in dinars in Q2 also came from declining prices of imported equipment and intermediate goods, approximated by the export prices of Germany (by 0.7 pp). Conversely, a positive contribution continued to come from higher import prices of services (0.9 pp in Q2), approximated by the euro area prices within core inflation.[2] At quarterly level, import prices expressed in dinars were also on the decline (1.6%).

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.

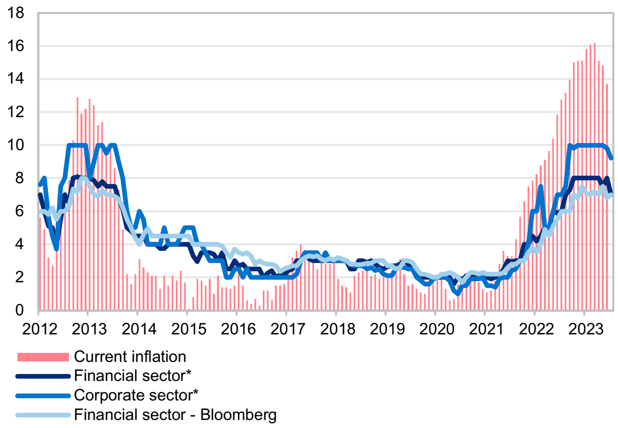
Inflation expectations

Inflation expectations of the financial and corporate sectors have been relatively stable in recent months.

[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.

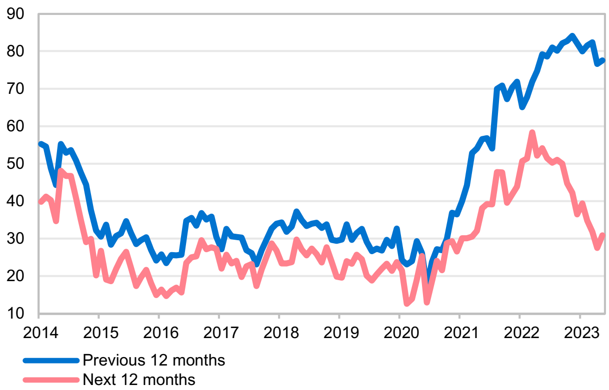
Chart III.0.6 **Current inflation and one-year ahead inflation expectations**
(y-o-y rates, in %)



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

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

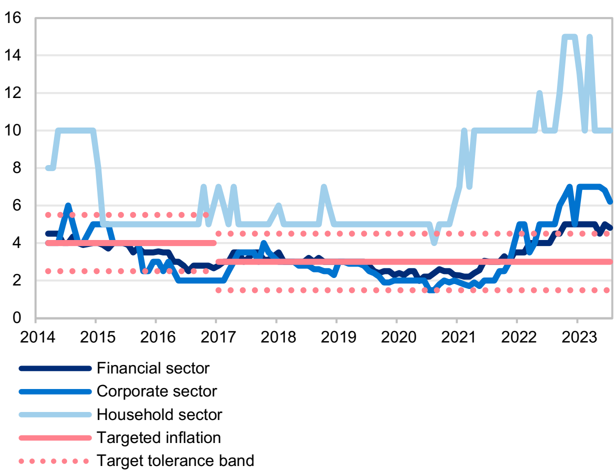
Chart III.0.7 **Household perceived and expected inflation***
(in index points)



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.

According to the Bloomberg survey, **one-year ahead inflation expectations of the financial sector** continued to move at around 7% in Q2, the same as in July, after falling to 6.8% in June. According to the Ipsos July survey, these inflation expectations declined to 7.0%, after standing around 8.0% since October.

After moving around 10% for eight months, **one-year ahead inflation expectations of the corporate sector** decreased in July to 9.2%. It is noteworthy that for the first time since the start of the conflict in Ukraine, less than a half of corporates expect an increase in production input prices. The percentage of corporates expecting an increase in the prices of their final products and services over the next three months measured around 33% in May and June, almost two times lower than in March and April. The percentage of respondents expecting an increase in the prices of their products over the next twelve months also declined since March (79.4%), though to a lesser extent, and measured 70.8% in June.

After falling in February from 20.0% to 15.0%, **one-year ahead inflation expectations of households** stayed unchanged in the months that followed, including July. According to the results of the qualitative survey, the index of expected inflation (30.9 index points) recorded lower values than the index of perceived inflation (77.5 index points), indicating that households expect that inflation will be lower in the coming 12 months than in the previous year.

After standing at 4.5% in May, **inflation expectations of the financial sector for two years ahead** returned to 5.0% in June, the same as in July, while expectations for three years ahead moved around 3.8%, i.e. **within the NBS target tolerance band. Corporate inflation expectations** for two years ahead fell to 6.8% in June, and further down to 6.2% in July, while expectations **for three years ahead** decreased from 5.0% in June to 4.8% in July. Two-year ahead **inflation expectations of households** decreased to 10.0% in April and remained at that level all the way to July. This is also the level of households' inflation expectations for three years ahead.

IV Inflation determinants

1 Financial market trends

The NBS continued to tighten monetary conditions in Q2, though at a more moderate pace than in 2022, resulting in a milder growth in interest rates in the interbank money market and on dinar loans. 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

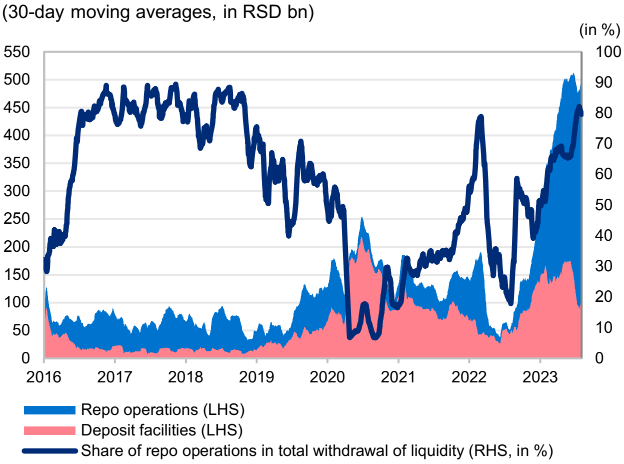
In Q2, the NBS tightened monetary conditions by raising the **key policy rate** by 50 bp (in two meetings, by 25 bp each) to the level of 6.25% in June. Interest rates on lending and deposit facilities were increased to the same degree, to 7.5% and 5.0%, respectively. In July, the key policy rate was increased additionally to 6.50%, and lending and deposit facility rates to 7.75% and 5.25%, respectively.

The dinar liquidity of banks, mopped up in open market operations, recorded a significant rise in Q2. The average stock of sold repo securities rose from RSD 291.0 bn in March to RSD 375.3 bn in June, while the amount of overnight bank deposits with the NBS decreased from RSD 146.3 bn in March to RSD 122.3 bn in June.

Further increase in the NBS key policy rate reflected on the movement of interest rates in the **interbank money market**. In Q2, BEONIA added 50 bp, reaching 5.00% at end-June. The average daily turnover in Q2 contracted by RSD 0.7 bn from the quarter before, coming at RSD 1.0 bn. BELIBOR rates of all maturities also recorded growth in Q2, by around 28 bp on average, moving at end-June from 4.98% for the shortest maturity to 5.82% for the six-month maturity.

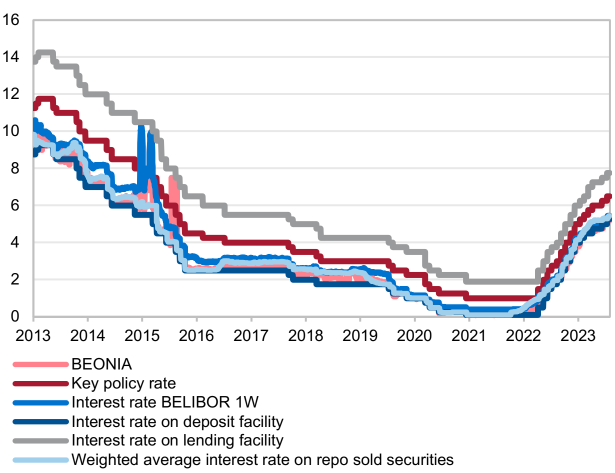
In the **primary market of dinar government securities**, the yield rates went further down in Q2, aided by the investors' greater readiness to accept lower yield rates due to the easing of global inflationary pressures, as well as diminished financing needs of the government. Two auctions were organised for the sale of 12.5-year dinar

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



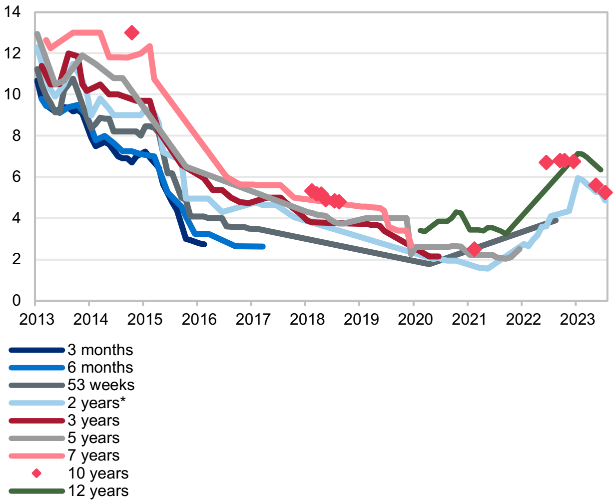
Source: NBS.

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



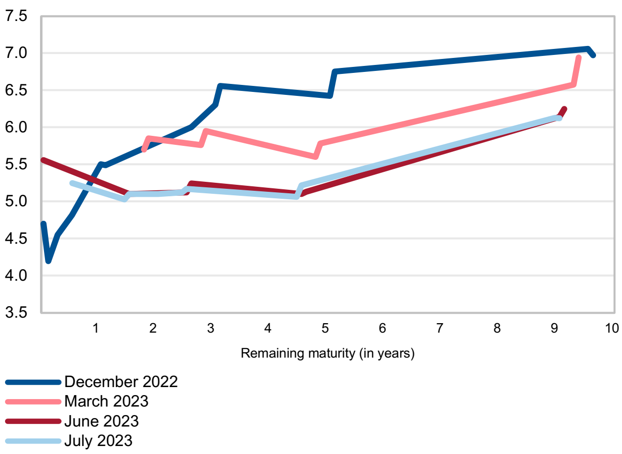
Sources: Thomson Reuters and NBS.

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.

securities, three auctions for two-year securities, as well as one auction for ten-year securities. At both auctions of 12.5-year dinar securities, the yield rate declined, by a total of 60 bp, so at the last auction in June it measured 6.35%. At the three auctions of two-year dinar securities, the yield rate declined – in the April and May auctions by a total of 37 bp and stayed unchanged at 5.28% in the June auction. Another auction of two-year dinar securities was held in July, with the yield rate going further down by 42 bp, to 4.86%. The yield rate also declined in the May auction of ten-year securities, by 115 bp, relative to the previous auction held in December 2022, only to drop by additional 35 bp in July, to 5.25%.

In Q2, dinar securities were sold in the nominal value of RSD 66.9 bn and since earlier sold securities worth RSD 54.2 bn fell due, the stock of dinar securities sold measured RSD 913.0 bn. In Q2, non-residents participated in the purchase of dinar two-, ten- and 12-year securities in the primary market in the total market value of around RSD 3 bn. However, given their more active net sale activity in the secondary market, as well as the maturing of three-year dinar securities in their portfolio, the stock of dinar government securities in their ownership decreased mildly (by RSD 1.5 bn) to RSD 137.4 bn at end-June, making up around 15% of the total portfolio of dinar government securities.

In Q2, the yield rates on dinar securities of longer maturities declined in the **secondary market** as well, while the turnover expanded slightly compared to a quarter earlier, to almost RSD 40 bn. The weighted average yields on dinar securities with the remaining maturities of three, five and ten years contracted compared to March by 61–70 bp, to the average 5.21%, 5.13% and 6.21%, respectively, in June.

In Q2, there were no auctions for the sale of **government euro securities**, and since EUR 39.3 mn worth of earlier issued securities fell due, the stock of sold euro securities declined to EUR 1,919.5 mn at end-June.

Consistent with a milder rise in interest rates in the interbank money market in Q2, interest rates on **new dinar** corporate **loans** increased moderately (by 0.1 pp, to 6.6%), while interest rates on dinar household loans even edged down from March (by 0.4 pp) and measured 13.1% in June.

In terms of the structure of dinar corporate loans, interest rates on investment and other non-categorised loans went up by 0.8 pp to 9.1%, and by 1.1 pp to 4.0%, respectively in Q2. However, the effect of rising interest rates in these two categories on total interest rate was almost offset by the reduced share of the dominant category of dinar corporate loans – working capital loans, from 60% in March to 50% in June, with their interest rate unchanged and above the average interest rate (8.4%). Interest rate decline was recorded for all dinar household loan categories, by 0.3–0.7 pp, except for consumer loans. The decline in average interest rate was chiefly driven by the fall in interest rate on the dominant loan category – cash loans, by 0.3 pp to 13.9%.

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 0.4 pp compared to March, coming at 6.5% in June. The rise was recorded in interest rates across all loan categories. The weighted average interest rate on corporate euro loans was mostly led by the rise in interest rates on working capital and investment loans, which edged up by 0.3 pp to 6.5%, and by 0.5 pp to 6.9%, respectively. These two loan categories together accounted for around 94% of total corporate euro loans. The average interest rate on household euro-indexed loans edged up mildly by 0.1 pp in Q2, to 7.2% in June, reflecting the rise in interest rates on euro-indexed housing loans and other non-categorised loans, by 0.6 pp each, to 6.7% and 9.5%, respectively. This effect was mitigated by the stepped-up share of housing loans from 60% in March to 68% in June, since their interest rate, although higher, remained below the average rate.

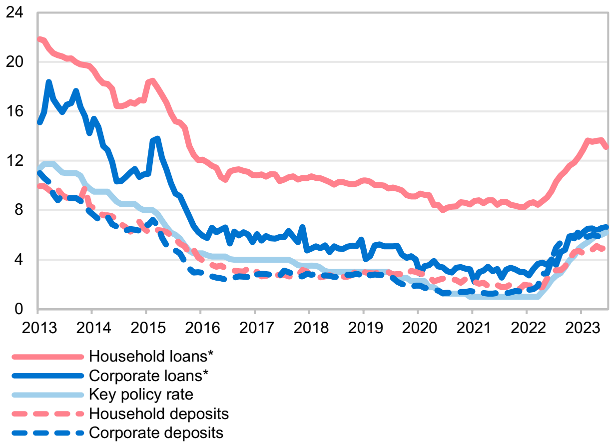
Interest rates on **household savings in dinars and euros** rose from March by 0.2 pp and 0.3 pp, to 5.0% and 3.0%, respectively in June. Interest rate on **corporate time deposits in euros** increased by 0.6 pp from March (to 2.8%), while interest rate on corporate time deposits in dinars inched down by 0.1 pp, and equalled 5.9% in June.

Risk premium

The waning of global cost-push pressures continued in Q2, which, together with a slowdown in global inflation and leading central banks' determination to ensure inflation's return within the target band, contributed to a moderate decline in global risk premium.

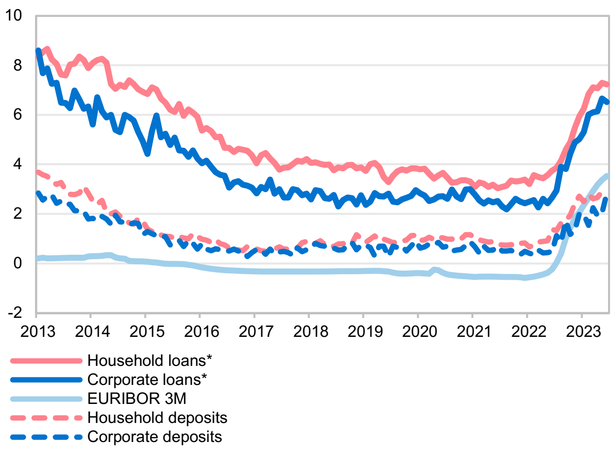
EURO EMBIG Composite for euro debt declined in Q2 by 21 bp, to 197 bp at end-June. At the same time, Serbia's risk premium on euro debt, EURO EMBIG, went down by 6 bp in Q2, to 307 bp at end-June. Serbia's dollar risk premium also dropped in Q2 (by 27 bp, to 240 bp) and continued moving below EMBI Composite for dollar debt which went down by 37 bp in Q2, to 363 bp at end-June.

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



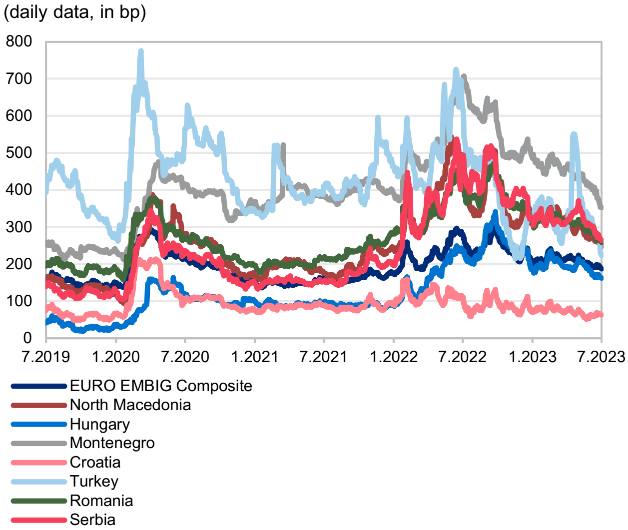
Source: NBS.
* Excluding revolving loans, current account overdrafts and credit card debt.

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



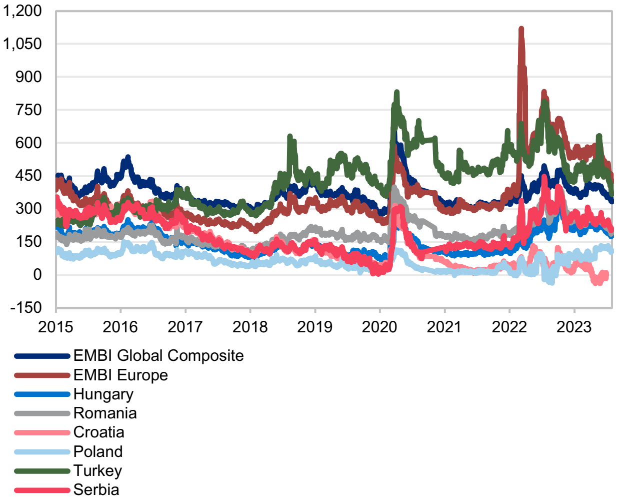
Sources: European Banking Federation and NBS.
* Excluding revolving loans, current account overdrafts and credit card debt.

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)



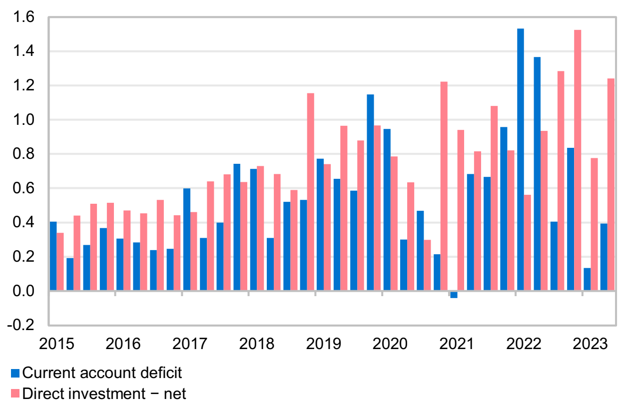
Source: J.P. Morgan.

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.

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



Source: NBS.
Note: Preliminary data for Q2 2023.

Standard&Poor's April report **kept Serbia's credit rating at BB+ (with a stable outlook)** despite the still pronounced international risks and the consequences of geopolitical developments for the global economy. Standard&Poor's emphasized that a gradual increase in the key policy rate helped avert a further spread of inflationary pressures and that medium-term inflation expectations remained largely anchored owing to the credibility of monetary policy, tightening of monetary conditions and the maintained relative exchange rate stability. Further, the agency pointed out the proven credibility of the overall economic policy, the country's favourable long-term prospects, fiscal discipline, reduced financing needs and a downward public debt trajectory. It also assessed that the financial sector is well capitalised, liquid and profitable and that the share of NPLs in total loans is at a minimum.

Foreign capital inflow

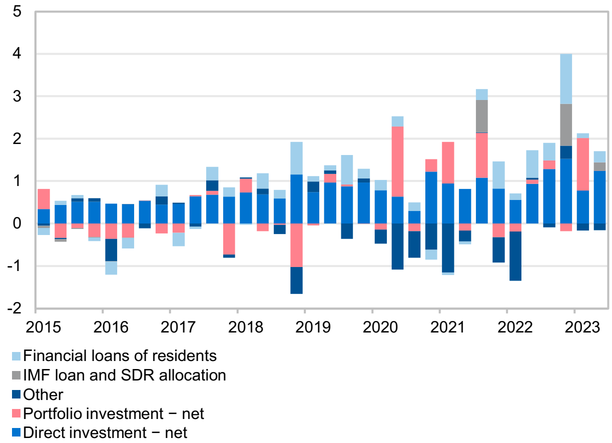
Capital inflow, which covered the current account deficit by multiple times in Q2, came largely from FDIs. With rising government and corporate borrowing, reduced funds in bank accounts abroad and higher amounts in non-residents' accounts with domestic banks, this was more than sufficient to offset the outflow in respect of reduced credit liabilities of banks and trade loans.

Q2 saw a relatively high net **FDI inflow** (EUR 1.2 bn), owing to inward FDI which measured EUR 1.3 bn. At H1 level, total FDI inflow to Serbia exceeded EUR 2.1 bn, up by 33% from the same period last year when it temporarily slowed down due to the outbreak of the Ukraine crisis. In H1, FDI mainly took the form of equity and reinvested earnings (around 70%), confirming the commitment of foreign investors to continue investing in Serbia. By industry, most investments were channelled to manufacturing, construction, mining, and professional, scientific, innovation and technical activities.

In Q2, non-residents reduced their investments in domestic securities by EUR 59.4 mn (as the sale in the secondary market and the maturity of securities outstripped the amount of purchase in the primary market), while residents scaled down their investment in securities in foreign markets in the same amount. As a result, Q2 saw zero net capital inflow on account of **portfolio investments**. Observed from the beginning of the year, net inflow from portfolio investment was recorded in the amount of EUR 1.2 bn, owing to the January eurobond issue worth USD 1.75 bn.

Net inflow from **loans** came at EUR 462.7 mn in Q2, driven by higher corporate and government borrowing, as well as disbursement of funds under the IMF arrangement, while bank liabilities declined, largely on account of long-term loans. IMF funds (around EUR 200 mn) were disbursed after a successful completion of the first review of the SBA-supported economic programme and thus the amount of funds drawn under the arrangement reached almost EUR 1.2 bn. If external circumstances are favourable, the SBA may be treated as precautionary already at the time of the second review. **Currency and deposits** also generated inflow (EUR 352.9 mn), owing to increased funds in non-residents' accounts with domestic banks and a reduction in funds in domestic bank accounts abroad. On the other hand, trade loans and advances incurred an outflow (EUR 533.5 mn) amid a rise in receivables on account of uncollected exports and a decrease in importers' external liabilities.

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

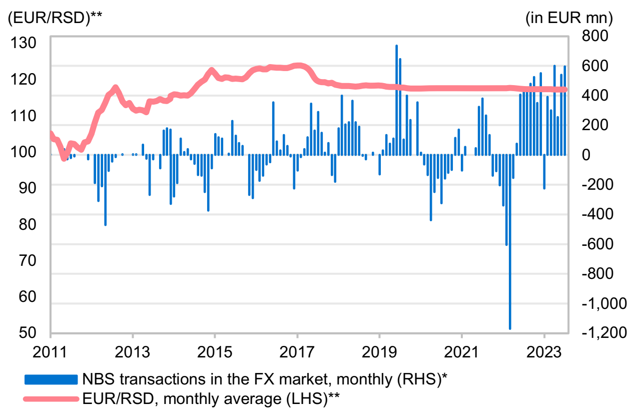


Source: NBS.
Note: Preliminary data for Q2 2023.

Trends in the FX market and exchange rate

The dinar remained stable against the euro in Q2 and its value at end-June was 0.1% nominally higher than at end-March and end-2022. At the same time, observed at period-end, the euro weakened against the dollar in the international market in Q2, which in turn caused the weakening of the dinar against the dollar by 0.2%. From the beginning of the year the dinar gained 2.2% against the dollar in nominal terms.

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



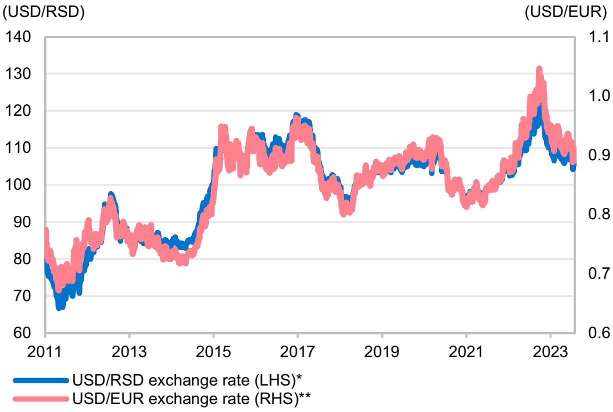
Source: NBS.
* + net purchase; - net sale.
** EUR 1 in RSD.

In Q2, the supply of foreign currency outstripped the demand by multiple times, which resulted in stronger appreciation pressures that were moderated by the NBS's interventions in the FX market. Buoyant supply of foreign currency was underpinned primarily by the purchase of foreign cash, similar to the record high purchase amounts from Q3 and Q4 2022. Residents' FX supply worked in the same direction, primarily owing to a further rise in exports and FDI, thus more than offsetting energy importers' demand for foreign currency, which was nevertheless seasonally lower than in Q1. In addition, at quarterly level, net sale of foreign currency by residents covered entirely non-residents' demand for foreign currency. The supply of foreign currency increased in Q2 also on account of the inflows from payment card operations and a rise in FX-indexed bank assets.[3]

To maintain the relative stability of the dinar exchange rate against the euro, in Q2 the NBS intervened in the

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

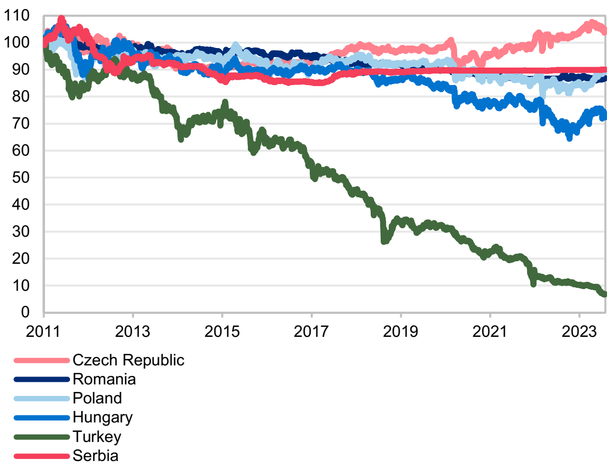
Chart IV.1.12 **Movements in USD/RSD and USD/EUR exchange rates**



Source: NBS.

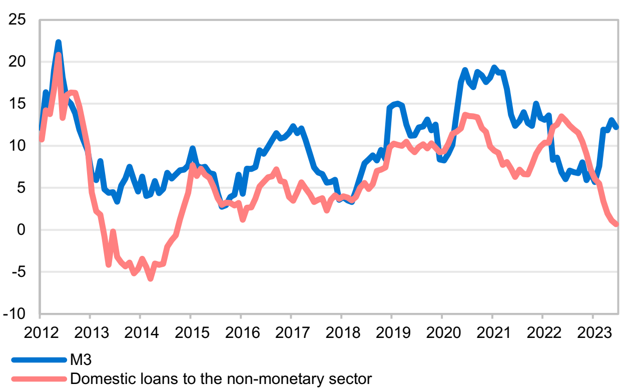
* USD 1 in RSD.
** USD 1 in EUR.

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.

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



Source: NBS.

IFEM primarily on the purchase side, buying EUR 1,395.0 mn net. Thus, including the July purchase, NBS interventions in the FX market since the beginning of the year helped boost FX reserves by EUR 2,455.0 mn.

The average daily turnover in the IFEM[4] increased by EUR 1.1 mn from Q1, measuring EUR 33.6 mn in Q2, while it lowered by EUR 10.0 mn from Q2 2022. In addition, in bilateral swap transactions with banks, introduced early last year, the NBS continued to buy/sell foreign currency to/from banks. In Q2, it swap bought and sold EUR 88 mn each (in Q1 it swap bought and sold EUR 39 mn each).

The currencies of inflation-targeting regional peers recorded divergent trends relative to the euro in Q2. The Polish zloty and Hungarian forint strengthened (5.1% and 2.7% respectively), while the Romanian leu and Czech koruna weakened (0.3% and 1.0%, respectively). The Turkish lira weakened by 26.1% in Q2 due to strong depreciation in June (22.7%) as sale interventions in the FX market were suspended. The lira's slide continued even after the increase in the policy rate on 22 June (from 8.5% to 15.0%).

2 Money and loans

The dinar component was the crucial driver of the increase in total money supply. Dinar savings recorded new record levels, partly on account of greater attractiveness relative to FX savings. Domestic lending growth continues to slow down as a result of the high last year's base, maturity of guarantee scheme loans, and higher interest rates on loans due to the ECB and NBS monetary policy tightening.

Money

The increase in monetary aggregates in Q2 was dominantly driven by the dinar money supply. The broadest monetary aggregate M3, which in addition to dinars includes FX deposits of non-monetary sectors with commercial banks, went up by 1.2% in Q2, led almost entirely by the most liquid component – dinar demand deposits (with 1.1 pp contribution).

In terms of individual categories, dinar **demand deposits** gained RSD 43.3 bn in Q2, thanks to the rise in transaction corporate and household deposits (RSD 19.1 bn and RSD 17.0 bn, respectively). On the other hand, **dinar time**

[4] Excluding the NBS.

deposits dropped by RSD 4.8 bn in Q2, owing mostly to the reduction in corporate deposits (RSD 12.2 bn), while **dinar household savings** continued up, the rise being extremely dynamic since November 2022. As a result of the preserved financial stability and relative stability of the exchange rate even in periods of heightened uncertainty, dinar savings touched new record highs, measuring RSD 107.9 bn at end-June[5] (up by RSD 5.2 bn from end-Q1). Accelerated growth in dinar savings is supported by the fact that they are more attractive than FX savings.

FX deposits of non-monetary sectors in Q2 declined by EUR 96.6 mn as a result of a drop in corporate deposits (by EUR 165.6 mn). At the same time, household FX savings increased in Q2 by EUR 40.3 mn, to EUR 12.9 bn at end-June.

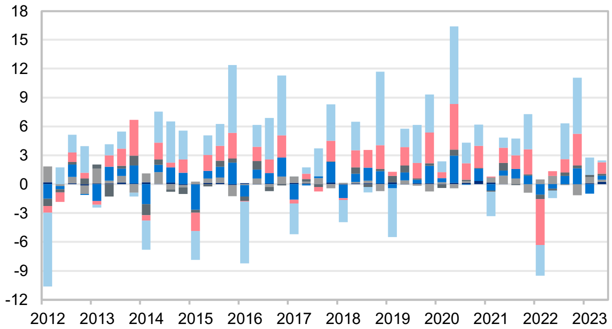
In y-o-y terms, M3 growth accelerated since the beginning of 2023, owing primarily to the dinar component, and reached the pre-pandemic level in June.

Loans

Y-o-y growth in **total domestic loans** continued to decelerate in Q2. In June, this growth stood at 0.8%, excluding the exchange rate effect,[6] with **corporate loans** declining by 1.1% and **household loans** rising by 2.7%. The slowdown in domestic lending resulted from the high last year's base, maturity of guarantee scheme loans, and higher interest rates on loans due to the ECB and NBS monetary policy tightening.

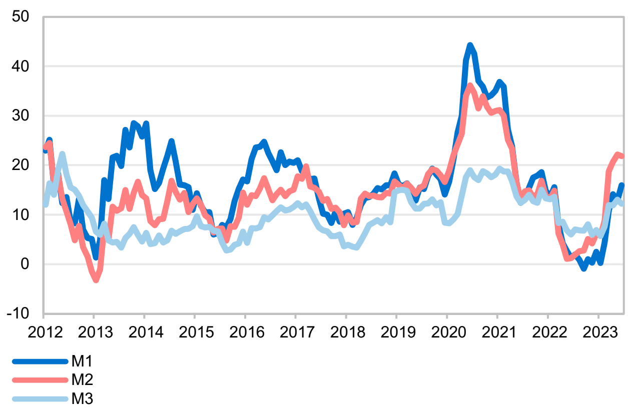
At the level of Q2, **corporate loans**, excluding the exchange rate effect, declined by RSD 1.3 bn. The sharpest decline was recorded by non-categorised loans (RSD 9.0 bn), followed by liquidity and working capital loans (RSD 5.9 bn), also reflecting the maturity of guarantee scheme loans. On the other hand, investment loans went up by RSD 7.6 bn, import loans by RSD 3.9 bn, while current account overdrafts increased by RSD 2.1 bn. In June, the dominant share in the composition of corporate loans was held by liquidity and working capital loans (47.1%), followed by investment loans (40.9%). By industry, in Q2, lower borrowing was recorded by companies in manufacturing (RSD 6.0 bn), electricity supply (RSD 4.4 bn) and agriculture (RSD 0.8 bn). On the other hand, construction companies increased their borrowing by RSD 6.9 bn in Q2, real estate companies by RSD 1.7 bn and trade companies by RSD 0.7 bn,

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



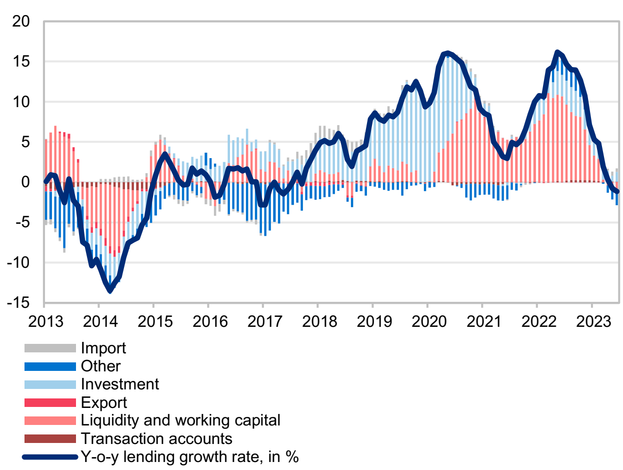
Source: NBS.

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



Source: NBS.

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

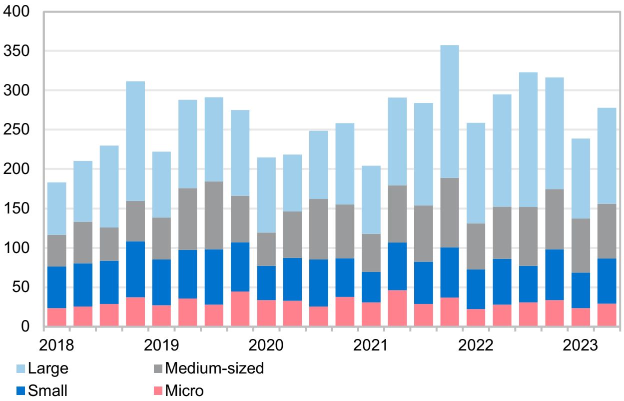


Source: NBS.

[5] If assets of non-residents are included, dinar savings amounted to RSD 108.7 bn at end-June, and FX savings to EUR 13.9 bn.

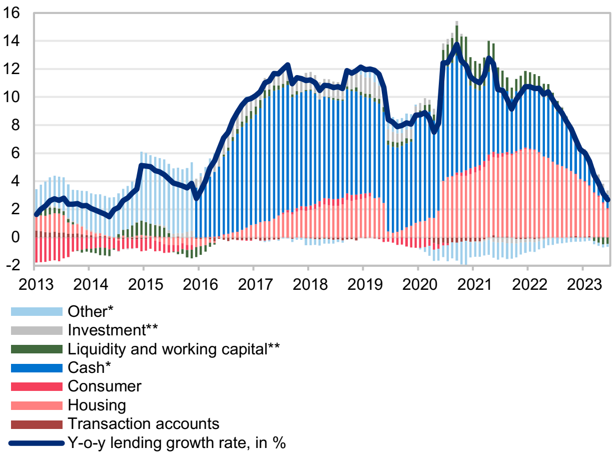
[6] Calculated using the new programme exchange rate as at 31 October 2022.

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



Source: NBS.

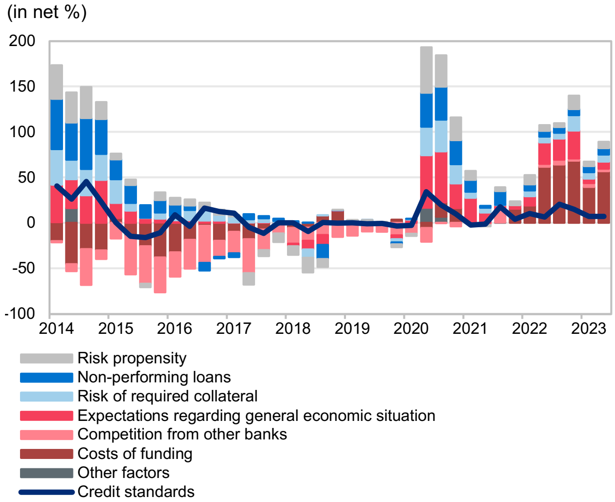
Chart IV.2.6 **Contributions to y-o-y household lending growth**
(in pp, excluding the exchange rate effect)



Source: NBS.

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

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.

while other industries saw relatively smaller changes in stock. By company size, loans approved to micro, small and medium-sized enterprises made up 60.2% of the total corporate loan stock in June. The fall in corporate dinar receivables (partly on account of the maturity of guarantee scheme loans approved dominantly in dinars) and a rise in FX-indexed receivables resulted in the reduction of the degree of dinarisation of corporate receivables in Q2 by 1.1 pp, to 17.0%.

The volume of new corporate loans in Q2 equalled RSD 277.8 bn, which is 5.8% lower than in the same period last year. In Q2 as well, the corporate sector predominantly used liquidity and working capital loans (63.8%), and slightly over a half of these loans were channelled to micro, small and medium-sized enterprises. Investment loans accounted for 20.3% of new corporate loans in Q2 and 75.6% of these loans went to micro, small and medium-sized enterprises.

Household loans, excluding the exchange rate effect, increased by RSD 14.9 bn in Q2, driven by the rise in cash (RSD 10.8 bn) and housing loans (RSD 1.4 bn). Consumer loans also went up – by RSD 0.7 bn and transaction account debt by RSD 0.5 bn. Other types of household loans recorded relatively less significant changes. At end-Q2 the share of housing loans in total household loans equalled 40.1% (40.4% at end-Q1), while cash loans were the most dominant category with a 44.0% share (43.7% at end-Q1). Within loans granted to entrepreneurs, investment loans increased by RSD 1.4 bn, while the stock of liquidity and working capital loans was the same as at end-Q1. Owing to a faster rise in dinar than in FX-indexed loans, the degree of dinarisation of household loans went up by 0.2 pp, to 53.0% in Q2.

New household loans amounted to RSD 138.0 bn in Q2, down by 7.6% from the same period a year earlier, as a consequence of tightened monetary conditions. Cash loans accounted for 64.9% of new loans in Q2, while housing loans accounted for 16.3% of new household loans (less than in 2022, when their share averaged 23.5%), as a consequence of the rise in real estate prices and higher loan instalments.

The results of the July NBS Bank Lending Survey[7] show that in Q2 2023, as expected, banks continued with mild tightening of their corporate and household credit standards. Higher costs of the sources of funding, affected by tightened monetary policies of the NBS and

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

ECB, are the key factor behind tighter credit standards, followed by uncertainty as to the overall economic situation and stronger risk aversion globally. Similar trends are likely to extend into Q3. Banks estimated that collective corporate and household loan demand increased slightly in Q2, with corporate demand focusing on short-term loans and household mostly on dinar cash loans. The need for financing working capital is the crucial driver of corporate demand and the refinancing of existing liabilities of household loan demand.

Gross **NPL ratio** was preserved around the historical low of 3.0% in June, indicating that tighter financial conditions did not have a serious adverse impact on bank asset quality. In June, gross NPL ratio of the corporate sector[8] stood at 2.2%, and of the household sector[9] 4.3%. NPL coverage remains high – allowances for impairment of total loans stood at 101.3% of NPLs in June, while allowances for impairment of NPLs reached 57.9% of NPLs.

The capital adequacy ratio at end-Q2 2023 equalled 22.4%, up by 1.9 pp from Q1 indicating high capitalisation (regulatory minimum – 8.0%) and resilience of the banking sector to external and domestic risks.

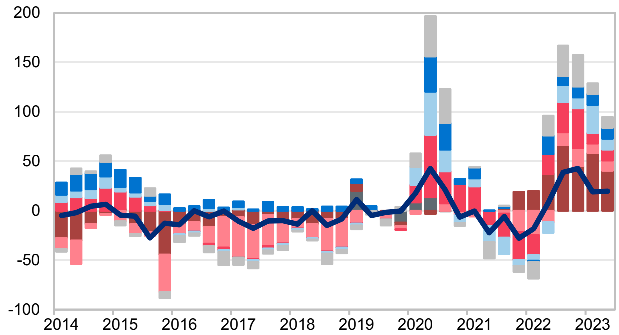
3 Aggregate demand

As in the previous quarter, in Q2 economic growth, which measured 1.7% y-o-y according to the SORS preliminary estimate, was based on rising net exports and somewhat less on fixed investments, while lower inventories and a fall in consumption resulted in a negative contribution of domestic demand.

Domestic demand

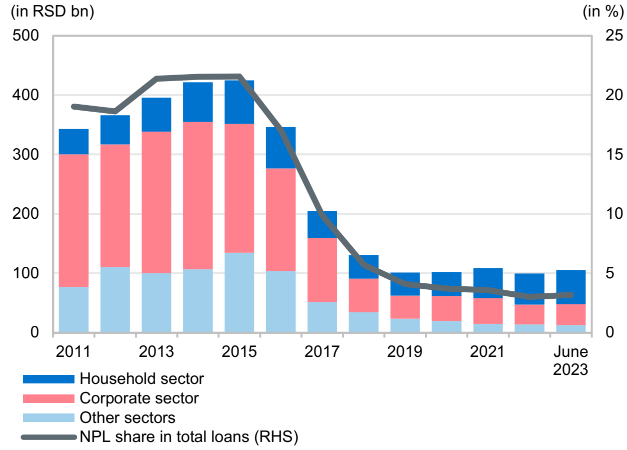
According to our estimate, in Q2, **private consumption** was cut down by 0.5% y-o-y, which can be attributed primarily to the reduction in disposable household income on account of the still high food and energy expenses and further tightening of the NBS and ECB monetary policies, as well as the consequently rising loan repayment expenses and higher prices of new borrowing. That private consumption went down is indicated by the real retail trade turnover which dropped by 6.1% y-o-y in Q2, while the rise in the import of consumer goods in euro

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



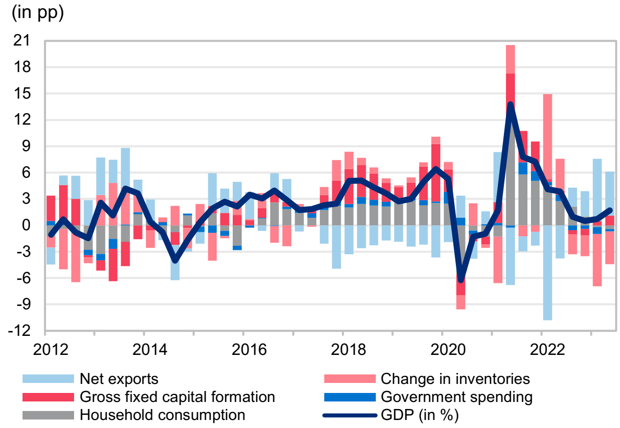
Source: NBS.
Note: Growth indicates the tightening and decline indicates the easing of credit standards.

Chart IV.2.9 **NPL level and share in total loans, gross principle**
(in RSD bn) (in %)



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 Q2 2023.

[8] Includes companies and public enterprises. Looking at companies only, the share of NPLs in total loans stood at 2.6% in June.
[9] If entrepreneurs and private households are included, the NPL share is also at the level of 4.3% in June.

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

	2022		2023		
	Q3	Q4	Q1	Q2	
Household consumption	**3.0**	**1.5**	**-0.2**	**-0.5**	*
Indicators					
Retail trade	5.5	2.6	-3.9	-6.1	
Catering turnover	24.2	33.4	17.1	14,6	***
Number of domestic tourists	20.6	41.0	3.7	1.0	
Number of overnight stays of domestic tourists	22.0	48.4	3.9	0.8	
Consumer goods import (BEC classification), nominal	21.2	23.6	11.9	4.0	
Sources					
Total wage bill, nominal	15.1	15.5	18.1	18,0	**
Net remittances inflow, nominal	69.6	18.3	30.2	0.1	
Stock of loans intended for consumption, nominal	5.6	3.6	3.1	1.0	

Sources: SORS and NBS calculation.
* NBS estimate.
** April–May.
*** April.

Table IV.3.2 **Investment indicators**

	2022		2023		
	Q3	Q4	Q1	Q2	
Real y-o-y growth rates (in %)					
Fixed investment (national accounts)	-1.9	-2.7	2.0	5.0	*
Construction (national accounts)	-12.1	-12.5	-1.5	13,0	*
Government investment	-36.3	-5.8	6.3	3,0	*
Number of issued construction permits	-8.8	-17.4	-7.9	-4,3	**
Production of construction material	-5.1	2.3	-5.8	-10.8	
Value of works performed	-13.4	-13.7	-0.4	17.9	
Import of equipment, nominal	16.6	10.5	5.6	-23.3	
Production of domestic machinery and equipment	6.5	18.9	27.7	11.4	

Sources: SORS and NBS calculation.
* NBS estimate.
** April–May.

terms decelerated to 4% y-o-y from 11.2% in Q1. Tourism indicators also point to lower private consumption as the increase in the number of domestic tourist arrivals and overnight stays decelerated further to 1% and 0.8% y-o-y, respectively.

Observing the sources of household consumption, one can notice that remittances almost flatlined (0.1% y-o-y increase in Q2 vs. 30.2% in Q1), which can be linked to the economic slowdown and rising expenses in Western European countries, as well as high base from the same period last year. In addition, further monetary policy tightening and the consequent rise in interest rates provided an additional dampening effect on loans intended for consumption, whose growth came at 1% y-o-y. On the other hand, wage bill, as the main source of consumption, continued to grow in real terms (2.9% y-o-y in the April–May period), owing entirely to employment growth, while the growth in average nominal wage was consistent with wage growth in the period observed.

We estimate that **government consumption** was reduced in Q2, but less than in the previous quarter (-2.0% vs. -4.9% y-o-y), and that total consumption fell by 0.8% y-o-y, producing a 0.7 pp negative contribution to economic activity in Q2.

Despite the still pronounced geopolitical tensions, **private investments** maintained the positive dynamics and are estimated to have increased in Q2 by 4.0% y-o-y. We estimate that most investments were financed from own sources, as indicated by a significant increase in corporate profitability last year. In addition, investment growth was financed from higher FDI inflow, which measured EUR 1.3 bn in Q2, up by 29% y-o-y partly as a reflection of a temporary slowdown in FDI inflow following the outbreak of the Ukraine conflict. Also, investment loans increased by 3% y-o-y, though at a slower pace than in Q1 (4% y-o-y), on account of the rising borrowing costs. Private investment growth is indicated primarily by the increase in the production of machinery and equipment which measured 11.4% y-o-y in Q2, while, on the other hand, the import of equipment dropped by 23.3% y-o-y. Though the production of construction material declined by 10.8% y-o-y in Q2, the number of issued permits in May recorded y-o-y growth (2.3%) for the first time in ten months and the value of executed construction works increased by 17.9% y-o-y, indicating a recovery of the construction sector.

The implementation of government-financed infrastructure projects continued in Q2, as testified by the completion of some transport infrastructure projects. We therefore estimate the rise in **government investments** at around 7% y-o-y. Accordingly, **total fixed investment** increase is estimated at 5% y-o-y, with a 1.1 pp contribution to GDP in Q2.

A further increase in exports pushed **inventories** down, contributing to the reduction in domestic demand in Q2 by close to 3%, in our estimate.

Quarterly GDP growth is estimated to have stepped up to 1.0% s-a in Q2 from 0.4% s-a in Q1. Looking at domestic demand components, growth acceleration was driven primarily by private sector investments. Also, private consumption decline, recorded in the previous three quarters, came to a halt in Q2.

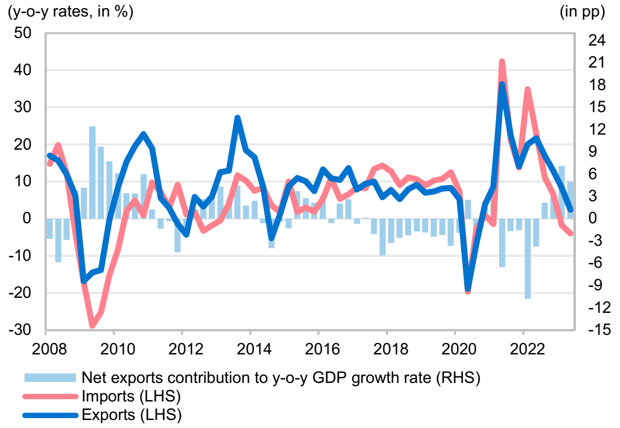
Net external demand

We estimate that real export growth continued in Q2, touching 2.4% y-o-y, while real imports declined by 4.0% y-o-y. As a result, **net exports** provided a positive contribution to the y-o-y real GDP growth of 5.0 pp.

Owing to diversified export supply, **commodity exports** in euro terms went up by 3.8% y-o-y in Q2, driven by broad-based manufacturing export growth of 7.4% y-o-y (16 out of 23 sectors). The largest contribution stemmed from electrical equipment, motor vehicles and other machinery and equipment. On the other hand, the export of chemical products and petroleum products declined, while the export of base metals continued falling on account of reduced production in the Smederevo steelworks. A considerable contribution to export growth came from the export of electricity which went up by 126.6% y-o-y in Q2. At the same time, the export of agricultural products and mining was lower than in the same period last year.

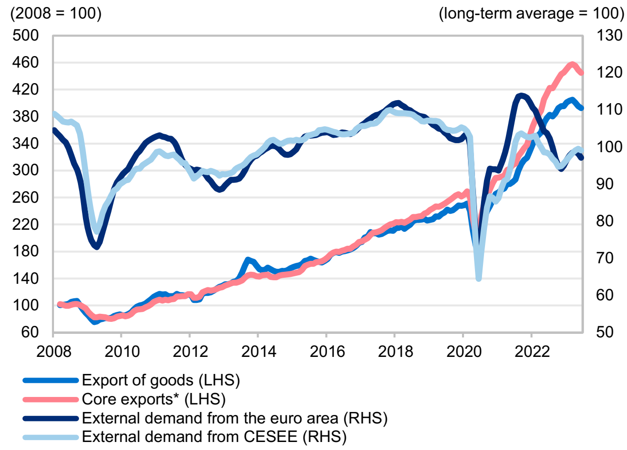
On the other hand, **commodity imports** in euro terms recorded a y-o-y decline of 10.5% in Q2 primarily on the back of lower energy imports reflecting lower prices and quantities of imported energy. Imports classification by BEC (Broad Economic Categories) reveals that the decline in imports is mostly owed to intermediate goods (-17.2% y-o-y), a category inclusive of energy imports. In y-o-y terms, the import of oil and petroleum products dropped by EUR 395 mn, electricity by EUR 137 mn and gas by EUR 64 mn, while only the import of coal for electricity production increased – by EUR 27 mn. Lower import of intermediate goods (-23.3% y-o-y) contributed to the decline in imports, while the import of consumer goods was somewhat higher than in the same period last year (4.0% y-o-y). Similar trends are also indicated by the classification of imports by purpose as lower energy

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



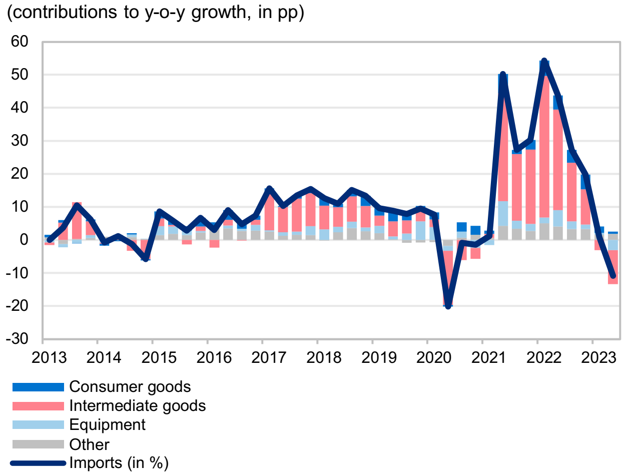
Sources: SORS and NBS calculation.
Note: NBS estimate for Q2 2023.

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.

imports were the main factors of imports decline. Intermediate and capital goods also played a role.

Positive trends in foreign **trade in services** extended in Q2. Owing to the stronger y-o-y growth in exports (21.9%) than in imports (10.6%) and to a higher share of exports in services trade compared to that of imports, a surplus was recorded in the amount of EUR 739.3 mn. The export of all types of services increased, with ICT and business services providing the highest contribution. Import growth received the largest contribution from tourist and ICT services.

Continued energy export growth and lower imports reflected on the higher coverage of commodity imports with exports in Q2, which measured 79.6% in June,[10] or 90.5% including services, up by 5.3 pp and 6.1 pp, respectively from end-2022.

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

Text box 2: Assessment of Serbia's balance of payments in H1 2023 and factors behind the improvement of external position

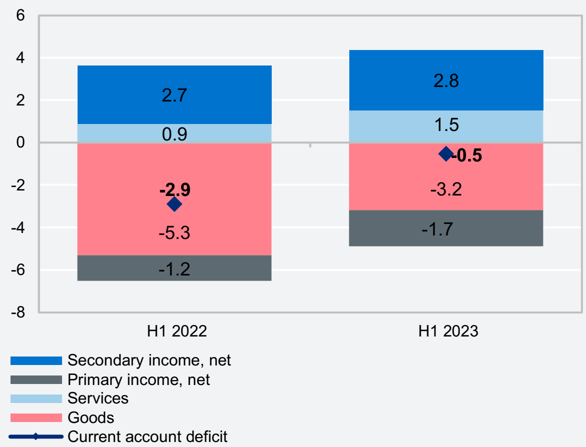
In Q2 2023, balance of payments dynamics was considerably more favourable than in the same period last year, with H1 current account deficit turning out multiple times lower in y-o-y terms and touching its historical low (observed at H1 level since 2007, when the data series under BPM6 methodology became available), and inflows to the financial account increasing further.

The improvement of Serbia's external position is indicated primarily by the current account, where the deficit narrowed from EUR 2.9 bn (10.4% of GDP) in H1 2022 to only EUR 527 mn (1.6% of GDP) in H1 2023, reflecting several factors – lower energy imports (thanks to lower prices and smaller imported quantities of energy products), a further rise in commodity exports, increased surplus in services trade and a higher inflow of remittances. The negative impact of factors behind the high energy imports and rising current account deficit in 2022 softened in H1 2023 or disappeared altogether, i.e. after skyrocketing in the wake of the Ukraine conflict, energy prices in the international market have now retreated significantly (though they are still above their multi-year averages). Besides, problems in domestic electricity production which drove high energy imports last year have been overcome and Serbia has restored sufficient electricity output, both for its own and export purposes.

Observed by category of Serbia's **current account**, deficit reduction was mainly driven by the lower deficit in goods trade, as well as the increased surpluses in services trade and secondary income, while the higher primary income deficit was the only factor working in the opposite direction.

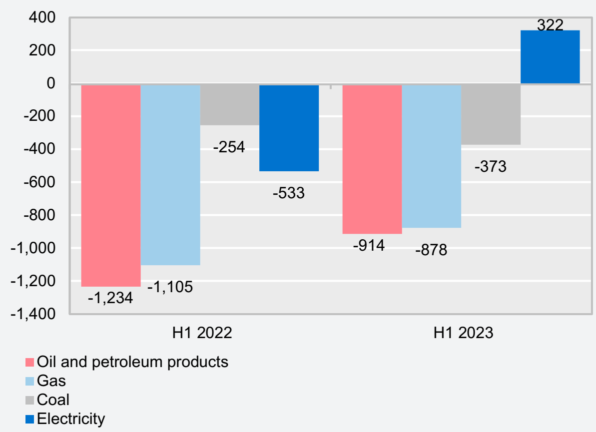
The deficit on trade in goods in H1 2023 amounted to EUR 3.2 bn, down by EUR 2.1 bn y-o-y. Compared to the same period last year, exports rose by EUR 1.2 bn to EUR 14.2 bn, while imports contracted by EUR 915 mn to EUR 17.4 bn. Export growth was mainly powered by manufacturing, whose exports expanded by 9.6% y-o-y, followed by electricity exports, going up by 179.5% y-o-y. Manufacturing exports continued up even amid lower external demand, indicating the resilience and diversification of our export supply, with the greatest contributions coming from electrical equipment, motor vehicles and other machinery and equipment. On the other hand, mining and agricultural exports were lower than in the same period last year. Imports contracted mainly due to lower imports of energy, as well as of intermediate and capital goods, while an increase was recorded only for consumer goods. Y-o-y, energy imports declined by EUR 929 mn in H1 2023 (under SITC), with imports of crude oil, petroleum products, gas and electricity going down and only imports of coal used in electricity production going up y-o-y. Of these products, imports of crude oil, petroleum products and gas shrank by EUR 719 mn, with around three quarters of the decrease stemming from price decline and one quarter from lower imported quantities.

Chart O.2.1 **Structure of the current account**
(in EUR bn)



Source: NBS.

Chart O.2.2 **Energy balance (export-imports)**
(in EUR mn)



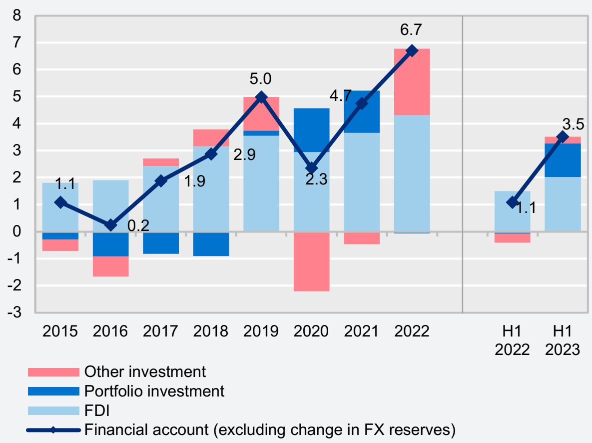
Sources: SORS and NBS calculation.

The current account deficit dwindled also on account of services trade which continued up, with a more pronounced increase in exports (by EUR 1.3 bn to EUR 6.0 bn) than in imports (by EUR 696 mn to EUR 4.5 bn). Together with the higher share of exports in services trade, this drove the **surplus in services trade** above EUR 1.5 bn in H1 2023, which is a EUR 619 mn increase compared to H1 2022. Trade in all types of services expanded in H1 2023, with exports rising on the back of ICT, transport and business services and imports on tourist and business services.

Within the current account, only the **primary income deficit** rose relative to H1 2022 (by EUR 494 mn to EUR 1.7 bn), mostly because of greater expenditures under FDI income. This is expected, bearing in mind a continuous inflow and increase in the stock of FDI in Serbia, entailing also higher expenditures for dividend payments. Reinvested earnings also went up, confirming investors' commitment to stepping up investments in Serbia. Expenditures on account of interest paid under financial loans and portfolio investment also went up, reflecting the tightening of global financial conditions amid more restrictive monetary policies of central banks. The **secondary income surplus** increased by EUR 119 mn to EUR 2.8 bn, mostly owing to the inflow of remittances from abroad, which reached EUR 2.5 bn in H1, up by EUR 250 mn y-o-y.

The **financial account** saw a net capital inflow of EUR 3.5 bn in H1, chiefly thanks to FDI inflow and successful eurobond issue early in the year. Inflows also originated from credit borrowing of the government and corporates and disbursement of the second tranche under the IMF arrangement. Banks reduced their liabilities toward foreign creditors and an outflow was also recorded under trade loans and advances.

Chart O.2.3 **Financial account**
(in EUR bn)



Source: NBS.

The major part of capital inflows to the financial account in H1 came from **FDIs**, which equalled EUR 2.0 bn net, while investments into Serbia alone exceeded EUR 2.1 bn. Relative to the same period last year, which saw a temporary slowdown in inflows due to the outbreak of the Ukraine conflict, FDI inflow increased by 33%, confirming that Serbia remains an attractive investment destination. For the ninth year in a row, the current account deficit was fully covered by net FDI. Given the relatively high net FDI inflow and the record low current account deficit, the value of this ratio in H1 reached 382%. As in the years before, FDIs were geographically and project-diversified, with more than one half directed to tradable sectors, mainly manufacturing (28%), the key export sector of the Serbian economy.

Net capital inflow under **portfolio investment** measured EUR 1.2 bn in H1, thanks to two successful eurobond issues in the international market in January, with USD 750 mn worth of 5-year eurobonds and USD 1.0 bn worth of 10-year eurobonds. Investor demand surpassed the supply multiple times, driving down the bid rates in the auction. Hedging transactions were promptly concluded to mitigate FX and interest rate risk, converting liabilities under dollar securities into euros. Non-residents also invested into dinar government, mainly 12-year securities in the domestic primary market, which generated a EUR 95 mn inflow in H1. On the other hand, at end-March the government bought back securities issued in June 2022, prior to maturity, through private placement (EUR 350.0 mn), and an outflow was registered also on account of maturity of earlier issued government securities and net sale of government securities in the secondary market.

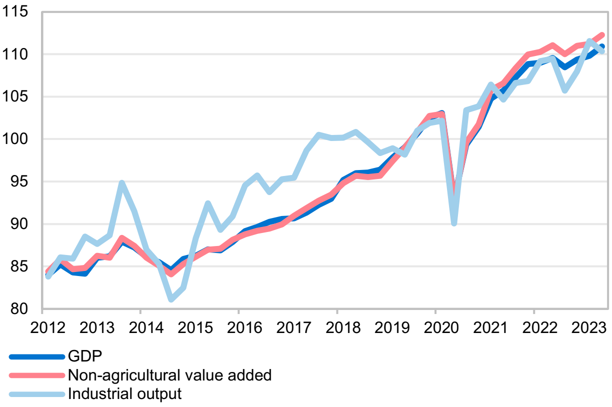
Residents increased their borrowing from foreign creditors, generating a EUR 574 mn net inflow under **loans** in H1. Most of that amount referred to government borrowing and disbursement of a part of funds approved under the stand-by arrangement with the IMF. Corporate borrowing also went up, while banks recorded net external debt repayment. Also, thanks to higher balances in non-resident accounts with domestic banks and lower balances in foreign accounts of domestic banks, an inflow of EUR 339 mn was recorded under **currency and deposits.** Conversely, due to a sharper rise in receivables on account of unpaid exports compared to the rise in importers' foreign liabilities, an outflow of EUR 697 mn was recorded under **trade credits** and advances.

All the above led to an increase in FX reserves in H1 by EUR 3.1 bn, under the balance of payments methodology, to EUR 23.1 bn at end-June. In July, FX reserves reached EUR 23 bn, their new record high, reinforcing Serbia's resilience to potential external shocks. At such level, FX reserves cover around sixth months' worth of goods and services imports, over 280% of short-term debt (at remaining maturity) and around 140% of ARA metrics (calculated according to the March debt balance).

Given the considerably lower current account deficit in H1 and the movements expected by the year end, our annual deficit projection now stands at 2.5% of GDP, compared to the 4.5% forecast in May, though we emphasized even then that there was a great probability that the deficit could turn out lower than projected. Goods and services exports in euro terms are projected to expand by around 10% annually, and imports by 2%, which is a lower export and higher import rate compared to those in H1, signalling that our projections for the remainder of the year are relatively conservative. One part of the improvement in the current account deficit can definitively be attributed to more favourable terms of trade (export prices rising more sharply than import ones), but given the actual figures in H1, exports are expected to rise four times faster than imports in real terms, at the level of the year.

In the medium term, current account balance dynamics will be determined mainly by structural factors. Further investment growth, primarily the planned major investments in infrastructure, will drive equipment imports up, so the real growth in goods and services imports will average around 7% annually over the next three years. On the other hand, as a result of past investments in tradable sectors, primarily high FDI inflow, as well as the expected recovery of external demand, the real growth of goods and services exports will average around 9% per year, which will place the current account-to-GDP ratio at around 4%, a level ensuring external sustainability. Another projection assumption is that the secondary income surplus will not exceed the long-term average of around 8% of GDP, while the expected path of net FDI inflow will make sure that the return on account of their ownership remains a solid expenditure item in the primary income account, so we project a continued moderate rise in the primary income deficit. Net FDI inflow is projected at around 5% of GDP for this year and in the medium term and, same as in the past eight years, it will continue to fully cover the current account deficit, contributing to the sustainability of our external position and preservation of a more than adequate level of FX reserves.

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



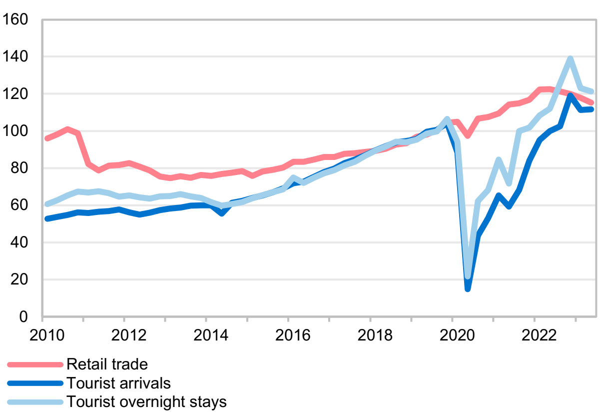
Sources: SORS and NBS calculation.

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

	2022			2023	
	Q2	Q3	Q4	Q1	Q2*
GDP (in %, y-o-y)	**3.8**	**1.0**	**0.5**	**0.7**	**1.7**
Agriculture	-0.4	-0.6	-0.5	0.2	0.4
Industry	0.9	-0.1	0.3	0.5	0.2
Construction	-0.4	-0.7	-0.9	-0.1	0.6
Services	3.0	2.0	1.4	0.7	0.5
Net taxes	0.9	0.4	0.2	-0.2	0.0

Sources: SORS and NBS calculation.
* NBS estimate.

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



Sources: SORS and NBS calculation.

4 Economic activity

We estimate that a faster rise in economic activity relative to Q1 (0.7% y-o-y) was driven by the recovery of the construction sector. According to the SORS preliminary estimate, GDP growth in Q2 measured 1.7% y-o-y. Other sectors also provided a positive contribution to economic growth, with the y-o-y rise in industrial activity in Q2 completely based on the recovery of the electricity sector, while services growth decelerated slightly relative to Q1. We estimate that a positive contribution stemmed also from agricultural production.

Economic growth accelerated in quarterly terms as well – from 0.4% s-a in Q1 to 1% s-a in Q2, primarily on account of the rise in services and construction.

Services recorded 0.9% y-o-y growth collectively in Q2, according to our estimate, contributing 0.5 pp to economic growth. This is indicated primarily by tourism data as in Q2 the number of arrivals and overnight stays of tourists, particularly foreign tourists, went up by 10.8% and 6.6% y-o-y, respectively. In addition, real turnover in catering increased in April by 14.6% y-o-y. On the other hand, real turnover in retail trade declined by 6.1% y-o-y.

The recovery of the electricity sector drove **industrial production** up by 0.8% y-o-y in Q2, according to our estimate. Namely, in the aftermath of the problems encountered in late 2021 and early 2022 which caused a slump in electricity production, the stabilisation of the electricity system in 2023 resulted in a 14.9% y-o-y rise in the production of electricity in Q2, with a 2.2 pp contribution to the growth in industrial production. On the other hand, the volume of production in the mining sector contracted on account of lower coal exploitation which, coupled with lower activity in manufacturing, generated 0.8% y-o-y growth in the volume of overall industrial production.

The volume of manufacturing output decreased by 0.9% y-o-y in Q2. Though the volume of production declined in most industries (14 out of 24), it needs to be emphasized that the fall in overall manufacturing was entirely due to the 12.7% y-o-y slump in the production of petroleum products, as the remaining activities in manufacturing recorded cumulative y-o-y growth of 0.2%. What stands out in addition to the rise in the production of base metals (16.4% y-o-y) and machinery and equipment (11.4% y-o-y) is the rise in the production of computers and electrical products of almost 90% y-o-y, which added 0.7 pp to manufacturing.

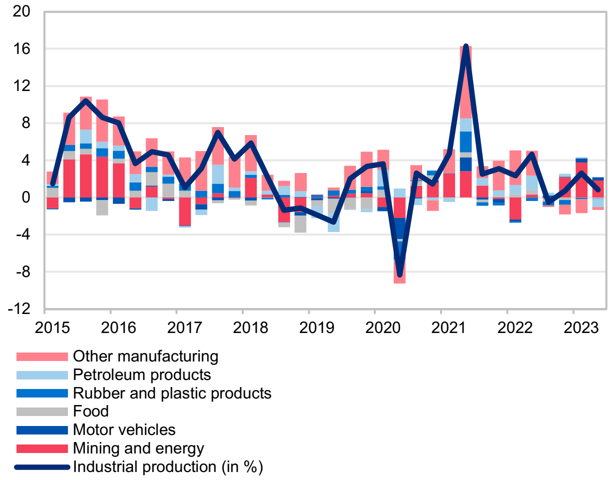
In Q2, the **construction** sector posted around 13% y-o-y growth, primarily attributable to the implementation of significant transport infrastructure projects (Belgrade bypass, sections of the Morava corridor, Novi Sad-Subotica railway). This is also confirmed by the 17.9% y-o-y rise in the value of executed construction works in Q2. Further, the number of issued construction permits in May recorded y-o-y growth (2.3%) for the first time after July 2022. On the other hand, the production and import of construction materials declined by 10.8% and 11% y-o-y.

It is important to stress that weather conditions and the SORS preliminary estimate about the rise in wheat production of around 20% y-o-y point to this year's better agricultural season, which, in our estimate, should result in the 8% agricultural production growth relative to the previous year when **agriculture** recorded below-average activity due to unfavourable weather conditions.

We estimate that **net taxes** will be close to the last year's level and that they will not affect economic activity.

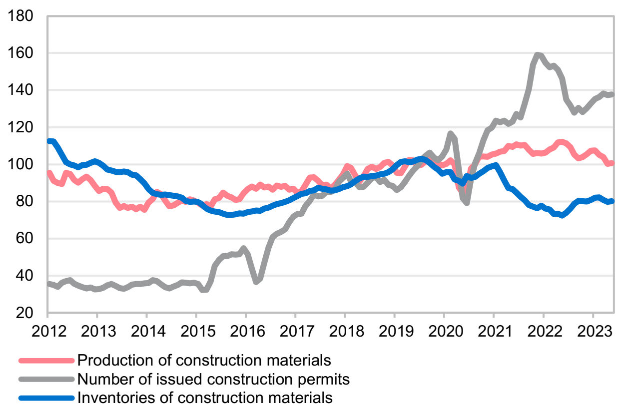
We estimate that economic growth accelerated in quarterly terms from 0.4% s-a in Q1 to 1% in Q2, primarily on account of the rise in services and construction. Agriculture also recorded a mild quarterly rise (0.2% s-a), while industrial production was insignificantly scaled down relative to Q1 (-0.2% s-a).

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



Sources: SORS and NBS calculation.

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

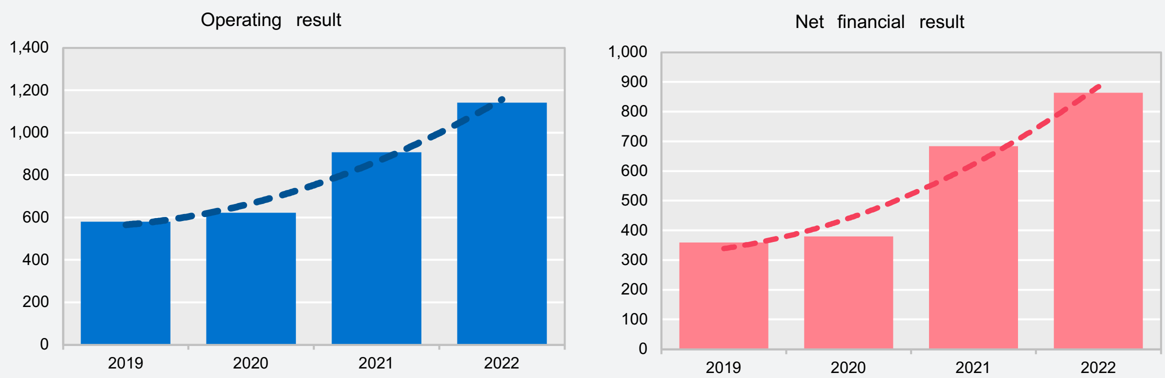


Sources: SORS and NBS calculation.

Text box 3: Analysis of the Serbian corporate sector's operating and financial performance in the 2019–2022 period

Based on the data of the Business Registers Agency, taken from the annual bulletins of financial reports, this text box analyses the Serbian corporate sector's operating and financial performance in the period from 2019, as the last pre-crisis year, to 2022, for which preliminary data was published in mid-2023. The key indicators of corporate success considered here are the operating result, as the outcome of all business activities, and the net financial result, as the outcome of all business, financial and other activities. Both results were positive and on an upward trajectory during the entire observed period. The operating result increased from RSD 580 bn in 2019 to around RSD 1,142 bn in 2022, and the net financial result – from RSD 359 bn to RSD 864 bn (Chart O.3.1), thereby practically doubling corporate profitability.

Chart O.3.1 **Operating and net financial result of the Serbian corporate sector in the period 2019–2022**
(in RSD bn)

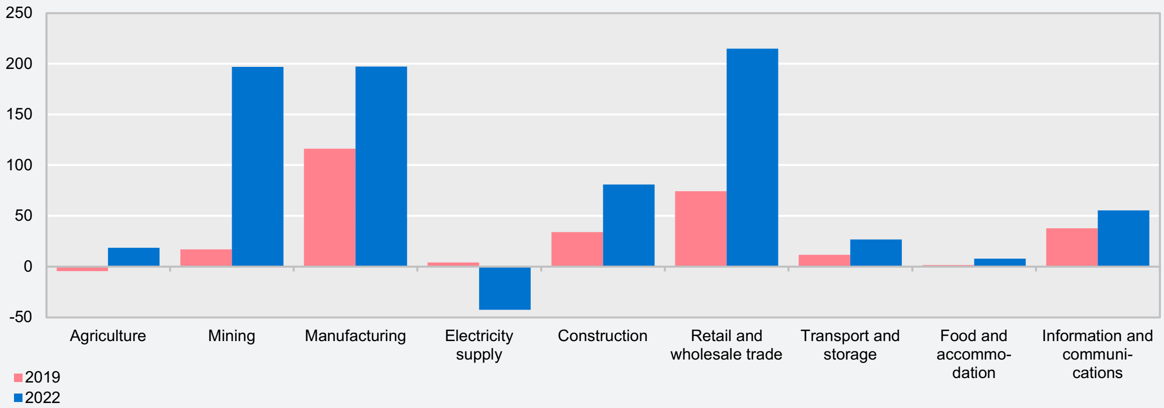


Sources: Business Registers Agency and NBS calculation.

The cumulative increase in the net financial result by RSD 505 bn from 2019 to 2022 was entirely determined by the operating result, which rose by almost RSD 562 bn in the same period. This shows that corporates in Serbia have continuously improved their financial position, relying primarily on the performance of their core, i.e. regular business activities. Although the financial result worsened somewhat in 2022 compared to 2019 (by RSD 6.7 bn), it did not significantly reflect on corporate profitability, which continued to grow despite the adverse effects of the global coronavirus pandemic, disrupted energy supplies, and the escalation of the Ukraine conflict. Since the effects of external factors in the observed period were mostly unfavourable, the preservation and increase of corporate profitability in Serbia can mostly be attributed to internal factors. Certainly, the key factors are the ensured and maintained macroeconomic and financial stability in the country, preserved investment and consumer confidence, as well as efficient coordination of economic policies in Serbia, which, especially during the initial phase of the pandemic, provided extensive and timely monetary and fiscal stimuli to corporates in facing numerous challenges and radical changes in living, working and business conditions. The reduction in financial expenses by a total of RSD 348 bn ending with 2020 was a factor that contributed to the increase in the Serbian corporate profitability in the 2014–2019 period, including even 2020, which was marked by an unprecedented global and health crisis. This was largely a result of more favourable lending terms at the time, reflected in lowered interest expenses for corporates by around RSD 69 bn, while exchange rate losses were reduced by around RSD 208 bn. The NBS is also recognised as a contributor to such outcome, given years of its monetary policy easing and preservation of exchange rate stability. Since the cycle of monetary policy tightening began in the euro area and at home, and uncertainty increased in the international financial market, corporate financial expenses rose in 2021 and 2022. However, this did not have a major adverse effect on the Serbian corporate financial position in the past two years, partly due to the fact that corporates financed a significant portion of their operating and investment activities with their own funds.

Higher corporate sector profitability in the observed period was broadly dispersed across sectors, considering that compared to the pre-crisis 2019, the net financial result in 2022 expanded in almost all economic sectors (except energy), which is presented in Chart O.3.2. Leading the way are the mining companies, which increased their total net profit multiple times (by RSD 180 bn), mainly in the past two years, as a result of investments and increased production capacities, primarily in copper production, but also due to the record hike in the global prices of metals and minerals. They are followed by wholesalers and retailers, whose profitability grew (by RSD 140 bn) on the back of stepped-up sale of own-brand items, expanded supplier network, innovations in the business model, more intensive use of e-commerce channels, which reflected on higher margins, primarily in 2021 and 2022. Considering that the trade margin is defined as the merchants' gross profit after settling the cost of purchasing goods, it should be noted that at sector level, it recorded cumulative growth of nearly 50% in the 2019–2022 period (from around RSD 540 bn in 2019 to 807 bn in 2022), while the rate of trade margins was raised from 14.9% to 16.1%. Looking only at the most significant retail trade chains for which

Chart O.3.2 **Net financial result by economic sector in 2019 and 2022**
(in RSD bn)

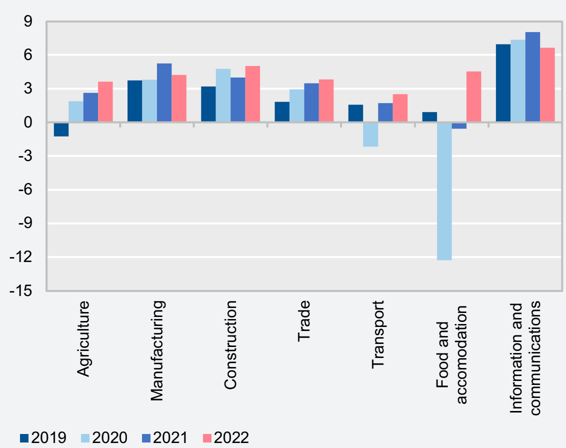


Source: Business Registers Agency.

2022 data are available, the rate of trade margin increased from 24.8% in 2019 to 26.8% in 2022. The ability of the trade sector to increase margins can be attributed to lower sensitivity of demand to price changes amid the general increase in prices, as reflected also in the rise in the net income rate from 1.8% in 2019 to 3.8% in 2022. Manufacturing companies also recorded a significant increase in their total net income (by around RSD 81 bn), relying on the preserved and expanded production and export capacities, as a result of earlier investments. Following a temporary suspension and restriction on business activities in 2020, transport and storage services, and accommodation and food services recovered in the following two years, thanks to the gradual opening of the economy. On the other hand, energy sector recorded net losses in the past two years, on account of increased volume of and higher prices of energy imports, which besides the technical issues in the electricity sector in late 2021 and early 2022, reflected also energy instability in Europe and the escalation of the Ukraine conflict.

Improved financial position of the corporate sector in the past four years is also corroborated by the net income rate dynamics (Chart O.3.3) This indicator was on an upward path in trade, construction and manufacturing, with the greatest improvement observed in agriculture which transitioned from negative to

Chart O.3.3 **Net income rate (after tax) in selected economic sectors**
(net income to total revenue, in %)

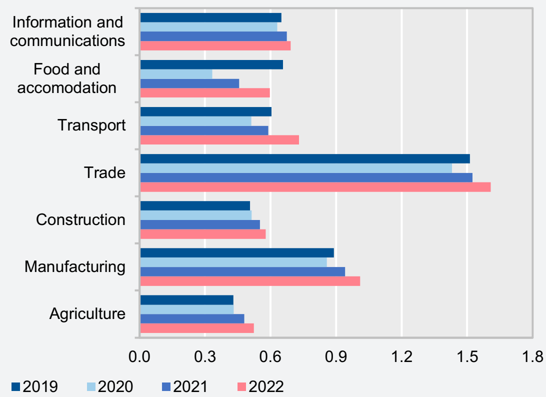


Source: Sources: Serbian Business Registers Agency and NBS calculation.

positive territory since 2020, as well as in the accommodation and food sector which experienced a decline during the pandemic, but saw a substantial increase in 2022 thanks to the rapid rebound of tourist and catering services.

Improvement in both overall corporate profitability and that by sectors is also a reflection of a more efficient management of companies' total assets, which expanded by one third from 2019 to 2022. Services saw a deceleration in asset turnover in 2020, mainly transport, and accommodation and food services, which were hit the hardest by containment measures during the pandemic. After that, in 2021 and 2022, this indicator accelerated in all sectors, especially in trade and manufacturing (Chart O.3.4).

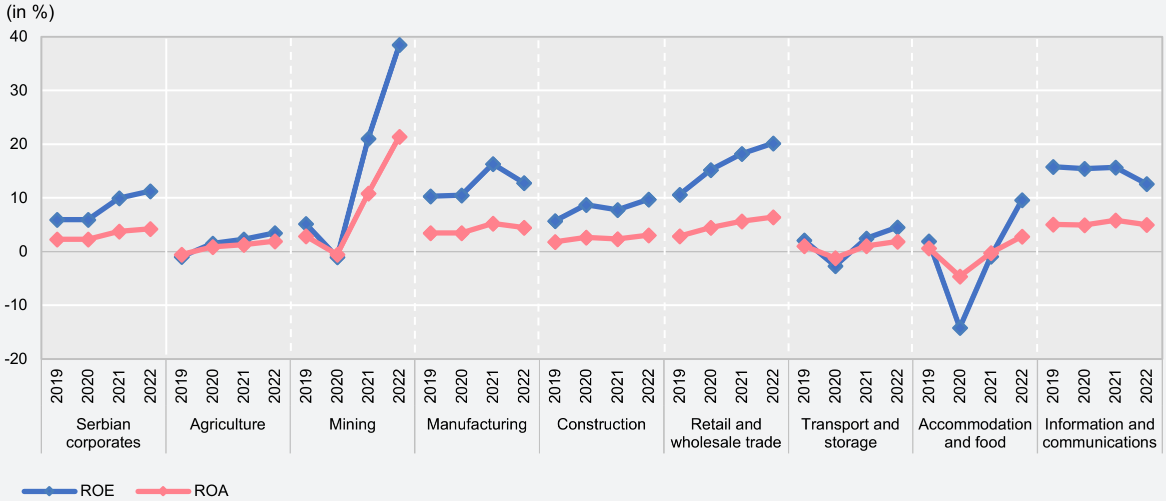
Chart O.3.4 **Asset turnover ratio for selected economic sectors**
(total revenue to total assets)



Sources: Serbian Business Registers Agency and NBS calculation.

During the period observed the Serbian corporate sector increased the degree of efficiency in managing total business assets, which include both own and borrowed funds, as evidenced by the 4.3% ROA in 2022 (compared to 2.3% in 2019), with above-average ROA recorded in mining, trade, information and communications, and manufacturing. Corporates in Serbia were also more efficient in managing their own capital, which increased by 28% over the past four years. This is also evidenced by ROE dynamics, which nearly doubled in the four years at the level of the entire corporate sector, rising from 5.9% in 2019 to 11.3% in 2022. Throughout the period observed, double-digit growth in ROE was registered in manufacturing, trade and information and communication services. In the last two years, robust growth of this indicator was recorded also in mining (Chart O.3.5), as a result of significant investments.

Chart O.3.5 **ROA and ROE dynamics for selected economic sectors**
(in %)



Sources: Business Registers Agency and NBS calculation.

Based on the previous analysis, the following can be concluded:

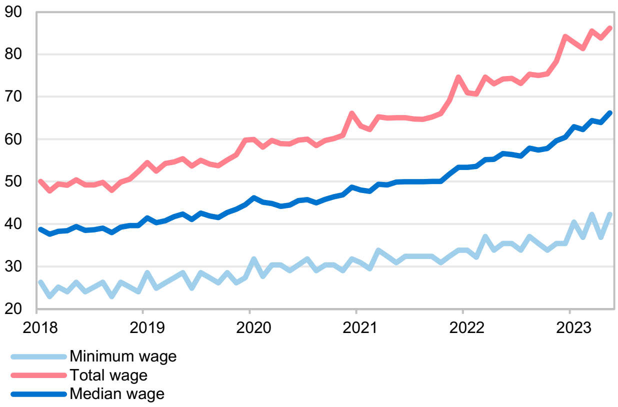
• Despite negative external shocks (prolonged consequences of the pandemic, energy and Ukraine crises), in the past three years, corporates in Serbia managed not only to stay in the positive territory, but also to increase their profitability, primarily based on their core activities for which they are registered, i.e. from regular business activities.

• Business activity intensified from 2019 to 2022 after the corporates had significantly strengthened their financial capacities in the years before 2020, thanks to the reduction in financial expenses, in which the coordination of economic policies aimed at preserving the achieved macroeconomic and financial stability played an important role.

• Increased financial expenses in 2021 and 2022 due to the tightening of financial conditions in the international and domestic markets did not reflect significantly on the corporate net financial result, which continued its upward trajectory and remained widely dispersed across sectors. The rise in profitability was also accompanied by the acceleration of total asset turnover from 2020 onwards.

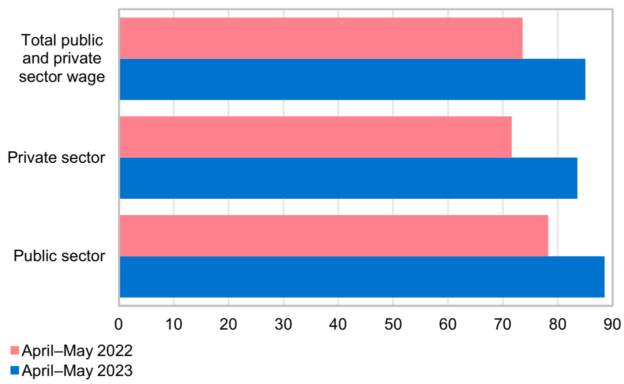
The resilience of corporates in Serbia to adverse effects from the international environment stems from the fact that companies in major sectors – such as manufacturing, mining, construction and trade, have intensified their business activities, aided by a strong FDI inflow. In case of the trade sector, this is partly a consequence of rising margins amid increased cost and inflationary pressures.

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



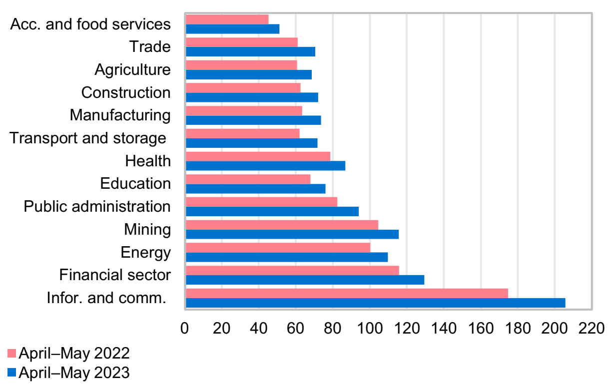
Source: SORS.
Note: Since January 2018, Tax Administration data have been used for wage calculations.

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.

5 Labour market developments

In Q2, the labour market saw further growth in formal employment and wages, with registered unemployment reaching a new low.

Wages

In the period April–May, the average nominal net wage amounted to RSD 85,016 (EUR 725), recording y-o-y growth of 15.5% – the same as in Q1 2023. This growth remained driven by a faster rise in **private sector** (16.7%) than in **public sector** wages (13.1%), which narrowed the gap in the wages of these two sectors to 1.06 in the first five months of 2023 (from 1.11 in the same period in 2022). In April and May, the median net wage rose by 16.4% y-o-y, reaching RSD 65,099 (EUR 555).

In April and May, the y-o-y rise in average wages continued in all **economic activities**, the most striking being in ICT[11] (17.7%), art, entertainment and recreation (16.4%) and manufacturing (16.1%). Double-digit y-o-y growth in average wages was recorded in all economic activities except in the energy sector (-9.6%). When it comes to dominantly public sector activities, the growth in wages was the fastest in public administration (14.1% y-o-y), education (11.9% y-o-y) and health and social protection (10.4% y-o-y).

In the same period, a broad-based y-o-y rise in average wages was recorded across **Serbia's regions**, ranging between 16.7% in the Belgrade region and 14.2% in Southern and Eastern Serbia.

The increase in average wages and formal employment pushed up the **total nominal net wage bill** (the main source of consumer demand) by 18.0% y-o-y in the April–May period.

As economic growth lagged behind employment growth, **overall economic productivity** continued its y-o-y fall in Q2 (-0.9%), according to a preliminary estimate, but at a much slower pace than in Q1 (-2.1%).

Employment

Total formal employment in Q2 moved around the record level of around 2.37 mn. In June, it was higher by around 55 thousand than a year ago, with the y-o-y growth mildly decelerating in Q2 to 2.6% (from 2.9% in Q1).

[11] Excluding ICT sector wages from the statistical scope, the y-o-y rate of growth of total nominal net wages in the April–May period is 14.2% (according to NBS calculation).

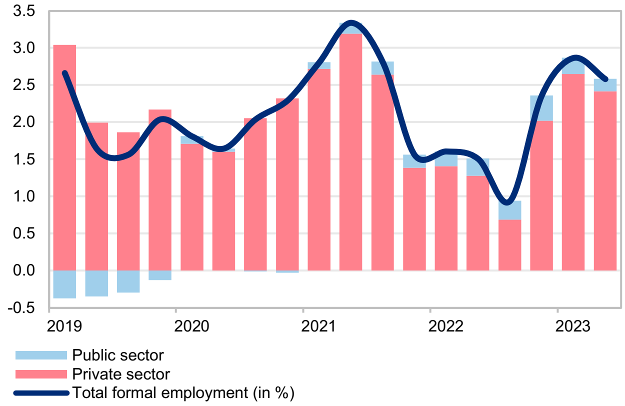
According to SORS data obtained from the Central Registry of Mandatory Social Insurance and the Statistical Business Register, the y-o-y growth in formal employment in June was driven by further employment with private entities (by around 40 thousand persons) and entrepreneurs (by around 18 thousand persons) while the number of individual farmers dropped (by around three thousand).

As in the previous period, the bulk of new jobs were created in the private sector in Q2, which is why **private sector employment** came at 1.75 mn in June, up by 53 thousand from a year ago. The highest number of new recruits was registered in ICT services (around 14 thousand), professional, scientific, innovation and technical services (almost nine thousand) and manufacturing (around eight thousand). In contrast, June saw a y-o-y employment decline in agriculture (around 600 persons) and water supply (around 300 persons). **Formal employment in the public sector** also rose in June (collectively around eight thousand employees y-o-y), primarily in education and health, and then state administration.

According to the National Employment Service records, **registered unemployment** dropped to a new low (402,495) in June, with around 42 thousand unemployed people less than in the same period last year. Though at a slower pace than in March, the y-o-y decline in unemployment was broadly dispersed across occupation groups.

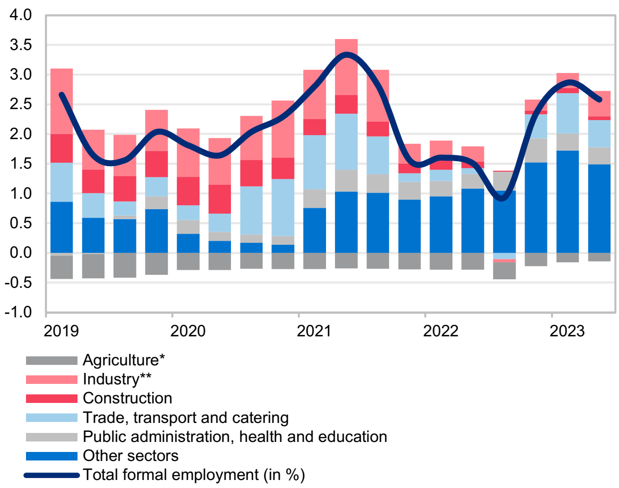
The SORS published the revised LFS data for 2022 by quarter based on the revision of demographic estimates of the main labour market groups according to the 2022 Census. The unemployment rate in 2022 was thus raised by 0.2 pp on average, while the average employment rate was cut by 0.9 pp. As testified by the **LFS** data for Q1 2023, favourable labour market trends continued, given that the activity and employment rates equalled 55.2% and 49.6% recording a y-o-y growth of 0.8 pp and 1.1 pp, respectively. The participation rate (activity rate of working-age population) stood at 71.2% in the same period, while the unemployment rate went down by 0.8 pp y-o-y, to 10.1%.

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



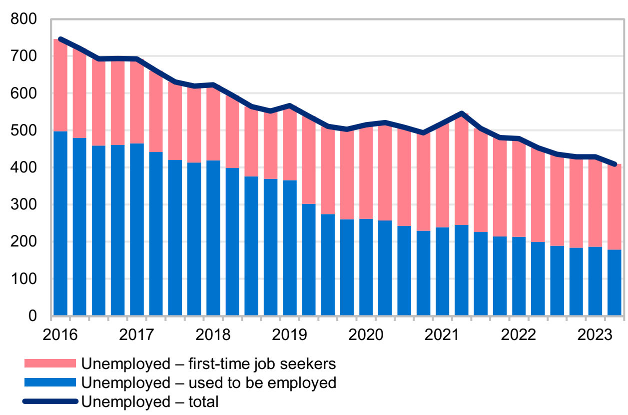
Sources: SORS and NBS calculation.

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.

V Projection

The current projection maintains GDP growth between 2% and 3%, except that it now puts it closer to the lower bound of the projected range than in the previous projection. Growth will be led by net exports, as a result of a considerably faster rise in the exports than in the imports of goods and services in the year to date, as well as by fixed investments, thanks to increased corporate profitability, high FDI inflows and government investments in transport infrastructure. Personal consumption is also expected to yield a positive contribution, though less so than anticipated in our previous projection. As of 2024, GDP growth is expected to pick up to 3.0–4.0% and then return to the pre-pandemic growth rate of around 4% per year thereafter, with the subsiding of global inflationary pressures, recovery of global economy and, by extension, external demand, and the planned accelerated implementation of investment projects in the areas of transport, energy and utility infrastructure.

Under the August projection, y-o-y inflation will continue to lose pace. After dropping to around 8% late this year, it will return within the target bounds in Q2 2024. These movements will be aided by the effects of past monetary tightening, further weakening of global cost-push pressures and high base in energy and food prices, as well as the slowing of imported inflation and lower demand amid slack global growth. The projected inflation is somewhat lower compared to what was expected in May, primarily speaking of 2024 inflation, reflecting a further tightening in monetary conditions.

Uncertainty regarding the materialisation of GDP and inflation projections remains largely related to international factors – global growth outlook, entrenched global inflation and the extent of consequent monetary tightening of leading central banks, with geopolitical relations and global prices of energy and primary commodities also playing a part. As for domestic factors, risks to the projection are mainly associated with the FDI inflow, investment into the energy sector and infrastructure, and the pace of the recovery of the coal production sector, including the outcome of this year's agricultural season to some extent. Overall, risks to the GDP growth and inflation projections for this and the coming year are assessed as symmetric.

External assumptions

Economic activity

Against the background of intertwined negative effects caused by the pandemic, energy crisis and conflict in Ukraine, followed by central banks' monetary tightening aimed at curbing high and stubbornly persistent inflation, **global economic activity shows signs of weakening**, as expected. This is particularly evident in the production sector globally, with the leading activity PMI index dropping to its lowest level since the beginning of 2023 (48.7 points) as a result of a contraction in new orders, while activity in the services sector is preserved. In the June issue of the Global Economics Prospects, the World Bank projected global growth to slow to 2.1% in 2023, with advanced economies (the euro area, USA and Japan) slackening considerably (to 0.7%), and emerging and developing ones (China excluded) to a lesser extent (to 2.9%), which will reflect tighter global financial conditions and subdued external demand. Owing to the accelerated lifting of containment measures, China's economy is moving on an upward path, with the projected

Table V.0.1 **Key projection assumptions**

	2023		2024		2025
External assumptions	May	Aug.	May	Aug.	Aug.
Euro area GDP growth	0.7%	0.5%	1.0%	0.9%	1.6%
Euro area inflation (average)	5.5%	5.4%	2.4%	2.4%	2.2%
3M EURIBOR (December)	3.7%	3.9%	3.0%	3.2%	2.9%
International prices of primary agricult. commodities (Q4 to Q4)*	-16.7%	-17.9%	-3.6%	0.1%	-3.3%
Brent oil price per barrel (December, USD)	78	81	74	77	74
Internal assumptions					
Administered prices (Dec. to Dec.)	13.6%	11.5%	7.1%	7.0%	5.5%

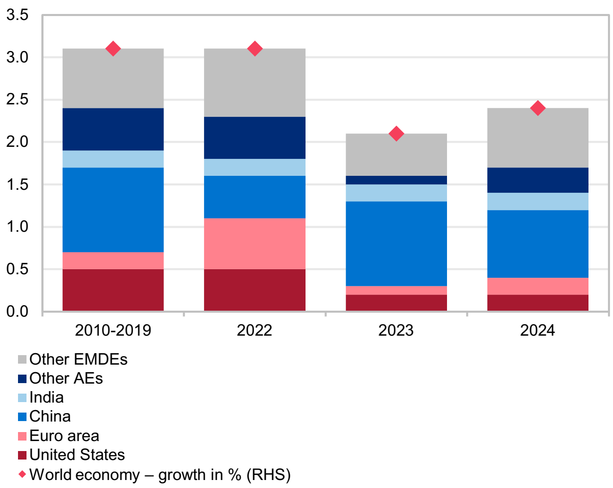
* Composite index of soybean, wheat and corn prices.
Sources: ECB, Consensus Economics, Euronext, CBOT, Bloomberg and NBS.

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

	2023		2024	
	New projection	Previous projection	New projection	Previous projection
World	3.0	2.8	3.0	3.0
Euro area	0.9	0.8	1.5	1.4
Germany	-0.3	-0.1	1.3	1.1
Italy	1.1	0.7	0.9	0.8
USA	1.8	1.6	1.0	1.1
Russia	1.5	0.7	1.3	1.3
China	5.2	5.2	4.5	4.5

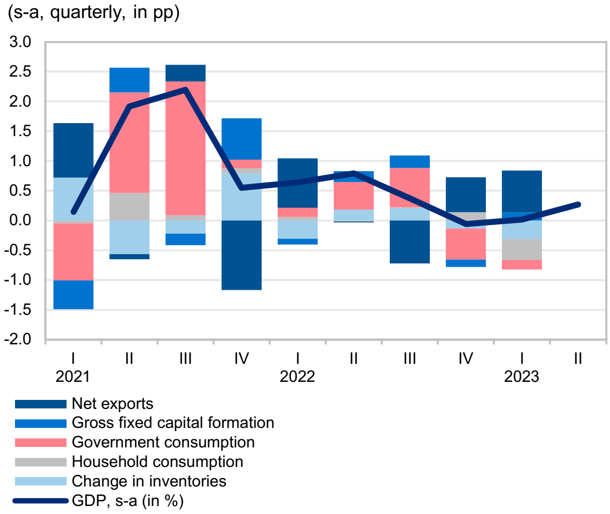
Sources: IMF WEO (April 2023) and IMF WEO Update (July 2023).

Chart V.0.1 **Contribution to global economic growth**
(in pp)



Source: World Bank (June 2023).
Note: Data for 2023 and 2024 are projections.

Chart V.0.2 **Contributions of components to the real GDP growth rate in the euro area**
(s-a, quarterly, in pp)



Source: Eurostat.

growth of 5.6% in 2023, boosted by an elevated consumer demand for services. According to the World Bank **assessment, risks to the global growth projection in 2023 remain tilted to the downsid**e, given the entrenched inflation, mainly core, which may lead to further monetary tightening, continued fragmentation of global trade flows and the financial stress triggered by several bank closures in advanced economies, which may pose a systemic risk in the international financial market.

In the July World Economic Outlook, the IMF assesses that the **global economic rebound is slowing down in parallel with the widening gap between economic sectors and regions**, with growth losing pace most noticeably in advanced economies, due to the weakening of manufacturing and the working of specific factors, contrary to the preserved activity in services. Although in July the **IMF revised its April global growth projection up by 0.2 pp, to 3.0% in 2023** (the same figure is projected for 2024), the forecasts for both years remain weak by historical standards, below the 2000–2019 average of 3.8%. Furthermore, **in the July projection, the balance of risks is assessed as tilted to the downside** (though less so than in April), mainly due to persistent inflation, slower than anticipated economic growth of China and further economic and geopolitical fragmentation.

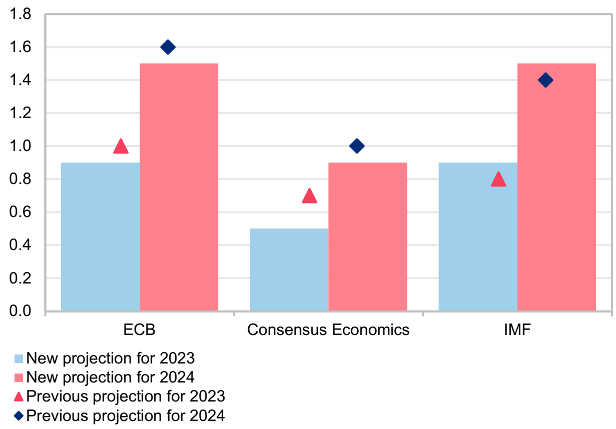
The euro area economy stagnated in Q1. A contraction in household and government consumption nullified the rise in net exports and fixed investments. Our key trade partners in the euro area displayed divergent movements in Q1 – **Germany's** GDP contracted by 0.3% s-a, while **Italy's** increased by 0.6% s-a. Economic sectors in the euro area underwent uneven movements – production weakened further, in part reflecting subdued global demand and tighter financing conditions in European countries, while demand for services was generally preserved. Movements in the key index (PMI Composite) indicate similar trends in Q2 and early Q3, with GDP growth measuring 0.3% s-a in Q2, according to Eurostat's preliminary flash estimate. According to the **ECB's** June assessment, economic activity could be back on the upward path in the remainder of 2023, on account of lower energy prices and stronger external demand, resolution of supply issues and implementation of backlog orders, as uncertainties in the financial market taper off. The resilient labour market in the euro area continues to support economic activity and real income, given the rising participation and employment, and the record fall in the unemployment rate to 6.4%. **In June relative to March, the ECB mildly downgraded its 2023 GDP growth projection – by 0.1 pp to 0.9%**, chiefly on account of tightened financial conditions. The

2024 projection was revised downward in the same extent (to 1.5%), while the 2025 projection remained unchanged (1.6%). **The ECB underlines a pronounced uncertainty surrounding the projections,** with key downside risks relating to further heightening of geopolitical tensions over the Ukrainian conflict, additional monetary and financial tightening that would undermine market confidence, and the weakening of global economic activity. The upside risk is a stable labour market, soothing uncertainty among both consumers and corporates.

In July, Consensus Economics downgraded its euro area growth projection from April – to 0.5% in 2023 and 0.9% in 2024 (from 0.7% and 1%, respectively), which is lower than the ECB's June forecasts and is also the assumption used in our projection. Weaker assessments accounted for enduring inflationary pressures, a decline in the living standard of the population, mainly due to higher food expenditures, as well as bad performance of Germany, the largest euro area economy, where activity and new orders in the manufacturing sector have been in a downward spiral for months. Taking this into account, the Consensus Economics additionally downgraded Germany's GDP growth projection to -0.3% in 2023 (from 0.1% in April) and upgraded Italy's to 1.1% (from 0.6% in April), mainly thanks to sound activity in the services sector. Germany and Italy's growth rates for 2024 are projected at 1.1% and 0.8%, respectively.

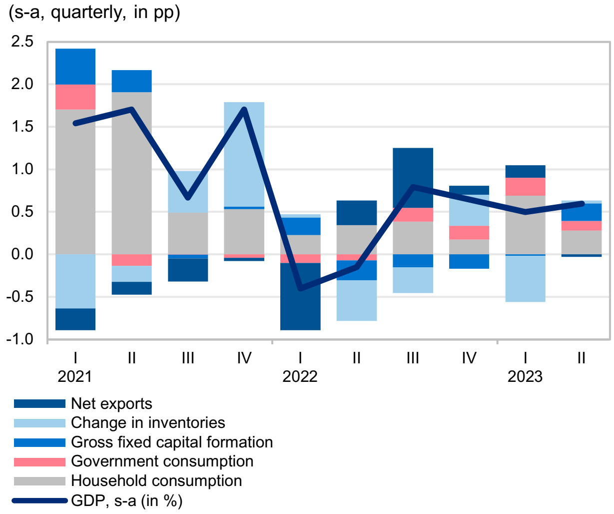
In Q1, the **US economy** gained 0.5% s-a (i.e. 2.0% annually), owing to an increase in private and public consumption and net exports, while total investments were on decline. According to the assessment of the US Bureau of Economic Analysis, US GDP went up by 0.6% s-a in Q2 (or 2.4% annually), mainly thanks to the rebound of total investments. However, US production continued to decline, as signalled by the contraction of ISM Manufacturing PMI in the past months, mostly on account of a fall in new orders. Conditions in the US labour market remain tight, given that unemployment rate is somewhere around the historical low (3.6% in June), and labour force demand remains above the supply, though there are some indicators of their balancing (increased participation rate, lower number of vacancies and slower growth in nominal wages). Bearing in mind the effects of past interest rate hikes and tightening of financial and credit conditions in the US banking sector, the Fed assessed in June that economic growth will slow down further in Q2 and Q3, only to turn into a mild decline in the last quarter of 2023 and early 2024. The Fed's June forecasts of US economic growth for 2023 and 2024 stood at 1.0% and 1.1%, respectively, while the unemployment rate is projected at 4.1% in 2023 and 4.5% in 2024.

Chart V.0.3 **Revisions of euro area GDP growth projections for 2023 and 2024**
(in %)



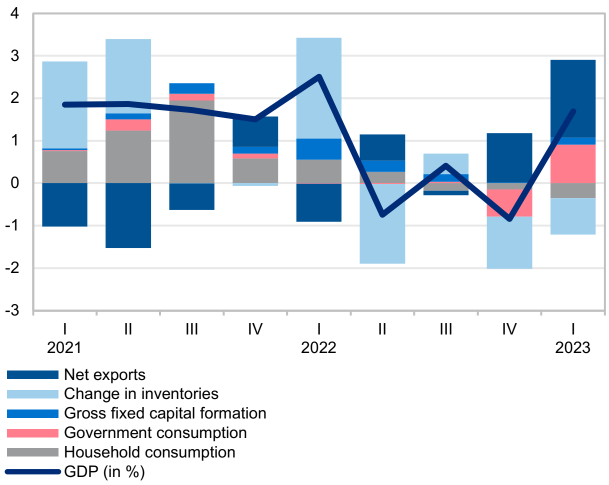
Sources: ECB (March and June), Consensus Economics (April and July) and IMF (April and July).

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



Sources: U.S. BEA and NBS calculation.

Chart V.0.5 **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.

According to World Bank data from June, **Russia's GDP** declined by 1.9% y-o-y in Q1, reflecting weak domestic demand and smaller export quantity, due to the sanctions imposed by Western countries. At the level of 2023, a slight GDP fall of 0.2% is projected, considerably above the previous expectations due to the stable production and exports of oil, which was redirected to Asian countries, as well as positive effects of tendencies carried over from last year. In its July WEO, the IMF estimates Russia's GDP growth in 2023 to be as high as 1.5%.

After rising at the rate of 4.5% y-o-y in Q1, the **Chinese economy** sped up to 6.3% y-o-y in Q2, mostly owing to the last year's low base effect. Still, in quarterly terms, this growth slowed down significantly, to 0.8% s-a in Q2 (from 2.2% s-a in Q1), therefore it seems that a sizeable economic rebound that had been expected after the lifting of anti-covid measures has not yet set in. The slower growth dynamics in Q1 reflects weaker external demand, as well as domestic demand amid reduced fiscal incentives via infrastructure projects, accumulated debts in the real estate sector and a decline in real estate prices. For 2023, the World Bank projected China's GDP growth at 5.6%, and the IMF at 5.2%, led by elevated household demand, mainly for services. Lower than anticipated growth will largely stem from a modest rise in investments and dented external demand for Chinese goods.

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

	July 2023		April 2023	
	2023	2024	2023	2024
Poland	1.0	2.9	0.6	3.1
Czech Republic	0.2	2.5	0.0	2.6
Hungary	-0.1	2.8	0.2	2.9
Romania	2.6	3.7	2.6	3.6
Slovakia	1.1	2.2	0.9	2.4
Slovenia	1.3	2.3	1.2	2.3
Croatia	2.2	2.5	1.4	2.6
Bulgaria	1.6	2.3	1.4	2.5
Albania	2.7	3.5	2.3	3.8
Bosnia and Herzegovina	1.5	2.7	1.5	2.7
North Macedonia	1.7	2.9	1.6	3.1
Montenegro	3.7	3.3	3.5	3.7

Source: Consensus Economics.

At the level of **the CESEE region**, GDP gained 1.7% s-a in Q1 thanks to the recovery of government consumption and fixed investments, while household consumption and inventories were on a decline. Shrinking consumption due to enduring inflation, coupled with higher repayment costs and tightened credit standards, reflected negatively on citizens' living standard. In s-a terms, the Polish economy posted the highest growth in Q1 (3.8%), while the Czech economy stagnated and Hungarian continued to contract (0.3%). Y-o-y, all three countries experienced a GDP fall in Q1. According to the July assessment of Consensus Economics, economic dynamics of countries in the region will largely depend on geopolitical developments and effects on capital flows and the exchange rate, primarily having in mind that the weakening of global economic activity, above all in the euro area, undermines the region's exports, primarily in manufacturing. Amid contracting exports and investments, countries in the region will face recession pressures.

Inflation

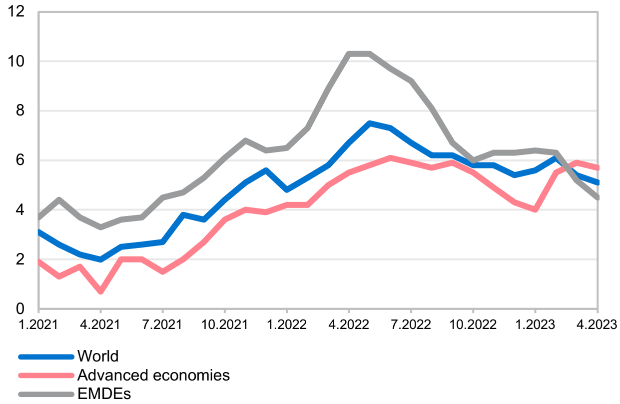
Global inflationary pressures weakened in the past period due to the high base effect, lower energy prices and resolution of supply bottlenecks. According to World

Bank projections, **inflation** will steadily lose pace until end-2023, in parallel with the deceleration of global economic growth and labour demand, as well as the stabilisation of the energy market. The projected global inflation for 2023 is 5.5%, up by 0.3 pp from the previous projection, mainly because **core inflation** remains persistently high in the majority of countries. Past monetary policy tightening by central banks and anchoring of long-term inflation expectations should work toward bringing core inflation down. In the World Economic Outlook released in July, the IMF trimmed its global inflation projection by 0.2 pp to 6.8%, taking into account lower gas prices thanks to the higher filling levels of European gas storage facilities, weaker than expected economic rebound of China, as well a sharp cheapening of global energy and food prices, though food prices still remain elevated. Nevertheless, the global inflation projection for 2024 was raised by 0.3 pp to 5.2%, mainly due to a slower decline in core relative to the headline inflation.

In Q2, **euro area inflation** slowed down further, to 5.5% y-o-y in June, as a result of an extended y-o-y decline in energy prices (5.6%), which also reflects high last year's base effect and a slower rise in the prices of industrial products (excluding energy) and food, which however remains two-digit (11.6% in June). Owing to a solid consumer demand after the opening of European economies and wage increases, the prices of services continued up in Q2. On this account, **core inflation in the euro area** (measured by HICP excluding energy, food, alcohol and cigarettes), though slightly decelerating, remains elevated, having equalised with the headline inflation in June. Measured by changes in harmonised CPI, **German inflation** was lower in Q2 than in Q1, but the June figure (6.8% y-o-y) exceeded the one from May due to the base effect in the prices of services and energy. After rising in April, **inflation in Italy** slowed down by end-Q2, to 6.7% y-o-y in June, on account of slower growth in the non-administered prices of energy and processed food and beverages. According to the Eurostat's preliminary data, euro area y-o-y inflation in July dropped to 5.3%, and in Germany and Italy to 6.5% and 6.4%, respectively, while core inflation in the euro area remained elevated at 5.5%.

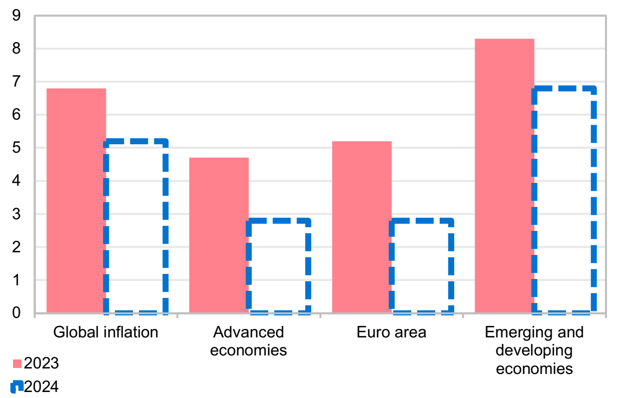
Assuming a continued fall in energy prices and a more intensive deceleration of food inflation in the remainder of the year, the **ECB's** June estimates outline a further deceleration in headline inflation, to around 3.0% in Q4 2023. Despite a decline in energy prices in the past months and resolved supply bottlenecks, negative indirect effects of these factors from the past period persist, which is why **in June the ECB revised its March inflation**

Chart V.0.6 **Core inflation movements**
(annual rates, in %)



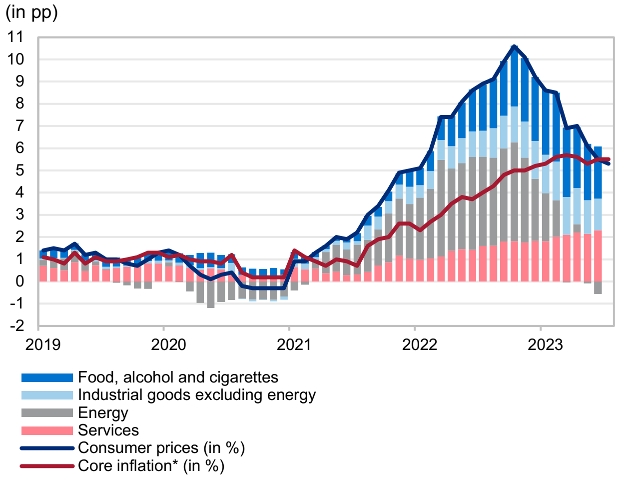
Source: World Bank (June 2023).
Note: Data about core inflation are given as quarterly medians, as at April. The sample includes 31 advanced and 40 emerging and developing economies.

Chart V.0.7 **Global inflation projection for 2023 and 2024**
(in %)



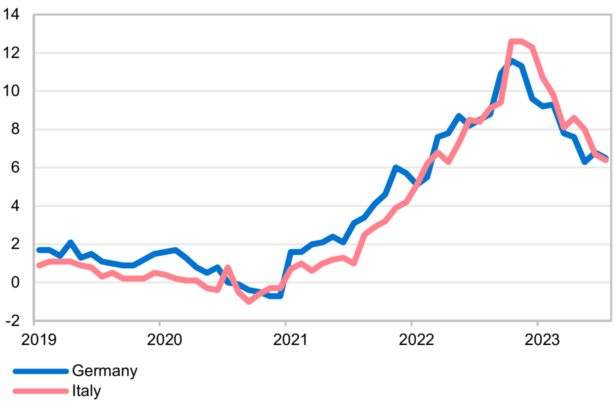
Source: IMF WEO Update (July 2023).

Chart V.0.8 **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.0.9 **HICP for Germany and Italy**
(y-o-y rates, in %)



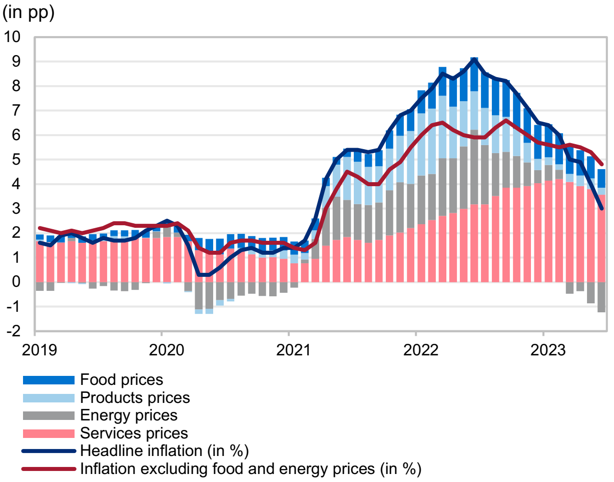
Source: Eurostat.

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

	July 2023		April 2023	
	2023	2024	2023	2024
Poland	12.2	6.1	12.7	6.4
Czech Republic	10.8	2.9	11.0	3.0
Hungary	18.1	5.6	18.6	5.5
Romania	10.1	5.3	10.0	5.4
Slovakia	10.8	4.9	10.6	4.4
Slovenia	7.0	3.3	6.4	3.3
Croatia	7.4	3.4	7.1	3.2
Bulgaria	9.9	4.2	10.0	4.0
Albania	4.6	3.1	5.0	3.0
Bosnia and Herzegovina	7.4	2.8	8.1	2.8
North Macedonia	8.9	3.6	9.0	3.1
Montenegro	8.1	4.4	7.8	4.4

Source: Consensus Economics.

Chart V.0.10 **Contributions of CPI components to y-o-y inflation in the USA**
(in pp)



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

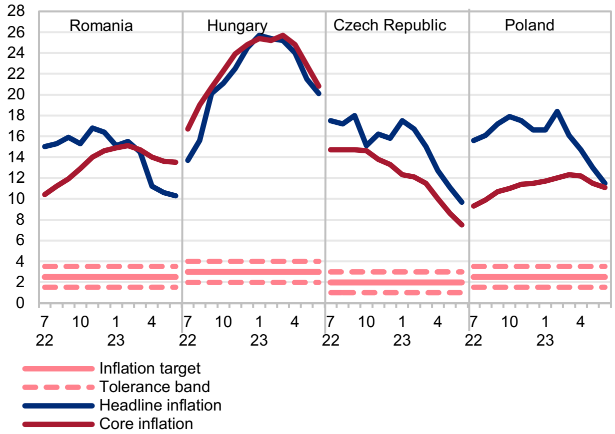
projections for all three years mildly up (by 0.1 pp each): to 5.4% for 2023, 3.0% for 2024, and 2.2% for 2025. This was largely impacted by the **sizeable upward adjustment** to the March **projection of core inflation** for 2023 and 2024 – by 0.5 pp to 5.1% and 3.0%, respectively, while the projection for 2025 was moderately increased – by 0.1 pp to 2.3%. This is a consequence of higher rates of actual inflation compared to the initial estimates and the rise in unit labour costs, which offset the overall positive effects of lower energy prices and tighter financing conditions. The ECB anticipates that core inflation will trend above the headline until early 2024, though it is also expected to turn gradually downward. In July relative to April, Consensus Economics analysts mildly downgraded euro area headline inflation for 2023, by 0.1 pp to 5.4%, while keeping the 2024 projection unchanged (2.4%). Our current projection relies on the same assumptions. At the same time, they raised the core inflation projection for the euro area – by 0.1 pp to 5.0% in 2023 and by 0.3 pp to 2.8% in 2024.

Starting from June 2022, **headline inflation in the US** (measured by the change in the CPI) hit a downward path, amounting to 3.0% y-o-y in June, its lowest level since March 2021. The slowdown in y-o-y inflation was brought about by all CPI components, primarily by energy prices going down 16.7% in June, with food and services prices also losing steam. On top of that, energy and food prices displayed the effect of high last year's base. Industrial product prices initially sped up their y-o-y growth in April and May, on account of higher prices of medical products and clothing, only to return to their end-Q1 growth rate by the end of Q2. **US core inflation** (measured by the change in the CPI, excluding food and energy) also slowed down in Q2, to 4.8% y-o-y in June, but remained above the headline inflation, suggesting that cost-push pressures, albeit weakened, are still present. This is also indicated by the dynamics of personal consumption expenditures (excluding food and energy) in April and May, which remained at a similar level as in Q1 (around 4.6% y-o-y), while slowing down to 4.1% y-o-y by end-Q2 on account of decelerated growth in products and services. Looking at the **Fed's** preferred measure of core inflation, in June relative to March the projection for 2023 was lifted by 0.3 pp to 3.9%, while the projection for 2024 remained unchanged (2.6%).

In CESEE countries pursuing inflation targeting, inflation continued to lose pace y-o-y in Q2, mainly due to a decline in global energy prices over the past months, as well as the high last year's base. Y-o-y inflation slowed down the most in the **Czech Republic**, to 9.7% in June, followed by **Romania** and **Poland** – 10.3% and 11.5%, respectively, while **Hungary's** inflation, though declining from March, remained relatively high in June, at 20.1%. Despite the reduced inflationary pressures in countries of the region (in part due to the high last year's base), Consensus Economics analysts assessed that inflation's return to pre-pandemic levels is nowhere near in sight. Core inflation remains elevated, trending above headline in Hungary and Romania, also reflecting tight labour market conditions which cause a nominal wage increase. Inflation dynamics going forward will largely depend on the movement of national currencies and global primary commodity prices. Compared to April, July's average inflation projection for the central European region released by Consensus Economics was trimmed by 0.4 pp to 12.3%, while that for the South-East European region was raised by 0.1 pp to 9.5%.

Inflation in Western Balkan countries also went down in Q2, driven by the declining prices of petroleum products and other energy products. The lowest y-o-y inflation in June was registered in Albania (4.3%), Bosnia and Herzegovina (4.9%) and Montenegro (7.5%), and the highest in North Macedonia (9.3%). Inflation in regional peers is expected to slow down further in H2, on account of higher interest rates, contraction in demand and lower prices of energy products in y-o-y terms. Key upside risks relate to the lower intensity of monetary tightening than necessary to curb inflationary pressures, as well as potential disruptions in the global market of primary commodities.

Chart V.0.11 **CPI movements in selected CESEE countries in**
(y-o-y rates, in %)



Sources: Central banks of selected countries.

Text box 4: Core inflation factors and trends globally

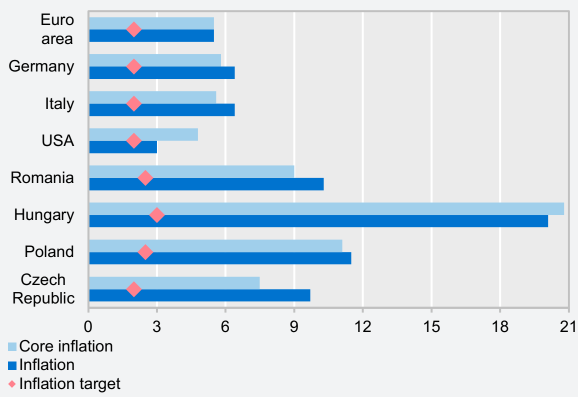
In most countries inflation is gradually slowing down but is still significantly above central bank targets. In the coming months, y-o-y inflation is expected to continue down, largely based on a further considerable decline in the prices of energy and food driven by the high base effects. However, despite the reversal of global inflation, the road to sustainable stability of global prices is still fraught with challenges. Namely, global disinflation has, so far, been primarily fuelled by the reverse shocks on the supply side - energy and food prices contributed to the previous inflation spike and now they, particularly the prices of energy, are contributing to inflation decline. **What raises concern here is the movement of core inflation**, i.e. inflation excluding volatile categories, primarily the prices of energy and food, alcohol and cigarettes.

Core inflation is still relatively high in most countries, often above headline inflation and is even increasing slightly. Core inflation persistence stems largely from **services**. The prices of services are less volatile and more dependent on the costs of labour than the prices of goods. While improvement effects in supply chains are transferred to product prices, it transpires that it takes more time for the prices of services to start going down. Cost-push pressures in the services sector are stronger also because of consumer demand driven by the strong labour market, despite economic slowdown, and by the further reallocation of demand from goods to services that was initiated after the pandemic (particularly in emerging economies). Strong inflation growth in 2021–2022 pushed down real wages and, in many countries, household disposable income. However, continued employment growth and accommodative fiscal policy helped limit the decline in disposable income and demand, particularly in European countries.

It seems that the **euro area, our main economic partner, is more severely affected by the persistent core inflation than the USA**. Euro area headline inflation reached climax (10.6% y-o-y) in October 2022 when import costs soared due to the outbreak of the Ukraine conflict and when many companies **used the opportunity to raise prices much more than warranted by the increased costs** owing to the high demand for their products and services. Since then, inflation dropped to 5.5% y-o-y in June, and 5.35% in July but it turned out that core inflation, as a measure of general and long-term cost-push pressures, is more persistent. In June, core inflation in the euro area went up more than expected – from 5.3% y-o-y in May to 5.5%, where it stuck in July as well. On the other hand, in the USA, core inflation declined to 4.8% y-o-y in June from 5.3% in May.

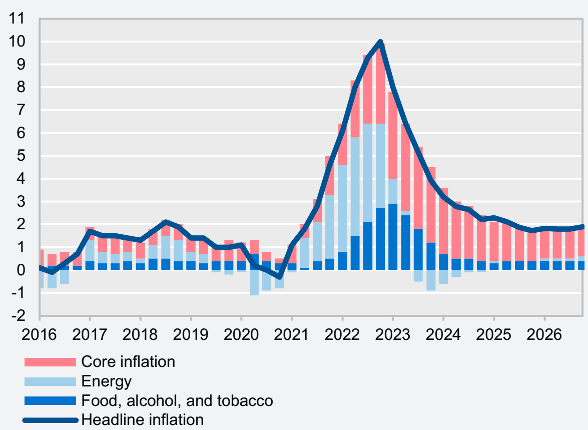
Having peaked in Q1 this year, **core inflation has persisted in countries of the region as well**, despite the slowdown recorded in recent months. As an example, though on a downward trajectory, core inflation in Hungary has been higher than headline inflation since March and is receding at a slower pace – since the beginning of the year headline inflation in Hungary

Chart O.4.1 **Headline and core inflation in selected countries, June 2023**
(y-o-y rates, in %)



Sources: central banks of selected countries.

Chart O.4.2 **Core inflation will give the largest contribution to headline inflation in the euro area**
(y-o-y rates, in %)



Source: S&P, Economic Outlook Eurozone Q3 2023.

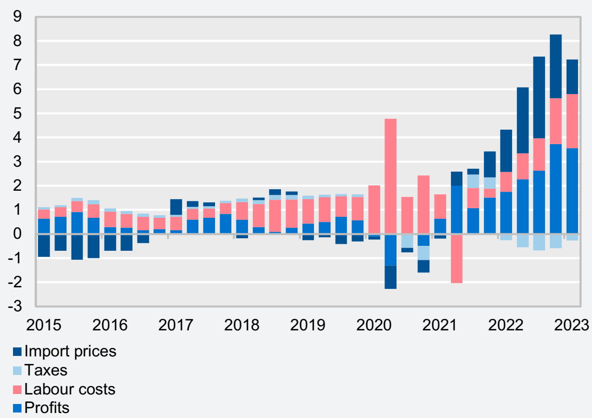
declined by 4.4 pp to 20.1%, and core inflation by 4.0 pp, to 20.8% in June. Core inflation in the Czech Republic is slowing down at a somewhat faster pace compared to other observed countries on account of the high base effect from last year when core inflation recorded 1.6% monthly growth rates on average. Since the beginning of the year core inflation in the Czech Republic declined by 5.8 pp, to 7.5% in June, while headline inflation slowed down by 6.1 pp, to 9.7% in the same period. Though still lower than headline inflation, core inflation in Poland is showing signs of persistence as it declined by only 0.4 pp since the beginning of the year to 11.1% in June, while headline inflation dropped by 5.1 pp, to 11.5% in the same period. On the other hand, core inflation in Romania accelerated again since April and measured 9.0% in June, up by 0.6 pp from the end of last year.

In a large number of countries, past inflation growth seems to reflect higher corporate profits and import prices. That this is the case in the euro area is indicated by ECB officials and IMF analysis[1] which decomposes inflation measured by consumption deflater into 1) import prices, 2) labour costs, 3) profits and 4) taxes. Namely, greater **corporate profits** account for almost a half of price increases (around 45%) from early 2022 until the end of Q1 2023 as companies used the opportunity to increase their prices on account of higher cost-push pressures more than the primary shock effect. At the same time, the analysis showed that a rise in profits was the most striking in sectors which benefited from the hike in global primary commodity prices, and sectors exposed to supply-demand mismatch. **Import prices** followed as their contribution to inflation declined after peaking in mid-2022. They accounted for around 40% of inflation in the observed period. **Labour costs** made up 25% of the price hike since early 2022. The contribution of labour costs has been somewhat higher in recent quarters and is expected to rise further in the coming period. **Taxes** had a mild disinflationary impact.

Thus, corporate profits were the major factor behind price hikes last year, as stressed by the ECB[2] and will be the most important factor again this year if corporations are not forced to absorb growing wage costs expected in the coming period by reducing their profits. The ECB emphasized her concern that corporations will again test consumers' readiness to pay more despite the sharp decline of most input costs in recent months. **The key question is how fast the wages will rise and whether companies will absorb the higher costs of wages without further increasing the prices of their products and services since** this is the condition for attaining the euro area inflation target in 2025.

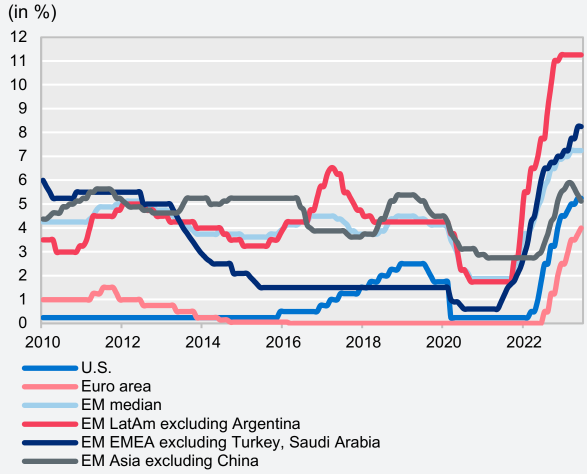
Namely, wages are responding more slowly to shocks than prices and their growth is lagging (last year they dropped by around 5% in real terms in the euro area) and employee pressure to increase wages to

Chart O.4.3 **Euro area inflation drivers**
(contributions to annual change in consumption deflator, in pp)



Source: Hansen, Toscani, and Zhou (2023).

Chart O.4.4 **Global policy rate hike**
(in %)



Source: S&P, Global Economic Outlook Q3 2023.

[1] Hansen, Toscani, and Zhou (2023). "Euro Area Inflation after the Pandemic and Energy Shock: Import Prices, Profits and Wages". IMF Working Papers WP/23/131.

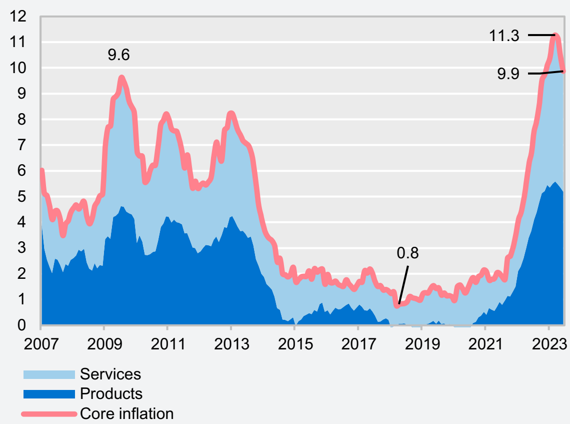
[2] ECB Forum on Central Banking 2023 on "Macroeconomic stabilisation in a volatile inflation environment", 27 June 2023, Sintra, Portugal.

compensate for the lost purchase power has heightened. It is expected that in the next two years euro area workers will aim to return the value of their wages to the pre-pandemic level, which would mean that wages should go up by 14% by the end of 2025. However, **if companies pass this increase onto consumers through higher prices of their products, inflation will stay high longer than hoped for**.

Experience with previous shocks demonstrates that corporations absorbed growing costs by profit margins as consumers were less willing to tolerate price increases due to slower economic growth. However, last year this did not happen due to specific conditions on the demand side. The post-pandemic release of pent-up demand, accumulated savings, accommodative fiscal policy, with limitations on the supply side caused by disrupted supply chains, created room for corporations to increase their profit by raising prices. As pointed out by Pierre-Olivier Gourinchas,[3] chief economist at the IMF, the good news is that now that wages are starting to rise to compensate for the lost purchasing power, **businesses have the capacity to let these wages increase without having to raise prices, because they have increased profit margins. These margins can go back to historical levels**, and they don't need to trigger another wave of price inflation. For inflation to return to the target, it must be ensured that corporations absorb wage growth by reducing profit margins as they have room for that. **For this reason, monetary policy makers are trying to avoid early suspension of monetary policy tightening** which could nullify the progress made so far in terms of inflation. Officials of the IMF, ECB and other institutions emphasize that central banks should be prepared for continued response to signs of persistent inflation until inflation returns sustainably to the target, while at the same time carefully monitoring risks in the financial sector. For inflation to converge to the target in the next two years, monetary policy will probably have to remain restrictive to anchor expectations and contain demand.

When it comes to Serbia, increase in the prices of all key production inputs at global level– primarily the prices of energy, primary commodities, industrial raw materials, packaging, transport costs and global supply chain disruptions – reflected on higher core inflation in the previous period through imported inflation i.e. higher prices of import products and services. Core inflation in Serbia (i.e. inflation excluding the prices of food, energy, cigarettes and alcohol) participates in our CPI with 46% and it reached its maximum of 11.3% y-o-y in March this year. **It is now on a downward trajectory, having returned to a single-digit level of 9.9% y-o-y in June.** A somewhat higher contribution to y-o-y core inflation stemmed from the prices of goods compared to the prices of services and considering the structure of our trade in goods, we can conclude that these are products that Serbia imports the most.

Chart O.4.5 **Contributions of products and services to y-o-y core inflation in Serbia**
(in pp)



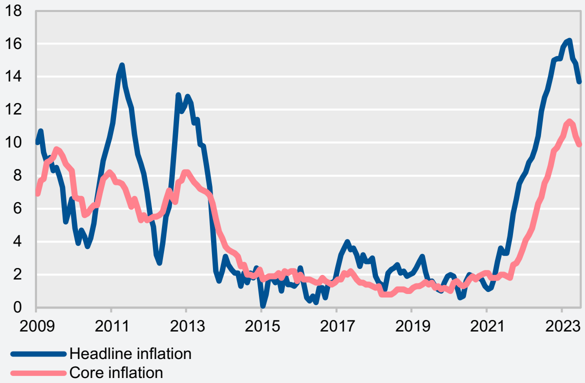
Sources: SORS and NBS calculation.

As inflation was **dominantly driven by supply-side factors** on which monetary policy measures have little or no impact at all, **in its decision-making the NBS sought to influence inflation expectations and thus limit the second-round effects of price growth**. Monetary conditions have been tightened gradually but continuously since October 2021, first by increasing the weighted average rate at reverse repo auctions and then by raising the key policy rate by 5.5 pp from April 2022 to 6.5% in July 2023. By raising the key policy rate further during the summer months, the NBS is trying to avoid early abandonment of restrictive monetary policy so as not to nullify the progress achieved so far in curbing headline and core inflation. Owing to the key policy rate hikes, as well as the preserved relative stability of the exchange rate in the periods of heightened global uncertainty, the pass-through from imported to domestic prices in the current cycle of strengthened global inflationary pressures has been limited, so **core inflation, affected the most by monetary**

[3] Interview Pierre-Olivier Gourinchas, EL PAÍS, 3 July 2023.

policy measures, has been constantly and significantly below headline inflation. As it takes **some time for the disinflationary effects of declining global cost-push pressures to be fully reflected in core inflation, we estimate that this process will gain traction in H2**.

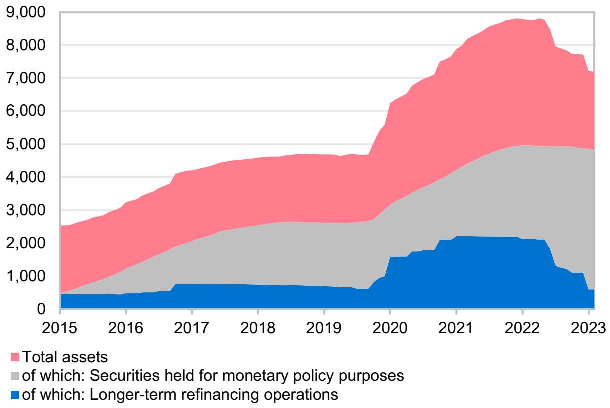
Chart O.4.6 **Headline and core inflation in Serbia**
(in %)



Sources: SORS and NBS calculation.

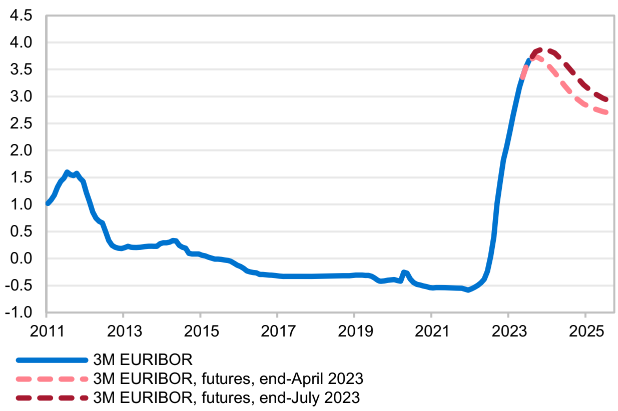
The speed of returning global core inflation to low and stable pre-crisis levels will depend on many factors – the pace of anchoring inflation expectations, labour market factors (the rise in wages and unemployment rate), as well as demand and companies' decisions on the prices of their products and services given the costs and levels of profits margins that were mostly responsible for the relative resilience of global core inflation in the previous period. In any case, for this reason core inflation remains an important risk to the projection as it simultaneously also reflects on monetary policy decisions of central banks.

Chart V.0.12 **Consolidated Eurosystem balance sheet**
(end-of-month, in EUR bn)



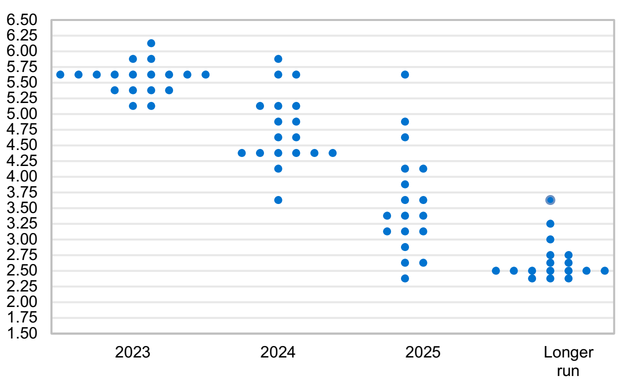
Source: ECB.

Chart V.0.13 **Expected 3M EURIBOR**
(p.a., in %)



Source: Bloomberg.

Chart V.0.14 **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, June 2023.

Monetary policy

Stating that inflation is declining, but also that projections indicate it will remain elevated for a longer period, the **ECB** underlined its commitment to duly bring inflation back to the target and continued to raise its main interest rates during Q2, by 25 bp each in May and June, with an additional 25 bp increase at end-July. Since July 2022, when the tightening cycle began, the main refinancing rate was raised nine times, by a total of 425 bp, reaching 4.25% after the July increase, and rates on lending and deposit facilities 4.50% and 3.75%, respectively. At the same time, during Q2 the ECB continued to unwind its balance sheet, as planned – at a monthly pace of EUR 15 bn, by stopping the reinvestments of principal payments from maturing securities purchased under the **APP programme**. As announced, as of July it entirely discontinued reinvestments of principal payments from maturing securities purchased within the programme. The principal payments from maturing securities purchased under the **PEPP programme** will be reinvested at least until end-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. To preserve monetary policy efficiency and ensure the full transmission of interest rate decisions on the money market, in the July meeting it decided to remunerate minimum required reserves at the 0% rate as of September, instead of the deposit facility rate, which was the case thus far. Given that core and headline inflation projections were revised up in June and that until the end of the projection horizon inflation will trend above the 2% target, further increases of main interest rates are possible, as is a pause on the hikes, 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 3.9% at the end of this, and 3.2% at the end of the following year.

In the May meeting, the **Fed** increased the federal funds rate range by 25 bp to 5.00–5.25%. In June, after ten consecutive increases of 500 bp in all, the range remained unchanged. The Fed chairman said that additional hikes may be needed, adding that the Fed has room to make a pause in the rate hike cycle and wait for additional data and effects of past measures. An additional increase came at the July meeting, when the Fed increased the federal funds rate range by 25 bp to 5.25–5.50%. The Fed underlined that future decisions will be made in due time, taking into account the cumulative effects of monetary tightening, the delay with which the monetary policy impacts economic activity and inflation, and economic and financial movements. The June overview of FOMC members' stance on possible further increases indicates that the majority expects the federal funds rate to be in the 5.50–5.75% range at end-2023,[12] while in upcoming years it should strike a downward trajectory. In addition, the Fed continued to unwind its balance sheet in line with the previously set dynamics, at a monthly pace of USD 95 bn.

The **Bank of England** continued to lift its interest rate, first by 25 bp in May, then by 50 bp in June and afterwards by another 25 bp in August, whereby after 14 consecutive increases since December 2021, the rate reached 5.25% in August, its highest level since 2008. The central bank of **Switzerland** raised its policy rate in June by an additional 25 bp to 1.75%, with a possibility of further hikes at upcoming meetings.

The central banks in the CESEE region pursuing inflation targeting kept their policy rates unchanged during Q2 – Poland at 6.75%, the Czech Republic and Romania at 7.0% each, and Hungary at 13.0%. In Q2 and in July, the Hungarian central bank narrowed its interest rate corridor, which was expanded in October 2022 in conditions of growing uncertainty, through four consecutive cuts in the lending facility rate by a total of 750 bp, to 17.5% in July. Also, in May, June and July the central bank of Hungary trimmed its rate on one-day deposits by 300 bp to 15.0%, noting that the decision is the beginning of monetary policy normalisation. Still, it is necessary to keep the policy rate unchanged.

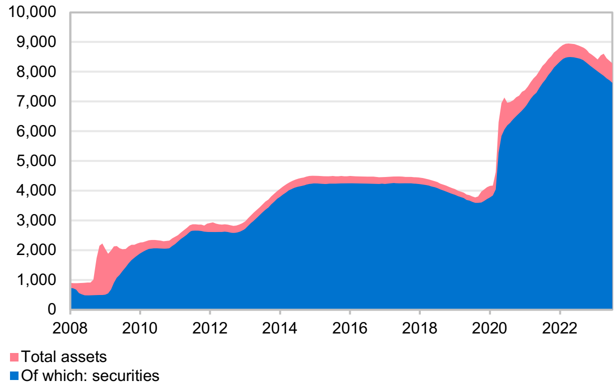
Financial and commodity markets

Yields on ten-year government bonds of advanced European economies edged up mildly during Q2, on average by 0.1 pp. The increase in yields was partly the result of market participants' expectations of continued monetary tightening by leading central banks, given that in the majority of countries inflation is retreating at a slower pace than anticipated. The yields on ten-year US Treasuries increased during Q2 by 0.4 pp. Besides the anticipated further increase in the Fed's interest rate, this was also facilitated by the abated uncertainty in the wake of the agreement on raising the US public debt ceiling.

During Q2, **the dollar gained slightly against the euro** and the majority of other leading currencies in the

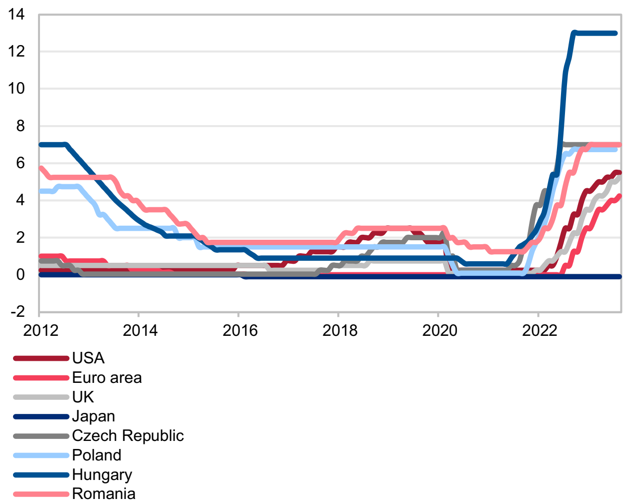
[12] In March, most FOMC members expected the federal funds rate in the range of 5.00–5.25% at end-2023.

Chart V.0.15 **Fed's total assets**
(monthly average, in USD bn)



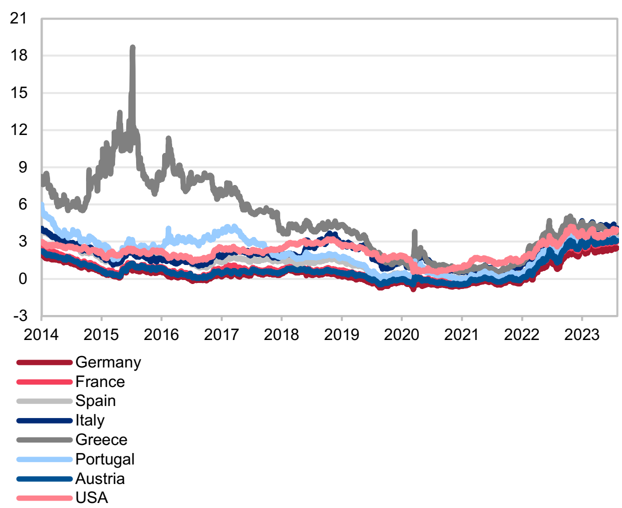
Source: Fed.

Chart V.0.16 **Policy rates across selected countries**
(p.a., in %)



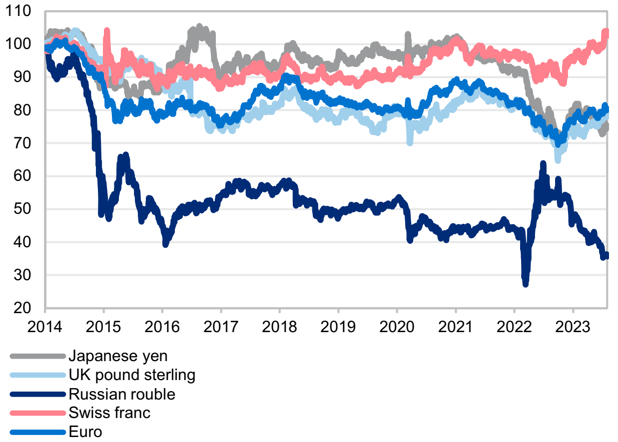
Sources: Central banks of selected countries.

Chart V.0.17 **Yields on ten-year bonds of euro area countries**
(daily data, in %)



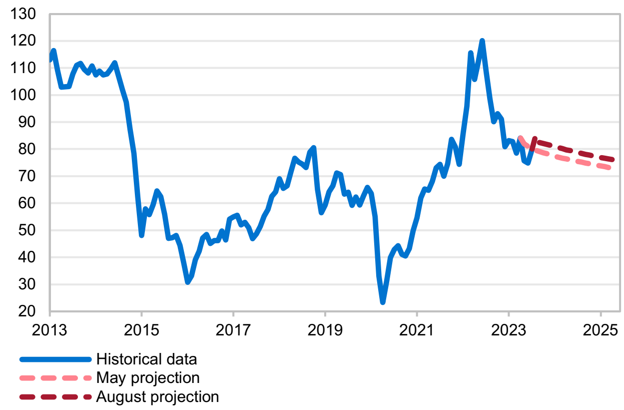
Source: Bloomberg.

Chart V.0.18 **Exchange rates of selected national currencies against the dollar***
(daily data, 31 December 2013 = 100)



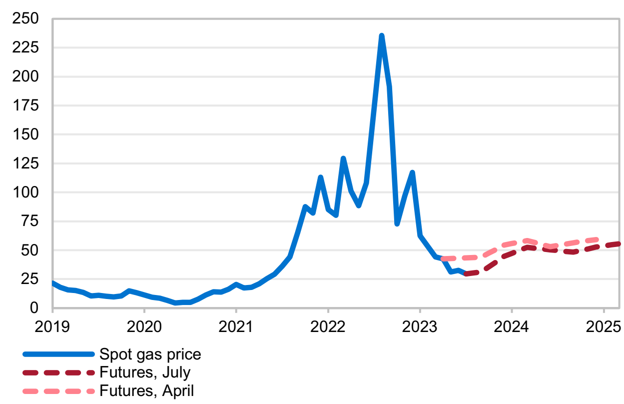
Source: IMF.
* Growth indicates appreciation.

Chart V.0.19 **Assumption for Brent oil prices**
(USD/barrel)



Source: Bloomberg.

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



Source: Refinitiv.

international financial market, supported by the restrictive tone of Fed officials in their addresses. As a safe haven currency, the value of the dollar in the international financial market is positively affected by the global uncertainty in terms of movements in economic activity and the pace of reining in inflation.

Under the dominant influence of the OPEC+ decision to decrease output by 1.16 million barrels per day as of May, the **global price of oil** was on an upward path in early April and came at around USD 88 per barrel in mid-month. Afterwards, the oil price retreated to around USD 81 per barrel at end-April and remained mostly on the downward trajectory until the end of the quarter amid concerns over global growth prospects due to high interest rates and stepped-up oil export from Russia. Quarter-wise, the price of oil in Q2 was 4.1% lower than in Q1, while in y-o-y terms it was down by as much as 30.9%. In July, the oil price went back up again due to Saudi Arabia's decision to cap production by 1 mn barrels a day and Russia's announcement that it would decrease the supply by a half a million barrels a day as of August, hence the price averaged USD 80 per barrel. Consensus Economics expects Brent oil price to move up until December 2023, when it will reach around USD 83 per barrel, and remain unchanged during 2024. The US Energy Information Administration (EIA) also expects oil price growth throughout the projection horizon, therefore the price of oil should reach USD 81 and USD 85 per barrel at the end of 2023 and 2024, respectively. As assumptions of global oil price movements, we used end-July futures according to which the global oil price will average around USD 81 per barrel during 2023 and around USD 77 per barrel during 2024.

With diversification of imports, favourable weather conditions, previous savings in consumption and high filling levels in storage facilities, the **benchmark price of natural gas for Europe** (Dutch TTF hub) moved down in April and May, averaging around EUR 42 and EUR 31 per MWh (equivalent to around USD 490 and USD 360 per 1,000 m^3),[13] respectively. Due to the regular maintenance of gas facilities in Norway, temporary halt in gas supply through the TurkStream, warmer weather and elevated needs for air conditioning, as well as the Netherland's announcement on permanent shut down of Europe's largest gas field in 2023 due to the consequences of earthquakes, the natural gas price rose during June, averaging around EUR 32 per MWh. Even so, the gas price in Q2 2023 was on average 35% lower than in Q1,

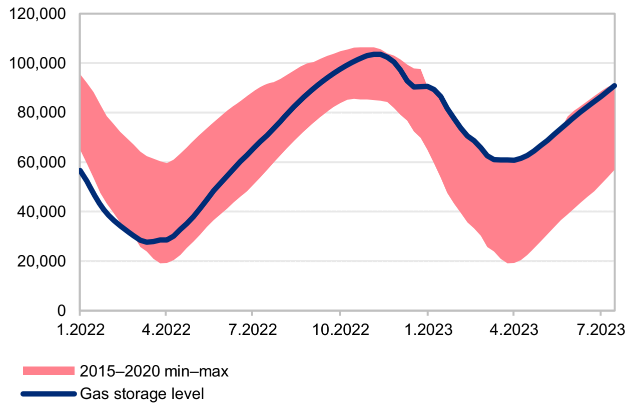
[13] The price expressed in dollars per 1,000 cubic metres of gas was calculated based on the production price of gas expressed in MWh, the EUR/USD exchange rate and an appropriate coefficient (10.55 MWh ≡ 1,000 m^3).

and around 65% lower y-o-y. In July, the natural gas price resumed its downward trajectory and equalled around EUR 30 per MWh on average. As gas storage facilities were rather full for this time of year – more than 70% in June – concerns over supply during winter were abated, therefore the Consensus Economics expects a more moderate increase in gas prices than before, around EUR 44 and EUR 48 per MWh at end-2023 and end-2024, respectively. A similar trend is expected based on market futures, though at a somewhat higher level, hence the natural gas price at end-2023 and end-2024 should be around EUR 45 and EUR 53 per MWh, respectively. These levels are still many times lower than when the energy crisis broke out.

After the decision on shutting down the last three active nuclear power plants in Germany, **the benchmark electricity price for Europe went up** in April and stood at around EUR 110 per MWh on average. In May, the power price resumed a downward path amid the falling natural gas prices and contracted demand, hence it averaged around EUR 85 per MWh, only to go back up to around EUR 98 per MWh on average in June, due to the increase in the natural gas price and dampened electricity output from renewable sources. The **electricity price in the Hungarian stock exchange**, relevant for the domestic market, displayed similar dynamics, averaging around EUR 97 per MWh in June. In Q2, electricity prices in the German and Hungarian stock exchanges were on average lower by 16.8% and 30.4%, respectively, compared to Q1, while relative to the same period last year they decreased by 50.6% and 56.2%, respectively. The electricity price in the Hungarian stock exchange continued up in July as well, averaging around EUR 104 per MWh, while in the same period in Germany it declined and equalled around EUR 90 per MWh. According to market futures, and usual for the season, the electricity price is expected to go up until Q1 2024 when it will reach around EUR 145 per MWh. It will then decline in Q2 2024 to around EUR 123 per MWh, only to rise again by end-2024 to around EUR 155 per MWh. For comparison's sake, before the current energy crisis, the price of electricity trended at around EUR 50 per MWh for years.

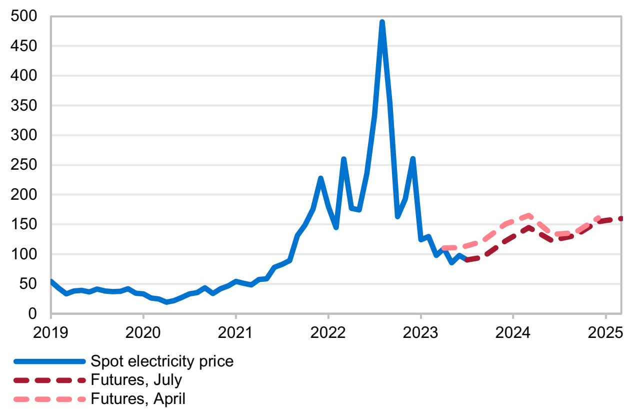
After the initial increase in April, the **price of thermal coal** was dominantly on the downward path during Q2 amid lower demand, and equalled on average around USD 139 per tonne in June, down by 25.5% from end-Q1 and at its lowest level in two years. In July, the coal price edged up slightly, by 0.9% on average relative to June and, according to Consensus Economics' expectations, it

Chart V.0.21 **EU gas storage levels**
(mn m^3)



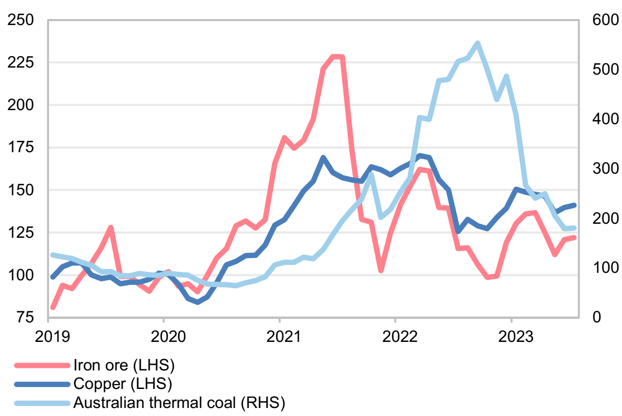
Source: Bruegel.

Chart V.0.22 **European price of electricity**
(EUR/MWh)



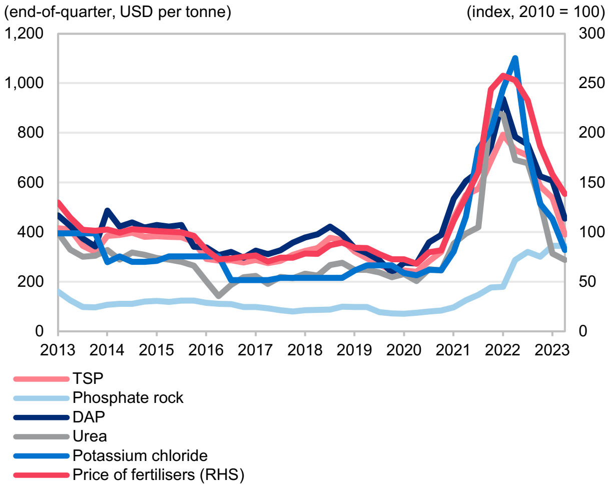
Source: Refinitiv.

Chart V.0.23 **Selected commodity prices in the global market**
(index points, 2019 = 100)



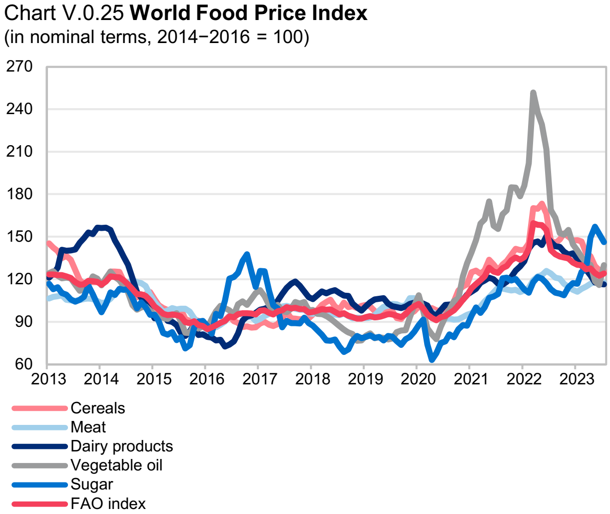
Source: Commodity Prices, World Bank.

Chart V.0.24 **Global prices of mineral fertilisers**



Source: World Bank.

Chart V.0.25 **World Food Price Index**



Source: UN FAO.

will continue up until end-2023, when it will reach USD 155 per tonne, whereupon it will turn down again and subside to around USD 112 per tonne in Q2 2025.

Most mineral fertiliser prices continued to subside, reflecting subdued prices of natural gas and ammonia, used as inputs in mineral fertiliser production. At end-Q2, they were around 12.5% lower than at end-Q1 and also at their lowest level in two years. With such movements, mineral fertiliser prices came even closer to their multiyear averages, thus helping to alleviate cost-push pressures in the production of primary agricultural commodities. However, worsening geopolitical relations and, by extension, higher energy prices, notably those of natural gas, can have an adverse effect on mineral fertiliser prices in the coming period, while the realisation of Russia and Belarus' initiative to remove sanctions on mineral fertiliser export could work in the opposite direction.

Under the impact of weaker performance in China's industrial and construction sectors, and increased inventories of industrial metals in the London stock exchange, the prices of the majority of **metals and minerals** remained on the downward trajectory in April and May, with the exception of aluminium, lead and tin prices, which edged up in April, primarily owing to stepped-up production of electric cars. However, most metals and minerals prices rose in June, after a better industrial outcome in China. Quarter-wise, metals and minerals prices at end-Q2 were 6.6% lower than at end-Q1, and 12.5% lower in y-o-y terms. The prices of most metals and minerals continued up in July, driven by higher prices of tin, copper and the iron ore. Consensus Economics expects the index of global base metals prices[14] to continue up until Q1 2024, thereafter remaining largely unchanged until end-2024, only to resume its downward path during 2025.

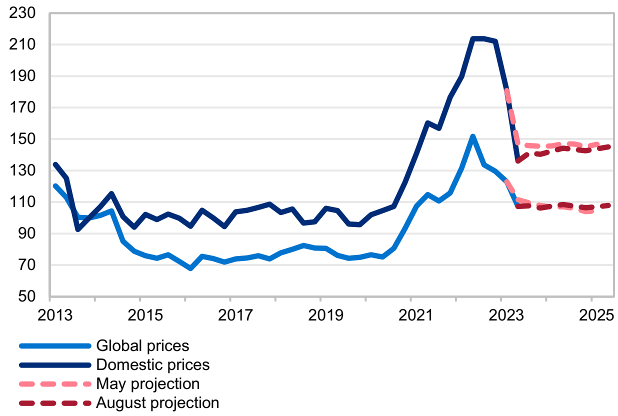
Global food prices, measured by the FAO index, rose moderately in April – for the first time in a year, with growth being driven by higher sugar and meat prices. In the remainder of the quarter, food prices resumed a downward path and at end-Q2 they stood 3.7% lower than a quarter earlier. The fall was facilitated by the lower prices of plant oils (12.1%), triggered by subdued import demand, soybean harvest and higher inventories of sunflower and rapeseed oils, and lower prices of cereals (8.6%). On the other hand, due to reduced global

[14] 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).

availability and elevated uncertainty as to weather conditions going forward, sugar prices were as much as 19.8% higher at end-Q2 relative to end-Q1. Meat prices also went up (2.8%) on account of increased import in Asia and contracted supply. Global food prices rose 1.3% in July, which is entirely attributable to the higher prices of plant oils (12.1%).

The **prices of primary agricultural commodities continued to decline in the global market in April and May** under the impact of high inventories and information about favourable weather conditions in farming regions in the northern hemisphere. Still, **in June the prices of cereals in the global market trended up** amid prolonged restrictions on cereal import from Ukraine, imposed by the European Commission in Ukraine's five EU neighbours, as well as heightened uncertainty as to the extension of the Black Sea Grain Initiative. Nonetheless, they were 12.7% lower at end-Q2 than at end-Q1. Growth in cereal prices continued in July, dominantly on account of the Russian suspension of the Black Sea Grain Initiative. We based our assumptions of future primary agricultural commodity prices on market futures, and we expect y-o-y prices in Q4 2023 to be around 18% lower and in 2024 almost unchanged.

Chart V.0.26 **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. We now assume that the domestic agricultural production will post a rise of around 8% this year, i.e. that it will be average, which is an improvement on our May expectations, when we assumed 5% growth. That the agricultural season will be better is primarily indicated by the 20% higher wheat production compared to last year, as well as by weather conditions conducive to the production of corn and industrial plants, despite heavy storms inflicting significant damage to crops in some parts of the country.

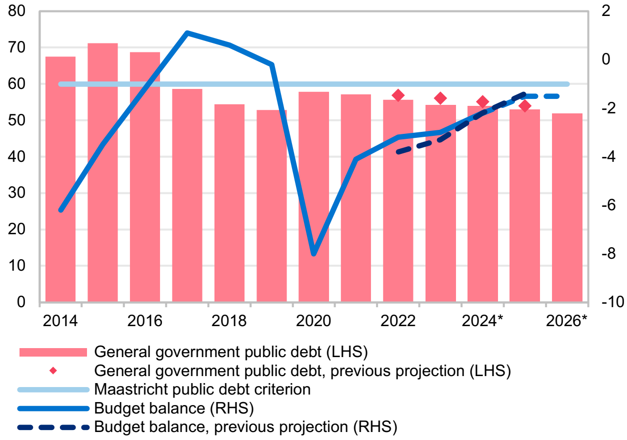
Adjustment of natural gas and electricity prices in the domestic market continued during the year due to elevated energy prices in the prior period, in order to avoid major losses to energy sector companies. Together with the regular adjustment of excises on cigarettes and the anticipated rise in utility services prices, the adjustment of energy prices for households ought to result

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

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

Source: Ministry of Finance.

Chart V.0.27 **Budget balance and general government public debt**
(in % of GDP)



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

in **administered price** growth of 11.5% in 2023. These prices are set to go further up next year as well, in line with the plan defined in the arrangement with the IMF, hence the increase in administered prices in 2024 should equal 7.0% and then slow to 5.5% in 2025. Still, any increase in household and corporate energy prices next year will depend on the movements of gas and electricity prices in the global market, which continued to decline in the meantime.

As for increase in consumer demand, the key sources will be the same, i.e. the wage bill, pensions and inflow from remittances, while based on the NBS and ECB's past monetary tightening, consumption from credit sources is expected to decline. Speaking specifically about **labour market factors**, our projection is that the wage bill will be nominally higher by around 15% this year, as a result of the minimum wage increase early in the year, and that employment growth will continue, as will wages in the public and private sectors. The wage bill will then slightly decelerate in the following years, to around 9% a year, but will remain a key source of consumer demand.

According to the Fiscal Strategy for 2024 with Projections for 2025 and 2026, the **medium-term fiscal framework** has been defined with a particular emphasis on gradually abandoning the accommodative fiscal policy with the aim of narrowing the general government deficit in line with the new bounds, defined in the new set of fiscal rules (to 1.5% of GDP in 2025), in order to sustain the downward public debt trajectory of 51.9% of GDP in 2026. Special fiscal rules define the wage and pension policy that will limit their share in government expenditures. In 2024–2026, up to 6.6–6.9% of GDP is to be earmarked for capital investment, primarily channelled to public infrastructure and the energy sector. Relative to the previous programme in the Revised Fiscal Strategy for 2023 with Projections for 2024 and 2025, the consolidated deficit estimate for 2023 has been revised down, from 3.3% to 3.0%, while the share of public debt in GDP was trimmed by 1.8 pp to 54.3%. In our judgement, such movements in public finance could reflect positively on the **country's credit rating and risk premium**. Also, this year's deficit being lower than projected in the previous fiscal strategy reflects better than anticipated fiscal movements in the year to date, thanks to revenues exceeding expectations, primarily on account of increased corporate profitability in the past year, as well as savings on funds that were intended for overcoming the energy crisis. At the consolidated level, in the first six months a surplus of RSD 45 bn was recorded (1.2% of GDP), while general government public debt equalled 52.1% of GDP at end-June, which is 3.5 pp lower than at end-2022. A lower than anticipated deficit creates room for support to domestic investment and consumption, without jeopardising the downward trajectory of public debt or causing higher inflationary pressures. Accordingly, we estimate that an unscheduled 5.5% wage increase in one part of the public sector and pensions, announced for September and October, as well as one-off aid, will not pose a threat to either the downward trajectory of public debt or inflation.

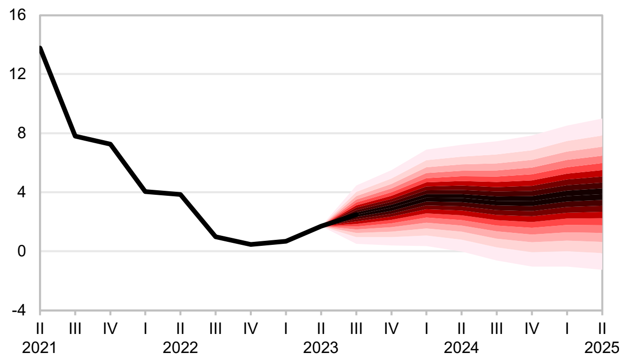
GDP projection

According to the SORS preliminary data, despite persistent global uncertainty and continued tightening of global financial conditions, GDP growth stepped up in Q2 to 1.7% y-o-y (from 0.7% in Q1). This growth was underpinned primarily by the recovery of the construction sector, as well as by the gradual weakening of the effects of high cost-push pressures in production and the resolving of global supply bottlenecks. According to our estimates, GDP growth accelerated to 1.0% s-a relative to Q1. We expect Serbia's GDP growth to gather traction in the remainder of the year in response to further easing of production costs and the consequent improvement in investment and consumer confidence. We still expect GDP growth rate at the level of the year in the 2.0–3.0% range, although it now seems more likely to settle closer to the lower bound of the projected range. The reason for this is the weaker production sector performance of our key trade partners, particularly Germany, which will most likely affect our manufacturing and net exports in the remainder of the year. Nevertheless, we believe that in 2023 overall, net exports will be a greater contributor to economic growth than expected in May, mainly because of the sustained high growth rates of the export of goods and services and the fall in imports in Q2. A positive contribution is also anticipated from fixed investment, owing to increased corporate profitability, high FDI inflows and government investment in transport infrastructure. Household consumption will act as another positive contributor thanks to employment and wage growth, though to a lesser extent than forecast in May, which is good from the aspect of inflation.

With the further recovery of the global economy, and thus of external demand, as well as the expected acceleration of the implementation of planned investment projects in the field of transport, energy and utility infrastructure, from 2024 we expect Serbia's GDP to step up to 3.0–4.0%, and return thereafter to the pre-pandemic growth path of around 4% p.a.

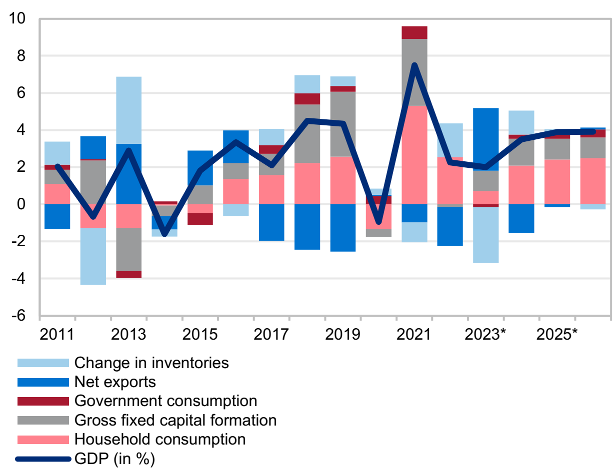
On the **expenditure side**, a positive contribution to GDP growth this year is expected from **private consumption**

Chart V.0.28 **GDP growth projection**
(y-o-y rates, in %)



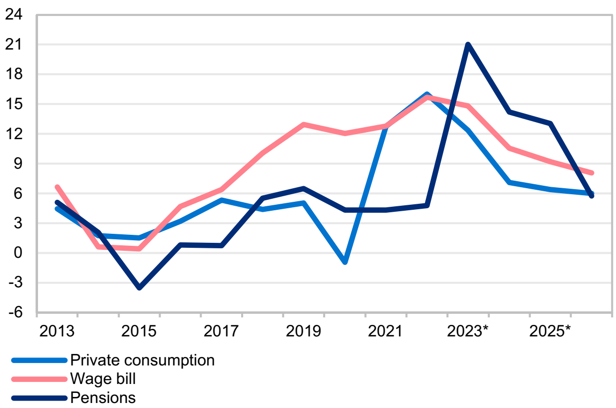
Source: NBS.

Chart V.0.29 **Contributions to real GDP growth**
(in pp)



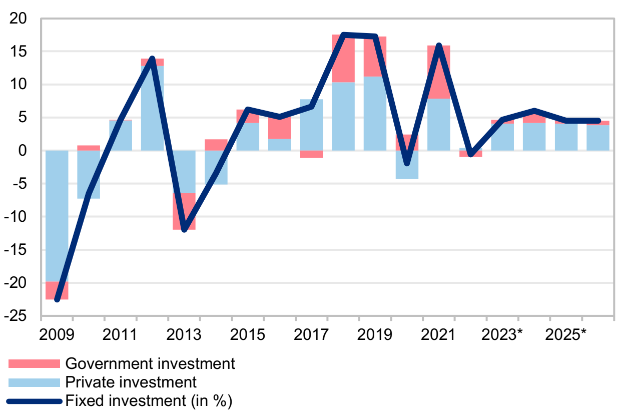
Sources: SORS and NBS.
* NBS estimate.

Chart V.0.30 **Rate of growth in private consumption and its sources**
(nominal y-o-y rates, in %)



Sources: SORS and NBS calculation.
* NBS estimate.

Chart V.0.31 **Fixed investment**
(y-o-y growth, in pp)



Sources: SORS and NBS calculation.
* NBS estimate.

(0.7 pp), because of the sustained favourable tendencies in the labour market, characterised by the further rise in employment and wages and a fall in unemployment. However, the movement of key consumption indicators in H1 suggests that private consumption growth this year will most probably be weaker than expected in May, and that its pace will be slower than that of total GDP, which should help soften inflation in the period ahead. Weaker consumption growth reflects the sluggish rise in disposable income due to the still high outlays for food and energy and tighter financial conditions in the domestic and euro money market. Higher interest rates in the euro money market reflect primarily on the higher repayment cost of housing loans, which are mostly euro-denominated, thus weighing down on disposable income, while higher interest rates in the domestic market reflect chiefly on lower demand for new loans intended for consumption. This will be partly offset by the announced upward revision of public sector wages and pensions and by the one-off fiscal support measures, the majority of which is planned by the medium-term fiscal framework. As the effects of cost-push pressures wane and inflation slows down, on the one hand, and employment and wages continue up, on the other, private consumption should accelerate in 2024 and increase its contribution to GDP growth to over 2 pp.

We expect a **mildly negative contribution of government consumption (around 0.2 pp) this year** on account of reduced outlays for the procurement of goods and services in real terms. As the general government deficit is expected to narrow further, government consumption is likely to provide a mildly positive contribution to GDP in the years to come.

We expect that **private investment will give a positive contribution to GDP growth this year (around 1 pp)**, despite globally increased risk aversion amid persistent geopolitical tensions, tightened financial conditions and unfavourable global growth prospects. Own funds remain the main source of private investment financing, supported by increased corporate profitability that amounted to RSD 864 bn in 2022 having risen by 26% from the previous year,[15] as well as by the high FDI inflow, which will fully compensate for the lower investment financing from credit sources that have become costlier, above all because of continued monetary tightening by the ECB. The completion of important government-financed projects in transport infrastructure

[15] See Text box 3, p. 34.

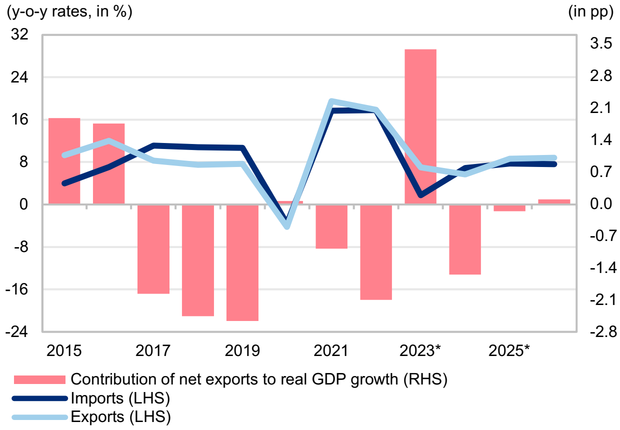
in Q2, and their expected continuation in the remainder of the year will result in a mildly positive contribution of government investment at the level of the year (around 0.1 pp). The expected further reduction of production costs, easing of global supply bottlenecks and sustained high FDI inflows should boost Serbia's production capacities, notably in export-oriented sectors. This, along with the expected stepped-up implementation of transport and utility infrastructure projects and the planned energy sector investments, should prop up the contribution of total fixed investment to around 1.2 pp p.a. in the next three years.

With the normalisation of prices and availability of food and energy and the gradual easing 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 **inventories to provide a negative contribution to GDP this year**, to recover in some degree next year and to exert an almost neutral effect thereafter.

High growth in the export and a fall in the import of goods and services in real terms extended into Q2, resulting in a **current account deficit of only 1.6% of GDP** in H1, which is by 81.8% lower than in the same period of 2022. The y-o-y growth in goods exports in euro terms (9.3% in H1) is driven primarily by electricity, but also manufacturing, where most of the branches continue to record growth despite dampened external demand, chiefly thanks to constantly expanding export capacities. Besides, the export of services, notably ICT, continues to grow and so is the surplus on trade in services. At the same time, goods imports in euro terms declined by around 5%, reflecting lower import of intermediate goods, notably energy, but also equipment. Given the above, we now expect the **strongest positive contribution to this year's GDP to come from net exports (over 3 pp)**. In 2024, net exports are expected to give a negative contribution (around -1.5%) due to the anticipated increase in the import of equipment and intermediate goods for the needs of investment project implementation. This will be offset to some degree by the growth in exports, driven by new investments into export-oriented sectors and the recovery of external demand, resulting in an almost neutral contribution of net exports in the medium run.

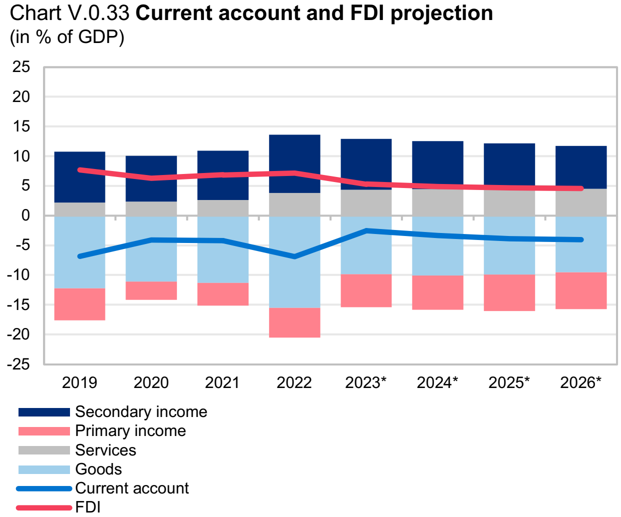
As foreign trade developments, and to a lesser extent the inflow of remittances, outperformed our expectations in Q2 as well, we have again **revised down the current**

Chart V.0.32 **Real export and import growth**



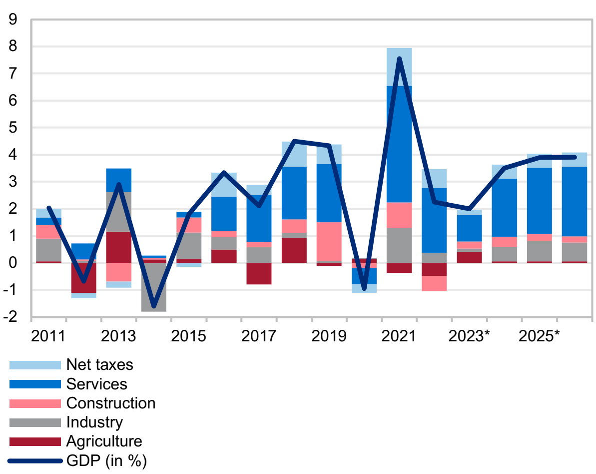
Sources: SORS and NBS.
* NBS estimate.

Chart V.0.33 **Current account and FDI projection**



Source: NBS.
* NBS projection.

Chart V.0.34 **Contributions to real GDP growth, production side**
(in pp)



Sources: SORS and NBS.
* NBS estimate.

account deficit projection for this year, meaning that **we expect additional narrowing of the external imbalance**. The share of the current account deficit in GDP is now projected at around 2.5%, instead of the 4.5% forecast in May, though we emphasized even then that there was a great probability that the deficit could turn out lower than projected.

The medium-term profile of the current account deficit will be largely determined by structural factors. Further investment growth, notably the planned large-scale investments in infrastructure, will push up equipment imports, which is why the real growth in the imports of goods and services in the next three years is estimated at around 7% p.a. on average. At the same time, as a result of past investment into tradables, and most of all high FDI inflows, as well as the anticipated recovery of external demand, we expect real exports of goods and services to grow in the next three years at the annual rate of around 8% on average. The projection assumes that the secondary income surplus will not exceed the long-term average of around 9% of GDP, while the expected trajectory of net FDI inflows of around 5% of GDP will make the yields in respect of their ownership a solid expenditure item on the primary income account, whose deficit will therefore moderately increase. All of this should result in the gradual trending of the share of the current account deficit in GDP to 4% in the medium term, a level that ensures the country's external sustainability. When it comes to FDIs, we expect them to remain highly geographically and project-diversified and mostly directed to export-oriented sectors.

On the **production side**, due to their high share in GDP structure, the largest positive contribution to GDP growth this year is expected from **services**, collectively, in the face of divergent movements of individual service sectors in H1. The pick-up in services is supported by the rising personal consumption, as a result of the preserved labour market, but here, as in the case of consumption, the new projection envisages a somewhat lower contribution compared to the previous projection, equalling around 1 pp. Starting from 2024 the contribution of services should step up to over 2 pp, aided by the expected rise in disposable income amid subsiding global inflationary pressures, and particularly by the stabilisation of food and energy prices. According to our estimates, **net taxes** will also lend a positive impulse of around 0.2 pp this year and 0.5 pp next year, supported by the effects of e-fiscalisation.

A positive contribution to economic growth this year and beyond should also come from production sectors. When it comes to **agriculture**, with the exception of the production of wheat and some fruits (raspberries, sour cherries), we still do not have precise information on the extent to which this year's season will outperform the previous one, as this largely depends on the yields of autumn crops, notably corn and industrial plants, which make up around one third of total agricultural production and which are sensitive to weather conditions in July and August. However, with the SORS preliminary data indicating that this year's wheat production is about 20% higher than last year's and the amount of precipitation favours the yield of autumn crops (despite the damage in some areas caused by inclement weather), we have now assumed that this year's agricultural season will be average, that is about 8% higher than last year's (with a 0.4 pp contribution to GDP growth), while in May we assumed that it would be better than last year by about 5%. For the coming years, we assume the continuation of mild growth in agriculture, as a result of the modernisation of equipment and greater application of agrotechnical measures and better-quality seeds and mineral fertilisers, which should lead to a slight positive contribution of agriculture.

A positive contribution to GDP this year is also expected from the **construction industry** (0.3 pp), thanks to the increase in government investments in transport infrastructure, and partly to the low base from the previous year. That contribution should accelerate in the coming years (to around 0.4 pp), chiefly on the back of the planned implementation of infrastructure projects in transport, energy and utility infrastructure.

We expect a mildly positive contribution this year (about 0.1 pp) from the **industry**, primarily as a result of the recovery of production in the **energy sector** and the pick-up in the **mining sector** amid greater exploitation of coal and metal ore, especially copper. On the other hand, manufacturing will provide a negative contribution, as it will fall victim to lower production activity in our most important trade partners, particularly Germany. In the years ahead, we expect industrial growth to accelerate, adding to GDP around 0.6 pp a year, supported by the activation of new and expansion of existing capacities in the **manufacturing industry** and the rebound of external demand, as well as by the structural reforms in the energy sector envisaged by the new arrangement with the IMF.

Inflation projection

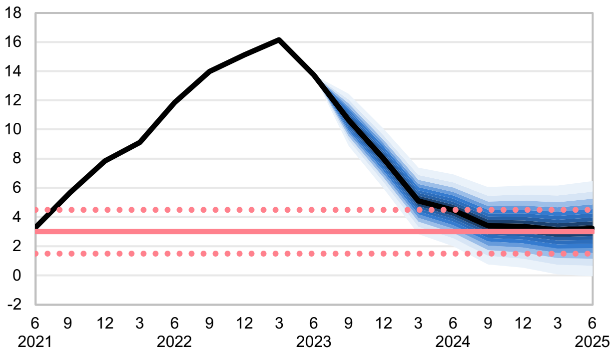
Our latest inflation projection is in line with the fact that global inflationary pressures, though still relatively high, are abating in a number of sectors, and are expected to continue doing so going forward. According to the August central projection, we expect **y-o-y inflation to continue**

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

	Average inflation	
	2023	2024
IMF	12.4	5.3
Consensus Economics	10.9	4.5

Sources: The above institutions.

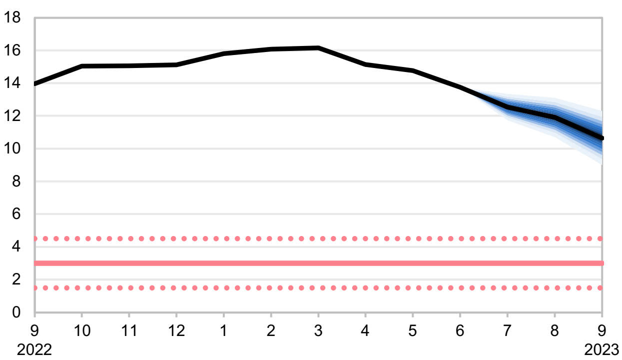
Chart V.0.35 **Inflation projection**
(y-o-y rates, in %)



Source: NBS.

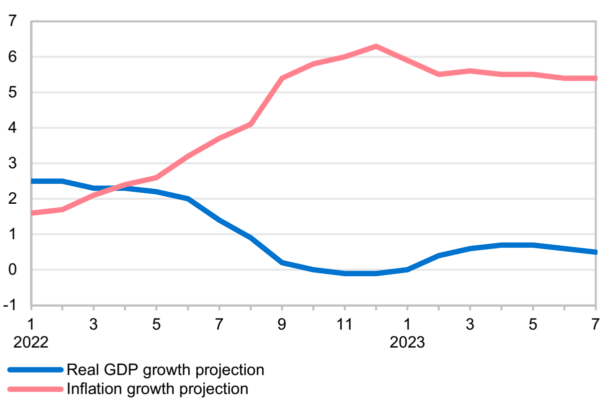
The fan chart depicts the probability of various inflation outcomes in the next eight quarters. The central projection is within the darkest central band and the probability that inflation would lie in it is 10%. Each following shade includes 10% probability, which means that outturns of inflation somewhere 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.0.36 **Short-term inflation projection**
(y-o-y rates, in %)



Source: NBS.

Chart V.0.37 **GDP and inflation projections of the euro area for 2023**
(in %)



Source: Consensus Economics.

slowing down in Serbia and, after retreating to around 8% at end-year, to return within the target tolerance band in Q2 2024. This will be facilitated by a series of factors, notably past monetary tightening, further weakening of global cost-push pressures and the high base from energy and food prices, slowdown in imported inflation and lower demand amid slackened global growth. **Relative to the previous projection from May, we now expect inflation to trend at a somewhat lower level, notably in 2024**, especially in view of the additional monetary tightening.

As in the prior projection, **a key assumption underpinning the anticipated declining trajectory is the decrease in inflation across the world, primarily 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, which is partly already visible if we observe monthly growth rates in prices. Both demand and supply side factors contribute to the decrease in imported inflation. **As for the supply side**, the fall in global energy prices is of importance, especially gas prices in the euro area which soared drastically due to the conflict in Ukraine; also relevant are the lower global food prices, better functioning of global supply chains and a fall in the costs of container transport. **On the demand side**, households' savings accumulated during the pandemic lockdowns is gradually being exhausted, fiscal aid programmes for citizens have been terminated in large economies, and the effects of rising interest rates amid restrictive monetary policies of central banks are being increasingly felt.

However, concerns over global inflation are still present – when would inflation be brought down to central banks' target levels in a sustainable way, how much longer is needed for central banks to tighten their monetary policy to ensure this, and at what pace will the already adopted monetary policy measures be passed through. Though inflation is receding in a number of countries, it is still relatively high, with core inflation being the one to decrease more slowly. Core inflation is of particular interest to central banks, which are worried over second-round effects and the possible triggering of the inflationary price and wage spiral. Last year, inflation kept taking central banks by surprise and exceeding their projections, hence caution is present during this year, when inflation is expected to retreat more significantly in H2, driven primarily by energy prices, as well as food prices due to the high base effect.

World food prices are on a downward trajectory and stand more than 20% below their maximum from last

March. A further decline in global food prices is expected after this year's harvest for all cereals and industrial plants. Around mid-July, the price of wheat went up after Russia refused to extend the Black Sea Grain Initiative, however, already at the end of the month it retreated to lower levels in view of good harvest prospects in the USA and Latin America. 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 cost of energy, as well as other agricultural inputs, notably **mineral fertilisers**.

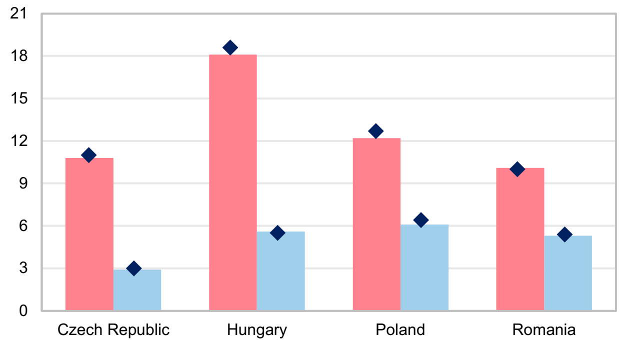
Expectations are similar for the **global oil price**, i.e. that it would be on a downward path during the projection horizon, although the trajectory was moved up in mid-July when the global oil price exceeded USD 80 per barrel. Analysts estimate that the effects of decreased output by OPEC+ countries are starting to be felt in the market, as well as that the slow dynamics of global growth will limit price growth. The anticipated decrease in the oil price in the international market next year could be conducive to a further decline in Serbia's y-o-y inflation.

Consistent with the global slowdown and tighter financial conditions, we expect disinflationary pressures on account of **external demand** to persist throughout the projection horizon. This year's euro area growth is projected at only 0.5%, mostly because of the recession in Germany, driven by a fall in manufacturing. By extension, this will also affect us the most. 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 Q1 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 this year, 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 the negative territory in Q2 2023 and stay there until end-year due to the strong base effect, only to become almost neutral by the end of the projection horizon.

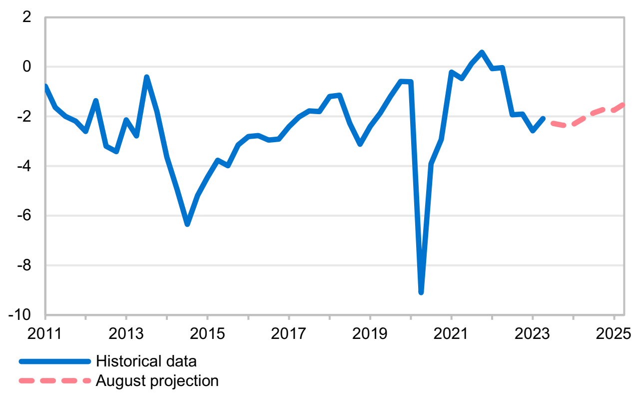
We expect **fruit and vegetable prices** to gradually return from the current relatively high level to their long-term trend (reflecting a rise in the prices of non-food products and services). Namely, due to subdued supply after last

Chart V.0.38 **Projection of consumer price growth**
(y-o-y rates, in %)



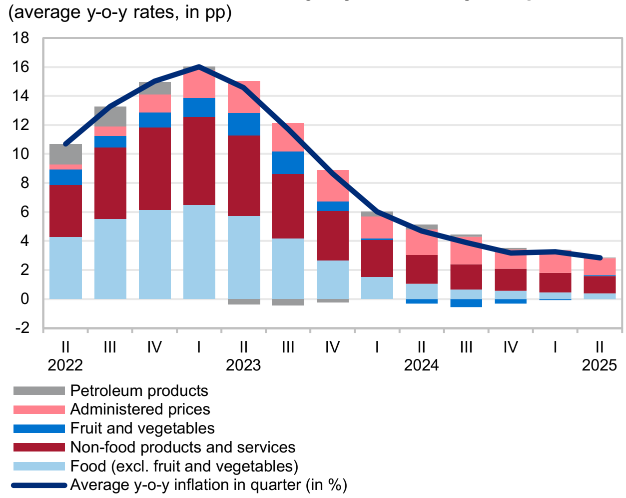
Source: Consensus Economics.

Chart V.0.39 **Output gap projection***
(in % of potential output)



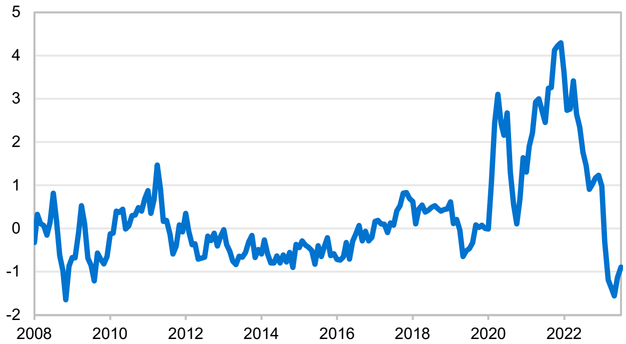
Sources: SORS and NBS.
* Output gap is estimated on the basis of NAVA.

Chart V.0.40 **Contributions to y-o-y inflation by component**
(average y-o-y rates, in pp)



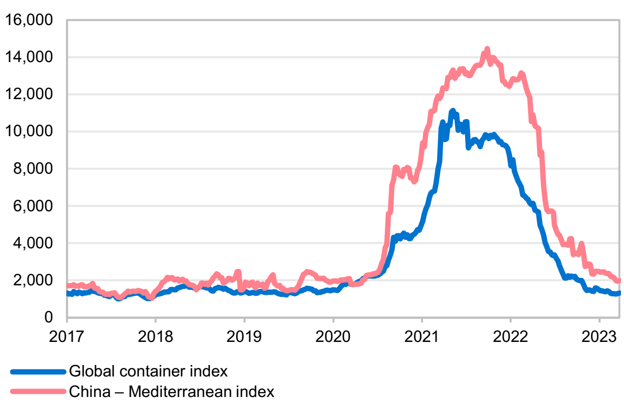
Source: NBS.

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



Source: Federal Reserve Bank of New York.

Chart V.0.42 **Container transport price**
(in USD)



Source: Freightos.

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. The contribution to y-o-y inflation has been relatively high since the start of the year. 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 gradually – initially to zero in Q1 next year, and then to step into the negative territory, i.e. work towards a reduction in y-o-y inflation.

The fall in the contribution of **other food prices** will slow inflation further down, as these prices gave the biggest push to y-o-y inflation growth among individual inflation components. Growth in the prices of food products will lose steam under the impact of the high base from industrial food products and lower cost-push pressures in food production due to the weakening of cost-push pressures from the international environment and deceleration of imported inflation. We estimate that the contribution of food prices to y-o-y inflation will be steadily declining until the end of the projection horizon, by around 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 the deviation from trend of the ratio of input prices to prices of final food products). This gap began to close in Q3 last year, and continued in Q4 and early this year, with additional increases in food prices and falling prices of primary agricultural commodities. In Q2 it entered the negative territory. 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 and the rising profit margins.

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). Imported inflation is now a factor whose effect on non-food products will weaken considerably over the projection horizon. Also, with the reduction in prices of international transport and industrial raw materials, resolved supply bottlenecks, subdued aggregate demand and reduced inflation expectations, we expect pressures on the domestic prices of non-food products to abate and the contribution of this 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 11.5% this and 7.0% next year, their contribution to y-o-y inflation will decline gradually – from 2.2 pp at end-2023 to 1.3 pp at end-2024.

Risks to the projection

The risks to our new inflation and GDP projection are still mainly associated with factors from the international environment, notably the global growth outlook, persistence of global inflation and by extension the degree of monetary tightening by leading central banks, and to an extent from geopolitical relations and global energy and primary commodity prices. When it comes to factors at home, the risks to the projection are mainly associated with the pace of domestic demand growth on account of FDI inflows, investments in energy and infrastructure, the pace of coal production recovery and overall financial conditions. To an extent, a risk to the projection can also come from this year's agricultural season. Overall, we judge the risks to the GDP and inflation projection to be symmetric over the projection horizon.

Though somewhat abated than three months ago, uncertainty surrounding **global economic growth** is still pronounced, with downside risks being dominant. Dampened demand for industrial products acts as a drag on global economic activity, notably in manufacturing. The IMF assessed risks to the outlook as still skewed to the downside due to a series of factors. Firstly, economic growth prospects could weaken due to entrenched inflation which can be additionally triggered by the escalation of the Ukraine crisis and extreme weather conditions, mandating an additional monetary policy tightening by central banks, which could reflect negatively on the financial sector. Another risk is China's economic recovery unfolding more slowly than anticipated, partly as a consequence of unresolved issues in the real estate business, which can spill over across the country's border. Also, a number of countries may face problems in public debt repayment. The effects on the rest of the world, including Serbia, would be manifested primarily through lower external demand and lower prices of energy and primary commodities. Lower external demand may slow manufacturing and export growth at home. In contrast, global growth could even be higher than anticipated, and as for upside risks, the IMF underlines a faster slowdown in core inflation based on the more intensive transmission of indirect positive effects of lower energy prices and decreased profit margins, as well as pressures from the labour market. In that case, the need for monetary tightening would be smaller and the possibility of a soft landing greater. Moreover, it is possible that consumers in leading economies still have not used their savings accumulated during the pandemic, and that fiscal support to households in China could be conducive to the economic rebound at home and globally more than expected. China's faster than anticipated growth would probably drive up energy and other primary commodity prices, and make the fight against inflation

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

Risk	Possible channels of influence	Estimate of the risk effect on GDP relative to the baseline scenario	Estimate of the risk effect on inflation relative to the baseline scenario
Global economic growth outlook	– Slower economic growth globally, and particularly in the euro area, would result in subdued external demand for our exports and lower demand-side pressures on inflation.	↓	↓
Global inflation, notably in the euro area, and monetary policies of leading central banks	– Higher/lower than expected global inflation in the euro area is working in the direction of higher/lower imported inflation, which increases/decreases production costs. – Greater and/or faster than expected monetary policy tightening by leading central banks results in greater investor risk aversion and decreased capital flows to emerging countries, and vice versa.	↕	↕
Escalation of geopolitical tensions and impact on the prices of oil, gas and electricity in the global market (Serbia is a net energy importer)	Heightening of geopolitical tensions and conflict in Ukraine would again inflate global energy prices, pushing up production costs and reducing investment funds. It could also have second-round effects which can partly be offset by lower 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.	↕	↕
Pace of domestic demand growth	Higher/lower disposable income on account of faster/slower than expected wage and employment growth due to higher/lower export demand, and/or higher/lower FDI inflow would result in faster/slower growth in domestic demand and stronger/weaker inflationary pressures. Accelerated activity growth in construction amid faster realisation of infrastructure projects by the government, as well as private investments in conditions of receding inflationary pressures would drive up domestic demand, GDP and inflation.	↑	↑
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.	↑	↓
Agricultural season	A better than assumed agricultural season leads to increased supply of agricultural products and may produce disinflationary pressures and vice versa; a poorer than assumed agricultural season may result in a contracted supply of agricultural products and inflationary pressures.	↕	↕

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

more difficult, entailing stricter monetary policy. Given all the above, we judge the **risks to the GDP projection, and to a lesser degree the inflation projection, to be tilted to the downside based on global economic growth and external demand**.

Despite an abatement in global inflation, the path to sustainable price stability in the world is still riddled by challenges. The tight labour market, especially in developed countries, could drive wage growth up more than anticipated. A key issue in the euro area is whether demand will be reduced enough for companies to absorb the higher wage costs without lifting the prices of their products and services any further, as this is the condition for achieving the inflation target in 2025. If **companies shift the wage increase onto consumers by raising their product prices**, core inflation and inflation expectations would probably go up. This would additionally tighten monetary conditions and their restrictiveness over a longer period, giving rise to negative effects on economic growth and financial stability. Working in the opposite direction on inflation would be the prolonged uncertainty in the financial market, a larger fall in energy prices than expected, which would alleviate pressures on further growth in sales prices and wages, as well as a decrease in demand amid tighter credit conditions and a more efficient monetary policy transmission mechanism.

Renewed inflation growth would lead to a **more restrictive monetary policy by leading central banks than expected**. If leading central banks were to embark on greater monetary policy tightening than what is currently expected, global financing conditions would be even stricter and we would also see growth in risk premium and reduced capital inflow to emerging countries, as well as the emergence of depreciation pressures on that account. In that case, the cost of borrowing in foreign currencies would also be higher in the domestic market, which would then have a dampening effect on domestic demand through lower disposable income for consumption and investments, while the maintained relative stability of the dinar exchange rate would significantly alleviate inflationary pressures based on lower inflow from portfolio investments. If, however, inflation in developed countries does return to the lower levels earlier than expected and/or economic growth slows down more significantly, leading central banks could put a break on monetary tightening, resulting in more favourable financial conditions globally than expected, **hence we assess risks on this account as symmetric**.

Geopolitical tensions are still a risk to our projection. The outbreak of the Ukraine conflict was the main external shock last year, affecting the exacerbation of the energy crisis and revisions to inflation and GDP growth projections, notably in European countries which are our main trade partners. As the conflict is not over yet and could even escalate, causing another surge in energy and food prices, this could trigger a new cycle of inflationary pressures and, in turn, a further tightening of monetary policies in order to curb inflation growth. The EU might struggle with gas supplies for next winter and these issues could be pronounced if demand from China goes up, as this would lead to an increase in EU gas prices. Even if there are no direct effects on the gas price in Serbia, this would still reflect on growth in imported inflation and, by extension, inflation at home. Also, the Black Sea Grain Initiative was not extended in July, which could affect the global prices of food, notably wheat. Further economic and political fragmentation could split countries into trade blocks and cause significant losses to global production, including negative effects on FDI. 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**.

As for domestic factors, risks to the projection pertain to the **pace of growth of domestic demand**. On the one hand, lower export demand yielding a lower income could reflect negatively on the labour market, i.e. result in employment and wage growth unfolding more slowly than anticipated, with negative implications on domestic demand. On the other hand, **Serbia's ability to attract FDI** could turn out to be higher than expected, especially bearing in mind that our FDI inflow projections are quite conservative and that over the past years they performed at record high levels, exceeding our projections. This would lead to further growth in wages and employment. Stepping up the pace of construction works would have the same effect even more than we assume, as was the case in Q2. In conditions of abating inflationary pressures and stabilisation of prices of construction elements and materials, the realisation of state-financed infrastructure projects could be accelerated, as well as that of private investments. In view of this, we judge the **risks to the GDP projection on account of domestic demand to be tilted to the upside**. Also, domestic demand rising faster than expected could drive inflationary pressures up to a degree.

Risks to the projection can also come from **developments in the domestic energy sector, primarily coal production**. Needs for the import of coal, and probably electricity as well if the coming winter turns out to be harsher, pose downside risks to economic growth and upside risks to inflation. Still, energy sector reform and investments are in the focus of the new stand-by arrangement with the IMF, which is why investments in the sector's overhaul may be even larger than assumed. Given all this, the **risks to the economic growth projection on this account are judged to be symmetric**. In addition, in case of lower than assumed global energy prices, some **administered price increases in the domestic market may not take place**, which would be conducive to lower inflation and higher economic growth than in the baseline scenario.

To an extent, another risk to inflation and GDP projection is this year's **agricultural season**, which we assumed to be average, i.e. that yields will be around 8% higher than last year's, and that in the coming year they would improve slightly as a result of equipment upgrade and improvements in agricultural production. In view of this, we judge **risks to the inflation and GDP projection to be symmetric**.

As the main risks to inflation and other economic trends still emanate from the international environment, the NBS will continue to keep a close eye on movements in the international commodity and financial markets and estimate their impact on our economy. Depending on geopolitical developments and movements in key inflation factors from the domestic and international environment in the coming period, the NBS will estimate whether there is a need for further monetary tightening and to what extent, 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 still be delivering price and financial stability in the medium term, as this contributes to sustainable economic growth and, by extension, to a further rise in employment and a favourable investment environment.

Text box 5: Alternative projection scenario – slower than expected global economic growth

According to relevant international institutions, **the IMF and the World Bank, risks to the global economic growth projection remain tilted downward**, **though less so than in the April projection. We have therefore again developed an alternative projection scenario assuming the materialisation of the risk that global economic growth might turn out weaker than expected**.

As the key risk of global economic slack, the IMF underlines a possibly **more persistent global inflation, which would require additional monetary policy tightening**, and could in turn reflect negatively on the financial sector. The second key risk to the projection is **China's slower** than expected **economic rebound**. In this text box, we present an assessment of the impact of the materialisation of these two risks combined on our GDP, inflation and balance of payments.

We assumed that global inflation, above all core (especially in the services sector, which does not reflect the rising external demand for our products), is more persistent than expected due to high profit margins and/or entrenchment of market agents' inflation expectations at a relatively high level, as well as higher than expected wage growth, which calls for a stronger monetary policy response of central banks. This holds true also for the euro area, our most important trade partner. We assumed a slower than expected economic rebound of China taking place in parallel in the remainder of the year. This would further entail a more sluggish economic growth in the euro area than assumed in the baseline scenario, either because of the lower demand for euro area exports or tighter financial conditions. The materialisation of such a scenario would reflect on domestic macroeconomic movements as follows:

• Lower economic growth in the euro area than projected in the baseline scenario would have direct negative consequences for Serbian exports, given that the euro area remains our largest export market despite the higher degree of production and geographic diversification of exports. It should primarily be borne in mind that production activity in the euro area is losing pace, while services have proved more resilient, in part thanks to the savings accumulated during the pandemic, and that Germany, our most important partner in the euro area, is poised for a mild recession even in the baseline. Also, the tightening of the ECB's monetary policy via higher prices of euro-indexed loans and cross-border loans would result in lower disposable income for investment and consumption, which could still in part be compensated by lower energy prices amid contracted global demand. Headwinds to our exports would stem from China's slower growth and consequently lower prices of metals and primary agricultural commodities of which Serbia is a net exporter. **If such a scenario materialised, Serbia's economic growth would turn out around 0.2 pp lower this and 0.5 pp lower next year compared to the baseline**.

• Higher inflation in the euro area than assumed in the baseline scenario would also mean higher prices of imported products and services. Still, lower external demand and a rise in interest rates on euro-indexed loans in the domestic market on account of the ECB's monetary policy tightening would also translate into shrinking demand in the domestic market. Along with lower prices of primary commodities in the global market due to the slower recovery of China, the biggest buyer of primary commodities, this would probably offset the effects of higher imported inflation, so **the impact on inflation at home compared to the baseline scenario would probably be negligible**.

• Lower exports, in value terms, due to contracted external demand and a drop in prices of metals and primary agricultural commodities, as well as larger expenses arising from primary income because of a stronger tightening of financial conditions in the euro area, would drive the current account deficit up. Nevertheless, due to tighter financial conditions in the international market (which would also reflect on the price of euro-indexed loans at home), domestic demand would be lower than in the baseline scenario, i.e. consumption and investment, which would also lead to lower imports of goods and services. Taking all that into account, we judge that **the current account deficit would not suffer any major effects relative to the baseline either**.

We judge that other risks, such as banking sector problems in advanced economies or a potential new escalation of the energy crisis, are now less pronounced. We therefore believe that they are unlikely to compromise the declining inflation path over the monetary policy horizon, and that they can only affect the speed of the decline.

Diagram O.5.1 **Impact of slower global economic growth on domestic macroeconomic developments**

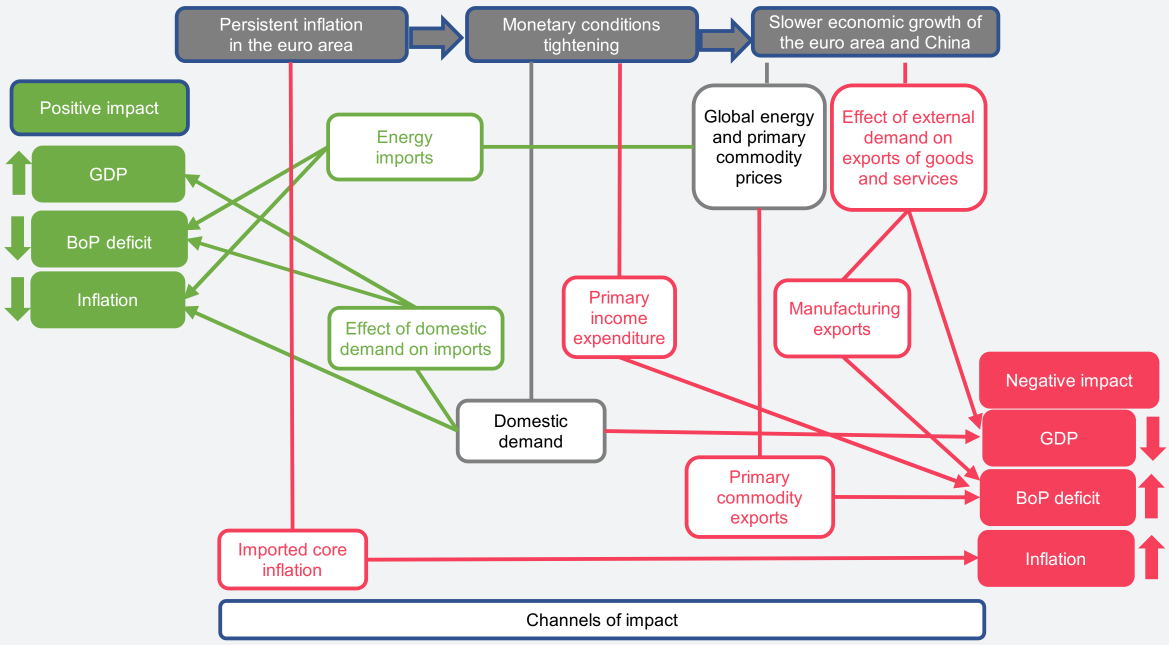


Table A
Indicators of Serbia's external position

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Q1 2023	Q2 2023
EXTERNAL LIQUIDITY INDICATORS (in %)																
FX reserves/imports of goods and services (in months)	9.7	8.4	8.8	7.7	7.6	6.6	6.7	6.2	5.4	5.4	5.7	6.1	5.9	5.2	5.6	6.0
FX reserves/short-term debt	220.6	191.2	299.9	237.3	268.6	294.0	256.4	234.0	202.1	210.9	275.6	228.1	247.1	254.0	282.4	
FX reserves /GDP	32.6	31.7	34.0	32.4	30.7	27.9	29.1	27.8	25.4	26.3	29.1	28.8	30.9	32.2	34.3	35.0
Debt repayment/GDP	12.1	11.3	11.7	12.3	12.6	13.3	11.1	12.3	10.9	11.3	10.0	5.8	9.2	9.6	7.7	
Debt repayment/exports of goods and services	48.8	37.5	37.3	36.0	33.0	32.7	25.2	25.9	22.2	22.9	19.7	12.2	17.0	15.3	11.4	
EXTERNAL SOLVENCY INDICATORS (in %)																
External debt/GDP	68.6	74.5	68.1	76.1	70.4	72.4	73.4	72.0	65.1	62.2	61.4	65.8	68.4	69.4	69.9	
Short-term debt/GDP	14.8	16.6	11.3	13.7	11.4	9.5	11.3	11.9	12.6	12.4	10.6	12.6	12.5	12.7	12.1	
External debt/exports of goods and services	276.9	247.1	216.5	223.6	184.0	177.7	166.8	152.4	132.2	126.0	121.0	138.2	126.6	110.2	109.7	
FINANCIAL RISK EXPOSURE INDICATORS (in %)																
FX reserves/M1	393.4	416.6	429.6	402.1	330.4	278.1	250.2	207.3	176.2	168.0	174.1	130.0	138.1	158.7	176.6	179.9
FX reserves/reserve money	190.5	196.4	207.6	197.9	199.9	196.6	193.7	196.6	185.0	171.4	194.1	157.1	180.0	180.2	204.7	223.5
OPENNESS OF ECONOMY (EXPORTS + IMPORTS)/GDP	65.1	75.3	78.0	84.5	87.1	91.8	96.2	100.6	106.2	108.2	111.5	103.9	116.7	137.5	140.3	122.9
MEMORANDUM: (in EUR million)																
GDP[1)]	32,486	31,546	35,432	33,679	36,427	35,467	35,740	36,779	39,235	42,892	46,005	46,815	53,329	60,371	14,962	17,182
External debt	22,272	23,509	24,123	25,645	25,644	25,679	26,234	26,494	25,526	26,662	28,254	30,787	36,488	41,885	43,578	
External debt servicing	3,922	3,564	4,154	4,130	4,595	4,728	3,960	4,508	4,285	4,849	4,592	2,710	4,886	5,801	1,148	
Central bank foreign exchange reserves	10,602	10,002	12,058	10,915	11,189	9,907	10,378	10,205	9,962	11,262	13,378	13,492	16,455	19,416	21,381	22,585
Short-term debt[2)]	1,852	1,758	612	455	196	99	303	672	844	1,401	1,925	1,585	1,612	2,404	2,164	
Current account balance	-2,032	-2,037	-3,656	-3,671	-2,098	-1,985	-1,234	-1,075	-2,051	-2,076	-3,161	-1,929	-2,266	-4,139	-134	-393

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

Methodological notes:

Foreign exchange reserves/imports of goods and services (in months) - ratio of end-of-period foreign exchange reserves to average monthly imports of goods and services during last 12 months.
Foreign exchange reserves/short-term debt (in %) - ratio of foreign exchange reserves to stock of short-term debt at remaining maturity at end-of-period.
Foreign exchange reserves/GDP (in %) - ratio of end-of-period foreign exchange reserves to GDP.
Debt repayment/GDP (in %) - ratio of debt repayment (excl. early repayment of a part of debt to London Club creditors) to GDP during period under review.
Debt repayment/exports (in %) - ratio of debt repayment (excl. early repayment of a part of debt to London Club creditors) to exports of goods and services during period under review.
External debt/GDP − ratio of end-of-period outstanding debt to GDP.
Short-term debt/GDP − ratio of end-of-period short-term debt at remaining maturity to GDP.
External debt/exports (in %) − ratio of end-of-period outstanding debt to annual value of exports of goods and services.
Foreign exchange reserves/M1 (in %) - ratio of foreign exchange reserves to money supply at end-of-period.
(Exports + imports)/GDP (in %) - ratio of value of exports and imports of goods and services to GDP during period under review.

1) According to ESA 2010. Data for 2022, Q1 and Q2 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.
5. External debt servicing does not include advance debt repayments.

Table B
Key macroeconomic indicators

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Q1 2023	Q2 2023
Real GDP growth (in %)[1)]	-2.7	0.7	2.0	-0.7	2.9	-1.6	1.8	3.3	2.1	4.5	4.3	-0.9	7.5	2.3	0.7	1.7
Consumer prices (in %, relative to the same month a year earlier)	6.6	10.3	7.0	12.2	2.2	1.7	1.5	1.6	3.0	2.0	1.9	1.3	7.9	15.1	16.2	13.7
NBS foreign exchange reserves (in EUR million)	10,602	10,002	12,058	10,915	11,189	9,907	10,378	10,205	9,962	11,262	13,378	13,492	16,455	19,416	21,381	22,585
Exports (in EUR million)	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	10,029	10,186
- growth rate in % compared to a year earlier	-16.1	18.3	17.1	2.9	21.5	3.7	8.8	10.5	11.1	9.6	10.3	-4.6	29.4	31.9	20.6	8.7
Imports (in EUR million)	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	10,967	10,923
- growth rate in % compared to a year earlier	-28.3	8.7	15.7	3.1	4.7	1.8	3.0	5.1	14.0	13.0	10.7	-5.7	26.8	34.7	5.4	-6.7
Current account balance (in EUR million)	-2,032	-2,037	-3,656	-3,671	-2,098	-1,985	-1,234	-1,075	-2,051	-2,076	-3,161	-1,929	-2,266	-4,139	-134	-393
as % of GDP	-6.3	-6.5	-10.3	-10.9	-5.8	-5.6	-3.5	-2.9	-5.2	-4.8	-6.9	-4.1	-4.2	-6.9	-0.9	-2.3
Unemployment according to the Survey (in %)[3)]		20.9	24.9	25.9	24.0	20.6	18.9	16.4	14.5	13.7	11.2	9.7	11.0	9.6	10.1	
Wages (average for the period, in EUR)[4)]	337.8	331.8	372.5	366.1	388.5	379.8	367.9	374.5	394.5	419.8	466.0	510.9	560.2	637.9	709.2	724.9
RS budget deficit / surplus (in % of GDP)	-3.0	-3.2	-3.8	-5.6	-4.9	-5.9	-2.7	-0.2	0.7	0.6	0.2	-8.3	-4.6	-3.3	-1.6	2.1
Consolidated fiscal result (in % of GDP)	-4.2	-4.3	-4.5	-6.4	-5.1	-6.2	-3.5	-1.2	1.1	0.6	-0.2	-8.0	-4.1	-3.2	-1.4	3.5
RS public debt, (central government, in % of GDP)5[5)]	30.9	39.5	42.8	52.9	56.0	66.2	70.0	67.7	57.8	53.6	51.9	57.0	56.5	55.1	51.0	51.7
RSD/USD exchange rate (period average)	67.47	77.91	73.34	88.12	85.17	88.54	108.85	111.29	107.50	100.28	105.28	103.03	99.49	111.86	109.26	107.79
RSD/USD exchange rate (end of period)	66.73	79.28	80.87	86.18	83.13	99.46	111.25	117.14	99.12	103.39	104.92	95.66	103.93	110.15	107.56	107.82
RSD/EUR exchange rate (period average)	93.95	103.04	101.95	113.13	113.14	117.31	120.73	123.12	121.34	118.27	117.85	117.58	117.57	117.46	117.33	117.28
RSD/EUR exchange rate (end of period)	95.89	105.50	104.64	113.72	114.64	120.96	121.63	123.47	118.47	118.19	117.59	117.58	117.58	117.32	117.29	117.23
MEMORANDUM:																
GDP (in EUR million)[2)]	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	14,962	17,182

[1)] At constant prices of previous year. Data for 2022 and Q1 2023 are SORS preliminary estimate. Data for Q2 2023 is SORS flash estimate.

[2)] According to ESA 2010. Data for 2022, Q1 and Q2 2023 are NBS estimate.

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

[4)] 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 Q2 2023 is average of two months.

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

Notes:

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

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Executive Board meetings and changes in the key policy rate

2022

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

2023

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

Press releases from NBS Executive Board meetings

Press release from Executive Board meeting held on 8 June 2023

At its meeting today, the NBS Executive Board voted to raise the key policy rate by 25 bp to 6.25%. It also raised the deposit and lending facilities rates to 5% and 7.5%, respectively.

In making the decision, the Executive Board concluded it is necessary to continue to moderately tighten monetary conditions to pre-empt a surge in inflation expectations and make sure that inflation strikes a downward path and returns within the target tolerance band in the projection horizon. The pass-through of the hitherto key policy rate hikes onto the 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 the 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 the prices at home, and to overall macroeconomic stability amid heightened global uncertainty.

Global inflationary pressures are still a reason for concern even though the global energy prices, primarily of electricity and gas, as well as other primary commodities, have declined, with the indicators pertaining to global supply disruptions and container transportation costs having almost completely returned to the pre-pandemic levels. As stated by the Executive Board, though still relatively high, inflation is gradually declining in a large number of countries. Core inflation is declining more slowly than headline inflation in many countries, due to elevated inflation expectations and labour market factors, notably a further rise in wages. This means that central banks' fight against inflation is not over yet as leading central banks – the ECB and the Fed raised their key rates in May again. This should contribute to the expected further weakening of global inflationary pressures. The Executive Board underscores the need to pursue a cautious monetary policy, notably in light of uncertainties as to the duration of the Ukraine conflict and energy availability and prices going forward. Uncertainties are also associated with the movement of core inflation in a number of countries. An important factor will also be the future monetary policy decisions of leading central banks, given their impact on conditions in the international financial market and capital flows to emerging economies.

Consistent with Executive Board's expectations, inflation reached a peak in March and decelerated to 15.1% y-o-y in April, mostly reflecting the slowdown in food price growth, which was the main contributor to inflation in the prior period. Core inflation (CPI excluding food, energy, alcohol and cigarettes) also slowed, to 11.1% in April. Under the current projection, the Executive Board anticipates that y-o-y inflation will continue to move on a downward path, falling more sharply in H2 2023. Its return within the bounds of the target (3±1.5%) is expected in mid-2024.

In Executive Board's judgement, the factors behind such inflation movements are the effects of past monetary tightening, the waning of effects of the global factors which put an upward pressure on energy and food prices in the past period, the slowing of imported inflation, the onset of the new agricultural season, as well as the stabilisation and expected fall of inflation expectations.

As for economic activity, the real y-o-y GDP growth in Q1 2023 equalled 0.7%, consistent with the flash estimate of the Statistical Office of the Republic of Serbia. Driven by the expansion in energy and mining sectors, industrial production posted y-o-y growth of 1.9% in the period January–April 2023. Favourable foreign trade movements extended into April – y-o-y, euro-denominated commodity exports gained 5.6% in April, while commodity imports lost 14.8%. Within commodity exports, manufacturing and electricity recorded a further rise, while the contraction in imports resulted primarily from lower imports of energy and intermediate goods. The NBS expects economic activity to pick up in the remainder of the year, on the back of a rebound in the euro area external demand, among other things. The recovery of the global economy as of H2 this year and the planned implementation of investment projects, primarily in the areas of road, railway, energy and utility infrastructure, should lead to the acceleration in GDP growth from 2.0–3.0% this year to 3.0–4.0% in 2024, and its return to the pre-pandemic growth path thereafter, of around 4% per year.

The NBS will continue to monitor and analyse trends in international commodity and financial markets and to make future monetary policy decisions depending on the incoming data, taking also into account the expected effects of the past monetary tightening on inflation going forward. The ensuring of price and financial stability in the medium term will remain monetary policy priority in the coming period, along with supporting further economic growth and development, as well as a rise in employment and preservation of a favourable investment environment.

The next rate-setting meeting will be held on 13 July 2023.

Press release from Executive Board meeting held on 13 July 2023

At its meeting today, the NBS Executive Board voted to raise the key policy rate by 25 bp, to 6.5%. It also raised the deposit and lending facilities rates to 5.25% and 7.75%, respectively.

In making such decision, the Executive Board assessed that monetary conditions need to be moderately tightened further to prevent a rise in inflation expectations and ensure that inflation strikes a sustainable downward path and returns within the target tolerance band in the projection horizon. The pass-through of the hitherto key policy rate hikes onto the rates in the markets of money, loans and savings signals the efficiency of the monetary policy transmission mechanism through the interest rate channel.

The weakening of global cost-push pressures has continued, and global prices of energy, food and industrial raw materials are on a decline in y-o-y terms. However, the Executive Board believes that continued moderate tightening of monetary policy is still necessary given that inflation at the global level is showing signs of greater resilience than anticipated. Though inflation is gradually declining in many countries, it is still relatively high. Caution is also mandated by core inflation, which is receding at a slower pace than headline in many countries, due to the elevated inflation expectations and labour market factors, most of all further wage growth. This means that the struggle of central banks with inflation is not yet over and that an increase in policy rates of the world's leading central banks can be expected in the coming period as well. In the euro area, our key trade partner, headline inflation continued down, but its level is still well above the target. Emphasizing its determination to ensure inflation's return to the target, the ECB tightened monetary policy further in June. Inflation is somewhat lower in the United States, which justifies the Fed's decision to keep the policy rate unchanged in June after 10 consecutive increases, without excluding the possibility of further increases in the period ahead. The Executive Board maintains a cautious approach to monetary policy conduct due to the uncertainty regarding the duration of the conflict in Ukraine, as well as the availability of energy resources and their prices in the coming period.

Consistent with the Executive Board's expectations, y-o-y inflation slowed down further, reaching 13.7% in June. Inflation slowdown was supported by petroleum product prices, core inflation that returned to single digits, and food prices. Still, it is important to note that vegetable prices recorded further growth, even though they should typically decline with the onset of the new agricultural season as of May. The main reason for such dynamics is the unfavourable agrometeorological situation (heavy rainfall). While agrometeorological conditions may cause vegetable prices to deviate from the seasonally typical patterns in the coming period as well, i.e. it is possible that they will record a smaller fall during the summer months than usually, the Executive Board expects that y-o-y inflation will stay on a downward path and fall more sharply in the second half of the year. Inflation's downward trajectory will be underpinned by the past monetary tightening, the easing of the effects of global factors driving energy and food price growth in the prior period, the slowdown in imported inflation, and the stabilisation and expected fall in inflation expectations.

Real sector indicators suggest that in Q2 as well economic activity will grow in both q-o-q and y-o-y terms, owing primarily to favourable external trade movements – goods exports (in EUR) increased by 10.5% y-o-y, while goods imports decreased by 11.6% y-o-y in the period January–May. Within exports, a rise is recorded in manufacturing and electricity exports, while the decrease in imports reflects mainly lower imports of energy and intermediate goods.

By maintaining the relative stability of the exchange rate of the dinar against the euro, the NBS significantly contributes to overall macroeconomic stability amid heightened global uncertainty. The NBS will continue to monitor and analyse trends in international commodity and financial markets and to make monetary policy decisions depending on the incoming data, taking also into account the expected effects of the past monetary tightening on inflation going forward. Ensuring price and financial stability in the medium term will remain monetary policy priority in the coming period, along with supporting further economic growth and development, as well as a rise in employment and preservation of a favourable investment environment.

The next rate-setting meeting will take place on 10 August 2023.

Press release from Executive Board meeting held on 10 August 2023

At its meeting today, the NBS Executive Board voted to keep the key policy rate unchanged at 6.5%. The deposit and lending facilities rates were also kept on hold at 5.25% and 7.75%, respectively.

In making such decision, the Executive Board was guided by the continued easing of global inflationary pressures which should lead to a more significant fall in imported inflation. At the same time, the Executive Board expects inflation at home to remain on the downward path and return within the target tolerance band over the monetary policy horizon.

When making the decision, the Board also relied on the fact that monetary conditions were tightened in the previous period and that the full effects of the implemented measures are yet to play out. The Board does not exclude the possibility of a further monetary tightening should that be deemed necessary. The pass-through of the hitherto key policy rate hikes onto the rates in the markets of money, loans and savings signals the efficiency of the monetary policy transmission mechanism through the interest rate channel.

The weakening of global cost-push pressures has continued, mostly on account of declining global prices of energy and primary commodities. Coupled with the resolution of halts in global value chains, this is helping to drive global inflation down, however, its current levels are still relatively high, which can lead to a further monetary policy tightening in some countries, notably in the euro area. Globally, core inflation is showing signs of resilience and is retreating more slowly than headline inflation, under the impact of elevated inflation expectations, further wage increases, record low unemployment rates, and high corporate profit margins. Against such backdrop, many central banks, primarily in developed countries, continued to lift their interest rates, though at a slower pace than in 2022. The NBS Executive Board is also aware of the fact that the anticipated global growth during this and the following year is below the long-term average due to stricter conditions in the international financial market, structural changes caused by the pandemic, low investments and increased public debt. The continuity of Serbia's economic growth needs to be secured in conditions of a global economic slowdown, notably manufacturing in the euro area, our key trade partner. Nevertheless, the Executive Board underlines that a cautious approach to monetary policy conduct is still mandated due to the prolonged geopolitical tensions and persistent – though abated – risks in terms of energy prices and availability going forward, and the global prices of primary commodities.

In line with the Executive Board's expectations, y-o-y inflation in Serbia has been on a downward path since April. Inflation slowdown is largely owed to the weaker growth in processed food and energy prices, but also lower core inflation, which slid to a single-digit level in June. Estimates point to a further fall in y-o-y inflation in July when it could settle around 12.5%, with zero consumer price growth at the monthly level. The Executive Board expects that y-o-y inflation will stay on the downward path and fall more sharply in the remainder of the year, partly on account of the drop-out of the H2 2022 food and energy price hikes from the y-o-y inflation calculation. Inflation's downward trajectory and its return within the target band over the monetary policy horizon will also be underpinned by the effects of monetary tightening, easing of global cost-push pressures, slowdown in imported inflation, and the expected fall in inflation expectations.

Consistent with the Board's expectations, GDP growth gathered pace in Q2, amounting to 1.7% y-o-y, according to the preliminary SORS estimate. This growth is largely due to the recovery of the construction sector and the pick-up in services thanks to a further rise in employment and wages. Growth is also recorded by agriculture, as this year's agricultural season, despite heavy rainfall and damage in some areas, turned out to be better than last year's which was marked by drought. Owing to the rebound in electricity production, industry has given a positive contribution as well, in the face of a slack in manufacturing as a consequence of lower production activity in our key trade partners, notably Germany.

The NBS will continue to keep a close eye on international commodity and financial market developments and make monetary policy decisions depending on the incoming data, also taking into account the expected effects of the past monetary tightening on inflation going forward. Ensuring price and financial stability in the medium term will remain a monetary policy priority, along with supporting further economic growth and development, as well as a rise in employment and the preservation of a favourable investment environment.

At today's meeting, the Executive Board adopted the August Inflation Report with the latest macroeconomic projections that will be presented to the public in detail at a press conference on 16 August.

The next rate-setting meeting will take place on 7 September 2023.

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