National Bank of Serbia

2023

January-June

SEMI-ANNUAL

MONETARY POLICY REPORT

2023

January–June

SEMI-ANNUAL

MONETARY POLICY REPORT

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

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

www.nbs.rs
Number of copies: 60
ISSN 2217-6535

Introductory note

The National Bank of Serbia is required to submit to the Parliament its annual and semi-annual monetary policy reports, explaining all the factors that affected the implementation of monetary policy in the period under review. The annual report must be submitted by 30 June of the following year and the semi-annual by 30 September of the year under review.[1]

Pursuant to the Statute of the National Bank of Serbia,[2] the above reports must present and analyse the monetary policy strategy, macroeconomic developments (international environment, balance of payments, the country's international investment position, movements in monetary aggregates, prices, wages and employment, and other macroeconomic movements), monetary policy defined and monetary policy implemented (defined vs. achieved monetary policy objectives, monetary policy instruments and measures applied, and other monetary policy-related issues), as well as outline the monetary policy planned.

The *Semi-Annual Monetary Policy Report January–June 2023* was reviewed and adopted by the National Bank of Serbia's Executive Board on 7 September 2023.

Monetary policy reports are available on the National Bank of Serbia's website (http://www.nbs.rs).

Executive Board of the National Bank of Serbia:

Jorgovanka Tabaković, PhD, Governor

Željko Jović, PhD, Vice Governor

Ana Ivković, PhD, Vice Governor

Dragana Stanić, MA, Vice Governor

Nikola Dragašević, Vice Governor

[1] Law on the National Bank of Serbia, RS Official Gazette, Nos 72/2003, 55/2004, 85/2005 – other law, 44/2010, 76/2012, 106/2012, 14/2015 – CC decision and 44/2018.

[2] RS Official Gazette, Nos 12/2013, 18/2015, 72/2015 and 50/2018.

ABBREVIATIONS

bn – billion
bp – basis point
CPI – Consumer Price Index
ECB – European Central Bank
EMBI – Emerging Markets Bond Index
FAO – Food and Agriculture Organization
FDI – foreign direct investment
Fed – Federal Reserve System
GDP – Gross Domestic Product
H – half-year
IFEM – Interbank Foreign Exchange Market
IMF – International Monetary Fund
mn – million
NPL – non-performing loan
OPEC – Organization of the Petroleum Exporting Countries
pp – percentage point
Q – quarter
q-o-q – quarter-on-quarter
s-a – seasonally-adjusted
SORS – Statistical Office of the Republic of Serbia
y-o-y – year-on-year

Other generally accepted abbreviations are not cited.

Contents

Overview

Since early 2023, monetary policy in Serbia has been pursued in an environment of **economic slowdown and gradual lowering of inflation globally**. The slowdown reflected pronounced uncertainty over heightened geopolitical tensions, the energy crisis and tight global financial conditions due to soaring inflation. The negative effect of these factors was partly compensated for by a reduction in global supply disruptions and a preserved labour market. Growth in the euro area, our key economic partner, is expected to be modest this year, with mild recession projected for Germany. The global inflation slowdown was led by both supply- and demand-side factors. The supply-side factors included falling global energy prices, particularly gas prices in the euro area after they peaked when the Ukraine conflict broke out, lower world food prices, better functioning of global supply chains and a decline in container transport prices. On the demand side, household savings accumulated during the lockdown were gradually depleting, fiscal household support programmes were wound down in large economies across the world, and the effects of rising interest rates prompted by monetary tightening by leading central banks were being increasingly felt.

The NBS responded to the challenges of the still relatively high (though lower than in 2022) global inflationary pressures by **further monetary policy tightening, but at a more moderate pace than last year**. In the year to July, the key policy rate was raised **by 150 bp, to 6.5%**. The decision on hiking the rate was underpinned by stronger and more durable than expected inflationary pressures globally, and by the desire to accelerate a reduction in inflation expectations and ensure that inflation returns within the NBS target band over the monetary policy horizon. The fact that **the key policy rate was raised gradually** means that inflation was driven mainly by supply-side factors, with the NBS aiming to contain economic growth to the least extent possible. By keeping the key policy rate on hold in August, the NBS highlighted that the full effects of earlier measures are yet to play out. The NBS will follow a data-dependent approach, i.e. its future decisions will depend on the movement of key inflation factors. The NBS does not exclude the possibility of further raising the key policy rate, if deemed necessary. Still, the projected movement of inflation within the monetary policy horizon and its factors suggests, for the time being, that the monetary tightening cycle is nearing its end.

Monetary tightening **translated onto interest rates in the dinar segment of the interbank market of money and loans**, signalling the efficiency of the monetary policy transmission mechanism through the interest rate channel. The rise in interest rates impacted the slowed growth in lending to the non-monetary sector to 0.8% y-o-y in June. The lending slowdown was also supported by a rise in the ECB's interest rates, which reflected on euro-indexed loan rates and the maturing of guarantee scheme loans. In our estimate, the effect was the strongest in H2 2022 and H1 2023, when lending began to slow. In June, the **NPL** share in total loans was **kept close to the minimum of around 3%**, indicating that a rise in loan repayment costs and the winding down of measures supporting the private sector during the pandemic have not negatively affected bank asset quality so far. At end-June 2023, the capital adequacy ratio stood at 22.3%, suggesting **high capitalisation** (regulatory minimum is 8.0%) and **resilience of the banking sector**. All of this confirms that the NBS managed to prevent demand-side pressures from having a more inflationary effect and to preserve financial stability even in the polycrisis environment, which we have faced since spring 2020.

Both short- and medium-term inflation expectations of the financial and corporate sectors have been gradually declining and are likely to fall more vigorously as inflationary pressures weaken further.

In a difficult polycrisis environment, the external position of the country improved and its resilience to external shocks was strengthened. According to preliminary data, in H1 2023 **the current account deficit** reached a historical low of **EUR 557 mn, or 1.8% of GDP**, down by EUR 2.3 bn y-o-y. **The major improvement of the external position was recorded within goods trade**, on account of a smaller energy balance deficit owing to a reduction in global energy prices, smaller quantity imports, elevated electricity exports, and continued high growth in manufacturing exports, which confirms our country's resilience to dented external demand. Given a significantly lower current account deficit in the year so far, we expect it to **reach around 2.5% of GDP annually**. In the medium run, the current account deficit will be determined mainly by structural factors. The expected acceleration of the investment cycle will prop up the imports of equipment and intermediate goods, which will be largely offset by expanding export capacities and the rebound of external demand. We thus forecast that the current account deficit will move towards 4% of GDP, a level ensuring external sustainability.

The largest capital inflow in H1 2023 came from FDI, worth close to EUR 2.2 bn, or EUR 2.0 bn net. For the ninth year in a row, FDI was **more than sufficient to cover the current account deficit**. Given the relatively high net FDI inflow and a record low current account deficit, in H1 2023 net FDI inflow exceeded the current account deficit (362%) almost four times. As in the previous years, FDI was diversified by region and project, with more than a half channelled to tradeable sectors, chiefly manufacturing (28%), which is the key export sector of our economy.

Sizeable net capital inflow was recorded in H1 based on both **portfolio investment and financial loans** (EUR 1.2 bn and EUR 555.6 mn, respectively). Portfolio investment was ample owing to the **successful realisation of two eurobond issues** in the international market in January. Based on financial loans, the bulk of inflow relates to government borrowing and the **drawdown of a portion of funds approved under the stand-by arrangement with the IMF**. Corporate borrowing also stepped up, while banks net repaid their external debt.

Foreign capital inflow, exceeding the current account deficit multiple times, contributed to the **build-up of appreciation pressures, with the NBS responding by purchasing** EUR 1,860 mn net in H1. This contributed to **a EUR 3.2 bn rise in FX reserves to the record high of EUR 22.6 bn** at end-June. FX reserves covered 180% of money supply M1 and six months' worth of the country's imports of goods and services, which is more than twice the level prescribed by the adequacy standard. In line with the principles of security and liquidity, funds were invested in highly liquid securities issued by the most advanced countries in the world and international financial institutions, and with top-tier institutions (central banks, international institutions and first-class foreign banks). At end-June 2023, **net FX reserves** touched a record high of EUR 18.2 bn, up by EUR 2.8 bn compared to end-2022.

In the year so far, fiscal trends have exceeded expectations owing to higher than planned revenues, reflecting increased corporate profitability last year and savings on funds intended for overcoming the energy crisis. At the general government level, H1 saw **a surplus of 1.2% of GDP**, or RSD 45.0 bn, versus an RSD 21.1 bn deficit recorded in the same period last year. Under the *Fiscal Strategy for 2024 with Projections for 2025 and 2026*, the general government deficit is planned at 3.0% of GDP in 2023. General government **public debt** amounted to 52.1% of GDP at end-June, down by 3.5 pp compared to end-2022.

A lower than planned deficit opens room for supporting domestic investment and consumption, without jeopardising the downward public debt trajectory and generating major inflationary pressures. The medium-term fiscal framework, whose important anchor are the adopted fiscal rules capping public sector wages and pensions, and the public debt share in GDP, stipulates a continued narrowing of the deficit to around 1.5% in 2025, with a significant portion of budgetary funds allocated to increase investment in transport infrastructure and the energy sector, which resulted in the expansion of the production potential.

Unfavourable trends in the international environment impacted the domestic economy, which, however, turned out to be more resilient than in the prior crises owing to the efficient and coordinated monetary and fiscal policy response, and the results achieved in the pre-crisis period. **In H1, economic growth amounted to 1.3% y-o-y (0.9% in Q1 and 1.7% y-o-y in Q2)**, with the major contribution provided by the service sectors, as in the prior period. A somewhat weaker impetus to GDP growth came from other sectors, with industrial growth owed fully to the rallying electric power sector. Construction underwent recovery in Q2, while agricultural trends so far indicate that the agricultural season will be at the level of a multi-annual average, resulting in the 8% growth compared to last year. Despite numerous external challenges, the economic outlook at home remains favourable – **we expect real GDP growth to accelerate from around 2–3% this year to 3.0–4.0% next year**, and return to the pre-pandemic growth trajectory of around 4% thereafter.

Consistent with economic activity, **the labour market also witnessed favourable trends**, as indicated by a further rise in average wages and formal employment, as well as a decline in registered unemployment. **In H1, the average nominal net wage accelerated to 15.4% y-o-y** (from 14.1% in H2 2022), i.e. RSD 84,204. Wages in the private sector grew much faster than in the public sector (17.1% vs. 11.9%), impacting a further narrowing of the public-private wage gap. **In H1, formal employment rose by 2.7%** y-o-y and reached around 2.36 mn persons in June, up by around 55 thousand relative to the year before. As in the prior period, most jobs were opened in the private sector, with the number of formally employed in that sector reaching 1.75 mn in June, which is a new record high. **The multi-annual trend of a reduction in registered unemployment continued** as it fell to a new record low of around 403 thousand in June, down by around 42 thousand than a year ago. According to the available data from the revised Labour Force Survey for Q2, **the activity and employment rates** rose by 1.0 and 0.4 pp y-o-y, to **55.8% and 50.4%**, respectively. **The unemployment rate stood at the 2022-average of 9.6%.** These trends testify to labour market resilience, despite the lingering consequences of the pandemic and other external shocks, which were largely remedied owing to government's economic measures.

Due to the continued pass-through of high cost-push pressures from the prior period, in early 2023 y-o-y inflation remained elevated, at around 16% in Q1, reflecting higher contributions of food prices and the expected adjustment of administered prices, with a smaller contribution of petroleum product prices working in the opposite direction. Consistent with the NBS's expectations and announcements, **since April inflation has been on a downward path**, measuring 13.7% in June. Inflation declined on the back of lower prices of energy and food, as well as **core inflation, which stayed below headline inflation, returning to a single-digit level in June** (9.9%), thanks to the easing of global cost-push pressures and monetary tightening. Inflation would have declined even more had it not been for the seasonally unusual rise in vegetable prices in May and June due to heavy rainfall. **Inflation is anticipated to continue to slow and, after it declines to around 8% by late this year, it will continue down and most likely enter the target tolerance band in Q2 2024**, returning to the midpoint most probably in late 2024.

Owing to the responsible monetary policy conduct during turbulences in the international environment, Serbia's medium-term macroeconomic prospects remain favourable. Depending on the movement of key monetary and macroeconomic factors from the domestic and international environment, and the global geopolitical situation, the NBS will make monetary policy decisions taking into account the expected effects of earlier measures on inflation going forward. In the medium run, the monetary policy priority will remain unchanged – price and financial stability, and support to the economic and employment growth, further growth of the export sector, and the preservation of a favourable investment environment in our country.

I Strategic monetary policy framework

The NBS has been implementing a **fully-fledged inflation targeting** regime since early 2009, with elements of the regime gradually introduced into practice since 2006. In December 2008, the NBS adopted the Memorandum on Inflation Targeting as a Monetary Strategy, defining formal implementation of the inflation targeting regime from 1 January 2009. The Memorandum was drafted along the lines of the Agreement on Inflation Targeting between the NBS and the Government of the Republic of Serbia, adopted at the Government session of 19 December 2008. In the best collective judgement of the NBS and the Government, this was the most appropriate monetary policy regime under the circumstances prevailing at the time.

The inflation targeting regime is pursued by a large number of central banks worldwide as a pragmatic response to deficiencies of other monetary policy regimes. The choice of the regime was strengthened by the awareness that high rates of inflation dampen economic growth and employment and that the monetary policy focus should therefore be shifted from short-term demand management to medium-term price stability which lies at the core of inflation targeting. More of a framework than a set of rigid monetary policy rules, this regime is based on a numerical target for inflation in the medium term and a discretionary right to respond to economic shocks in the short term.

The NBS inflation target is defined in terms of the headline inflation rate (with a tolerance band) measured as the annual percentage change in the Consumer Price Index (CPI). In order to define the framework for medium-term monetary policy decision-making and to anchor and stabilise inflation expectations, inflation target is set in advance. In the case of Serbia, inflation target is set for three years ahead until the process of nominal, real and structural convergence to the EU is completed. As the process is ongoing, inflation target is slightly above the quantitative definition of price stability and the target inflation level in advanced countries (2.0% or 2.5%). Thus, at end-2022, **inflation target was set at 3.0% until December 2025, with the tolerance band of ±1.5 pp**.[1]

By keeping the midpoint at 3.0%, the NBS has confirmed **its determination to keep inflation at a low level in the medium run, which is one of the key prerequisites for preservation of business and consumer confidence**. This reflects a favourable macroeconomic performance, preserved even during the pandemic, and achieved owing to full coordination of monetary and fiscal policies. Moreover, amid changeable prospects of global growth and volatile trends in the international commodity and financial markets, by keeping the target unchanged, monetary policy contributes to a further increase in our economy's resilience to potentially negative external influences, and thus to the preservation of a solid growth outlook of our economy.

The width of the target tolerance band was kept at ±1.5 pp, which diminishes the need for frequent monetary policy interventions and contributes to higher predictability of monetary conditions. Being a small and open economy, Serbia is exposed to developments in the international commodity and financial markets, which may cause **temporary** volatility of headline inflation. The target band leaves to the NBS broader room to work on the achievement of its second objective – financial stability, and to support the Government's economic policy, which encourages sustainable economic growth.

[1] The *NBS's Memorandum on Inflation Targets until 2025* was adopted at the meeting of the NBS Executive Board of 8 December 2022.

The inflation target is a medium-term objective, which means that inflation can deviate from the target in the short term due to exogenous shocks. The NBS will allow temporary deviations from the target if bringing inflation back to the target in the short term warrants monetary changes that would cause disruptions to macroeconomic processes. This also applies to sudden shocks in primary commodity prices or deviations from the planned growth in prices under direct or indirect government regulation.

The NBS strives to achieve the targeted rate of inflation **by changing its key policy rate, i.e. the interest rate applied in the main open market operations**. This interest rate is the key monetary policy instrument and the decisions on its level are based on the analysis of economic circumstances, assessment of future developments and the medium-term inflation projection. Other monetary policy instruments play a supporting role – they contribute to the smooth transmission of the impact of the key policy rate on the market, as well as to the development of the financial market, without jeopardising financial stability.

The NBS implements **a managed float exchange rate regime**. Interventions in the FX market aim to ease excessive short-term volatility of the exchange rate, safeguard price and financial stability, and maintain an adequate level of FX reserves.

To strengthen the transparency of its monetary policy and the effectiveness of communication with the public, the NBS Executive Board makes monetary policy decisions in line with the agreed schedule of meetings and regularly informs the public about the implementation of inflation targets and measures taken to achieve them. Also, when publishing the *Inflation Report*, monetary policy decisions and macroeconomic projections are explained in detail.

II Monetary policy and achievement of the inflation target

1 Monetary policy since early 2023

Since early 2023, monetary policy has been pursued in accordance with the *NBS Monetary Policy Programme in 2023*[2] and contributed to ensuring macroeconomic and financial stability amid strong shocks from the international environment. The Monetary Policy Programme, adopted in December 2022, envisaged that the NBS would remain committed to preserving price stability in the medium run, thus contributing in the best way to the maintenance of financial stability and sustainable economic growth. It also envisaged that, in the decision-making process, the NBS would assess the nature and strength of inflationary pressures and, thus maintain the necessary flexibility of monetary policy in terms of the scope of the response and use of instruments in order to ensure price stability in the medium term, but also to further support sustainable economic growth.

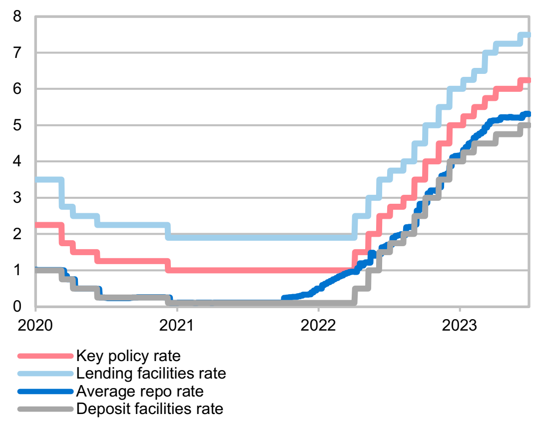
Since early 2023, the NBS further tightened monetary conditions, though at a more moderate pace than last year. **The key policy rate was raised almost each month by 25 bp, to 6.5%, except in May and August, when it was kept unchanged.** The July hike was the 15th consecutive hike in the current cycle that began in April 2022 and during which the key policy rate was raised by a total of 550 bp. The deposit and lending facility rates were lifted as well, to 5.25% and 7.75%, respectively.

The weighted average repo rate was also raised, by 137 bp since the beginning of the year to 5.53% at end-August. By further raising its interest rates, the NBS responds to the persisting cost-push pressures, notably from the international environment. 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.

By maintaining the relative stability of the dinar exchange rate against the euro, the NBS significantly contributes to containing the spillover of rising import prices onto the prices at home, and to macroeconomic stability amid heightened global uncertainty, which was particularly pronounced in the first months of the pandemic and the Ukraine conflict.

In deciding to continue with key policy rate hikes, but at a more moderate pace, the Executive Board had in mind that the **positive signals of easing of global inflationary pressures**. The easing is facilitated by the further fall in

Chart II.1.1 **Movement in the key policy rate and average repo rate**
(y-o-y rates, in %)



Source: NBS.

[2] RS Official Gazette, No 137/2022.

global energy prices, as well as less pronounced global supply bottlenecks and lower costs of container transport. However, **further moderate tightening of monetary policy 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 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, but still considerably above the ECB's inflation target. The divergence in the movement of headline and core inflation is particularly concerning, i.e. persistently high inflation excluding energy and food, 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** emphasised 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, to 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 increase the key policy rate, the NBS Executive Board took into account that the **tightening of global financial conditions** could dampen capital inflows to emerging economies. March saw unexpected problems in some US and European banks shake global financial markets. Concerns over financial system stability in advanced economies led to the redirection of investors' funds into the safest asset classes and lowered down expectations regarding the Fed's and the ECB's interest rates hike, as it was estimated that the leading central banks would prioritise financial stability in the new circumstances, and not the fight against high inflation. Nonetheless, in its March meeting the ECB raised its policy rate, as announced, and emphasised that the euro area banking sector is resilient, recording better performance in many aspects than prior to the 2008 economic crisis. It also added that it would use the policy rate to fight inflation, and macroprudential measures to preserve financial stability.

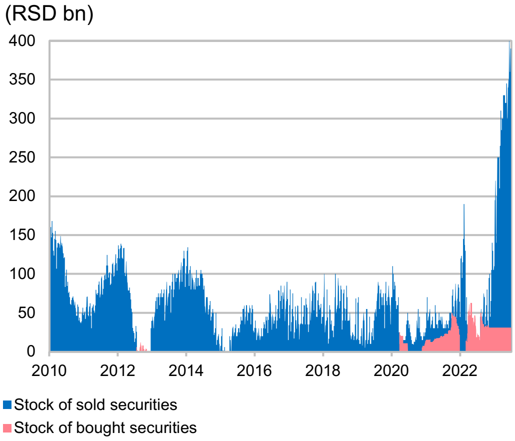
As for Serbia, a **high FDI inflow is encouraging, as is the fact that Serbia made a successful presentation at the international financial market** in early 2023, when it issued two eurobonds in dollars. In addition, the Executive Board emphasized that Serbia's credit rating was maintained one notch 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 level of FX reserves, and a stable banking sector.

Among the challenges from the international environment, in the year so far, the Executive Board also highlighted **geopolitical tensions and uncertainty regarding the duration of the Ukraine conflict**, and thus the uncertainty regarding energy availability and their prices in the coming period. Though global oil price fell significantly in March, mostly due to the problems in certain banks in the USA and Europe, April saw it rise again following the decision of the OPEC+ countries to cut the supply by 1.6 million barrels a day, thus making its future movements uncertain. Also, **China's economic performance** will affect global prices not only of energy but also of most other primary commodities, which is why it remains one of the important factors of inflation movement in the period ahead, to be considered by the Executive Board.

In deciding on the key policy rate, the Executive Board sought to make sure that monetary policy tightening **does not threaten the continuity of economic growth**. As expected, **lending activity** slowed down from 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. Still, **domestic demand continued to be supported chiefly by the preserved labour market and FDI inflow**, which yielded a positive impact on economic activity. Despite lower external demand, the pick-up in growth is supported by **favourable foreign trade movements** – commodity exports expressed in euros rose by 9.5% y-o-y, while commodity imports expressed in euros dropped by 4.9% 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. A positive effect on economic growth in the period ahead should also come from the easing of inflationary pressures in the international and domestic markets, as indicated by lower producer and import prices.

Inflation in Serbia has been on a downward trajectory since April and measured 12.5% y-o-y July (after reaching around 16% y-o-y in Q1). Y-o-y inflation slowed down, 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. Headline inflation slowdown was also supported by core inflation, still lower than headline inflation, which returned to a single-digit level in June (9.9%), and dropped to 9.4% in July, aided by the weakening of global cost-push pressures and monetary conditions tightening. By contrast, due to unfavourable agrometeorological conditions (heavy rainfall), vegetable prices in the domestic market did not record a seasonal decline, expected with the onset of the new agricultural season as of May. We expect inflation to slow down in the coming months, **move around 8% at year end, and return within the target band in Q2 2024, reaching the 3% target midpoint most likely at end-2024**.

Chart II.2.1 **Stock of sold/bought NBS securities**
(RSD bn)



Source: NBS.

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 support continued growth and development of our economy, as well as a further rise in employment and a favourable investment environment.

2 Monetary policy instruments

The main monetary policy instrument of the NBS is the key policy rate, i.e. the interest rate on the main open market operations. The role of the key policy rate is supported by the corridor of interest rates on deposit and lending facilities and by other open market operations. In addition to the key policy rate, the NBS uses other instruments of monetary regulation, notably reserve requirements and operations in the FX market.

Open market operations

The main open market operations of the NBS in H1 2023 were again one-week reverse repo transactions of securities sale for the purposes of liquidity absorption.

The NBS implemented repo transactions using its own securities. For the needs of repo sale, one series of T-bills was issued at end-October 2022, in the total nominal value of RSD 500.0 bn. This is consistent with the practice from earlier years (since 2007) which provides the NBS with a sufficient amount of market material to carry out its main operation, i.e. it enables banks to manage securities within the same series more adequately and thus facilitates liquidity management.

In H1 2023, 26 repo sale auctions were organised. Auctions were held once a week, applying the variable multiple interest rate model. Total securities sale in all auctions amounted to RSD 7,660.0 bn, which was significantly higher than in H2 2022 (RSD 1,572.5 bn), reflecting a considerable increase in excess dinar liquidity, primarily due to the NBS's FX net purchase interventions, starting from June 2022.

The stock of NBS securities in banks' portfolio averaged RSD 289.9 bn in H1, up by RSD 231.7 bn from H2 2022. Relative to end-2022, the stock of these securities increased by RSD 260.0 bn, measuring RSD 370.0 bn at end-June.

The NBS did not organise auctions of repo purchase of dinar government securities in H1 2023, after using this instrument on a time-bound basis and in a limited amount in 2022 with a view to providing dinar liquidity to banks. The stock of repo purchased dinar government securities amounted RSD 30.8 bn as at 30 June 2023.

Deposit and lending facilities

In H1 2023, banks continued to place overnight deposits with the NBS, which averaged RSD 152.3 bn, up by RSD 62.9 bn from H2 2022. The highest average daily stock was recorded in May (RSD 173.9 bn) and the lowest in June (RSD 122.3 bn).

In H1 2023, one bank used lending facilities as intraday loan in the amount of RSD 32.3 bn, while overnight loans were not used at all.

Required reserves

In H1 2023, calculated required reserves allocated in foreign currency went up by EUR 16.3 mn, reaching EUR 2,808.8 mn in June, as a result of the EUR 145.9 mn increase in the FX base (the increase was recorded in FX savings and FX deposits of corporates, while external FX liabilities declined).

In the same period, calculated required reserves allocated in dinars increased by RSD 10.2 bn, amounting to RSD 282.8 bn in June. This increase reflects the growth in purely dinar required reserves by RSD 9.3 bn (under the impact of the increase in all categories of dinar liabilities, mainly corporate and household deposits), and to a lesser extent (RSD 0.9 bn) the said increase in the FX base, as one part of FX required reserves is allocated in dinars.

Interest rates

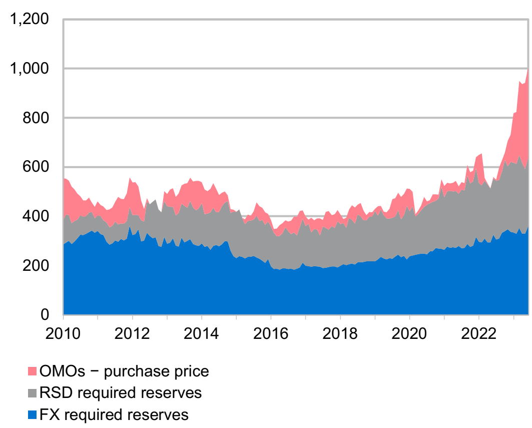
In H1 2023, the NBS Executive Board raised the key policy rate by 25 bp in each of its meetings, except in May, i.e. in cumulative terms by 125 bp, to 6.25% (the interest rate corridor was widened from ± 1.00 pp to ±1.25 pp relative to the key policy rate in March). In the July meeting, the key policy rate was raised by additional 25 bp, to 6.50%, and the deposit and lending facility rates to 5.25% and 7.75%, respectively.

In the observed period, the interest rate at which the NBS calculates and pays interest on the average daily balance of allocated dinar required reserves was kept at 0.75%.

Foreign exchange market operations

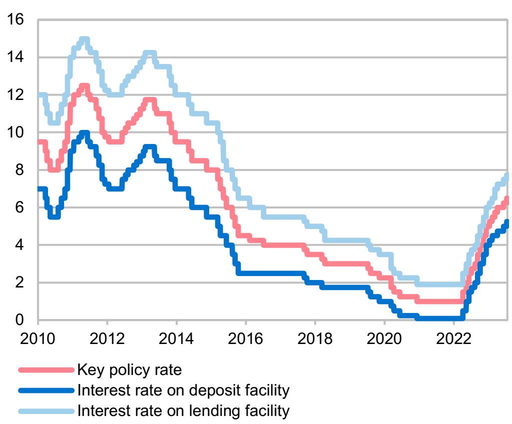
Under the 2023 *Monetary Policy Programme*, the NBS continued implementing the managed float exchange rate

Chart II.2.2 **Volume of sterilisation by monetary policy instruments**
(RSD bn)



Source: NBS.

Chart II.2.3 **Key policy rate and interest rate corridor**
(daily data, p.a, in %)



Source: NBS.

regime, with the possibility to intervene in the FX market in order to ease excessive short-term volatility of the dinar against the euro and maintain price and financial stability and an adequate level of FX reserves.

In H1 2023, the dinar gained 0.1% against the euro in nominal terms. As depreciation pressures prevailed in January, primarily because of the seasonally elevated FX demand of domestic enterprises – energy importers, as well as reduced net indexed bank assets, the NBS sold EUR 225.0 mn net in the IFEM during that month.

Appreciation pressures gathered pace since February, primarily on the back of elevated FX supply by residents, with lower FX demand of domestic enterprises - energy importers relative to previous months on the one hand, and heightened FX supply of other residents on the other hand, thanks to FX inflows from exports and FDI. From February until the end of June 2023, appreciation pressures were supported also by other FX supply-side factors – chiefly banks' net foreign cash purchase from exchange dealers and natural persons, the increase in net indexed bank assets and the lengthening of the FX position of banks on account of the use of foreign (non-resident) payment cards. FX supply from the said sources fully covered FX demand of energy importers and at times somewhat higher FX demand of non-residents, primarily on account of dividend payment by domestic banks in majority foreign ownership. Pressures on the supply side were extremely strong in April and June, when the NBS bought EUR 600.0 mn and EUR 540.0 mn net, respectively. From February to end-June, the NBS bought EUR 2,085.0 mn net, while in H1 overall it bought EUR 1,860.0 mn net.

FX swaps

The option to conclude bilateral transactions of FX swap purchase and sale (euros) with the NBS remained available to banks in H1 2023. By intermediating between banks in bilateral swap transactions, the NBS seeks to provide not only assistance to banks in their liquidity management, helping them overcome the problem of insufficient limits for concluding interbank transactions, but also greater flexibility regarding the moment of concluding transactions and their maturity.

The NBS realised a total of EUR 254 mn in bilateral swap transactions in H1 2023 (it swap bought and swap sold EUR 127 mn each).

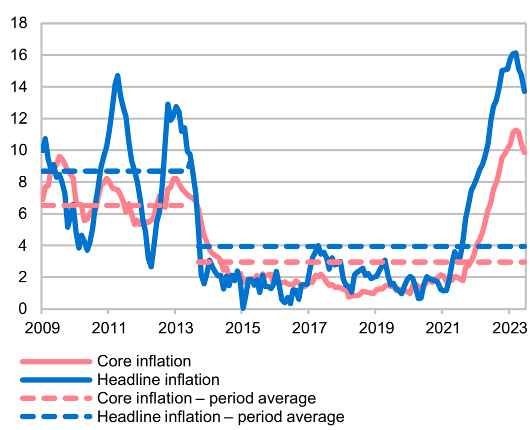
3 Achievement of inflation target in H1 2023

As the pass-through of elevated costs from the previous period, mainly in food production, had not been completed, **y-o-y inflation in Serbia** moved on an upward path of around 16% from January until March. In line with our expectations, y-o-y inflation hit a downward trajectory as of April, falling to 13.7% in June, primarily owing to the weakening of global cost-push pressures and the tightening of monetary conditions. The same factors led to a slowdown in **y-o-y core inflation** from 11.3% in March to 9.9% in June.

More than a half of y-o-y inflation in H1 was driven by the **hike in the prices of food and non-alcoholic beverages**, which measured 22.1% in June. In this group, the prices of **processed food** increased by 20.8% y-o-y (with a 4.4 pp contribution to inflation), and the prices of **unprocessed food** by 24.9% y-o-y (with a 2.7 pp contribution to inflation). In both Q1 and Q2, vegetable prices increased their contribution the most (by a whole 1 pp), reflecting subdued vegetable supply in the domestic market after last year's drought in Serbia and most of Europe, as well as unfavourable agrometeorological conditions in Q2.

Energy prices slowed down their y-o-y growth in H1, which measured 9.9% in June, with a 1.6 pp contribution to inflation. The prices of petroleum products and solid fuels lowered their contribution to y-o-y inflation in H1. Solid fuels prices slowed down to 23% y-o-y in June

Chart II.3.1 **Headline and core inflation**
(y-o-y rates, in %)



Sources: SORS and NBS calculation.

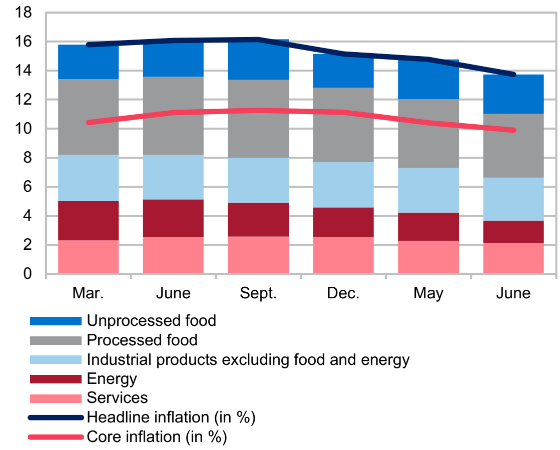
(with a 0.6 pp contribution), while petroleum product prices posted a 10.0% y-o-y fall (with a 0.7 pp negative contribution to inflation), mirroring the movement in the global crude oil price. The announced increase in the prices of gas and electricity for households was implemented in H1, with gas prices giving a negligible contribution, and electricity prices giving a 1.3 pp contribution to y-o-y inflation.

The **prices of industrial products (excluding food and energy)** grew by 10.5% y-o-y in June (with a 3.0 pp contribution to inflation), driven mainly by the higher prices of furniture and household appliances, clothes and footwear, alcoholic beverages and cigarettes. The y-o-y growth in the prices of industrial products markedly decelerated in Q2 relative to Q1, reflecting not only lower costs of production and transport, but also the tightening of monetary conditions.

The **prices of services** recorded similar quarterly dynamics, posting an 8.9% y-o-y rise in June (with a 2.1 pp contribution to inflation). The largest contribution to y-o-y inflation in H1 came from the higher prices of catering services, apartment maintenance and repair services, medical services and insurance and cable TV subscription. After the prices of rents and transport services rose in Q1, they posted a significant decline in Q2, notably the prices of Belgrade public transport.

Administered prices, which are under government regulation, rose by 12.2% y-o-y in June (contributing 2.1 pp to inflation), dominantly as a result of the adjustment of the prices of electricity for households. Other prices in this group gave a positive contribution to y-o-y inflation in H1 as well, while the May and June fall in the prices of transport services worked in the opposite direction.

Chart II.3.2 **Contribution of CPI components to y-o-y inflation during H1 2023**
(in pp)



Sources: SORS and NBS calculation.

According to the August medium-term 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. Inflation decline will also be driven by the slowdown in imported inflation, as well as lower demand amid the global slowdown. After retreating to around 8% at year end, y-o-y inflation will return within the bounds of the target tolerance band in Q2 2024 and reach the 3% target midpoint at end-2024.

III Macroeconomic environment

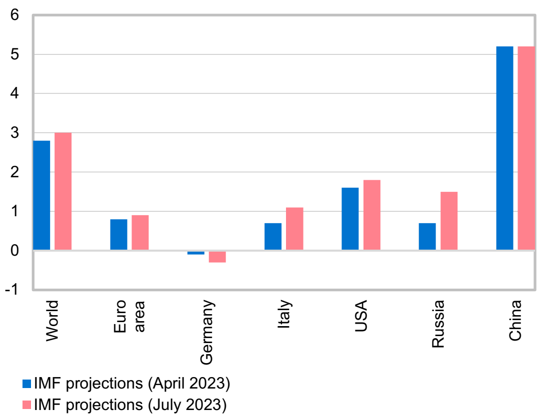
1 International environment

Economic activity and inflation

The initial signs of global economic recovery from early 2023 on account of positive effects of tendencies that passed through from end-2022 and the loosening of cost-push pressures dissipated due to the persistently high global inflation and continuing monetary tightening by many leading central banks, which briefly caused issues in the banking sectors of some advanced countries. Coupled with the consequences of crises caused by the pandemic, the energy crisis and the escalating conflict in Ukraine, this was reflected in the **weakening global economic activity**. Concurrently, the gap between economic regions and sectors widened, with the activity slowing the most in the manufacturing sector of advanced economies (euro area and the USA), while the services sector turned out to be more resilient. In the July WEO, the IMF projected a downturn in the global economy to 3.0% in 2023 (from 3.5% in 2022), noting that risks to the projection are still skewed to the downside due to persistent inflation, China's slower economic growth and continued economic and geopolitical fragmentation.

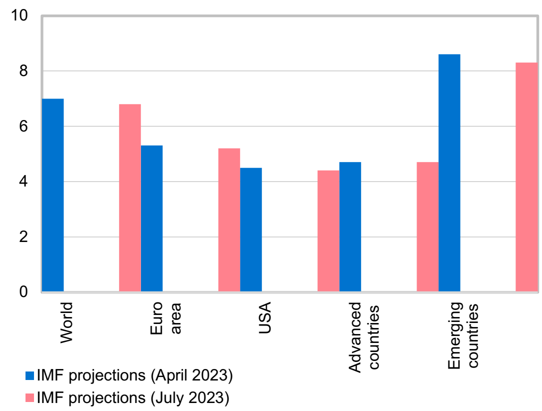
Global inflation receded during H1 on account of the high base effect, lower energy prices and resolution of supply bottlenecks. Still, core inflation remained elevated in many countries, propped by the effects of past price shocks and the still tight labour market conditions in a number of countries. Monetary policy tightening by central banks and anchoring of long-term inflation expectations should work toward bringing core inflation down. With this in mind, in July the IMF forecast global inflation at 6.8% in 2023 (compared to 8.7% in 2022).

Chart III.1.1 **Growth projections in 2023 according to IMF data**
(in %)



Source: IMF WEO.

Chart III.1.2 **Inflation projections for 2023 according to IMF data**
(in %)



Source: IMF WEO.

The **euro area economy** rose in both Q1 and Q2, by 0.1% s-a each. In June the **ECB** assessed that euro area economic activity could be stepped up in the remainder of 2023 on account of lower energy prices and stronger external demand, resolution of supply issues, a resilient labour market and subdued uncertainties in the financial market. In June, the ECB forecast euro area's GDP growth at 0.9% in 2023, adding that the still prevailing downside risks pertain to the tightened monetary and financial conditions, the deepening conflict in Ukraine and weaker global economic activity, while the resilient labour market is an upside risk.

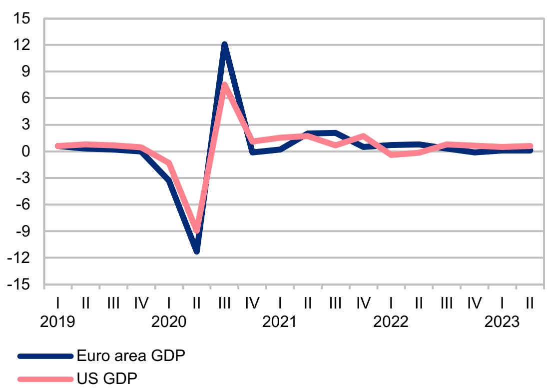
Serbia's key foreign trade partners in the euro area – Germany and Italy – recorded diverging economic movements in H1. After declining for two quarters straight and entering technical recession, the **German economy** stagnated in Q2, while the **Italian economy** dropped 0.4% s-a in Q2, having previously risen 0.6% s-a in Q1.

Y-o-y inflation in the euro area decelerated during H1 – from 8.6% in January to 5.5% in June, dominantly due to the lower energy prices, which were the first to slow down y-o-y, only to strike a downward path as of March, under the impact of high last year's base. The prices of food and industrial products (excluding energy) also slowed, while services prices continued up, propped by sound demand for services and a tight labour market. This was reflected on **core inflation in the euro area** which, although slower, remained elevated and came to the same level as headline inflation in June. Measured by changes in the HICP, **y-o-y inflation in Germany and Italy** was dominantly on the downward path during H1 and came to a similar level of 6.8% and 6.7% in June, respectively.

Economic activity in the USA edged up 1.1% s-a in H1, driven by the rising consumption and net exports, as well as the investment rebound in Q2. Still, US production continued to decline, as signalled by the contraction of ISM Manufacturing PMI during H1 on account of a contraction in new orders and production volumes adjusting to subdued demand. Conditions in the US labour market remain tight, given that the 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 gradual balancing. In June, the **Fed** came out with an assessment of US economic growth slowing further in H2 on account of weaker consumer demand, projecting US GDP growth at 1.0% for the whole of 2023.

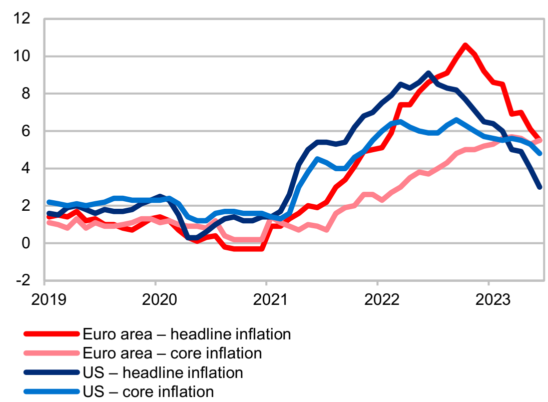
US headline inflation (measured by the change in the CPI) is on the downward trajectory since last June and equalled 3.0% y-o-y this June. Y-o-y inflation slowed down under the impact of all CPI components, notably energy and food prices, where last year's high base effect was also evident. **US core inflation** (measured by the change in the CPI, excluding food and energy) also slowed down in H1, to 4.8% y-o-y in June, but remained above headline inflation, suggesting persistent cost-push

Chart III.1.3 **GDP movements in the euro area and the USA**
(quarterly, s-a, in %)



Sources: Eurostat, Bureau of Economic Analysis and NBS calculation.

Chart III.1.4 **Euro area inflation measured by HICP and US inflation measured by CPI**
(y-o-y rates, in %)



Sources: Eurostat and Bureau of Labor Statistics.

pressures, supported by a strong labour market and increased wages. In regard to this, in June the **Fed** projected its preferred measure of core inflation – personal consumption expenditures index (excluding food and energy prices) – at 3.9% in 2023.

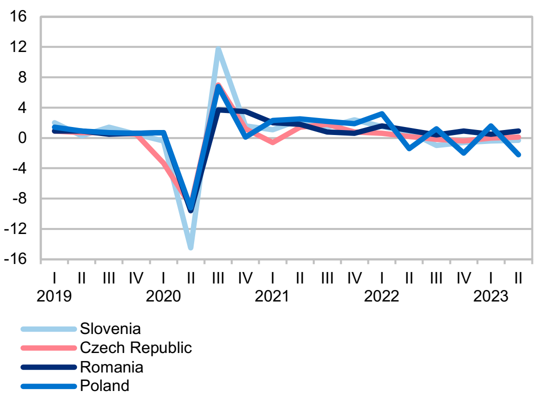
In the CESEE region[3] economic activity visibly slowed down in H1. In s-a terms, the highest GDP growth in H1 was recorded in Slovenia (2.1%) and the lowest in the Czech Republic (0.2%), with Poland being the only one to record a fall (0.6%). Household consumption declined due to enduring inflation and loan repayment costs in the wake of tightened financial conditions. According to the July assessment of Consensus Economics, economic dynamics of countries in the region are largely dependent on geopolitical developments in Europe and beyond, as well as on the effects on capital flows and exchange rates. The weakening of global economic activity, notably in the euro area, undermines the region's export, primarily in manufacturing, thus giving rise to recession pressures.

In CESEE region countries pursuing inflation targeting, inflation lost pace in H1 dominantly as a result of lower global energy prices due to the high base effect from the same period last year. In y-o-y terms, inflation slowed down the most in the **Czech Republic** (9.7% in June), followed by **Romania** (10.3% in June) and **Poland** (11.5% in June), while in **Hungary** it remained at a relatively high level (20.1% in June). In July Consensus Economics assessed that inflation will not be returning to pre-pandemic levels any time soon given that core inflation is still elevated due to a tight labour market and an increase in nominal wages. For Central European countries, inflation in 2023 is projected at 12.3%, and for Southeast European ones at 9.5%. Similarly, **inflation in Western Balkan countries** also slowed in H1 on account of the declining prices of petroleum products and other energy products.

As containment measures were lifted in early 2023 and a rebound in the production and services sectors activity began, the **Chinese economy** posted 5.5% y-o-y growth in H1 (as estimated by the national statistical office). However, extended issues in the real estate sector are having a dampening effect on investments and, together with weaker external demand for Chinese goods and the increased unemployment rate among the young population, this resulted in a slower pace of economic recovery than initially expected. In July, the IMF projected China's GDP growth at 5.2% at the annual level.

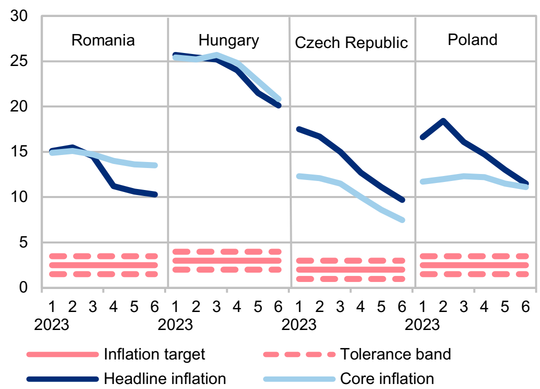
The **Russian economy** edged down 1.8% y-o-y in Q1 (according to the Federal State Statistics Service) due to subdued goods export and weaker domestic demand. Still, the Russian economy has turned out to be much more resilient to the sanctions introduced by the West, as indicated by the nascent recovery in domestic and external demand that came after the initial shock. Growth in retail trade, construction and manufacturing during H1, as well as strong fiscal stimuli, underpinned the IMF's July forecast of Russia's GDP growth of 1.5% in 2023.

Chart III.1.5 **GDP movements in selected CESEE countries**
(quarterly, s-a, in %)



Source: Eurostat.

Chart III.1.6 **CPI movements for selected CESEE countries in H1 2023**
(y-o-y rates, in %)



Sources: Central banks of selected countries.

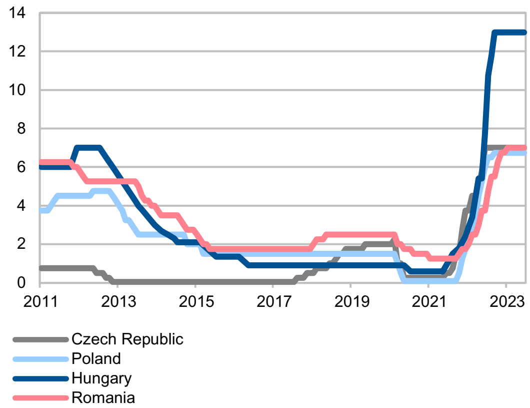
[3] The region includes Romania, Hungary, the Czech Republic, Slovenia, Bulgaria, Croatia, Slovakia and Poland.

Monetary policy

In 2023 the ECB raised its main interest rates further, in February and March by 50 bp each time, and then in May and June by 25 bp each. Since July 2022, when the cycle of rate hikes began, the main refinancing operations rate was raised eight times by a total of 400 bp, reaching 4.00% in June, while lending and deposit facilities rates went up to 4.25% and 3.50%, respectively. As announced, in March the ECB began unwinding its balance sheet at a monthly pace of EUR 15 bn, by stopping the reinvestments of a portion of principal payments from maturing securities purchased under the APP programme. The downsizing continued in Q2 at the same pace, and as of July the reinvestments of principal payments from maturing purchased within the APP were discontinued entirely. 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. Given that core and headline inflation projections were revised up in June and that by the end of the period the headline inflation projection will trend above the 2% target, after the July meeting, where it raised its rates by an another 25 bp, the ECB noted that further main rate increases are possible, as is a break in the hikes. Decisions on main refinancing rate hikes will depend on the assessment of future inflation movements and the incoming economic and financial data.

The **Fed** also continued to increase its federal funds rate range in 2023, lifting it by 25 bp each in February, March and May. Thus, since March 2022, the federal funds rate has undergone ten consecutive increases by a total of 500 bp, to 5.00–5.25% in May. Though the March meeting looked into the possibility of pausing the cycle of monetary tightening amid ongoing disturbances in the banking sector, nevertheless a decision was made to raise the federal funds rate. The prolonged monetary policy tightening was elaborated by the Fed by further strengthening of labour market indicators, which are keeping inflation elevated. In the March meeting, expectations were voiced that some additional monetary policy tightening could be appropriate, which is a slightly milder stance when compared to the earlier rhetoric. After the May meeting, such formulation was substituted with an assessment that future decisions will be dependent on incoming data, which market participants interpreted as an announcement of a possible break in rate hikes. The break came in June when the federal funds rate range

Chart III.1.7 **Policy rates across selected CESEE countries**
(p.a., in %)



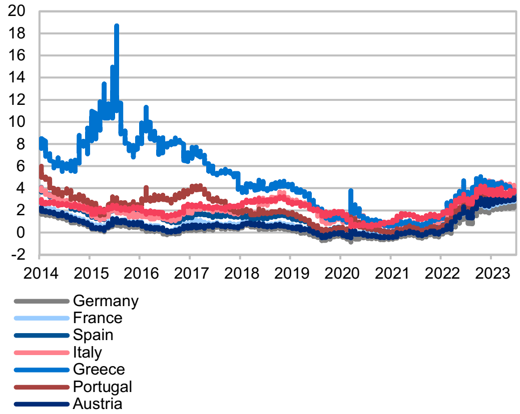
Sources: Central banks of selected countries.

remained unchanged. However, July saw the rate go up to 5.25–5.5%. 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. 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, while in upcoming years it should strike a downward trajectory. The Fed continued to unwind its balance sheet according to the announced dynamics.

The **Bank of England** continued to lift its interest rate, first by 50 bp in February and 25 bp each in March and May, then again by 50 bp in June, whereby the rate reached 5.00% at end-H1. The central bank of **Switzerland** also raised its policy rate by 50 bp in March and an additional 25 bp in June, to 1.75%, with a possibility of further hikes at upcoming meetings.

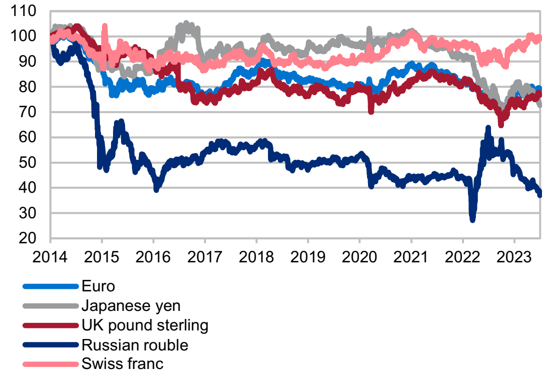
The first half of 2023 was marked by the turbulences in financial markets that began in March over difficulties in some banks in the USA and Europe. To relieve the tension, on 20 March five leading central banks (Fed, ECB, Bank of Canada, Bank of England and the Swiss National Bank) announced a coordinated action to enhance the provision of liquidity to banks via the standing US dollar swap lines, whose frequency will be increased from weekly to daily. The Swiss National Bank secured additional liquidity to a bank that faced a strong deposit outflow, with a promise that it would keep doing so in order to ensure that its takeover by another bank that began soon after would be concluded successfully. Also, the ECB, the Fed and the Bank of England underlined in

Chart III.1.8 **Yields on ten-year bonds of euro area countries**
(daily data, in %)



Sources: Central banks of selected countries.

Chart III.1.9 **Exchange rates of selected national currencies against the dollar***
(daily data, 31 December 2013 = 100)



Source: IMF database.
* Growth indicates appreciation.

their press releases that their banking sectors are sound, adequately capitalised, liquid and resistant to shocks. Coupled with the measures undertaken, this has helped defuse the tension and preserve financial stability.

After significant increases in the past period, the majority of central banks in **CESEE countries** pursuing inflation targeting have kept their policy rates unchanged throughout H1 2023 – Poland at 6.75%, the Czech Republic at 7.0% and Hungary at 13.0%. Only the central bank of **Romania** lifted its policy rate by 25 bp in January, to 7.0%. Also, with the aim of drawing excess liquidity more efficiently, the central bank of **Hungary** decided to hold weekly auctions of Treasury bills as of February, shorten the maturity of the long-term deposits tender to one month and, as of April, raise the reserve requirements rate from 5% to 10%. During H1, the central bank of Hungary narrowed the interest rate corridor which was expanded in October 2022 in conditions of mounting uncertainty, noting that risk perception has improved. In May and June, the central bank of Hungary trimmed its rate on one-day deposits, noting that the decision is the beginning of monetary policy normalisation. Still, it is necessary to keep the policy rate unchanged.

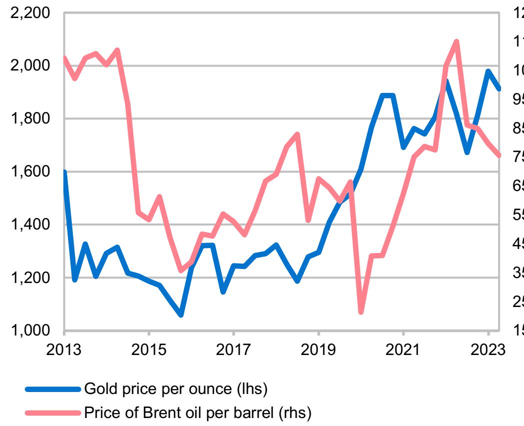
Financial and commodity markets

Yields on ten-year government bonds of advanced countries decreased during H1. The decrease in yields in Q1 was mostly (by 0.3 pp on average) the result of market participants' expectations of a slower pace of continued policy rate increases by leading central banks against the backdrop of gradually weakening inflationary pressures and a downturn in economic activity. Also, temporary issues – first in the US banking sector and then in the European one – drove up investor demand for government bonds as safe assets and contributed to a fall in yields. In contrast, yields on ten-year government bonds of advanced economies edged up mildly during Q2, on average by 0.1 pp. The increase in yields was largely the result of market participants' expectations of continued monetary tightening by leading central banks, given that inflation was retreating at a slower pace than anticipated.

During H1, the dollar slightly depreciated against the euro and the majority of other leading currencies in the international financial market in light of hints that inflation in the USA had peaked and that there would be no need for any further strong increases of the federal funds rate by the Fed, as this was the main factor driving the dollar up throughout most of 2022. Also, the successful resolution of the banking sector crisis alleviated investors' concerns and by extension the demand for the dollar as a safe haven currency. On the other hand, global uncertainty as to movements of economic activity and the pace of reining inflation in prevented its large depreciation.

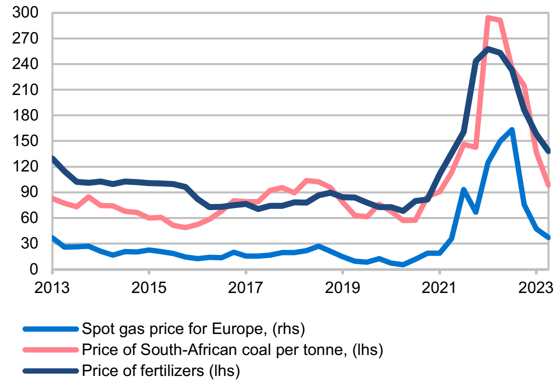
The global price of gold was dominantly on the rise in Q1 amid elevated geopolitical tensions, fear of a global recession, depreciation of the US dollar and shrinking yields on US Treasuries, as well as problems in the US and European banking sectors. During Q2, the price of gold trended down due to continued monetary policy tightening by leading central banks, the dollar appreciating and demand for gold decreasing in India. By

Chart III.1.10 **World gold and oil price movements**
(end quarter, in USD)



Source: Bloomberg.

Chart III.1.11 **Natural gas and thermal coal price movements and index of metals and minerals**
(end quarter)



Sources: Refinitiv and World Bank.
* Copper, aluminium, iron ore, lead, nickel, zinc and tin.

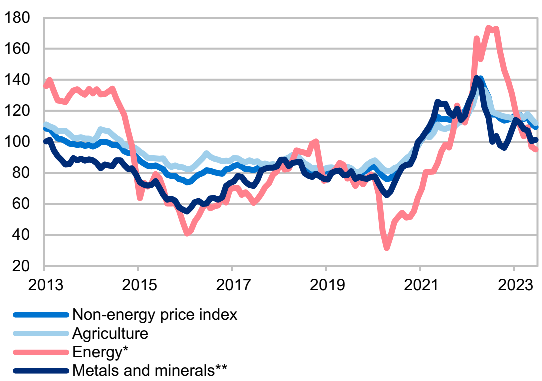
end-June it came at USD 1,912 per ounce, but was still 5.4% higher than at end-2022.

Amid expectations of global economic slowdown, dampened demand over the seasonal overhaul in refineries and fears of a potential new financial crisis triggered by difficulties experienced by some banks in the USA and Europe, **the price of oil in the global market** moved dominantly down during Q1 and fell to around USD 72 per barrel in mid-March, its lowest level since December 2021. During April the price of oil edged back up to around USD 88 per barrel, under the dominant influence of the OPEC+ decision to decrease output by 1.16 million barrels per day as of May. Thereafter, by the end of the quarter, the global oil price resumed its downward path due to concerns over global economic growth outlook on account of high interest rates and stepped-up oil export from Russia. With such movements, the oil price was 10.9% lower at end-June than at end-2022, while in y-o-y terms it decreased by 34.2%.

The **benchmark natural gas price for Europe** (Dutch TTF hub) mostly moved on the downward path during Q1 as the winter turned out to be warmer than usual in Europe and Asia, and the consequently high filling levels of gas storage facilities. At end-March it stood at around EUR 47 per MWh (equivalent to around USD 530 per 1,000 m^3 of gas).[4] The natural gas price continued on the downward path during April and May under the impact of diversification of imports, favourable weather and high filling levels in storage facilities. 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 Netherlands' announcement of permanent shutdown of Europe's largest gas field in 2023 due to the consequences of earthquakes, the natural gas price rose to around EUR 37 per MWh in June (i.e. by around USD 424 per 1,000 m3 of gas). With such movements, the natural gas price was 50.9% lower at end-June than at end-2022, while in y-o-y terms it decreased by as much as 75.2%.

Amid stepped-up output and high inventories in China, as well as favourable weather conditions and lower demand,

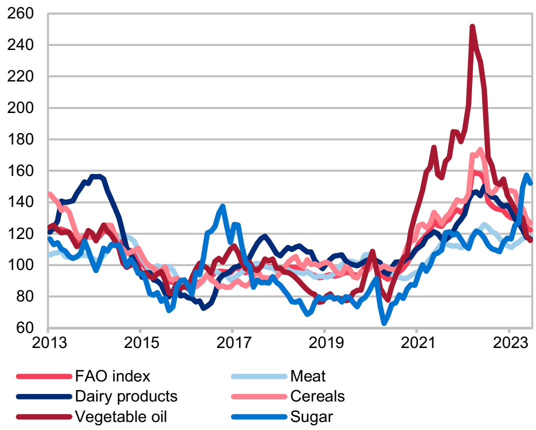
Chart III.1.12 **World Primary Commodity Price Index**
(2010 = 100)



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

[4] 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).

Chart III.1.13 **World food price index**
(in nominal terms, 2014−2016 = 100)



Source: FAO, UN.

the **price of thermal coal** was on a downward path during H1, retreating to around USD 99 per tonne in June, or 54.1% lower than at end-2022, which is also its lowest level in two years. In the same period, the **prices of mineral fertilisers** contracted by 25.9%, dominantly under the impact of lower input prices, notably natural gas and ammonia.

After an initial rise in January, triggered by the lifting of the zero-tolerance policy to coronavirus in China, the **prices of most metals and minerals** trended down until June amid growing inventories of industrial metals at the London stock exchange and poorer performance of China's industrial and construction sector than expected. In June, the prices of most metals and minerals rose again on account of better performance of China's industry. Still, they ended Q2 5.9% below their level from end-2022 and 12.5% lower in y-o-y terms.

Global food prices, measured by the FAO index, moved on a downward path during H1 (except in April, when they rose due to significantly higher sugar prices) and were 7.2% lower in June relative to end-2022, while in y-o-y terms they declined 20.9%. Compared to end-2022, such movements were dictated by the lower prices of vegetable oils (19.9%), dairy products (15.5%) and cereals (14.0%), while the higher prices of sugar (29.9%) and meat (6.4%) worked in the opposite direction. The lower prices of **cereals**, of which Serbia is a net exporter, were influenced by weak import demand and high inventories.

2 International transactions

Balance of payments and FX reserves

According to preliminary data, the **current account deficit** in H1 2023 amounted to only EUR 557.3 mn (1.8% of GDP) and was reduced several times compared to H1 2022, when it equalled EUR 2.9 bn (10.4% of GDP). Observed by category of Serbia's current account, the deficit reduction was mainly driven by the lower deficit in goods trade, followed by 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 net capital inflow on the balance of payments financial account covered the record low current account deficit many times over, thus driving FX reserves up to a new highest level.

The deficit on trade in goods in H1 2023 amounted to EUR 3.2 bn, down by EUR 2.1 bn y-o-y, with **goods export** rising 9.5% y-o-y to EUR 14.2 bn, and **goods import** contracting by 4.9% y-o-y to EUR 17.4 bn. The biggest contributor to export growth was the manufacturing industry, whose exports increased by 9.7% y-o-y, followed by the export of electricity, which increased by 179.5% y-o-y. Manufacturing exports continued to grow even in conditions of lower external demand, which indicates the resilience and diversification of the export supply, and was mostly facilitated by the export of 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 energy import, as well as of intermediate and capital goods, while an increase was recorded only for consumer goods. Y-o-y, energy import declined by EUR 926.2 mn in H1 2023 (under SITC), with import of crude oil, petroleum products, gas and electricity going down and only import of coal used in electricity production going up y-o-y. Of this, the import of crude oil, petroleum products and gas decreased by EUR 719.1 mn, with around three quarters of the decrease due to the effect of lower prices, and one quarter due to lower imported quantities. Imports classification by BEC (Broad Economic Categories) reveals that the decline in imports is mostly owed to intermediate goods (11.0% y-o-y), a category inclusive of energy. This is followed by the import of equipment, which contracted 11.4% y-o-y, while the import of consumer goods increased by 7.6% y-o-y.

The current account deficit also contracted on account of the services trade which continued up in H1 2023, with a more pronounced increase in exports (by 27.7% y-o-y to EUR 6.0 bn) than in imports (by 18.3% y-o-y to EUR 4.5 bn). This resulted in the **services trade** surplus in H1 exceeding EUR 1.5 bn, which is 67.5% more than in H1 2022. Trade of all types of services increased during H1 2023, with export growth being primarily driven by the ICT, transport and business services, and import growth by tourism and business services.

The **deficit on the primary income account** increased by 45.7% y-o-y to EUR 1.7 bn, mainly due to higher expenditures based on income from FDI. This was expected bearing in mind a continuous inflow and increase in the stock of FDI in Serbia, which also entails 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 increased as well, reflecting the tightening of global financial conditions amid more restrictive monetary policies of central banks.

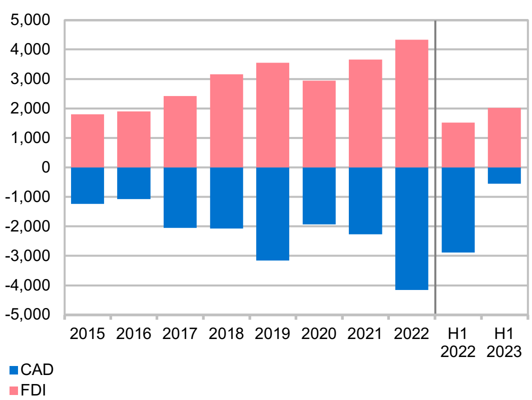
The **secondary income surplus** increased in H1 by 5.2% y-o-y to EUR 2.9 bn, mostly owing to the inflow of remittances from abroad, which reached EUR 2.5 bn in H1, up by 10.9% y-o-y.

The **balance of payments financial account** saw a net capital inflow of EUR 3.5 bn in H1,[5] chiefly thanks to the FDI inflow and a successful eurobond issue early in the year. Inflows also originated from government and corporate credit borrowing and the 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.

According to preliminary data, **net FDI inflow** amounted to EUR 2.0 bn in H1, with investments in Serbia alone reaching almost EUR 2.2 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 33.8%, confirming that Serbia remains an attractive investment destination. For the ninth year in a row, the current account deficit is 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 362%. As in the years before, FDIs were geographically and project-diversified, with more than one half directed to tradable sectors, mainly manufacturing (28%), the Serbian economy's key export sector.

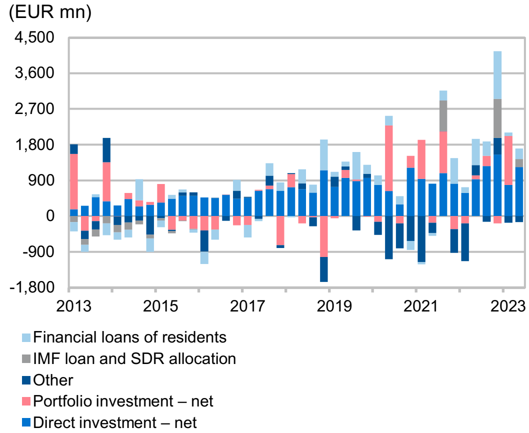
Net capital inflow under **portfolio investment** exceeded EUR 1.2 bn in H1, thanks to two successful eurobond issues in the international market in January. The two issues included USD 750 mn worth of 5-year eurobonds and USD 1.0 bn worth of 10-year eurobonds, with investor demand surpassing the supply multiple times, thus driving down the bid rates in the auction. Hedging

Chart III.2.1 **FDI/CAD coverage***
(EUR mn)



Sources: SORS and NBS.
* Preliminary data.

Chart III.2.2 **Structure of the financial account***
(EUR mn)



Source: NBS.
* Preliminary data.

[5] There were no changes in FX reserves.

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 bonds, mainly 12-year securities in the domestic primary market, which generated a EUR 94.9 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 also registered on account of maturity of government securities issued earlier and the net sale of government securities in the secondary market.

An inflow of EUR 204.3 mn was recorded on account of **other investments** in H1. A net inflow of EUR 555.6 mn was recorded on account of **financial loans**, with the bulk of that amount pertaining 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. Thanks to higher balances in non-resident accounts with domestic banks and lower balances in foreign accounts of domestic banks, an inflow of EUR 339.2 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 692.8 mn was recorded under **trade credits** and advances.

As a consequence of these trends in the current and financial account, **Serbia's FX reserves** (according to the balance of payments methodology)[6] gained EUR 3.1 bn in H1.

In H1 2023, gross NBS FX reserves increased by EUR 3,169.3 mn and equalled EUR 22,585.0 mn on 30 June 2023, their highest end-of-month level on record (since 2000). This level of FX reserves covered 180% of money supply (M1) or six months' worth of the country's import of goods and services, twice the level prescribed by the standard on the adequate level of coverage of the import of goods and services by FX reserves. Net FX reserves also recorded their highest level at end-June 2023, in end-of-month terms, equalling EUR 18,179.2 mn, up by EUR 2,753.5 mn from end-2022.

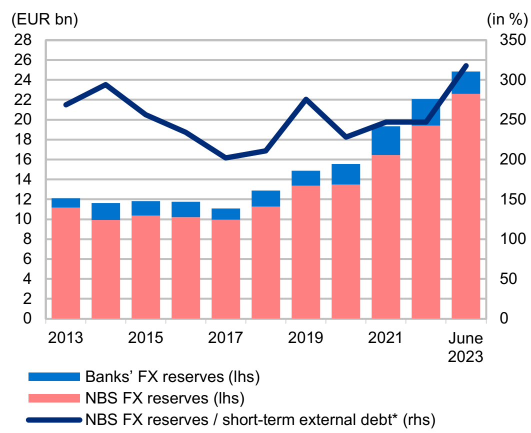
Consistent with the principles of safety and liquidity, the funds were invested in highly liquid securities issued by the most advanced economies and international financial institutions, and placed with prime institutions (central banks, international institutions and top tier foreign

Table III.2.1 **Serbia's balance of payments**
(EUR mn)

	H1 2022	H1 2023
I CURRENT ACCOUNT	-2,890.6	-557.3
1. Goods	-5,330.1	-3,209.7
1.1. Credit	12,966.7	14,198.6
1.2. Debit	-18,296.8	-17,408.3
2. Services	902.2	1,511.2
2.1. Credit	4,721.3	6,027.3
2.2. Debit	-3,819.1	-4,516.1
3. Goods and services	-4,427.9	-1,698.4
3.1. Credit	17,687.9	20,225.9
3.2. Debit	-22,115.8	-21,924.4
4. Primary income	-1,173.9	-1,710.7
5. Secondary income	2,711.3	2,851.8
II CAPITAL ACCOUNT	-10.3	-15.4
III FINANCIAL ACCOUNT (excluding reserve assets)	1,543.4	3,497.8
1. Direct investment, net	1,514.2	2,017.6
2. Portfolio investment, net	-87.0	1,240.9
3. Financial derivates, net	25.2	34.9
4. Other investment, net	90.9	204.3
4.1. Trade credit and advances, net	-437.3	-692.8
4.2. Financial loans, net	801.7	555.6
4.3. Currency and deposits, net	-274.2	339.2
4.4. Other, net	0.8	2.3
IV Reserve assets	1,939.7	-3,129.9
V NET ERRORS AND OMISSIONS	-582.2	204.7
VI OVERALL BALANCE	-1,939.7	3,129.9

Source: NBS.
Note: Preliminary data.
[1] BPM6 methodology, except sign convention.

Chart III.2.3 **FX reserves and coverage of short-term external debt**



Source: NBS.
* Short-term debt by remaining maturity.

[6] Excluding currency changes, changes in the market value of securities and the price of gold.

banks). In the composition of FX reserves as at 30 June 2023, foreign securities accounted for the largest share (52.2%), followed by foreign currency held in accounts abroad (29.2%), gold (9.6%), foreign cash (8.5%) and SDR with the IMF (0.5%).

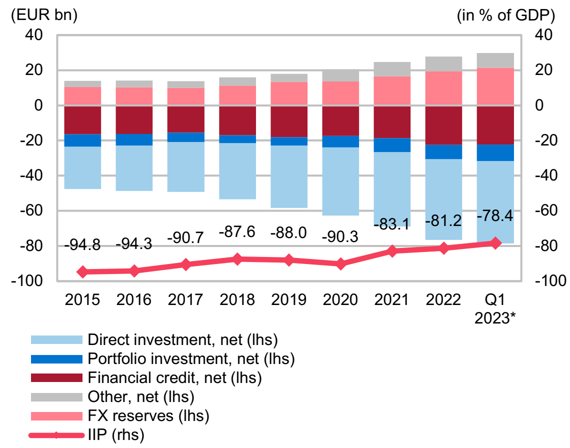
The largest FX inflows in 2023 were recorded due to the NBS interventions of net FX purchases in the IFEM[7] (EUR 1,845.0 mn net inflow) and long-term FX securities of the Republic of Serbia issued in the domestic and international financial markets in the net amount of EUR 1,141.2 mn (the issue amount minus the amount due). Inflows were also recorded on account of donations (EUR 283.4 mn), payment transactions with Kosovo and Metohija[8] (EUR 212.3 mn) and banks' required FX reserves (EUR 209.6 mn net). An FX inflow of EUR 199.8 mn was recorded on account of the disbursement of the second tranche under the stand-by arrangement approved by the IMF to the Republic of Serbia on 19 December 2022. These funds may be used to refinance the obligations of the Republic of Serbia and/or to finance current budgetary needs.[9] A significant inflow was also recorded on account of net interest and coupon redemption in the amount of EUR 135.7 mn.

The biggest outflow of NBS FX reserves was recorded on account of the settlement of liabilities under Serbia's obligations to foreign creditors in the amount of EUR 562.9 mn net. Other relevant payments amounting to EUR 350.5 mn were realised for the purposes of the Government, the ministries, etc. With regard to the implementation of the Law on the Settlement of the Public Debt of the Republic of Serbia Arising from Unpaid Foreign Exchange Savings of Citizens, a total of EUR 12.7 mn was paid (including the unpaid FX savings to citizens from former SFRY republics amounting to EUR 11.4 mn, paid out in February).

International investment position

The net international investment position, i.e. the difference between the assets of Serbian residents on the one hand and their liabilities on the other, came at **EUR -49.5 bn** at end-H1 2023, which is EUR 225.0 mn more than at end-2022. However, owing to the **growth in economic activity in the observed period, the share of Serbia's international investment position in estimated GDP decreased by 4.2 pp to 77.0%**.

Chart III.2.4 **International investment position**



Source: NBS.
* Preliminary data.

In the composition of foreign financial assets, which amounted to EUR 41.7 bn at end-H1 2023, **FX reserves still account for the major share, making up more than a half of the assets value (54.1%)**.

On the other hand, in the structure of financial liabilities, which amounted to EUR 91.3 bn at end-H1 2023, it is a positive thing that **FDI**, as the most favourable, long-term type of foreign investments, still significantly exceed a half of total external liabilities **(57.5%), while financial loans and portfolio investments** account for a smaller part of liabilities: 25.6% and 10.9%, respectively.

3 Financial market trends

Interest rates

The NBS continued the cycle of monetary tightening in H1 2023 by raising the key policy rate, which increased cumulatively by 125 bp relative to end-2022 and measured 6.25% in June. Liquidity absorbing from the banking sector continued through repo sale auctions, with the average repo rate climbing by 115 bp relative to end-2022, to 5.31% at the last auction in June.

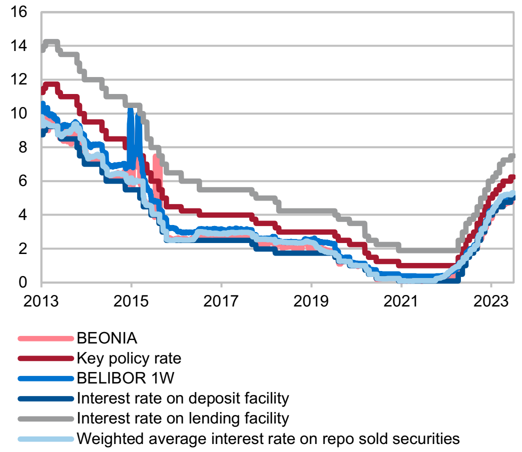
Continuous monetary policy tightening had the desired effect on the movement of interest rates in the **interbank money market**, which continued up in H1 2023.

[7] In accordance with accounting rules, transactions in respect of NBS interventions in the IFEM are disclosed on the execution day and not on the trading day.

[8] Under the Law on Temporary Execution of Certain Payment Operations in the Federal Republic of Yugoslavia (FRY Official Gazette, No 9/01)

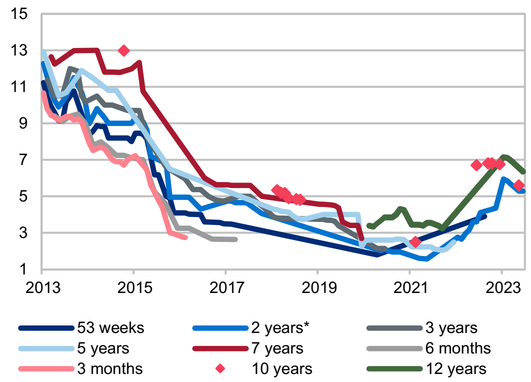
[9] On 9 February 2023, the National Assembly of the Republic of Serbia adopted the Law on the Regulation of Obligations of the Republic of Serbia toward the International Monetary Fund under the Stand-By Arrangement granted to the Republic of Serbia by the Decision of the Board of Executive Directors of the International Monetary Fund on 19 December 2022.

Chart III.3.1 **Interest rate movements**
(daily data, p.a., in %)



Sources: Thomson Reuters and NBS.

Chart III.3.2 **Interest rates in the primary market of government securities**
(p.a., in %)



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

BEONIA recorded a rise of 100 bp relative to end-2022 and stood at 5% in June. BELIBOR rates of all maturities rose to a similar degree, by around 88 bp, moving at end-June from 4.98% for the shortest to 5.82% for the six-month maturity.

In the **primary market of dinar securities**, in H1 2023 the government held six auctions of two-year dinar securities, five auctions of 12.5-year securities and one auction of 10-year dinar securities. The yield rate declined at all auctions, partly due to investors' greater readiness to accept lower yields on account of gradual easing of global inflationary pressures, but also due to reduced financing needs of the government.

The yield rate on **two-year** securities decreased in six auctions by a total of 93 bp and measured 5.28% at the last auction in June. The yield rate decreased at each of the five auctions of **12.5-year** securities and stood at 6.35% at the last auction in June, down by 80 bp relative to the first auction held in January. As for **10-year** securities, their yield rate fell by 115 bp relative to the last auction held in December 2022, when it reached 5.60% at the May auction.

In March, the government **bought back early** seven-year securities issued in July 2016 and maturing in July this year, by buying securities in the nominal value of RSD 6.8 bn at the effective rate of 5.2%, consistent with the yield rate in the secondary market since the start of this year, and certainly below the coupon rate of 5.75%.

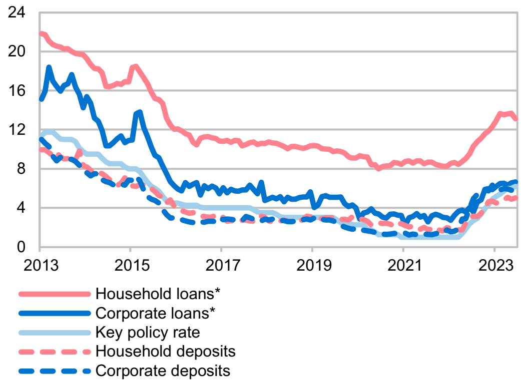
In H1 2023, dinar securities in the total nominal amount of RSD 156.3 bn were sold. As the previously sold securities in the nominal amount of RSD 184.7 bn matured at the same time, this – together with the mentioned early buyback, led to a drop in the stock of sold dinar securities to RSD 913.0 bn at end-June.

Non-resident activity in the primary market of dinar securities was recorded in H1, when they bought dinar securities at market value worth RSD 11.1 bn. As they were net sellers in the secondary market at the same time, the stock of sold dinar securities held by non-residents increased by RSD 4.2 bn relative to end-2022, to RSD 137.4 bn in late June, making up 15% of the total portfolio of dinar government securities.

In H1, only one **auction** was organised **for the sale of** two-year **euro securities**. This happened in January – the yield rate was equal to the coupon rate (2.5%) and securities were sold in the nominal value of EUR 37.5 mn. In March, the government bought back early 53-week securities, in the nominal amount of EUR 350 mn, previously sold in a private placement arrangement, which would have matured in June this year. As H1 also saw the maturing of previously sold securities worth EUR 135.4 mn nominally, the stock of sold euro securities contracted to EUR 1,919.5 mn at end-June.

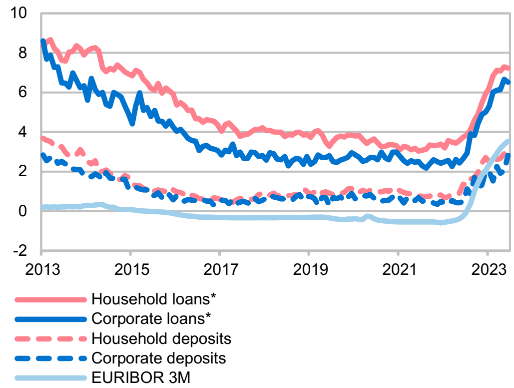
In January, the government secured the funds for financing its liabilities by issuing in the **international financial market** two eurobonds in dollars (dual-tranche)

Chart III.3.3 **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 III.3.4 **Interest rates on new euro and euro-indexed loans and deposits**
(weighted average values, p.a., in %)



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

with five and 10-year maturity. Five-year security worth USD 750 mn was sold at the coupon rate of 6.25%, and 10-year security worth USD 1 bn was sold at the coupon rate of 6.50%. Also, in order to minimise the FX risk as much as possible, Serbia concluded swap (hedging) transactions, whereby it converted the liabilities arising from the issue of dollar eurobonds into euros. Given the uncertainty that prevailed in the international financial market at the time, these terms can be considered favourable, especially in comparison with investment grade countries, which also issued eurobonds in the same period.

Trade in the secondary market of dinar securities stepped up in H1 2023, measuring RSD 76.8 bn compared with RSD 66.0 bn in H2 2022. Yield rates for longer maturities have been on a continuous downward path in H1 2023. Weighted average yield rates ranged between 5.56% for the one-month remaining maturity and 6.21% for the 10-year remaining maturity.

Monetary tightening reflected on interest rates in the money market, pushing up the rates on new dinar loans in H1 2023. Hence, interest rates on household and corporate dinar loans increased in H1 by 0.8 each, to 13.1% and 6.6, respectively in June.

The rise in the interest rate on household dinar loans largely reflected the increase in the rate on the most dominant household loan category – cash loans (by 0.9 pp to 13.9%), as well as a higher rate on consumer and housing loans by 0.4 pp and 1.1 pp to 3.1% and 12.7%, respectively. As these two loan categories account for a much lower share in dinar household lending, their impact on the rise in total interest rate was less pronounced.

The increase in the weighted average interest rate on new dinar loans to corporates in H1 2023 reflected the rise in interest rates on loans of all types. This rise was particularly pronounced in case of working capital loans – by 0.9 pp to 8.4%, leading the way with a 51% share in dinar corporate lending. Next come other unclassified loans, whose interest rates rose by 0.8 pp to 4.0%, making up 42% of dinar corporate lending. The rate on investment loans gained 1.5 pp and climbed to 9.1%.

The ECB's monetary policy tightening in H1 2023 pushed up further the rates in the euro area money market, **driving up the rates on new euro-indexed loans** at home. The average interest rate on euro-indexed household loans went up by 1.3 pp to 7.2% in June. This was a result of the rise in the rate on housing loans by 1.5 pp, to the level of 6.7%, but also of an increase in the interest rate on other unclassified loans by 1.3 pp, to 9.5%.

The average interest rate on new euro-indexed loans to corporates edged up by 1.5% in H1 2023 to 6.5%, spurred by the rise in interest rates on working capital loans (by 1.3 pp, to 6.5%) and investment loans (by 1.7 pp, to 6.9%). These two loan categories make up 94% of total corporate lending in euros.

Monetary policy tightening also reflected on interest rates on dinar term deposits of households, which climbed 0.3 pp to 5.0% in H1 2023. Interest rates on dinar deposits of corporates edged down by 0.45 pp to 5.9%. Interest rates on corporate and household term deposits in euros rose by 0.8 pp and 0.2 pp to 2.8% and 3.0%, respectively.

Country risk premium and credit rating

The weakening of global cost-push pressures on account of lower energy prices and reduced problems in global supply chains pushed down the global risk premium in H1, leading to downward revision of the risk premium of observed emerging economies. Central banks' resolve to ensure inflation's return within the target tolerance band also contributed to the reduced risk aversion of market participants.

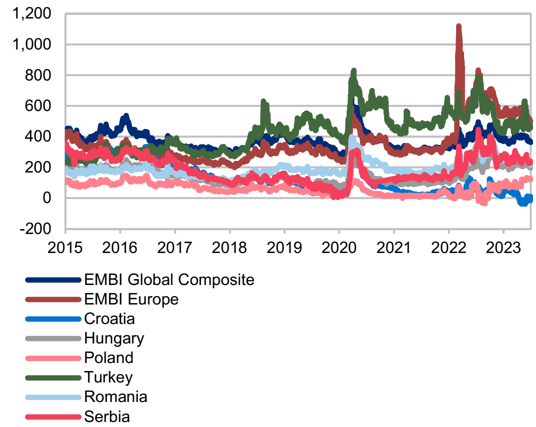
In this context, the composite risk measure for euro debt, EURO EMBIG Composite, decreased during H1 by 10 bp, coming at 197 bp at end-June. At the same time, **EURO EMBIG for Serbia** went down by 82 bp in H1, to 307 bp. Serbia's dollar risk premium also dropped in H1 (by 30 bp, to 240 bp), while continuing to move below the composite risk measure for dollar debt of emerging economies, EMBI Composite, which declined by 11 bp in H1, to 363 bp.

Serbia's credit rating was preserved in H1.

Fitch kept Serbia's credit rating at BB+ in February, one notch away from investment grade, despite pronounced uncertainty in the international environment. It kept the outlook stable, which confirms resilience of the domestic economy to numerous global challenges. The rating agency highlighted the importance of preserved stability of the exchange rate amid heightened geopolitical and other international risks, adequate fiscal policy and higher level of economic development measured by GDP per capita compared with 'BB' medians. It also underscored the proven stability of the banking sector, a high and adequate level of FX reserves and the full coverage of the current account deficit by FDI inflow, which is particularly important in conditions of elevated global energy prices and overall risks from the international environment.

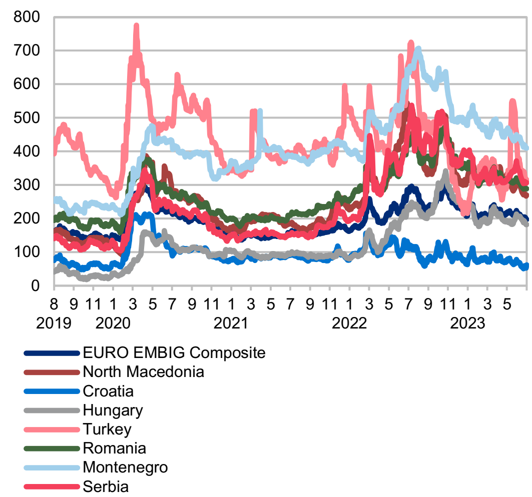
Standard&Poor's April report kept Serbia's credit rating at BB+ (with a stable outlook) despite the still pronounced international risks and the consequences of geopolitical developments for the global economy. Standard&Poor's emphasized that a gradual increase in the key policy rate helped avert a further 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 stability of the exchange rate. Further, the agency underlined the proven credibility of the overall economic policy, the country's favourable long-term prospects, fiscal discipline,

Chart III.3.5 **Risk premium indicator for dollar debt – EMBI**
(daily data, in bp)



Source: JP Morgan.

Chart III.3.6 **Risk premium indicator for euro debt – EURO EMBIG**
(daily data, in bp)



Source: JP Morgan.

Table III.3.1 **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.

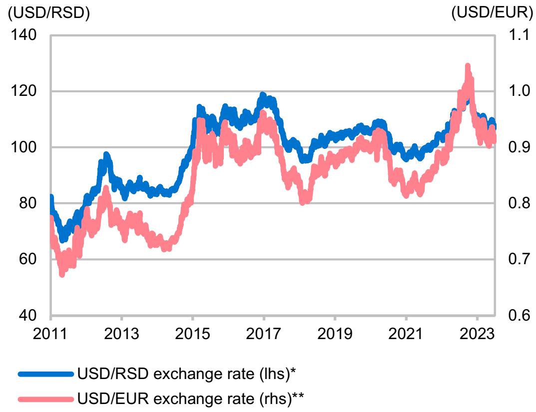
reduced financing needs and a downward public debt trajectory. It also assessed that the financial sector is well-capitalised, liquid and profitable and that NPLs are at a historical low.

Trends in the FX market and exchange rate

The relative stability of the dinar against the euro was preserved in H1. End-of-period, the dinar gained 0.1% against the euro. At the same time, as the euro strengthened against the dollar in the international market, the dinar appreciated against the dollar by 2.2%.

After recording higher FX demand than supply in the domestic market in January, driven mainly by the seasonally heightened demand of energy importers, over the following months FX demand was by far outstripped by supply, which resulted in stronger appreciation pressures. Buoyant supply of foreign currency in H1 was underpinned primarily by the high purchase of foreign cash. 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 in Q2 than in Q1. FX supply-side factors include FX inflows from payment card operations and a rise in FX-indexed bank assets.[10] On the other hand, the demand for foreign currency came from non-residents, peaking in May and June, but it was fully offset by FX supply from other sources.

Chart III.3.8 **Movements in USD/RSD and USD/EUR exchange rates**

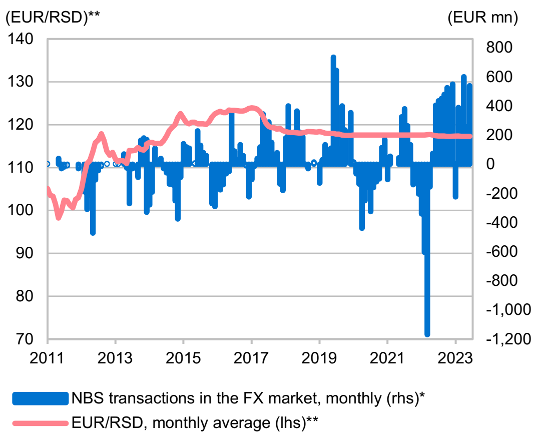


Source: NBS.
* 1 USD in RSD.
** 1 USD in EUR.

In order to maintain relative stability in the FX market, the NBS bought EUR 1,860.0 mn net in the IFEM in H1. It intervened mainly on the sale side in January, while in all other months it was active either only or mainly on the purchase side.

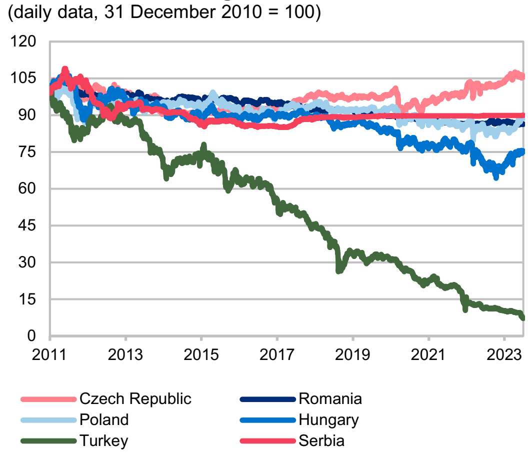
Interbank trading in the IFEM[11] in H1 averaged EUR 33.0 mn a day, down by EUR 2.4 mn from the same period last year. The highest turnover value was recorded in January (EUR 35.6 mn daily on average).

Chart III.3.7 **Dinar exchange rate and NBS transactions in the FX market**



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

Chart III.3.9 **Movements in exchange rates of national currencies against the euro***
(daily data, 31 December 2010 = 100)



Sources: NBS and websites of central banks.
* Growth indicates appreciation.

[10] 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.

[11] Excluding the NBS.

The currencies of inflation-targeting regional peers recorded divergent trends vis-à-vis the euro in H1. End-of-period, the currencies gaining ground against the euro were the Hungarian forint (7.8%), the Polish zloty (5.4%) and the Czech koruna (1.6%). Romanian leu weakened by 0.3%. The Turkish lira plunged by 29.4% 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%).

4 Money and loans

Monetary aggregates M1, M2 and M3

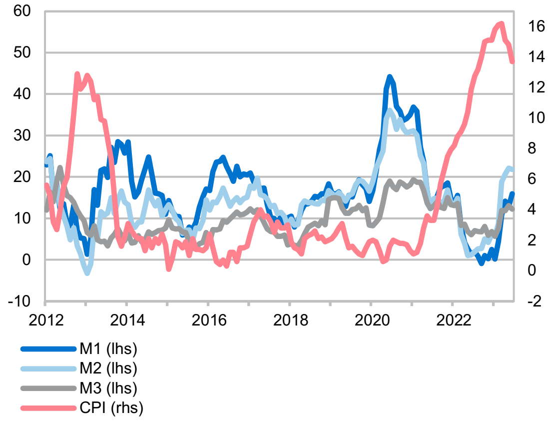
The broadest monetary aggregate, M3, which in addition to dinars includes FX deposits of non-monetary sectors, went up by 2.8% in H1, with the dinar component accounting for more than two thirds of the increment (2.0 pp contribution).

In terms of individual categories, dinar **demand deposits** were RSD 45.8 bn stronger thanks to the rise in corporate and household transaction deposits (RSD 23.1 bn and RSD 10.2 bn, respectively). In H1, transaction deposits of non-profit and other organisations went up by RSD 5.7 bn, of other financial organisations by RSD 4.7 bn, while other sectors recorded relatively minor changes in stock from the end of the previous year.

Dinar term deposits increased by RSD 44.6 bn in H1, of which RSD 18.9 bn pertained to corporate deposits, RSD 10.4 bn to deposits of local self-governments and RSD 6.0 bn to term deposits of other financial organisations. At the same time, household dinar savings continued up and the rise became particularly dynamic as of November 2022. As a result of financial stability and relative stability of the exchange rate preserved even in periods of heightened uncertainty, residents' dinar savings again touched new record levels and measured RSD 107.9 bn at end-June[12] (up by RSD 12.2 bn from end-2022). Accelerated growth in dinar savings is supported by their greater attractiveness compared to FX savings.

FX deposits rose EUR 292.9 mn in H1, mostly owing to the increase in household deposits. Household FX savings increased by EUR 102.8 mn in six months, to EUR 12.9 bn in June,[13] their highest level to date. At the same time, deposits of other financial organisations increased by EUR 21.5 mn and corporate deposits by EUR 168.1 mn

Chart III.4.1 **Monetary aggregates and consumer prices**
(y-o-y rates, in %)



Sources: SORS and NBS.

Table III.4.1 **Monetary survey**
(RSD bn)

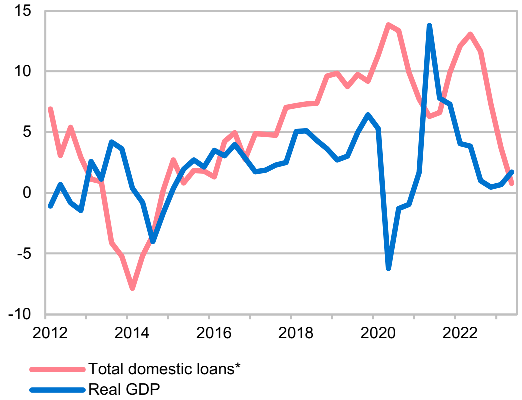
	2022	June 2023	Changes in H1 2023
Net foreign assets	**1,853,449**	**2,345,304**	**491,855**
Bank net foreign assets	-321,348	-316,176	5,172
Net domestic assets of the banking sector	**2,183,726**	**1,805,256**	**-378,471**
Net domestic loans	3,414,420	3,112,967	-301,453
Net claims on government	171,757	-124,900	-296,656
Government loans	830,183	827,830	-2,353
Government deposits	-658,427	-952,730	-294,304
Loans to other resident sectors	3,242,664	3,237,867	-4,796
Loans to households	1,458,057	1,472,381	14,324
Loans to the corporate sector	1,714,611	1,695,566	-19,046
Loans to other financial corporations	44,733	46,214	1,481
Loans to local authorities	24,815	23,273	-1,541
Loans to non-profit and other organisations	448	434	-14
Other net assets	-1,230,694	-1,307,712	-77,018
Money supply M3	**4,037,175**	**4,150,560**	**113,385**
Money supply M2	1,876,546	1,957,294	80,749
Money supply M1	1,435,715	1,471,860	36,146
Currency in circulation	310,873	301,176	-9,697
Sight deposits	1,124,841	1,170,684	45,843
Dinar savings and term deposits	440,831	485,434	44,603
FX deposits	2,160,629	2,193,265	32,636

Source: NBS.

[12] Money supplies include only resident assets. Including the assets of non-residents, dinar savings amounted to RSD 108.7 bn at end-June.

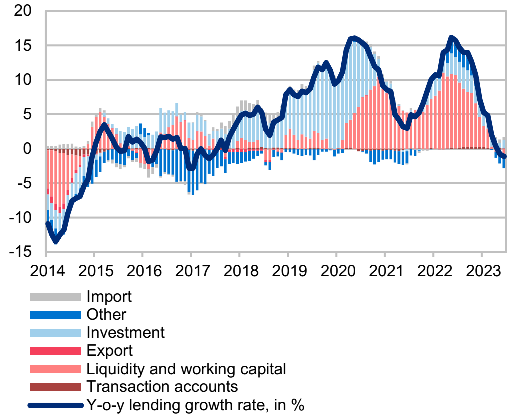
[13] Including non-residents' assets, FX savings equalled EUR 13.9 bn at end-June.

Chart III.4.2 **Lending activity and GDP**
(y-o-y rates, in %)



Sources: NBS and SORS.
* Excluding the exchange rate effect.

Chart III.4.3. **Contributions to y-o-y corporate lending growth**
(in pp, excluding the exchange rate effect)



Source: NBS.

owing to the FX inflow from exports, FDIs and corporate borrowing abroad.

In y-o-y terms, monetary aggregates growth accelerated gradually in H1, owing primarily to the dinar component, and reached the pre-pandemic level. In June, the y-o-y growth in M1, M2 and M3 stood at 15.9%, 21.8% and 12.2%, respectively.

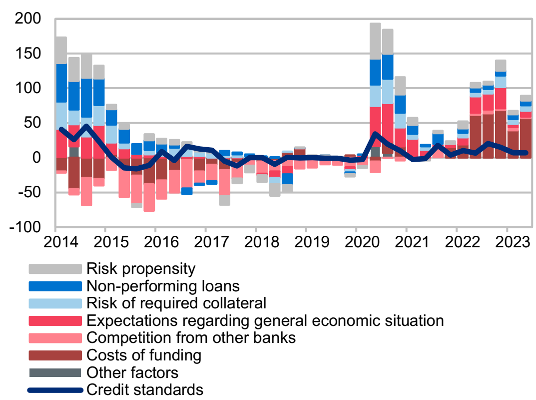
Bank loans

In y-o-y terms, the growth in **total domestic loans** continued to decelerate in H1. In June, this growth stood at 0.8% excluding the exchange rate effect, 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 ECB and NBS monetary policy tightening.

Excluding the exchange rate effect, **corporate loans** decreased by RSD 13.9 bn in H1. The decline refers entirely to dinar loans (-RSD 38.4 bn), as a reflection of the maturity of guarantee scheme loans, largely granted in dinars, while FX-indexed loans increased by RSD 24.6 bn. By purpose, non-categorised loans declined by RSD 12.5 bn, as did liquidity and working capital loans (by RSD 9.5 bn). On the other hand, import loans went up by RSD 6.5 bn, investment loans by RSD 1.1 bn, and current account overdrafts by RSD 0.6 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 sector, the borrowing of corporates from manufacturing was reduced the most (RSD 20.0 bn), followed by those operating in agriculture (RSD 5.9 bn) and transport (RSD 3.4 bn). On the other hand, enterprises operating in electricity supply increased the stock of their loans by RSD 7.3 bn, in construction by RSD 6.4 bn and in trade by RSD 4.4 bn. By enterprise size, the stock of loans granted to micro, small and medium-sized enterprises decreased by RSD 15.8 bn, and their share in total corporate loans stood at 60.2% in June.

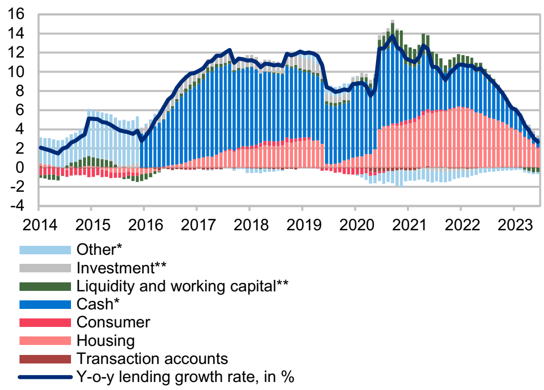
The volume of new corporate loans in H1 (RSD 516.7 bn) was 6.7% lower than in the corresponding period a year earlier. Liquidity and working capital loans accounted for the bulk of new corporate loans (63.2%), followed by investment loans (21.7%). Micro, small and medium-sized enterprises used somewhat more than a half of the approved liquidity and working capital loans, or 74% of investment loans.

Chart III.4.4 **Change in corporate credit standards and contributing factors**
(in net %)



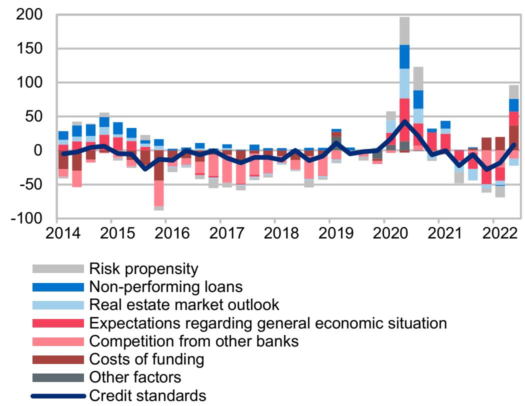
Source: NBS.
Note: Growth indicates the tightening, and decline indicates the easing of credit standards.

Chart III.4.5 **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 III.4.6 **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.

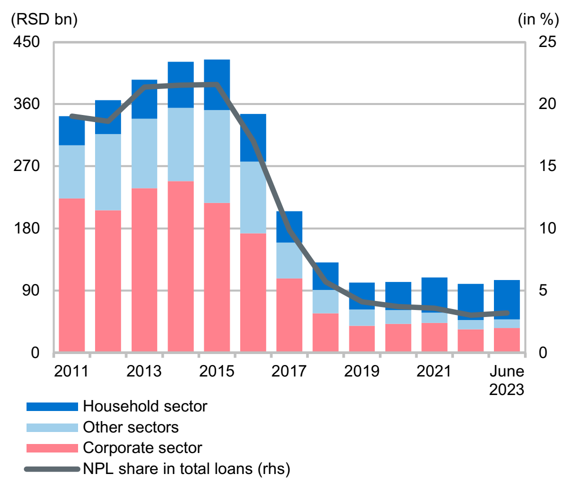
Excluding the exchange rate effect, **loans to households** rose RSD 14.1 bn in H1. Cash and housing loans increased the most (RSD 10.2 bn and RSD 2.8 bn, respectively), while other types of loans recorded relatively minor changes in stock compared to the end of the last year. As for loans granted to entrepreneurs, the stock of liquidity and working capital loans decreased by RSD 2.8 bn, while investment loans went up by RSD 3.0 bn. In the composition of household loans in June, the dominant categories were cash loans (44.0%) and housing loans (40.1%).

The volume of new household loans in H1 equalled RSD 258.0 bn, which is 6.9% lower than in the same period last year. Cash loans accounted for 62.8% and housing loans for 17.7% of new loans in H1.

The NBS Bank Lending Surveys[14] show that in H1 2023, as expected, banks continued with mild tightening of their corporate and household credit standards. Banks estimated that higher costs of the sources of funding, affected by tightened monetary policies of the NBS and ECB, are the key factor behind tighter credit standards, followed by uncertainty as to the overall economic situation and stronger risk aversion globally. Banks assessed that collective corporate and household loan demand decreased in Q1 but then slightly recovered in Q2, with corporate demand focusing on short-term loans and household mostly on dinar cash loans. The need for financing working capital was the crucial driver of corporate demand and debt refinancing of household loan demand.

Gross **NPL ratio** was preserved at a level close to the historical low of 3% in H1, 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[15] stood at 2.2%, and of the household sector[16] at 4.3%. NPL coverage remained high – allowances for impairment of total loans stood at 101.3%

Chart III.4.7 **NPL share in total loans, gross principle**



Source: NBS.

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

[15] Includes companies and public enterprises. Looking at companies only, the NPL share in total loans stood at 2.6% in June.

[16] With entrepreneurs and private households included, NPL share also stood at at 4.3% in June.

of NPLs in June, while allowances for impairment of NPLs reached 57.9% of NPLs.

The **capital adequacy ratio** at end-H1 2023 equalled 22.3%, up by 2.1 pp from end-2022 indicating high capitalisation (regulatory minimum – 8.0%) and resilience of the banking sector to external and domestic risks.

5 Dinarisation

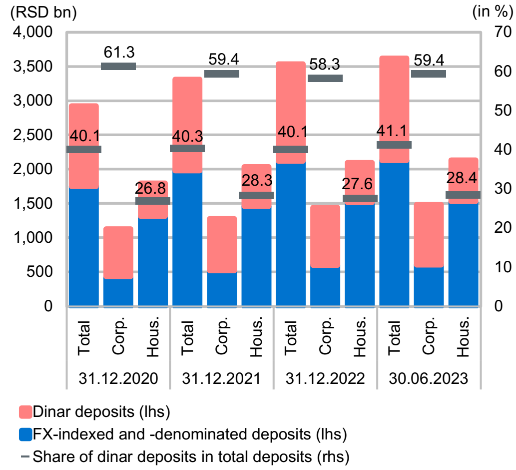
The NBS remains committed to delivering low and stable inflation, maintaining relative exchange rate stability and stability of the financial system, and to implementing measures and activities that contribute to the stronger trust in the dinar and its greater use in the domestic financial system.

With its reserve requirement policy, the NBS continued to encourage banks to rely more on the dinar sources of funding. The required reserve ratios on the dinar sources are still considerably lower than on the FX, while the allocated dinar required reserves are remunerated as opposed to the FX.

In addition, unlike FX securities, dinar government securities and dinar bonds of companies of acceptable solvency are included in the list of eligible collateral in NBS monetary operations which, in the long run, aids the development of the capital market, by encouraging banks to hold dinar securities in their portfolios.

As regards the development of FX hedging instruments, the NBS continued concluding bilateral FX swap purchase/sale transactions with banks.

Chart III.5.2 **Deposits by sector**



Source: NBS.

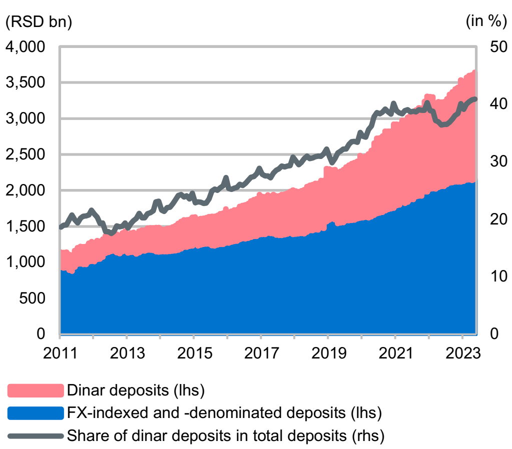
Judging by the majority of relevant indicators, the result of NBS measures and activities is a significantly higher degree of dinarisation than in 2012, when the implementation of the Dinarisation Strategy began.

The most significant progress was made in terms of dinarisation of household and corporate **deposits**, which reached a record high level of 41.1% in June 2023, going up by 1.0 pp from end-2022.

The increase was led by the rise in corporate deposits (by 1.1 pp, to 59.4%), amid a more significant depositing of dinar funds, while the amount of FX deposits remained broadly unchanged from end-2022.

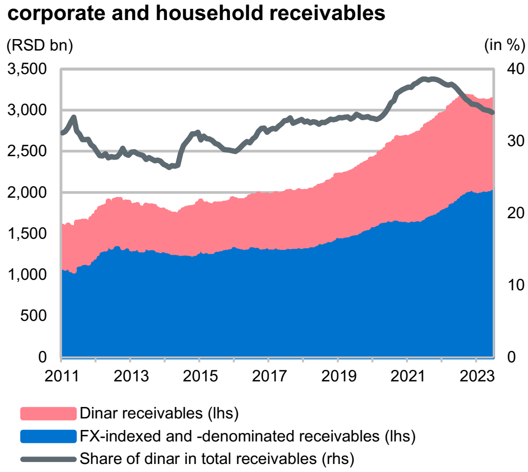
Given the significance of household deposits, as an exceptionally important source of the banking sector's

Chart III.5.1 **Share of dinar deposits in total corporate and household deposits**



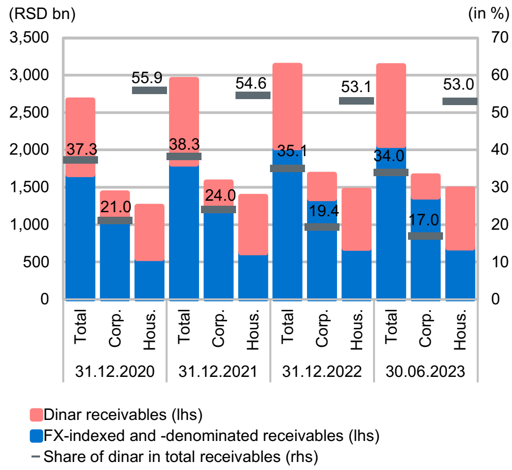
Source: NBS.

Chart III.5.3 **Share of dinar receivables in total corporate and household receivables**



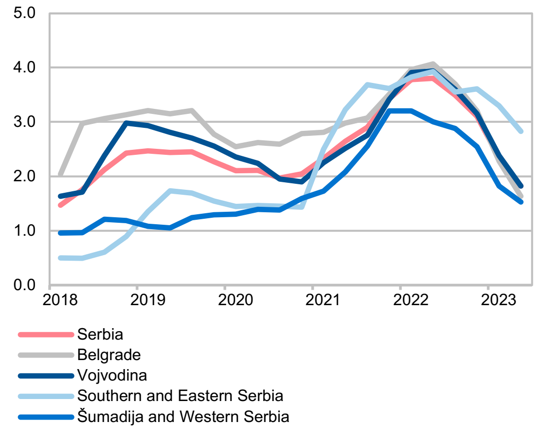
Source: NBS.

Chart III.5.4 **Receivables by sector**



Source: NBS.

Chart III.6.1 **Flat price movements in Serbia measured by the Flat Price Index**
(quarterly, in %)



Source: Republic Geodetic Authority.

lending activity, **it is critical that the degree of dinarisation of household deposits increased in H1 2023 as well**. At end-June 2023, this indicator equalled 28.4%, up by 0.8 pp from end-2022. This increase is also supported by **the buoyant growth in dinar savings since November 2022, which reached record highs at end-H1 2023**. The increase in dinar savings in this period was **accompanied by the improvement in savings maturity structure** in favour of term deposits.

The dinarisation of corporate and household receivables declined gradually in H1 2023. At end-June 2023, this indicator equalled 34.0%, which is 1.1 pp lower than at end-2022 mainly as a consequence of the maturity of dinar guarantee scheme loans. The dinarisation of corporate receivables therefore decreased by 2.4 pp in the period observed, to 17.0% at end-June.

The dinarisation of household receivables came at 53% in June 2023, having slid insignificantly, by 0.1 pp from end-2022 under the impact of a further rise in FX-indexed housing loans.

6 Real estate market

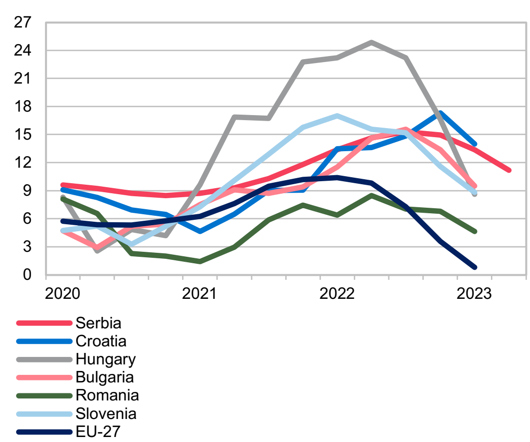
The pace of real estate price growth slowed down in H1 2023, while trading lost some momentum.

According to the Republic Geodetic Authority, in H1 2023 the total **number of real estate purchase/sale transactions** decreased by 14.1% y-o-y, to 59,938. At the same time, the number of purchased flats went down by 18.6%. The total volume of financial assets in the overall real estate market declined as well – by 8.3% y-o-y, reflecting mainly the smaller volume of trade in flats which accounts for around 35% of total transactions and around 55% of financial assets in the real estate market.

The Republic Geodetic Authority data on **real estate prices** point to a continued rise in H1, though at a somewhat more moderate pace than in 2022. The prices of flats increased by 12.2% y-o-y, with a faster rise in the prices of old than new buildings (14% vs. 9.2%).

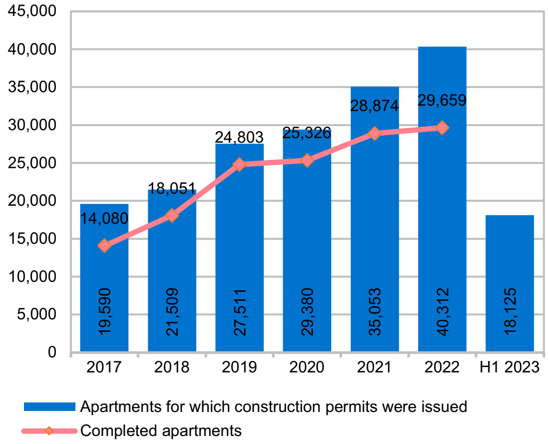
The fall in trading and the slower rise in the prices of flats led to a contraction in the value of the flats market by 3.5% y-o-y in Q1 and 11.1% y-o-y in Q2, above all in Belgrade (16.6% and 24.6% y-o-y, respectively).

Chart III.6.2 **Flat price movements measured by the Flat Price Index, in countries of the region**
(y-o-y rates, in %)



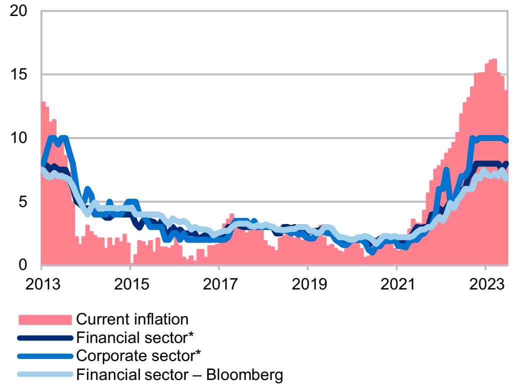
Source: Eurostat.

Chart III.6.3 **Number of issued construction permits and completed apartments**



Source: SORS.

Chart III.7.1 **Current inflation and one-year ahead inflation expectations***
(y-o-y rates, in %)



Sources: Gallup, Ipsos/Ninamedia, Bloomberg and NBS.
* Ipsos and Gallup agencies until December 2014, Ninamedia since December 2014, and Ipsos since January 2018.

The number of loan-financed real estate purchases declined in response to rising interest rates. In H1 2023, on average 18% of flat purchases were financed from loans, which is 10 pp less than in H1 2022.

Turning to the international environment, according to Eurostat data for Q1 2023, flat prices in countries of the region continued to rise at a slower pace, with the strongest growth recorded in Croatia (14.0% y-o-y) and Bulgaria (9.6% y-o-y). At the level of the EU, these prices increased marginally (0.8% y-o-y).

According to SORS data, the total **number of issued construction permits** amounted to 12,885 in H1, having fallen by 2.3% y-o-y led by the smaller number of permits issued for flats (-4.2% y-o-y), as well as for other buildings (-8.4% y-o-y). The number of issued construction permits reflects the high prices of construction materials and other increased production costs.

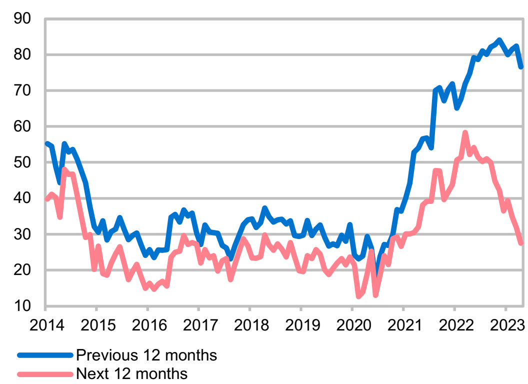
7 Inflation expectations

One-year ahead inflation expectations of the financial and corporate sectors have stabilised since end-2022 despite the continued rise in current inflation.

According to the Bloomberg survey, **one-year ahead inflation expectations of the financial sector** trended around 7% for the most part of H1, only to go down to 6.8% in June, 0.7 pp lower than at end-2022. According to Ipsos, these expectations were stable and moved around 8%.

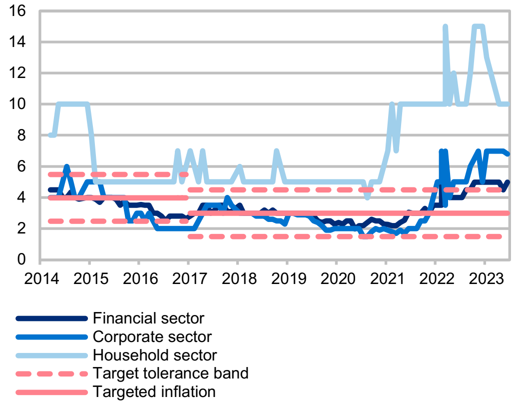
One-year ahead corporate inflation expectations were stable in H1, at 10% until June, when they lowered to 9.8%. For the first time since the outbreak of the Ukraine conflict, less than a half of corporates anticipated a rise in the prices of inputs in June 2023, while the percentage of corporates anticipating an increase in the prices of their final products and services in the next three months was almost two times lower in May and June relative to end-2022, at around 33%. In June, the percentage of respondents expecting a rise in the prices of their own products in the next 12 months stood at 70.8%, similar as in December 2022 (71.3%).

Chart III.7.2 **Inflation perceived and expected by households***
(in index points)



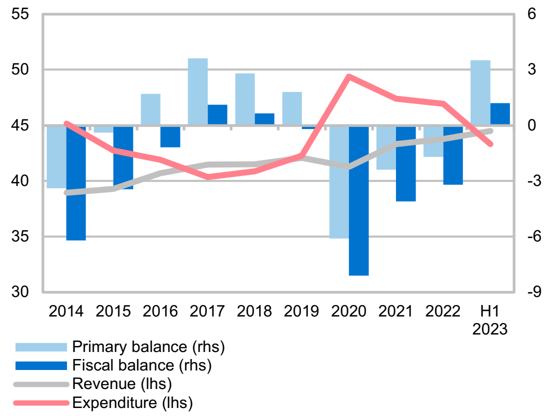
Sources: Ipsos/Ninamedia and NBS.
* Ipsos until December 2014, Ninamedia since December 2014, and Ipsos since January 2018.

Chart III.7.3 **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.

Chart III.8.1 **Fiscal and primary balance of general government budget**
(in % of GDP)



Source: Ministry of Finance.

Household inflation expectations, usually higher than those of other sectors, having moved at 20% for ten months, went down to 15% in February and hovered at that level in the coming months. According to the qualitative survey, the index of expected inflation was lower than the index of perceived inflation, indicating that households expect that inflation will be lower in the coming 12 months than it was in the previous year.

Inflation expectations of the financial sector for two years ahead ranged between 4.5% and 5.0% in June, while expectations for **three years ahead** moved around 3.8%, i.e. **within the NBS target tolerance band**. Two-year ahead corporate expectations were lowered from 7% at the beginning of the year to 6.8% in June. **Three-year ahead** corporate expectations stood at 5.0% for the entire period. Two-year ahead **inflation expectations of households** decreased to 10.0% in April and remained at that level all the way until the end of H1. This is also the level of households' inflation expectations for three years ahead.

8 Fiscal trends

Public finances for 2023 were projected in the environment of global uncertainty and unfavourable energy and food market situation. For this reason, in H1 2023, a portion of government budget was allocated for the alleviation of the impact of the energy crisis and for the maintenance of the living standard through public sector wage and pension increase. The new *Fiscal Strategy for 2024 with Projections for 2025 and 2026* envisages a medium-term fiscal framework of gradual abandonment of expansionary fiscal policy so as to ensure stable public finances. The policy of labour tax wedge reduction will also be continued, thus further relieving the burden on the economy and increasing its competitiveness. A new set of general fiscal rules defines the limits of fiscal deficit required for ensuring a downward trajectory of the share of public debt in GDP. Special fiscal rules limit the share of employee-related and pension expenses in GDP with the introduction of a new indexation formula. Ministry of Finance projections for 2024, 2025 and 2026 indicate that the share of general government deficit in GDP will go down to 2.2%, 1.5% and 1.5%, respectively, and that the share of general government public debt in GDP will decrease to 51.9% in 2026.

In the first six months of 2023, **general government surplus measured RSD 45.0 bn** (1.2% of GDP), while the same period last year saw a RSD 21.1 bn deficit. At the same time, **primary fiscal balance surplus equalled RSD 131.6 bn** (3.5% of GDP). As *the 2024 Fiscal Strategy* places **general government deficit for 2023 at 3.0% of GDP**, in H2 there is room of more than RSD 288 bn for the general government deficit to reach the level projected for the year as a whole.

In y-o-y terms, **public revenues** increased by 12.3% nominally in H1 2023 (or by RSD 183.1 bn). The largest contribution to the rise in tax revenues, as a result of an increase in the wage bill, came from social contributions (3.7 pp), despite the government decision to lower the rate of employer's contribution by 1 pp. Corporate profit tax revenues contributed 3.0 pp, thanks to higher corporate profitability last year. A somewhat lower increase in revenues was recorded by income tax (1.5 pp contribution) and VAT (0.9 pp contribution), partly as a result of price hikes and partly as a result of real economic growth. Better VAT collection was probably also driven by e-fiscalisation which became mandatory as of 1 May 2022.

In the period ahead, further reduction in the tax wage burden and continuation of the fight against tax evasion and the grey economy will remain fiscal policy priorities on the revenue side.

Public expenditures rose by 7.7% y-o-y nominally (or by RSD 117.1 bn). A dominant impact on the structure of public expenditures is generated by social assistance and transfers (3.2 pp contribution), on account of rising pension expenses (4.3 pp contribution). To a somewhat lesser extent, the rise in expenditures was driven by budget loans (2.3 pp) aimed primarily at mitigating the consequences of the energy crisis. The wage rise in the public sector reflected on a 2.1 pp contribution of employee-related expenses to the total increase in public expenditures. A dampening effect on public expenditures came from other transfers to households (-2.1 pp contribution) and other current expenditures (-1.5 pp contribution). Capital expenditures also provided a mild, negative contribution (-0.9 pp). Close to a third of total capital expenditures planned by the new *Fiscal Strategy* (RSD 588.4 bn) were incurred in H1. Capital investments in transport and utility infrastructure (projected at around 6-7% of GDP p.a.) will be a fiscal policy priority on the expenditure side.

General government public debt amounted to EUR 36.0 bn at end-June 2023, or 52.1% of GDP projected for 2023, down by 3.5 pp from end-2022 as a result of the higher projected nominal GDP growth in 2023.

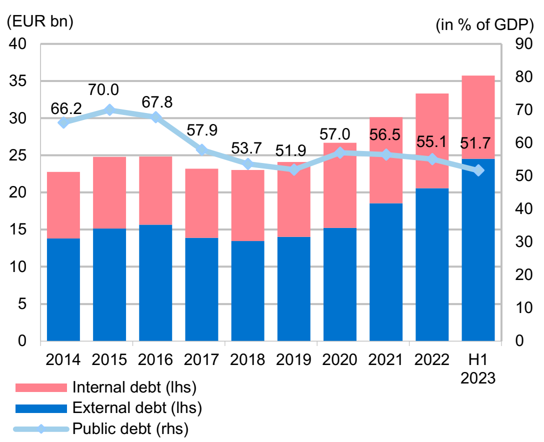
As for the public debt currency composition, the share of euro debt remained almost unchanged from end-2022, at 56.6%. On the other hand, the share of dinar debt was cut by 2.1 pp, to 22.8%, and of dollar debt by 1.1 pp, to 13.1% at end-June. The share of debt in SDR under the SBA with the IMF increased by 2.8 pp, to 6.8% at end-June.

9 Aggregate demand

Economic growth continued in H1 2023 (1.3% y-o-y), though at a slower pace than last year, which is attributable primarily to persistent global uncertainties and the consequently restrictive monetary policies. Unlike previous periods when economic growth was consumption-driven, in H1 it was based on the increase in exports and, to a somewhat lesser extent, fixed investment, while consumption contracted slightly and, coupled with reduced inventories, resulted in a negative contribution of domestic demand.

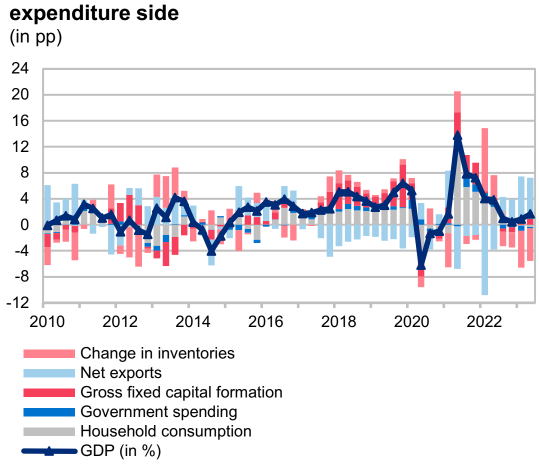
In H1, **private consumption** was scaled down by 0.4% y-o-y, which can be linked primarily to the reduction in household disposable income on account of rising food and energy expenses, as well as the tightening of NBS and ECB monetary policies and the consequently rising loan repayment expenses, and higher prices of new borrowing. That private consumption went down is indicated by the real retail trade turnover which dropped

Chart III.8.2 **Public debt***



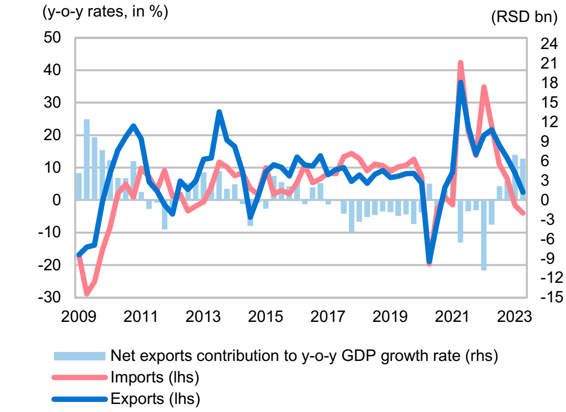
Source: Ministry of Finance.
* Central government.

Chart III.9.1 **Contributions to y-o-y GDP growth rate – expenditure side**



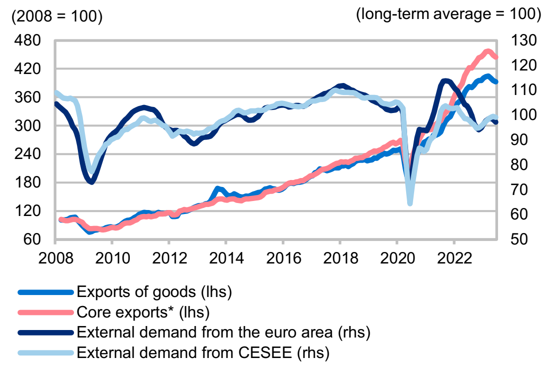
Sources: SORS and NBS calculation.

Chart III.9.2 **Exports and imports of goods and services**
(in previous-year constant prices, ref. 2010)



Sources: SORS and NBS calculation.

Chart III.9.3 **Movement of indicators of external demand for Serbian exports**
(3M moving average, s-a)



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

by 5.1% y-o-y in H1, while the nominal import of consumer goods in euros decelerated to 7.6% y-o-y entirely on account of rising import prices. Tourism indicators also point to lower private consumption as the fluctuation of domestic tourists, measured by the number of arrivals and overnight stays, slowed down from around 30% y-o-y in H2 2022 to 2.1% y-o-y in H1 2023.

As **government consumption** also dropped in H1 (-2.9% y-o-y), domestic consumption went down by 0.8% y-o-y, providing a 0.7 pp negative contribution to economic activity.

A mild growth in **private fixed investments** was sustained in H1 (0.3% y-o-y) despite the persistent geopolitical tensions and growing borrowing costs. We estimate that most investments were financed from own sources, as indicated by a significant increase in corporate profitability last year.[17] In addition, FDI inflow amounted to close to EUR 2.2 bn in H1, having increased by 33.8% from the same period last year when it experienced a short-term blip due to the outbreak of the Ukraine conflict. Also, investment loans increased by 3.4% y-o-y, though at a slower pace than in H2 2022 (6.3% y-o-y), due to the rising borrowing costs. Private investment growth is indicated mainly by the increase in the production of machinery and equipment which measured 19.2% y-o-y in Q2, while, on the other hand, the import of equipment dropped in nominal terms by 11.0% y-o-y. The construction sector also recovered in Q2 as indicated primarily by the rise in the value of executed works by 17.9% y-o-y in Q2, while the number of issued permits increased in y-o-y terms in May, for the first time in ten months, by 2.4%, and then again in June, by 18%.

Government investments increased by 9.2% y-o-y, which is associated primarily with the implementation of significant infrastructure projects. As a result, total fixed investments went up by 3.1% y-o-y, adding 0.7 pp to economic growth.

In H1, **inventories went down** on account of higher exports, which, coupled with lower consumption, reduced total domestic demand by 4.6% y-o-y, dragging GDP down by 5.4 pp.

Despite lower external demand, real exports of goods and services increased in H1 by 5.1% y-o-y, while real imports declined by 3.8% y-o-y, resulting in a 6.6 pp contribution of net exports to the y-o-y real GDP growth.

10 Economic activity

Economic growth in H1 reached 1.3% y-o-y. Despite a slowdown in the services sector caused by reduced disposable income, services grew collectively by 1.2% y-o-y in H1, contributing 0.6 pp to economic growth. A somewhat lower contribution to GDP growth stemmed from other sectors (up to 0.4 pp), with industrial growth being attributable entirely to the recovery of electricity

[17] Profit measured by net financial result increased by 26% in 2022, to RSD 864.2 bn.

sector. The construction sector began its recovery in Q2 and recorded growth of around 7% in H1, while agricultural production increased by around 10% y-o-y.

The recovery of the electricity sector drove **industrial production** up by 1.8% y-o-y in H1. After the problems that caused a reduction in electricity output last year, the situation stabilised in 2023, resulting in a 16.9% y-o-y rise in the production of electricity in H1 and its 2.8 pp contribution to the growth in the volume of industrial production. On the other hand, the volume of mining output contracted slightly (-0.5% y-o-y), due to the lower coal exploitation in Q2. The volume of manufacturing output also dropped, by 1% y-o-y, possibly amid a slowdown in external demand.

Manufacturing activity contracted in 12 out of 24 branches, which can be associated with the still present geopolitical tensions and restrictive monetary conditions that weigh down heavily on external demand. The production of base metals, metal and chemical products recorded a double-digit y-o-y fall, while the production of food dropped insignificantly (-0.6% y-o-y). On the other hand, the production of computers and electronic products increased by 58.5% y-o-y, and of machinery and equipment by 19.2% y-o-y.

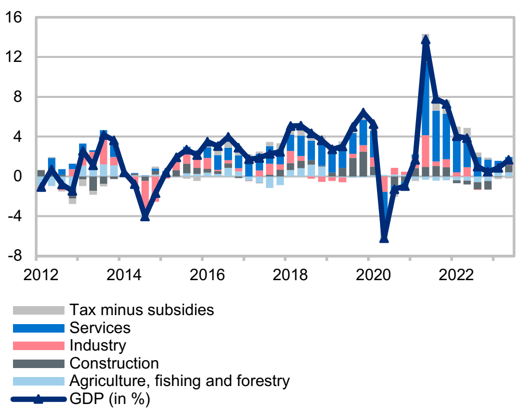
Following a 9.8% y-o-y decline in activity in 2022 and a further fall of 1.4% y-o-y in Q1 2023, the **construction** sector began its recovery in Q2 and posted around 15% y-o-y growth as a result of the implementation of important transport infrastructure projects (Belgrade bypass, sections of the Morava 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 has been recording y-o-y growth since May (2.4% in May and 18.0% in June) for the first time after July 2022. On the other hand, the production and import of construction materials in H1 declined by 8.8% and 5.7% y-o-y, respectively.

While H1 did see a slowdown in **services**, to 1.2% y-o-y from 6.1% y-o-y in H1 2022 and 3.4% y-o-y in H2 2022, collectively they provided the largest contribution to economic growth (0.6 pp). The persistence of growth is indicated primarily by tourism data as in H1 the number of arrivals and overnight stays of tourists, particularly foreign tourists, went up by 13.9% and 10.5% y-o-y, respectively. In addition, real turnover in catering increased in the period January–May by 14.2% y-o-y. On the other hand, real turnover in retail trade dropped by 5.1% y-o-y, which can be associated with the reduction in household disposable income due to increased restrictiveness of NBS and ECB monetary policies and rising food and energy prices.

Weather conditions in the year so far and the SORS preliminary estimate about the rise in wheat production of around 20% y-o-y point to a better agricultural season this year, which resulted in the around 10% growth of **agricultural production in H1** relative to the same period last year when below-average activity was registered due to unfavourable weather conditions.

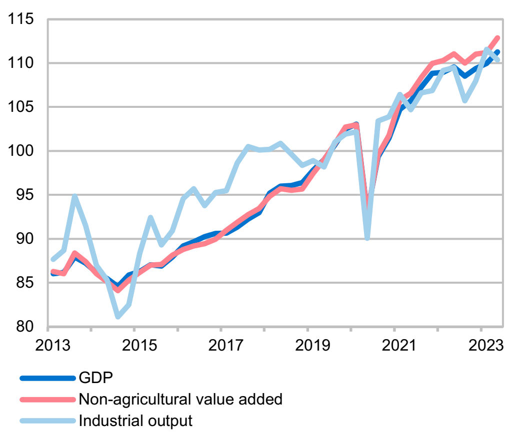
In H1, **net taxes** were at roughly the same level as last year, providing a mild, negative contribution to economic activity (-0.2 pp). At the level of the year,

Chart III.10.1 **Contributions to y-o-y GDP growth rate – production side**
(in pp)



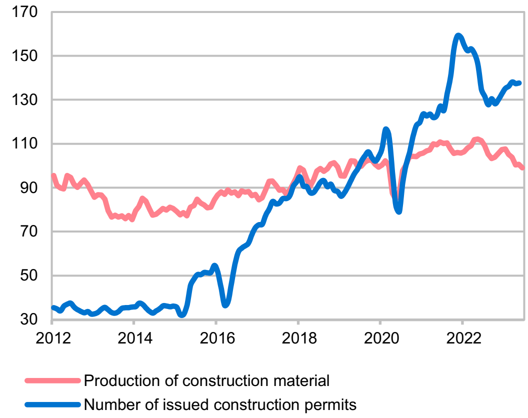
Sources: SORS and NBS calculation.

Chart III.10.2 **Economic activity indicators**
(s-a data, 2019 = 100)



Sources: SORS and NBS calculation.

Chart III.10.3 **Construction activity indicators**
(quarterly averages s-a, 2019 = 100)



Sources: SORS and NBS calculation.

however, we expect net taxes to provide a positive contribution of 0.2 pp.

Under our August projection, GDP growth will measure between 2% and 3% this year, though we believe it is more likely to be closer to the lower bound of the projected range. On the production side, GDP growth will be driven by the rise in services, agriculture and construction as a reflection of the planned transport and utility infrastructure projects. This year, a mild, positive contribution (around 0.1 pp) is expected from industry, primarily as a result of the recovery of production in the energy sector, while a negative contribution will be generated by manufacturing which is affected by the lower output of our most important trade partners, primarily Germany.

11 Wages and employment

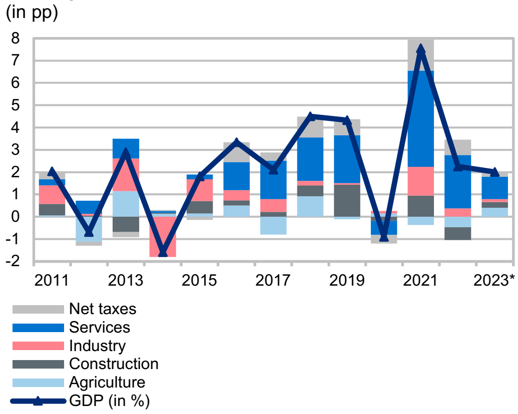
Average wage increase accompanied with a rise in formal employment and a new record low level of registered unemployment **testifies to the continuation of favourable labour market trends in H1 2023**.

Nominal net wage in H1 averaged RSD 84,204 (EUR 718), accelerating its y-o-y growth to 15.4% (from 14.1% in H2 2022), driven by a faster rise in private sector (17.1%) than in public sector wages (11.9%). At the same time, both median and minimum wage went up in this period, by 16.6% and 15.2% on average, respectively.

Average wages continued to increase in y-o-y terms in all **economic branches** in H1 2023, the most prominent increase being in trade (16.6%), manufacturing (16.5%) and art, entertainment and recreation (16.4%). Double-digit y-o-y growth in wages was recorded in almost all sectors which generally belong to the private sector, except for energy (8.5%). Average wages continued to post y-o-y growth also in sectors which generally belong to the public sector – public administration (14.2%), education (12.2%) and health (9.3%). The y-o-y rise in average wages was dispersed widely across **Serbia's regions**, ranging between 14.4% in Southern and Eastern Serbia and 16.3% in the Belgrade region.

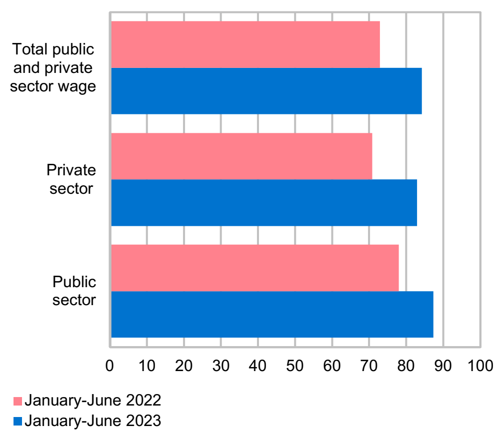
Owing to the rise in average wages and formal employment, the **total nominal net wage** – as the dominant source of consumer demand, increased by 18.0% y-o-y in H1. On the other hand, as employment

Chart III.10.4 **Contributions to annual GDP growth rate – production side**
(in pp)



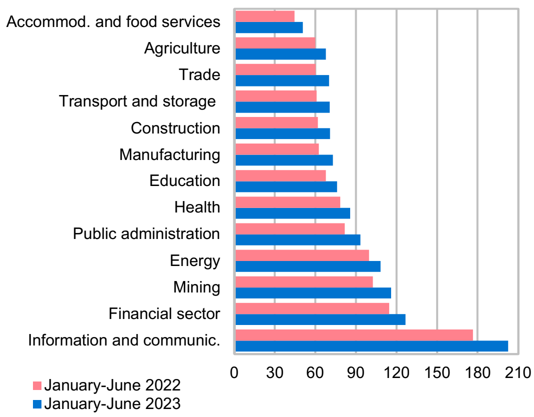
Sources: SORS and NBS calculation.
* NBS estimate.

Chart III.11.1 **Average nominal net wage**
(RSD thousand)



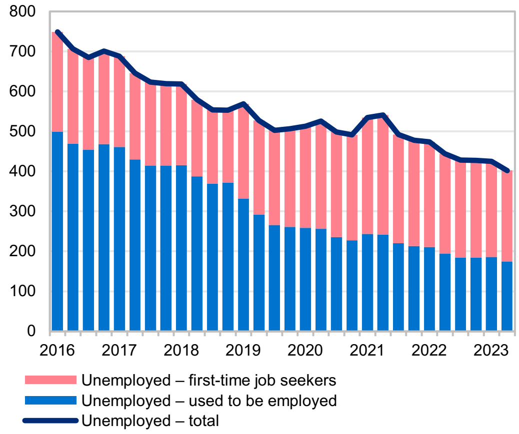
Source: SORS.

Chart III.11.2 **Average nominal net wage by economic sector**
(RSD thousand)



Source: SORS.

Chart III.11.4 **Registered unemployment**
(thousand persons, quarter end)



Sources: NES.

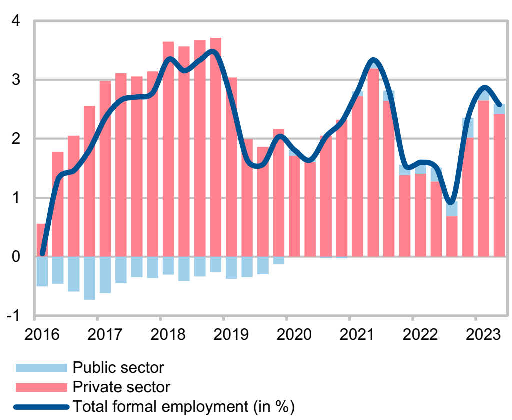
grew faster than economic activity, the overall economic productivity declined by around 1.5% in H1 from the same period a year earlier.

Total formal employment increased by 2.7% y-o-y in H1, reaching the level of around 2.36 mn in June, according to SORS data obtained from the Central Registry of Mandatory Social Insurance and the Statistical Business Register. In June, formal employment rose by around 55 thousand y-o-y, driven dominantly by employment with legal entities (by around 40 thousand), followed by entrepreneurs and their employees (by around 18 thousand), while the fall in the number of individual farmers (by around three thousand) worked in the opposite direction.

As in the previous period, in H1 the bulk of new jobs were created in the **private sector**. Hence, private sector formal employment reached 1.75 mn in June, a new record high. In June, employment rose by around 53 thousand y-o-y, with the sharpest rise recorded in the ICT sector (by around 14 thousand), professional, scientific, innovation and technical services (by around nine thousand), as well as manufacturing (by around eight thousand). **Public sector** formal employment saw a rise by around six thousand, with the largest number of new recruits recorded in education. Conversely, formal employment was cut in agriculture and water supply (collectively by around one thousand).

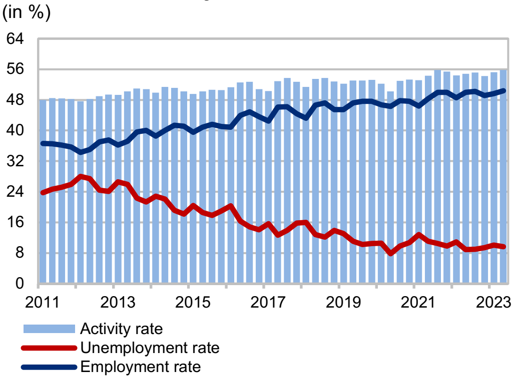
Registered unemployment touched a new low of 402,495 in June, down by around 42 thousand y-o-y, according to

Chart III.11.3 **Composition of y-o-y growth in formal employment**
(in pp, quarterly average)



Source: SORS and NBS calculation.

Chart III.11.5 **Labour market indicators under the Labour Force Survey**
(in %)



Source: SORS.
* Data for 2022 are revised based on the revision of demographic estimates of the main labour market groups according to the 2022 Census.

the National Employment Service. The registered y-o-y drop in unemployment in June was widely dispersed across all occupation groups of the production and services sectors.

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, and the average employment rate was cut by 0.9 pp. According to the revised LFS for Q2, the activity and employment rates went up by 1.0 pp and 0.4 pp y-o-y to 55.8% and 50.4%, respectively, while the unemployment rate equalled 9.6%.

Index of charts and tables

Charts

Tables

CIP - Katalogizacija u publikaciji
Narodna biblioteka Srbije, Beograd

336.7

*ANNUAL Monetary Policy Report ... /
National Bank of Serbia. - 2010- . -
Beograd (Kralja Petra 12) : National Bank of
Serbia, 2011 (Beograd : Zavod za izradu
novčanica i kovanog novca Topčider). - 30 cm

Два пута годишње. - Varijantni naslov: Semi-annual
Monetary Policy Report. - Ima izdanje na
drugom jeziku: Godišnji izveštaj o
monetarnoj politici (Narodna banka Srbije) * =
ISSN 2217-6292
ISSN 2217-6535 = Annual Monetary Policy
Report (National Bank of Serbia)
COBISS.SR-ID 185843468