

# ANNUAL MONETARY POLICY REPORT



National Bank of Serbia

# 2023



ANNUAL MONETARY  
POLICY REPORT

2023

**NATIONAL BANK OF SERBIA**

**Belgrade, Kralja Petra 12**

**Tel: +381 11 3027-100**

**Belgrade, Nemanjina 17**

**Tel: +381 11 333-8000**

**[www.nbs.rs](http://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.<sup>1</sup>

Pursuant to the Statute of the National Bank of Serbia,<sup>2</sup> 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 *Annual Monetary Policy Report 2023* was reviewed and adopted by the National Bank of Serbia's Executive Board on 13 June 2024.

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:

Governor Jorgovanka Tabaković, PhD

Vice Governor Željko Jović, PhD

Vice Governor Ana Ivković, PhD

Vice Governor Dragana Stanić, MA

Vice Governor Nikola Dragašević

---

<sup>1</sup> 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.

<sup>2</sup> 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

<b>Overview</b>	<b>1</b>
<b>I Strategic monetary policy framework</b>	<b>5</b>
<b>II Monetary policy and achievement of the inflation target</b>	<b>7</b>
1 Monetary policy in 2023	7
2 Monetary policy instruments	10
Open market operations	10
Deposit and lending facilities	10
Required reserves	10
Interest rates	11
FX market operations	12
FX swaps	12
3 Achievement of inflation target in 2023	12
<b>III Macroeconomic environment</b>	<b>15</b>
1 International environment	15
Economic activity and inflation	15
Monetary policy	18
Financial and commodity markets	19
2 International transactions	22
Balance of payments and FX reserves	22
International investment position	24
3 Financial market trends	25
Interest rates	25
Country risk premium and credit rating	27
Trends in the FX market and dinar exchange rate	28
4 Money and loans	29
Monetary aggregates M1, M2 and M3	29
Bank loans	30
5 Dinarisation	33
6 Real estate market	35
7 Inflation expectations	36
8 Fiscal trends	37
9 Aggregate demand	38
10 Economic activity	39
11 Wages and employment	40
<b>IV Outlook for key macroeconomic indicators in 2024</b>	<b>43</b>
Index of charts and tables	45





## Overview

Despite the consequences of the pandemic and the energy crisis, which brought about numerous disturbances in the international commodity and financial markets, and in the face of elevated uncertainty amid pronounced geopolitical tensions, **in 2023 global economic trends generally exceeded the expectations of relevant international institutions. The global economy has shown a significant degree of resilience to numerous shocks,** and the negative impact of tight monetary policies of leading central banks on economic growth was lesser than originally expected. **Global inflation slowed during 2023 thanks to the dissipation of cost-push pressures as a result of lower global food and energy prices, and tighter monetary conditions.** Nonetheless, core inflation in most countries showed a higher degree of persistence, reflecting, among other things, labour market factors, notably wage growth and a low unemployment rate. For this reason, as well as due to pronounced geopolitical tensions and conflict in the Middle East, leading central banks maintained a cautious approach in monetary policy conduct. The monetary tightening cycle was mostly completed in 2023, with the officials' emphasising that the timing of the decision to ease financial conditions will depend on the future inflation profile, economic activity and labour market trends.

**In 2023, the NBS raised the key policy rate by 1.5 pp to 6.5%, where it has been since July.** The decisions to increase the rate were made primarily with the aim to contain the second-round effects of earlier high cost-push pressures from the international environment on the domestic price growth through inflation expectations, as well as to ensure inflation's return within the target tolerance band over the monetary policy horizon. Since August 2023, the NBS has kept the key policy rate on hold, stressing the need to consider the full effects of earlier hikes, the easing of global inflationary pressures,

and the downward trajectory of inflation. At the same time, the fight against inflation continued with the adoption of the decision in September to mop up a part of banks' excess dinar liquidity through the required reserve instrument, thus further tightening domestic monetary conditions. The required reserve ratios on the FX base were raised by 3 pp each, to 23% and 16% for liabilities with the contracted maturity of up to and over two years, respectively, and the required reserve ratios on the dinar base by 2 pp to 7% and 2%. At the same time, the percentages of the portion of the FX required reserves allocated in dinars were raised by 8 pp to 46% and 38% for liabilities with the contracted maturity of up to and over two years, respectively.

**The tightening of NBS monetary conditions translated onto interest rates in the money market and the dinar part of the lending and savings market, signalling the effectiveness of the monetary policy transmission mechanism through the interest rate channel.** The movement of ECB interest rates reflected on euro interest rates in the domestic market. Therefore, to protect financial services consumers and preserve financial stability, in September the NBS temporarily capped interest rates on new housing loans to natural persons. At the same time, caps were introduced on interest rates on outstanding variable-rate housing loans worth up to EUR 200,000 approved to first-time home buyers. The above interest rate caps apply from October 2023 until end-2024. In this way, the NBS acted pre-emptively and did not wait for the risks of rising interest rates in the euro area to materialise and affect the capacity to repay housing loans, and thus financial stability.

**Lending activity slowed in the course of the year,** to 1.0% y-o-y in December. This was due to higher interest rates and tighter bank credit standards. A significant

impact on the stock of corporate loans also came from the maturing of loans under the guarantee schemes. Since September, a temporary negative impact on the stock of household loans also originated from the accounting treatment of housing loan receivables following the decision to cap interest rates on these loans. **The NPL share in total loans was kept close to the minimum of around 3% in December**, which shows that the quality of bank assets remained preserved, while **the capital adequacy ratio of 21.4% signals high capitalisation and resilience of the banking sector** (regulatory threshold 8.0%).

**In 2023, the NBS maintained the relative stability of the exchange rate of the dinar against the euro** in an environment of elevated global uncertainty, keeping a close eye on the factors from the domestic and international environment that affect the local FX market, and responding in a timely and well-measured manner. As appreciation pressures prevailed during the year, the NBS intervened in the interbank FX market mainly on the purchase side – it bought EUR 3,940 mn net, which was a record annual amount. End-of-period, the dinar gained 0.1% against the euro in nominal terms in 2023. As the euro strengthened against the dollar, the dinar appreciated by 4.0% against the dollar.

**The current account deficit amounted to EUR 1.8 bn (2.6% of GDP) in 2023, declining multiple times from 2022, when it stood at EUR 4.2 bn (6.9% of GDP).** In terms of the current account components, the external position was improved thanks to the narrowing of the goods deficit, which, thanks to rising export supply and lower energy imports, fell by EUR 2.8 bn compared to 2022. Goods exports expanded by 3.7%, mainly on the back of manufacturing, indicating the resilience and diversification of export supply, given that growth was achieved amid lower external demand. At the same time, goods imports were down by 4.8%, mostly due to lower energy imports (chiefly as a result of lower prices). The external position in 2023 improved also owing to the increase in the external services trade surplus (by 30.4% compared to 2022). Overall, goods and services exports rose by 7.9% in 2023, and imports decreased by 1.0%. Working in the opposite direction was the higher primary income deficit, reflecting higher expenditures based on FDI income and a lower secondary income surplus due to smaller transfers to the government sector, while the net inflow of remittances remained relatively high (EUR 4.6 bn).

**The country's external position was further strengthened by the continued high FDI inflow, which reached a new record amount of EUR 4.5 bn in 2023.**

For the ninth year in a row, the current account deficit was fully covered by the net FDI inflow, the coverage equalling 233% in 2023. Moreover, the high geographical and project distribution of the FDI inflow was maintained, as well as the predominant focus on export sectors, mainly manufacturing (25.5%), as the key export sector of the Serbian economy. The capital inflow was driven also by portfolio investment, financial loans and higher external debt of the corporate sector.

**In 2023, NBS gross FX reserves rose by EUR 5.5 bn to EUR 24.9 bn, which was their highest end-of-month and end-of-year level on record (since 2000).** Such level of reserves ensured the coverage of 6.7 months' worth of goods and services imports, which is twice the level prescribed by the adequacy standard. In line with the principles of safety and liquidity, funds were invested in highly liquid securities issued by the most advanced countries in the world and international financial institutions, and with prime institutions (central banks, international institutions and top-tier foreign banks).

**In 2023, the consolidated general government deficit equalled RSD 181.1 bn, or 2.2% of GDP, which is RSD 46.4 bn less than the deficit of 2.8% planned by the supplementary central government budget.** The overperformance reflects lower current expenditures compared to the plan, mostly those intended for the procurement of goods and services and for subsidies.

**Central government public debt came at 52.0% of GDP in late 2023, down by 3.1 pp from end-2022,** reflecting primarily the nominal GDP growth. The medium-term fiscal framework envisages a further reduction in the share of public debt in GDP, which should have a positive impact on the country's credit rating and risk premium and prevent major inflationary pressures from government spending. Going forward, the share of wages and pensions is expected to be stable, up to the limits defined by specific fiscal rules, i.e. around 10% and 11%, respectively, while priority will be given to infrastructure and capital projects, with a planned share of capital expenditures of around 6–7% of GDP in 2024–2026.

**Owing to the responsible economic policy and the efficient and coordinated response of monetary and fiscal authorities to numerous crises in the prior period, GDP growth measured 2.5%, for the second year in a row.** The growth was achieved despite subdued external demand amid the economic slowdown of the euro area, our key foreign trade partner, and pronounced geopolitical tensions. Positive GDP growth was recorded each quarter, accelerating significantly in H2 and

creating, thanks to the carry-over effect, a sound footing for growth in 2024. GDP growth in 2023 was driven by intensified activity in all production and most service sectors. At the same time, an almost equal contribution came from construction, industry and agriculture. On the expenditure side, the biggest positive contribution to growth was provided by net exports, on account of earlier investment in tradable sectors, which pushed up the export supply of manufacturing and underpinned the recovery of production in the energy sector, which enabled electricity exports. The positive investment dynamics was maintained thanks, among other things, to the achieved corporate profitability and FDI inflow, as well as the continued implementation of government-financed infrastructure projects. A positive impulse also came from household and government spending.

**Further employment growth, a reduction in the number of the unemployed, and double-digit wage growth testify to the continuation of favourable labour market trends in 2023.** The average nominal net wage equalled RSD 86,007 in 2023, up by 14.8% from the year before. Private sector wages (15.5%) rose faster than those in the public sector (13.3%), contributing to the further narrowing of the gap between wages in the public and private sectors. At the same time, wage growth remained broad-based. The total number of formally employed persons in 2023 increased by around 51,000 (2.2%) on average. The multi-annual downward trend of registered unemployment continued – there were 387,764 unemployed persons in December, around 39,000 fewer than in 2022. Such trends attest to the resilience of the labour market, despite the persistent consequences of the pandemic and other shocks from the international environment, which have largely been remedied thanks to responsible economic policy and government measures.

**Having peaked in March 2023, inflation in Serbia has been on a stable downward path since April, dominantly reflecting the effects of monetary tightening and the dissipation of global cost-push pressures on account of reduced global energy and food prices.** At end-2023, y-o-y inflation measured 7.6% and was almost half the level at end-2022. Core inflation,

influenced by monetary policy the most, has been on a downward path since April, while in H2 2023 it recorded single-digit levels, arriving at 6.5% at year end. In H1, one-year ahead inflation expectations of the financial and corporate sectors were stable, despite the continued growth of current inflation at the start of the year. With the easing of inflationary pressures, in H2 they slowed and came close to the NBS target tolerance band. The decrease in one-year ahead inflation expectations and the anchoring of medium-term financial sector expectations signal the credibility of NBS monetary policy.

**In 2023, monetary policy making was also based on NBS projections, which, in terms of inflation, GDP and balance of payments, almost fully materialised. According to projections, we expect inflation to return within the target band in mid-2024, while by late 2023 it is likely to get close to the target midpoint of 3.0% – mirroring the effects of past tightening of monetary conditions, the weakening of global cost-push pressures, the continued slowdown of imported inflation, and the further expected fall in inflation expectations. We expect growth to accelerate to the range of 3–4% in 2024, with the 3.5% central value, which signals a “soft landing”, i.e. that the effects of past monetary tightening on economic activity and financial stability were minimal.**

Given all the above, it may be concluded that Serbia's **medium-term macroeconomic prospects remain favourable, supported by responsible pursuit of economic policy, continued implementation of structural reforms and large infrastructure projects.** 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.



# 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 the 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. As the process of nominal, real and structural convergence to the EU 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  $\pm 1.5$  pp.**<sup>1</sup> A year later at its **last rate-setting meeting in late 2023, the NBS Executive Board decided to keep the inflation target at the same level until December 2026.**<sup>2</sup>

By keeping the midpoint at 3.0%, the NBS has confirmed **its determination to maintain inflation at a low level in the medium run, which is one of the key prerequisites for the 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 Serbia's resilience to potentially negative external influences, and thus to the preservation of a solid growth outlook for our economy.

The width of the target tolerance band was kept at  $\pm 1.5$  pp, which diminishes the need for frequent monetary policy interventions and contributes to greater 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

<sup>1</sup> The NBS's Memorandum on Inflation Targets until 2025 was adopted at the meeting of the NBS Executive Board of 8 December 2022.

<sup>2</sup> The NBS's Memorandum on Inflation Targets until 2026 was adopted at the meeting of the NBS Executive Board of 7 December 2023.

the achievement of its second objective – financial stability, and to support the Government’s economic policy, which encourages sustainable economic growth.

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 policy 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 inflation target 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 system 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, monetary policy decisions and macroeconomic projections are explained in detail when presenting the *Inflation Report*.



## II Monetary policy and achievement of the inflation target

### 1 Monetary policy in 2023

In 2023, monetary policy was pursued in accordance with the NBS Monetary Policy Programme in 2023<sup>3</sup> and contributed to preserving 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 achieving 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.

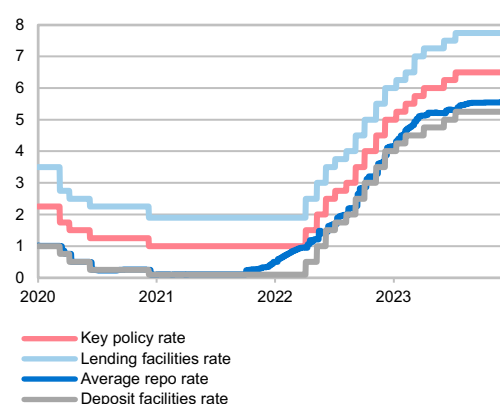
**The NBS further tightened monetary conditions by raising the key policy rate, though at a more moderate pace than in 2022. After July 2023, the key policy rate was kept unchanged. Still, in September the NBS made the decision to absorb a part of banks' excess dinar liquidity through the required reserve instrument, thereby further tightening monetary conditions at home. By maintaining the relative stability of the dinar exchange rate against the euro, the NBS significantly contributed to containing the spillover of rising import prices onto the prices at home, and to macroeconomic stability amid heightened global uncertainty.**

**In the period January–July, the key policy rate was raised by a total of 150 bp, to 6.5%. The July hike was**

the 15<sup>th</sup> consecutive hike in the current cycle (since April 2022), resulting in a 550 bp higher key policy rate. 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 129 bp since the start of the year to 5.45% at end-July.

By raising its interest rates, in the observed period the NBS responded to the persisting inflationary pressures, notably from the international environment. The Executive Board emphasised geopolitical tensions and uncertainty regarding the duration of the Ukraine conflict and its effects on global prices of energy and other primary commodities. Even though the global prices of oil, other energy products and primary commodities

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



Source: NBS.

<sup>3</sup> RS Official Gazette, No 137/2022.

declined, the costs of container transport were lowered and global supply bottlenecks were less pronounced, the struggle of central banks with inflation was not over yet. **Further moderate tightening of monetary policy was still mandated, as global inflation showed signs of stronger than expected resilience.** Headline inflation in the euro area, our key trade partner, slowed down gradually, still standing considerably above the ECB's inflation target. The divergence in the movement of headline and core inflation was particularly concerning, under the impact of higher inflation expectations, companies' high profit margins and labour market factors. Emphasising its commitment to bringing inflation back to the target in a timely manner, the **ECB** further tightened monetary policy from the start of the year until July 2023, by a total of 175 bp, to 4.25% (and once again in September to 4.5%). At the same time, the **FED** further tightened monetary policy by expanding its federal funds rate range last time in July, to 5.25–5.50%, its highest level in 22 years.

In deciding to gradually increase the key policy rate, the Executive Board took into account that the **tightening of global financial conditions** could dampen capital inflows to emerging economies. In March, unexpected problems in some US and European banks shook 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 rate hikes, 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 key 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 key rate to fight inflation, and macroprudential measures to preserve financial stability.

As for Serbia, even amid uncertainty in the international market, a **high FDI inflow was encouraging, as was the fact that Serbia made a successful presentation at the international financial market, when it issued eurobonds.** In addition, the Executive Board pointed out 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, an adequate level of FX reserves, and a stable banking sector.

After the hike in July 2023, the Executive Board kept the key policy rate on hold, **but in September decided to raise banks' required reserve rates**, namely: a) the required reserve rate on the FX base by 3 pp each, to 23% and 16% for liabilities with maturity up to and over two years, respectively; b) the required reserve rate on the dinar base by 2 pp each, to 7% and 2% for liabilities with maturity up to and over two years, respectively. In the same period, it raised the percentages of dinar allocations of FX required reserves by 8 pp each, to 46% and 38% for liabilities with maturity up to and over two years, respectively. The said changes in the required reserves aimed to support past monetary policy tightening in an environment of pronounced excess dinar liquidity in the banking sector, thus contributing to inflation's return within the target tolerance band.

**The Executive Board's decision to keep the key policy rate on hold since July 2023** was motivated by the continued subsiding of global inflationary pressures, the established downward trajectory of inflation at home and its anticipated retreat within the target tolerance band in mid-2024. The Board also took into account the past increases in the key policy and required reserve rates, with the full effects of these measures yet to play out. Past monetary policy tightening has passed through to interest rates in the markets of money, loans and savings, which led to lower one-year ahead inflation expectations of the financial and corporate sectors, indicating the efficiency of the monetary policy transmission mechanism.

**Y-o-y inflation in Serbia has been on a downward trajectory since April 2023**, with its decline slightly sharper than expected. Until the end of the year, inflation declined to almost half the level recorded a year ago, and measured 7.6% y-o-y in December, primarily as a result of monetary policy measures, the weakening of global cost-push pressures, the fall in imported inflation, a good agricultural season, and lower inflation expectations. Core inflation (CPI excluding food, energy, alcohol and cigarettes), which is most affected by monetary policy measures, moved below headline inflation throughout 2023, and measured 6.5% at the end of the year.

In making its monetary policy decisions, the Executive Board had in mind that global cost-push pressures continued to ease and inflation to decline, as these were the main drivers of domestic inflation in the prior period. Despite persisting geopolitical risks, it was estimated that the global economy was approaching price stability, due to the implementation of restrictive policies by the



majority of central banks. **In the euro area**, headline inflation receded further, although it went up in December for the first time since April 2023 (to 2.9% y-o-y), which was expected given the low base from energy prices. Euro area inflation was expected to slow down further in 2024, to 2.7% on average, and 2.1% in 2025. The **ECB** pointed out that inflationary pressures in the euro area were still elevated, but that they would gradually decline as the inflation slowdown would soften the pressures on wage growth. Since September, the ECB has not changed its interest rates, which are at their highest level since the introduction of the euro in 1999. Their robust pass-through to financial conditions weakened the dynamic of credit, and hence, economic activity in the euro area, especially in Q4 2023.

The policy rates of most other central banks peaked in 2023 in the current monetary tightening cycle as well. A question arose at the year end as to when the interest rates of leading central banks, the ECB and the Fed, would start to decline and at what pace. It is expected that the leading central banks, as well as the central banks of most countries, will embark on the cycle of monetary policy easing in 2024, but when this will happen depends on the specific circumstances of each country. Nonetheless, the ECB, the Fed and the IMF point out that monetary easing should not come too early so as not to renew inflationary pressures.

Among the challenges from the international environment which mandate caution, the Executive Board highlighted geopolitical conflicts and the consequent risk of rising global prices of oil and other primary commodities. The prices of most primary commodities in the global market declined in 2023, but were still more than 40% above the pre-pandemic level. The global oil prices were particularly volatile – after the hike in September and October 2023, reflecting the decision of the OPEC+ countries to extend the cap on supply until end-2023, but also concerns over oil supply amid conflicts in the Middle East, the price of oil declined primarily due to subdued demand from advanced economies. The global gas price dropped as well, and so did the global electricity price. Still, uncertainty surrounding the movement of energy prices remained pronounced, particularly due to potential escalation of the Middle East conflict. In addition, China's economic performance largely affected global prices of energy and also of most other primary commodities, which is why China's growth outlook is one of the important factors of inflation movements in the period ahead.

As for factors at home, the Executive Board had in mind that **inflation expectations** of the financial and corporate sectors **continued down**, contributing to lower inflation and a higher real interest rate, i.e. restrictive monetary conditions even without changes in the key policy rate. 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, reflecting tighter financial conditions in the European and home market, the resulting fall in loan demand, as well as the maturing of guarantee scheme loans to corporates. In the household loan segment, from September a temporary negative influence stemmed also from the accounting treatment of receivables under housing loans after the adoption of the decision on capping interest rates on these loans. Nonetheless, **domestic demand continued to be supported chiefly by the preserved labour market and FDI inflow**, which yielded a positive impact on economic activity.

Despite the continuing rise in employment and real wage growth of 2.4% in 2023, **domestic consumption did not exert any major inflationary pressures**. Additionally, despite higher outlays for public sector wages, pensions and one-off fiscal transfers at the end of the year, 2023 recorded a lower than expected general government deficit, measuring 2.2% of GDP, thus creating a weaker than expected fiscal impulse. Overall, **GDP growth measured 2.5% in 2023, fully in accordance with the NBS's forecast**. Growth was led by net exports, thanks to rising exports of goods and services and lower imports, and by fixed investments. The easing of inflationary pressures in the international and domestic markets, as indicated by lower producer and imported prices, should have a positive effect on economic growth in the period ahead.

As the main risks to inflation and other economic developments still emanate from the international environment, the NBS will continue to monitor and analyse trends in the international commodity and financial markets and make monetary policy decisions depending on the pace of inflation's slowdown. The NBS will remain committed to its priority to deliver price stability in the medium term, while at the same time preserving and strengthening financial stability. Without prejudice to these two 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.

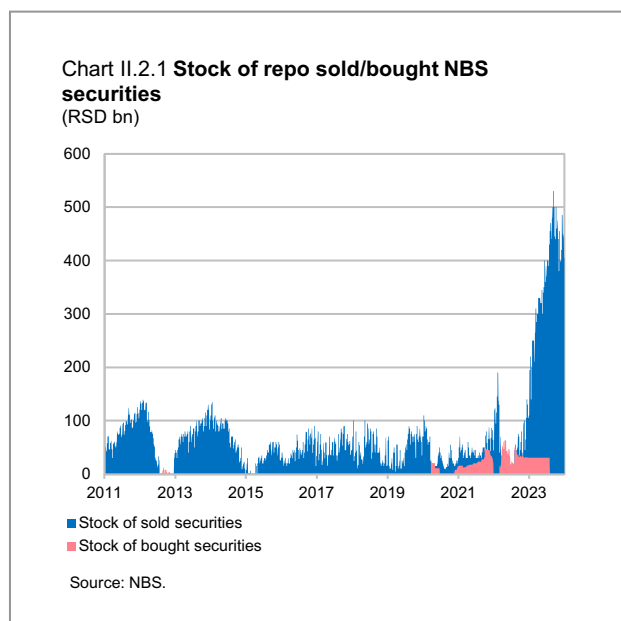
## 2 Monetary policy instruments

The main monetary policy instrument of the NBS is the **key policy rate**, i.e. **the interest rate on the main open market operations**.<sup>4</sup> 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 2023 were again one-week reverse repo transactions, i.e. repo sale of securities (liquidity absorbing).

The NBS implemented repo transactions using its own securities. For the needs of repo sale, one series of T-bills was issued in 2023, in the total nominal value of RSD 1,000 bn. The issuance of this series was greater than in the previous years (RSD 500 bn), reflecting the need to provide a sufficient amount of market material for smooth performance of repo transactions in an environment of pronounced excess dinar liquidity in the banking system. The increase in excess dinar liquidity was mostly facilitated by the NBS's FX purchase interventions in the international FX market amid appreciation pressures on the dinar.



In 2023, fifty-two repo sale auctions were organised. Auctions were held once a week, applying the model of the variable multiple interest rate. Total securities sales in 2023 (RSD 19,252.9 bn) were significantly higher than in 2022 (RSD 2,951.5 bn) due to rising excess dinar liquidity.

The stock of NBS securities in banks' portfolios averaged RSD 367.9 bn in 2023, which is a significant rise from a year earlier (RSD 56.3 bn). Relative to end-2022, the stock of sold securities rose by more than three and a half times (by RSD 295.0 bn), measuring RSD 405.0 bn at end-2023.

### Deposit and lending facilities

In 2023, banks continued to place overnight deposits with the NBS (deposit facilities). The average daily stock of bank deposits with the NBS in 2023 came at RSD 131.2 bn, which is RSD 63.5 bn more than in 2022. The highest average monthly stock was recorded in May (RSD 173.9 bn) and the lowest in October (RSD 89.8 bn).

In 2023, banks used daily liquidity loans against the collateral of securities (lending facilities) – two banks as intraday loans in the total amount of RSD 32.4 bn, while overnight loans were not used at all.

### Required reserves

Taking into account the current monetary conditions in the banking sector and the movement of inflation above the upper target band, in September 2023 the NBS Executive Board raised required reserve rates, namely: on dinar required reserves by 2 pp each (from 5% to 7%, and from 0% to 2% for liabilities with maturity of up to and over two years, respectively), and on FX required reserves by 3 pp each (from 20% to 23%, and from 13% to 16%, respectively). At the same time, the percentages of dinar allocations of FX required reserves were raised by 8 pp each (from 38% to 46%, and from 30% to 38%, respectively).

The aim of increasing the required reserve rates was to support past monetary tightening carried out by raising the NBS main interest rates, and thus to enhance the efficiency of the monetary policy transmission mechanism and help inflation retreat within the target tolerance band. In addition, this measure aimed to absorb a part of excess dinar liquidity from the banking system and support

<sup>4</sup> The key policy rate is the maximum, i.e. the highest rate applied in the conduct of repo transactions of sale of securities.

interbank money market operations, which recorded a significant drop in turnover amid excess dinar liquidity.

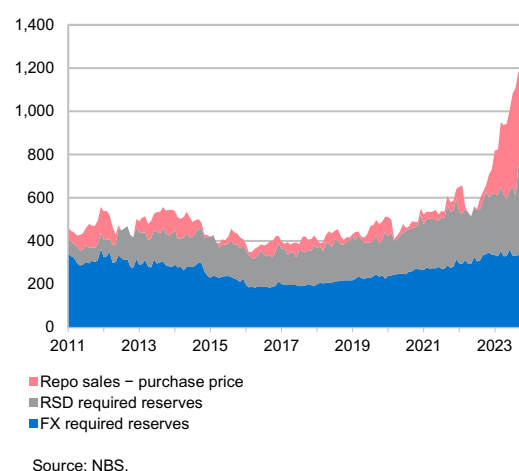
By implementing this measure, almost RSD 114 bn worth of dinar liquidity was withdrawn, with an almost neutral effect on FX liquidity (withdrawal of almost EUR 25 mn). This also boosted the turnover in the interbank money market, contributing to more efficient monetary policy transmission mechanism and strengthening the representativeness of benchmark interest rates in that market. After this measure entered into force on 18 September 2023, the average daily trading in the overnight interbank money market rose to RSD 4.0 bn at end-2023 from RSD 1.4 bn in the previous part of 2023.

Calculated FX required reserve (including allocations in foreign currency and dinars jointly) increased by EUR 770.1 mn in 2023, to EUR 5,222.1 mn at year end. The increase in FX required reserve in this period largely reflects the said increase in FX required reserve rates, and, to a lesser extent, the rise in banks' FX liabilities which make up the required reserve base. In 2023, these liabilities grew by EUR 0.4 bn, with an almost equal contribution coming from liabilities with maturity of up to two years, and those of longer maturities. Given the FX base composition, the increase was recorded in FX savings (EUR 0.6 bn) and FX deposits of corporates (EUR 0.4 bn), while external FX liabilities contracted (EUR 0.6 bn).

As the rates of the FX required reserve increased in parallel with the percentages of its dinar allocations, the effect of the aforementioned measures on the part of the required reserve allocated in foreign currency was modest. Hence, the part of the required reserve allocated in foreign currency recorded moderate growth in 2023 (by EUR 70.1 mn), measuring EUR 2,862.6 mn at the end of the year.

Calculated required reserves allocated in dinars increased considerably in 2023 – by RSD 136.9 bn (50.2%) to RSD 409.5 bn at year end. This increase chiefly reflects the growth in required reserve rates (dinar required reserves and FX required reserves and their share allocated in dinars) – the net effect equalled RSD 114 bn. The increase in required reserves was also underpinned by the increase in dinar liabilities which make up the base for the calculation of the required reserves (by RSD 336.5 bn) – which recorded a rise in all categories of dinar liabilities, mainly corporate and household deposits.

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



In addition to changing the required reserve rates, in September 2023 the NBS abolished the restriction related to excess allocated FX required reserves above the calculated amount, introduced in 2014, in an environment of negative interest rates in the euro area. Given that the ECB's interest rates were no longer negative, and that the interest rates on financial instruments in euros were also adjusted accordingly, the NBS Executive Board concluded that the conditions were met to lift this restriction.

## Interest rates

Amid persisting inflationary pressures in the global and domestic environment, since the start of 2023 the NBS Executive Board continued with the monetary tightening cycle (begun in April 2022) by raising the key policy rate.

By end-July 2023, the **key policy rate was raised by a total of 150 bp, to 6.50%**. At the same time, the interest rate corridor was widened in March from  $\pm 1.00$  pp to  $\pm 1.25$  pp relative to the key policy rate. As of April 2022, the key policy rate was raised by 550 bp in cumulative terms, while the interest rate corridor was widened by a total of 0.35 pp. Hence, the rates on deposit and lending facilities equalled 5.25% and 7.75%, respectively.

**As of August 2023**, the NBS Executive Board decided to **keep the key policy rate on hold** in view of the continued easing of global inflationary pressures in H2

2023, a firm downward path of domestic inflation as of Q2 2023, as well as the NBS's expectation that inflation would return within the target tolerance band in mid-2024.

The said decisions on the key policy rate dictated the dynamics of the weighted average repo rate, which continued up even in 2023. It increased by 129 bp, to 5.45% at end-July, and continued up thereafter, though at a more moderate pace, rising by 11 bp, to 5.56% at year end.

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% in 2023.

### FX market operations

Under the 2023 Monetary Policy Programme, the NBS continued implementing the managed float exchange rate regime, with the possibility to intervene in the FX market with a view to easing excessive short-term volatility of the dinar against the euro, and maintaining price and financial stability and an adequate level of FX reserves.

In 2023, the dinar gained 0.1% against the euro in nominal terms. Amid strong appreciation pressures on the dinar, in 2023 the NBS net purchased EUR 3,940 mn in the IFEM, the record high FX purchase amount.

Appreciation pressures reflected FX inflows from record high FDIs, exports, tourism, remittances, etc. As a result, for the first time residents were net sellers of foreign currency at the year-level, also due to lower FX demand by domestic companies – energy importers relative to the previous year. In 2023, appreciation pressures prevailed also on the back of other FX supply-side factors – chiefly banks' exceptionally high foreign cash purchases from authorised exchange dealers and natural persons, and the lengthening of the FX position of banks on account of the use of foreign (non-resident) payment cards, and to a lesser extent, the increase in net indexed bank assets, which contracted in Q4. Pressures on the FX supply-side were extremely strong in April, July and September, when the NBS bought foreign currency in the IFEM in the net amount of EUR 600 mn, EUR 595 mn and EUR 615 mn, respectively. In January and November, the only months when depreciation pressures prevailed, primarily due to seasonally higher FX demand of energy importers, and somewhat higher FX demand of non-residents, the NBS net sold EUR 225 mn and EUR 60 mn, respectively.

### FX swaps

In 2023, banks were still able to conclude bilateral transactions of swap purchase and sale of FX (euros) with the NBS. By introducing bilateral swap transactions, the NBS sought 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.

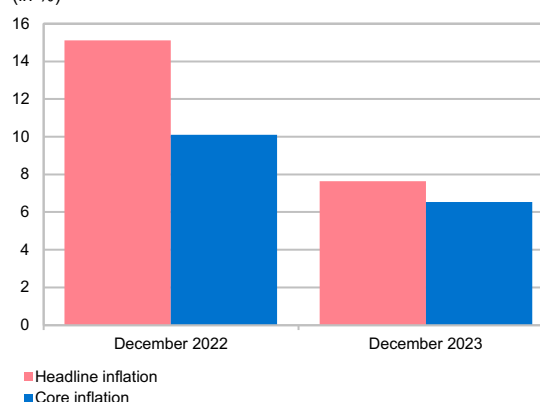
In 2023, NBS bilateral swap transactions amounted to EUR 1,126 mn (swap purchase and sale worth EUR 563 mn each).

## 3 Achievement of inflation target in 2023

**Inflation in Serbia** peaked in March 2023, hitting a **stable downward path as of April**, mostly as the effects of past monetary policy tightening played out and global cost-push pressures eased on account of lower global prices of energy and food. According to SORS data, average inflation in 2023 equalled 12.1% and average core inflation 9.1%. Core inflation moved below headline inflation during the entire 2023, propped by the NBS monetary policy tightening and the decline in import and producer prices.

Y-o-y inflation fell from 16.2% in March to 15.1% in April, only to stand at 7.6% in December 2023, almost

Chart II.3.1 Y-o-y inflation at the end of 2022 and 2023 (in %)



Sources: SORS and NBS calculation.

Chart II.3.2 Headline and core inflation  
(y-o-y rates, in %)

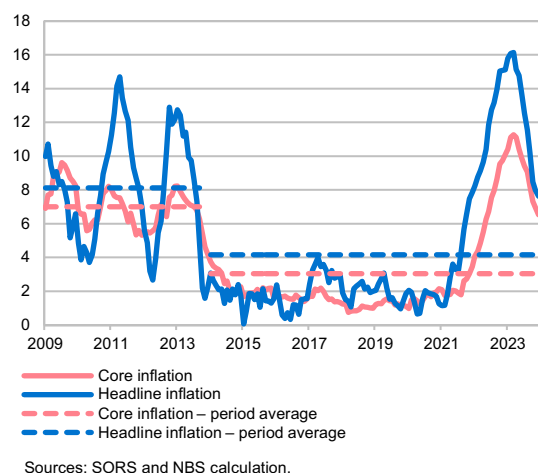
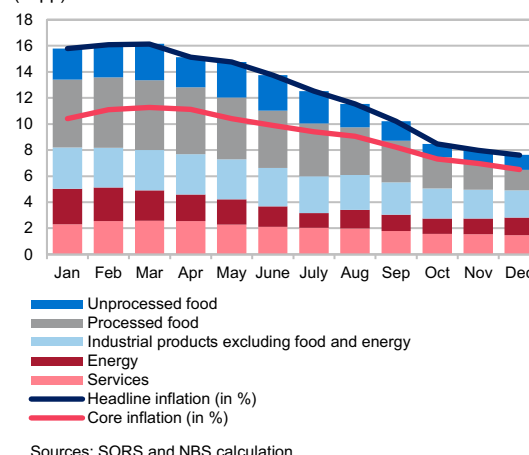


Chart II.3.3 Contribution of CPI components to y-o-y inflation during 2023  
(in pp)



half the level from end-2022, primarily owing to the slowdown in both processed and unprocessed food prices. Y-o-y core inflation, which is most affected by monetary policy, hit a downward trajectory as of April, recording single-digit levels in H2, only to measure 6.5% at end-2023. This y-o-y dynamics was in line with our projections in quarterly Inflation Reports for 2023.

Looking at basic CPI components, more than half of y-o-y inflation in 2023 was led by food and energy prices. The prices in the group of **food and non-alcoholic beverages** increased by 8.4% y-o-y, with a 2.7 pp contribution to inflation. A somewhat higher contribution to y-o-y inflation stemmed from the prices of processed food (1.6 pp) than from the prices of unprocessed food (1.1 pp), with a 5.4 pp lower cumulative contribution compared to March when inflation peaked. The slowdown of the y-o-y growth in food prices reflected the high base from the same period in 2022 and the weakening of cost-push pressures in food production and transport due to a decline in global prices of primary agricultural commodities and raw materials used in food and beverages processing, and a solid agricultural season at home in Q3.

For the most part of 2023, **energy prices** at home slowed down their y-o-y growth, which measured 8.7% in December, with a 1.3 pp contribution to inflation. The increase in energy prices is almost entirely owed to

adjustments in administered prices, and prices of electricity and gas in January, May and November. In contrast, mirroring the movement in the global oil price, petroleum product prices were almost unchanged at end-2023 relative to end-2022, with a neutral contribution to y-o-y inflation, while the prices of solid fuels decreased in December y-o-y due to lower prices of firewood.

The **prices of industrial products excluding food and energy** also slowed down their y-o-y growth in 2023 (7.4% in December, with 2.1 pp contribution to inflation), reflecting lower prices of energy and industrial raw materials used in their production. Within this group, the greatest contribution to December y-o-y inflation came from the increase in the prices of clothes and footwear, furniture and household appliances, cigarettes, alcohol beverages and pharmaceutical products.

The **prices of services** posted a 6.1% y-o-y rise in December (with a 1.5 pp contribution to inflation), led primarily by the higher prices of catering services, cable subscription and internet, medical and utility services. A negative contribution came from lower prices of public transport, notably in Belgrade.

At end-2023, **administered prices** rose by 10.9% from a year earlier, on the back of already mentioned adjustments of the prices of gas, electricity and cigarettes, and a rise in utility service prices.





## III Macroeconomic environment

### 1 International environment

#### Economic activity and inflation

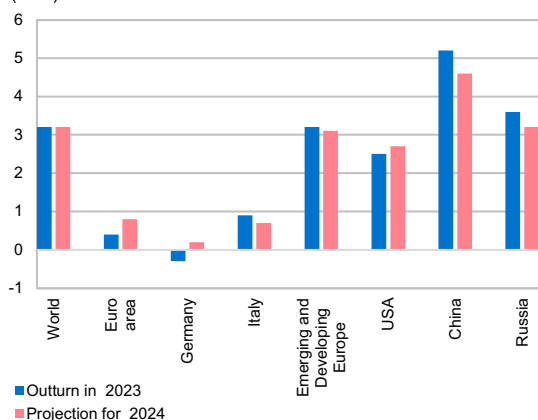
After the global economy started to recover in early 2023, the growth pace slowed under the impact of prolonged effects of the pandemic, the Ukraine crisis and elevated geopolitical tensions. The effects of monetary tightening aimed at curbing inflation acted in the same direction, as did the termination of fiscal support amid high debt and extreme climate changes. During H2 2023, the US and several other large emerging and developing economies, notably China and Russia, recorded better performance than initially expected, especially thanks to the increase in government and private consumption, supported by the growth in real income and the savings accumulated during the pandemic. There was also a recovery on the supply side in 2023 as the labour force participation rate increased, the remaining issues with supply chains were resolved and delivery deadlines were shortened. Even so,

the global economic growth of 3.2% in 2023 was below the 2022 level (3.5%) and the pre-pandemic trend, and was uneven across countries and economic regions. In April this year, the IMF forecast global economic growth of 3.2% for 2024.

**The euro area economy** lost significant breath in 2023, slowing its growth to 0.4% (from 3.4% in 2022) amid the still elevated prices and borrowing costs, as well as increased exposure to the economic consequences of the Ukraine crisis. A positive contribution to GDP growth in 2023 came from consumption, fixed investments and net exports. After sound growth in H1, the euro area's GDP declined in H2, mostly owing to a fall in goods inventories. Sector-wise, industrial activity was in the contraction zone during 2023 as well, while activity in the services sector, though slower, still gave a positive contribution to overall economic activity. The euro area's unemployment rate stood close to the record low level of 6.5% at end-2023, while activity and employment rates

Chart III.1.1 Real GDP growth in 2023 and projections for 2024

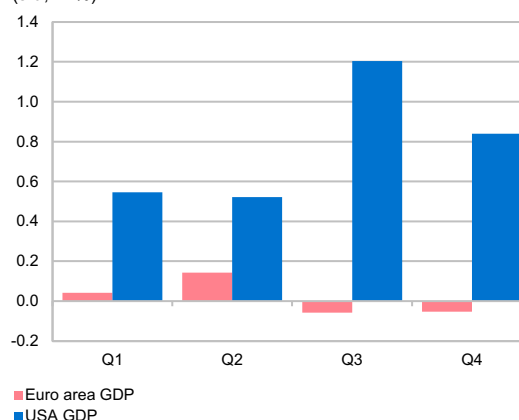
(in %)



Source: IMF WEO (April 2024).

Chart III.1.2 Real GDP growth in the euro area and the USA during 2023

(s-a, in %)



Sources: Eurostat, U.S. BEA and NBS calculation.

Chart III.1.3 Real GDP growth in Germany and Italy in 2023 (s-a, in %)

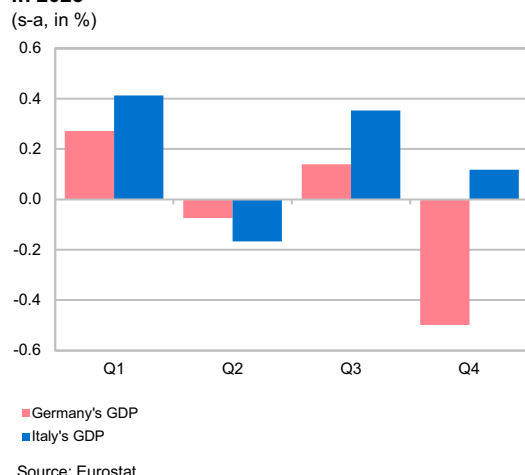
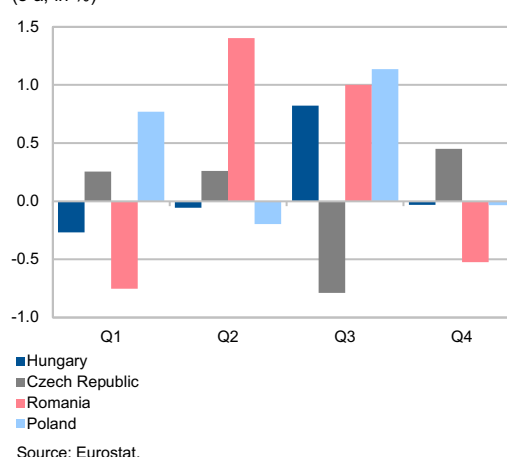


Chart III.1.4 Real GDP growth in CESEE countries in 2023 (s-a, in %)



rose slightly. Still, in H2 European companies' demand for labour force was subdued and the number of new jobs lower, indicating less tight conditions in the labour market.

**The economies of Germany and Italy**, our key foreign trade partners in the euro area, recorded diverging movements during 2023, with Germany's GDP dipping by 0.3%, and Italy's rising by 0.9%. In Germany, the recovery of net exports exerted a positive contribution to growth, but was offset by a fall in overall consumption, and to a lesser degree by total investments. In Italy, GDP growth is almost entirely attributed to higher fixed investments and total consumption, and less to the recovery in net exports, while depleting goods inventories acted in the opposite direction. The IMF forecast economic growth of 0.2% and 0.7% respectively for Germany and Italy in 2024 (IMF WEO April 2024).

Thanks to robust consumer demand accompanied by improved supply conditions, **the US economic growth** of 2.5% in 2023 exceeded the 2022 level (1.9%), as well as the estimates of international financial institutions, dominantly due to the performances in H2 turning out better than initially expected. Also, almost all GDP components gave a positive contribution to economic growth at the level of 2023, primarily household consumption, while only a fall in goods inventories acted in the opposite direction. By sector, GDP growth was driven by the activity in the services sector, notably the ICT, and as of mid-year by higher activity in the

manufacturing and construction sectors. Though the labour market remains tight, the Fed said that the labour force supply and demand are gradually aligning given that growth in the nominal wage has slowed and the number of new jobs declined. During 2023 the unemployment rate trended around the historical minimum (3.6% on average), while participation and employment rates increased slightly. In March this year, the Fed projected US growth to slow to 2.1% in 2024.

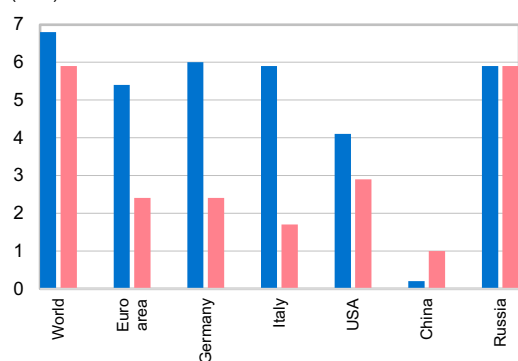
In the **CESEE region**<sup>5</sup> total GDP declined in H1, but recovered in H2 on the back of growing domestic demand. Even so, the recorded GDP growth at the level of the region – 0.5% in 2023 – was significantly below the 4.2% from 2022 amid the still high costs of living despite a declining inflation, tighter financing conditions and weaker manufacturing exports to markets of euro area countries. Also, the dynamics and structure of economic growth by country in the region was uneven in 2023 – GDP increased in Croatia, Romania, Bulgaria, Slovenia and Slovakia, slightly edged up in Poland and declined in Hungary and the Czech Republic.

In 2023, **the Chinese economy** grew 5.2% (after rising 3.0% in 2022), largely owing to numerous fiscal incentives, while low base effects from the prior year also played out. The real estate sector crisis and dampened personal consumption worked in the opposite direction. **Russia's economy** rose 3.6% in 2023 (after a 2.1% fall in 2022), notably owing to major government investment in the defence sector and increased personal consumption

<sup>5</sup> The region includes Romania, Hungary, Czech Republic, Slovenia, Bulgaria, Croatia, Slovakia and Poland.



Chart III.1.5 Average inflation in 2023 and projections for 2024 (in %)



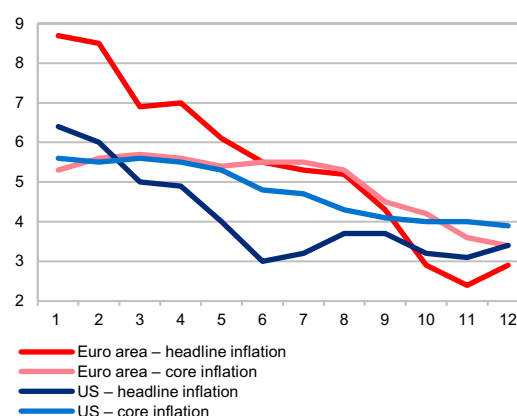
Source: IMF WEO (April 2024).

supported by growth in nominal wages. In April this year, the IMF forecast China and Russia's 2024 GDP growth at 4.6% and 3.2%, respectively.

Relative to record high levels in 2022, inflation declined faster than expected in the majority of economic regions during 2023, owing to the resolution of supply chain bottlenecks and the pursuit of restrictive monetary policies by central banks, as well as significantly lower global prices of energy and food. Unlike the weakened cost-push pressures in the production sector, attributable to dampened demand, inflation in the services sector turned out to be more persistent, dominantly under the impact of higher corporate profit margins and the still tight labour markets. Thus, core inflation retreated at a slower pace than headline inflation, which was estimated at 6.8% globally. This April, the IMF forecast a slowdown in global inflation to 5.9% in 2024.

**Euro area inflation** mostly trended down during 2023, coming to 2.9% y-o-y in December, dominantly due to the falling energy prices where the effect of high last year's base played out, as well as due to the slower growth in prices of food products. During 2023, y-o-y growth in industrial product prices (excluding energy and food) also slowed, and to a lesser extent y-o-y growth in services prices, therefore **core inflation in the euro area** declined at a slower pace than headline inflation, measuring 3.4% y-o-y at end-year. Average euro area inflation in 2023 slowed to 5.4% (from 8.4% in 2022), while in March the ECB projected a much lower inflation rate of 2.3% for 2024.

Chart III.1.6 Euro area HICP inflation and US CPI inflation in 2023 (y-o-y rates, in %)



Sources: Eurostat and Bureau of Labor Statistics.

Measured by the change in HICP, **inflation in Germany and Italy** mostly slowed down in y-o-y terms during 2023, largely on account of lower energy prices. In Germany, inflation briefly climbed to 3.8% y-o-y in December due to the extremely low base from energy prices after the subsidies introduced at end-2022, while in Italy inflation retreated to only 0.5% y-o-y in December triggered by the plummeting energy prices. Relative to 2022, when inflation averaged 8.7% in both countries, in 2023 average inflation in Germany slowed to 6.0%, and in Italy to 5.9%.

**Headline inflation in the USA** trended down during H1 2023, landing at 3.0% y-o-y in June. This was attributable to all components of the CPI, notably the fall in energy prices where the high base effect also played out. However, in H2 2023, inflation was at a higher level and measured 3.4% y-o-y in December, with energy prices at end-2023 reflecting the effect of low last year's base. During 2023, food inflation slowed down, as did y-o-y growth in the prices of services and industrial products, which in turn slowed down **core inflation in the USA** (measured by the change in the CPI excluding food and energy), which measured 3.9% y-o-y in December. Personal consumption expenditures indices (total and excluding food and energy prices), which the Fed also monitors as a measure of inflation in the USA, recorded similar dynamics during 2023. In March, the Fed projected these indices at 2.4% and 2.6% in 2024, respectively.

In all **CESEE region countries** running the inflation targeting regime y-o-y inflation slowed down during

Chart III.1.7 CPI movements in selected CESEE countries in 2023  
(y-o-y rates, in %)

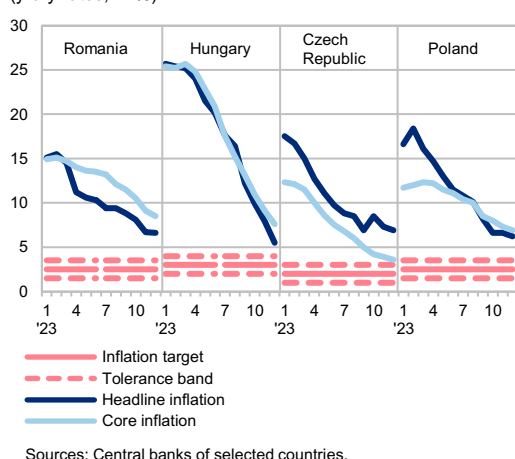
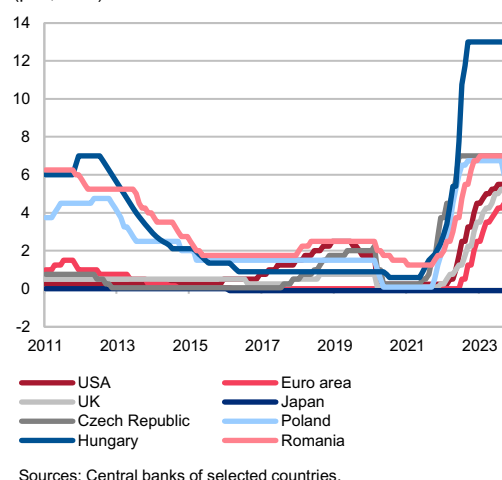


Chart III.1.8 Policy rates across selected countries  
(p.a., in %)



2023. In H1, this was mostly under the impact of contracting prices of petroleum products and other energy, where the high base effect played out, while during H2 food inflation also slowed, showing the effects of high last year's base. At end-2023, y-o-y inflation retreated to 5.5% in Poland, 6.2% in Hungary, 6.9% in Romania, and 6.9% in the Czech Republic. Countries in the **Western Balkan region** – Bosnia and Herzegovina, North Macedonia, Albania and Montenegro – also boasted a downward y-o-y inflation trajectory in 2023. Though slightly elevated in December, due to the low base effect from the same period a year earlier, in all countries of the region inflation ended 2023 at a lower level than in previous quarters.

## 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, June, July and September by 25 bp each. Thus, the main refinancing operations rate came at 4.50%, and the credit and deposit facilities rates at 4.75% and 4.00%, respectively. Since July 2022, when the ECB began its cycle of monetary policy tightening, the main refinancing operations rate was raised ten times, by a total of 450 bp. At the same time, the ECB continued downsizing its balance sheet as planned, at a moderate pace. As announced, the ECB began unwinding its balance sheet in March 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 at the same pace until July when the reinvestments of principal payments from maturing securities 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 a gradual closure 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)** on monetary conditions is regularly monitored.

The September increase in the ECB's main interest rates is most likely the last in the ongoing cycle of monetary tightening. In making this decision, the ECB highlighted that this hike helped reach the level that ensures restrictive monetary conditions conducive to a decline in inflation and its return to the 2% medium-term target. It added that headline inflation is still slowing down, though it is expected to remain elevated over a longer period, which is why monetary conditions need to remain tight. In September the ECB's Governing Council was divided over the decision whether to continue or pause the current cycle of monetary policy tightening due to the continued weakening of economic activity. Nevertheless, the decision to pause was taken in October. Also, keeping its interest rates untouched in December as well, the ECB stated that inflation in the euro area slowed down significantly and that its probable growth in the winter months will be temporary. Even so, the ECB assessed that pressures on price growth in the euro area are still present, primarily due to robust growth in labour costs. This was the main reason cited by the ECB president as an explanation as to why the December meeting did not discuss a reduction of interest rates and why victory over inflation cannot yet be declared. The ECB underlined that

in all likelihood, only late in spring 2024 will the staff have enough information to assess whether pressures from the labour market are letting down and whether interest rates could be trimmed.

The **Fed** also continued to increase its federal funds rate range in 2023, lifting it by 25 bp each in February, March, May and July. Thus, since March 2022, the federal funds rate has undergone eleven consecutive increases by a total of 525 bp, to 5.25–5.50% in July. Though the March meeting looked into the possibility of pulling the break on the cycle of monetary tightening amid ongoing disturbances in the banking sector, nevertheless a decision was made to raise the federal funds rate. As in May, the prolonged monetary policy tightening was elaborated by the Fed by referring to the further strengthening of labour market indicators, which are keeping inflation elevated. The pause button was pressed in June, when the interest rate range remained unchanged. Still, July saw the rate range increase 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. For the remainder of the year, the Fed kept the federal funds rate range unchanged. The chairman said inflation will be significantly moderated in 2024, though still elevated, until the target level is achieved in 2026. According to the Fed's December projection, three federal funds rate cuts are expected in 2024, each by 0.25 pp, hence the rate should measure 4.6% (interval median 4.5–4.75%) at end-2024. At the press conference following the December meeting, the chairman said that the cycle of interest rate hikes is most likely over, adding that inflation was losing pace much faster than expected and that the question arises as to the appropriate time to begin loosening monetary policy restrictiveness, which was the topic of the last monetary policy meeting in 2023.

The **Bank of England** continued to lift its interest rate in the period January–August 2023 by a total of 175 bp to 5.25%, where it remained until end-year. The central bank of **Switzerland** also raised its policy rate further, by 50 bp in March and an additional 25 bp in June, to 1.75%, keeping it unchanged thereafter, in line with the weakening inflationary pressures.

The first half of 2023 was marked by turbulences in financial markets that stirred up in March over difficulties in some US and European banks. 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 additional 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 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.

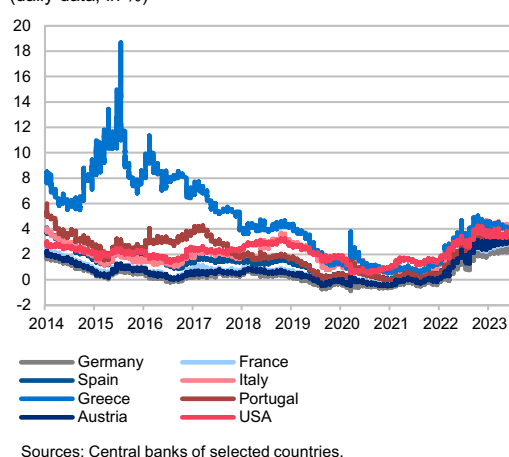
After significant increases in the past period, the majority of central banks in **CESEE countries** pursuing inflation targeting have kept their policy rates unchanged throughout most of 2023, only to begin trimming them in autumn. The first to do that was the central bank of **Poland**, which cut its policy rate by 75 bp to 6.0% in September, and then to 5.75% in October, leaving it untouched thereafter. It was joined by the central bank of **Hungary** in October, which cut its policy rate by 0.75 bp, followed by two more identical cuts in the two subsequent months, its policy rate measuring 10.75% at end-2024. As expected, December saw the **Czech** central bank embark on monetary accommodation, trimming its policy rate by 25 bp to 6.75%. The central bank of **Romania** maintained its policy rate unchanged throughout 2023 after lifting it by 25 bp in January, to 7.0%.

## Financial and commodity markets

During 2023, the situation in international financial markets improved for the most part amid stabilisation of global inflationary pressures and the reduction in country risk premiums due to the effects of past monetary policy tightening. The fall in the **implicit measure of financial market volatility** (VIX) – by 9.2 pp to 12.5% over 2023 – attested to the improved situation in international financial markets and the receding uncertainty. At the same time, the **EM-VXY index**, indicating the volatility of emerging countries' currencies, also edged down, by 2.8 pp over the year, measuring 8.1% at end-December.

**Yields on ten-year government bonds of advanced countries** mostly decreased during H1 2023 amid expectations that interest rate hikes will mostly be halted as inflationary pressures subside and economic activity turns down. However, as it turned out that inflation was retreating at a slower pace than anticipated and that economic activity was recovering gradually, market participants expected central banks to keep interest rates elevated over a longer period, thus inducing an increase in yield rates in Q3. Still, as the effects of past monetary tightening ensured that inflation remained on the downward path at the end of the year, market participants'

**Chart III.1.9 Yields on ten-year bonds of euro area countries**  
(daily data, in %)

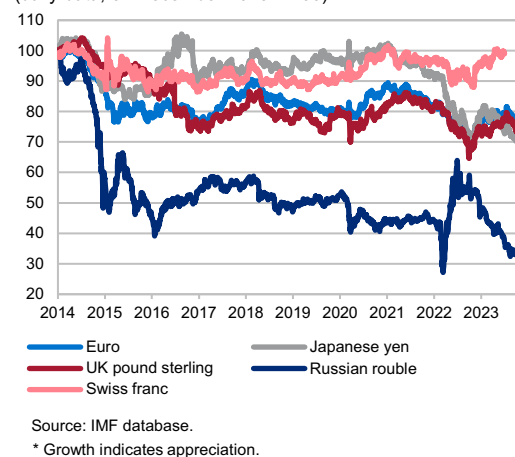


expectations were focused on future interest rate cuts by central banks. As a result, at end-2023 yield rates on ten-year bonds of observed advanced economies dropped to levels below the ones from end-2022, on average by around 83 bp, with the exception of US Treasuries whose yield rates remained largely unchanged. During 2023, yields on ten-year bonds of Central and Eastern European countries also declined under the impact of the fact that some central banks had already launched their cycles of policy rate cuts at the end of the year.

At the level of 2023, the dollar depreciated against the euro and the majority of observed global currencies. In Q2 and Q3 2023, the dollar gained ground significantly vis-à-vis the other currencies amid the relatively better performance of the US economy, which was accompanied by expectations that the Fed will still keep interest rates high. Nevertheless, the success of inflation stabilisation gave rise to expectations that monetary accommodation by the Fed would be driven by faster dynamics than the ECB's, which dictated the weakening of the dollar in Q4 2023 compared to end-2022.

**The global price of gold** was dominantly on the rise until April 2023, when it averaged around USD 2,000 per ounce amid elevated geopolitical tensions, fear of a global recession, depreciation of the US dollar and the crisis in some US and European banks. In the remainder of the year, the price of gold trended down moderately, equalling around USD 1,913 per ounce and reflecting rate increases by leading central banks and market participants' expectations that the rates would remain high over a longer period, as well as appreciation of the dollar and increase in yield rates of US Treasuries. Under the impact of the conflict in the Middle East, expectations

**Chart III.1.10 Exchange rates of selected national currencies against the dollar\***  
(daily data, 31 December 2013 = 100)



that the monetary tightening by leading central banks was coming to an end, depreciation of the dollar and fall in yields on US Treasuries, the price of gold rose by the end of 2023 averaging around USD 2,030 per ounce in December, which was 12.9% higher than a year earlier.

**The global Brent oil price** moved dominantly down during H1 2023 amid concerns over global economic growth prospects in view of high interest rates and problems that some US and European banks were experiencing. Thus, at end-June, it measured around USD 75 per barrel. Under the influence of Saudi Arabia and Russia's decision to decrease output until end-2023, the oil price rose during Q3 and measured around USD 96 per barrel at end-September. By the end of the year, it retreated to around USD 78 per barrel, 4.6% below end-

**Chart III.1.11 World gold and oil price movements**  
(end quarter, in USD)

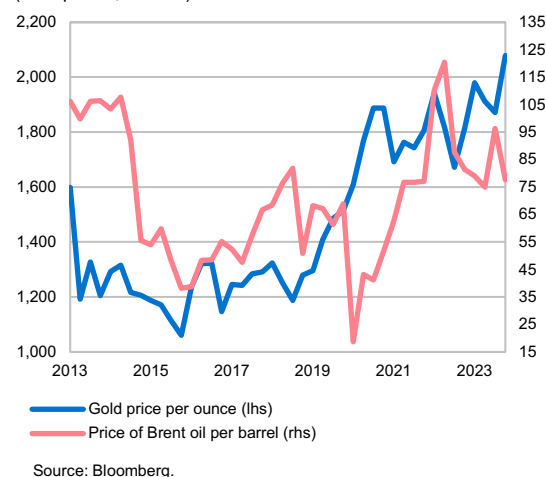
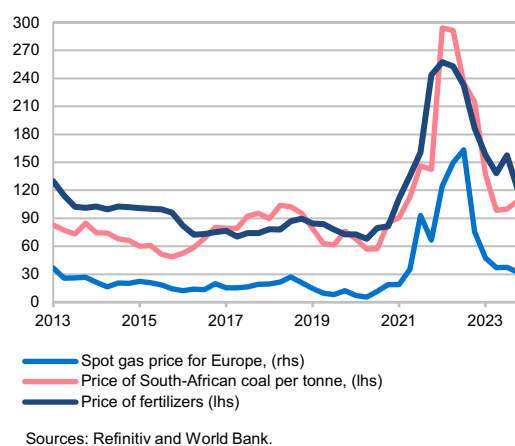


Chart III.1.12 Natural gas and thermal coal price movements and index of metals and minerals (end quarter)

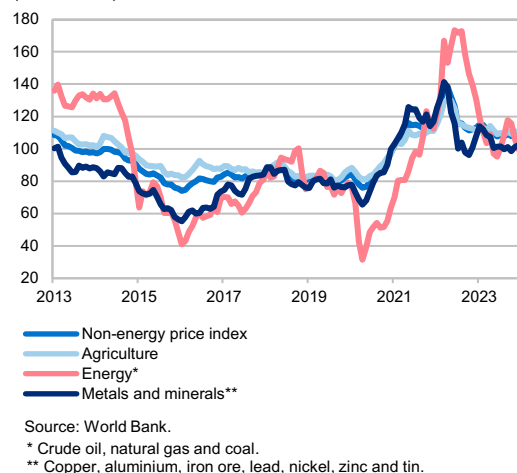


2022, reflecting increased inventories in the USA, stepped-up production by non-OPEC+ members and dampened global demand.

The **benchmark natural gas price for Europe** (Dutch TTF hub) moved on the downward path during H1 against the backdrop of import diversification, favourable weather conditions and high filling levels of gas storage facilities, measuring EUR 37 per MWh at end-June. The gas price went up in autumn months as usual, after which it retreated to around EUR 32 per MWh until the end of the year (57.9% lower than at end-2022) under the impact of high filling levels in storage facilities and favourable weather. The **benchmark electricity price for Europe** (German Stock Exchange) had similar dynamics as the natural gas price, moving dominantly on the downward path in H1. The price of electricity declined on the back of Germany's decision to cap electricity and gas prices, as well as due to favourable weather conditions, while occasional deviations were attributable to the closure of the remaining three active nuclear power plants in Germany. After a seasonal increase in Q3, electricity price contracted by the end of the year, averaging around EUR 73 per MWh in December, or 71.8% lower than at end-2022.

Amid favourable weather conditions and stepped-up output and high inventories in China, the **price of thermal coal** was on a downward path during H1, averaging around USD 99 per tonne in June. During Q3 it struck an upward path, but turned down again by the end of 2023, averaging around USD 109 per tonne in December, which is almost half the level from the same period a year earlier. The **prices of mineral fertilisers** mirrored the dynamics of the natural gas price and remained dominantly on the downward path during 2023,

Chart III.1.13 World primary commodity price index (2010 = 100)

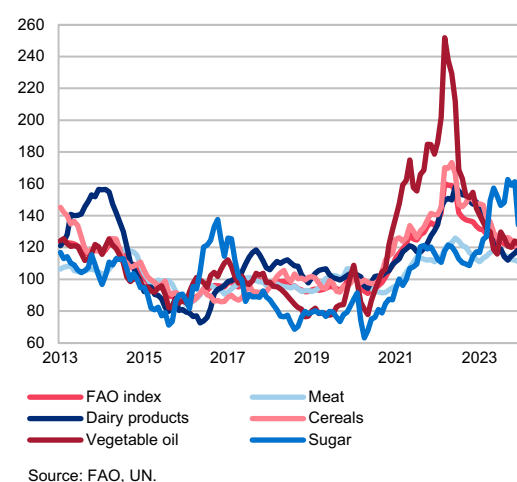


with the exception of Q3 when they edged up slightly. In December they were 36% lower y-o-y.

After an initial rise in January, triggered by the lifting of the zero-tolerance policy to coronavirus in China, the **prices of metals and minerals** trended down during H1, according to the World Bank index, reflecting increased inventories and weaker demand than expected. By end-2023, the prices of metals and minerals displayed stable movements and were almost unchanged in December relative to June, as well as 4.9% lower than in the same period a year earlier.

**Global food prices**, measured by the FAO index, moved on a downward path during 2023 and were 10.6% lower in December in y-o-y terms. As for individual categories,

Chart III.1.14 World food price index (in nominal terms, 2014–2016 = 100)





the biggest contraction was recorded with dairy product prices (20.0%), cereals (16.6%) and vegetable oils (15.4%), while the prices of meat remained broadly unchanged. Occasional deviations and index growth were attributable to the higher prices of sugar, which were 14.6% higher in December than in the same period a year earlier.

## 2 International transactions

### Balance of payments and FX reserves

The **current account deficit** measured EUR 1.8 bn in 2023 (2.6% of GDP) and was several times lower than in 2022 when it equalled EUR 4.2 bn (6.9% of GDP). Observed by category, the improvement of the external position was mainly supported by a lower deficit on trade in goods and a higher surplus on trade in services. Increased primary income deficit and reduced secondary income surplus worked in the opposite direction. Net capital inflow on the balance of payments financial account covered the current account deficit multiple times, driving up FX reserves to a new all-time high.

In 2023 the deficit on trade in goods decreased to EUR 6.6 bn, i.e. by EUR 2.8 bn relative to 2022, on the back of higher export supply and lower energy imports. **Goods exports** rose by 3.7% to EUR 27.9 bn, while **goods imports** decreased by 4.8% to EUR 34.5 bn. The biggest impulse to export growth came from manufacturing whose exports increased by 5.4%, followed by electricity exports which gained 48.8%. Manufacturing exports continued to rise even in conditions of subdued external demand, indicating the resilience and diversification of export supply, and was supported mainly by the export of motor vehicles, electrical equipment, and other machinery and equipment. On the other hand, mining and agricultural exports were lower than in 2022.

Imports contracted mainly due to lower import of energy, as well as of intermediate and capital goods. The import of consumer goods was the only to go up. Y-o-y, energy imports declined by EUR 1.7 bn in 2023 (under SITC), with the import of crude oil, petroleum products, gas and electricity going down and only import of coal used in electricity production going up. Of this, the import of crude oil, petroleum products and gas decreased by EUR 975.7 mn, with around two thirds of the decrease due to the effect of lower prices, and one third to lower imported quantities. Import classification by BEC (Broad Economic Categories) also shows that the decline in

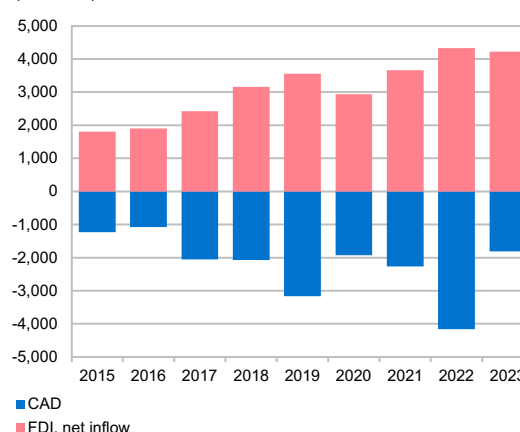
import is mostly owed to intermediate goods (11.2% y-o-y), a category inclusive of energy. This is followed by the import of equipment, which contracted 6.7%, while the import of consumer goods increased by 5.5%.

The current account deficit also contracted thanks to the services trade which continued up in 2023, with exports rising more (by 18.1% y-o-y to EUR 13.1 bn) than imports (by 14.8% y-o-y to EUR 10.1 bn). As a result, in 2023 the **services trade** surplus increased and topped EUR 3.0 bn, which is 30.4% more than in 2022. Trade in all types of services increased in 2023, with export growth driven primarily by ICT and business services and import growth by tourism and business services.

The **primary income deficit** increased by 28.6% to EUR 3.9 bn, mainly due to higher expenditures on account of FDI income. This was expected given the continuous inflow and rising stock of FDI in Serbia, which entails higher outlays for dividend payments. Reinvested earnings also went up, confirming investors' commitment to stepping up investments in Serbia. Expenditures on account of interest paid on financial loans and portfolio investments increased as well, reflecting the tightening of global financial conditions amid more restrictive monetary policies of central banks.

The **secondary income surplus** equalled EUR 5.6 bn and was somewhat lower (by 4.3%) than in 2022 as transfers to the government sector subsided. On the other hand, net inflow of remittances stayed at its relatively high level from last year (EUR 4.6 bn).

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



Sources: SORS and NBS.  
\* Preliminary data.

Net capital inflow to the **balance of payments financial account** measured EUR 6.4 bn<sup>6</sup> in 2023, chiefly thanks to FDI inflow. Inflow also came from the successful issue of eurobonds early in the year, as well as from government and corporate credit borrowing and the drawdown of the second tranche under the IMF arrangement. On the other hand, banks reduced their liabilities to foreign creditors and an outflow was also recorded under trade loans and advances.

**Net FDI inflow** amounted to EUR 4.2 bn in 2023, while total investments in Serbia exceeded EUR 4.5 bn, topping the previous annual record set in 2022 (EUR 4.4 bn). For the ninth year in a row, the current account deficit was fully covered by net FDI inflow, and the value of this ratio in 2023 reached 233%. FDI remained geographically and project-diversified and mostly directed to tradable sectors, mainly manufacturing (25.5%) as the key export sector in the Serbian economy.

Net capital inflow under **portfolio investment** measured EUR 917.8 mn in 2023, 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. Hedging transactions were promptly concluded to mitigate FX and interest rate risk, converting liabilities under dollar securities into euros. Non-residents also invested into dinar government securities in the domestic primary market, which generated an inflow of EUR 168.7 mn. On the other hand, at end-March the government carried out early buyback of securities issued in June 2022 through private placement (EUR 350.0 mn). An outflow was also registered on account of maturing of previously issued government securities and net sale of government securities in the secondary market.

**Other investment** provided a net inflow of EUR 1.2 bn in 2023. Of this, a net inflow of EUR 1.4 bn came from **financial loans**, the bulk of which relating to government borrowing and drawdown 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. Funds from the IMF (around EUR 200 mn) were drawn down in June after successful completion of the first review of the economic programme supported by the stand-by arrangement.<sup>7</sup> Conversely, as receivables on account of unpaid exports rose more sharply than importers' foreign liabilities, an outflow of EUR 118.7 mn

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

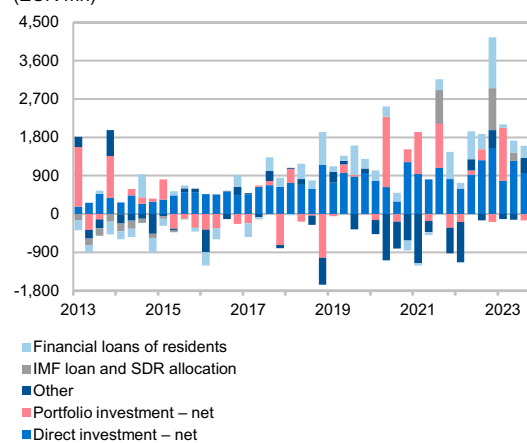
	2022	2023
<b>I CURRENT ACCOUNT</b>	-4,162.2	-1,810.1
<b>1. Goods</b>	-9,364.2	-6,604.1
1.1. Credit	26,928.2	27,929.9
1.2. Debit	-36,292.3	-34,534.1
<b>2. Services</b>	2,314.3	3,017.3
2.1. Credit	11,075.7	13,079.1
2.2. Debit	-8,761.4	-10,061.8
<b>3. Goods and services</b>	-7,049.9	-3,586.8
3.1. Credit	38,003.9	41,009.0
3.2. Debit	-45,053.8	-44,595.8
<b>4. Primary income</b>	-3,001.1	-3,860.2
<b>5. Secondary income</b>	5,888.7	5,636.9
<b>II CAPITAL ACCOUNT</b>	-25.2	1.3
<b>III FINANCIAL ACCOUNT</b>	7,244.9	6,435.6
<b>(excluding reserve assets)</b>		
1. Direct investment, net	4,328.2	4,219.7
2. Portfolio investment, net	-12.4	917.8
3. Financial derivatives, net	99.0	73.5
4. Other investment, net	2,830.1	1,224.7
4.1. Trade credit and advances, net	-535.1	-118.7
4.2. Financial loans, net	3,340.3	1,367.6
4.3. Currency and deposits, net	25.7	-39.3
4.4. Other, net	-0.8	15.1
<b>IV Reserve assets</b>	2,919.5	5,104.3
<b>V NET ERRORS AND OMISSIONS</b>	-138.0	477.5
<b>VI OVERALL BALANCE</b>	2,919.5	5,104.3

Source: NBS.

Note: Preliminary data.

<sup>1</sup>) BPM6 methodology, except sign convention.

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



Source: NBS.

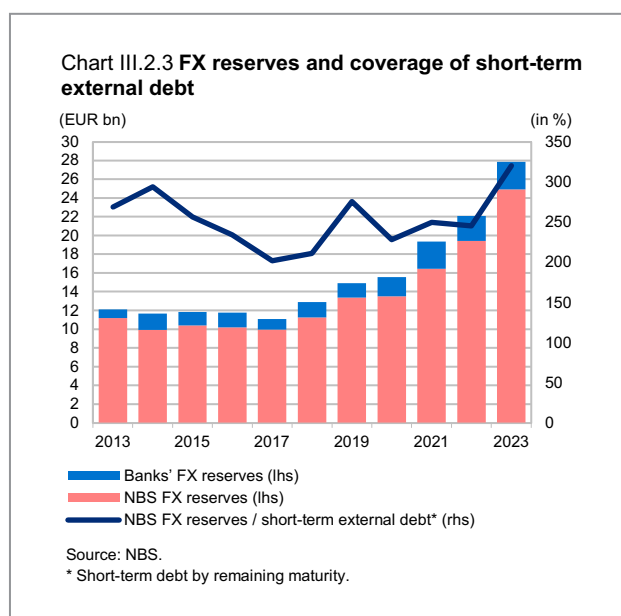
\* Preliminary data.

was recorded under **trade loans** and advances. In addition, since balances in foreign accounts of domestic banks increased more than non-residents' balances with domestic

<sup>6</sup> Excluding changes in FX reserves.

<sup>7</sup> The second review of the arrangement was successfully completed in December, enabling drawdown of additional funds. Due to high reserves build-up, creation

of fiscal space and sustainable balance-of-payments financing, the funds were not drawn, and the arrangement will be treated as precautionary for the remainder of its duration, one review sooner than anticipated when it was approved.



banks, an outflow of EUR 39.3 mn was recorded under **currency and deposits**.

As a consequence of these trends in the current and financial account, **Serbia's FX reserves** (according to the balance of payments methodology)<sup>8</sup> gained EUR 5.1 bn in 2023.

Namely, gross NBS FX reserves increased by EUR 5,493.4 mn in nominal terms to EUR 24,909.1 mn on 31 December 2023, their highest end-of-month and end-of-year level on record (since 2000). This level of FX reserves covered 167% of money supply (M1) or 6.7 months' worth of the country's import of goods and services, twice the level prescribed by the relevant adequacy standard. Net FX reserves also reached their highest end-of-month and end-of-year level on record and equalled EUR 20,785.2 mn, up by EUR 5,359.6 mn from end-2022.

Consistent with the principles of safety and liquidity, funds were invested in highly liquid securities issued by the world's most advanced economies and international financial institutions, and placed with prime institutions (central banks, international institutions and top-tier foreign banks). As at 31 December 2023, foreign securities accounted for the highest share of FX reserves (50.1%), followed by FX balances in accounts abroad (33.6%), gold (9.6%), foreign cash (6.4%) and SDRs with the IMF (0.3%).

<sup>8</sup> Excluding currency changes, changes in the market value of securities and the price of gold.

<sup>9</sup> 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.

The bulk of FX inflows in 2023 came from NBS net FX purchases in the IFEM<sup>9</sup> (net inflow of EUR 4,015.0 mn or 73% of the total increase in gross FX reserves) 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. Inflows were also recorded on account of grants (EUR 442.8 mn), payment transactions with Kosovo and Metohija<sup>10</sup> (EUR 392.9 mn) and net interest and coupon payments on securities (EUR 351.6 mn). FX inflow of EUR 199.8 mn came from the drawdown of the second tranche under the SBA approved by the IMF to the Republic of Serbia on 19 December 2022. These funds can be used to refinance Serbia's obligations and/or to finance current fiscal needs.<sup>11</sup> Significant inflow of EUR 90.8 mn net also came from banks' FX required reserves.

The largest outflow from the NBS FX reserves referred to the settlement of the government's FX liabilities and net repayment of Serbia's debt to foreign creditors in the total amount of EUR 1,502.9 mn. Pursuant to the Law on the Settlement of the Public Debt of the RS Arising from Unpaid Foreign Exchange Savings of Citizens, EUR 25.1 mn was paid out (including unpaid FX savings of citizens from former SFRY republics in the amount of EUR 22.9 mn, paid out in February and August).

## International investment position

Serbia's net international investment position, i.e. the difference between Serbian residents' foreign assets and liabilities, came at **EUR -50.0 bn** at end-2023, up by EUR 726.6 mn from end-2022. **Thanks to economic activity growth in 2023, however, the share of the international investment position in estimated GDP decreased by as much as 9.6 pp to 72.0%.**

**Within foreign financial assets**, which amounted to EUR 44.8 bn at end-2023, **FX reserves increased the most. As in the prior period, FX reserves made up more than a half of total assets (55.6%).**

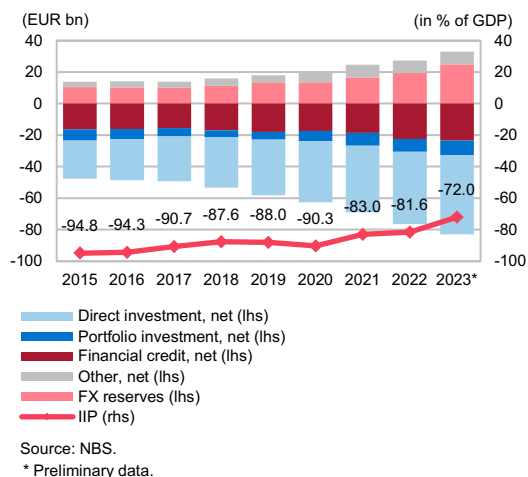
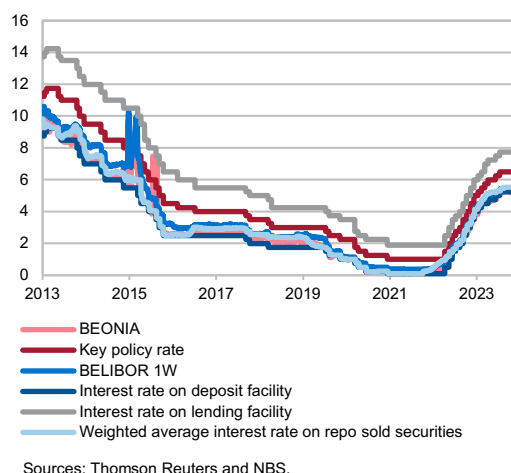
**Within financial liabilities**, which amounted to EUR 94.8 bn at end-2023, it is positive that **FDIs**, as the most favourable, long-term type of foreign investment, still significantly exceed a half of total foreign liabilities

<sup>10</sup> Under the Law on Temporary Execution of Certain Payment Operations in the Federal Republic of Yugoslavia (FRY Official Gazette, No 9/01).

<sup>11</sup> 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.2.4 International investment position

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

(57.8%), while financial loans and portfolio investments account for a smaller part of liabilities: 31.6% and 10.4%, respectively.

### 3 Financial market trends

#### Interest rates

From the beginning of the year until July the NBS raised the key policy rate and deposit and lending facility rates on several occasions, to 6.50%, 5.25% and 7.75%, respectively, keeping them on hold until year end, which reflected on more stable interest rate movements in the interbank money market in H2. Monetary tightening was also achieved by withdrawing a portion of banks' excess dinar liquidity via other monetary policy tools, i.e. by raising the required reserve rates while increasing the dinar portion of allocations under FX reserve requirements and by repo auctions, in which the average repo rate rose by a total of 140 bp, to 5.56% at the last auction in December.

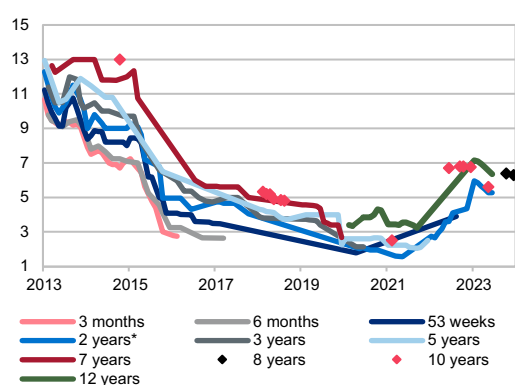
Interest rates in the **interbank money market** were on the rise until July. They slowed down to a significant degree thereafter and practically stagnated in the last quarter of the year. BEONIA increased by 123 bp in 2023, reaching 5.23% at year end. BELIBOR rates of all maturities went up by 70–125 bp, ranging at end-December from 5.25% for the shortest to 5.80% for the six-month maturity.

In the **primary market of dinar securities**, the government held seventeen auctions in 2023, which recorded a decline in yield rates. Such decline was in part spurred by a gradual subsiding of global inflationary pressures, lower needs of the Serbian government for financing in the domestic market, but also by reduced risk aversion among investors during the last quarter, evidenced by the increased non-resident activity in the domestic market of government securities. Securities with original 2Y maturity were sold in seven auctions, with the yield rate going down by 109 bp to 4.86%, while those with the original maturity of 12.5Y were offered in six auctions, the rate decreasing by a total of 95 bp, to 6.20%. In auctioning these maturities, the planned issue size was sold out, i.e. 2Y securities in the nominal value of RSD 100 bn and 12.5Y securities in the nominal value of RSD 50 bn. Dinar 8Y and 10Y securities were sold in two auctions each, with the yield rates going down by 9 bp and 35 bp, and the sales nominally worth RSD 42.4 bn and RSD 18.4 bn, respectively.

In 2023, dinar government securities were sold in total nominal amount of RSD 210.8 bn. As previously sold securities nominally worth RSD 312.5 bn matured at the same time, and 7Y securities nominally worth RSD 6.8 bn were bought back early, the stock of dinar securities sold declined to RSD 839.7 bn at end-December.

As a result of purchases in the primary market, the stock of dinar securities owned by non-residents mildly edged up, to RSD 134.6 bn at end-December, making up 16% of the total portfolio of dinar government securities.

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

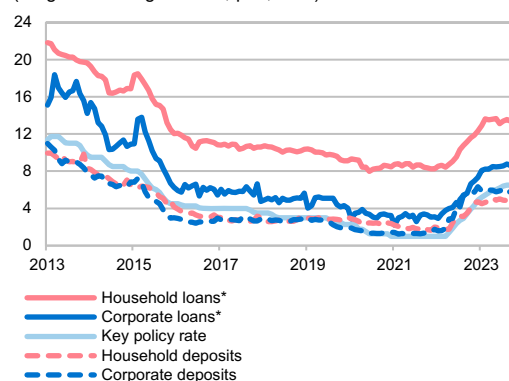


There was **one auction** of 2Y euro securities in 2023. The auction was held in January and the securities were sold in the total nominal value of EUR 37.5 mn at the effective rate of 2.50% (equal to the coupon rate). Nevertheless, due to the early buyback of bonds issued in a private placement worth EUR 350.0 mn and the maturing of securities worth EUR 135.4 mn nominally, the stock of euro securities declined at end-December to EUR 1,919.5 mn.

It was in January that the government also tapped the **international financial market by a dual tranche of dollar eurobonds**, with 5Y and 10Y maturity, worth USD 750 mn and USD 1 bn, at the coupon rates of 6.25% and 6.50%, respectively. The achieved financing conditions may be considered favourable, given the then circumstances of growing yield rates and persisting uncertainty in the global financial market, especially when compared to the financing conditions of countries already holding investment grade which issued bonds in that period.

Gradual improvement of the situation in the global financial market and investors' greater readiness to accept lower yield rates reflected on trends in the **domestic secondary market of dinar securities**, so average yield rates in 2023 showed an almost consistent decline. Weighted average yield rates at year end moved from 4.90% for the remaining up-to-1Y maturity to 6.23% for the remaining up-to-9Y maturity. The turnover in the secondary market increased slightly y-o-y, by RSD 1.2 bn, reaching RSD 187.3 bn in 2023.

Chart III.3.3 Interest rates on new dinar loans and deposits  
(weighted average values, p.a., in %)

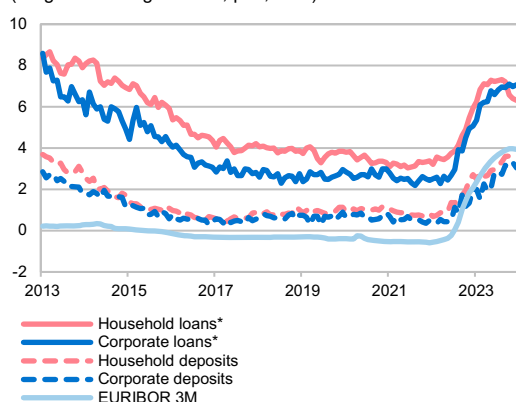


**The tightening of monetary conditions reflected on the rise in interest rates on new dinar loans in 2023, with moderate changes in monetary policy in H2 leading to smaller oscillations in money market interest rates and thereby also milder changes in interest rates on new dinar loans.** In December 2023, interest rates on dinar loans equalled 12.5% for household loans and 8.3% for corporate loans (up by 0.2 pp and 1 pp from December 2022). Interest rate growth steadily decelerated throughout the year, with some rates even declining toward the year end.

The interest rate on dinar household loans increased mostly on the back of the rising interest rate on the dominant category in household lending – cash loans – by 0.2 pp relative to December 2022, to 13.2%, while the interest rate on other non-categorised loans, the second largest lending category, fell by 0.3 pp to 10.5%. Interest rate increase was recorded in consumer and housing loans, by 0.3 pp and 1.4 pp, to 3.0% and 12.9%, respectively, but these categories account for a much smaller share in total dinar lending to households.

The y-o-y rise in the weighted average interest rate on new dinar corporate loans in December 2023 was driven by interest rate growth across all loan categories, but mainly working capital and other non-categorised loans, by 0.7 pp and 1.3 pp respectively, to 8.3%, with these categories jointly accounting for 94% of dinar corporate lending. The interest rate on investment loans, which make up the remaining part of dinar lending to corporates, upped by 1.8 pp to 9.4%.

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.

Past monetary tightening by the ECB reflected on the **rise in interest rates on new euro-indexed loans** in 2023. In the household segment, the average interest rate on these loans added 0.4 pp relative to end-2022, climbing to 6.3% in December, due to the rise in interest rates on other non-categorised loans by 1.7 pp to 9.8% and on consumer loans by 1.0 pp to 6.5%, which together make up around 30% of euro lending to households. Conversely, the interest rate on the dominant household lending category in euros – housing loans, edged down by 0.1 pp to 5.0%, as a result of the implementation of the NBS's decision capping the rates on housing loans to natural persons. According to this decision, until 31 December 2024, the fixed part of the nominal interest rate on variable-rate loans may not exceed 1.1%, while in case of fixed-rate loans, the nominal interest rate is capped at 5.03%.

The average interest rate on new euro-indexed corporate loans increased in 2023 by 2.0 pp to 7.1%, as a result of interest rate rise across all loan categories. The greatest contribution came from working capital and investment loans, which gained 1.8 pp and 2.2 pp, rising to 7.0% and 7.3%, respectively, given that these loan categories make up almost 95% of euro lending to corporates.

The tightening of monetary conditions reflected also on the interest rate on **dinar time deposits of households** which in 2023 increased by 0.6 pp, reaching 5.3%, while the interest rate **on dinar time deposits of corporates** dropped by 0.6 pp to 5.8%. Interest rates on euro time deposits of households and corporates increased by around 1.0 pp, coming at 3.8% and 3.0%, respectively.

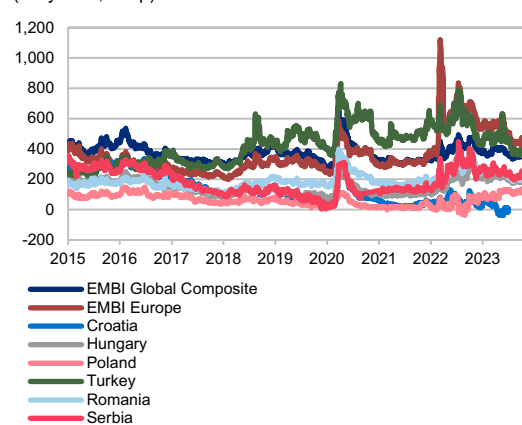
## Country risk premium and credit rating

The movements of the global risk premium and risk premiums of selected European emerging economies (including Serbia) in 2023 were mainly determined by developments in the international environment. Factors leading to a decline in the risk premium throughout the year were the weakening of cost-push pressures on account of lower energy prices, diminishing problems in global supply chains, decelerating global inflation and tighter monetary policies. Conversely, increased uncertainty in the international financial market due to difficulties in the operation of some banks in the USA and Europe early in the year and increasingly strained geopolitical relations in the Middle East led to occasional deviations and a rise in the risk premium globally.

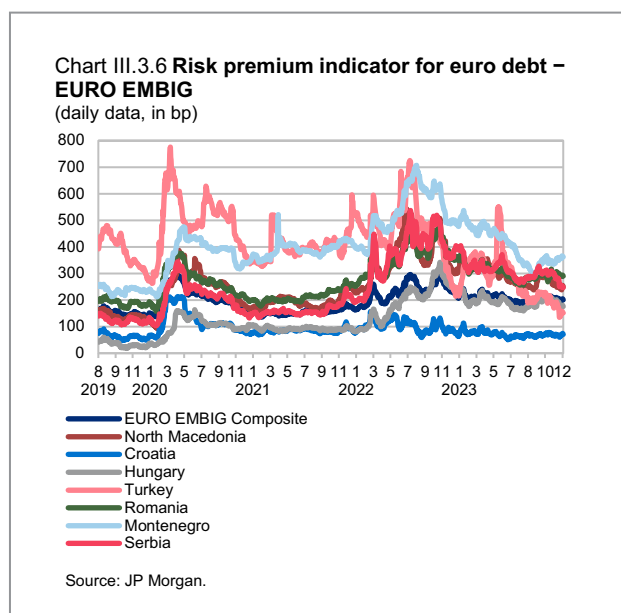
EURO EMBIG Composite edged down by 7 bp in 2023, to 200 bp at year end. At the same time, EURO EMBIG, Serbia's risk premium on euro debt, decreased by 142 bp to 247 bp in 2023. Serbia's dollar risk premium also went down during the year (by 82 bp to 188 bp), while continuing to trend below EMBI Composite, which in 2023 lost 55 bp, coming at 319 bp.

In February and August, Fitch kept Serbia's credit rating a step away from investment grade, at BB+ with a stable outlook, despite the pronounced geopolitical risks. Fitch particularly stressed the importance of the preserved exchange rate stability amid heightened international risks, a credible economic policy framework, higher GDP per capita, better governance and a higher level of human development compared to rating peers, as well as

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



Source: JP Morgan.



orderly public finance. It also underscored the banking sector's resilience to macroeconomic risks, a high and adequate level of FX reserves and full coverage of the current account deficit by FDI inflows, which is particularly important in conditions of elevated global energy prices and overall risks emanating from the international environment.

Standard&Poor's kept Serbia's credit rating in April and October at BB+, one notch away from investment grade, despite the growing uncertainties in the international environment. The agency kept the outlook stable, recognising the domestic economy's resilience to numerous global challenges. 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

Table III.3.1 Credit rating (change of rating and outlook)					
	2018	2019	2020	2021	2022
S&P	BB /positive <sup>5)</sup>	BB+ /positive <sup>5)</sup>	BB+ /stable <sup>2)</sup>	BB+ /positive <sup>5)</sup>	BB+ /stable <sup>3)</sup>
Fitch		BB+ /stable <sup>4)</sup>			
Moody's		Ba3 /positive <sup>4)</sup>		Ba2 /stable <sup>1)</sup>	

Source: NBS.  
<sup>1)</sup> March, <sup>2)</sup> May, <sup>3)</sup> June, <sup>4)</sup> September, <sup>5)</sup> December.

anchored owing to the credibility of monetary policy, tightening of monetary conditions and the maintained relative exchange rate stability. Further, the agency underlined the proven credibility of the overall economic policy, Serbia's favourable long-term prospects, fiscal discipline, reduced financing needs and a downward trajectory of public debt. It also assessed that the financial sector is well-capitalised, liquid and profitable, and that the share of non-performing in total loans was brought down to a minimum.

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

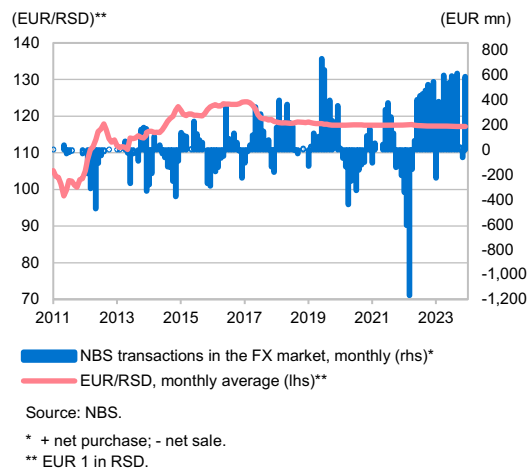
### Trends in the FX market and dinar exchange rate

In 2023, the dinar continued its relatively stable movement against the euro, strengthening by 0.1% end-of-period. At the same time, due to the euro's strengthening against the dollar in the international market, the dinar gained 4.0% against the dollar.

After FX demand in the domestic market outstripped the supply in January, mainly due to the seasonal rise in energy importers' FX demand, in all the ensuing months, with the exception of November, FX supply exceeded the demand by multiple times, which resulted in the strengthening of appreciation pressures. The rise in FX supply was mostly driven by high FX cash purchases, with the net purchase in Q2 2023 resembling record-high purchase volumes in Q3 and Q4 2022. Residents' FX supply worked in the same direction, mainly owing to the further rise in exports and FDI. Consequently, residents turned out as net FX sellers at year end as well, despite FX purchase for energy import purposes. FX supply-side factors included FX inflows from payment card operations and, in major part of the year, also a rise in FX-indexed bank assets.<sup>12</sup> On the other hand, FX demand stemmed from non-residents, peaking in May, June, October and November, but being fully covered by FX supply from other sources.

<sup>12</sup> Aiming to balance their long open foreign currency positions, thus reducing exposure to foreign exchange risk, banks sell foreign currency, which results in the strengthening of the dinar.

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

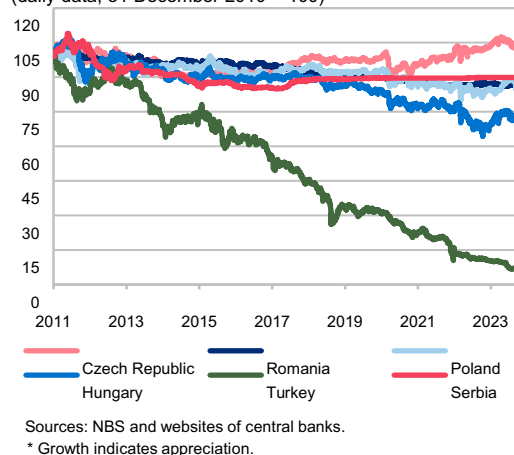


In order to maintain relative stability in the FX market, the NBS intervened mainly on the purchase side in 2023. Net FX purchases on account of NBS interventions in the IFEM reached EUR 3,940 mn in 2023, the record annual net purchase amount.

The daily turnover in the IFEM in 2023<sup>13</sup> averaged EUR 31.5 mn, down by EUR 7.5 mn from 2022. The highest turnover value was recorded in December (EUR 37.2 mn daily on average).

The currencies of inflation-targeting regional peers exhibited divergent movements relative to the euro in

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



2023. Observed at the annual level, gaining ground against the euro were the Polish zloty (7.9%) and Hungarian forint (4.6%), even though the central banks of these countries embarked on policy rate cuts in September and October. On the other hand, lesser weakening was recorded for the Romanian leu (0.5%) and Czech koruna (2.5%), and more substantial for the Turkish lira (39.2%).

## 4 Money and loans

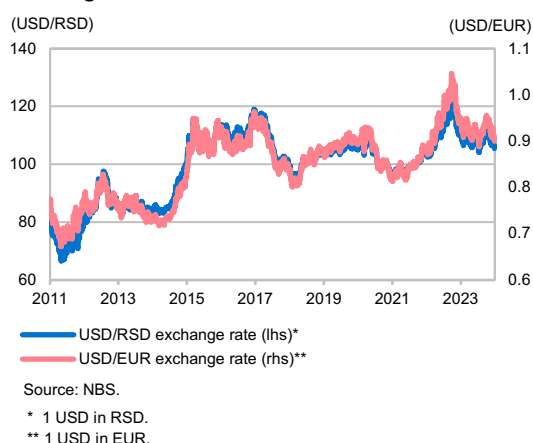
### Monetary aggregates M1, M2 and M3

In 2023, monetary aggregates growth sped up y-o-y, mainly on the back of an increase in the most liquid dinar component M1. In H1, growth was largely driven by dinar savings, in an environment of rising interest rates on corporate and household deposits, while in H2, the main driver was the build-up of demand deposits. In December, M1, M2 and M3 recorded y-o-y growth rates of 22.0%, 21.6% and 12.7%, respectively.

Observed by component, **demand deposits** went up by RSD 257.3 bn in 2023, led by the growth in household and corporate deposits. The balance in household transaction accounts increased by RSD 101.1 bn during the year, while corporate deposits gained RSD 157.5 bn.

**Time dinar deposits** increased by RSD 89.5 bn, driven by the rise in household deposits by RSD 40.8 bn and

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



<sup>13</sup> Excluding the NBS.



corporate deposits by RSD 33.1 bn, owing to higher corporate deposits in wholesale and retail trade, real estate and construction. In 2023, dinar savings of households posted dynamic growth, reaching record levels in H2 and touching RSD 136.5 bn at end-December.<sup>14</sup> The attractiveness of dinar savings was boosted by higher interest rates and a more favourable tax treatment relative to FX savings, while the preserved financial stability and relative stability of the dinar exchange rate against the euro, even in periods of heightened global uncertainty, also played a role.

**FX deposits** added EUR 0.9 bn in 2023, on the back of rising FX deposits of households, and to a lesser extent also deposits of other financial organisations and corporates. In 2023, FX savings of households increased by EUR 571.9 mn, to EUR 13.4 bn at end-December, their highest level on record.<sup>15</sup>

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

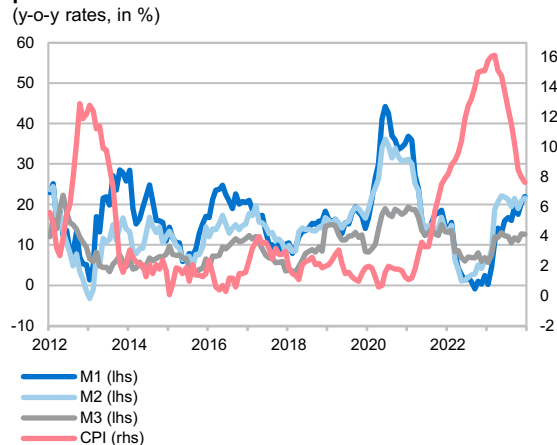
	2022	2023	Changes in 2023
<b>Net foreign assets</b>	<b>1,853,451</b>	<b>2,700,494</b>	<b>847,043</b>
Bank net foreign assets	-321,348	-232,725	88,623
<b>Net domestic assets of the banking sector</b>	<b>2,183,724</b>	<b>1,847,733</b>	<b>-335,992</b>
Net domestic loans	3,414,420	3,220,815	-193,606
Net claims on government	171,757	-56,107	-227,864
Government loans	830,183	790,096	-40,087
Government deposits	-658,427	-846,203	-187,777
Loans to other resident sectors	3,242,664	3,276,922	34,258
Loans to households	1,458,057	1,474,361	16,304
Loans to the corporate sector	1,714,611	1,732,911	18,299
Loans to other financial corporations	44,733	46,484	1,752
Loans to local authorities	24,815	22,798	-2,017
Loans to non-profit and other organisations	448	368	-80
Other net assets	-1,230,696	-1,373,082	-142,386
<b>Money supply M3</b>	<b>4,037,175</b>	<b>4,548,227</b>	<b>511,052</b>
Money supply M2	1,876,546	2,280,993	404,447
Money supply M1	1,435,715	1,751,528	315,813
Currency in circulation	310,873	369,368	58,495
Sight deposits	1,124,841	1,382,160	257,318
Dinar savings and term deposits	440,831	529,466	88,634
FX deposits	2,160,629	2,267,234	106,604

Source: NBS.

<sup>14</sup> Including only resident assets. With non-resident assets included, dinar savings at end-2023 stood at RSD 137.9 bn.

<sup>15</sup> With non-resident assets included – EUR 14.4 bn.

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



## Bank loans

In 2023, **total domestic loans**, excluding the exchange rate effect, increased by 1.0%, with corporate loans adding 0.9% and household loans 1.2%. Lending lost pace in 2023 (with total loans recording a mild y-o-y fall from September to November), reflecting higher loan interest rates due to the ECB and NBS monetary tightening and stricter bank credit standards. Nevertheless, December saw a rebound in lending, so the year ended with a mild lending increase, y-o-y. In the corporate loan segment, a significant impact on loan stock came from the maturing of guarantee scheme loans, while in the household segment, as of September, a temporary negative influence on the loan stock also came from the accounting treatment of housing loan receivables owing to the decision to cap interest on variable-rate housing loans.

In 2023, excluding the exchange rate effect, **corporate loans** added RSD 13.8 bn, driven by the growth in investment loans which expanded by RSD 28.4 bn. Import loans also went up (by RSD 3.5 bn) as well as current account debt (by RSD 1.6 bn). On the other hand, non-categorised loans declined (by RSD 18.5 bn), as did liquidity and working capital loans, though to a lesser degree (by RSD 1.2 bn), reflecting also the maturing of guarantee scheme loans. As a result of such trends, in 2023 the share of investment in total corporate loans increased to 41.9% and that of liquidity and working capital loans dropped to 46.8% in December. Given that

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

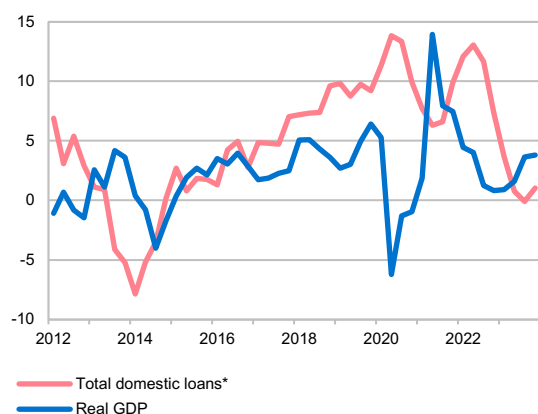
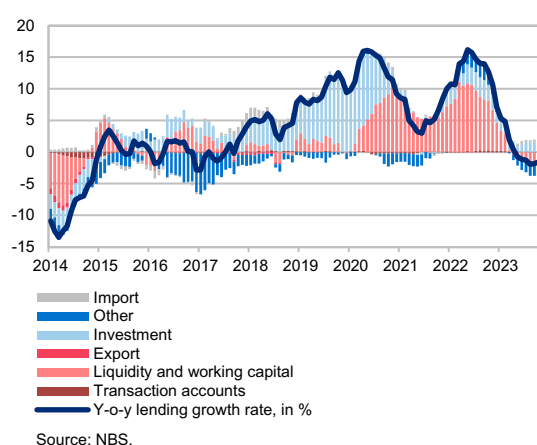


Chart III.4.3 Contributions to y-o-y corporate lending growth  
(in pp, excluding the exchange rate effect)



guarantee scheme loans were predominantly approved in dinars, the stock of dinar loans decreased (by RSD 31.3 bn), while FX-indexed loans gained RSD 45.1 bn. Sector-wise, companies in real estate, construction and transport incurred the greatest debt, while those in trade, energy and agriculture reduced their liabilities the most. In terms of enterprise size, as a result of repayment by small and micro enterprises, the stock of loans absorbed by micro, small and medium-sized enterprises contracted by RSD 15.8 bn and their share in total corporate loans in December equalled 59.1%.

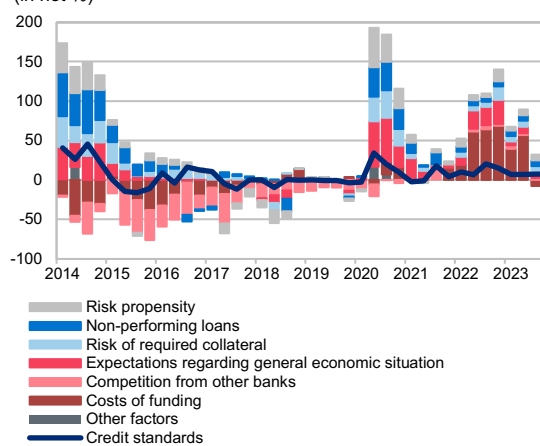
**The volume of new corporate loans** in 2023 (RSD 1,163.7 bn) was somewhat lower (by 2.4%) than in the year before. The major part of new corporate loans were liquidity and working capital loans (62.3%), followed by investment loans (23.4%). Micro, small and medium-sized enterprises used somewhat more than a half of approved liquidity and working capital loans and almost two-thirds of investment loans.

Excluding the exchange rate effect, **household loans** increased by RSD 16.8 bn in 2023, driven by the rise in cash and consumer loans by RSD 22.2 bn and RSD 2.2 bn, respectively. On the other hand, a decrease was recorded for the stock of housing loans<sup>16</sup> (by RSD 6.8 bn) and other non-categorised loans (by RSD 2.3 bn). In 2023, entrepreneurs increased their debt under investment loans (RSD 1.9 bn), while the stock of liquidity and working capital loans remained almost unchanged. At

year end, the share of housing in total household loans stood at 39.3% and that of cash loans at 44.7%.

To reduce the burden on housing loan beneficiaries in an environment of rising interest rates, the NBS adopted a decision in September<sup>17</sup> capping the interest rate for first-time beneficiaries of variable-rate housing loans whose contracted amount does not exceed EUR 200,000. For those borrowers, the nominal interest rate was temporarily

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

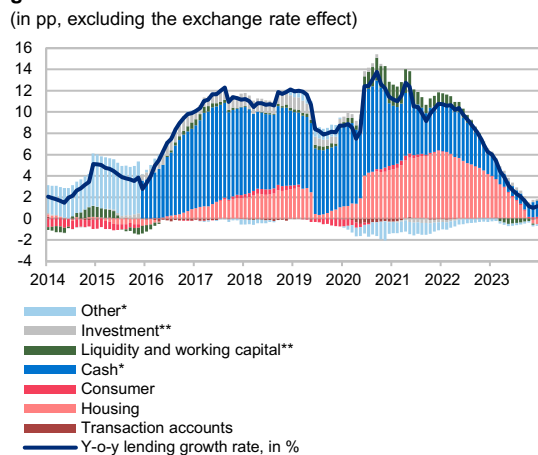


Note: Growth indicates the tightening, and decline indicates the easing of credit standards.

<sup>16</sup> This is supported by the accounting treatment of housing loans owing to the application of the decision on capping interest rates on housing loans, since a portion of receivables was temporarily written-off at the beginning of its application. This amount will be gradually returned to the stock of housing loans during the 15 months of the application of this decision.

<sup>17</sup> Decision on Temporary Measures for Banks Relating to Natural Persons' Housing Loans, RS Official Gazette, No 78/2023.

**Chart III.4.5 Contributions to y-o-y household lending growth**  
(in pp, excluding the exchange rate effect)

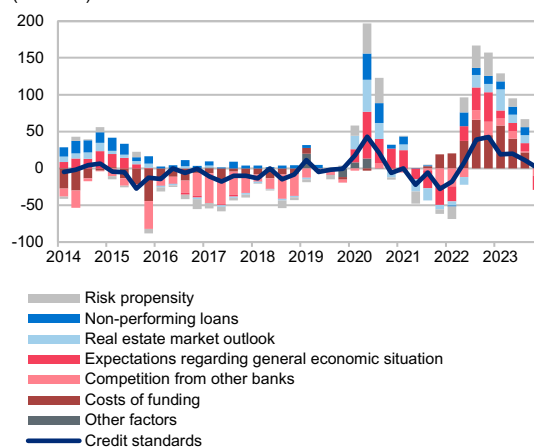


Source: NBS.

\* 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.

capped, for a 15-month period, starting from the October instalment, and banks are not allowed to request from borrowers any interest rate difference arising from the application of this decision. Owing to the interest rate cap, loan instalments were reduced by 10–25%, boosting household disposable income, but not to a degree that could cause any major inflationary pressures.

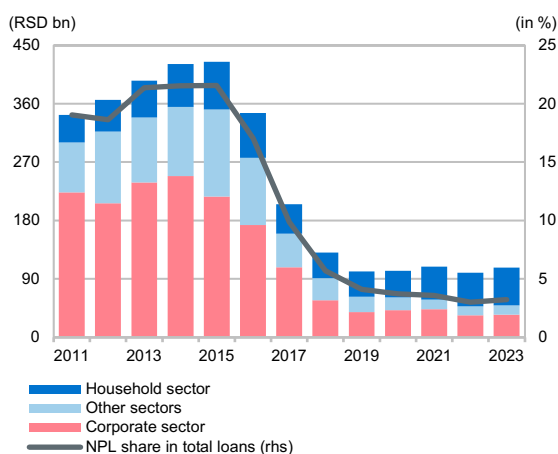
The **volume of new household loans** in 2023 equalled RSD 535.2 bn, down by 1.3% from 2022. Of that, cash loans accounted for 63.9% of new household loans in 2023 and housing for 16.6%, which is less than in 2022 (when they made up over one fifth of new household loans on average), reflecting elevated real estate prices and costs of borrowing.

The results of the **NBS bank lending survey**<sup>18</sup> show that, consistent with the expectations, banks continued to mildly tighten their corporate credit standards in 2023, while keeping household standards on hold in Q4, after three quarters of tightening. Stricter corporate credit standards reflected mainly higher costs of financing, competition and elevated risk perception due to the uncertainty regarding the overall economic situation, the riskiness of the required collateral and non-performing receivables, which translated into a lower propensity to risk. Banks assessed that, overall corporate loan demand decreased in the major part of the year, while household demand ebbed and flowed. Corporate loan demand was

spurred by working capital financing and debt restructuring, while acquisitions, and occasionally investments, worked in the opposite direction.

In banks' view, household loan demand was powered mainly by the refinancing of existing loans and, in Q4 also by the purchase of durable consumer goods, with higher wages exerting a positive and the situation in the real estate market, i.e. lofty apartment prices, a negative impact.

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



Source: NBS.

<sup>18</sup> The NBS conducts the survey since the beginning of 2014.



Gross **NPL ratio** continued to trend close to the historical low in 2023, amounting to 3.2% in December, indicating that the tightening of financial conditions had no major consequences on banks' asset quality. Gross NPL ratio in the corporate sector<sup>19</sup> remained unchanged from end-2022, measuring 2.1% in December, while going up in the household sector<sup>20</sup> by 0.4 pp to 4.4% at end-2023. The NPL coverage remained high – allowances for impairment of total loans equalled 101.0% of NPLs in December, while allowances for impairment of NPLs stood at 60.5% of NPLs.

**Capital adequacy ratio** at end-2023 equalled 21.4%, up by 1.2 pp from end-2022, suggesting high capitalisation (regulatory minimum at 8.0%) and resilience of the banking sector to external and domestic risks.

## 5 Dinarisation

In 2023, the NBS continued to implement activities aimed at promoting the use of the dinar in the Serbian financial system.

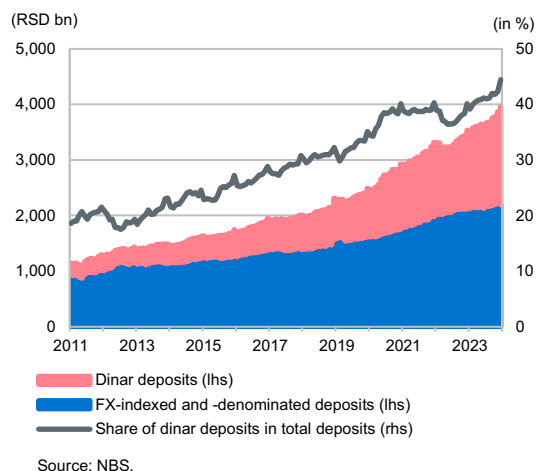
NBS monetary policy measures help preserve macroeconomic stability, relative stability of the exchange rate of the dinar against the euro and financial system stability which is the main precondition for strengthening confidence in the dinar.

The reserve requirement policy in 2023 was used to further encourage banks to rely more on dinar sources of funding. Following the increase in the required reserve rates in September 2023, the difference between the required reserve rates on dinar and FX sources widened. As for the policy of required reserve remuneration, the NBS is still not paying to banks any interest on allocated FX required reserves, as opposed to those in dinars.

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

The degree of dinarisation, **measured by the share of dinar in total bank receivables from corporates**

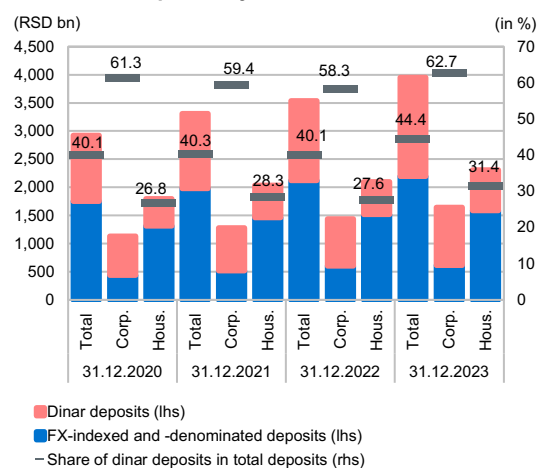
Chart III.5.1 Share of dinar deposits in total corporate and household deposits



**and households** stood at 34.4% at end-2023, down by 0.7 pp y-o-y.

Sector-wise, a gradual decrease in the dinarisation of corporate receivables started in early 2022 and lasted until September 2023. This decline is primarily associated with the repayment of loans granted under the guarantee schemes of the Republic of Serbia (the first and the second one) as a support to the economy in the COVID-19 pandemic, and to a lesser extent also with greater

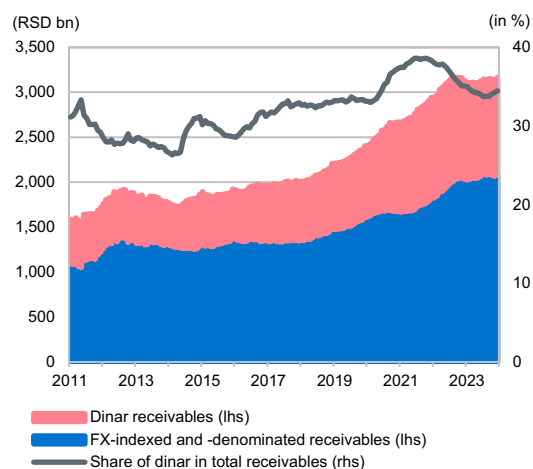
Chart III.5.2 Deposits by sector



<sup>19</sup> Including companies and public enterprises. Looking at companies only, NPL share in total loans equalled 2.4% in December.

<sup>20</sup> With entrepreneurs and private households included, NPL share measured 4.3% in December.

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



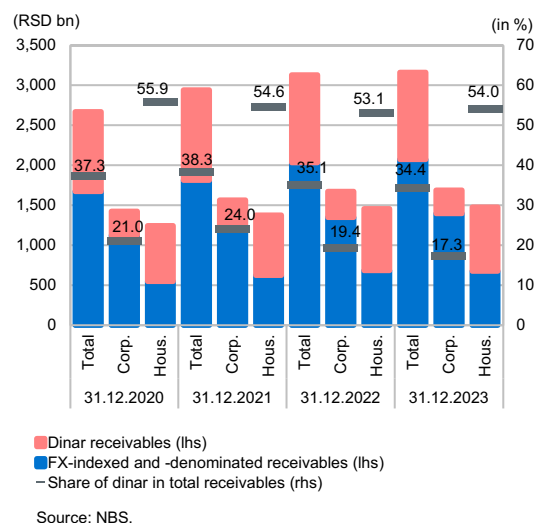
reliance of corporates on FX-indexed borrowing from banks. However, influenced by greater corporate lending in dinars, in Q4 2023 this trend reversed and the degree of dinarisation of corporate receivables went up by 1.0 pp, to 17.3% at the end of the year. Nevertheless, at the level of 2023 this indicator dropped by 2.1 pp.

The degree of dinarisation of household receivables increased by 0.9 pp in 2023, to 54.0% at year end. This indicator was on the rise throughout the greater part of the year, influenced by the rise in cash loans granted dominantly in dinars. The deceleration of the growth in housing loans worked in the same direction under the impact of ECB monetary policy tightening and hikes in interest rates on euro-indexed housing loans, approved dominantly at a variable rate.

**The degree of dinarisation of corporate and household deposits** continued on the long-term rising path in 2023, touching a record high level of 44.4% at the end of the year. Higher dinarisation was recorded for both households and corporates.

After two years of decline, the degree of dinarisation of deposits increased significantly (4.4 pp) to a record high level of 62.7% at year end, as a result of much stronger growth in dinar than in FX deposits (23% vs. 2%, respectively).

Chart III.5.4 Receivables by sector



In 2023, the degree of dinarisation of household deposits also went considerably up (3.8 pp), reaching an all-time high of 31.4% at the end of the year. This rise is associated with the dynamic growth in dinar household deposits (26%), within which dinar savings<sup>21</sup> recorded the most pronounced nominal increase since data are monitored (RSD 41.6 bn or 43%), reaching a record high level of RSD 137.9 bn.

The dynamic increase in dinar savings in the past months is underpinned by their higher profitability relative to FX savings. Regularly conducted and published NBS analyses show that savings in the domestic currency were more lucrative than savings in euros regardless of the maturity, i.e. in both short and long run, and the longer the maturity the greater the difference in favour of the domestic currency. This is a result of relative stability of the exchange rate of the dinar against the euro, higher interest rates on dinar compared to FX savings and a more favourable tax treatment of interest on dinar savings (no taxation).

The increase in dinar savings was aided also by higher interest rates on dinar savings, partly on account of NBS monetary policy tightening, as well as promotional offers and bank activities around the World Savings Day, which some banks maintained even in the months that followed.

<sup>21</sup> Including savings of non-residents.

NBS measures and activities are expected to continue contributing to the increase in dinarisation in the coming period as well. One specific measure<sup>22</sup> to be implemented as of 2025 implies a reduction of capital for banks whose share of FX-indexed and FX loans granted to the non-financial and non-government sector from 1 July 2023 exceeds the defined limit. The limit will be gradually reduced every year, ending with 2027. In this way banks are encouraged to approve dinar loans rather than FX-indexed and FX loans.

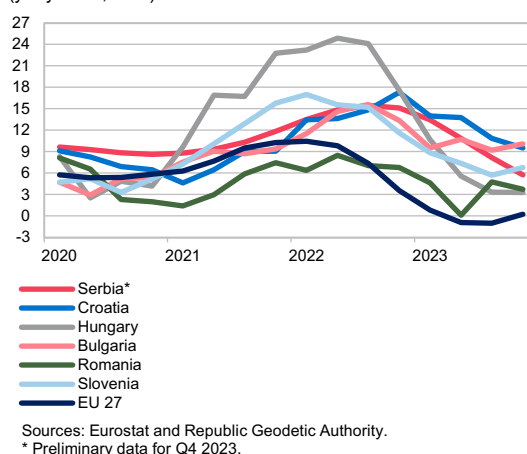
## 6 Real estate market

Real estate price growth lost steam and trade subsided in 2023 from a year earlier.

According to the Republic Geodetic Authority, in 2023 the number of purchases (121,627) dropped by 13% from 2022 and the total **volume of turnover** in the real estate market by 13% to EUR 6.5 bn, of which 52.8% relating to flats.

The Republic Geodetic Authority data on **real estate prices** point to the continuation of price hike in 2023, though at a somewhat more moderate pace than in 2022. **The average price of a new flat** went up by 1% to EUR 1,697 per square metre (from EUR 1,688), while **the average price of an old flat** in Serbia in 2023 measured EUR 1,468 per square metre, up by 11%

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



from 2022 (EUR 1,325). The average surface of a new flat equalled 56 square metres and of an old flat 52 square metres.

The number of real estates bought from loans declined as a consequence of rising interest rates – around 17% of purchased flats were financed in this way compared to 26% in 2022.

Other countries in the region also saw a slower pace of real estate price growth. According to Eurostat data for Q3

Chart III.6.1 Flat price movements in Serbia measured by the Flat Price Index (y-o-y rates, in %)

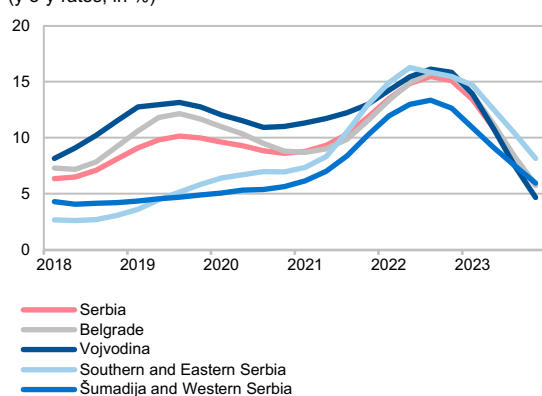
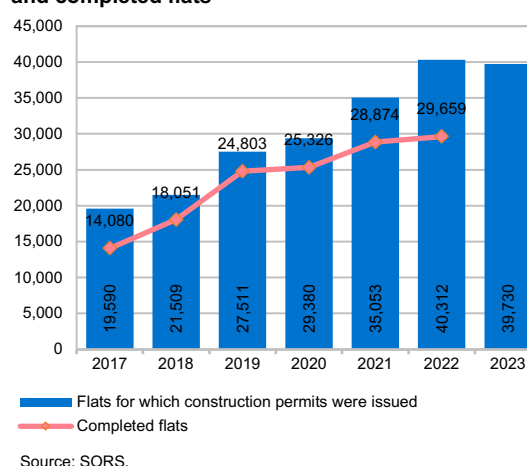


Chart III.6.3 Number of issued construction permits and completed flats



<sup>22</sup> Decision on Capital Adequacy of Banks (RS Official Gazette, Nos 103/2016, 103/2018, 88/2019, 67/2020, 98/2020, 137/2020, 59/2021, 67/2022, 137/2022, 48/2023 and 110/2023), Article 13a.

2023, Bulgaria and Croatia recorded the sharpest increase (10.1% and 9.5%, respectively), while the EU as a whole saw residential property prices rise slightly, by 0.2%.

**According to SORS, the prices of new flats in Serbia went slightly up in 2023**, by 0.7% from 2022, owing to the growth in H1, while in H2, these prices even declined by 4.8 y-o-y. The average price of new flats in Serbia equalled RSD 211,103 per square metre. After Belgrade, where the prices of new flats went up by 2.8%, to RSD 312,011 per square metre in 2023, the highest levels were recorded in: Novi Sad (RSD 206,400 per square metre), Čajetina/Zlatibor (RSD 197,521 per square metre), Medijana - Niš municipality (RSD 176,336 per square metre) and Vrnjačka Banja (RSD 172,663 per square metre).

SORS data indicate that the total **number of issued construction permits** in 2023 came at 31,216, up by 6.4% y-o-y. The rise was driven by the higher number of issued permits for buildings (9.0% y-o-y), while the number of permits for flats dropped by 1.4% for the first time in nine years.

## 7 Inflation expectations

One-year ahead inflation expectations of the financial and corporate sectors were stable in H1 2023 despite the continuation of inflation growth from the beginning of the year. In H2, however, inflationary pressures waned and inflation expectations slowed down approaching the NBS target band. The lowering of one-year ahead

inflation expectations and anchoring of medium-term inflation expectations of the financial sector speak in favour of the credibility of the NBS monetary policy.

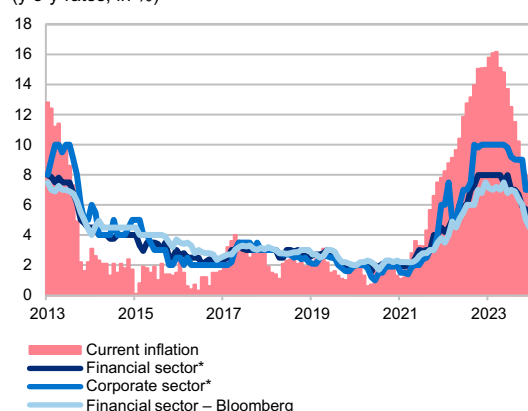
According to the Bloomberg survey, **one-year ahead inflation expectations of the financial sector** trended around 7% for the most part of H1, only to go down to 4.5% by year end, which is the upper bound of the target tolerance band. According to Ipsos, these expectations were stable at around 8% in H1, after which they declined to 5% in December.

**One-year ahead inflation expectations of the corporate sector** were stable in H1, at 10% until June when they started decreasing and reached 7% at year end. The percentage of corporates expecting a rise in the prices of their final products and services in the coming three months more than halved from end-2022, to around 32%. In December, more than a half of surveyed corporates expected no increase in the prices of their products and services over the next twelve months (49.2%).

Having moved at around 20% for ten months, **household inflation expectations**, which are usually higher than those of other sectors, went down to 15% in February 2023 and hovered at that level for most of the year. According to the qualitative survey, the index of expected inflation was lower than the index of perceived inflation, indicating that households expected that inflation would be lower in the coming 12 months than in the previous year.

**Inflation expectations of the financial sector for two years ahead** ranged between 4.0% and 5.0%, while

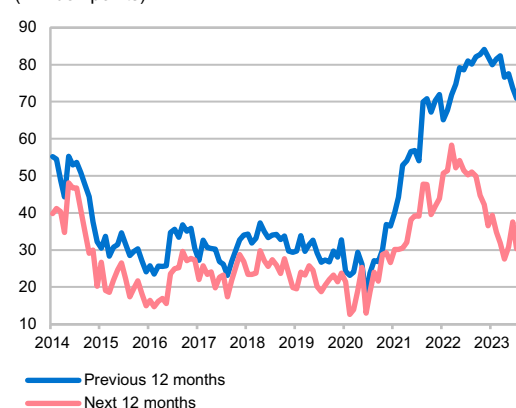
Chart III.7.1 Current inflation and one-year ahead inflation expectations\* (y-o-y rates, in %)



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

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

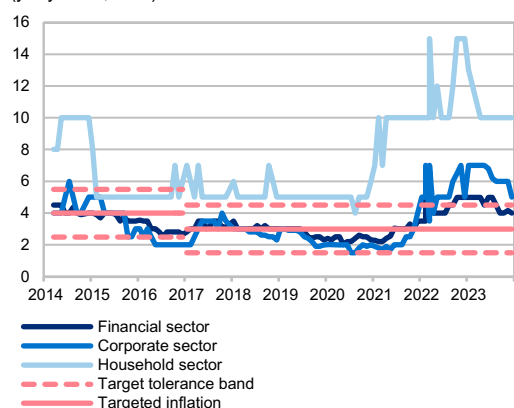
Chart III.7.2 Inflation perceived and expected by households\* (in index points)



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.

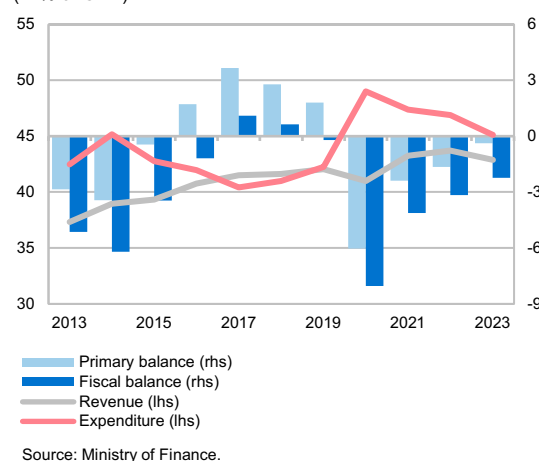
expectations for three years ahead were within the NBS target tolerance band. Two-year ahead corporate expectations were lowered from 7% at the beginning of the year to 5% in December. Three-year ahead corporate expectations stood at 5.0% for most part of the year. Two-year ahead inflation expectations of households decreased to 10% in April and remained at that level all the way until the end of the year. This was also the level of three-year ahead expectations.

## 8 Fiscal trends

In 2023, general government deficit measured RSD 181.1 bn (2.2% of GDP). At the same time, the primary balance recorded a deficit of RSD 31.8 bn (0.4% of GDP). The deficit in 2023 was lower by RSD 46.4 bn than envisaged by the supplementary budget for 2023 owing to the higher than planned revenues and lower spending, primarily for the procurement of goods and services as well as for subsidies. A better fiscal performance and a weaker than expected fiscal impulse contributed to lower inflation.

Public revenues increased by 11.9% (RSD 370.0 bn) with all categories of tax revenues recording growth. Revenues from social insurance contributions posted the highest growth in nominal terms, increasing by RSD 108.6 bn (3.5 pp contribution), largely as a result of the wage bill increase, despite the government's decision to reduce the rate of contributions paid by employers by 1 pp. VAT collected in 2023 went up by RSD 63.4 bn (2.0 pp contribution), partly a result of rising prices, and partly of the real growth, bearing in mind that the VAT on

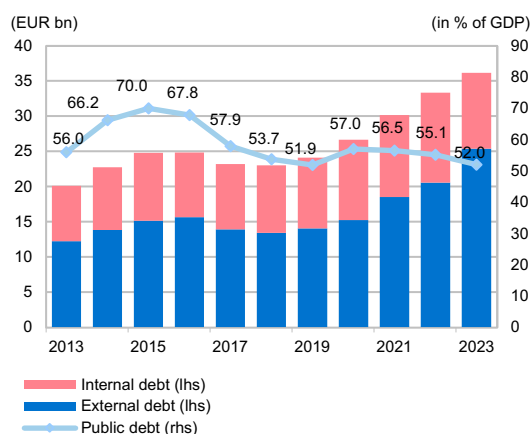
Chart III.8.1 Fiscal and primary balance of general government budget (in % of GDP)



domestic goods recorded an increase of RSD 92.3 bn (3.0 pp contribution), while, in contrast, VAT from imports dropped by RSD 29.5 bn, primarily on account of the reduced value of energy imports. The rise in tax revenues was almost equally supported by the higher profit tax (2.0 pp contribution) as in 2023, tax payers paid tax on the profit made in 2022 when corporate sector performed extremely well. Income tax revenues also went up (1.5 pp contribution) owing to the already mentioned rise in the wage bill.

Public expenditures in 2023 were 9.8% higher than in 2022, or by RSD 326.2 bn. The greatest expenditure increase in 2023 relative to 2022 was recorded in case of social security expenses (5.2 pp contribution of which

Chart III.8.2 Public debt\*





pensions provided 4.1 pp), followed by employee expenses (2.4 pp) because of the government's decision to raise wages and pensions in H2. Public expenditure rise was driven by the higher purchases of goods and services (2.1 pp), and somewhat less so by subsidies (1.6 pp), and capital expenditures and interest payments (1.3 pp each). When it comes to capital expenditures, their execution in 2023 was at the level of around 97% relative to the plan from the Revised Fiscal Strategy (RSD 584.4 bn) and they were nominally higher by RSD 42.5 bn compared to 2022.

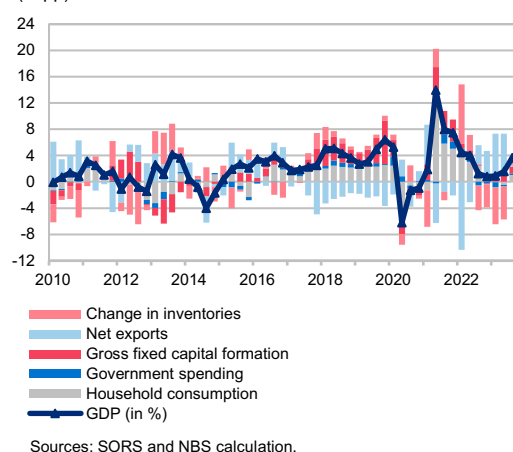
**Central government public debt** measured EUR 36.2 bn at end-2023 and its share in GDP 52.0%. Compared to end-2022, the share of public debt in GDP contracted by 3.1 pp, almost entirely a result of higher nominal GDP in 2023 (7.4 pp contribution to the reduction in the share of GDP). To a lesser extent, the share of public debt in GDP contracted also thanks to the decrease in the stock of dinar debt (0.9 pp contribution) and exchange rate differences on account of the dinar's strengthening against the dollar and other currencies.

## 9 Aggregate demand

Real GDP growth came at 2.5% in 2023, driven chiefly by net exports, and to a lesser extent, fixed investments. A positive contribution came also from household and government consumption, while the reduction in inventories had an adverse impact on GDP growth in 2023 as a large portion was spent for domestic consumption and export purposes.

**Private consumption** went up by 0.8% at the level of 2023, owing to its recovery in H2. Household consumption growth is indicated by the rise in real catering turnover by 9.4% in 2023 and an increase in the import of consumer goods by 5.2% despite its gradual deceleration during the year. The waning of inflationary pressures enabled the recovery of real retail trade turnover at end-Q3 and in Q4, which, nevertheless, declined by 1.9% at the level of the year. As in previous years, consumption growth was generated by the primary source of consumption financing – the wage bill. In 2023, the wage bill went up by 17.0% in nominal and by 4.0% in real terms. In addition, lending pushed consumption up as loans intended for consumption (cash and consumer loans, current account overdrafts, credit cards) posted 1.7% growth at the level of the year. On the other hand, after two years of robust growth, in 2023, remittances dipped by 0.6%, largely on account of the high last year's base and partly of economic slack and growing costs of

Chart III.9.1 Contributions to y-o-y GDP growth rate – expenditure side (in pp)



living in Western European countries where the bulk of remittances come from.

As **government consumption** went up by 0.3% in 2023, adding 0.1 pp to GDP growth, total domestic consumption increased by 0.8%, contributing 0.6 pp to GDP growth.

Despite pronounced geopolitical tensions, the positive dynamics of **private investments** was maintained in 2023 and they increased by 3.3%. Investment growth is indicated by the rise in the production of machinery and equipment by 5.1%. At the same time, the value of executed works and the number of issued construction

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

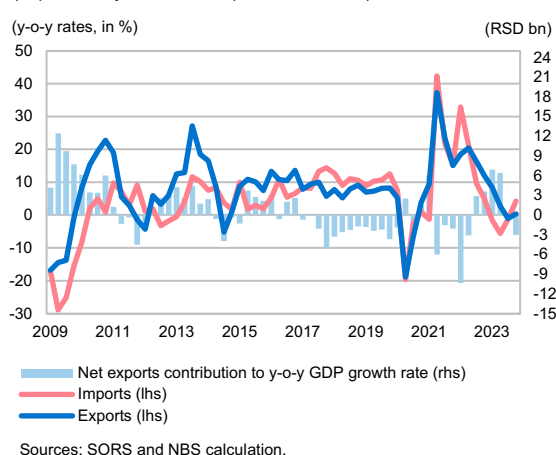


Chart III.9.3 Movement of indicators of external demand for Serbian exports  
(3M moving average, s-a)

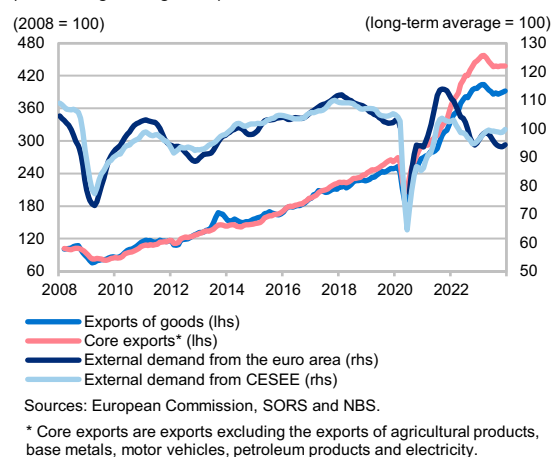
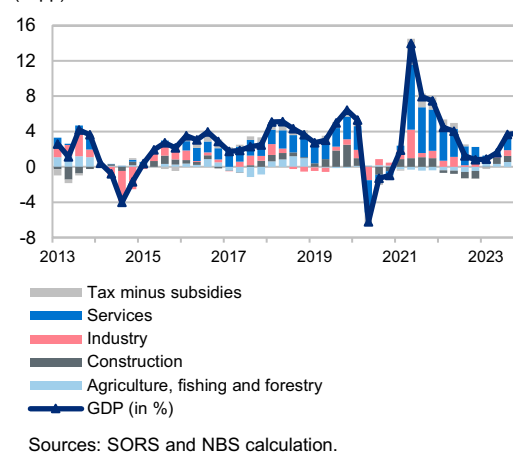


Chart III.10.1 Contributions to y-o-y GDP growth rate – production side  
(in pp)



permits also increased, by 11.7% and 6.4%, respectively. We estimate that the bulk of investments were financed from own sources, indicated primarily by the last year's corporate profitability of around RSD 864 bn, as well as a considerable FDI inflow (EUR 4.5 bn) which exceeded last year's record. A part of this growth was supported by investment loans, which went up by 3.8% y-o-y in 2023. Continued implementation of government-financed infrastructure projects contributed to the 5.4% growth in **government investments** in 2023. Accordingly, total fixed investments increased by 3.9% in 2023, providing 0.9 pp to GDP.

On the other hand, as in 2023 a large portion of inventories from previous years was spent for domestic consumption and a part for exports too, the reduction in inventories dragged GDP growth in 2023 down by 1.5 pp.

The greatest positive contribution to GDP growth in 2023 was provided by **net exports (2.5 pp contribution)** as a result of the real growth in goods and services exports (2.4%) and a decline in imports (-1.1%), exerting a key impact on positive trends in H1. The rise in exports was due primarily to previous investments in tradable sectors which pushed up significantly the export supply of manufacturing, as well as to the recovery of the energy sector production which enabled electricity exports.

## 10 Economic activity

In 2023, for the second year in a row, GDP growth amounted to 2.5%, despite the slowdown in external demand amid economic slack of the euro area, our most

important trade partner, and pronounced geopolitical tensions. The growth was driven by more intense activity in all production and most service sectors. An almost equal impetus came from construction, industry and agriculture.

The rise in **industrial production** in 2023 (2.3%) was led by the recovery of **electricity sector** whose volume of production stabilised and rose to 12.7% after the problems experienced in late 2021 and early 2022. **Manufacturing** rose by 0.7%, as confirmed by the data on the volume of its production (0.8%). The rise in the volume of production was posted by a half of the 24 manufacturing branches, with the highest positive contribution coming from the production of computers and electronic products, followed

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

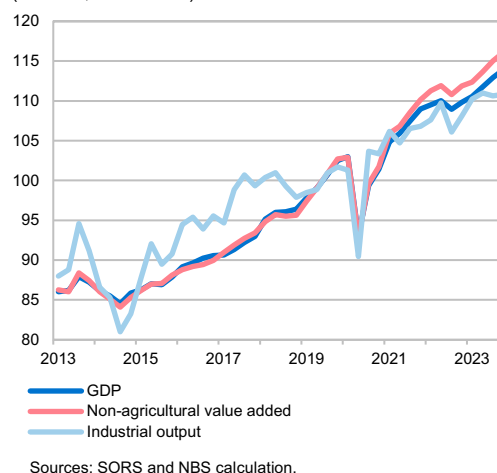


Chart III.10.3 **Construction activity indicators**  
(quarterly averages s-a, 2019 = 100)



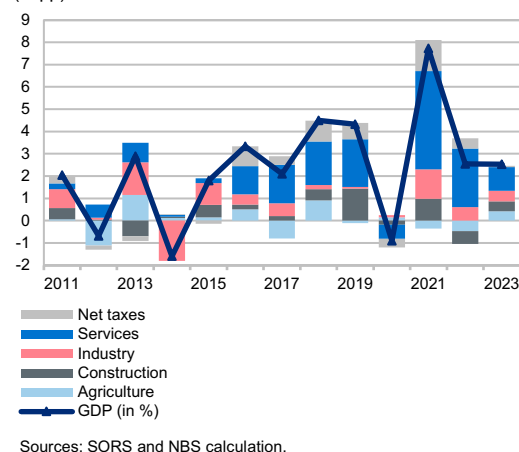
by motor vehicles (and trailers) and food. On the other hand, the largest negative contribution to manufacturing stemmed from the reduced volume of production of metal products, coke and petroleum products, as well as chemical products. After growing at a rate of over 20% for two years in a row (partly on account of expanded production capacities), the volume of **mining** output stayed broadly unchanged in 2023.

**Construction** picked up by almost 9% in 2023, which is a result of the low last year's base and continued implementation of significant transport infrastructure projects (Belgrade bypass, sections of the Morava corridor, Novi Sad-Subotica railway). The value of executed construction works, which went up by 11.7% in 2023, also indicates a rise in the construction sector. At the same time, the number of issued construction permits climbed by 6.4%.

**Service sectors**, collectively, went up by 2.0% in 2023, contributing 1.1 pp to GDP growth. This is primarily confirmed by tourism indicators, as the tourism turnover, measured by the number of arrivals and overnight stays increased by 8.4% and 1.6%, respectively. Also, the real turnover in catering increased by 9.4%. On the other hand, real retail trade turnover declined by 1.9% y-o-y, which can be linked to higher food prices, as well as to the base effect since early last year (particularly in March) basic foodstuffs were purchased increasingly following the outbreak of the Ukraine conflict.

After two consecutive bad seasons, in 2023 **agricultural production** recorded almost double-digit growth of over 8% and contributed 0.4 pp to GDP.

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



**Net taxes** went slightly up from last year, adding 0.1 pp to GDP growth.

Looking at individual quarters, the growth dynamics accelerated significantly in H2. The y-o-y growth stepped up from 1.2% in H1 to 3.7% in H2, with the quarterly rise in Q4 measuring close to 1% s-a. This contributes to the high carry-over effect for 2024 and facilitates the achievement of the projected growth rate, which is in the 3–4% range, with a central value of 3.5%. GDP growth rates were positive in all quarters.

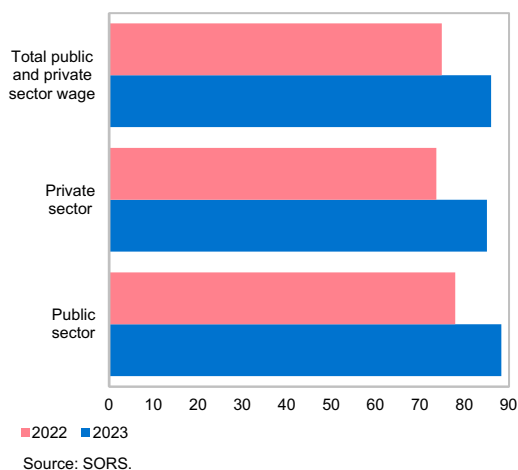
## 11 Wages and employment

Favourable labour market trends continued into 2023 as testified by the further increase in employment, reduction in unemployment and a double-digit y-o-y rise in wages.

At the level of 2023, the average **nominal net wage** amounted to RSD 86,007, up by 14.8% y-o-y. As the private sector wage growth (15.5%) was faster than that of the public sector (13.3%), the gap between public and private sector wages narrowed further (to 1.04 at the annual level). The minimum cost of labour increased to RSD 230 per hour at the beginning of the year, while the median net wage in 2023 averaged RSD 65,670.

In 2023, the wage growth remained widely dispersed as confirmed by the higher wages in all sectors of the economy, with the most striking rise registered in trade (15.7%), transport (15.5%) and public administration (15.3%).

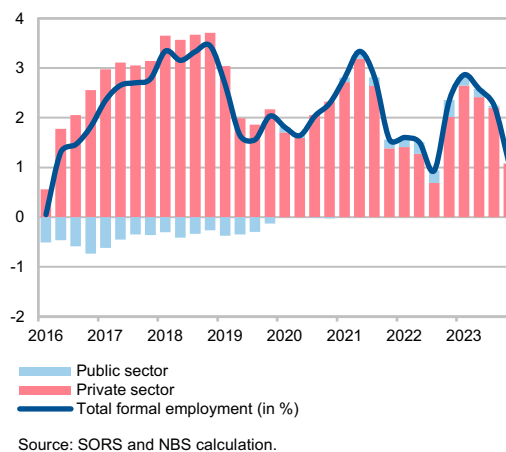


Chart III.11.1 Average nominal net wage  
(RSD thousand)

As the dominant source of consumer demand, the total nominal **net wage bill** rose by 17.0% in 2023, thanks to the nominal wage growth in all sectors and higher formal employment.

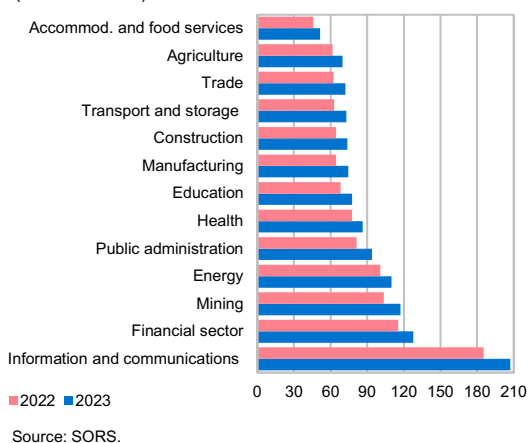
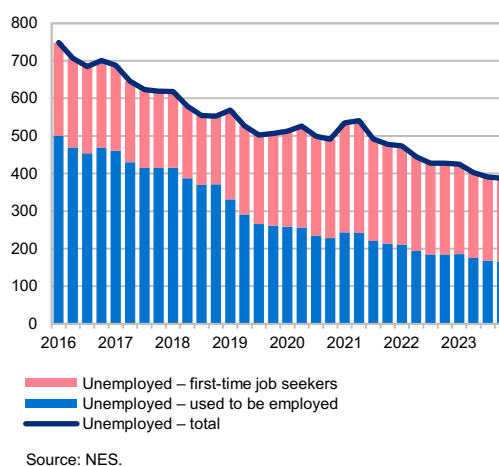
We estimate that the **overall economic productivity** growth decelerated from 0.9% in 2022 to 0.3% in 2023, on account of a faster employment rise in 2023 than in the previous year.

**Total formal employment** increased on average by around 51 thousand (2.2%) in 2023 thanks to growth in employment with legal entities (by around 38 thousand) and entrepreneurs (by around 16 thousand), while the

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

number of individual farmers went down (by around three thousand). At the same time, formal employment increase was largely driven by private sector employment which came at around 1.75 mn at end-2023. Public sector formal employment also went up, to 611 thousand in December, on account of a more flexible control of employment with public funds beneficiaries.

The highest number of new recruits in 2023 was on average recorded in the ICT sector and professional, scientific, innovation and technical services (by 13 thousand each), followed by manufacturing (around six thousand). At the same time, employment increased in other sectors dominantly belonging to the private sector,

Chart III.11.2 Average nominal net wage by  
economic sector  
(RSD thousand)Chart III.11.4 Registered unemployment  
(in thousand of persons, end-of-quarter)

except administration and auxiliary services as well as agriculture where employment decreased by around two thousand and one thousand on average, respectively. Public sector employment also rose, driven dominantly by employment gains in the health sector (around five thousand).

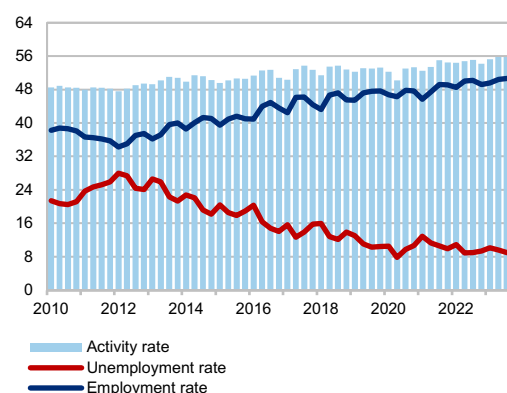
The multiannual downward trend of **registered unemployment** continued into 2023. According to the National Employment Service, registered unemployment came at 393,095 in December, down by around 39 thousand from a year ago. At the same time, the y-o-y unemployment drop was registered in all occupation groups in the manufacturing and service sectors.

According to the Labour Force Survey, inclusive of both formal and informal labour market segments, in Q4 2023 the working age (15–64) participation rate stood at 71.5% and the activity rate of population older than 15 at 55.6%, marking a 1.2 pp and 1.4 pp increase relative to the same period last year, respectively. The

unemployment rate of 9.1% was 0.3 pp lower than in the same period of 2022, while the employment rate was 1.3 pp higher, measuring 50.5%.

Chart III.11.5 Labour market indicators under the Labour Force Survey

(in %)



Source: SORS.

## IV Outlook for key macroeconomic indicators in 2024

The monetary policy decisions made in the course of 2023 were largely determined by the expectations and macroeconomic projections for 2024. It should be noted that the projections for 2023 entirely materialised in terms of inflation, current account deficit and real GDP growth outturns. The projections for 2024 envisage the continuation of favourable trends – further inflation decline and acceleration of economic growth, supported by increased investment, employment gains and maintained living standards.

According to the projections made in 2023, **inflation** is expected to return within the target band in mid-2024 and approach the 3% midpoint by the end of the year. Such inflation profile should reflect mainly the effects of past monetary tightening, the weakening of global cost-push pressures, further slackening of imported inflation and the anticipated continuing decline in inflation expectations.

**Economic growth** is expected to accelerate in 2024 to the range of 3–4%, with central value of 3.5%, which speaks in favour of a soft landing, i.e. that monetary policy tightening has had a minimal effect on economic activity and financial stability. The projected GDP growth will be led by domestic demand. Private consumption will pick up on the back of further growth in employment and real wages. However, as consumption will rise at a slower pace than total GDP, no major inflationary pressures are likely on this account.

Thanks to the continued implementation of projects in transport, energy and utility infrastructure, a positive contribution to growth is expected also from fixed investment which boosts the country's potential output. The effects of past investment into export-oriented sectors will be reflected in further export growth in 2024, though the contribution of net exports will be negative due to the expected robust increase in imports, notably of equipment and intermediate goods.

Given the above, the **current account deficit**, projected at 4% of GDP in 2024, will remain fully covered by net FDI inflows. The anticipated continuing FDI inflows and the strong non-residents' demand for dinar securities testify to Serbia's favourable macroeconomic prospects and resilience to negative shocks from the international environment.

In making monetary policy decisions, account was taken of the fact that, according to the Revised Fiscal Strategy for the 2024–2026 Period, the medium-term fiscal framework envisages a reduction in **the share of public debt in GDP and the curbing of the government deficit** to 2.2% in 2024. Looking at expenditure, focus will be maintained on infrastructure and capital projects, with capital expenditure accounting for around 6–7% of GDP in 2024–2026. In our view, the narrowing of the government deficit in the period ahead will contribute to lower inflationary pressures, which combined with the downward trajectory of public debt will have a positive bearing on the country's credit rating and risk premium.



## Index of charts and tables

### Charts

II.1.1	Movement in the key policy rate and average repo rate	7
II.2.1	Stock of sold/bought NBS securities	10
II.2.2	Volume of sterilisation by monetary policy instruments	11
II.2.3	Key policy rate and interest rate corridor	12
II.3.1	Y-o-y inflation at the end of 2022 and 2023	12
II.3.2	Headline and core inflation	13
II.3.2	Contribution of CPI components to y-o-y inflation during 2023	13
III.1.1	Real GDP growth in 2023 and projections for 2024	15
III.1.2	Real GDP growth in the euro area and the USA in 2023	15
III.1.3	Real GDP growth in Germany and Italy in 2023	16
III.1.4	Real GDP growth in CESEE countries in 2023	16
III.1.5	Average inflation in 2023 and projections for 2024	17
III.1.6	Euro area HICP inflation and US CPI inflation in 2023	17
III.1.7	CPI movements in selected CESEE countries in 2023	18
III.1.8	Policy rates across selected countries	18
III.1.9	Yields on ten-year bonds of euro area countries	20
III.1.10	Exchange rates of selected national currencies against the dollar	20
III.1.11	World gold and oil price movements	20
III.1.12	Natural gas and thermal coal price movements and index of metals and minerals	21
III.1.13	World primary commodity price index	21
III.1.14	World food price index	21
III.2.1	FDI/CAD coverage	22
III.2.2	Structure of the financial account	23
III.2.3	FX reserves and coverage of short-term external debt	24
III.2.4	International investment position	25
III.3.1	Interest rate movements	25
III.3.2	Interest rates in the primary market of government securities	26
III.3.3	Interest rates on new dinar loans and deposits	26
III.3.4	Interest rates on new euro and euro-indexed loans and deposits	27
III.3.5	Risk premium indicator for dollar debt – EMBI	27
III.3.6	Risk premium indicator for euro debt – EURO EMBIG	28
III.3.7	Dinar exchange rate and NBS transactions in the FX market	29
III.3.8	Movements in USD/RSD and USD/EUR exchange rates	29
III.3.9	Movements in exchange rates of national currencies against the euro	29
III.4.1	Monetary aggregates and consumer prices	30
III.4.2	Lending activity and GDP	31
III.4.3	Contributions to y-o-y corporate lending growth	31
III.4.4	Change in corporate credit standards and contributing factors	31
III.4.5	Contributions to y-o-y household lending growth	32
III.4.6	Change in household credit standards and contributing factors	32
III.4.7	NPL share in total loans, gross principle	32

III.5.1	Share of dinar deposits in total corporate and household deposits	33
III.5.2	Deposits by sector	33
III.5.3	Share of dinar receivables in total corporate and household receivables	34
III.5.4	Receivables by sector	34
III.6.1	Flat price movements in Serbia measured by the Flat Price Index	35
III.6.2	Flat price movements measured by the Flat Price Index, in countries of the region	35
III.6.3	Number of issued construction permits and completed flats	35
III.7.1	Current inflation and one-year ahead inflation expectations	36
III.7.2	Inflation perceived and expected by households	36
III.7.3	Two-year ahead inflation expectations	37
III.8.1	Fiscal and primary balance of general government budget	37
III.8.2	Public debt	37
III.9.1	Contributions to y-o-y GDP growth rate – expenditure side	38
III.9.2.	Exports and imports of goods and services	38
III.9.3.	Movement of indicators of external demand for Serbian exports	39
III.10.1	Contributions to y-o-y GDP growth rate – production side	39
III.10.2	Economic activity indicators	39
III.10.3	Construction activity indicators	40
III.10.4	Contributions to annual GDP growth rate – production side	40
III.11.1	Average nominal net wage	41
III.11.2	Average nominal net wage by economic sector	41
III.11.3	Composition of y-o-y growth in formal employment	41
III.11.4	Registered unemployment	41
III.11.5	Labour market indicators under the Labour Force Survey	42

#### Tables

III.2.1	Serbia's balance of payments	23
III.3.1	Credit rating	28
III.4.1	Monetary survey	30





CIP - Каталогизација у публикацији  
Народна библиотека Србије, Београд

336.71

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

Godišnje. - Ima izdanje na drugom jeziku :  
Годишњи извештај о монетарној политици =  
ISSN 2217-6292  
ISSN 2217-6535 = Annual Monetary Policy  
Report  
COBISS.SR-ID 185843468