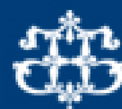

National Bank of Serbia

November 2024

INFLATION REPORT

November 2024

INFLATION REPORT

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Introductory note

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

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

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

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

The November *Inflation Report* was considered and adopted by the NBS Executive Board at its meeting of 7 November 2024.

Earlier issues of the *Inflation Report* are available on the National Bank of Serbia's website (http://www.nbs.rs).

Executive Board of the National Bank of Serbia:

Jorgovanka Tabaković, Governor

Željko Jović, Vice Governor

Ana Ivković, Vice Governor

Dragana Stanić, Vice Governor

Nikola Dragašević, Vice Governor

ABBREVIATIONS

bp – basis point
CPI – Consumer Price Index
EBRD – European Bank for Reconstruction and Development
ECB – European Central Bank
EIB – European Investment Bank
EMBI – Emerging Markets Bond Index
EU – European Union
FAO – UN Food and Agriculture Organization
FDI – foreign direct investment
Fed – Federal Reserve System
FOMC – Federal Open Market Committee
GDP – gross domestic product
GVA – gross value added
H – half-year
IFEM – Interbank Foreign Exchange Market
IMF – International Monetary Fund
LHS – left hand scale
mn – million
NAVA – non-agricultural value added
NPL – non-performing loan
OFO – other financial organisation
OPEC – Organization of the Petroleum Exporting Countries
pp – percentage point
Q – quarter
q-o-q – quarter-on-quarter
RHS – right hand scale
RMCP – real marginal cost of processed food production
s-a – seasonally-adjusted
SDR – Special Drawing Right
SORS – Statistical Office of the Republic of Serbia
y-o-y – year-on-year

Other generally accepted abbreviations are not cited.

Macroeconomic projections presented in the *Report* were concluded on 1 November.

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I Overview

Global growth has proven to be more resilient than expected during the period of tight monetary policies, on the back of retreating global inflation.

According to the estimates of relevant international institutions, **global growth outlook** for this year and the next has remained largely in line with expectations. However, the projected growth rate, estimated by the IMF at 3.2% for both years, remains below the long-term average recorded before the onset of the multidimensional economic crisis. Still, the global economy has demonstrated exceptional resilience and has avoided recession despite a strong and synchronised tightening of monetary conditions across the world. Growth is uneven across regions, with economic activity in the euro area, our key trade partner, recovering this year more slowly than anticipated, primarily due to weaker performance in Germany's manufacturing sector. Projections for euro area's growth have been revised slightly down by relevant international institutions, to 0.7–0.8% for this year and 1.2–1.3% for the next.

In the period ahead, the decline in global inflation will be driven by receding core inflation. However, in most countries, core inflation will remain above the headline rate over the next two years.

Since the previous *Report*, the downward trend in **global inflation** has continued, though core inflation in most countries remains persistent, largely due to tight labour markets. Nonetheless, core inflation is expected to decline globally in the coming period, supporting a further slowdown in headline inflation. This is also the case in the euro area, though core inflation will most likely remain above headline throughout the projection horizon. According to the IMF forecast, average inflation in advanced economies is expected to stabilise at 2.0% in 2025, while in emerging and developing economies, it is projected to average 5.9%. However, inflation is not anticipated to return to target levels in most countries before the end of 2025.

Most central banks have embarked on a monetary easing cycle in response to inflation's slowdown.

In response to receding inflationary pressures, **most central banks have embarked on a monetary easing cycle**. When it comes to leading central banks, the ECB began reducing its key rates in June, followed by the Fed in September. Still, both central banks estimate that monetary conditions, although eased, remain tight. Inflation-targeting central banks in the CESEE region began easing their monetary policies even earlier, with most of them continuing to lower interest rates through Q3.

Global risks remain elevated, with the effects on global economic growth skewed to the downside.

Despite economic normalisation in the previous and current years, **global economic developments remain challenging and unpredictable**, with risks to growth skewed to the downside. Key risks include potentially higher primary commodity prices, on account of climate change, regional conflicts, geopolitical tensions, intensification of protectionist measures, sharper than expected slowdown of China's economy, tighter than forecast monetary and financial conditions, and the financial vulnerability of some emerging economies due to soaring public debt.

Thanks to a responsible economic policy and demonstrated resilience to the adverse effects of the global multidimensional crisis, Serbia has been awarded its first-ever investment grade rating. This fulfils one of the NBS's and the Government's most important strategic goals for the year.

Serbia's economy has shown significant resilience to the adverse developments in the international environment. This is reflected in the dynamic economic growth, which continues this year at one of the highest rates in Europe and is expected to exceed pre-pandemic levels by over 18% cumulatively, as well as in inflation that struck a downward path and returned within the target band. Moreover, fiscal and external imbalances have been reduced and the country's FX reserves have reached record levels, exceeding all adequacy metrics. The obtainment of an investment grade rating from Standard & Poor's, one of the three leading global rating agencies, further supports the above achievements, as does the successful completion of the fourth review of the precautionary arrangement with the IMF and the agreement on a new, non-financial Policy Coordination Instrument. Serbia has received its first-ever investment grade rating, with its most significant expected positive effects including more favourable financing conditions for both the government and the private sector, as well as Serbia's increased recognisability on the global investment map.

Since the previous Report, the NBS Executive Board has been easing monetary policy with caution.

Since the previous *Report*, **the NBS Executive Board has continued to cautiously ease monetary policy**. After trimming the key policy rate by 25 bp to 5.75% in September, bringing the total reduction in the current easing cycle to 75 bp, the Executive Board decided to keep the rate unchanged in both October and November. In its decision-making, the Executive Board emphasised that, despite inflation returning within the target band and continuing to move therein, it is necessary to exercise caution in monetary policy conduct – in light of the unpredictable macroeconomic developments in the international environment, mounting geopolitical risks, and the need to assess the impact of earlier rate cuts.

Lending activity continues to accelerate, but is still growing at a slower pace than GDP, which is important in terms of price stability.

Y-o-y **lending to the non-monetary sector** stepped up further in Q3, to 6.6% in September. Lending to corporates and households accelerated to 5% and 7.8%, respectively. The growth was supported by the anticipated and initiated easing of monetary policies by the NBS and

the ECB, as well as the easing of bank credit standards. In Q3, both corporates and households experienced stronger growth in dinar-denominated loans compared to FX-indexed loans, which led to a further rise in the dinarisation of receivables, to 36.8%. Lending growth, along with a lower amount of NPLs, resulted in a decline in the NPL ratio to its new record low of 2.7% in August, where it remained in September.

In the first nine months, the current account deficit, although higher than in the same period of 2023, was almost fully covered by net FDI inflows, which contributed to the prevailing appreciation pressures this year.

Serbia's external position is marked by growth in both exports and imports of goods and services compared to the same period last year. Due to faster y-o-y growth in imports (8.5%) compared to exports (4.3%), the current account deficit widened relative to the previous year, reaching EUR 3.3 bn in the first nine months. Within goods exports, despite continued weak external demand, manufacturing exports continued up (at an annual rate of around 3% y-o-y) owing to past investment. Furthermore, thanks to high autumn crop yields from 2023, agricultural exports also rebounded. The growth in imports was driven by the imports of equipment for capacity modernisation and the ongoing investment cycle, and partly by the imports of consumer goods and tourist services due to higher disposable income of households. The widening current account deficit compared to the previous year partly reflects a higher primary income deficit – mainly due to FDI, and a smaller secondary income surplus. Despite the increase, the current account deficit was more than fully covered by FDI inflows, which exceeded EUR 3.6 bn in the first nine months. This helped sustain appreciation pressures throughout the year, with the NBS buying EUR 1.990 mn net in the FX market over the course of ten months.

Favourable fiscal trends continued, and the planned more expansionary fiscal policy to support the implementation of the "Leap into the Future – Serbia Expo 2027" programme will not jeopardise the declining trajectory of public debt as a share of GDP.

Fiscal trends in the year so far have been more favourable than anticipated, with a consolidated surplus of RSD 29.1 bn in the first three quarters. A more favourable revenue performance was supported by positive trends in the labour market, resulting in higher revenues from personal income tax, VAT and excise duties. High corporate profitability last year reflected on higher corporate income tax receipts. On the expenditure side, spending on government interventions in the energy sector was lower than planned. The resulting fiscal space was used to boost public investment, particularly in transport, energy and utility infrastructure, which is expected to remain around 7.3% of GDP in the coming years. Although the medium-term fiscal framework envisages a more expansionary fiscal policy to support investment planned under the "Leap into the Future – Serbia Expo 2027" programme, with the general government deficit projected to reach a maximum of 2.7% of GDP this year and 3% in the next two years, this will not jeopardise the downward trajectory of public debt

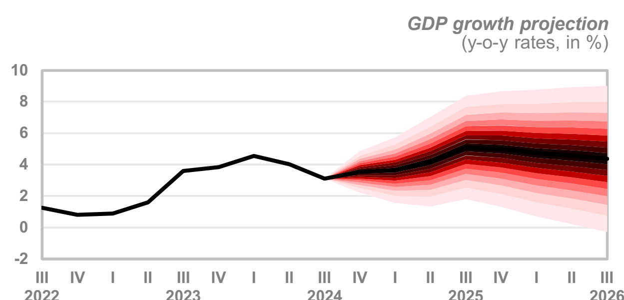
as a share of GDP, which is expected to decrease from 47.9% at the end of this year to 46.5% by the end of 2027.

As positive dynamics in most production and service sectors extended into Q3, we kept our 2024 GDP growth projection at 3.8%. Growth would be even higher if not for the negative effects of the drought on agricultural output and electricity production in hydropower plants.

According to the flash SORS estimate, GDP grew by 3.1% y-o-y in Q3, **which is consistent with our growth projection of 3.8% for this year**. This year's GDP growth would probably be even higher if not for the below-average agricultural season and reduced electricity production in hydropower plants due to the drought. The structure of this year's economic growth did not change much compared to August. The contribution of individual categories was revised only slightly, taking into account the new revised GDP data for preceding years and outturns in some sectors in Q3. On the production side, GDP will be driven by rising activity in the service sectors, manufacturing and construction. By composition of use, economic activity growth in 2024 and beyond will be led by domestic demand, with all of its components providing a positive impulse. The largest positive contribution, slightly higher than in the August projection, is expected to come from private consumption, supported by the continued rise in employment and wages, primarily in the private sector. Also, as investment confidence has been preserved and additionally confirmed by the investment-grade rating, the course of the investment cycle so far, and the continuing high FDI inflows, we have revised up the contribution of fixed investment relative to August. At the same time, though we expect exports to rise further primarily thanks to earlier investment in the export sectors, our new projection assumes that imports will rise faster than in our previous projection, reflecting further acceleration of investment and personal consumption. As a result, the negative contribution of net exports to GDP growth will be slightly higher than in the August projection.

The projection for 2025 and 2026 is unchanged. We still expect GDP growth to accelerate further to the range of 4.0–5.0%, with a central value of 4.5%.

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



Accelerated economic activity growth to the range of 4–5% in the next two years will be supported by the implementation of investments planned under the "Leap into the Future – Serbia Expo 2027" programme and other projects in the area of transport, energy and utility infrastructure, as well by the anticipated recovery in the euro area and, by extension, in external demand. As the investment cycle is expected to gather momentum, and imports of equipment and intermediate goods to go up, we project that the share of the **current account deficit in GDP will measure around 4.7% this year and around 5% in the next two years**, which is within the bounds of external sustainability. The favourable external position will also be sustained by the high inflow of FDI, which is broad-based in terms of both geography and project and is expected to stay around the record-high level from last

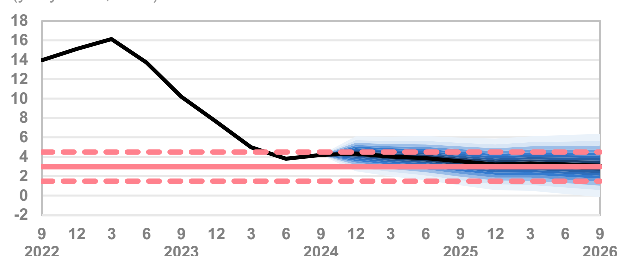
year (around EUR 4.6 bn) in the medium term. The acceleration of Serbia's economic growth on account of investment and productivity growth ought to push up potential output and speed up the process of Serbia's real convergence to the EU.

Y-o-y inflation in Serbia continued to move within the target tolerance band of 3±1.5% in Q3.

In Q3, **y-o-y inflation** continued to move within the bounds of the target tolerance band. After measuring 4.3% in July and August, it slowed somewhat to 4.2% in September. The headline inflation outturn was consistent with the projection from the August Report. Fruit and vegetable prices increased more than expected due to the drought, but this was offset by subsiding prices of petroleum products as the global oil price decreased. **Core inflation** (excluding prices of food, energy, alcohol and cigarettes) continued to move at around 5% y-o-y, guided by the rise in prices of services, but the continued slowdown in industrial product prices worked in the opposite direction. The **trimmed mean** measure of core inflation, which excludes 15% of products and services whose prices recorded the largest changes in either direction from the consumer basket, moved below headline inflation and measured 3.6% y-o-y in September. **One year-ahead expectations of the financial sector** have been within the NBS target tolerance band since the start of the year, and medium-term expectations have been anchored within this band for quite some time, reflecting market agents' confidence in the NBS's monetary policy measures and credibility.

Under our new projection, inflation should stay within the target tolerance band (3±1.5%) throughout the projection horizon.

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



Under our new projection, **y-o-y inflation will stay within the bounds of the target tolerance band until the end of the projection horizon. It should move at or slightly above its September level until the end of the year, mostly on account of the negative effects of the drought. It should then gradually slow and approach the target midpoint late next year.** Inflation's slowdown next year will be under the impact of the still tight monetary conditions, influenced by the continued slide in inflation expectations and lower imported inflation. Inflation's downward path will likewise reflect the projected slowdown in real wage growth and the expected fall in global oil prices, in line with futures. The new inflation projection is slightly higher than the August one in the short term due to stronger negative effects of the drought on the supply and prices of fruit and vegetables, but also due to faster growth in domestic demand. A reduced global price of oil despite the heightening of geopolitical tensions in the Middle East, subdued imported inflation and weaker growth in the euro area worked in the direction of a lower projection than in August.

The key risks to the inflation and GDP projections are still mainly associated with factors from the international environment. Overall, we judge the risks to the inflation and GDP projections for this year and beyond to be symmetric.

Uncertainty surrounding the inflation and GDP projections is still mainly associated with factors from the international environment, notably geopolitical relations, outlook for global growth and its impact on world prices of energy and other primary commodities. To a degree, the risks also stem from the persistence of core inflation globally and the duration of tight monetary policies of leading central banks. Another source of risks is the pace of domestic demand growth, notably on account of the level of FDI inflow and investment in infrastructure and the energy sector. At home, the risk is associated with the outcome of the agricultural season, as its effect on fruit and vegetable prices is important for inflation, and its impact on autumn crops for GDP. Overall, we judge the risks to the inflation and GDP projections for this year and beyond to be symmetric. **The NBS will continue to monitor and analyse trends in the domestic and international markets, and make monetary policy decisions on a meeting-to-meeting basis depending on the pace of inflation's slowdown.** Delivering price and financial stability in the medium term will remain the monetary policy priority, including support to further economic growth and development, a further rise in employment, and preservation of a favourable investment environment.

II Monetary policy since the August *Report*

In the period since the August Report, the NBS Executive Board continued with cautious monetary policy easing. After lowering the key policy rate by 25 bp, to 5.75% in September, thereby cutting it by total 75 bp in the current cycle of monetary easing, the Executive Board decided to keep the key policy rate on hold in October and November. In making such decisions, the Executive Board pointed out that, although inflation retreated within the target tolerance band and continued to move therein, caution is still mandated in the monetary policy conduct, bearing in mind unpredictable macroeconomic developments in the international environment and rising geopolitical risks, as well as the need to analyse the effects of past key policy rate cuts.

In the period since the August *Report*, **the NBS Executive Board cut the key policy rate by additional 25 bp in September, to 5.75%, while keeping it on hold in October**. The deposit and lending facility rates also declined to 4.50% and 7.00%, respectively. Reflecting the key policy rate cut, the weighted average repo rate fell from 4.77% to 4.52% at end-October. The NBS monetary policy easing passed through to interbank money market rates, which also decreased, and to cheaper dinar loans, signalling the efficiency of the monetary policy transmission mechanism.

Since the August *Report*, the conditions in the domestic and international environment in which monetary policy was conducted in Serbia, as well as in most other countries, encouraged **further monetary policy easing, albeit at a moderate pace**. The Executive Board made such a decision with careful consideration of all available information and data, analysis of inflation trends and monetary transmission, so that monetary easing would not threaten the sustainability of inflation's downward path and its movement within the target band.

The Executive Board's decisions in September and October were based on the **August medium-term inflation projection**, according to which inflation would continue to move within the target tolerance band, stay around 4% by the end of this year, and gradually converge to the 3% target midpoint during 2025. Such inflation profile would be mostly underpinned by the effects of persisting tight monetary conditions, a slide in imported inflation and inflation expectations, the anticipated gradual slowdown in real wage growth and the fall in global oil prices, as suggested by futures.

In accordance with the Executive Board's announcements, **y-o-y inflation in Serbia** continued to move within the target tolerance band (3±1.5%), on a path projected by the NBS. Y-o-y inflation declined from 4.3% in July and August to 4.2% in September. Core inflation (CPI excluding food, energy, alcohol and cigarettes) has stabilised around 5.0% y-o-y since February. It has trended at a higher level than headline inflation since May, as in other countries of the region, including the euro area.

In its monetary policy making, the Executive Board had in mind that one-year ahead inflation expectations of the financial sector continued to move within the target tolerance band, according to surveys conducted by Ninamedia and Bloomberg agencies. Their two-year ahead inflation expectations have ranged between 3.0% and 3.3% since April. Short-term inflation expectations of corporates stayed unchanged at 5.0% in September, as in the best part of the year. Medium-term inflation expectations of this sector stood at that level as well. Lower inflation expectations support lower inflation and a higher real interest rate, i.e. more restrictive monetary conditions even without changes in the key policy rate.

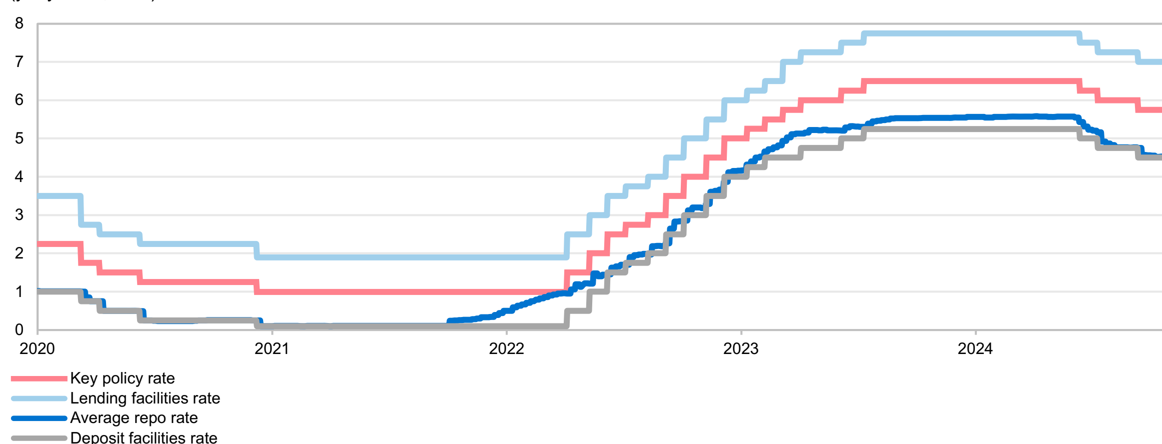
In making monetary policy decisions, the Executive Board was particularly mindful of the factors from the international environment and Serbia's **stronger**

macroeconomic fundamentals and resilience to external shocks – particularly, dynamic growth, downward inflation path, responsible fiscal policy and more than sufficient coverage of the current account deficit by FDI, contributing to stability of the dinar exchange rate against the euro and the record increase in FX reserves. In October, Serbia obtained the investment grade rating for the first time in its history. The decision by Standard & Poor's, one of the three most eminent global rating agencies, serves as another affirmation of Serbia's achievements in terms of favourable macroeconomic prospects, stronger resilience to external shocks and maintaining financial stability. The positive effects of such rating can be expected in the period ahead in terms of more favourable financing conditions for the government and the private sector, along with greater recognisability of Serbia on the global investment map.

In the international environment, inflation should continue down, primarily due to the still restrictive nature of monetary policies in leading economies and the waning impact of previous shocks that had strongly affected supply. Accordingly, the Executive Board expects a further slowdown in the price growth of the goods and services that we import. In the **euro area**, our key trade partner, inflation converged to the target in August, by declining to 2.2%, and then fell below the target in September, to 1.7%. Core inflation also saw a mild reduction (2.7%), but still mandates caution and careful monitoring, along with rising prices of services, as it remains above the historical average, primarily due to rising labour costs. Our key foreign trade partners, Germany and Italy, recorded considerable disinflation. In Germany, inflation measured by the CPI dipped below 2% for the first time in three years (to 1.9% in August and further to 1.6% in September), thanks to declining energy prices, while increase in the prices of services remains relatively high. In Italy, inflation was again below expectations, decreasing to 0.7% in September, with core inflation falling to 1.8%. In the remainder of the year, a temporary rise in euro area inflation is expected due to base effects from energy prices, followed by a further decline. The ECB's projection from September, unchanged from June, anticipates inflation at 2.5% in 2024, with further cuts over the next two years, to 2.2% and 1.9%, respectively. The inflation target of 2% is anticipated in Q4 2025.

As expected, the **ECB** further lowered the deposit facility rate by 25 bp to 3.5% in September, which now serves as the basis for assessing the character of monetary policy, while simultaneously adjusting the spread between the main refinancing rate and the deposit facility rate (from 50 bp to 15 bp) and keeping the spread against the lending facility rate unchanged (25 bp). In October, the ECB further lowered its interest rates by 25 bp each. Hence, the deposit facility rate now stands at 3.25%, while the rates for the main refinancing operations and credit facility are 3.4% and 3.65% respectively. The ECB is expected to continue balancing between achieving targeted inflation and supporting economic activity. The NBS Executive Board had in mind that the gradual decrease in the price of euro-indexed borrowing in the local market, based on lower euro area money market rates due to the ECB's monetary policy easing, along with past reduction of the NBS key policy rate, should gradually drive lending and domestic demand up, including GDP, without threatening the downward inflation path.

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



Source: NBS.

The **Fed** initiated the monetary policy easing cycle in September, as expected, though 50 bp cut in the target range of the federal funds rate surprised on the upside. The narrowing margin was explained by the Fed's growing conviction that inflation risks had significantly diminished while employment risks increased, given that inflationary pressures subsided notably, and tightened conditions are easing in the labour market. However, it was emphasized that the Fed is in no rush to ease monetary conditions and will continue to make decisions on a meeting-by-meeting basis. The Fed's new projections indicate the possibility of two additional rate cuts of 25 bp each, at the meetings in November and December or one additional cut of 50 bp by end-2024.

Considering **external demand**, the NBS Executive Board was aware of the fact that both advanced and emerging economies are expected to grow at a slower pace in the period 2024–2026 compared to the pre-pandemic decade. Although the projections of relevant international institutions indicated stable global growth in Q3, incoming data suggested a slowdown in the economic cycle, primarily due to the still restrictive monetary policies of the leading central banks. Taking into account the escalation of geopolitical tensions and volatility in commodity and financial markets, the risks to the global economic growth in the coming months are heightened. GDP growth in the euro area, our main trade partner, was better than expected early in the year, but the expectations for the period ahead are somewhat more modest than in June. The ECB judges that domestic demand was bolstered by eased monetary and financial conditions, but the incoming data suggest the still weak consumer confidence and higher propensity for savings. Therefore, the ECB downgraded mildly its growth forecast for all three years by 0.1 pp to 0.8%, 1.3% and 1.5% in 2024, 2025 and 2026, respectively. Gradual economic growth globally, and particularly in the euro area, will result in a gradual increase in external demand for our exports.

Speaking of risks from the international environment, the Executive Board pointed out that the NBS should continue to conduct a cautious monetary policy, considering the rise in **geopolitical risks**, and their impact on global prices of energy and other primary commodities. The **global price of oil** fell in September for the third consecutive month, dropping below USD 70 per barrel, primarily due to concerns that oil demand may weaken, especially from China, the largest importer. With the escalation of the Middle East conflict, the global price of oil went up in early October, though this rise was limited mainly owing to fully supplied global markets and significant inventories. However, concerns were mounting that further escalation of the Middle East conflict could disrupt oil flows from this key exporting region and lead to a significant increase in global oil prices in the near future. In deciding on the pace of its monetary policy easing in October, the Executive Board was particularly mindful of the risk of rising energy prices in the global market, notably of oil and gas.

Also, caution is still called for when it comes to **global food prices**, which in September added 3.0% relative to August, posting the strongest growth since March 2022. Volatile weather conditions, protectionist measures and trade restrictions could drive food prices further up. Moreover, global economic growth, which is still below trend, is expected to gradually accelerate in the coming period, reflecting on global prices of food and other primary commodities. Growth remains stronger in the US compared to most other advanced economies. At the same time, China's growth outlook is forecast at somewhat lower levels compared to the previous period, despite a number of measures to strengthen its economy.

At its **November meeting**, the Executive Board kept the key policy rate on hold, stating that the key policy rate was cut by 75 bp in total since June and that the effects of past monetary policy easing would play out in the coming period as well. As underscored by the Board, although inflation has returned within the target tolerance band, it is necessary to continue to pursue a cautious and restrictive monetary policy given somewhat greater resilience of core inflation and unpredictable developments in the international environment, mounting geopolitical risks and their impact on global prices of energy and other primary commodities, including other macroeconomic indicators.

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 future monetary policy decisions based on that and the analysis of trends at home and the pace of domestic inflation's slowdown, on a meeting-by-meeting basis. Going forward, delivering price and financial stability in the medium term will remain the monetary policy priority, along with supporting continued growth and development of our economy, a further rise in employment and a favourable business and investment environment.

III Inflation movements

Y-o-y inflation continued to move within the target tolerance band in Q3. After standing at 4.3% in July and August, it slowed down slightly to 4.2% in September. Headline inflation was consistent with our projection from the August Report, despite a higher than expected rise in the prices of fruit and vegetables due to the drought, which was neutralised by the fall in petroleum product prices amid a lower global oil price. Similar to other countries of the region, core inflation trended higher than headline inflation in Q3, standing slightly above 5.0% y-o-y.

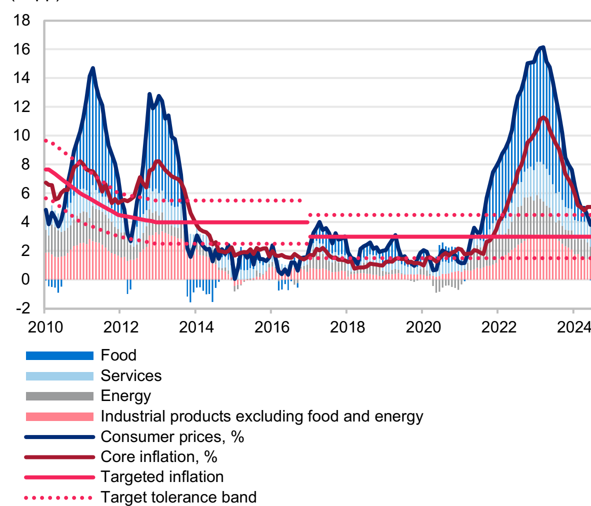
One-year ahead inflation expectations of the financial sector have moved within the target tolerance band since the start of the year, with medium-term inflation expectations anchored around the target midpoint for quite some time already. This speaks in favour of the credibility of the NBS's monetary policy.

Inflation movements in Q3

Y-o-y inflation continued to move within the target tolerance band in Q3. After standing at 4.3% in July and August, it slowed down slightly to 4.2% in September. Compared to June, September saw a higher y-o-y contribution of food prices, notably unprocessed food (by 1.0 pp) due to the negative effects of the summer drought on the supply of fresh vegetables and fruit. Specifically, the prices of fresh vegetables slowed down their y-o-y fall considerably, while the prices of fresh fruit picked up y-o-y. Processed food prices also increased their contribution to y-o-y inflation in September (by 0.2 pp), dominantly reflecting the hike in the prices of coffee and confectionery spurred by the increase in the global prices of raw materials for their manufacturing. Conversely, for the first time since early 2021, energy prices recorded a y-o-y drop in September (0.3%), led mostly by the fall in petroleum product prices reflecting the high last year's base and lower global oil prices. The contribution of industrial product prices (excluding food and energy) to y-o-y inflation in Q3 was also somewhat lower than in June (by 0.1 pp), while the prices of services increased their contribution (by 0.2 pp).

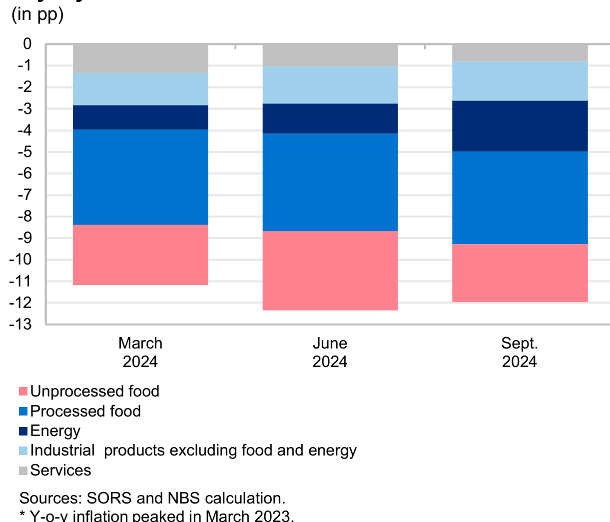
Core inflation (CPI excluding food, energy, alcohol and cigarettes) was slightly higher in Q3 than in Q2 and measured 5.3% y-o-y in September. It was driven by the hike in the prices of services, while the continued

Chart III.0.1 **Contribution of main CPI components to y-o-y inflation**
(in pp)



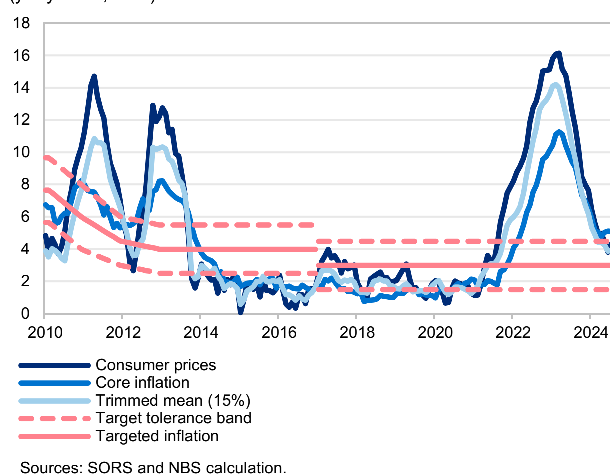
Sources: SORS and NBS calculation.

Chart III.0.2 **Change in contribution of main CPI components to y-o-y inflation – relative to March 2023***
(in pp)



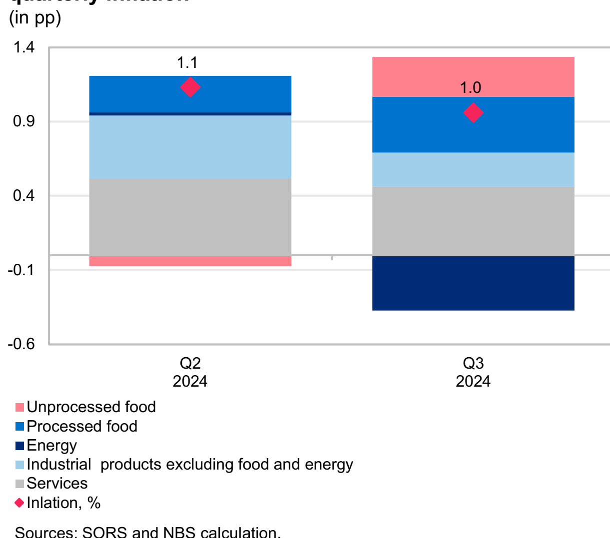
Sources: SORS and NBS calculation.
* Y-o-y inflation peaked in March 2023.

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



Sources: SORS and NBS calculation.

Chart III.0.4 **Contribution of main CPI components to quarterly inflation**
(in pp)



Sources: SORS and NBS calculation.

slowdown in the growth of industrial product prices worked in the opposite direction. The **trimmed mean** measure of core inflation, which excludes from the consumer basket 15% of the products and services whose prices recorded the largest changes in both directions, trended below headline inflation in Q3, and measured 3.6% y-o-y in September, lower than in June.

In quarterly terms, **consumer prices posted a 1.0% rise in Q3**, similar to their average growth in the past four quarters. The highest contribution in Q3 (0.6 pp) came from the **prices of food and non-alcoholic beverages**, which rose by 2.1%. Relative to the projection from the August *Report*, lower inflation in Q3 was dominantly a result of a sharper decline in petroleum product prices. On the other hand, vegetable prices recorded an unusual growth due to this year's drought, with the fresh fruit prices also rising considerably (by 13.3%), which largely drove up the prices in the **unprocessed food** category (2.6%, with a 0.3 pp contribution to inflation). **Processed food** prices went up by 1.8% in Q3 (with a 0.4 pp contribution to inflation), led mostly by the higher prices of confectionery products due to the hike in the global price of sugar and cocoa, and the July hike in the prices of coffee and bread.

Energy prices fell by 2.4% in Q3 (with a negative 0.4 pp contribution to inflation), dominantly owing to lower prices of petroleum products in the local market (by 5.4%) due to the slide in the global oil price, as well as lower prices of solid fuels (by 2.6%).

Industrial product prices (excluding food and energy) increased by 0.8% in Q3 (with a 0.2 pp contribution to inflation), mostly owing to the August adjustment of cigarette prices (by 2.3%) and higher prices of furniture and home equipment (1.8%). Conversely, Q3 saw a seasonal 0.9% drop in the prices of clothes and footwear.

The **prices of services** grew at a somewhat slower pace in Q3 (1.8%) compared to Q2 (2.1%), providing a similar contribution to inflation (0.5 pp), though. The rise was broad-based, with the strongest contribution stemming from higher utility services (7.8%), as well as postal services, restaurants and hotels. The increase in the prices of services, which reflects the rising labour costs and disposable income, dictated the 1.2% increase in the **prices within core inflation** in Q3, which nevertheless turned out lower than in Q2 (1.7%).

Administered prices grew by 1.6% in Q3 (with a 0.3 pp contribution to inflation), on account of the previously mentioned hikes in the prices of cigarettes and utility services. In y-o-y terms, these prices decelerated mildly, to 6.8% in September (from 6.9% in June).

Producer and import prices in Q3

Industrial producer prices in the domestic market edged down by 0.6% y-o-y in September (compared to a rise of 2.8 in June). The y-o-y decline, last recorded in early 2021, was dominantly driven by a considerable drop in the **prices of energy production and exploitation** (-4.9% y-o-y in September). In addition, the **prices of durable consumer and intermediate goods** declined by 1.0% y-o-y each in Q3. On the other hand, the **prices of non-durable consumer goods** picked up in Q3, while the **prices of capital goods** slowed down their y-o-y growth relative to Q2. Similar to industrial producer prices, the **prices of elements and materials in construction** declined by 0.9% y-o-y in September, for the first time since early 2021, indicating weaker cost-push pressures also in construction.

At quarterly level, industrial producer prices decreased by 1.4% in Q3, and the prices of elements and materials in construction by 1.2%.

After increasing in the period May–August, **import prices expressed in dinars**[1] declined by 0.8% y-o-y in September, almost entirely as a result of a sharp fall in global oil prices. A negative contribution to import prices expressed in dinars in Q3 came from global prices of primary agricultural commodities. On the other hand, the strongest positive contribution stemmed from the prices of imported services (approximated by the euro area core inflation), and to a lesser degree the prices of gas, equipment, intermediate goods and other imported goods (approximated by the export prices of Germany). At quarterly level, the prices of imported goods and services expressed in dinars edged down by 0.9% in Q3.

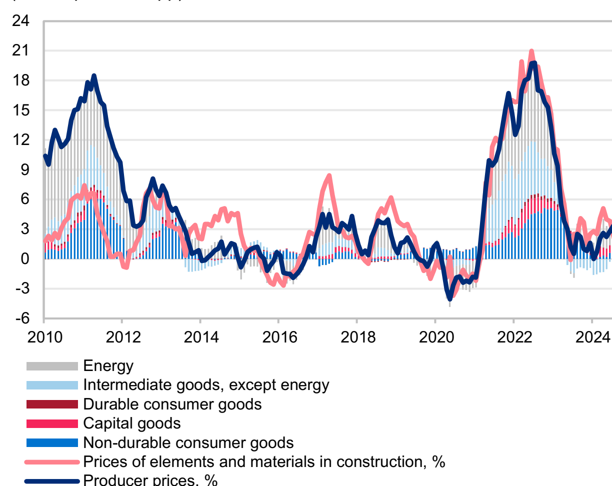
Inflation expectations

One-year ahead inflation expectations of the financial sector continued to move within the NBS target band since the start of the year, while their medium-term inflation expectations have been within this band for quite some time. This speaks in favour of the confidence of market participants in monetary policy measures and the credibility of the NBS.

According to the results of the Ninamedia survey, **one-year ahead inflation expectations of the financial**

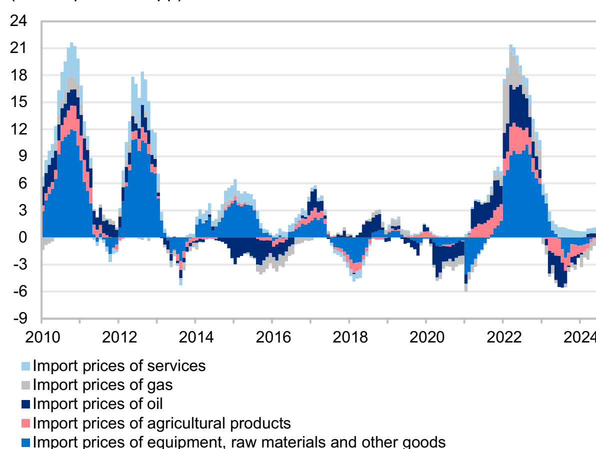
[1] Preliminary data. The base year is 2010. The weighted average of several elements is used as an indicator of import prices: the global Brent oil prices, import gas price, food price index (FAO index), consumer prices within euro area core inflation, and export prices of Germany, one of Serbia's key trade partners. The fixed weights of the components are calculated according to the value of imported goods and services in 2023.

Chart III.0.5 **Contribution by destination groups of consumption to the y-o-y producer price dynamics***
(end-of-period, in pp)



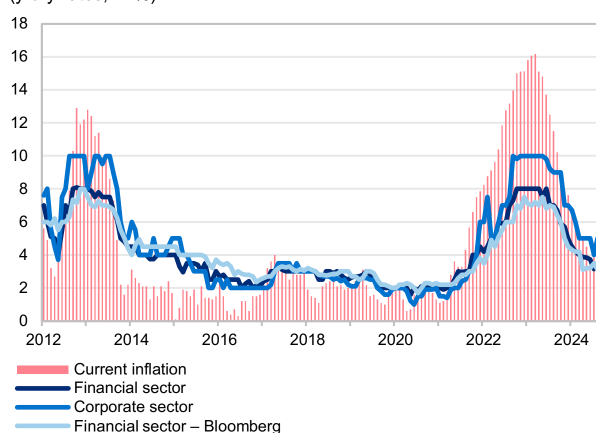
Sources: SORS and NBS calculation.
* Industrial producer prices for the domestic market.

Chart III.0.6 **Contribution of selected components to y-o-y growth rate of imported prices in RSD**
(end-of-period, in pp)



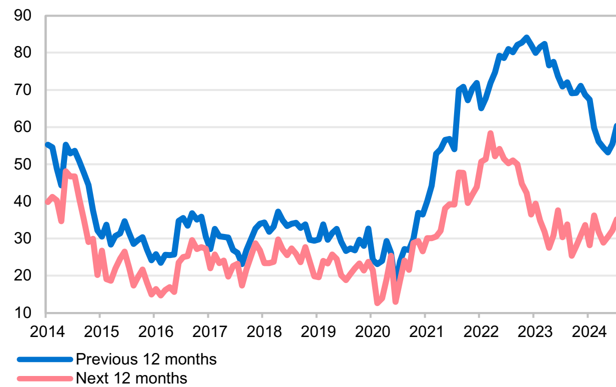
Sources: Destatis, FAO, Bloomberg, Eurostat, SORS and NBS calculation.

Chart III.0.7 **Current inflation and one-year ahead inflation expectations**
(y-o-y rates, in %)



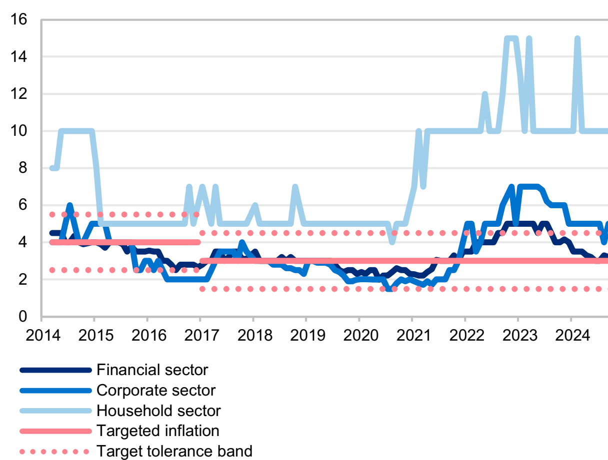
Sources: Gallup/Ipsos/Ninamedia, Bloomberg and NBS.

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



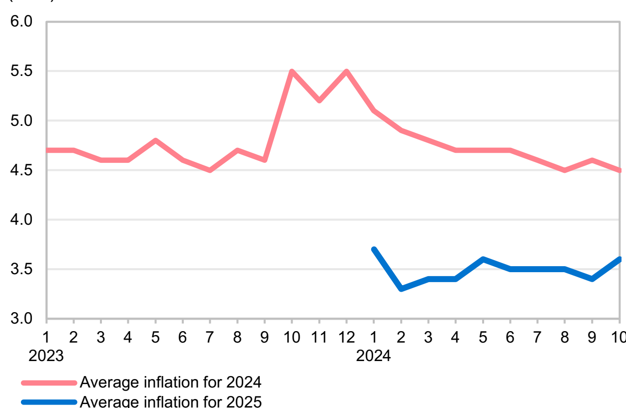
Sources: Gallup/Ipsos/Ninamedia and NBS.

Chart III.0.9 **Two-year ahead inflation expectations***
(y-o-y rates, in %)



Sources: Gallup/Ipsos/Ninamedia and NBS.

Chart III.0.10 **Inflation expected in 2024 and 2025 according to leading economic forecasters**
(in %)



Source: Consensus Economics.

sector measured 3.75% in September and October, with the expectations of all individual financial institutions moving within the NBS target tolerance band. According to the results of the Bloomberg survey, one-year ahead inflation expectations of this sector dropped to the 3.0% target midpoint in September and rose to 3.4% in October.

One-year ahead inflation expectations of the corporate sector declined to 4% in October (from 5.0% in September), thereby standing again within the NBS target band. Although the share of corporates expecting an increase in input prices, as well as in the prices of finished products and services over the next three months grew relative to Q2, more than a half of corporates expect the prices to stay unchanged (56.8% and 63.8%, respectively). At the same time, the share of respondents who expect these prices to increase over the next twelve months declined.

Short-term inflation expectations of households stayed at 15.0% in October, the same as in September. According to the results of the qualitative survey, both perceived and expected inflation have been on a decline, as the percentage of households who feel that prices are or will be considerably higher is receding.

Medium-term expectations of the financial sector for two years ahead edged down slightly to 3.2% **in September** (from 3.3% in August). They were the same in October. **Three-year ahead** expectations stayed unchanged at the **NBS target midpoint of 3.0%** for seven consecutive months. **Medium-term inflation expectations** of corporates for two and three years ahead equalled those for one year ahead, and dropped to 4.0% in October (from 5.0% in September). Household inflation expectations for two and three years ahead have stayed unchanged at 10.0% since March.

According to the results of the October **Consensus Economics survey, professional forecasters' expectations** of average inflation in Serbia for this year are on a downward path, measuring 4.5%, which is slightly lower than in July (4.6%), and 3.6% for the next year.

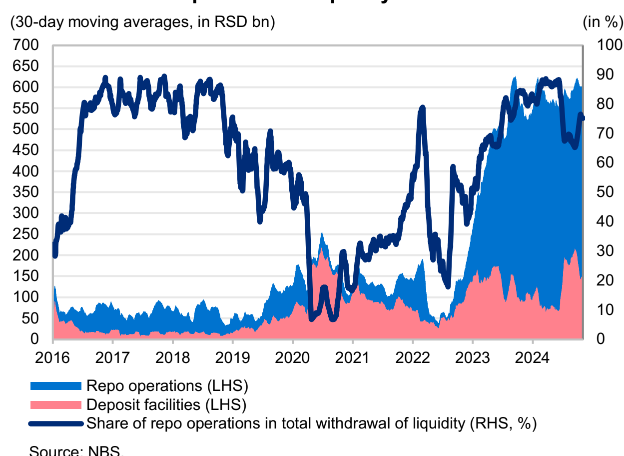
IV Inflation determinants

1 Financial market trends

In Q3, the NBS and ECB continued to ease monetary conditions at a cautious pace, prompting a further decline in interest rates on dinar and euro loans. Mirroring a drop in the key policy rate, interest rates in the interbank money market turned down, with yield rates in the secondary market of government securities also recording a sizeable drop.

After successful auctions of government securities in the domestic and international financial markets in H1, no government securities auctions were organised in the primary market in Q3.

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



Source: NBS.

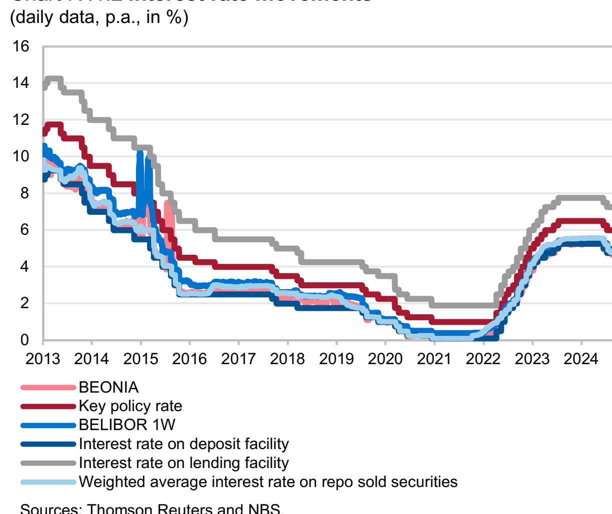
Interest rates

At NBS Executive Board meetings in Q3, **the key policy rate and interest rates on lending and deposit facilities** were cut by 25 bp each in July and September, to 5.75%, 7.00% and 4.50%, respectively.

Accordingly, interest rates in the **interbank money market** recorded a further decline (by 54 bp on average), almost equal to the overall reduction in the key policy rate. The interest rate in the overnight interbank money market, BEONIA, dropped to 4.51%, in parallel with the contraction in the average daily turnover to RSD 1.3 bn in September, from RSD 5.0 bn in June. At end-September, BELIBOR interest rates moved from 4.54% for the shortest to 4.98% for the six-month maturity.

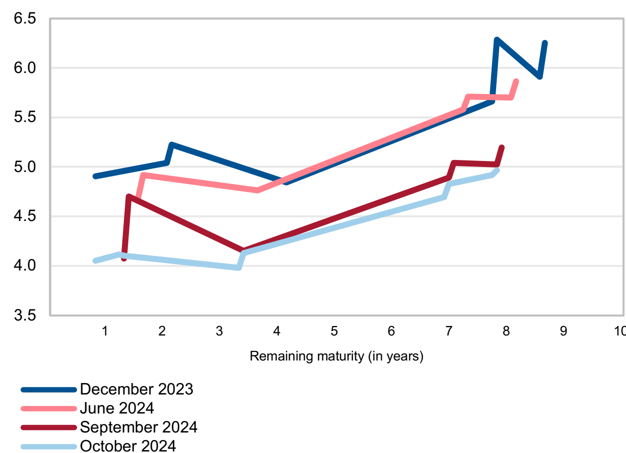
After successful issues of government securities in the domestic and international financial markets in H1, there were no auctions of **government securities in the primary market** in Q3. As none of the previously issued dinar government securities fell due, the portfolio remained at RSD 874.9 bn at end-September, while the stock of euro government securities declined to EUR 1,548.4 mn, owing to EUR 115.5 mn worth of securities maturing at end-August.

Chart IV.1.2 **Interest rate movements**



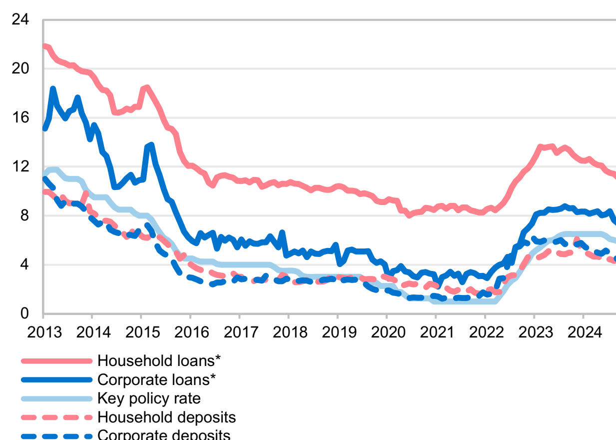
Sources: Thomson Reuters and NBS.

Chart IV.1.3 **Yield curve in the secondary government securities market**
(average values, p.a., in %)



Source: Central Securities Depository and Clearing House.

Chart IV.1.4 **Interest rates on new dinar loans and deposits**
(weighted average values, p.a., in %)



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

Table IV.1.1 **Interest rates on new loans – by type and currency**
(in %)

	Dinar			Euro and euro-indexed		
	2023	2024		2023	2024	
	Q4	Q2	Q3	Q4	Q2	Q3
Total household loans*	12.5	11.7	11.1	6.3	6.1	6.1
Cash loans	13.2	12.1	11.6	3.3	3.5	3.4
Housing loans	12.9	17.6	15.1	5.0	5.1	5.1
Consumer loans	3.0	3.7	3.2	6.5	6.1	6.2
Other loans	10.5	9.4	8.7	9.8	9.3	9.4
Total corporate loans*	8.3	8.1	7.4	7.1	6.7	6.3
Working capital loans	8.3	8.2	7.0	7.0	6.6	6.1
Investment loans	9.4	7.2	8.4	7.3	6.9	6.4
Other loans	8.3	8.5	7.9	7.3	6.9	7.3
Import loans	-	-	-	6.5	6.7	6.3

Source: NBS.
Note: Data relate to average values on the last day of the month in the quarter observed.
* Excluding revolving loans, current account overdrafts and credit card debt.

In Q3, the turnover in the **secondary market of dinar government securities** went up mildly relative to Q2, coming at RSD 68.2 bn. The weighted average yields kept a declining trend, consistent with a further decline in the key policy rate and interest rates in the interbank money market. The average yields on bonds with the remaining maturity 1-8Y contracted by 61–72 bp in September relative to June, moving in the range from 4.09% for bonds with the remaining maturity of slightly above one year to 5.16% for those with the remaining 8Y maturity.

Continued monetary easing by the NBS resulted in further cheapening of **new dinar loans**, so the interest rate on **dinar household loans** declined by 0.6 pp in Q3, to 11.1% in September, while the average interest rate on **dinar corporate loans** slid by 0.7 pp, to 7.4%.

A decrease in the **weighted average interest rate on dinar corporate loans** reflects a decline in the interest rate on working capital loans, by 1.2 pp to 7.0%, and on other non-categorised loans, by 0.6 pp to 7.9%, with these two categories together accounting for almost 87% of dinar corporate lending. **The fall in the interest rate on dinar household loans** was recorded for all loan types, but was mostly determined by the decreasing rate on cash loans and other non-categorised loans, by 0.5 pp and 0.7 pp to 11.6% and 8.7% respectively, as these loan categories account for almost entire dinar lending to households.

In Q3, **the interest rate on euro corporate loans** edged down by 0.4 pp to 6.3%, driven by an almost identical fall in interest rates on working capital and on investment loans, to 6.1% and 6.4%, respectively, with these loan categories making up around 85% of euro lending to corporates. **The interest rate on euro household loans** remained broadly the same, at 6.1% in September, in line with the unchanged interest rate on housing loans (5.1%), which was kept at a below-average level owing to the application of the NBS's decision which temporarily capped interest rates for this loan category.

Risk premium

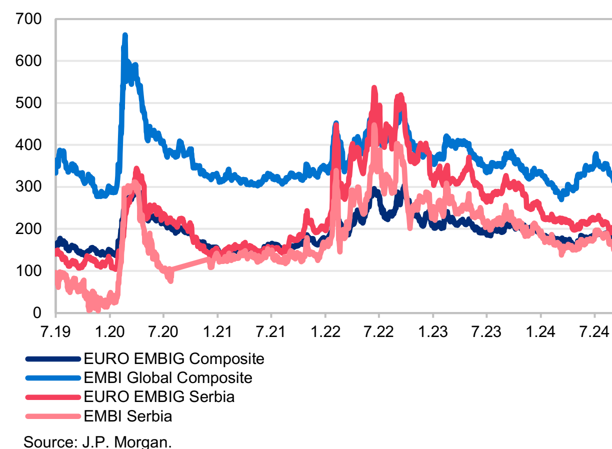
Having gone up moderately in July, the dollar risk premium of emerging economies turned downward, measuring 305 bp at end-October, down by 39 bp compared to end-June. The decline in the dollar risk premium predominantly reflected the Fed's embarkment on a monetary policy easing cycle. Serbia's dollar risk premium had a similar dynamic, touching 146 bp at end-October. This is a fall by 22 bp since June and twice lower than EMBI Composite.

Conversely, EURO EMBIG Composite equalled 182 bp at end-October, broadly unchanged from June, primarily reflecting the announcements of ECB officials that interest rates will be kept sufficiently restrictive for as long as necessary. On the other hand, Serbia's EURO EMBIG lost 13 bp in Q3, and 24 bp more in October, dropping to 177 bp by the month's end.

In October, Standard & Poor's upgraded Serbia's credit rating to BBB–, thereby ranking Serbia, for the first time in its history, among investment grade countries. This is also the first time ever that a non-EU Southeastern Europe country has been awarded an investment grade rating, an affirmation of the responsible conduct of monetary and fiscal policies in the past period and increased resilience of our country to external shocks. The key factors cited in favour of investment grade award are the 18% real GDP growth relative to pre-pandemic level, doubled FX reserves, significantly reduced external and fiscal imbalances, along with sector-dispersed FDI inflows and a sound and stable banking sector.

Previously, Fitch and Moody's raised Serbia's credit rating outlook from stable to positive in August, with Fitch affirming BB+ and **Moody's** Ba2 rating and highlighting the same factors as **Standard & Poor's**.

Chart IV.1.5 **Risk premium indicators**
(daily data, in bp)



Source: J.P. Morgan.

Table IV.1.2 **Credit rating**
(change of rating and outlook)

	2020	2021	2022	2024	
S&P	BB+ /stable[3)]	BB+ /positive[7)]	BB+ /stable[4)]	BB+ /positive[2)]	**BBB- /stable[6)]**
Fitch				*BB+* /positive[5)]	
Moody's		Ba2 /stable[1)]		Ba2/positive[5)]	

Source: NBS.
[1)] March, [2)] April, [3)] May, [4)] June, [5)] August, [6)] October, [7)] December.
Note: There was no change in rating/outlook in 2023.

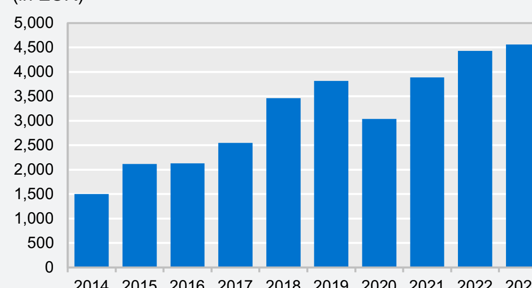
Text box 1: Impact of credit rating and outlook changes on Serbia's FDI inflow

A credit rating should reflect a country's economic strength and capacity to meet financial obligations, wherefore its level and outlook can have significant effects on the country's key macroeconomic indicators. Having in mind Serbia's preserved macroeconomic and political stability and improved investment and institutional environment against the backdrop of a multidimensional crisis, **Standard & Poor's increased its credit rating in October to investment grade (BBB-), making Serbia the first country with an investment grade rating in the region of Southeast Europe that is not a member of the EU**. The strategic goal of the Government and the NBS for this year has thus been achieved, though this recognition would probably have arrived earlier had there been no shocks from the international environment. This is evidenced also by the assessments of the IMF and WB representatives, as well as of leading global investors. The formal assignment of investment grade to Serbia was long awaited by market participants, as indicated by the fact that in the prior period they often valued Serbian government bonds at levels higher than those typical of investment grade countries.

The raising of Serbia's credit rating followed shortly after all three of the most influential international rating agencies, Standard & Poor's, Fitch and Moody's, changed the rating outlook to positive. The key motivating factors for the upgrade cited by Standard & Poor's are Serbia's **two-digit real growth (over 18%) compared to the pre-pandemic level, doubled FX reserves**, as well as a **significantly reduced share of public debt in GDP and the responsible monetary and fiscal policy**. On top of this, economic growth is expected to step up further, led by the recovery of personal consumption amid slowing inflation and higher real wages, and by elevated government spending and investment in relation to the "Leap into the Future – Serbia Expo 2027" programme. Serbia's financial stability is buttressed by the highly capitalised and liquid banking sector, as evidenced by the record low share of NPLs in total loans in August and September (2.7%).

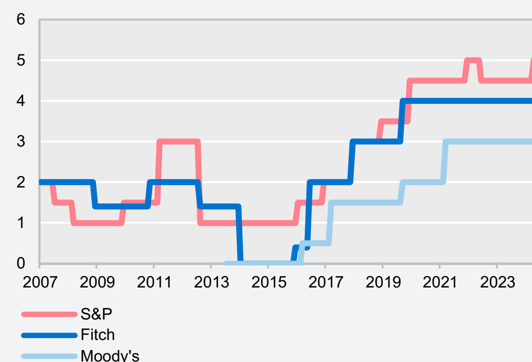
In assigning investment grade, Standard & Poor's underlined the importance of continuity of a stable FDI inflow, which reached the record level of EUR 4.4 bn in 2022 and EUR 4.6 bn in 2023. The trend extended into 2024, FDI inflow in the first nine months amounting to EUR 3.6 bn (Chart O.1.1). **It is reasonable to expect that investment grade rating will contribute to further FDI growth and to expansion of the investor base, particularly the most cautious ones who do not invest into non-investment grade countries.**

Chart O.1.1 **FDI inflow to Serbia in the past decade**
(in EUR)



Sources: SORS and NBS.

Chart O.1.2 **Changes in credit rating and outook by the three leading rating agencies**
(monthly data, assigned numerical values*)



Source: NBS calculation.

* Qualitative assessments of credit rating are converted into numerical values – the higher weight is assigned to the change in credit rating and the lower to the change in outlook at the same level of rating.

Table O.1.1 **Change in Serbia's credit rating and outlook**

	Total number of changes*	Credit rating		Outlook	
		Upgrade	Downgrade	Upgrade	Downgrade
S&P	17	5	1	7	2
Fitch	10	3	1	3	2
Moody's	5	3	0	3	0
Sum	32	11	2	13	4

Source: NBS calculation.

* In cases of a concurrent change in rating and outlook, only the rating upgrade or downgrade is recorded, which is why the sum of individual changes is not identical to the total number.

As total investment of companies operating in Serbia was heavily reliant on FDI in the previous years, this text box analyses the impact of a change in credit rating and its outlook on FDI inflow to Serbia. In this context, **we made an econometric estimate of the individual impact of a change in credit rating and outlook as awarded by the three renowned international rating agencies on FDI inflow to Serbia**. In case of Standard & Poor's and Fitch, we observed the credit ratings and outlook assigned since early 2007 concluding with August 2024, whereas in the case of Moody's, the relevant data series is available from July 2013. For the purposes of econometric analysis, qualitative assessments of credit rating were quantified by applying appropriate numerical values (Chart O.1.2), following in the footsteps of Meyer & Mothibi (2021),[1] Akin (2021),[2] Bayar & Kilic (2014)[3] and other authors, and assigning higher weights to change in rating than in outlook.

Econometric estimates were obtained using the linear **autoregressive distributed lag** (***ARDL***) model, which uses the least squares method and is appropriate for data series of different levels of integration, provided none of the series has more than one unit root. If we start from the main postulates of economic theory, an improvement in credit rating and outlook has a positive impact on FDI, and so does lower EMBI, while the opposite also holds true.

Table O.1.2 **Effects of change in credit rating and outlook on FDI inflow in the short run**

	Model 1	**Model 2**	**Model 3**
Dependent variable: FDI *(log)*			
$FDI_{(t-1)}$ (percentual change	0.2266 ***	0.1542 **	0.2
$FDI_{(t-2)}$ (percentual change)	-	0.2284 ***	-
S&P (numerical value)	**0.1452** ***	-	-
Fitch (numerical value)	-	0.1263 ***	-
Moody's (numerical value)	-	-	0.2486 ***
EMBI (basis points)	-0.0341 *	-0.0271 *	0.0
V2010м02 (dummy variable)	-2.6816 ***	-2.9808 ***	-
V2012м02 (dummy variable)	-3.3801 ***	-3.6005 ***	-
V2018м12 (dummy variable)	1.6369 ***	1.5966 ***	1.7147 ***
C	3.8539 ***	2.0838 ***	4.0472 ***
Pace of adjustment *(CointEq(-1))*	-0.7734 ***	-0.6174 ***	-0.8283 ***
R^2	0.52	0.57	0.48
Adjusted R^2	0.51	0.55	0.47
Period analysed:	1 2007 – M8 2024	M1 2007 – M8 2024	M7 2013 – M8 2024

Source: NBS calculation.
*** denotes statistical significance at the level of 1%, ** at the level of 5%, * at the level of 10%.
Note: Model 1 includes only assessments by S&P, model 2 only those by Fitch, and model 3 only those by Moody's.

The results of empirical analysis (Table O.1.2), which include three individual specifications (change in rating and outlook by the three rating agencies), **show statistically significant effects of a change in credit rating and outlook on FDI inflow dynamics in the short run. The coefficients for numerical assessments of credit rating and outlook are of expected sign and statistically significant in both short and long run.** More specifically, **in the short run, the improvement of credit rating and outlook by Standard & Poor's and Fitch leads to an increase in FDI inflow by 14.5% and 12.6%, respectively,** other conditions unchanged. The positive impact of a change in credit rating and outlook by Moody's in the short run is even stronger (24.9%), probably due to the fact that this agency changed its rating on Serbia less frequently, as well as to a considerably shorter time series and a more intense FDI inflow in recent years. **Positive changes in credit rating and outlook seem to have a stronger effect on FDI growth in the long** (Table O.1.3) **than in the short term.** For instance, an improvement in rating and outlook by Standard & Poor's and Fitch boosts FDI inflow by 18.8% and 20.5%, respectively, while that by Moody's drives FDI inflow up by 30.0%. The

[1] Meyer, D. F., & Mothibi, L. (2021). *The effect of risk rating agencies decisions on economic growth and investment in a developing country: The case of South Africa*. Journal of Risk and Financial Management, 14(7), 288.
[2] Akin, I. (2021). *Determination of Sovereign Credit Rating Model for European Countries*. Financial Markets, Institutions and Risks, 5(3), 45–58.
[3] Bayar, Y., & Kilic, C. (2014). *Effects of sovereign credit ratings on foreign direct investment inflows: evidence from Turkey*. Journal of Applied Finance and Banking, 4(2), 91.

estimated error correction term labelled as (Cointeq(-1)) in all three models is negative and statistically significant, which shows that a short-term imbalance caused by a shock to independent variables adjusts fast to the long-term balance. It should be noted that all the three estimated ARDL models have satisfactory statistical properties. We particularly examined whether the effects of a change in rating and outlook are asymmetric, i.e. to what extent FDI inflow responds to the positive and negative changes in the long run. To do this, we used the non-linear form of the model (NARDL). The results of the Wald test showed that the **long-term effects of a change in credit rating and outlook on FDI inflow are asymmetric for Standard & Poor's**, with FDI inflow being affected more by a downgrade (14.7%) than an upgrade (13.5%) in rating and outlook. When it comes to Fitch, the long-run effects of change in rating and outlook appear symmetric, while when it comes to Moody's, it was not possible to perform the identical testing procedure, because there was no rating/outlook downgrade by this agency in the period under review.

We introduced Serbia's risk premium, measured by EMBI, as a control variable in the empirical analysis. The risk premium is also linked to FDI dynamics, given that **a lower risk premium reflects lower market risk for foreign investors** and vice versa. In the models featuring Standard & Poor's and Fitch ratings, the estimated coefficients for EMBI as an independent variable are statistically significant in both short and long run and are of appropriate sign in the sense that a lower risk premium has a positive impact on FDI inflow. The model also includes three dummy variables – more specifically, for February 2010 and February 2012, i.e. for the periods of sovereign debt crisis in Europe and the consequently higher risk premium and dampened FDI inflow to emerging markets, Serbia included, and for December 2018, when substantial FDI flowed in on account of the sale of the Nikola Tesla Airport concession. In case of Moody's, only the dummy variable for December 2018 was kept due to the considerably shorter period of observation.

Table O.1.3 **Effects of change in credit rating and outlook on FDI inflow in the long run**

	Model 1	**Model 2**	**Model 3**
Dependent variable: FDI *(log)*			
S&P (numerical value)	**0.1878** ***	-	-
Fitch (numerical value)	-	0.2046 ***	-
Moody's (numerical value)	-	-	0.3001 ***
EMBI (basis points)	-0.0440 *	-0.0438 *	0.0
C	4.9831 ***	4.9949 ***	4.8861 ***
F-Bounds test	45.21 * ** ***	20.29 * ** ***	31.35 * ** ***
Period analysed:	M1 2007 – M8 2024	M1 2007 – M8 2024	M7 2013 – M8 2024

Source: NBS calculation.
**** denotes statistical significance at the level of 1%, ** at the level of 5%, * at the level of 10%.
Note: In all three models the F-Bounds test shows that there is a cointegration, i.e. long-term link between the variables, given that the estimated F-statistics is above the *I* (1) upper bound at all levels of significance.

Our empirical analysis shows that an upgrade in credit rating and outlook by the three renowned international rating agencies, Standard & Poor's, Fitch and Moody's, boosts FDI inflow in both short and long run. In addition to the effects on FDI, the obtained investment grade will also contribute to a reduced perception of market risk and, consequently, to a drop in the country risk premium and to lower borrowing costs in the international financial market. From the aspect of fiscal policy, thanks to more favourable financing conditions, fiscal space will open for increasing government investments, primarily in infrastructure, social programmes and other development projects. From the aspect of monetary policy, it is expected that the improved credit rating will contribute to maintaining the stability of the domestic currency, precisely through the increased inflow of FDI, which is positively reflected in gross FX reserves. Apart from this, the investment grade places Serbia in the group of attractive investment destinations and becomes an important factor of bolstering the country's competitiveness at the global level, encouraging investments not only by foreign investors but also by domestic companies, thus creating the preconditions for sustainable economic growth. **Higher foreign investments, together with investments of domestic companies and the government, encourage long-term growth of economic activity, employment, productivity and living standards.**

Foreign capital inflow

The bulk of capital inflows to the financial account in Q3 related to FDI, followed by trade loans. The inflows were generated also on account of reduced assets in domestic banks' accounts abroad, increased non-resident deposits with domestic banks and growing credit debt of government and corporates, all of which more than sufficed to compensate for the outflows under portfolio investments.

High **FDI inflow to Serbia** continued into Q3, coming at EUR 1,319.6 mn, or EUR 1,230.8 mn net, taking into account resident investments abroad. Total FDI inflow to Serbia in the first nine months surpassed EUR 3.6 bn, up by 12.4% y-o-y. Little less than three-fourths of FDI inflow were in the form of equity capital and reinvested earnings, testifying to foreign investors' commitment to continued investing in Serbia. Sector-wise, the bulk of investments were channelled to construction, mining, manufacturing and information and communications. Around three-fifths of FDI inflow originated from European countries (mostly from the EU), while one-third related to Asian investments.

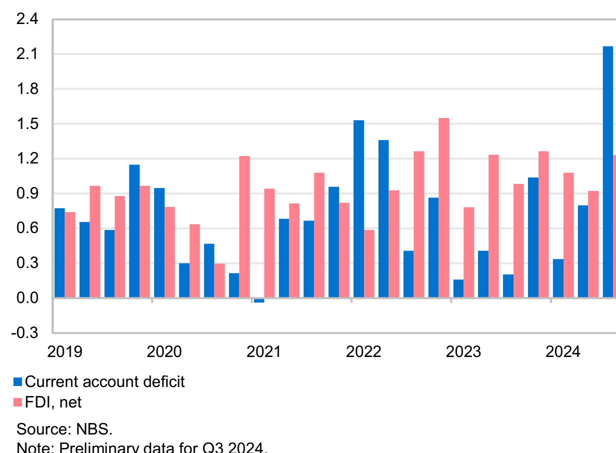
After a net inflow in Q2 thanks to the successful issue of Republic of Serbia bonds in the international market, Q3 saw a net capital outflow of EUR 361.7 mn, on account of **portfolio investment**. On the one hand, this was prompted by non-residents who were more prominent as sellers than buyers of securities in the domestic secondary market. On the other hand, residents stepped up their investment in foreign securities. Since the start of the year, portfolio investments generated a net capital inflow of EUR 91.3 mn.

Financial loans provided an inflow of EUR 372.6 mn in Q3, mainly on the back of rising government and corporate borrowing, while banks slightly increased their foreign credit liabilities. At the same time, domestic banks reduced their assets in accounts abroad, while non-residents upped their balances in accounts with domestic banks, so that an inflow of EUR 371.6 mn was recorded under **currency and deposits** in Q3. In addition, EUR 877.1 mn flowed in under **trade loans and advances**.

Trends in the FX market and exchange rate

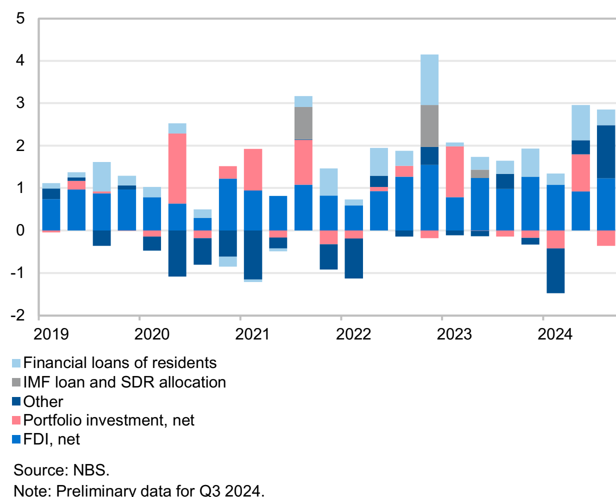
The dinar continued its relatively stable movement against the euro in Q3. Its value at end-September stayed broadly unchanged relative to June, while appreciating nominally by 0.1% from the start of the year.

Chart IV.1.6 **Current account deficit and net FDI inflow**
(in EUR bn)



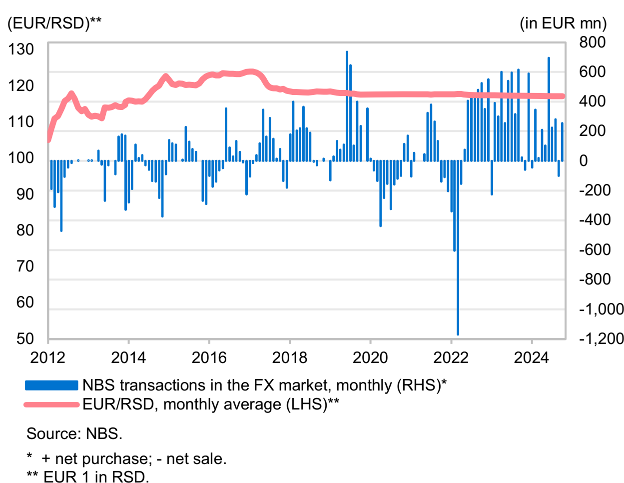
Source: NBS.
Note: Preliminary data for Q3 2024.

Chart IV.1.7 **Structure of the financial account**
(in EUR bn)



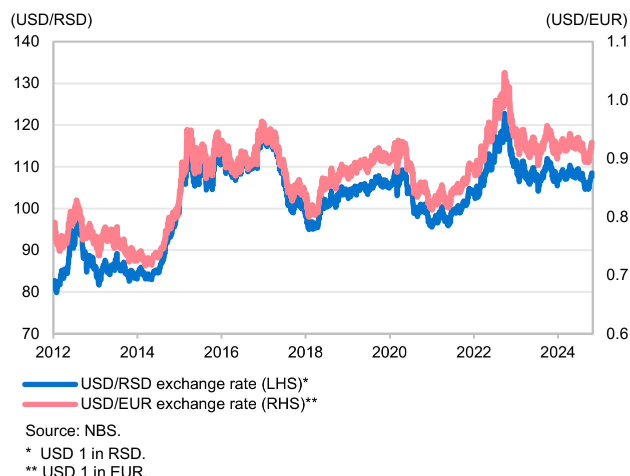
Source: NBS.
Note: Preliminary data for Q3 2024.

Chart IV.1.8 **Dinar exchange rate and NBS transactions in the FX market**



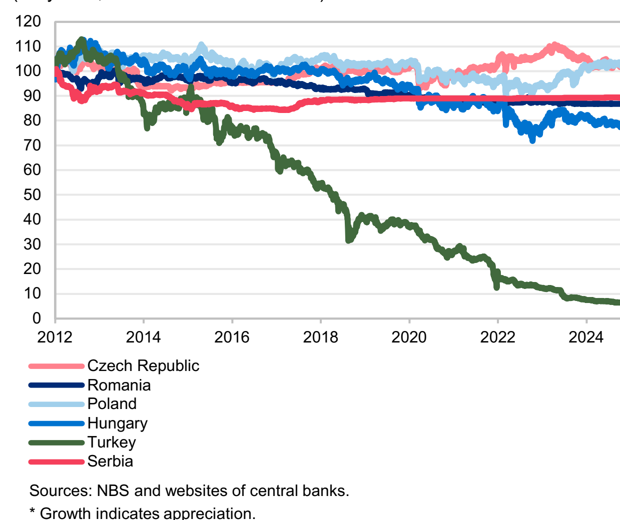
Source: NBS.
* + net purchase; - net sale.
** EUR 1 in RSD.

Chart IV.1.9 **Movements in USD/RSD and USD/EUR exchange rates**



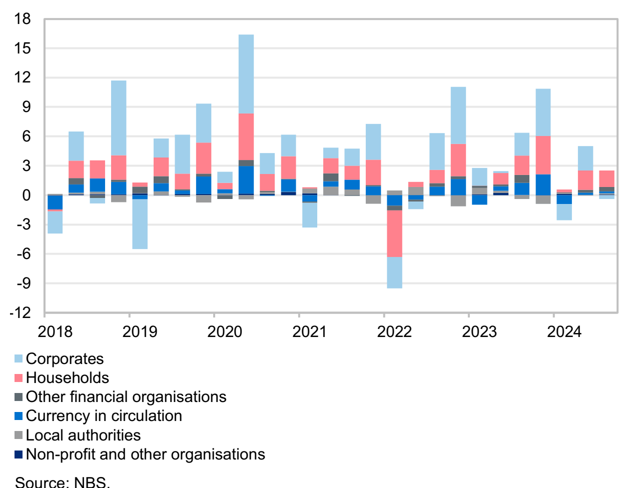
Source: NBS.
* USD 1 in RSD.
** USD 1 in EUR.

Chart IV.1.10 **Exchange rates of selected national currencies against the euro***
(daily data, 31 December 2011 = 100)



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

Chart IV.2.1 **Contributions to quarterly growth in M2, by sector**
(in pp)



Source: NBS.

At the same time, since the euro gained ground against the dollar in the international market, the dinar nominally strengthened against the dollar by 4.4% in Q3 and by 1.0% since the start of the year.

FX supply in Q3 was mostly supported by the rise in FX-indexed bank assets,[2] net purchase of foreign cash and from the lengthening of banks' position under payment card transactions. In July and August, FX supply outstripped demand, while in September the FX demand of non-residents gathered pace. After a longer while, residents turned out to be net FX buyers at quarterly level, reflecting higher imports of intermediate goods for investment purposes.

To maintain relative stability of the dinar exchange rate against the euro, the NBS intervened in the FX market both on the buying and selling side, ending Q3 as a net buyer of EUR 405.0 mn. Thus, including the net purchase of EUR 255.0 mn in October, the amount of net purchase in the FX market in the first ten months of 2024 reached EUR 1,990.0 mn, boosting FX reserves which came at EUR 28.3 bn at end-October, their highest end-month level thus far.

The currencies of regional inflation targeters displayed divergent movements against the euro in Q3. The Hungarian forint and Czech koruna lost 0.6% each, and the Turkish lira 7.6%. Conversely, the Polish zloty appreciated 0.8%, while the value of the Romanian leu remained unchanged. In the year to September, only the Polish zloty appreciated (1.6%), while the Romanian leu did not change its value. Currencies losing ground were the Czech koruna (1.8%), Hungarian forint (3.7%) and Turkish lira (14.0%).

2 Money and loans

The y-o-y growth in the overall money supply M3 decelerated in Q3 as the rise in demand deposits was more moderate, while time dinar and FX deposits had similar growth dynamics as in Q2. Dinar household savings continued to reach new record highs.

The y-o-y growth in lending accelerated further in Q3, to 6.6% in September on account of mitigated credit standards and lower costs of financing. This, coupled with lower NPLs, pushed down the share of NPLs in total loans to a new low (2.7%). Both corporates and

[2] Aiming to balance their long open FX positions and reduce exposure to FX risk, banks sell foreign currency, which works toward the strengthening of the dinar.

households used dinar loans more than FX-indexed loans, which resulted in a further rise in the degree of dinarisation of loans, to 36.8%.

Money

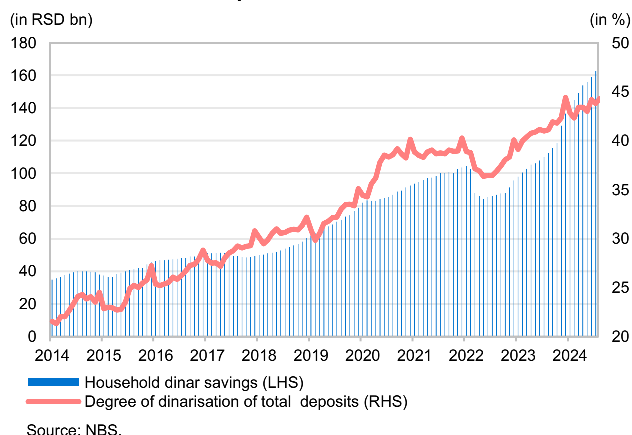
The broadest monetary aggregate M3, which in addition to dinar money includes FX deposits of non-monetary sectors, rose by 2.1% in Q3 2024, driven equally by dinar and FX time deposits, while demand deposits posted a more moderate growth.

Dinar **demand deposits** rose insignificantly in Q3 2024 (by RSD 3.2 bn), and by individual category, the increase was driven by the growth in household transaction deposits of RSD 27.5 bn and a slight rise in deposits of other financial organisations and local self-governments, which collectively exceeded the decline in corporate transaction deposits (around RSD 30 bn). **Dinar time deposits** rose significantly, by RSD 42.1 bn, led by corporate deposits (RSD 21.7 bn increase, primarily from the construction sector where activity picked up, and also by the household savings growth (RSD 12.3 bn). Household dinar savings continued to touch new record high levels and measured RSD 171.5 bn[3] at end-September. The relative stability of the dinar exchange rate against the euro, higher interest rates on dinar savings compared to FX savings, and a more favourable tax treatment made dinar savings more profitable than FX savings, contributing to their more dynamic growth. In Q3, the degree of corporate and household deposits dinarisation moved at a slightly lower level than the record posted at end-2023 (44.4%) and measured 44.2% in September.

FX deposits of non-monetary sectors rose by EUR 395.0 mn in Q3 2024, largely as a result of higher corporate FX deposits (by EUR 212.3 mn in line with the relatively high FDI inflow) and an increase in FX household savings (by EUR 123.2 mn) to their new highest level of EUR 14.1 bn.

In y-o-y terms, M3 growth decelerated in Q3 2024 relative to Q2 and measured 12.0% in September. Accordingly, the excess money ratio, which measures the deviation of the real money supply M3 from the estimated demand,[4] remained negative, indicating that M3 was below the inflationary level.

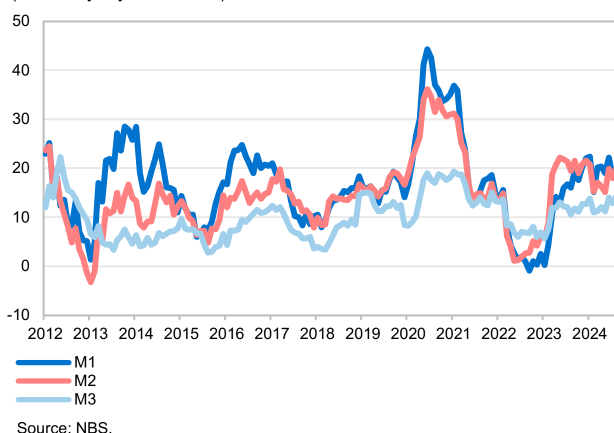
Chart IV.2.2 **Dinar household savings and degree of dinarisation of total deposits**



Source: NBS.

Chart IV.2.3 **Monetary aggregate movements**

(nominal y-o-y rates, in %)

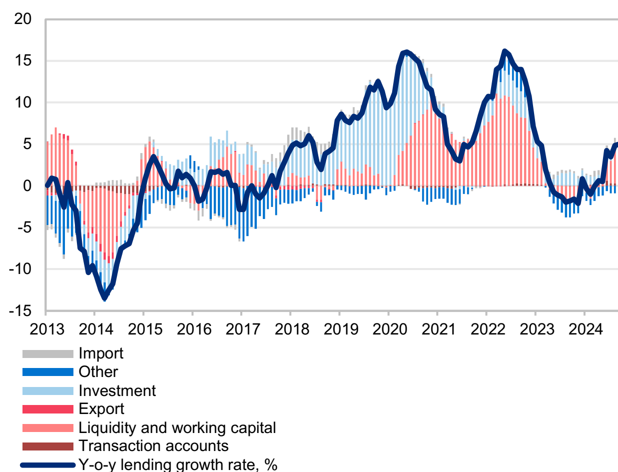


Source: NBS.

[3] If non-residents' assets are included, dinar savings stood at RSD 174.0 bn and FX savings at EUR 15.1 bn at end-September.

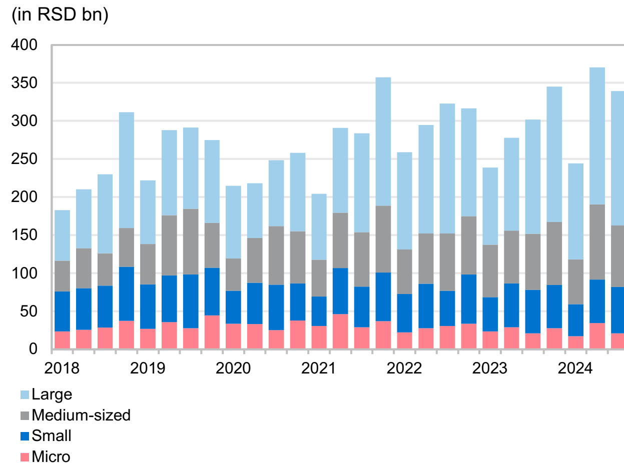
[4] The money demand equation was estimated on the basis of a regression equation, with real GDP and three-month BELIBOR as explanatory variables.

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



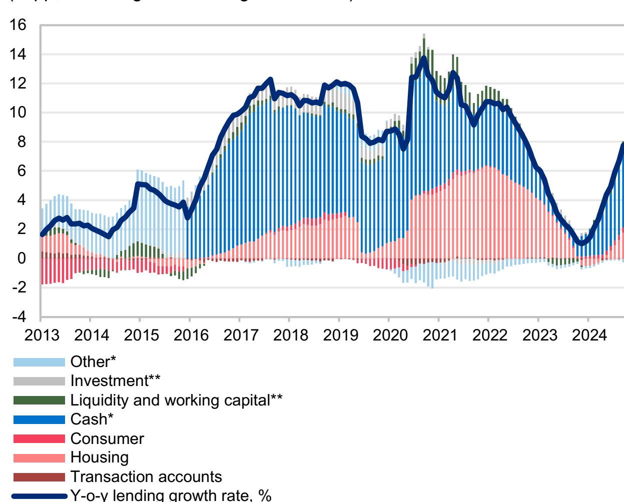
Source: NBS.

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



Source: NBS.

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



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

Loans

Excluding the exchange rate effect,[5] the y-o-y rise in **total domestic loans to the non-monetary sector** accelerated additionally in Q3, to 6.6% in September (from 4.7% in June). **Corporate loans** stepped up their y-o-y growth to 5.0%, and **household loans** to 7.8%.

Corporate loans increased by RSD 32.2 bn in Q3, with both companies' and public enterprises' borrowing rising. More than three-fifths of the increment referred to dinar loans, which led to a higher degree of dinarisation of corporate receivables (19.3% in June vs. 20.0% in September). The continuous growth in dinar loans in previous months can partly be attributed to the provisions of the Decision on Capital Adequacy of Banks, which sets out that starting from 2025, when calculating capital adequacy ratios, banks are required to reduce capital if the share of FX-indexed and FX loans in total loans to non-financial and non-government sector approved after 1 July 2023 exceeds the established threshold (71% in 2025).[6]

Companies mostly used liquidity, working capital and investment loans, while their borrowing for import activities and current accounts declined. As a result, the share of liquidity and working capital in total corporate loans went up by 0.4 pp in Q3, to 47.8% in September, and of investment loans, by 0.2 pp, to 40.6%. Corporate borrowing increased in most sectors, with the dominance of transport and manufacturing, while a decline was recorded only in the energy sector. In Q3, bank lending went mostly to large enterprises, resulting in the contracted share of loans approved to microenterprises and SMEs in total corporate loans to 58.7% in September from 59.3% in June, while their stock was 5.6% higher y-o-y.

The volume of new corporate loans in Q3 amounted to RSD 339.1 bn, up by 12.3% compared to the same period in 2023. Liquidity and working capital loans remained dominant, accounting for three-fifths of new corporate loans. The amount of these loans increased by 13% y-o-y with slightly less than a half of them approved to micro, small and medium-sized enterprises. Investment loans accounted for 26% of new loans, and almost 60% of them were absorbed by micro, small and medium-sized enterprises.

Excluding the exchange rate effect, **household loans** rose by RSD 48.7 bn in Q3, driven by cash and housing loans. Cash loans went up by RSD 31.7 bn and their high

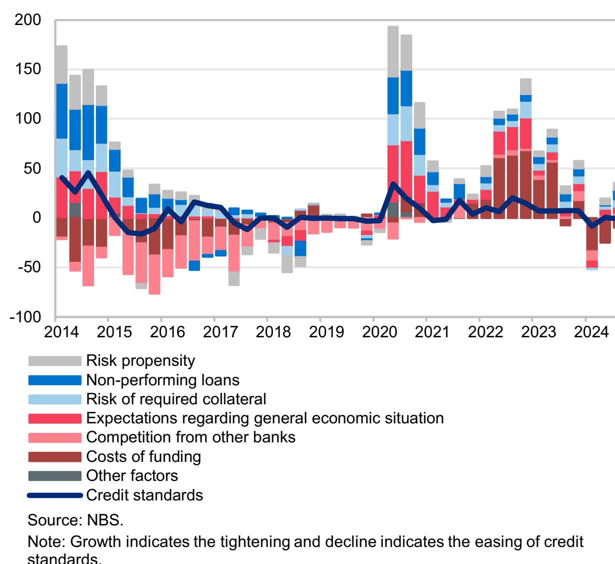
[5] Calculated using the new programme exchange rate as at 31 October 2022.
[6] This threshold is further reduced to 64% in 2026 and 57% in 2027.

disbursement was supported by banks' promotional offers, lower interest rates and mitigated credit standards. Almost a third of the increment pertained to the increase in housing loans the demand for which has been on the rise for the third consecutive quarter. This can be linked to the NBS's decision to temporarily cap interest rates on housing loans and to the initiated easing of ECB monetary policy, as well as wage growth. Further, household borrowing increased slightly on account of consumer loans and current accounts. A pronounced increase in cash loans pushed their share in total household loans by 0.6 pp, to 45.9% in Q3, while the share of the next dominant category, housing loans dropped by 0.2 pp, to 38.5% in September. Borrowing in dinars accounted for over two-thirds of the rise in household loans in Q3, pushing the degree of dinarisation of household receivables further up by 0.4 pp, to 55.3% in September.

The volume of new household loans in Q3 equalled RSD 196.5 bn, up by 48.6% y-o-y. This was due mainly to cash loans, which accounted for 70% of new household loans. Housing loans were the second dominant category and they accounted for 16% of new household loans, while their volume increased by 48% y- o-y.

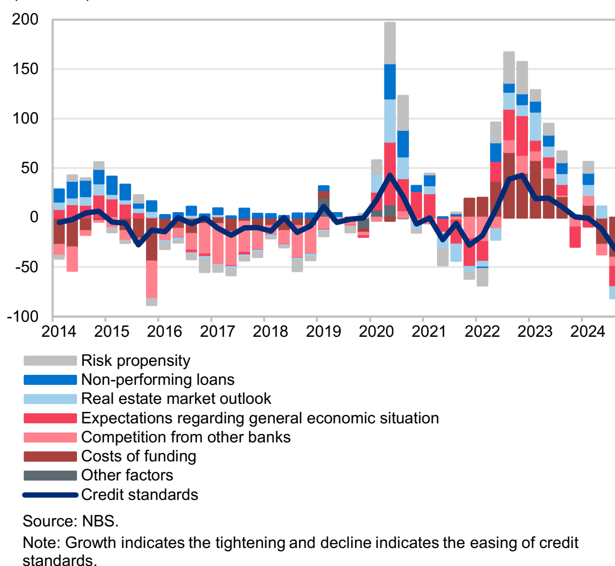
The results of the NBS bank lending survey[7] carried out in October show that banks continued to relax their credit standards for dinar corporate and household loans in Q3. Standards for FX-indexed household loans were also relaxed. The easing of standards was determined by lower costs of financing, which could be associated with the reduction of the NBS and ECB main interest rates. In case of households, this was aided by the effects of competition and positive real estate market outlook. According to banks' estimate, corporate demand for dinar and short-term FX-indexed loans increased in Q3, while the decline in the demand for long-term FX-indexed loans determined the overall assessment that the corporate demand for loans decreased. Demand growth was aided by the need for financing working capital, followed by financing of investments and debt restructuring, while companies' internal financing and the loans of non-bank institutions worked in the opposite direction. Household loan demand expanded for dinar cash and refinancing loans, as well as for FX-indexed housing and consumer loans. Banks estimate that demand growth was driven by the need to refinance existing loans, purchase real estate and procure durable consumer goods, and was supported by higher wages. Banks expect the easing of standards and a rise in demand for loans in Q4 in case of both corporates and households.

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



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

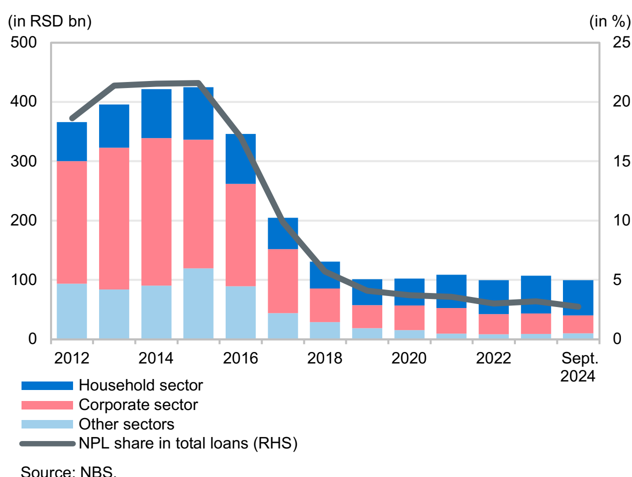
Chart IV.2.8 **Change in household credit standards and contributing factors**
(in net %)



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

[7] The survey has been conducted by the NBS since early 2014.

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



Source: NBS.

Gross **NPL ratio** continued recording new lows in Q3 as a confirmation of the banking sector's financial soundness. This indicator came at 2.7% in September, down by 0.2 pp from June and by 0.5 pp from end-2023. Gross NPL ratio of the corporate sector[8] equalled 1.8% in September and of the household sector[9] – 3.7%, down by 0.2 pp each from June. NPL coverage remained high as allowances for impairment of total loans measured 104.7% of NPLs in September and allowances for impairment of NPLs – 61.8% of NPLs.

Capital adequacy ratio equalled 21.85% at end-Q3, up by 0.5 pp from end-2023, indicating high capitalisation (regulatory minimum – 8.0%) and resilience of the banking sector to external and domestic risks.

3 Aggregate demand

According to SORS estimate, economic activity increased by 3.1% y-o-y in Q3. As in the quarter before, growth is estimated to have been led by domestic demand, with household consumption and fixed investment providing the strongest contributions. On the other hand, net exports provided a negative contribution to economic activity in Q3, as imports rose faster than exports amid the ongoing investment cycle and higher imports of necessary raw materials, equipment and intermediate goods.

Domestic demand

According to NBS estimate, **private consumption** gained 3.9% y-o-y in Q3, adding 2.5 pp to GDP growth. Household consumption growth is indicated by the retail trade turnover, which slowed down slightly in real terms in Q3, to 4.7% y-o-y, and imports of consumer goods, going up nominally by 12.2% y-o-y in Q3. On the other hand, the number of domestic tourist arrivals and overnight stays declined in Q3 relative to the same period last year, by 11.8% and 17.1%, respectively, while imports of tourist services went up.

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

	2023	2024		
	Q4	Q1	Q2	Q3
Indicators				
Retail trade turnover	2.6	7.0	8.4	4.7
Catering turnover	8.8	11.5	10.6	5.9 **
Number of domestic tourists	-5.4	7.5	4.6	-11.8
Number of overnight stays of domestic tourists	-14.0	6.2	6.3	-17.1
Consumer goods import (BEC classification), nominal	0.1	7.5	10.2	12.2
Sources				
Total wage bill, nominal	15.9	16.0	15.4	15.1 *
Net remittances inflow, nominal	-15.8	-0.7	4.1	-16.5
Stock of loans intended for consumption, nominal	2.0	4.0	7.7	10.4

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

Looking at the sources of private consumption, household consumption growth in Q3 was led by its main source – the wage bill, which continued to record two-digit nominal y-o-y growth (15.1% in July–August). Thanks to a further deceleration in inflation, the real wage bill grew 10.4% y-o-y. Also, more favourable

[8] Includes companies and public enterprises. Looking at companies only, the NPL share in total loans dropped by 0.3 pp, to 2.0% in September.
[9] Includes individuals, entrepreneurs and private households.

financing conditions, thanks to the onset of monetary policy easing by the NBS and ECB, provided additional support to household consumption, through loans intended for consumption which increased in Q3 by 10.4% y-o-y. On the other hand, household remittances declined by 16.5% in Q3, largely reflecting the high last year's base.

In our estimate, **government consumption** edged up by 3.7% y-o-y, continuing to positively contribute to GDP growth (0.6 pp in Q3), driven by rising expenditure for public sector employees and purchase of goods and services. Owing to these trends, **total consumption** expanded by 3.9% y-o-y in Q3.

Private investment kept the positive dynamic in Q3, rising by 8.4% y-o-y, according to NBS estimate. Private investment growth is suggested mainly by data on industry and construction, which, in our estimate, added 0.7 pp and 0.4 pp to GDP growth in Q3. Speaking in favour of this is the rising volume of production of domestic machinery and equipment (by 4.1% y-o-y) in Q3. In addition, owing to the ongoing investment cycle, equipment imports extended their robust growth, going up by 11.6% y-o-y. In terms of investment financing sources, FDI inflow in the year to date increased by 12.4% relative to the same period last year. Q3 also saw a 2.2% y-o-y increase in investment loans, and the major part of private investment is estimated to have been financed from corporate profitability in the past years. According to preliminary data of the Business Registers Agency, net corporate profit in 2023 equalled RSD 972 bn and was higher by 12.3% than the year before.

Table IV.3.2 **Investment indicators**

	2023	2024		
	Q4	Q1	Q2	Q3
Number of issued construction permits	18.9	-3.8	8.4	-6.3 *
Production of construction material	-2.4	3.4	3.2	-6.6
Value of works performed	10.5	17.8	10.3	
Equipment imports, nominal	9.5	6.9	24.4	11.6
Production of domestic machinery and equipment	-10.6	-17.8	-5.7	4.1

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

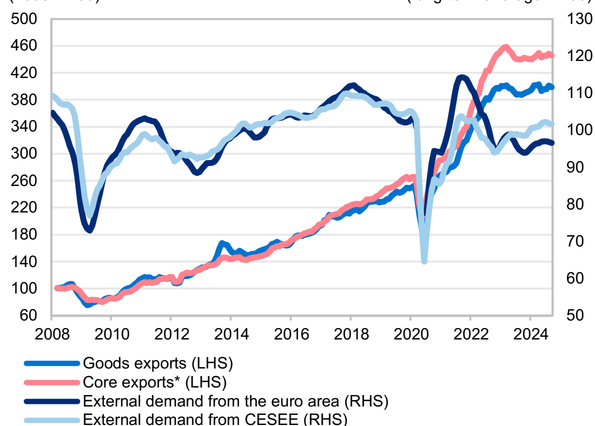
Continued implementation of government-financed infrastructure projects is estimated to have accelerated **government investment growth** to 15.0% y-o-y in Q3. Accordingly, **total fixed investment** has likely increased 10.0% y-o-y, adding 2.4 pp to GDP growth in Q3.

In Q3, **the rise in inventories** is estimated to have positively contributed to GDP growth (0.6 pp), largely reflecting the low last year's base.

Net external demand

In Q3, **real growth in Serbia's goods and services exports** is estimated at 2.6% and of **imports** at 7.3%, y-o-y. As a result, **net exports'** negative contribution to GDP growth extended into Q3 (-3.0 pp). Owing to a higher than expected rise in imports, primarily of

Chart IV.3.1 **Movement in external demand indicators for Serbian exports**
(3M moving average, s-a)



Sources: European Commission, SORS and NBS.

* Core exports are total exports excluding the export of agricultural products, base metals, motor vehicles, petroleum products and electricity.

Chart IV.3.2 **Movement of key import components**
(contributions to y-o-y growth, in pp)

Sources: SORS and NBS calculation.

equipment, which is associated with past investments, and in part also of consumer goods and tourism services, the negative contribution of net exports in Q3 was sharper than anticipated.

Commodity exports in euro terms sped up to 3.5% y-o-y in Q3. The increase mainly resulted from rising manufacturing exports (3.4 pp), reflecting past investments, and from agricultural exports which, thanks to the well-performing last year's season, recorded double-digit y-o-y growth for the fourth consecutive quarter, despite lower global prices of primary agricultural commodities. Q3 also saw a mild expansion of mining exports. Conversely, electricity exports continued down in Q3, largely reflecting the high last year's base, but also lower electricity output amid this year's drought and reduced hydropower potential.

Compared to the same period of 2023, manufacturing exports grew in 16 out of 23 branches, with the greatest positive contributions coming from base metals, other transport equipment, food industry and rubber and plastic products. Working in the opposite direction were the lower exports of electrical equipment, motor vehicles and trailers and other machinery and equipment, which can be associated with reduced external demand amid problems in the EU automobile industry.

Commodity imports in euro terms increased by 14.8% y-o-y in Q3. According to BEC classification, import growth was mainly driven by intermediate goods (8.5 pp), a category inclusive of energy, as well as equipment (1.4 pp) and consumer goods (2.4 pp). Compared to the same period last year, energy imports expanded by EUR 178 mn, on the back of higher imports of oil, petroleum products and electricity.

Foreign trade in services maintained the positive dynamic in Q3, though posting a lower surplus (EUR 335 mn) than in the previous quarters owing to a strong rise in tourist services imports. Services exports rose mainly on the back of ICT, business and transport services. At the same time, import growth was primarily driven by the said tourist services, followed by transport services and purchase of intellectual property rights.

As commodity imports rose faster than exports, the commodity export/import coverage ratio slightly edged down in Q3, to 78.8% in September,[10] or 89.7% with services included, down by 2.1 pp and 2.2 pp, respectively, from end-Q2.

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

4 Economic activity

According to the SORS flash estimate, economic growth measured 3.1% y-o-y in Q3 and was driven by services, particularly trade, as well as industry and construction.

Our estimate is that **services**, collectively, increased by 3.4% y-o-y in Q3, contributing 1.9 pp to economic growth. This is indicated primarily by the trade data, as the real retail trade turnover went up by 4.7% y-o-y in Q3. The number of foreign tourists' arrivals also rose in Q3 – by 9.7% y-o-y.

Industrial production growth in Q3 is estimated at 3.6% y-o-y (0.7 pp contribution to GDP), driven by manufacturing and mining, while the production of electricity dropped at y-o-y level (-13.3%), partly as a consequence of the high last year's base, but also the reduction in electricity production amid this year's draught and lower hydropower potential. Positive developments in the mining sector continued into Q3 and the volume of production increased by 4.0% y-o-y, owing almost entirely to the accelerated pace of metal ore exploitation and production in the category "other mining" which includes construction materials as well.

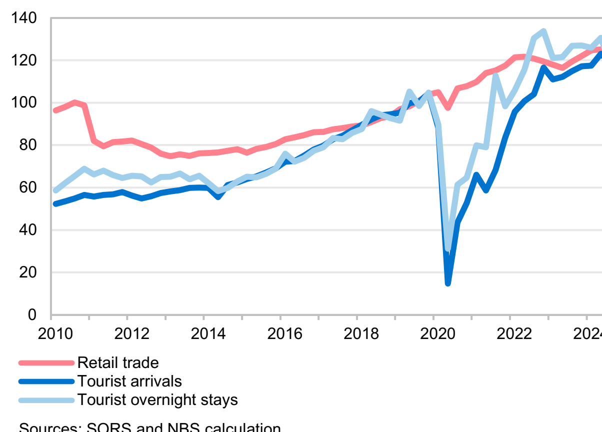
The volume of production in **manufacturing** keeps rising for the fifth quarter in a row. In Q3, it was 6.7% higher than in the same quarter a year earlier. The volume of production went up in 60% of manufacturing branches and the highest positive contribution came from the production of computers, rubber and plastic products, and metal products. The strongest negative contribution, on the other hand, came from the reduced production of pharmaceutical products and construction materials.

The NBS estimates that the **construction** growth in Q3 measured 8.0% y-o-y (contributing 0.4 pp to economic growth). This estimate is supported by the stronger production in the "other mining" category and higher government capital expenditures. The import of equipment also increased, by 11.6% y-o-y, as did that of construction materials (8.5% y-o-y).

Having in mind the SORS data on **agricultural performance** in H1 and the summer drought, we expect agricultural production to decline by around 5% this year.

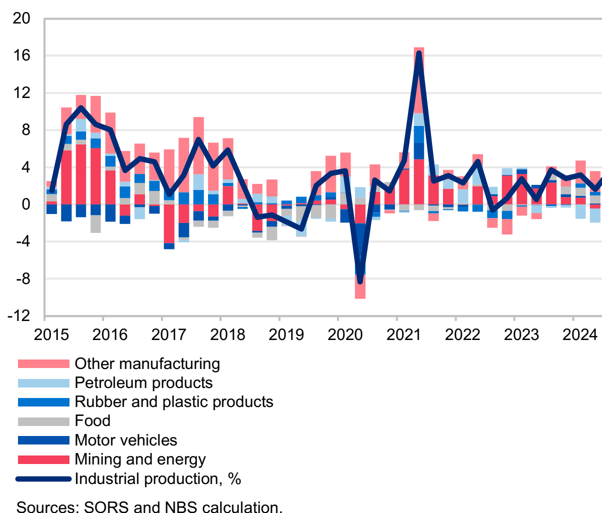
We estimate that owing to the consumption growth and better collection of tax revenues, **net taxes rose** by 3.0% y-o-y, adding 0.5 pp to GDP growth in Q3.

Chart IV.4.1 **Service sector indicators**
(s-a, 2019 = 100)



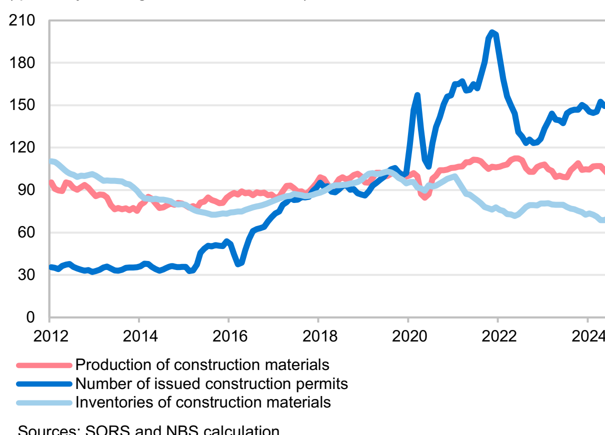
Sources: SORS and NBS calculation.

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



Sources: SORS and NBS calculation.

Chart IV.4.3 **Construction activity indicators**
(quarterly averages s-a, 2019 = 100)



Sources: SORS and NBS calculation.

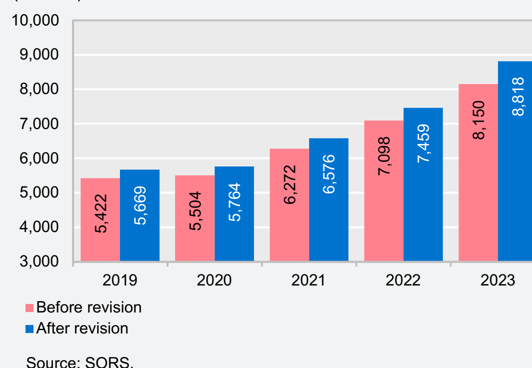
Text box 2: Revision of GDP data for the 1995–2023 period

In early October, the SORS published new revised data on Serbia's annual GDP and its structure for the 1995–2023 period. This was the result of the regular major revision of GDP data which takes place under the Eurostat programme every five years and in line with which all EU member states will publish their revised GDP data for the 1995–2022 period. The key goal of the revision is to upgrade the system of national accounts and the calculation of macroeconomic indicators to ensure adjustment to structural changes in economies and to harmonise statistical systems and data, as well as enhance comparability across countries.

According to the SORS press release, the major revision conducted in 2024 introduced numerous methodological enhancements with EU support. New, improved data sources were incorporated. The results of the 2022 Population Census and the 2023 Agriculture Census are among the most important, leading to a revision of the estimate of gross fixed capital formation (housing and investment in agriculture). The revision of data on the housing stock also led to a revision of the estimate of imputed rent. Data sources on entrepreneurs and local units (establishments) of enterprises collected by the Statistical Business Register were improved, a new survey on subsidies was introduced and employment analytics were enhanced. When it comes to methodological improvements, the Perpetual Inventory Method (PIM) was implemented in the estimation of consumption of fixed capital and a switch was made from the cash to the accrual principle for estimating final government consumption. With regard to GDP calculation by production approach, the most important change refers to the calculation of gross value added by activities, which after the revision is conducted at the level of establishments or local kind of activity units, and not at the level of enterprises based on their primary activity. This change has resulted in greater accuracy of the calculation and improved consistency with branch statistics which are also based on establishment data.

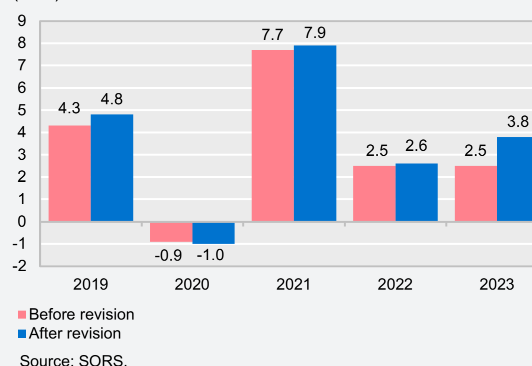
As a result of the revision, nominal GDP for 2022, which was taken as the benchmark year, increased by 5.1%. GDP increased by approximately the same amount in 1995 through 2021. The revision of nominal GDP led to a change in the GDP share of all key macroeconomic indicators. The share of the current account deficit last year was thus 2.4% instead of 2.6% and the share of the general government fiscal deficit 2.1% instead of 2.2%. At the same time, the share of public debt in GDP was revised down to 48.1% from 52.0%, as was the share of external debt – from 65.3% to 60.4%.

Chart O.2.1 **Nominal GDP revision**
(in RSD)



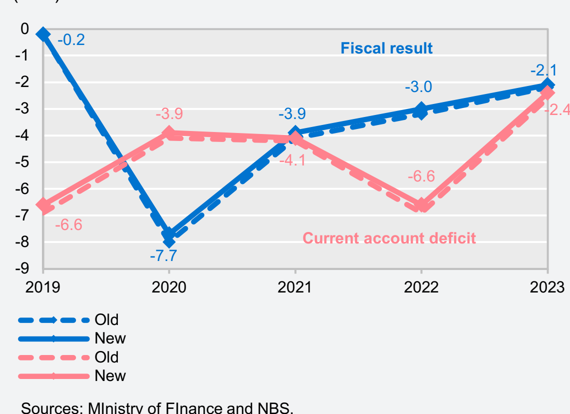
Source: SORS.

Chart O.2.2 **Real GDP growth rates**
(in %)



Source: SORS.

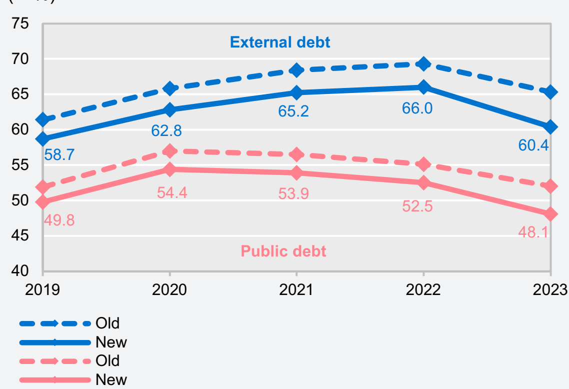
Chart O.2.3 **Revision of the share of fiscal deficit and current account deficit in GDP**
(in %)



Sources: MInistry of FInance and NBS.

Real GDP growth rates were revised too. The real GDP growth rate for 2023 was revised the most, from 2.5% to 3.8%, while nominal GDP went up by EUR 5.7 bn to EUR 75.2 bn from EUR 69.5 bn (in dinar terms, nominal GDP for 2023 rose to RSD 8,818 bn from RSD 8,150 bn). The above revision of GDP for 2023 resulted from an improved data coverage through the revision conducted for the previous years as well, but also from the regular annual calculation of GDP which was previously based on quarterly estimates of branch statistics. A look at the structure of GDP by production principle shows that the growth revision almost entirely refers to a higher contribution of the service sectors, pushing up their share in GDP. For instance, the share of the ICT sector as a leading growth factor came at 8.2% according to the revised data instead of 5.3% previously, while gross value added equalled EUR 6.1 bn. The gross value added of the ICT sector thus doubled relative to the pre-pandemic level, confirming the dominance and rising importance of this industry in progress and development. The revision produced no major changes in agriculture, manufacturing and construction. On the expenditure side, the largest change refers to growth in gross fixed capital formation which was revised from 3.9% to as much as 9.7% in 2023. Such a large revision resulted in part from the inclusion of investment in agriculture in the calculation, incorporated based on the latest Agriculture Census, and the coverage of investment in housing. The share of gross investment in nominal GDP for 2023 thus rose from 22.7% to 23.4%. Also, as the cash principle was replaced by the accrual principle, the government consumption growth rate was revised from 0.3% to -2.4%. Personal consumption was also revised down, though not so much. On the other hand, there were no major changes in export and import of goods and services.

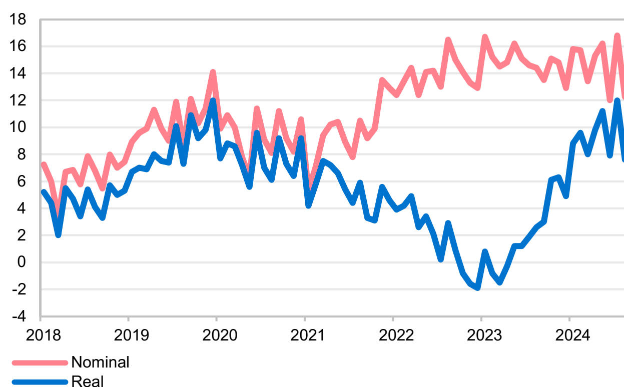
Chart O.2.4 **Revision of the share of external and public debt in GDP**
(in %)



Sources: Ministry of Finance and NBS.

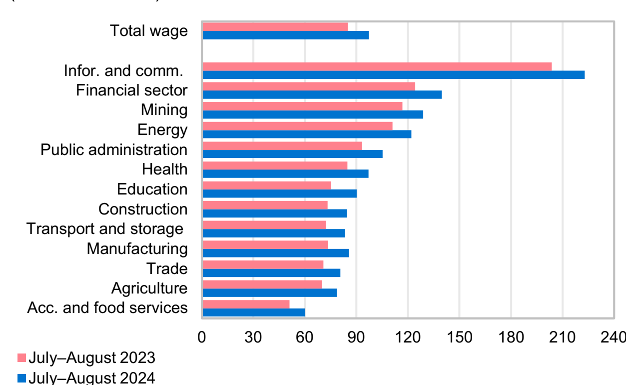
The revision of annual GDP data has so far not included quarterly data series, so it is possible that data for H1 this year will be adjusted (according to the old calculation, real GDP growth in H1 was 4.3% y-o-y). However, though we still do not have precise data on the quarterly growth dynamics, we believe that the growth projection of 3.8% this year can be achieved and that it is consistent with the current developments as the sectors whose GDP share increased last year have been driving growth this year as well.

Chart IV.5.1 **Y-o-y growth rates of average net wage**
(in %)



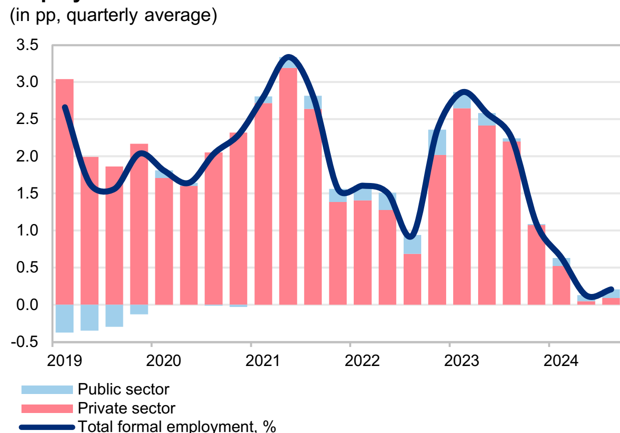
Source: SORS.

Chart IV.5.2 **Nominal net wage by economic sector**
(in RSD thousand)



Source: SORS.

Chart IV.5.3 **Structure of y-o-y growth in total formal employment**
(in pp, quarterly average)



Sources: SORS and NBS calculation.

5 Labour market developments

Relatively high y-o-y wage growth continued in Q3 and was accompanied by a mild increase in formal employment and a decline in unemployment to a new low in September.

Wages

The average nominal net wage in July and August stood at RSD 97,242 (EUR 831), up by 14.5% relative to the same period the year before. In the same period, average net wages increased by 9.8% y-o-y in real terms, the same as in Q2. In the July–August period, the median net wage amounted to RSD 75,788, up by 15.6% y-o-y. That the living standard improved is also indicated by the increase in the coverage of the average consumer basket with the average wage and in the coverage of the minimum basket with the minimum wage which measured 94.0% and 89.0%, respectively, in the first seven months of 2024, up by 8.3 pp and 11.3 pp y-o-y.

The rise in the average nominal net wages was somewhat faster in **the public sector** (15.0%) than in **the private sector** (14.3%). The double-digit growth was recorded in almost all **economic sectors**, except the energy (9.8%) and the ICT sector (9.4%). The most pronounced y-o-y increase was recorded in education, catering, manufacturing and administrative and auxiliary services, ranging between 16.5% and 20.0%.

In the July–August period, the **nominal net wage bill**, as the main source of consumer demand, increased by 15.1% y-o-y on account of a continued rise in wages and formal employment.

According to preliminary data, the **overall economic productivity** went up by 2.9% y-o-y in Q3 reflecting a faster rise in economic activity than in employment.

Employment

According to the SORS data, **total formal employment** in Q3 stood at around 2.37 mn on average, with the y-o-y increase slightly accelerating to 0.2% (from 0.1% in Q2). The y-o-y growth in formal employment in Q3 was driven by employment with entrepreneurs and legal entities, whereas the number of registered individual farmers kept decreasing.

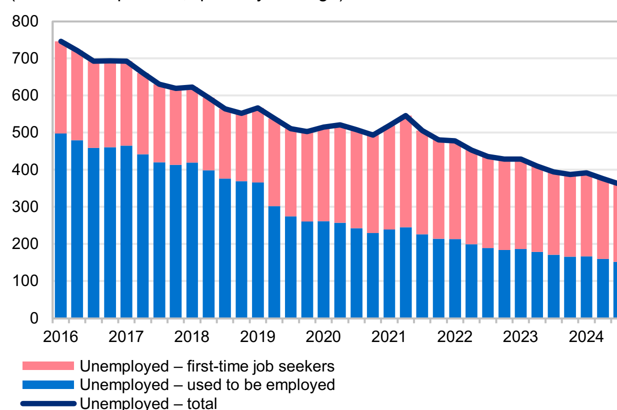
Formal employment increased in Q3 in y-o-y terms in both **private and public sector**, by 0.1% and 0.5% on average, respectively. Observing dominantly private sector

activities, in Q3, registered employment rose the most in professional, scientific, innovation and technical services, ICT services and construction, while decreasing the most in manufacturing. On the other hand, public sector employment growth was driven by the health sector.

According to the National Employment Service records, **registered unemployment** decreased to a new low (359,318) in September, with around 32 thousand unemployed people less than in the same period last year.

According to the available **LFS** data, covering both formal and informal labour market segments, the participation rate of the working age population (15–64) stood at 72.5% in Q2 2024 and the activity rate (15+) at 56.0%. The employment rate went up by 1.1 pp y-o-y, to 51.4% in Q2, while the unemployment rate decreased by 1.4 pp, to 8.2%. Employment growth was entirely driven by formal employment, ensuring social security and providing a contribution to tax revenues, which is crucial for the country's stability and economic progress.

Chart IV.5.4 **Movement of registered unemployment**
(in thousand persons, quarterly average)



Source: National Employment Service.

V Projection

The GDP growth projection for 2024 has stayed at 3.8%. As before, we expect economic activity to accelerate further in the next two years to the range of 4–5%. The composition of growth changed slightly from August in favour of higher domestic demand growth. Private consumption is expected to provide the largest positive impulse in the current and the coming years thanks to a rise in employment and wages. Serbia has been awarded investment grade rating as an additional confirmation that investment confidence has been preserved, so fixed investment will continue to provide robust support to GDP growth. This will also be propped up by the implementation of investments planned under the "Expo 2027" programme and other infrastructure projects. As investment and personal consumption are expected to gather momentum, we project that imports will rise faster than exports, resulting in a negative contribution of net exports, which will decline year after year.

Under our latest projection, y-o-y inflation will continue to move within the bounds of the target tolerance band (3±1.5%). It is expected to hover around or slightly above its September level until the end of this year, mostly due to the negative effects of the drought, slow gradually thereafter and approach the target midpoint by the end of 2025. Inflation's slowdown next year will largely remain under the impact of the still tight monetary conditions, also influenced by the continued slide in inflation expectations and lower imported inflation. Inflation's downward path will likewise reflect the projected slowdown in real wage growth and the expected fall in global oil prices, in line with futures.

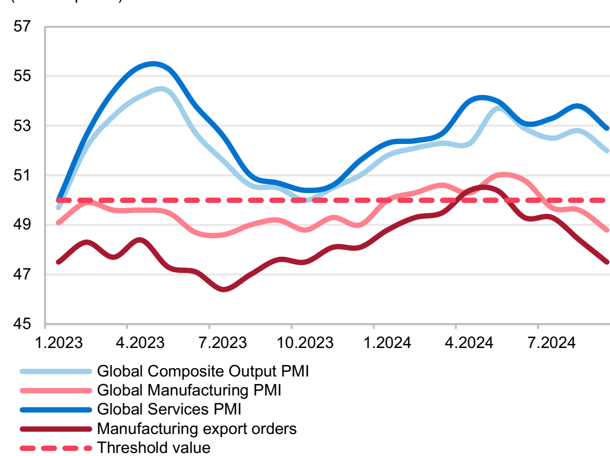
Uncertainty surrounding inflation and GDP projections still stems mostly from factors in the international environment, notably geopolitical tensions, protectionist measures and global growth prospects, as well as their impact on the global prices of energy and primary commodities. At home, the effect of weather on the supply and prices of fruits and vegetables is important for inflation, and its impact on autumn crops for GDP. The risks to the projection are also associated with the speed of growth in domestic demand, particularly investment demand, on account of the level of FDI inflows and investment in infrastructure and the energy sector.

External assumptions

Economic activity

In its September report, the **World Bank** estimated that **global economic activity stabilised** in the year to date thanks to the preserved activity in the services sector, in contrast to the further weakening of production activity due to the slump in new orders, as attested to by the dynamics of leading PMI indicators at the global level. According to the IMF, the world economy has shown uncommon resilience and, despite the strong and synchronised monetary policy tightening throughout the world, managed to dodge recession. The **IMF** also stated that **though still weak, global economic growth remained stable, wherefore the July growth projection was left unchanged in October – 3.2% in 2024**, the same as in 2025 (0.1 pp lower than in July). Relative to July, in October the IMF made significant upward revisions of US GDP growth, thus offsetting the weaker

Chart V.0.1 **Dynamics of leading global economic activity indicators – PMI**
(in index points)



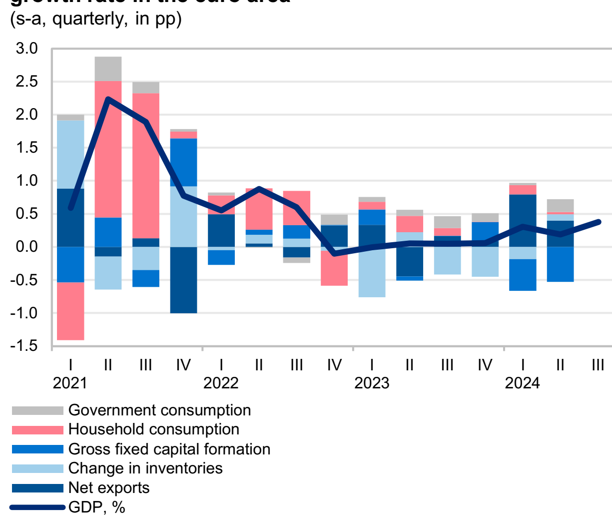
Sources: J.P.Morgan and S&P Global.

Table V.0.1 **Real GDP growth projections for 2024 and 2025**
(in %)

	2024		2025	
	Prev. proj.	New proj.	Prev. proj.	New proj.
World	3.2	3.2	3.3	3.2
Advanced economies	1.7	1.8	1.8	1.8
Euro area	0.9	0.8	1.5	1.2
USA	2.6	2.8	1.9	2.2
Emerging and developing economies	4.3	4.2	4.3	4.2
Russia	3.2	3.6	1.5	1.3
China	5.0	4.8	4.5	4.5

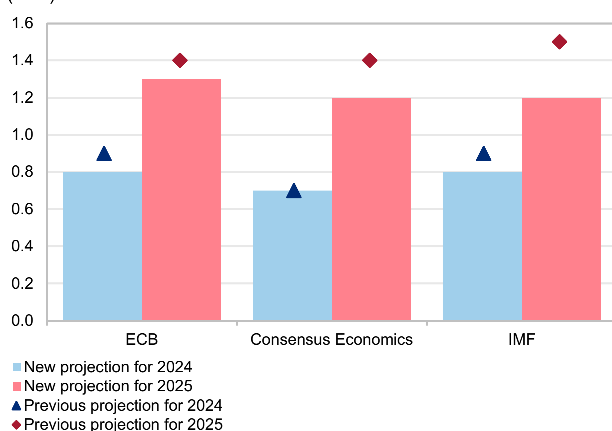
Source: IMF WEO (July and October 2024).

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



Source: Eurostat.

Chart V.0.3 **Adjustments of the euro area GDP growth projection for 2024 and 2025**
(in %)



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

prospects for other advanced economies, notably in Europe. It was noted that disruptions in supply (especially of oil), conflicts and civil unrest, as well as extreme weather, resulted in poorer economic prospects in the Middle East, middle Asia and Sub-Saharan countries. In contrast, prospects for emerging Asian economies are looking brighter amid the rising demand for semi-conductors and electronic products, triggered by major investments in artificial intelligence and public investments in China and India.

The euro area economic activity in Q2 grew by 0.2% s-a (0.3% s-a in Q1), dominantly as a result of net exports, and to a lesser extent of stepped-up government consumption and inventories, while the fall in fixed investments acted in the opposite direction. On the production side, activity in the services sector quickened in Q2 on the back of the Paris Olympics, while activity in the industrial and construction sectors was subdued. Our key trade partners in the euro area recorded diverging movements in Q2 – **Italy's** GDP rose 0.2% s-a, while **Germany's** dipped 0.1% s-a.

The leading euro area economic indices PMI and ESI suggest weaker economic performance in Q3, mostly due to the contracted volume of output and orders in the manufacturing industry. However, according to Eurostat's flash estimate, euro area GDP in Q3 unexpectedly accelerated to 0.4% s-a, dominantly due to the robust growth of Ireland's GDP on account of stepped-up activity of multinational companies and increased activity in the French services sector due to the summer Olympics in Paris. In addition, German economic growth picked up unexpectedly by 0.2% s-a. Economic analysts believe these are transient effects and do not expect a pick-up in economic growth in Q4.

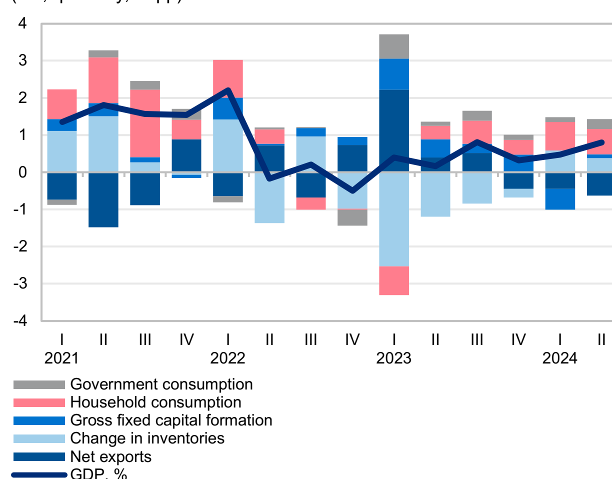
Amid subdued contribution of investments and private consumption in H1 than initially expected, in September the **ECB** lowered its euro area GDP growth projection by 0.1 pp for each of the three years – to 0.8% in 2024, 1.3% in 2025 and 1.5% in 2026. The ECB expects euro area economic recovery to continue on a parallel note with growth in real disposable income and external demand, as well as the loosening of the previously tightened monetary conditions. Higher disposable income, together with the gradual restoration of consumer confidence, promotes growth of private consumption, which should be the key driver of euro area economic growth by end-2024 and early 2025. The loosening of the tight conditions in the labour market also works in the same direction, with the euro area unemployment rate in Q3 still trending close to the record low level of 6.4%.

In October, the **Consensus Economics** did not change the July forecast of the euro area's GDP of 0.7% in 2024, while the projection for 2025 was trimmed by 0.2 pp to 1.2%. We used these projections as assumptions of euro area growth in our own projections. Though economic activity picked up in Q2 in leading euro area economies – France, Italy, the Netherlands and Spain – it nevertheless slowed in the euro area, dominantly due to the German economy's weaker performance, which decreased in Q2 primarily in response to the prolonged contraction in the production sector. The German manufacturing industry, notably the car industry, has been negatively impacted by elevated energy prices ever since the Ukraine crisis broke out, as well as by the stepped-up competition from Chinese companies in terms of electric vehicle production. Consensus Economics' analysts noted that similar to other G7 members, Germany is faced with structural issues, such as the aging population, low productivity, and increased protectionism and bureaucracy, which is having a dampening effect on new investments and increasing fiscal expenditures.

Economic activity in the **CESEE region** rose by 0.8% s-a in Q2 entirely thanks to the rising domestic demand, while the fall in net exports worked in the opposite direction. With the exception of Hungary, other countries of the region recorded GDP growth in Q2, especially Poland (1.5% s-a), which is investing significant amounts in national defence. Still, Consensus Economics' analysts estimated that economic growth in the region is accompanied by elevated uncertainty amid a slowdown in euro area countries' economic growth. In addition, exacerbated geopolitical tension and the escalating conflicts in the Middle East are exerting pressure on prices and energy supply due to the obstructed transport through key naval routes. With this in mind, in October the Consensus Economics trimmed its July projection of Southeast European countries' GDP growth in 2024 by 0.4 pp to 2.5%, while the forecast for Central European countries was kept at 2.3%. July growth forecasts for 2025 were revised down in October for both groups of countries, to 3.2% each (from 3.3% for Central European and 3.4% Southeast European countries).

According to the World Bank's October report, economic activity in the **Western Balkan region** picked up the pace in the year to date relying on domestic demand, supported by fiscal incentives, as well as on the services and construction sectors. However, external demand weakened due to poorer performance of key trade and investment partners in Europe. The World Bank's October forecast of economic growth for this region is 3.3% in 2024 and 3.4% in 2025.

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



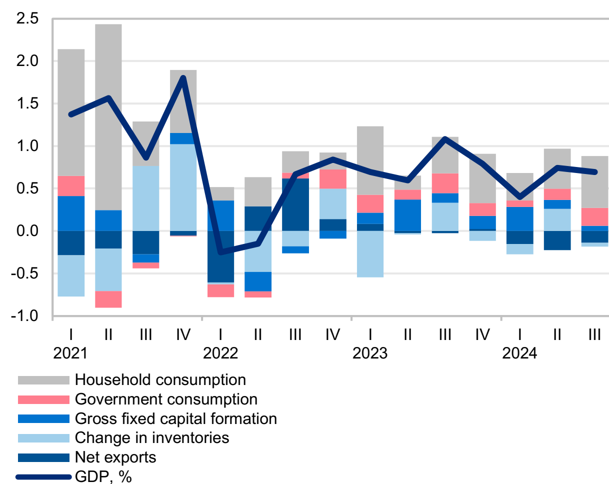
Source: Eurostat.
* Including Bulgaria, Czech Republic, Croatia, Hungary, Poland, Romania, Slovenia and Slovakia.

Table V.0.2 **Real GDP growth projections by country of the region for 2024 and 2025**
(in %)

	2024		2025	
	Prev. proj.	New proj.	Prev. proj.	New proj.
Poland	2.9	3.1	3.8	3.7
Czech Republic	1.2	1.1	2.7	2.6
Hungary	2.3	1.6	3.4	3.1
Romania	2.8	2.0	3.5	3.1
Slovakia	2.3	2.2	2.6	2.3
Slovenia	2.4	2.0	2.4	2.4
Croatia	3.3	3.4	2.8	2.8
Bulgaria	2.2	2.2	2.9	2.9
Albania	3.5	3.6	3.7	3.7
Bosnia and Herzegovina	2.5	2.4	3.0	3.0
North Macedonia	2.6	2.1	3.2	3.0
Montenegro	4.3	3.9	4.1	3.8

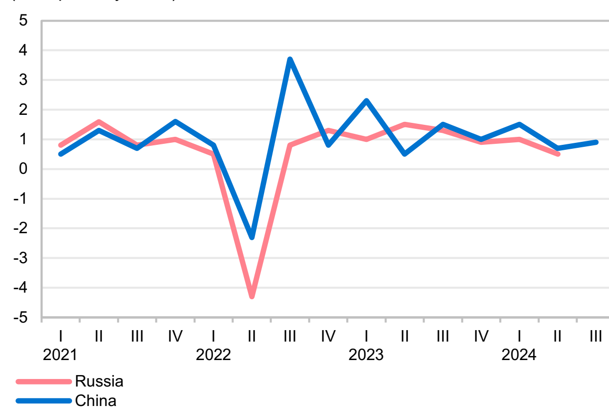
Source: Consensus Economics (July and October 2024).

Chart V.0.5 **Contribution of components to the real GDP growth rate in the USA**
(s-a, quarterly, in pp)



Sources: U.S. BEA and NBS calculation.

Chart V.0.6 **GDP growth dynamics of Russia and China**
(s-a, quarterly, in %)



Source: Statistical offices of Russia and China.

The **US economic growth** picked up again in Q2, to 0.7% s-a (from 0.4% s-a in Q1), mostly owing to increased household consumption and goods inventories, while the contraction in net exports acted in the opposite direction. A positive contribution to GDP came from 16 of the 22 industrial sectors, while on the services side, finance and insurance yielded the biggest contribution. According to a preliminary estimate of the US Bureau of Economic Analysis, US GDP rose by 0.7% s-a in Q3, almost entirely owing to household consumption. In September, the **Fed** stated their expectations of slower GDP growth during H2 and slightly revised down the June projection, by 0.1 pp to 2.0% in 2024. The decision was made in view of weaker labour market indicators, such as a lower number of job postings and vacancies, acting as a drag on aggregate demand. After rising in July and August, the US unemployment rate returned to the June level of 4.1% in September, still remaining above the average level in several months. Therefore, in September the Fed raised their June unemployment in 2024 by 0.4 pp, to 4.4%.

In Q2, **Russia's economy** slowed down significantly in y-o-y terms, to 4.1% (from 5.4% in Q1), amid weaker labour market indicators and subdued external demand. Also, a below-average agricultural season will most likely have an adverse effect on economic activity during H2. Still, the government's strong fiscal incentives, especially in national defence, provide support to domestic demand. In October, the Russian central bank revised up its July GDP growth projection by 0.5 pp to 3.7%. Similarly, in October the IMF raised their economic growth projection for Russia in 2024 – by 0.4 pp, to 3.6%.

Having risen by 5.3% in Q1, **the Chinese economy** slowed down y-o-y in Q2 and Q3, to 4.7% and 4.6%, respectively, in conditions of a prolonged crisis in the real estate business sector, volatile domestic demand, risk of deflation and trade protectionism in relations with Western economies, resulting in a slowdown of exports. The Chinese authorities stepped up fiscal stimuli to promote economic activity and consumer confidence. In September, industrial output and retail sale recorded the biggest increase in four months, and the average unemployment rate in cities dropped to the quarterly minimum of 5.1%. In October, the IMF revised down China's GDP growth projection in 2024 – by 0.2 pp, to 4.8%, leaving the forecast for 2025 untouched (4.5%).

Inflation

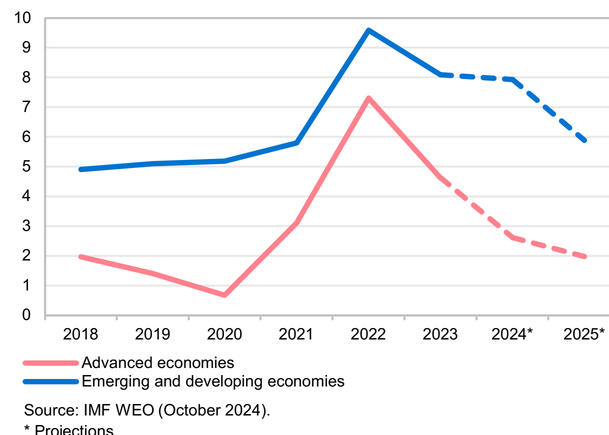
In September, the **World Bank** estimated that the downward trajectory of **global inflation** continued in Q3, dominantly under the impact of falling global prices of oil and gas. In October, the **IMF** projected a slowdown in

global inflation from the average annual level of 6.7% in 2023 to 5.8% in 2024, and additionally to 4.3% in 2025, each of them 0.1 pp below the July projection. The more favourable global inflation forecasts in October were the result of the gradual elimination of cyclical imbalances since the start of 2024 and the narrowing of the output gap in major world economies, which helped to converge inflation rates in different countries. Even so, back in July the IMF noted the signals of disinflation during H1, notably because of the persistent core inflation, driven by higher services prices, while goods prices within core inflation stabilised as y-o-y growth rates came close to zero. The IMF expects the average annual inflation in 2024 to retreat faster in advanced economies (by 2.0 pp, to 2.6%) than in emerging and developing ones (by 0.2 pp, to 7.9%). Average inflation in 2025 is forecast to stabilise at around 2% in advanced countries, and to retreat to 5.9% in emerging and developing ones, while the return of inflation within the bounds of the target tolerance band is not expected before end-2025 in the majority of countries.

After a slightly higher level in July, **y-o-y inflation in the euro area** continued to slow in the remaining two months of Q3, coming to 1.7% in September. This is below the ECB's 2.0% target and its lowest level since April 2021. Such movement was dominantly impacted by a strong y-o-y fall of energy prices in Q3 owing to the base effect and the plummeting global oil prices, while food inflation remained unchanged from Q2. Lower inflation in September compared to June resulted from the slower y-o-y increase in **core inflation**, which measured 2.7% y-o-y in September. Measured by the change in the HICP, **inflation in Germany** retreated to 1.8% y-o-y in September (the lowest level since February 2021), while **inflation in Italy** dropped to 0.7% y-o-y (the lowest level since end-2023). Eurostat's preliminary data show that y-o-y inflation in October in the euro area and Germany equalled 2.0%, dominantly due to the effect of last year's low base from energy prices, while in Italy it edged up slightly to 0.9%.

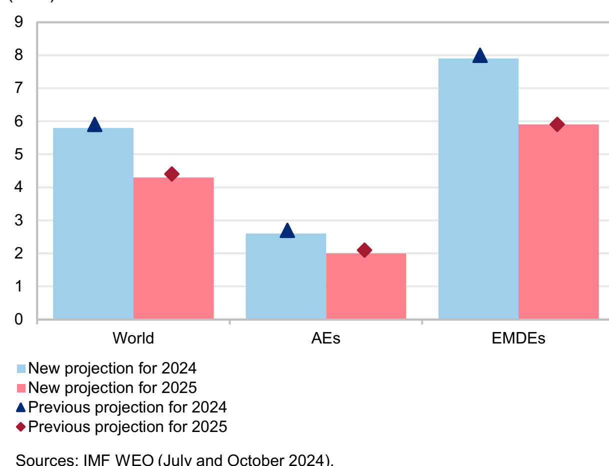
In September, the **ECB** stated that domestic inflation in the euro area is still trending relatively high on the back of a prolonged wage increase. They underlined that negotiated wage growth will remain high over the remainder of 2024, especially due to one-off payments in some European countries and the staggered nature of wage adjustments. Even so, they noted that the gradual alleviation of labour market pressures, together with lower profit margins and prolonged effects of past monetary policy tightening, would have a disinflationary effect. Given that euro area inflation trended in line with expectations in the prior period, **in September the ECB**

Chart V.0.7 **Average inflation by country group – outturn and projections for 2024 and 2025**
(in %)



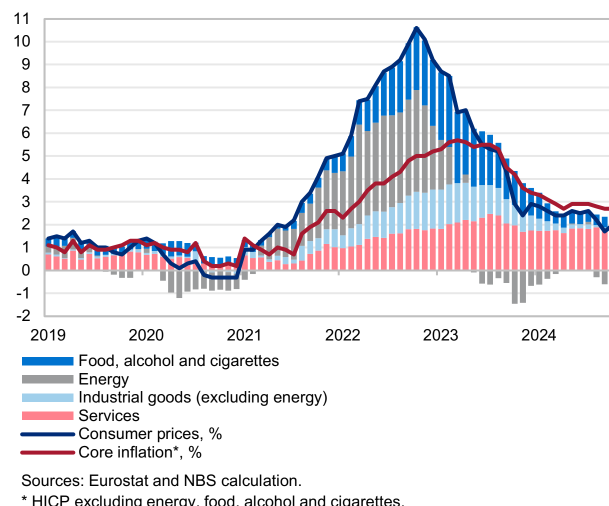
Source: IMF WEO (October 2024).
* Projections.

Chart V.0.8 **Revisions of inflation projections by economic region for 2024 and 2025**
(in %)



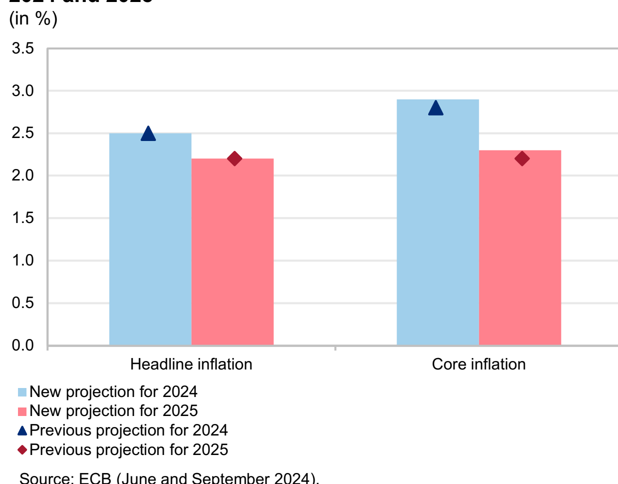
Sources: IMF WEO (July and October 2024).

Chart V.0.9 **Contributions of HICP components to y-o-y inflation in the euro area**
(in pp)



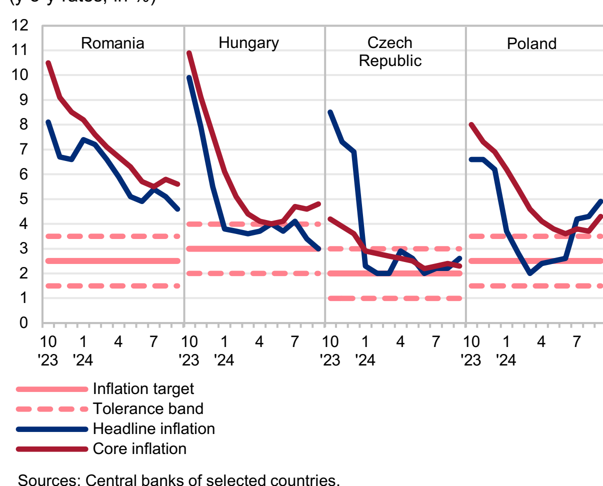
Sources: Eurostat and NBS calculation.
* HICP excluding energy, food, alcohol and cigarettes.

Chart V.0.10 **Revision of the euro area inflation projection for 2024 and 2025**
(in %)



Source: ECB (June and September 2024).

Chart V.0.11 **CPI movements in selected CESEE countries in the previous year (until September)**
(y-o-y rates, in %)



Sources: Central banks of selected countries.

Table V.0.3 **Inflation projections by country of the region**
(in %)

	Oct. 2024		July 2024	
	2024	2025	2024	2025
Poland	3.7	4.5	3.7	4.2
Czech Republic	2.4	2.1	2.3	2.1
Hungary	3.8	3.7	4.0	3.5
Romania	5.4	4.1	5.4	3.9
Slovakia	2.8	3.9	2.8	3.2
Slovenia	2.3	2.3	2.8	2.5
Croatia	3.2	2.7	3.3	2.6
Bulgaria	2.6	2.6	2.9	2.8
Albania	2.3	2.5	2.6	2.8
Bosnia and Herzegovina	2.0	2.0	2.5	2.2
North Macedonia	3.5	2.7	3.7	2.8
Montenegro	4.7	3.3	4.7	3.1

Source: Consensus Economics.

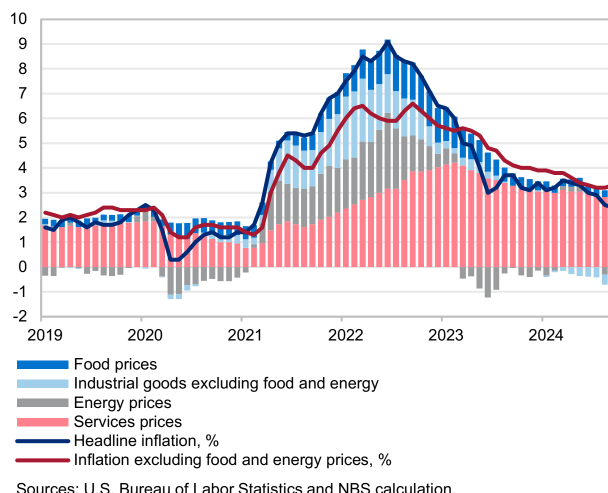
kept the June inflation projection at 2.5% in 2024, 2.2% in 2025 and 1.9% in 2026. A downward trajectory has been forecast for euro area core inflation as well (excluding food and energy), though it will remain above headline inflation almost throughout the entire projection horizon, notably due to the elevated prices of services. In September the ECB raised their June core inflation projections by 0.1 pp each, to 2.9% in 2024 and 2.3% in 2025, while the projection for 2026 remained the same (2.0%).

Diverging y-o-y inflation movements have been registered in the **Central and Southeast European region** in Q3. After rising in July, y-o-y inflation in Romania slowed by end-Q3, measuring 4.6% in September, whereas in Hungary it retreated throughout Q3, reaching the target 3.0% in September. The lower y-o-y inflation in September in both countries was mostly under the impact of the falling prices of petroleum products, where the base effect also played out. Y-o-y inflation in the Czech Republic picked up to 2.6% in September, dominantly under the impact of higher administered prices of utility services and a hike in catering services. Food prices also recorded y-o-y growth, for the first time since end-2023. Y-o-y inflation in Poland picked up significantly in Q3, measuring 4.9% in September under the impact of higher electricity and gas prices, as well as increased food prices due to the effects of low last year's base. Consensus Economics' analysts estimate that a pronounced risk to inflation in countries of the region is arising from energy prices due to naval supply route obstructions caused by the escalating conflict in the Middle East. Also, services prices have been elevated for an extended period, affecting the steadiness of core inflation and in turn prolonging the decrease of inflation expectations and the achievement of price stability in the long term.

In the **Western Balkan region** y-o-y inflation in Q3 was lower than in Q2 notably thanks to the contracted energy prices, which mirrored the dynamics of global prices. In September, y-o-y inflation in **Bosnia and Herzegovina** retreated to 0.8%, in **Montenegro** to 1.0%, in **Albania to** 1.9% and in **North Macedonia** to 2.6%. According to the World Bank's October report, though volatile during H1 energy prices decreased their contribution to headline inflation. Still, adverse weather in the previous months is having a negative effect on the supply of agricultural and food products, exerting pressure on food price growth in the remainder of 2024. In October, the World Bank projected the region's average annual inflation at 3.4% in 2024, 2.6% in 2025 and 2.3% in 2026.

Inflation in the US (measured as the change in CPI) trended down during Q3, equalling 2.4% y-o-y in September, its lowest level since February 2021. This was dominantly under the impact of the pronounced y-o-y fall in energy prices in Q3, notably fuel prices, where the base effect also played out. In September, industrial product prices (excluding food and energy) notably slowed their y-o-y fall, mostly due to the seasonal hike in clothing and footwear prices, while the y-o-y growth of services prices slowed, leaving core inflation in September at the same level as in June, 3.3% y-o-y. Y-o-y dynamics similar to the CPI's in Q3 was recorded by personal consumption indices (total and excluding food and energy), which rose by 2.1% and 2.7% y-o-y in September. The **Fed** estimated in September that both headline and core inflation in the USA will remain on the downward trajectory going forward, parallel with the further alignment of supply and demand in the commodity and labour markets, therefore these inflation measures in 2024 were projected at 2.3% and 2.6%, respectively, while they are expected to stabilise at around 2% by end-2026.

Chart V.0.12 **Contributions of CPI components to y-o-y inflation in the USA**
(in pp)

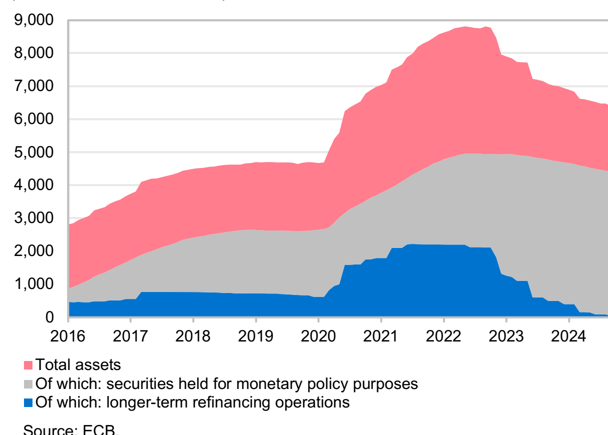


Sources: U.S. Bureau of Labor Statistics and NBS calculation.

Monetary policy

Most of the central banks continued with monetary policy accommodation. In October, the **ECB** trimmed its interest rates in two consecutive meetings, for the first time in 13 years. The decision was elaborated primarily with the fact that inflation is slowing, the incoming data on economic activity are poorer than anticipated, and financing conditions remain restrictive despite the rate cuts. After all three interest rates were trimmed in October by 25 bp each, the deposit facility rate – which the ECB now uses for managing monetary conditions – equals 3.25%, while the main refinancing operations and lending facilities rates are 3.4% and 3.65%, respectively.

Chart V.0.13 **Consolidated Eurosystem balance sheet**
(end-of-month, in EUR bn)

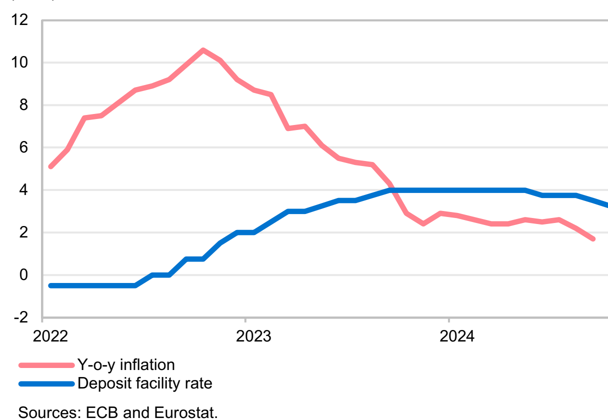


Source: ECB.

At the conference following the October meeting, the ECB President Christine Lagarde did not hint at future ECB moves, but the fourth interest rate cut this year might be expected in December, unless inflation or economic activity data over the coming weeks mandate caution. The money market has already anticipated almost entirely that three more hikes will be introduced by March next year.

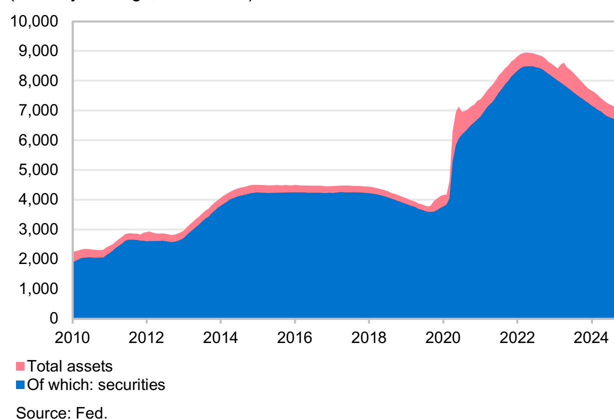
The ECB continued to unwind its balance sheet as planned, at a moderate pace. The downsizing of the portfolio of securities purchased within the **Asset Purchase Programme (APP)** continued, as the ECB is no longer reinvesting the principal payments from maturing securities. As for the **Pandemic Emergency Purchase Programme (PEPP)**, the ECB is no longer

Chart V.0.14 **Deposit facility rate and inflation in the euro area**
(in %)



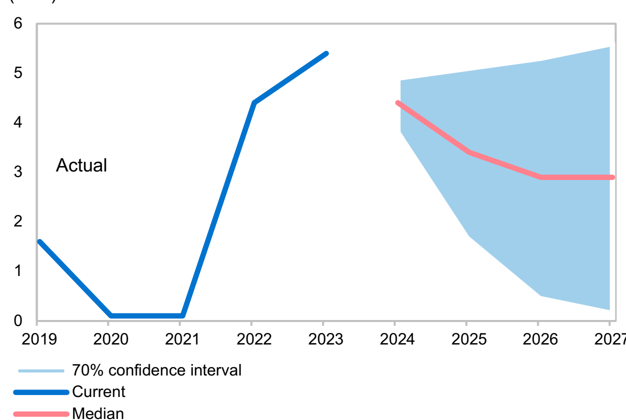
Sources: ECB and Eurostat.

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



Source: Fed.

Chart V.0.16 **Uncertainty and risks to the projection of the Fed funds rate**
(in %)



Source: Fed, Summary of Economic Projections, September 2024.

reinvesting the principal payments from maturing securities in full, and during H2 it started to gradually downsize the portfolio at the monthly pace of EUR 7.5 bn on average in order to discontinue reinvesting by the end of the year. Additionally, the ECB is regularly monitoring the impact of the return of funds to banks, borrowed under the **long-term refinancing operations (TLTROs)**, on monetary conditions.

As expected, the **Fed** embarked on a cycle of federal funds rate cuts in September after keeping the rate unchanged since July. However, the 50 bp cut (to the range of 4.75–5.00%) was twice bigger than what markets expected. New projections of FOMC members (the dot plot) showed that a slight majority (ten out of 19 members) expect the federal funds rate to be trimmed by end-2024 (in the two remaining meetings) by a total of 50 bp. In an address following the meeting, the Fed Chair underlined the evident cooling in the labour market, highlighting that for the moment the labour market is not a source of inflationary pressures, and its further cooling is currently not necessary for inflation to remain at the current low level. Relative to previous estimates, risks to inflation and employment projections are almost balanced. The Fed estimates that the significant rate cut in September should not be understood as the future pace of federal funds rate accommodation, as the decisions will be made in one meeting at a time.

As the first among leading central banks to trim its policy rate in March, the **Swiss National Bank** cut its rate again in June and September, each time by 25 bp, to 1.0%. Indeed, market participants anticipated three consecutive cuts given the appreciation of the Swiss franc and the relatively low inflation. The central bank trimmed its inflation projection to 1.2% in 2024, 0.6% in 2025 and 0.7% in 2026. After the first raise since 2007, to 0–0.1% in March, whereby it left the negative territory, the **Bank of Japan's** policy rate was lifted again in July, to around 0.25%, whereafter it was kept on hold. The **Bank of England** did not change its 5.0% policy rate, having trimmed it by 25 bp in August, thus launching the monetary policy accommodation cycle.

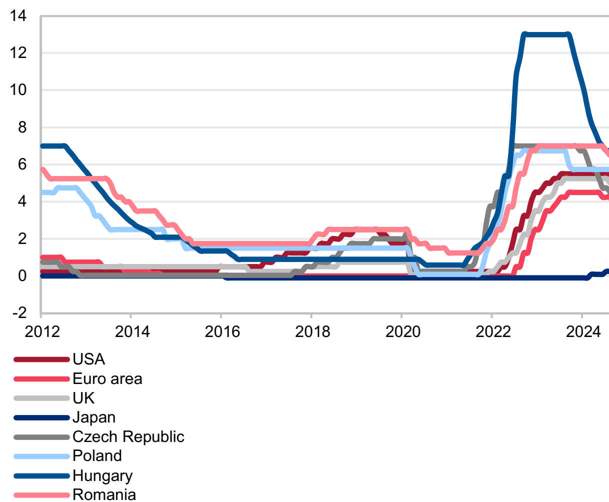
Of the inflation targeting central banks in the **CESEE region, the central banks of the Czech Republic and Hungary** trimmed their policy rates by 25 bp each, to 4.25% and 6.50%. The Czech central bank's move was in line with market expectations given the decreasing domestic risks of inflation going up (risks remain in the services and real estate sectors) and the increasing concern over global economic prospects. The Hungarian central bank also continued to trim its policy rate, as expected, having taken a break in August after ten

consecutive decreases since October 2023. Officials of the Hungarian central bank had signalled that the August pause was temporary and that there will be one or two more cuts by 25 bp before end-year, depending on the inflation trend and the ECB and Fed's decisions.

After the August cut, the **central bank of Romania did not change** its 6.50% policy rate. Caution was mandated by inflation movements, which were higher in July and August than in June, triggered primarily by the significant hike in food prices amid dry weather conditions, as well as energy prices going up on the back of higher excise tax for gas distribution. The **Polish central bank also kept its policy rate on hold**, leaving it at 5.75% for the past year (since October 2023, when it was trimmed by 25 bp). This was anticipated considering that inflation rose to 4.9% in September, its highest level in nine months. Wage growth and energy expenditures are still driving inflation up, while weak demand and appreciation of the zloty are working in the opposite direction.

The central bank of Turkey kept its policy rate on hold, having raised it to 50.0% in March this year. The extremely tight lending conditions are acting as a drag on domestic demand, with inflation dropping below 50% in September for the first time since last summer. Even so, core inflation movements during Q3 caused concern and postponed the planned beginning of the central bank's policy rate cuts. In contrast, the **central bank of Russia further raised** its policy rate in September and October by a total of 300 bp to 21%, in order to bring inflation back to the 4.0–4.5% target in 2025. Domestic demand still exceeds supply due to the conflict in Ukraine and Western sanctions, which resulted in disruptions in value chains and the local labour market.

Chart V.0.17 **Policy rates across selected countries**
(p.a., in %)



Sources: Central banks of selected countries.

Text box 3: Neutral interest rate and the stance of leading central banks' monetary policies

In the current economic environment, one of the most topical issues is the future dynamics and the level to which the key interest rates of leading central banks will drop in the initiated cycle of monetary policy accommodation. The cycle of monetary tightening that preceded it raised the key interest rates during 2022 and 2023 from the extremely low levels at which they hovered after the global economic crisis of 2008. The question now arises as to **whether real interest rates will return to the pre-pandemic levels or be even higher**, given that the neutral real interest rate (r*) might have increased. Projections and expectations vary more than usual, largely due to different estimates of r*, which has become an important reference point for monetary policy in recent years.

The importance of r* stems from the fact that to evaluate the measures of central banks as either expansionary or restrictive, it is not enough to know only the direction in which the policy rate will be changed. In order to achieve the desired effect in the monetary policy cycle, it is often necessary to adjust the policy rate several times, which can sometimes take several years before its level is adequate to achieve the desired effect on monetary conditions. **A key guideline in evaluating the monetary policy stance is the concept of the neutral interest rate** r*, which represents the equilibrium interest rate, i.e. the rate that will ensure the target level of inflation and a closed output gap in the medium term, and thus it will act neither inflationary nor disinflationary. If the real interest rate of the central bank is above r*, the monetary policy is restrictive and vice versa – if it is below r*, the monetary policy is expansionary.[1]

It is extremely difficult to determine the value of r* in practice. This is a derived variable that cannot be measured, but must be estimated using one of the various econometric methods that have different results, hence their selection is an important decision for monetary policy makers. Errors in the estimation of r* can result in the policy rate being at a level that does not meet the desired effect in terms of monetary conditions. For example, if r* is underestimated, the central bank's interest rate could be lower than necessary for inflation to be on target, which is why an underestimated value of r* represents an upside risk for inflation and vice versa – an overestimated value of r* represents a downside risk for inflation.

What determines the value of r*? In principle, r* does not depend on the monetary policy, i.e. the monetary policy is neutral in the long run and can affect real variables only temporarily. Instead, the value of r* is **determined by real factors affecting savings and investment**. These are production potential, demographic factors, inequality, risk aversion and fiscal policy. When acting in the direction of increasing savings or decreasing investment, these factors lead to a decrease in the value of r* and vice versa. Thus, lower potential growth affects the reduction of investments by reducing the marginal return on capital, i.e. it affects the increase of savings by reducing the expected income. Longer life expectancy of the population increases savings, and greater inequality works in the same direction because the richer save a larger part of their income. Greater risk aversion leads to greater savings, especially in safe assets, and at the same time reduces investment, while a persistent fiscal deficit reduces savings. In conditions of free movement of capital, the same is true at the global level, while at the national level the difference between savings and investments is reflected in the deficit or surplus of the current account of the balance of payments.

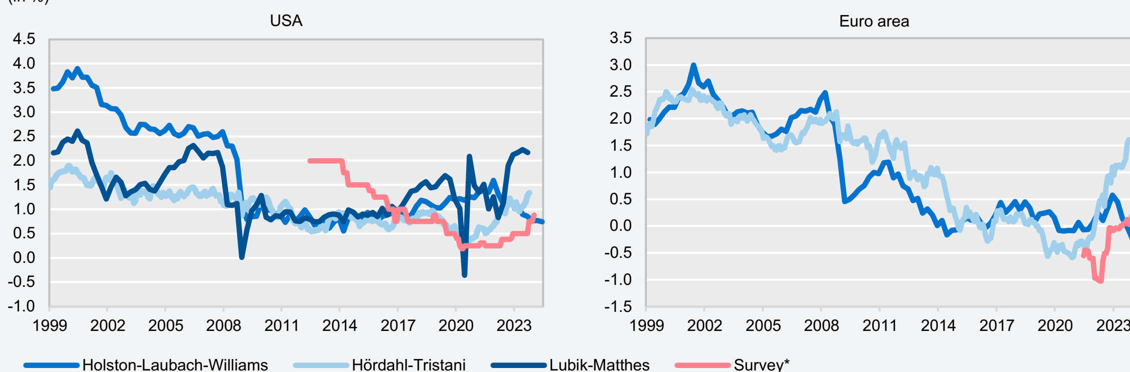
When it comes to estimating r*, **different models are used**, primarily small structural models, time series models, DSGE models, surveys, etc. The most widespread is the use of the small structural model **HLW** (Holston, Laubach, Williams), which establishes a relationship between the output gap and real interest rates (IS curve) and the output gap and inflation (Phillips curve), with the key assumption that inflation growth indicates that current interest rates are below r*. The model removes short-term business cycle fluctuations by trend/cycle decomposition and attributes changes in r* to the trend of economic activity growth and a residual that includes other potential factors. As the authors themselves state, the obtained estimate of r* can be interpreted as a short-term real interest rate that will probably prevail for the next 5–10 years, when the current business cycle disturbances dissipate. According to this approach, the New York-based Fed publishes the estimate of r* movements for the euro area and the USA.

[1] Beside the interest rate, other factors, notably the real exchange rate, can also have an important role in estimates of the monetary policy stance.

However, Bulíř and Vlček[2] note that this approach is limited to the concept of a closed economy, which leads to the neglect of important effects faced by open economies, especially small open ones, whose structure changes significantly under the influence of capital inflows from abroad, resulting in real appreciation. The authors of this paper estimated r* within a small structural New Keynesian model (QPM) with a monetary policy reaction function. They concluded that in **countries where there is equilibrium appreciation due to economic development and capital inflows**, **r* will be lower due to the relatively higher returns driven by exchange rate differences**, while in the case of depreciation, non-residents demand higher rates of return.

They compared the results of sample countries with the results of the popular HLW approach, concluding that their model estimates r* at a level about 1 pp higher than the HLW approach. Therefore, according to their assessment, real interest rates were well below r* in many of the analysed countries, which implies that the excessively expansionary monetary policy contributed to their high inflation in the period 2021–2023. **Serbia was also included in this analysis, with the assessment that the real interest rate in the case of Serbia was above or around the neutral level in the analysed period until the coronavirus pandemic.**

Chart O.3.1 **Estimates of neutral interest rates for the USA and euro area**
(in %)



Source: Benigno, G, B Hofmann, G Nuño and D Sandri (2024), *Quo vadis, r*? The natural rate of interest after the pandemic*, *BIS Quarterly Review 3/2024*, Federal Reserve Bank of New York.

* Primary dealers' survey was used for the USA, and monetary analysts' survey for the euro area.

In any case, the different approaches in estimating r* give different results, and the difference between the highest and lowest estimates of r* in the case of the euro area and the USA is sometimes over 2 pp. Nevertheless, there is no doubt that **in the past 30 years r* has been on a downward trend** (especially after the global financial crisis of 2008) and that this decrease even amounted to several percentage points. In developed countries, real interest rates fell from around 4% in the 1990s to a level slightly below zero in the decade following the global economic crisis. This decline is explained by the effect of factors that increased savings over time and reduced investment demand, primarily through lower production potential, higher savings due to the aging of the population and stepped-up demand for safe assets in developed countries in conditions of increased risk aversion. All this took place in the environment of deepening and greater interdependence of international financial markets. The period that followed the world economic crisis in 2008, until the period after the pandemic and before the outbreak of the energy crisis, was marked by extremely low interest rate levels and more accessible credit terms, but also by more expansionary fiscal policies in a large number of countries.

Going forward, the cycle of monetary policy easing is expected as inflation stabilises, which implies a drop in real interest rates. However, there is concern and disagreement among economists as to **whether real interest rates will return to the low pre-pandemic levels**, which also depends on the estimated level of r*. Was its level before the pandemic underestimated as Bulíř and Vlček conclude,[3] which would mean that real interest rates in the coming period

[2] Bulíř A., and J. Vlček (2024), "The Mirage of Falling R-stars", WP 6/2024, Czech National Bank.

[3] Ibidem.

will be at a level higher than before the pandemic, since the level of interest rates was too expansionary at the time? Or, has the downward trend in r* in the euro area and the USA turned upward after the pandemic, as suggested by BIS (2024), judging by most r* estimation models that point to r* at levels similar to those before the global financial crisis of 2008? An exception is the estimate of r* from the HLW model, according to which it has recently dropped to pre-pandemic levels for both the euro area and the USA, after being elevated initially.

The ECB and Fed are expected to continue trimming their nominal interest rates by an additional 150 bp and 200 bp, respectively, over the next 12 months. However, according to the World Bank,[4] **in real terms their rates will probably remain in the restrictive zone, descending towards the average estimate of r* in the next 12 months**. According to the latest projection from September, the **Fed's** estimate of the (nominal) neutral interest rate is 2.9% and it will not be reached before 2026. The **ECB's** r* estimates vary considerably across models (as of mid-2023 its estimated range is between -0.75% and 0.5%) and on the median it has increased by 30 bp compared to the levels from mid-2019, when it was slightly negative, before descending completely into the negative zone during the pandemic. They state that in general the predominantly cyclical components of r* recorded growth, while it is unlikely that its long-term trend has changed significantly. According to a survey of monetary analysts, a (nominal) neutral interest rate of 2–2.5% is expected in the long term, which, with inflation expectations of 2%, implies an r* of between 0 and 0.5%. It should be borne in mind that **r* is a long-term equilibrium value that changes slowly**.

Its future movement depends on the effects of numerous factors, the direction and contribution of which cannot be predicted with certainty, hence it is not evident at what level real interest rates will be once the current expansionary cycle of monetary policy is over. Nevertheless, it seems that the majority of central bankers and analysts agree that it is **unlikely that r* could fall below the pre-pandemic level in the coming period and that it might even post growth**.[5] Namely, although certain factors which affected its decline in the previous period will continue to play out in the next decade as well (for example, the declining birth rate and increasing life expectancy), other factors might work in the direction of its growth. This primarily concerns growth in the safe assets supply, the weakening of some of the drivers of inequality and growth of investments necessary for the transition to a green economy. In any case, uncertainty remains pronounced, with long-term real interest rates in leading developed countries more likely to be above than below pre-pandemic levels.

[4] World Bank, Global Monthly, September 2024.

[5] Cacciatore, M., Feunou, B., and Ozhan, K. G. (2024). The Neutral interest rate: past, present and future. a thematic review. Bank of Canada.

Financial and commodity markets

Yields on ten-year government bonds of advanced European countries and the USA edged down during Q3, on average by 50 bp and 62 bp, respectively, largely dictated by market participant expectations that the current cycle of the ECB and Fed's monetary policy easing will continue going forward.

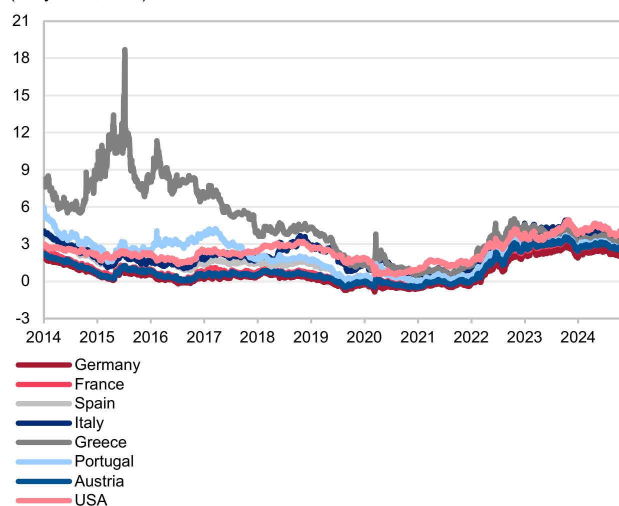
During Q3, **the euro and most of the leading currencies strengthened against the dollar** in the international financial market, amid expectations that the Fed's monetary policy accommodation will be stepped up in the period ahead, especially compared to the ECB.

The **global Brent oil price** trended dominantly down in Q3, averaging 5.4% lower than in Q2, whereas in October it edged up slightly to around USD 76 per barrel. The fall in oil price in Q3 was dominantly under the impact of low demand from China, the world's largest importer, while the tightening of geopolitical relations reflected on occasional deviations. The US Energy Information Administration expects the oil price to rise mildly by end-Q2 2025, when it would measure around USD 79 per barrel, thereafter retreating to around USD 75 per barrel until the end of the year amid slower growth of global oil demand. The Consensus Economics expects the global oil price to measure USD 78 per barrel at end-2024 and to edge down to around USD 75 per barrel by end-2025. According to our projection, based on market futures, the oil price will trend down in the period ahead, measuring around USD 75 and USD 73 per barrel at end-2024 and end-2025, respectively.

The benchmark price of natural gas for Europe (Dutch TTF hub) rose in Q3 relative to Q2, by 10.9% on average, with growth continuing in October when it averaged around EUR 40 MWh (equivalent to around USD 465 per 1,000 cubic metres).[11] The elevated price reflected Ukraine's attack on the Kursk region in Russia, which is critical for the transport of Russian gas to the EU. Based on market futures, we expect the natural gas price to remain stable in the period ahead, equalling around EUR 41 and EUR 40 per MWh at end-2024 and 2025, respectively. In contrast, the Consensus Economics expects the natural gas price to contract going forward, measuring around EUR 38 per MWh at end-2024 and EUR 34 per MWh in 2025.

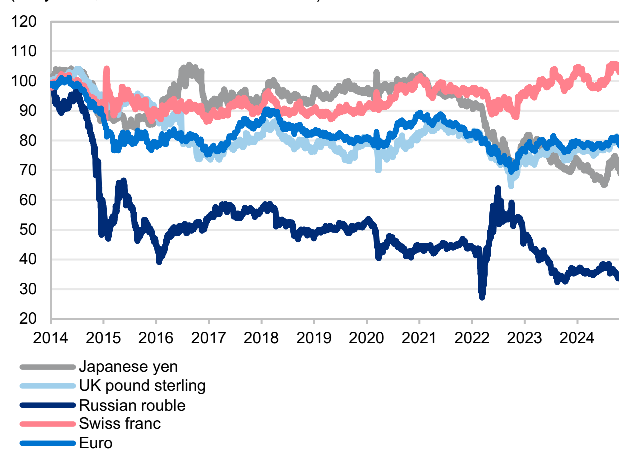
[11] The price expressed in dollars per 1,000 cubic metres of gas was calculated based on the production price of gas expressed in MWh, the EUR/USD exchange rate and an appropriate coefficient (10.55 MWh ≡ 1,000 m³).

Chart V.0.18 **Yields on ten-year bonds of euro area countries**
(daily data, in %)



Source: Bloomberg.

Chart V.0.19 **Exchange rates of selected national currencies against the dollar***
(daily data, 31 December 2013 = 100)

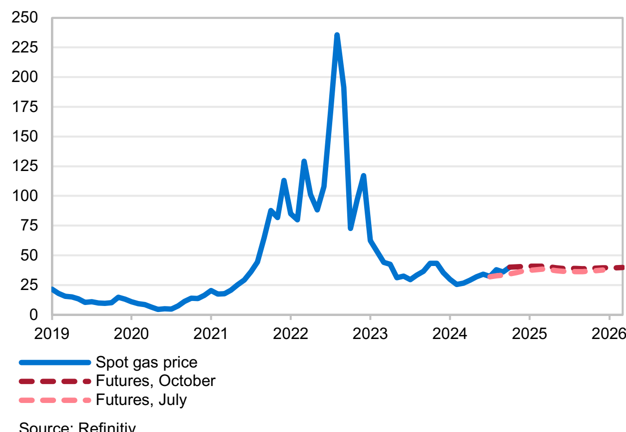


Source: IMF.
* Growth indicates appreciation.

Chart V.0.20 **Assumption for Brent oil prices**
(USD/barrel)

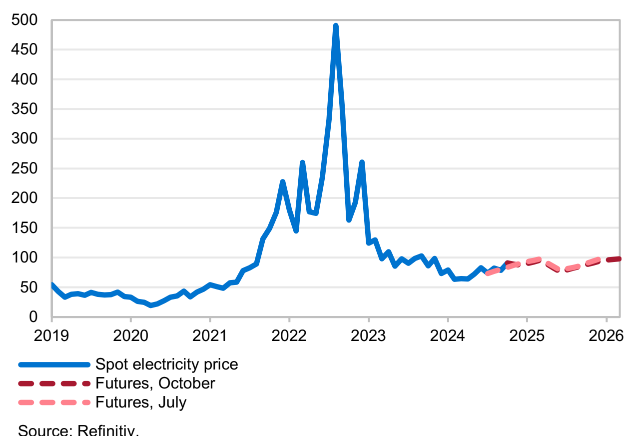
Source: Bloomberg.

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



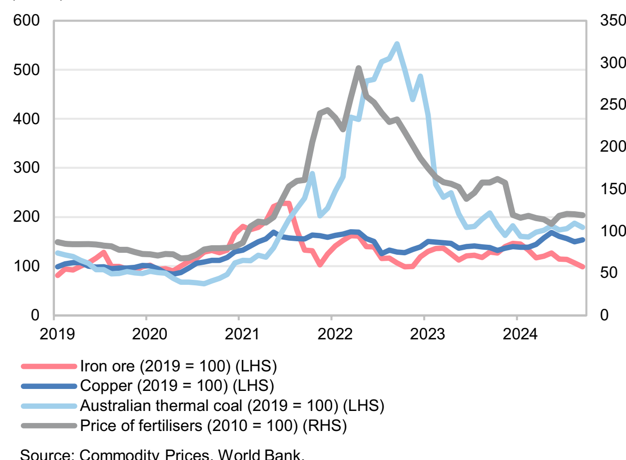
Source: Refinitiv.

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



Source: Refinitiv.

Chart V.0.23 **Selected commodity prices in the global market**
(index)



Source: Commodity Prices, World Bank.

The benchmark price of electricity for Europe (German stock exchange) mirrored the dynamics of the natural gas price, averaging around EUR 78 per MWh in Q3, up by 9.2% from Q2, while in October it climbed further up, to around EUR 91 per MWh. Factors behind the price of electricity in Q3 include the rising demand attributable to high temperatures, the higher price of natural gas and subdued electricity output in wind farms, while the opposite effect came from the falling natural gas price and lower carbon emissions. The price of electricity in the Hungarian stock exchange averaged around EUR 145 per MWh in July, almost twice the price in the German stock exchange, reflecting the high temperatures and reduced capacities for electricity transport with the neighbouring countries. However, by October, the price decreased to around EUR 83 per MWh. According to market futures, the price of electricity will rise to around EUR 96 per MWh by end-Q1 2025, and with some seasonal oscillations it will trend at similar levels for the remainder of the year.

After going up in July and August amid dampened exports from Russia, elevated demand in Asia and the higher prices of natural gas, the **thermal coal price** went down in September, averaging around USD 139 per tonne and reflecting the lower natural gas price and subdued demand in Europe. Even so, the price of coal in September was 3.0% higher than in June, while in y-o-y terms it was 14.3% lower. The Consensus Economics expects the thermal coal price to remain broadly unchanged until end-2024, thereafter descending to around USD 126 per tonne by end-2025.

Higher prices of key inputs, natural gas and ammonium, were behind the mild **growth in mineral fertilizer prices** in July and August, after which they declined and in September were almost unchanged relative to June.

The global prices of most metals and minerals trended down in July and August, dominantly reflecting the subdued economic activity in China, while in September they turned back up primarily because of the launched process of monetary policy accommodation in the USA. The Consensus Economics expects a moderate rise in metal prices by end-2025, with the index of global prices of basic metals[12] at end-2025 2.7% higher than at end-2024.

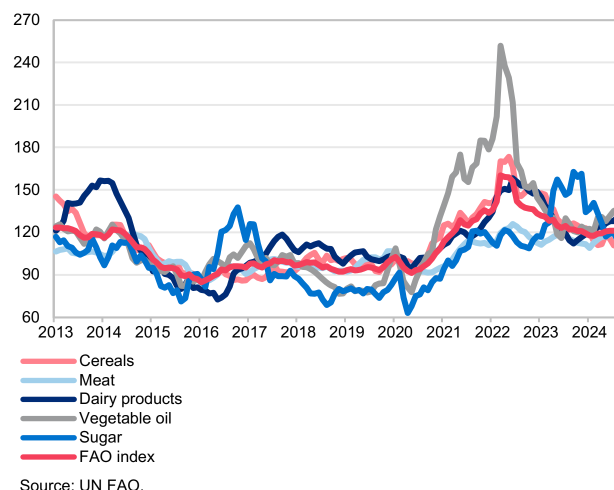
The global food prices, measured by the FAO index, rose slightly during Q3, up by 2.7% in September

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

relative to June, and by 2.1% y-o-y. Growth relative to Q2 is attributable to almost all food categories, notably the higher prices of vegetable oils (8.0%), followed by dairy (6.6%), sugar (5.3%) and meat (0.9%). In contrast, the prices of cereals, whose net exporter is Serbia, in September were 1.5% lower than in June.

Dominantly under the impact of new wheat and corn yield, as well as dampened global demand, the **global prices of primary agricultural commodities** moved downward in July and August, however, the adverse weather and estimates of lower yields and poorer quality of cereals in Europe relative to the prior year drove them up in September and October. Based on market futures, we assume that the global prices of primary agricultural commodities in 2024 will be 2.3% lower than at end-2023, while during 2025 they will rise moderately, ending the year 0.7% higher than at end-2024.

Chart V.0.24 **World Food Price Index**
(in nominal terms, 2014−2016 = 100)



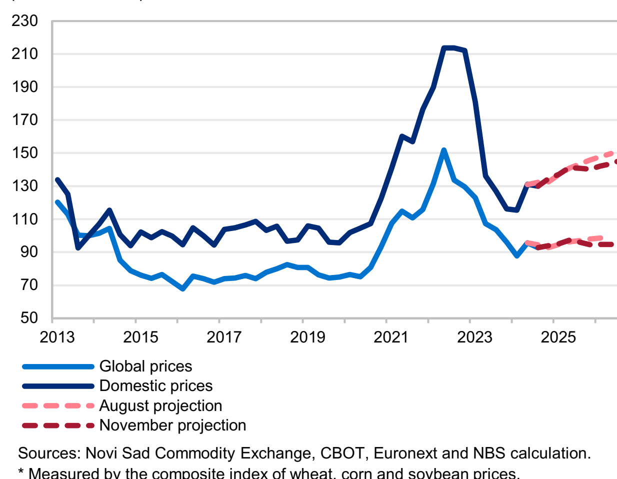
Source: UN FAO.

Internal assumptions

The movement of global primary agricultural commodity prices reflects on their counterparts **in the domestic market, which in Q3 displayed similar dynamics**.

Based on the available SORS data indicating lower agricultural output in H1 compared to last year, we have revised down this year's agricultural production estimate relative to the previous projection, and now expect it to decline by around 5%, although there is a risk that the decline could be even sharper given the estimated yields of some autumn crops as of 5 September. The poorer agricultural performance compared to last year is largely due to summer droughts, whose effects are still difficult to assess. Nonetheless, we estimate there will be sufficient grain for domestic needs even in this scenario. For next year, we expect the domestic agricultural season to be average, which should result in a positive contribution of agriculture to GDP and a more moderate increase in primary agricultural commodity prices. The effects of equipment modernisation and enhanced application of agricultural measures, supported, among other things, by higher government subsidies for agriculture, should contribute to agricultural growth in 2026 as well and reduce agriculture's exposure to adverse climate factors.

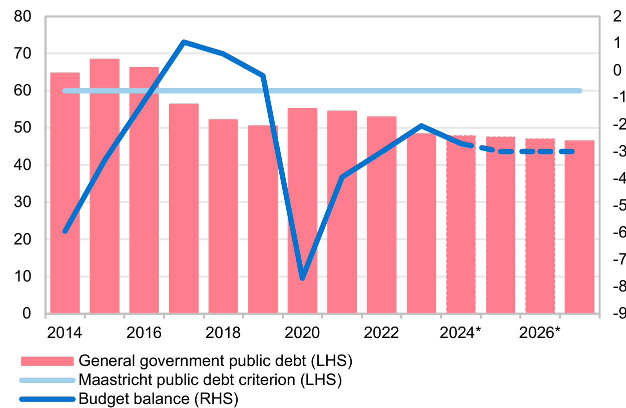
Chart V.0.25 **Assumption for prices of primary agricultural commodities***
(Q4 2013 = 100)



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

We estimate that administered prices will increase at an annual rate of 4.7% in 2024, primarily driven by adjustments to excise duties on cigarettes, coffee, alcoholic beverages and petroleum products, as well as an increase in utility service prices. For 2025 and 2026, we have assumed administered price growth of 5% each year.

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



Source: Ministry of Finance.
* Projection from the Revised Fiscal Strategy for 2025 with Projections for 2026 and 2027.

Regarding factors influencing **domestic consumption**, we expect real wage growth to continue by around 9% this year, though, according to our projections, it will be smaller in the next two years in line with a slowdown in inflation. We project the wage bill to increase by around 9% next year as a result of an increase in the minimum labour cost (by 13.7%), projected further employment growth, and wage increases in both the public and private sectors, remaining a key source of consumer demand. We expect private sector wages to grow in line with the growth in GDP and employment, i.e. productivity, while expenditure on public sector employees will remain below the fiscal rule limit. Remittances, which we project to remain at a similar level as last year (EUR 5 bn), will also support the growth in consumer demand. The easing of credit standards and more favourable financing conditions are already leading to greater disposable income for consumption. We also expect continued lending growth in the coming period.

At the **consolidated level**, the fiscal balance recorded a surplus of RSD 29.1 bn in the first nine months of 2024, while the primary balance was RSD 154.3 bn, with general government public debt accounting for 46.8% of GDP at end-September.

In September, a budget revision raised the **fiscal deficit** forecast for 2024 to 2.7% of GDP to create additional fiscal space for capital expenditure, which increased by RSD 111 bn compared to the initial budget, with funds allocated to the "Expo 2027" project, road and rail infrastructure development, and security sector equipment procurement. Expenditure on subsidies was also revised upward (primarily for agriculture, but also for the energy sector overhaul), social protection and healthcare. The fiscal space for increased expenditure was largely enabled by higher than expected public revenue in the first eight months, primarily driven by private consumption growth, greater corporate profitability in 2023, and continued positive trends in the labour market.

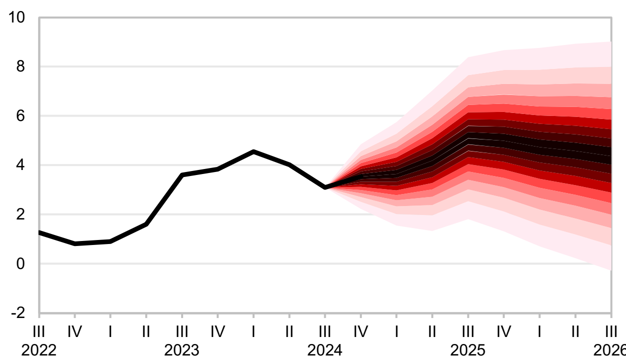
The Revised Fiscal Strategy for 2025 with Projections for 2026 and 2027 defines a **medium-term fiscal framework** envisaging a step-up in government investment under the "Expo 2027" programme, giving fiscal policy a mildly expansionary character. However, the planned slight increase in the fiscal deficit share in GDP to 3% over the next three years, in our view, will not disrupt the downward trend of the public debt-to-GDP ratio, which should decline from 47.9% at the end of this year to 46.5% by end-2027.

GDP projection

The GDP growth projection for 2024 remains at 3.8%, given that the sectors whose share in GDP was increased in last year's adjustment are fuelling growth this year as well. The projections for 2025 and 2026 are also unchanged, so we still expect further acceleration in GDP growth to a range of 4.0–5.0%, with a central value of 4.5%. Compared to August, the growth structure has been slightly adjusted in favour of a greater contribution of domestic demand. The largest positive impulse this year and beyond is expected from private consumption owing to employment and wage growth. With preserved investment confidence, further confirmed by the attainment of an investment grade rating, fixed investment will continue to provide significant support to GDP growth, which will be further aided by the implementation of investment planned under the "Expo 2027" programme and other infrastructure projects, as well as the expected recovery of the euro area, and hence, external demand. We believe that further investment growth, expected to exceed the level of 25% of GDP over the next two years, will be supported by alleviated global inflationary pressures, more favourable financing conditions, high corporate profitability in previous years and FDI inflows. The acceleration of Serbia's economic growth over the medium term, driven by investment and productivity growth, should also contribute to the growth of production potential and the acceleration of Serbia's real convergence to the EU. At the same time, due to the anticipated acceleration of investment and personal consumption, we project that imports will grow faster than exports, resulting in a negative contribution of net exports, though it will decrease year by year.

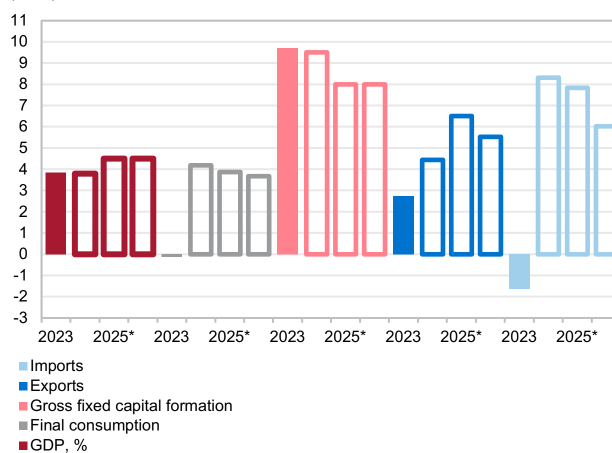
In terms of individual categories, according to the November projection, **private consumption**, with the largest share in GDP structure, is expected to provide the largest positive impulse to economic activity growth in 2024, at 2.8 pp, with its contribution in the next two years expected to be around 2.6 pp. Growth in wages (primarily in the private sector) and employment, along with pensions in line with fiscal rules, will provide a significant boost to personal consumption growth in Q4 2024 and in the coming years. It is important to highlight that expected wage growth in the medium run will largely be a result of increased labour productivity, so we do not anticipate any stronger inflationary pressures on these grounds. As a result, the projected growth in private consumption in 2024, as well as in subsequent years, is expected to move around or stay below the projected overall GDP growth, which also contributes to medium-term price stability. At the same time, real disposable

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



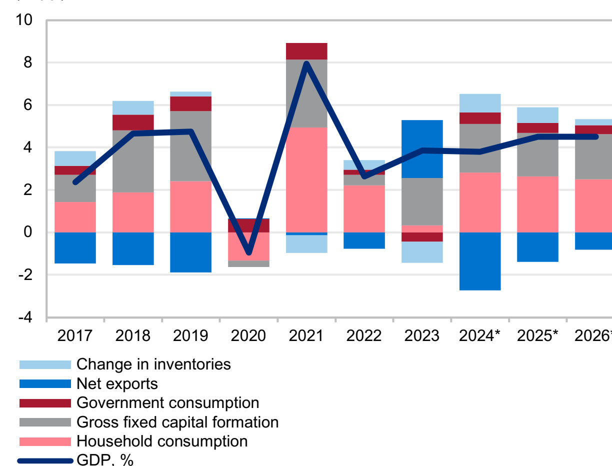
Source: NBS.

Chart V.0.28 **Real growth in GDP and its components, expenditure side**
(in %)



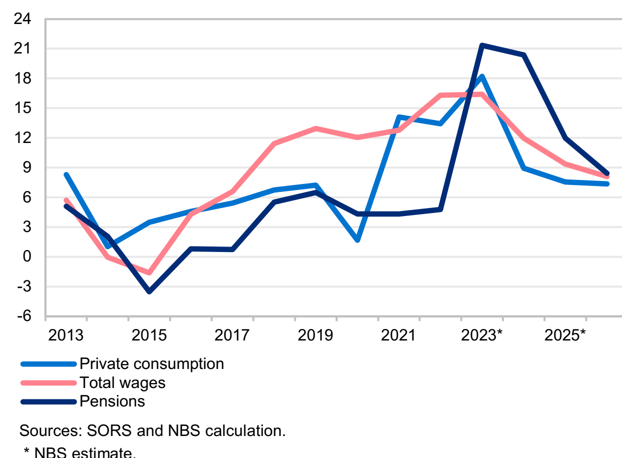
Sources: SORS and NBS.
* NBS estimate and projections.

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



Sources: SORS and NBS.
* NBS estimate.

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



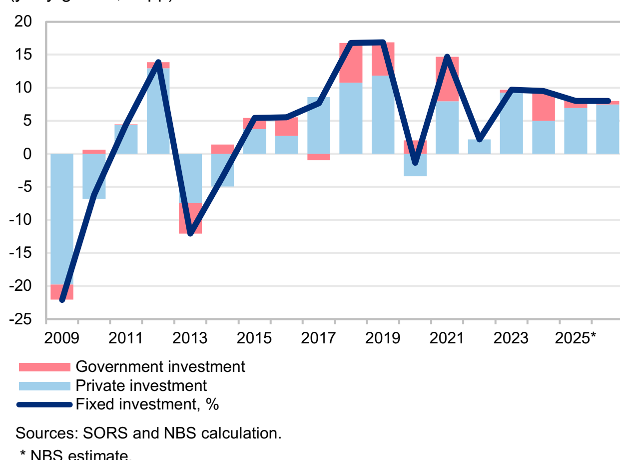
Sources: SORS and NBS calculation.
* NBS estimate.

income will also be supported by lowered inflation and more favourable financing conditions due to the ongoing monetary easing cycle by the NBS and the ECB, as well as continued credit growth.

According to the November projection, **government consumption** will continue to provide a positive contribution to GDP growth of approximately 0.5 pp this year and in the next two years, considering planned expenditure on wages and increased outlays for goods and services in relation to the "Expo 2027" programme.

Further growth in **private investment** is expected in 2024, as well as its positive contribution to GDP growth, projected to reach 1.2 pp this year. This is supported by the results achieved so far this year, which reflect a favourable growth outlook and demonstrated resilience of our economy to negative external shocks in the previous period. An additional increase in investment contributions is projected for the coming years, to around 1.8 pp in 2025 and 2.0 pp in 2026. Reduced global inflationary pressures, along with expected continued easing of financing conditions, will provide an additional boost to overall investment sentiment, which should have a positive effect on both domestic and cross-border investment loans. The primary source of private investment financing will remain own capital, due to higher corporate profitability in recent years, with preliminary data of the Business Registers Agency showing a net profit increase of as much as 12.3% in 2023 compared to 2022. Moreover, FDI – growing at a steady pace in the year to date and enabling knowledge and technology transfer – will continue to provide a significant boost to investment, contributing to total factor productivity and integrating domestic companies into global value chains.

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



Sources: SORS and NBS calculation.
* NBS estimate.

Alongside private investment growth, faster growth in **government investment** is also expected, with its contribution to total GDP growth projected at 1.1 pp in 2024. Significant, government-funded projects in transport infrastructure and energy are planned. Thanks to the "Expo 2027" programme, further sizeable investment in other public infrastructure can be anticipated, so a positive contribution of government investment is expected over the next two years, with public investment in nominal GDP remaining at around 7.3% on average, according to the Revised Fiscal Strategy for 2025 with Projections for 2026 and 2027.

As in previous projections, the November projection assumes a gradual recovery of **inventories** during 2024 and beyond, given that a large portion was utilised last year for domestic consumption and partly for exports.

Table V.0.4 **Planned capital projects within the "Leap into the Future – Serbia 2027" programme**
(in EUR mn)

Project	Until 2024	2025	2026	2027	After 2027	Total value
1. Expo	393	392	405	0	0	1,191
2. Road infrastructure; construction of highways, speedways, bridges, tunnels, etc.	4,546	1,176	1,013	559	1,747	9,041
3. Railway infrastructure; Hungarian-Serbian railway project, reconstruction and modernisation of the Belgrade-Niš railway, etc.	1,456	505	461	491	1,885	4,799
4. Air and water transport and hydropower; Đerdap 1 and 2, "Arilje" dam, construction of a new port in Belgrade, extension of capacity of the existing ports, etc.	149	80	62	103	262	656
5. Utility infrastructure	332	133	148	148	2,687	3,447
6. Other projects; modernisation of public sector infrastructure, education, science, health, sport, etc.	719	395	487	136	20	1,896
TOTAL	7,596	2,681	2,575	1,437	6,601	21,030

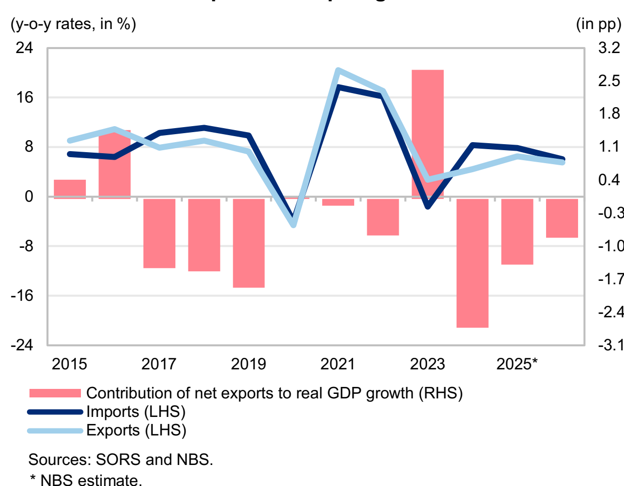
Source: Revised Fiscal Strategy for 2025 with Projections for 2026 and 2027.

Taking into account the expected effects of investment in export-oriented sectors in recent years, as well as the gradual recovery of external demand, we project further growth in our exports in this and the coming years. The overall export growth this year is mainly driven by exports of the manufacturing industry, as well as agricultural products owing to last year's successful agricultural season, while from next year onwards, we expect a positive contribution from increased export capacities in manufacturing, primarily in the automobile cluster, as well as the rebound of external demand. At the same time, we anticipate that positive trends in services trade with foreign markets will continue this year and in the coming years, supported by broad-based growth in service exports across various types, especially ICT and business services, tourism, and air transport services (despite the expected increase in imports, primarily of tourism services amid rising personal consumption).

However, recognising the needs of planned investment activities in the coming period, we project faster growth of goods and services imports compared to exports for 2024, particularly of equipment, whose imports have risen sharply this year. Moreover, rising disposable income fuels private consumption, supporting consumer goods import growth, as reflected in data for this year. This will result in a negative contribution of **net exports** in 2024, estimated at -2.7 pp in the new projection. On the other hand, in the coming years, we expect export growth to accelerate amid the anticipated recovery of the euro area and rising external demand, while imports should rise at a somewhat slower pace compared to this year (given this year's high base). These movements are expected to lead to a smaller negative contribution of net exports in 2025 (-1.4 pp) and 2026 (-0.8 pp).

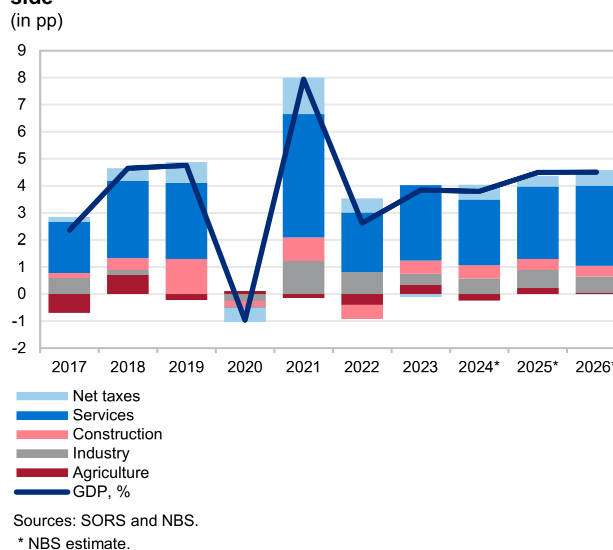
On the production side, the November projection assumes that GDP growth in 2024 and beyond will continue to be

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



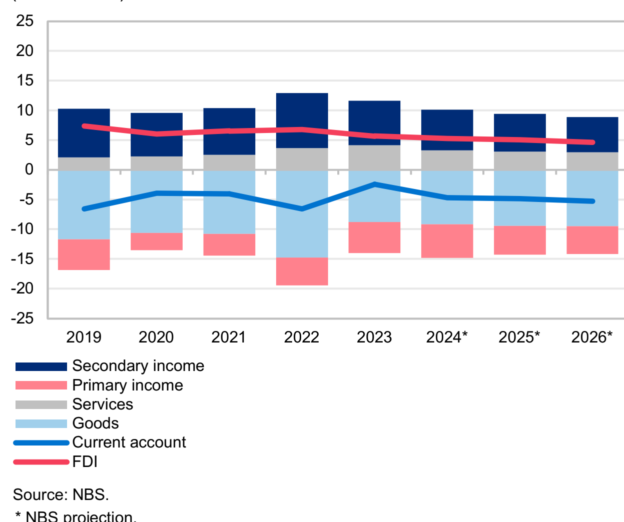
Sources: SORS and NBS.
* NBS estimate.

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



Sources: SORS and NBS.
* NBS estimate.

Chart V.0.34 **Current account and FDI projection**
(in % of GDP)



Source: NBS.
* NBS projection.

driven by the service sectors, whose contribution has been revised slightly upward to 2.4 pp in 2024 (their contribution is expected to be 2.7 pp in 2025 and 2.9 pp in 2026), largely due to private consumption growth, supported by positive trends in the labour market and growth in wages and disposable income, particularly amid slowing inflation and continued easing of monetary conditions. In line with consumption and service sector growth, which will also improve tax revenue collection, the projection assumes a positive contribution to GDP growth from **net taxes**, which we estimate at around 0.5 pp per annum.

Faster growth in production sectors is also projected, with a combined contribution to GDP growth of around 1.1 pp in 2024 and the next two years, according to the November projection. The largest positive contribution in the production sector is expected from **construction** (0.5 pp in 2024, and 0.4 pp in 2025 and 2026), supported by the planned implementation of infrastructure projects in the transport, energy and utility sectors. We anticipate an almost identical positive contribution of **manufacturing** (around 0.5 pp in all three years), where we expect the activation of new and expansion of existing capacities in the automobile industry – owing to the start of electric vehicle production in Kragujevac and car tyre production in Zrenjanin. Regarding electric vehicle production, we estimate that for every 10,000 vehicles produced, the GDP contribution would be around 0.1 pp, with the total effect depending on the actual production volume achieved. The largest positive impact on these grounds is expected approximately one year after mass production begins. A positive contribution is also likely to come from **mining** (0.2 pp), driven by higher metal ore extraction (particularly copper) and production in the "other mining" category, which includes construction material. A slight negative contribution is anticipated from **energy** due to reduced production so far this year, partly due to lower electricity production in drought conditions and reduced hydropower potential, as well as the overhaul of Electric Power Industry's production capacities during the summer. Nevertheless, in the coming years, we expect a positive contribution from energy as well, as a result of planned structural reforms, in line with the IMF arrangement, as well as the start-up of a new unit at the Kostolac thermal power plant by the end of this year. Regarding **agriculture**, we assumed a slightly higher negative contribution of agricultural production to GDP growth in 2024 compared to the previous projection due to the summer drought (-0.2 pp compared to -0.1 pp in August). On the other hand, equipment modernisation and increased use of agrotechnical measures, supported by higher government subsidies for agriculture, should drive agricultural production growth in the coming years.

Projection of Serbia's external position

Given that the imports of goods and services during July and August were higher than we anticipated in the August projection – primarily due to greater-than-expected imports of equipment for the continuation of the investment cycle and, in part, due to tourism services based on higher disposable income – we have revised up our current account deficit projection for this year to 4.7% of GDP. The current account deficit projection has also been slightly revised up in the medium term, to around 5% of GDP, accounting for the government's higher expenditure related to the implementation of the "Expo 2027" programme.

The faster real growth in imports of goods and services compared to exports this year and next will lead to a higher trade deficit than in 2023 (which will average around 6.2% of GDP and gradually increase). However, this will be partially offset by faster growth in export prices compared to import prices. Regarding other components of the **current account of the balance of payments**, the projection assumes that the secondary income surplus will be around 7% of GDP, close to the pre-pandemic average level, and will fully offset the deficit in income from factors of production (primarily income from FDI and labour), which is estimated at around 5–6% of GDP. In terms of FDI inflows, we expect a continued high geographic and project diversity, with most of the inflows remaining channelled to export-oriented sectors. It is important to emphasise that, based on our estimates, the current account deficit will be fully covered by net FDI inflows, estimated at nearly 5% of GDP, both this year and next, as has been the case over the past nine years, ensuring external sustainability.

Inflation projection

Under the November central projection, **y-o-y inflation will continue to move within the bounds of the target tolerance band (3±1.5%) until the end of the projection horizon**. It is expected to hover around or slightly above its September level until the end of this year, mostly due to the negative effects of the drought, slow gradually thereafter and approach the target midpoint by the end of next year. As in our previous projection, the key factors behind inflation's slowdown include: still tight monetary conditions, lower imported inflation and inflation expectations, the anticipated gradual slowing of real wage growth and the expected fall in global oil prices, in line with futures. The new inflation projection is slightly higher than in August in the short term because of the stronger negative effects of the

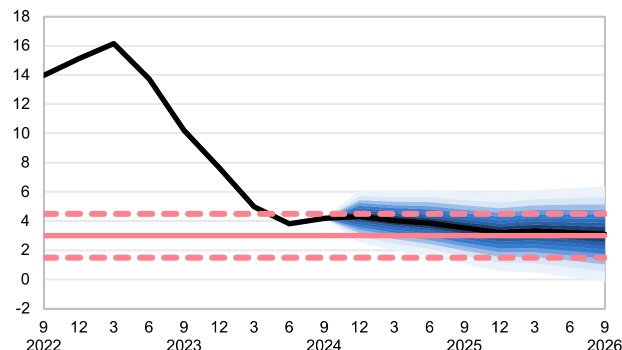
Table V.0.5 **Key projection assumptions**

	2024		2025		2026	
External assumptions	Aug.	Nov.	Aug.	Nov.	Aug.	Nov.
Euro area GDP growth	0.7%	0.7%	1.4%	1.2%	1.5%	1.5%
Euro area inflation (average)	2.4%	2.3%	2.0%	1.9%	1.9%	1.9%
3M EURIBOR (December)	3.3%	2.7%	2.4%	1.9%	2.3%	2.0%
International prices of primary agricult. commodities (Q4 to Q4)*	-3.3%	-2.3%	5.4%	0.7%	2.8%	1.6%
Brent oil price per barrel (end of year, USD)	79	75	78	73	76	71
Internal assumptions						
Administered prices (Dec. to Dec.)	4.6%	4.7%	6.5%	5.0%	5.5%	5.0%

* Composite index of soybean, wheat and corn prices.

Sources: ECB, Consensus Economics, Euronext, CBOT, Bloomberg and NBS.

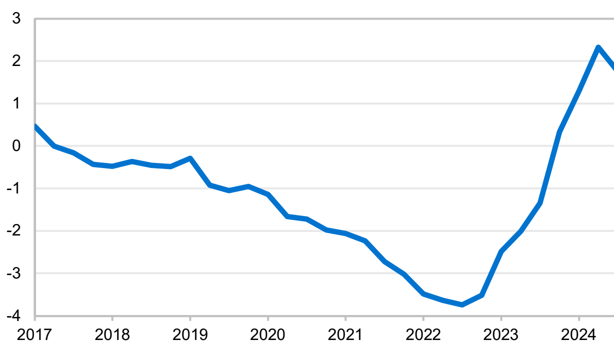
Chart V.0.35 **Inflation projection**
(y-o-y rates, in %)



Source: NBS.

The fan chart depicts the probability of various inflation outcomes in the next eight quarters. The central projection is within the darkest central band and the probability that inflation would lie in it is 10%. Each following shade includes 10% probability, which means that outturns of inflation somewhere within the entire fan chart are expected with probability of 90%. In other words, the probability that inflation in the next eight quarters would lie somewhere outside the band in the chart is 10%.

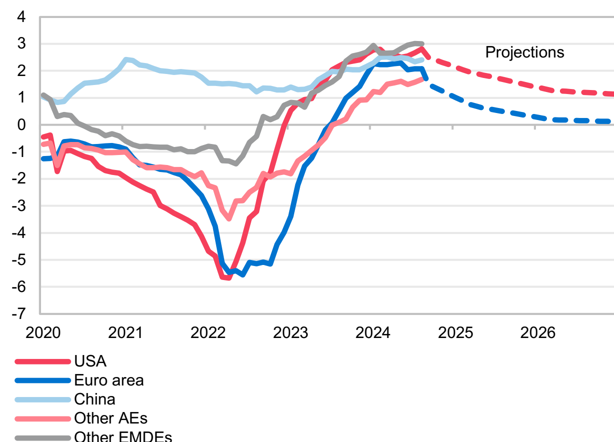
Chart V.0.36 **Real interest rate**
(in %)



Source: NBS.

Note: The real interest rate is obtained as the difference between 1W BELIBOR and one-year ahead inflation expectations of the financial sector, according to the Bloomberg survey.

Chart V.0.37 **Real policy rate in leading economies**
(in %)



Source: IMF WEO (October 2024).

drought on the supply of fruit and vegetables, but also because domestic demand has been rising faster. Working in the opposite direction is the lower global price of oil despite further heightening of geopolitical tensions, primarily in the Middle East, and in part also subdued imported inflation and slower economic growth in the euro area.

As inflationary pressures subsided, most central banks embarked on a cycle of monetary policy easing. The ECB started to trim its key rates in June, and the Fed in September, moving them closer to the neutral level. The NBS also began to ease its monetary policy from June onwards, cutting its key policy rate by a total of 75 bp to 5.75%. The NBS's monetary policy remains restrictive, supported by a fall in inflation expectations, but the degree of its restrictiveness has started to diminish. This is reflected in the **one-week BELIBOR which dipped to 1.75% in real terms in Q3**.

The NBS Executive Board carefully calibrated its measures, aiming, first of all, to impact **inflation expectations of market agents**, i.e. to ensure their anchoring within the target band. One year-ahead expectations of the financial sector have been within the NBS target tolerance band since the start of the year, and medium-term expectations have been anchored within this band for quite some time, confirming the preserved credibility of the NBS's monetary policy. As current inflation declines, inflation expectations of other sectors are likely to subside as well.

As in the prior projections, a key assumption underpinning the anticipated downward inflation trajectory in Serbia is the **continued decrease in imported inflation**. The decline in global inflation, and in euro area inflation, will be guided by the fall in core inflation, by contrast to 2023 when it was led by lower oil prices, though core inflation will remain higher than headline inflation in most countries.

External demand continues to be weak, but a global recession has been avoided despite the sharp and synchronised tightening of financial conditions. Growth in the euro area, our most important trade partner, has shown signs of recovery after more than a year of stagnation due to the energy shock. In the euro area, and in Germany, economic growth is expected to accelerate gradually in the coming period, guided by household consumption and, from next year, investment, as interest rates will fall, real income go up and consumer perceptions of disinflation improve.

Domestic demand was propped up mainly by higher corporate profitability, robust FDI inflows, rising employment and wages, and growing government capital expenditure which will provide a mildly positive fiscal impulse in the coming period. Going forward, we expect lending to pick up on the back of a gradual easing of financial conditions, while **real wage growth should slow during the projection horizon** as pressures on further wage growth to offset inflation will weaken as inflation subsides. In view of this and the GDP growth revision by the SORS, the **output gap** is estimated to have been mildly positive since early 2023. It is narrowing gradually and approaches zero during the projection horizon.

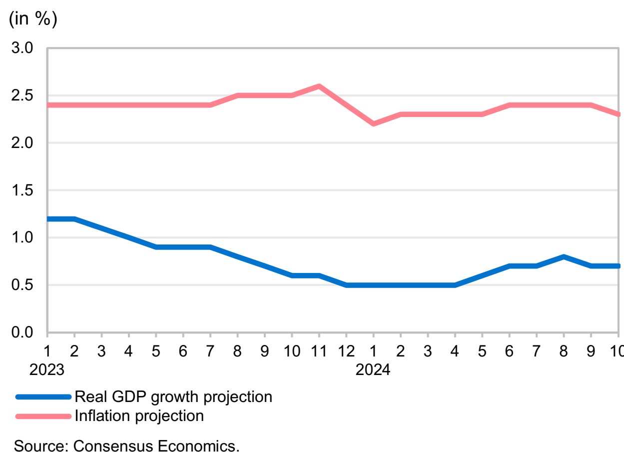
The global price of oil is also anticipated to contribute somewhat to the projected slowdown in inflation, as it is expected to fall gradually in accordance with futures and earlier price hikes will drop out from the y-o-y calculation.

The contribution of all **individual components** to y-o-y inflation is expected to subside during the projection horizon.

Specifically, the contribution of prices of **non-food products and services** to inflation is expected to decline from 2.2 pp in Q3 this year to 1.5 pp in the last quarter of the projection (Q3 2026). Faster decline in non-food inflation over the medium term will be aided by several factors. First, the prices of this product category greatly depend on the prices of a number of imported products, primarily from the euro area. As in the prior projection, imported inflation will have a disinflationary effect during the projection horizon. Also, reduced inflation expectations and the slowing of real wage growth will relieve pressures on domestic prices of non-food products. The index of pressures in global supply chains has only just entered positive territory, so we expect no major pressures on this account. Pressures are not anticipated to come from the costs of international container transport either, as they have been on a downward path.

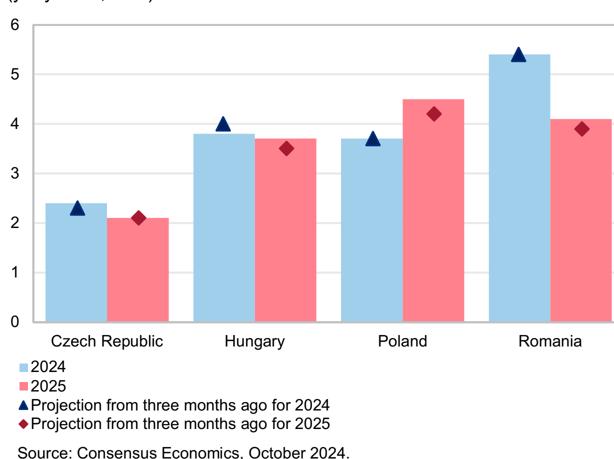
As, according to futures, global oil prices are assumed to be somewhat lower in the coming period, **petroleum product prices** should not have a major impact on inflation. The projected contribution of petroleum product prices to y-o-y inflation is slightly negative in late 2024 through Q3 2025, having a somewhat more disinflationary impact compared to our previous projection. We expect the contribution of this inflation component to be mildly positive thereafter (0.1 pp) until the end of the projection horizon.

Chart V.0.38 **GDP and inflation projections of the euro area for 2024**
(in %)



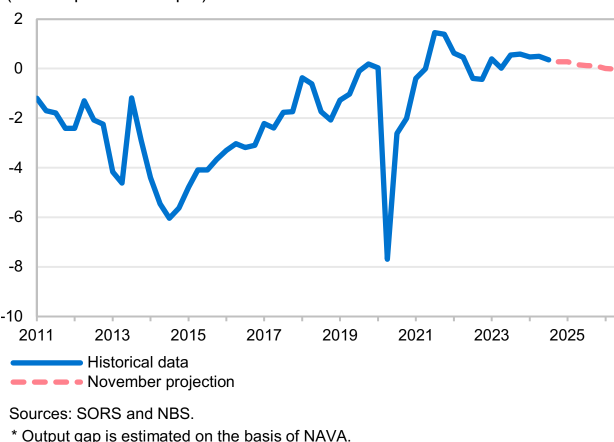
Source: Consensus Economics.

Chart V.0.39 **Projection of consumer price growth**
(y-o-y rates, in %)



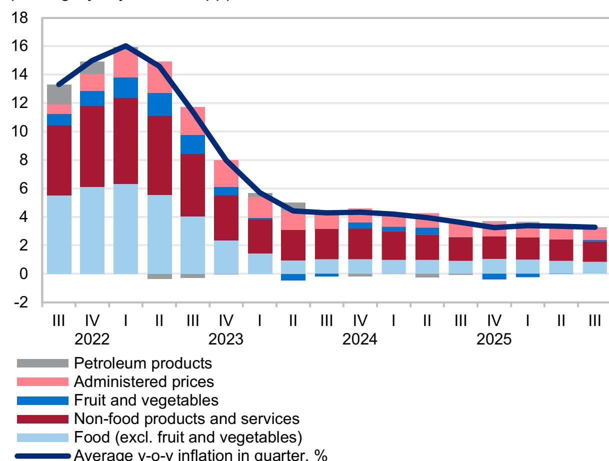
Source: Consensus Economics, October 2024.

Chart V.0.40 **Output gap projection***
(in % of potential output)



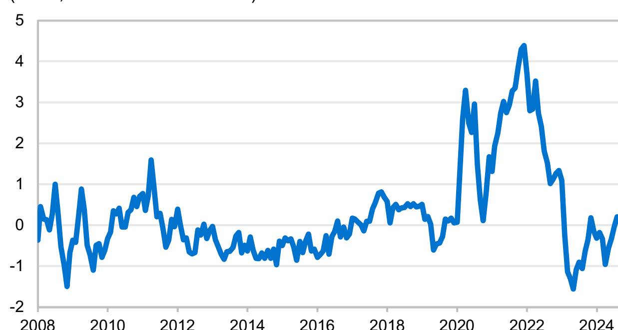
Sources: SORS and NBS.
* Output gap is estimated on the basis of NAVA.

Chart V.0.41 **Contributions to y-o-y inflation by component**
(average y-o-y rates, in pp)



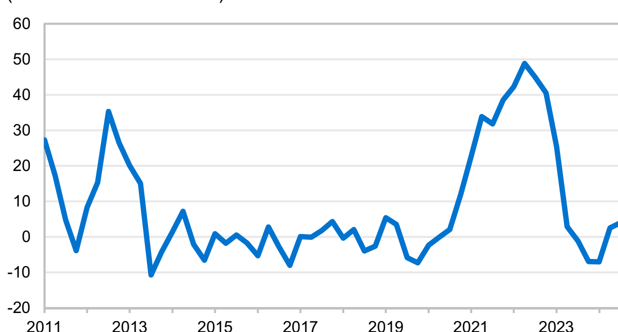
Source: NBS.

Chart V.0.42 **Global supply-chain pressures**
(index, in standard deviations)



Source: Federal Reserve Bank of New York.

Chart V.0.43 **Real marginal costs gap in food production**
(deviation in % from trend)



Source: NBS.

The contribution of **food prices (excluding fruit and vegetables)** to y-o-y inflation is expected to subside from 1 pp in the short term to 0.8 pp until the end of the projection horizon. On the one hand, as the real marginal costs gap (measured by the deviation from trend of the ratio of input prices to prices of final food products) will remain positive in the projection until mid-2026 due to the anticipated rise in global prices of primary agricultural commodities, we expect moderate inflationary pressures on food prices on that account. This gap should start closing thereafter, indicating that the pressures of raw material costs on food prices ought to subside. On the other hand, a more notable increase in food prices during the projection horizon will be contained by lower imported inflation and inflation expectations and the slowing of the real wage growth.

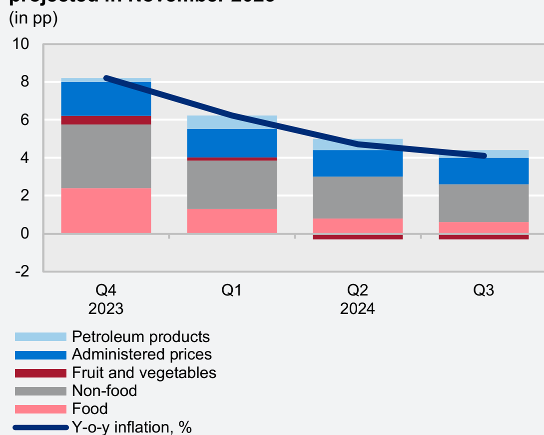
Because of unfavourable weather conditions during the summer, in our new projection, by contrast to the previous one, we expect **fruit and vegetable prices** to go up in Q4 2024 and provide a positive contribution to y-o-y inflation until Q3 2025. After this, with the coming of the new agricultural season, we assume that fruit and vegetable prices will gradually return from a relatively high level to their long-term trend (which corresponds to the rise in prices of non-food products and services). The contribution of fruit and vegetable prices to y-o-y inflation should therefore be negative in late 2025 and early 2026.

In our new projection for this year, we expect a somewhat higher increase in **administered prices** than in the previous one due to the higher than anticipated adjustment of utility prices in Q4, providing a total contribution of around 0.9 pp to inflation. Administered prices are expected to grow by 5.0% in 2025 and 2026 each, contributing slightly more to inflation than in 2024, but less than expected in the August projection.

Text box 4: Analysis of the deviation of actual inflation in Serbia from that projected a year ago

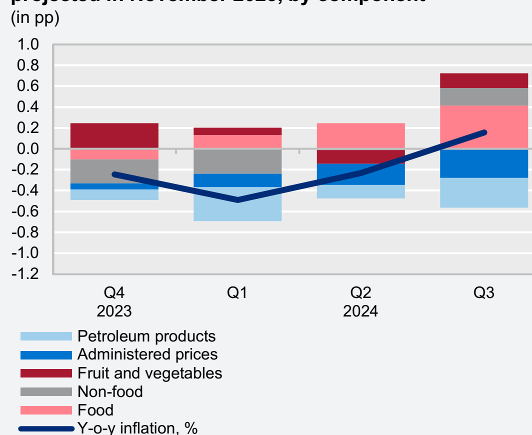
In this text box we analyse in more detail the deviation of actual inflation from that projected a year ago, consistent with the practice of inflation-targeting central banks aimed at reviewing the effectiveness of the regime and improving the forecasting process, as well as ensuring transparent communication with the public and anchoring inflation expectations.

Chart O.4.1 **Contributions to y-o-y headline inflation projected in November 2023**
(in pp)



Sources: SORS and NBS.

Chart O.4.2 **Deviation of actual inflation from the one projected in November 2023, by component**
(in pp)



Sources: SORS and NBS.

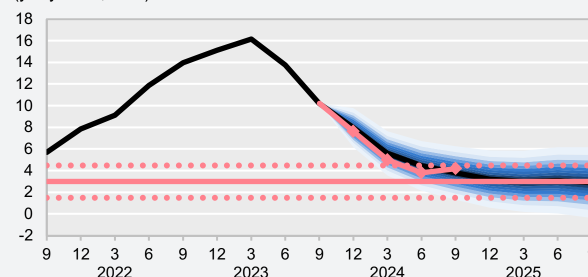
Compared to our November 2023 projection (Chart O.4.1), inflation moved at a lower level from Q4 2023 to Q2 this year, and at a slightly higher level in Q3 (4.3% y-o-y on average vs. 4.1% envisaged by the November 2023 projection). Looking at inflation components, a lower than projected increase in the previous quarters was recorded almost across all categories, except for food prices. More specifically, in Q4 2023 fruit and vegetable prices increased somewhat more than expected, as was the case also in Q3 this year because of the drought effects. Similarly, food prices excluding fruit and vegetables (coffee and confectionery in the domestic market) have recorded much sharper than projected growth this year due to the unforeseen surge in global coffee and cocoa prices amid reduced yields in the top producing countries (Brazil when it comes to coffee, and Ghana and Côte d'Ivoire when it comes to cocoa). To a lesser extent, a stronger than projected price hike in Q3 was registered also for industrial products and services. Working in the opposite direction were the smaller increase in petroleum product prices, as the global oil price turned out to be lower than projected based on futures, and the absence of electricity price hikes this year, which were envisaged by the November 2023 projection. As for industrial product prices, they mostly

Table O.4.1 **November 2023 assumptions for Q3 2024 and their outcome**

	Assumed	Actual
Composite index of global corn, wheat and soybean prices (y-o-y rate)	-4.1%	-10.5%
Brent oil price USD/barrel)	83.8	80.2
Euro area inflation (y-o-y rate)	2.4%	2.1%
EUR/USD exchange rate	1.06	1.10
Composite index of domestic corn, wheat and soybean prices (y-o-y rate)	9.8%	2.6%

Sources: Bloomberg, Consensus Economics and NBS.

Chart O.4.3 **November 2023 inflation projection and outcome**
(y-o-y rates, in %)



Source: NBS.

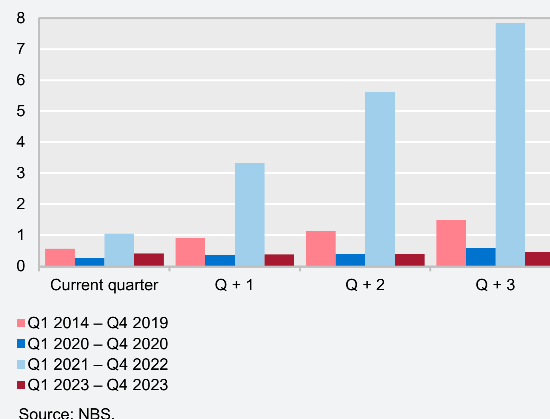
provided a smaller input to inflation than expected a year ago, owing to the drop in inflation expectations and the consequently tighter monetary conditions, as well as to a lower than anticipated imported inflation, including inflation in the euro area.

Chart O.4.4 shows the root mean squared error (standard measure for assessing the reliability of forecasts) of the NBS's inflation projections from 2023 and compares it to the errors of the projections developed earlier. It is evident that the average projection error is considerably lower in the period Q1–Q4 2023 than in the preceding period (Q1 2021 – Q4 2022), when rampant global uncertainty caused by huge shocks in the international environment made inflation forecasting rather difficult. With the normalisation of economic circumstances abroad and at home, the deviation of actual from projected inflation has diminished.

Looking at the deviation of our projection from Q4 2023 (November projection) and that of other inflation targeters in the region, we can see that the deviation for that quarter was broadly the same as in other central banks observed, whereas the deviations for the quarters that followed were mostly smaller for our projection.

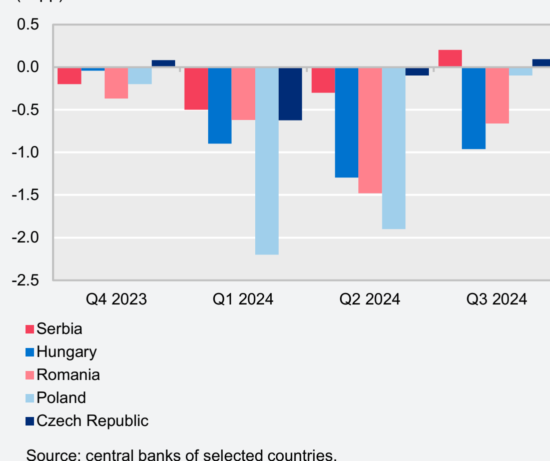
We can conclude that inflation outturns in the year to date have not departed significantly from the projections developed by the NBS in the previous twelve months and that the factors behind the departure (global oil prices, unfavourable weather conditions for global production of some crops, as well as for fruits and vegetables in the domestic market) were covered by the alternative projection scenarios, meaning that the NBS has rightly recognised the risks to the projection.

Chart O.4.4 **Root mean squared error of NBS forecast**
(in pp)



Source: NBS.

Chart O.4.5 **Deviation from Q4 2023 inflation projections**
(in pp)



Source: central banks of selected countries.

Other institutions' projections for Serbia and comparison with the projections of the National Bank of Serbia

In October, the IMF revised up its July projection of Serbia's economic growth in 2024 by 0.1 pp to 3.9%, which is slightly higher than our projection. **Consensus Economics also estimated** in October **that Serbia's real GDP will measure 3.8% in 2024**, up by 0.2 pp from the previous projection. The same is expected by the **World Bank** (0.3 pp more than in the July projection). **Serbia's real GDP growth is expected to accelerate in 2025**, guided by rising consumption and investment. The IMF revised the July projection down by 0.1 pp to 4.1%, and similar growth is expected by Consensus Economics and the World Bank (4.0% and 4.2%, respectively).

Table V.0.6 **Projections of macroeconomic indicators of Serbia**
(in %)

		GDP	Current account	Inflation
NBS	2024	3.8	-4.7	4.7
	2025	4.5	-4.9	3.7
IMF	2024	3.9	-4.2	4.5
	2025	4.1	-4.8	3.6
Consensus Forecasts	2024	3.8		4.5
	2025	4.0		3.6
World Bank	2024	3.8	-4.1	4.5
	2025	4.2	-4.7	3.1

Sources: IMF WEO (October), Consensus Economics (October), World Bank WBRER (October).

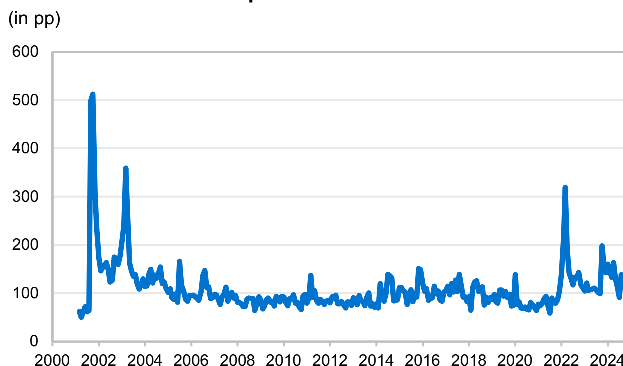
As the investment cycle is expected to accelerate, and imports of equipment and intermediate goods to go up as a result, **in October the IMF revised up its July projection of Serbia's current account deficit** for 2024 and 2025 by 0.1 pp each, to **4.2% and 4.8%**, respectively, and the World Bank's expectations are similar.

Due to the effects of past monetary policy tightening and the easing of global inflationary pressures, international institutions expect inflation in Serbia to slow further going forward. Specifically, according to October projections, **the IMF expects average inflation in Serbia to measure 4.5% in 2024. The same is expected by the World Bank and Consensus Economics**. According to the forecasts of the **IMF and Consensus Economics, average inflation in 2025 will be 3.6%, while the World Bank expects it to be somewhat lower at 3.1%**.

Risks to the projection

The risks to our new inflation and GDP projections are still mainly associated with **factors from the international environment** – geopolitical relations, protectionist measures and outlook for global growth, as well as their impact on world prices of energy and other primary commodities. At home, the risks are associated with the effect of weather conditions on the character of the agricultural season and whether the pace of domestic demand growth will correspond to the growth pace from the baseline scenario. **Overall, we judge the risks to the GDP and inflation projections to be symmetric over the projection horizon.**

Chart V.0.44 **Global Geopolitical Risk Index**
(in pp)



Source: Caldara and Iacoviello (2022); Data downloaded from https://www.matteoiacoviello.com/gpr.htm.

The **geopolitical risk** remains a key source of uncertainty in commodity and financial markets. The conflict in the

Middle East and Ukraine is continuing, as is the risk of its escalation which could restrict supply and drive up global prices of oil and other primary commodities. It is always more difficult for monetary policy to achieve price stability in case of supply-side shocks which push prices up and drag GDP down at the same time, so greater caution is warranted. Even if there are no direct effects on energy prices in Serbia, higher global prices of energy and other primary commodities would fuel a rise in imported inflation and, by extension, inflation at home, with a negative impact on GDP. **There is also the risk of intensification of trade tensions and the introduction of new protectionist measures** in international trade, which could disrupt trade flows and supply chains. According to the IMF, about a half of the world population has gone or will go to the polls this year, so newly elected governments could introduce significant shifts in global trade. As there is little likelihood that the geopolitical situation could improve much over the short term, we judge **the risks to the GDP projection on account of potential escalation of geopolitical tensions and protectionist measures to be skewed to the downside, and to the inflation projection – to the upside**.

The global economy has avoided recession, but will possibly remain weaker than we assumed in the baseline scenario. The impact of past monetary tightening by leading central banks may be stronger and more durable than expected. Also, the contraction in China's real estate sector could be deeper and last longer than anticipated which, given China's importance in world trade, could send ripples worldwide, particularly if it causes financial instability in China. If the global economy and, in particular, the euro area, slowed more than expected, this would affect Serbia primarily through lower external demand and reduced energy and primary commodity prices in the international market. Subdued external demand would hold back growth in domestic manufacturing and exports, but it would also have a more disinflationary effect than in the baseline scenario. On the other hand, global growth may surprise on the upside if inflation decelerates at a faster pace, enabling central banks to ease their monetary policies sooner and faster to support economic growth. Growth in the euro area, and particularly in Germany, our key trade partner, may be slightly higher than anticipated, especially as the Bundesbank specifies in its October report that all conditions for a strong expansion of private consumption are in place mostly thanks to an increase in real disposable income of households. With all this in mind, we judge the **risks to the GDP projection, and to a smaller extent, to the inflation projection, to be somewhat tilted to the downside in respect of global growth and external demand**.

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

Risk	Possible channels of influence	Estimate of the risk effect on GDP relative to the baseline scenario	Estimate of the risk effect on inflation relative to the baseline scenario
Intensification of geopolitical tensions and protectionist measures and impact on the prices of oil, gas and electricity in the global market (Serbia is a net energy importer), but also on the prices of other products	Intensification of geopolitical tensions and conflicts would lead to renewed growth in global energy prices. Production costs would go up, reducing funds for investment and possibly generating second-round effects on inflation, which could partly be offset by lower demand for these products. Rising protectionism in global trade would push world inflation up, with negative effects on inflation and GDP at home.	↓	↑
Global growth prospects	Slower economic growth globally, and particularly in the euro area, would result in subdued external demand for our exports and reduced demand-side pressures on inflation.	↓	↓
Global inflation, notably in the euro area, and monetary policies of leading central banks	– Higher/lower than expected global inflation, notably in the euro area, leads to higher/lower imported inflation, which increases/decreases production costs. – Greater and/or faster than expected monetary policy tightening by leading central banks results in greater investor risk aversion and decreased capital flows to emerging economies, and vice versa.	↕	↕
International prices of primary agricultural commodities and metals (Serbia is a net exporter)	A rise/fall in the prices of primary agricultural commodities and metals has inflationary/disinflationary effects. This inflates/deflates production costs and decreases/increases income available for investment, but the effects on GDP would most probably be neutralised by higher/lower exports, as Serbia is a net exporter of primary agricultural commodities and metals.	↕	↕
Pace of domestic demand growth	Higher/lower disposable income on account of faster/slower than expected wage and employment growth due to higher/lower export demand and/or higher/lower FDI inflow would result in faster/slower growth in domestic demand and stronger/weaker inflationary pressures. Accelerated activity growth in construction amid faster implementation of infrastructure projects by the government, investments planned in the lead-up to hosting Expo 2027, as well as private investment in the conditions of receding inflationary pressures, would drive up domestic demand, GDP and inflation.	↑	↑
Investment in energy and mining	Investment in energy and mining may have weaker or stronger than expected effects on the volume of production.	↑	↓
Agricultural season this year	A poorer than assumed agricultural season results in diminished supply of agricultural products and inflationary pressures, and vice versa – a better than assumed agricultural season leads to a higher supply of agricultural products and may produce disinflationary pressures.	↓	↑

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

Taking into account the risks to global growth on the one hand, and the risks from geopolitical tensions on the other, we judge **the risks of departure of global prices of primary commodities (agricultural commodities and metals) to be symmetric**.

Though **global inflation** has receded, many challenges remain. Product prices have mostly levelled off, but growth in the prices of services remains above historical levels in most countries. For this reason, the reduction of inflation in the services sector and the calibration of monetary policy measures to achieve this represent a challenge. Primarily, tight labour markets, particularly in advanced economies, could lead to higher than anticipated wage growth. A key issue is still the pace of future wage growth and to what extent companies will shift higher wage costs onto consumers. Renewed inflation growth would put a stop to monetary policy

easing by leading central banks which could have a negative effect on public finances and financial stability. If leading central banks, and the ECB in particular, deferred their monetary policy easing, this would result in lower income disposable for consumption and investments at home, while the maintained relative stability of the dinar exchange rate would significantly alleviate inflationary pressures from a possibly reduced inflow of portfolio investments. On the other hand, global inflation may slow down faster due to stronger effects of past restrictive monetary policies or faster deceleration of real wage growth, which is why central banks may start lowering their key rates faster than expected. As this would result in more favourable than expected financial conditions globally, **we judge the risks on account of global inflation as symmetric**.

At home, the risks to the projection are associated with the **speed of growth in domestic demand**, especially investment demand. On the one hand, lower than anticipated income from export demand could reflect negatively on the labour market, i.e. result in slower than expected employment and wage growth, with negative implications for domestic demand. On the other hand, **Serbia's capacity to attract FDI** could turn out to be greater than anticipated, which would lead to further growth in wages and employment. Faster than expected performance of government-financed **infrastructure projects** would work in the same direction, as would private investments, particularly those planned under the "Expo 2027" programme. With this in mind, we judge the **risks to the GDP projection on account of domestic demand to be skewed to the upside. Also, faster than anticipated domestic demand growth would add somewhat to inflationary pressures**.

Another risk to the GDP projection, particularly for the next year, is associated with how many electric vehicles will be produced in the Kragujevac plant, and what their cost and the share of domestic value added will be. Our estimates are that the contribution to GDP will be around 0.1 pp for each 10,000 vehicles. Departures are possible in both directions and will depend on the demand for these vehicles.

Further upside risks to the GDP projection come from investment in the **energy sector**, given the need to ensure energy security and a gradual transition to the green economy, as well as from **mining**.

The **agricultural season also poses a risk to the inflation and GDP projections**. We have assumed it to be below-average this year and average next year. This year's below-average agricultural season is a

consequence of extremely high temperatures and drought during this summer, the final impact of which on agricultural production is still hard to gauge. The effect of weather on the supply and prices of fruits and vegetables is important for inflation, and its impact on autumn crops for GDP. We assess that, due to the drought, there is a greater risk that fruit and vegetable prices would rise more than anticipated this year, and that yields of autumn crops would be lower. Hence, we judge the **risks to inflation on this account to be skewed to the upside, and to GDP – to the downside**. There is equal probability that the season would be above- and below-average next year. Still, we estimate that higher investment in agriculture would make the outcome of the agricultural season less dependent on climate factors.

The National Bank of Serbia will continue to follow and analyse developments in the international commodity and financial markets and **make monetary policy decisions on a meeting-to-meeting basis** depending on the results of analysis of developments at home and the pace of inflation's slowdown. Delivering price stability and preserving financial stability in the medium term will remain the monetary policy priority, as this contributes to further economic growth and development, a continued rise in employment and the preservation of a favourable investment environment.

Text box 5: Alternative projection scenarios

Considering that currently the greatest risk from the international environment to inflation and GDP projections are geopolitical tensions, affecting primarily the prices of energy and primary commodities, and from the domestic environment – the effects of this year's drought on production in agriculture and energy, in this text box we will present alternative scenarios that assume the materialisation of these risks.

In the first alternative scenario, we varied the assumptions about the movement of global prices of energy and primary agricultural commodities depending on whether geopolitical tensions will intensify further, in which case these prices would be at a higher level than in the baseline scenario, or whether they will moderate, resulting in lower prices of energy and primary agricultural commodities than in the baseline.

SORS data for H1 indicate that this year's agricultural season was weaker than last year's, and that there was a y-o-y drop in agricultural production of around 4% in that period, but given the unfavourable weather conditions during the summer, it is possible that the drop is even sharper. That is why we developed a scenario that assumes a greater effect of the drought on agriculture and energy than the baseline, and thus on GDP, inflation and balance of payments trends.

Scenario assuming different trends of global energy and primary agricultural commodity prices

Given the escalation of geopolitical conflicts in the period since our last Report, geopolitical tensions remain the key risk to our projections. The intensification of the conflict in Ukraine or the Middle East would primarily cause a rise in global prices of primary commodities, which is why in the downside scenario we assumed the prices of oil and primary agricultural commodities to be higher than in the baseline. In contrast, the upside scenario operates on the assumption that the tensions will ease going forward and that global primary commodity prices will be lower than in the baseline.

Although Brent oil price has been on a dominantly downward path since the beginning of July, primarily due to weak demand in China, which is the world's largest importer, the escalation of geopolitical tensions has led to occasional deviations. The slight increase in oil prices in early August was a consequence of the Ukraine's attack on the Kursk region in Russia, crucial for the transit of Russian gas to the EU. The price of natural gas at the Dutch TTF increased on the same grounds. By the end of Q3, the price of Brent oil retreated to around USD 73 per barrel, but regained some ground in early October under the influence of Israel's attack on Lebanon, as well as the reaction of Iran, which is an ally of the Lebanese Hezbollah. Though geopolitical relations tightened further in late October, after Israel's direct attack on Iran, this did not have a major impact on global energy prices because no energy facilities were damaged, so the price of Brent oil remained almost unchanged by the end of October, compared to the end of September.

Further escalation of the conflict in the Middle East, as well as in Ukraine, and above all attacks on energy plants, would be reflected in the growth of global energy prices, considering the export capacities of these countries, as well as their geostrategic position. In that case, the rise in energy prices would feed into higher global inflation, which would slow down the pace of monetary easing and, by extension, global economic activity. Furthermore, such a scenario would dent consumer and investor confidence, particularly in emerging and developing countries due to capital flight to advanced economies.

If the above risks materialise, we assume that the global oil price would rise to around USD 83 per barrel by the end of 2024 and then to around USD 85 per barrel by the end of 2025. Higher oil prices would push primary agricultural commodity prices up, so that at the end of 2024 they would be 0.7% higher than at the end of 2023, while in 2025 they would rise by about 5.7%. The direct effect of the increase in global primary commodity prices on inflation at home would come from the higher prices of petroleum products in the domestic market, and the indirect from increased costs in production of food and industrial products. An indirect effect on domestic inflation would also come from a surge in euro area inflation, driven by the same factors, through higher import prices. In our estimate, the consequence of such a scenario would be **a 0.3 pp higher average inflation in 2025 than envisaged by the baseline**.

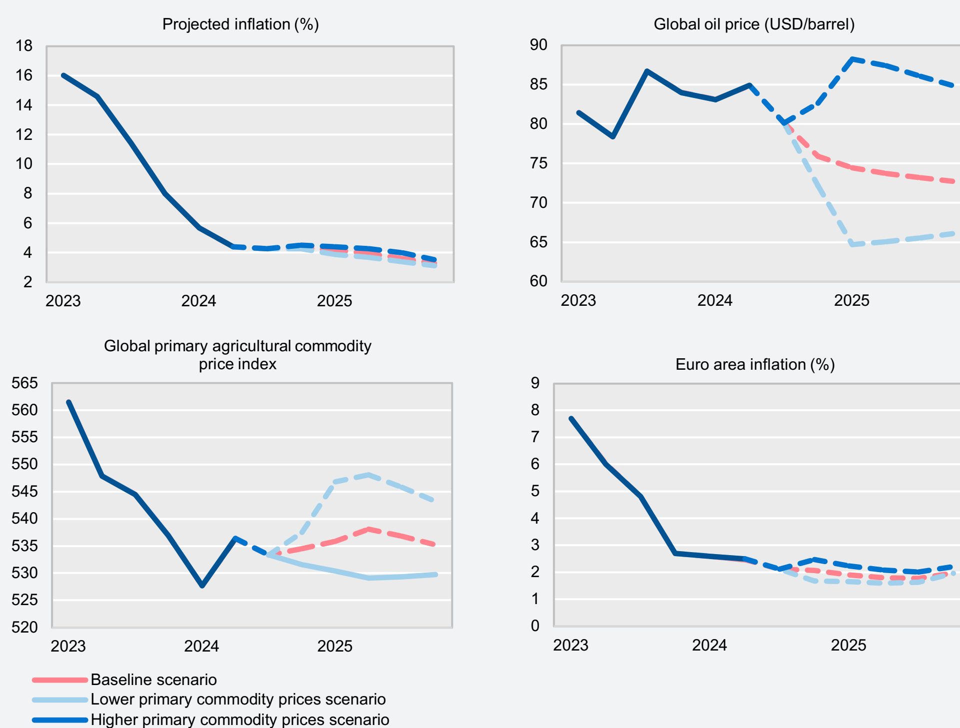
In the case of higher global prices of primary commodities, the pace of monetary easing would probably slow down, negatively impacting global economic growth and global financial conditions. Lower external demand and tighter global

financial conditions would lead to a contraction in domestic exports, and partly also in investment and consumption, and hence, imports. As a result, **Serbia's GDP growth would be around 0.2 pp lower than forecast in the baseline scenario**.

In the upside scenario, we assumed that geopolitical tensions will gradually calm down in the coming period, which would be reflected in lower global prices of primary commodities. The global oil price would in that case be around USD 72 per barrel at the end of 2024, and USD 65 per barrel at the end of 2025. At the same time, global agricultural commodity prices at end-2024 would be 5.3% lower than at end-2023, whereas in 2025 they would decline by around 1.8%. In addition, in this scenario, we assumed that inflation in the euro area will slow down faster than expected, so that it averages 2.2% in 2024 and 1.7% in 2025. In that case, **average inflation in 2025 would be lower by 0.2 pp** due to lower global prices of primary commodities and lower inflation in the euro area.

The loosening of monetary conditions to a greater extent than envisaged by the baseline scenario would affect the growth of external demand and the easing of global financial conditions, so domestic **GDP growth would be higher by about 0.2 pp in 2025**. The increase in external demand would drive exports up, while the fall in the prices of primary agricultural commodities would act in the opposite direction. Similarly, when it comes to imports, the drop in energy prices would contribute to lower energy imports, while the growth of domestic demand would have the opposite effect, so that, overall, the effects on the balance of payments would not be large.

Chart O.5.1 **Effects of alternative scenarios on inflation**



Source: NBS.

Scenario assuming a stronger negative effect of the drought on agricultural and hydropower plant electricity output

As of mid-June, we witnessed a long period of heat and scarce precipitation. The combination of unfavourable agrometeorological conditions accelerated the ripening process of spring crops, leading to the lower quality and yield of corn, sunflower and soybean, as indicated by SORS data, with the estimated yield as at 5 September (Table O.1.1).

Given the unfavourable weather conditions, there is a probability that the decline in total agricultural production in

2024 will turn out sharper than assumed in the baseline scenario (a decline of about 5%). If we assume that the effects of the drought on the agricultural season are stronger than in the baseline, i.e. if agricultural production drops by 8–10% this year, roughly the decline seen in 2022 and 2017, when we also faced drought, **the direct negative contribution to GDP would be 0.4–0.5 pp** vs. 0.2 pp envisaged by the baseline scenario. Almost to the same extent (8–10%) this year's production would be lower than the ten-year average. Lower yields due to the drought are recorded elsewhere in the region as well. Thus, for example, according to the estimates of the National Bank of Hungary, presented in the *Inflation Report – September 2024*, the decline in agricultural production this year will be between 10% and 30%, with a negative contribution to GDP in the range of 0.4–0.9 pp.

In addition to providing a negative contribution to economic activity, a sharper than expected drop in agricultural production could affect foreign trade, primarily through lower agricultural exports from Q4 this year to Q3 next year, and partly also through lower exports of the food industry, because Serbia is a net exporter of food, which would be echoed in a larger current account deficit, mainly in 2025, than assumed in the baseline scenario. On the other hand, assuming an average agricultural season, given the lower base, in 2025 agriculture would provide a greater positive contribution to GDP than in the baseline scenario.

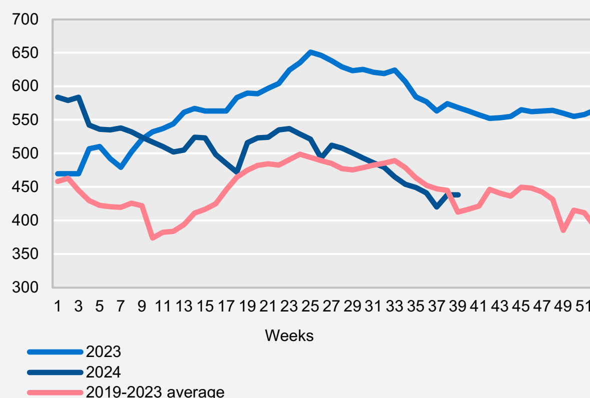
This year's drought also reflected on the lower electricity output of hydropower plants. Data on total electricity production in the nine months of 2024 show that it is lower by 7.4% y-o-y and that its negative contribution to total GDP at the level of the year will probably be higher than projected in August, although not significantly higher, because the share of energy in total GDP is only about 1.5%, and the share of electricity production from hydropower plants in total electricity production is about 30%. In addition to the drought effect, we should also bear in mind the effect of the high base from 2023, when electricity production increased by 17%. According to the Energy Agency, owing to heavy rainfall, electricity production from hydropower plants increased in 2023 by as much as 40.8%, reaching its highest level in ten years (12,526 GWh). The 56.1% drop in electricity exports in the nine months of 2024 is also largely a consequence of the high base from the same period last year, when electricity exports were about two and a half times

Table O.5.1 **Yields of selected agricultural crops, 2023–2024**
(in thousand tonnes)

	2023	2024	2024/ 2023 (%)	5Y average	10Y average
Wheat	3,448.7	2,900.5	-15.9	3,081.8	2,832.6
Corn	6,631.0	5,425.4	-18.2	6,431.7	6,392.4
Sugar beet	2,040.6	2,129.1	4.3	2,015.9	2,329.3
Sunflower	686.3	637.4	-7.1	660.6	614.5
Soybean	599.9	406.2	-32.3	598.1	567.4
Apples	3,796.9	3,892.0	2.5	4,736.3	4,443.4
Grapes	1,315.3	1,297.4	-1.4	1,547.1	1,527.6
Raspberries	986.7	940.3	-4.7	1,128.2	1,093.9
Sour cherries	1,448.5	1,368.2	-5.5	1,454.3	1,252.1

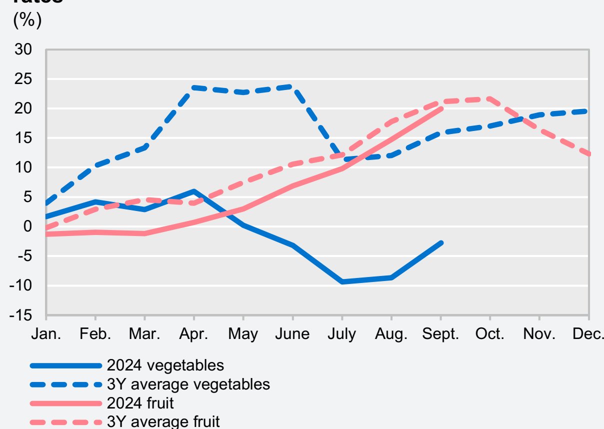
Source: SORS.

Chart O.5.2 **Serbian hydropower potential, 2023, 2024 and average for 2019-2023**
(in MWh thousand)



Source: Entsoe transparency platform.

Chart O.5.3 **Cumulative fruit and vegetable price growth rates**
(%)

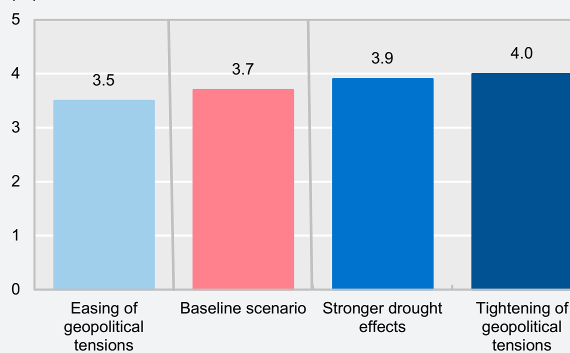


Source: NBS calculation.

higher than in 2022. At the same time, we see that electricity imports are also lower this year, so the effect on net exports is not that significant.

Operating on the assumption that the hydrometeorological situation will improve in the rest of the year, as well as that production in the energy sector will be positively affected by the restarted production at the Kostolac B3 thermal power plant, we expect that the production decline will amount to 7% for the year (with a 0.1 pp negative contribution to GDP), but it is possible that this decline will be somewhat sharper, and thus its negative effect on GDP (by 0.1 pp at most). Due to the lower net electricity exports, the current account deficit would also widen more than envisaged by the baseline scenario.

Chart O.5.4 **Average inflation in 2025 under different alternative scenario assumptions**



Source: NBS.

When it comes to the drought effects on inflation at home, they primarily relate to the movement of fruit and vegetable prices, while the prices of domestic primary agricultural products, which are an important cost in the production of other food, mainly follow the movement of their global counterparts, given that they are stock commodities. In the conditions of reduced supply due to the drought effects, the prices of fruit and vegetables could increase more intensively in Q4 this year and Q1 next year than assumed in the baseline.

In the year so far, fruit prices climbed by around 20%, which corresponds to the multi-year average outturns. As a rule, under the influence of the new crop of citrus fruits, the last quarter of the year brings lower prices of fruit as a whole. As this is also the assumption of our current short-term projection, at the level of the year fruit prices should record an increase of 10–11%, adding approximately 0.2 pp to inflation. Vegetable prices have, on average, been below last year's level for most of the year, and cumulatively, since the beginning of the year, they have recorded lower growth compared to outturns in the previous three years. In September, however, the drought effect kicked in and vegetable prices went up by 6.5%, preventing the expected monthly inflation decline. In view of this, the baseline scenario assumes vegetable price growth in Q4 to be higher than the multi-year average outturns, which is why vegetable prices should give a positive contribution to inflation at the end of the year (0.2 pp) instead of the negative, which we expected in the August Report, but it is possible that this growth and contribution to inflation could be somewhat higher (0.3 pp).

Overall, the fruit and vegetables group should maintain a similar contribution to inflation until the onset of the next agricultural season, when it should decrease, assuming an average season. A stronger than assumed rise in fruit and vegetable prices would push **average inflation in 2025 up by about 0.2 pp from the baseline level**.

To sum up, we estimate that even in the case of downside scenarios (higher global prices of energy and primary commodities and stronger drought effects), inflation should move around the upper bound of the target band.

Table A
Indicators of Serbia's external position

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Q1 2024	Q2 2024	Q3 2024
EXTERNAL LIQUIDITY INDICATORS (in %)																	
FX reserves/imports of goods and services (in months)	8.4	8.8	7.7	7.6	6.6	6.7	6.2	5.4	5.4	5.7	6.1	5.9	5.2	6.7	6.7	7.2	7.2
FX reserves/short-term debt	191.2	299.9	237.3	268.6	294.0	256.4	234.0	202.1	210.9	275.6	228.1	249.6	244.7	301.3	322.8	347.0	
FX reserves /GDP	30.5	32.7	31.1	29.5	26.8	27.9	26.7	24.4	25.2	27.8	27.5	29.4	30.6	33.1			
Debt repayment/GDP	10.9	11.3	11.8	12.1	12.8	10.6	11.8	10.5	10.8	9.5	5.5	8.7	9.1	9.0			
Debt repayment/exports of goods and services	37.5	37.3	36.0	33.0	32.7	25.2	25.9	22.2	22.9	19.7	12.2	17.0	15.3	16.4	21.0	18.3	
EXTERNAL SOLVENCY INDICATORS (in %)																	
External debt/GDP	71.6	65.4	73.1	67.5	69.4	70.5	69.4	62.5	59.6	58.7	62.8	65.2	66.0	60.4			
Short-term debt/GDP	15.9	10.9	13.1	11.0	9.1	10.9	11.4	12.1	11.9	10.1	12.1	11.8	12.5	11.0			
External debt/exports of goods and services	247.1	216.5	223.6	184.0	177.7	166.8	152.4	132.2	126.0	121.0	138.2	126.6	110.2	110.7	110.7	114.9	
FINANCIAL RISK EXPOSURE INDICATORS (in %)																	
FX reserves/M1	416.6	429.6	402.1	330.4	278.1	250.2	207.3	176.2	168.0	174.1	130.0	138.1	158.7	166.6	171.3	179.1	183.4
FX reserves/reserve money	196.4	207.6	197.9	199.9	196.6	193.7	196.6	185.0	171.4	194.1	157.1	180.0	180.2	201.0	214.7	221.5	231.5
OPENNESS OF ECONOMY (EXPORTS + IMPORTS)/GDP	72.3	75.0	81.1	83.5	87.9	92.3	96.9	102.0	103.8	106.7	99.2	111.3	130.8	113.8			
MEMORANDUM: (in EUR million)																	
GDP[1]	32,841	36,865	35,074	37,978	37,014	37,220	38,165	40,828	44,711	48,105	49,024	55,931	63,501	75,204			
External debt	23,509	24,123	25,645	25,644	25,679	26,234	26,494	25,526	26,662	28,254	30,787	36,488	41,895	45,391	45,653	48,088	
External debt servicing	3,564	4,154	4,130	4,595	4,728	3,960	4,508	4,285	4,849	4,592	2,710	4,886	5,801	6,735	2,150	1,981	
Central bank foreign exchange reserves	10,002	12,058	10,915	11,189	9,907	10,378	10,205	9,962	11,262	13,378	13,492	16,455	19,416	24,909	24,942	27,507	28,280
Short-term debt[2]	1,758	612	455	196	99	303	672	844	1,401	1,925	1,585	1,612	2,405	742	684	947	
Current account balance	-2,037	-3,656	-3,671	-2,098	-1,985	-1,234	-1,075	-2,051	-2,076	-3,161	-1,929	-2,266	-4,162	-1,804	-334	-799	-2,168

CREDIT RATING (change of rating and outlook)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2024
	Nov	March	Aug	July	Jan	Dec	Jan/March/ June/Dec	March/ Dec	Dec	Sept/Dec	May	March/ Dec	June	Aug/Oct
S&P		BB /stable	BB- /negative				BB- /positive	BB /stable	BB /positive	BB+ /positive	BB+ /stable	BB+ /positive	BB+ /stable	BBB- /stable
Fitch	BB- /stable		BB- /negative		B+ /stable	B+ /positive	BB-/stable	BB /stable		BB+ /stable				BB+ /positive
Moody's				B1 /stable			B1 /positive	Ba3 /stable		Ba3 /positive		Ba2 /stable		Ba2 positive

Methodological notes:

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

[1] According to ESA 2010.

[2] At original maturity.

Notes:

1. SORS revised GDP data for the period 1995-2023, which led to a change in the share of macroeconomic indicators in GDP.
2. Data are subject to corrections in line with the official data sources.
3. Starting from 2007 data on exports and imports of goods and services are shown in accordance with BPM6. Data for 2005 and 2006 are shown according to previous methodology.
4. Starting from 2007 the general trade system of registration of exports and imports of goods is applied. This is a broader concept and includes all goods entering/exiting country's economic territory, apart from goods in transit. Data for 2005 and 2006 are disseminated using the special trade system.
5. External debt servicing does not include advance debt repayments.

Table B

Key macroeconomic indicators

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Q1 2024	Q2 2024	Q3 2024
Real GDP growth (in %)[1]	1.6	0.1	-0.4	0.5	-1.8	1.3	3.0	2.4	4.6	4.8	-1.0	7.9	2.6	3.8	4.6	4.0	3.1
Consumer prices (in %, relative to the same month a year earlier)[2]	10.3	7.0	12.2	2.2	1.7	1.5	1.6	3.0	2.0	1.9	1.3	7.9	15.1	7.6	5.0	3.8	4.2
NBS foreign exchange reserves (in EUR million)	10,002	12,058	10,915	11,189	9,907	10,378	10,205	9,962	11,262	13,378	13,492	16,455	19,416	24,909	24,942	27,507	28,280
Exports (in EUR million)[3]	9,515	11,145	11,469	13,937	14,451	15,728	17,385	19,312	21,166	23,349	22,271	28,818	38,004	41,018	10,251	10,846	10,685
- growth rate in % compared to a year earlier	18.3	17.1	2.9	21.5	3.7	8.8	10.5	11.1	9.6	10.3	-4.6	29.4	31.9	7.9	2.1	6.0	4.8
Imports (in EUR million)[3]	14,244	16,487	16,992	17,782	18,096	18,643	19,597	22,343	25,257	27,960	26,370	33,439	45,054	44,543	11,134	11,889	12,547
- growth rate in % compared to a year earlier	8.7	15.7	3.1	4.7	1.8	3.0	5.1	14.0	13.0	10.7	-5.7	26.8	34.7	-1.1	1.5	8.4	15.7
Current account balance[3] (in EUR million)	-2,037	-3,656	-3,671	-2,098	-1,985	-1,234	-1,075	-2,051	-2,076	-3,161	-1,929	-2,266	-4,162	-1,804	-334	-799	-2,168
as % of GDP	-6.2	-9.9	-10.5	-5.5	-5.4	-3.3	-2.8	-5.0	-4.6	-6.6	-3.9	-4.1	-6.6	-2.4			
Unemployment according to the Survey (in %)[6]		24.9	25.9	24.0	20.6	18.9	16.4	14.5	13.7	11.3	9.7	11.1	9.5	9.4	9.4	8.2	
Wages (average for the period, in EUR)[7]	331.8	372.5	366.1	388.5	379.8	367.9	374.5	394.5	419.8	466.0	510.9	560.2	637.9	733.5	816.0	832.8	830.8
RS budget deficit / surplus (in % of GDP)[4]	-3.0	-3.6	-5.4	-4.7	-5.7	-2.6	-0.2	0.7	0.6	0.2	-8.0	-4.4	-3.2	-2.0			
Consolidated fiscal result (in % of GDP)[4]	-4.2	-4.3	-6.2	-4.9	-5.9	-3.3	-1.1	1.1	0.6	-0.2	-7.7	-3.9	-3.0	-2.1			
RS public debt, (central government, in % of GDP)[8]	37.9	41.2	50.8	53.7	63.4	67.2	65.2	55.5	51.4	49.7	54.4	53.9	52.4	48.0	44.3	46.5	46.5
RSD/USD exchange rate (period average)	77.91	73.34	88.12	85.17	88.54	108.85	111.29	107.50	100.28	105.28	103.03	99.49	111.86	108.41	107.89	108.72	106.56
RSD/USD exchange rate (end of period)	79.28	80.87	86.18	83.13	99.46	111.25	117.14	99.12	103.39	104.92	95.66	103.93	110.15	105.87	108.69	109.52	104.87
RSD/EUR exchange rate (period average)	103.04	101.95	113.13	113.14	117.31	120.73	123.12	121.34	118.27	117.85	117.58	117.57	117.46	117.25	117.19	117.11	117.04
RSD/EUR exchange rate (end of period)	105.50	104.64	113.72	114.64	120.96	121.63	123.47	118.47	118.19	117.59	117.58	117.58	117.32	117.17	117.14	117.05	117.08
MEMORANDUM:																	
GDP (in EUR million)[5]	32,841	36,865	35,074	37,978	37,014	37,220	38,165	40,828	44,711	48,105	49,024	55,931	63,501	75,204			

[1] At constant prices of previous year. Data for Q3 2024 is SORS flash estimate.

[2] Retail prices until 2006.

[3] Starting from 2007 data on balance of payments (current account, exports and imports of goods and services) are shown in accordance with BPM6. Data for 2005 and 2006 are shown according to the previous methodology. Due to the break in the series for 2007, exports and imports growth rates are not shown. Starting 2007 the general trade system of registration of exports and imports is applied. This is a broader concept and includes all goods entering/exiting country's economic territory, apart from goods in transit. Data for 2005 and 2006 are disseminated using the special trade system.

[4] Includes below-the-line items (payment of called guarantees, bank recapitalisations and debt takeover) in line with IMF methodology, as of 2008 on RS budget level and as of 2005 on consolidated level.

[5] According to ESA 2010.

[6] Revised data from 2011 (two revisions were carried out - a revision due to the improvement of the methodology and a post-census revision).

[7] Until 2018, wages are shown according to the old methodology. Since 2018, wages are shown according to the new methodology and data are based on Tax Administration evidence. For conversion of wages from RSD to EUR, we used the average of the period RSD/EUR exchange rate. Data for Q3 2024 is the average of two months.

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

Notes:

1. SORS revised GDP data for the period 1995-2023, which led to a change in the share of macroeconomic indicators in GDP.
2. Data are subject to corrections in line with official data sources.
3. Source for the data on unemployment: Labour Force Survey, Statistical Office.
4. Source for public debt: MoF.

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Executive Board meetings and changes in the key policy rate

2023

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

2024

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

Press releases from NBS Executive Board meetings

Press release from Executive Board meeting held on 12 September 2024

At its meeting today, the NBS Executive Board voted for further monetary easing, cutting the key policy rate by 25 bp to 5.75%. The rates on deposit and lending facilities were also lowered – to 4.5% and 7%, respectively.

The Board was guided by the fact that inflation has been hovering within the target tolerance band (3±1.5%) since May, is likely to stay there until the end of the projection horizon and decline further towards the midpoint. Taking into account the actual and expected movement of key inflation factors, notably further alleviation of global inflationary pressures and the disinflationary effect of restrictive monetary measures so far, the Board concluded that conditions are in place to proceed with monetary easing by cutting the key policy rate. As assessed by the Board, monetary policy remains tight despite the initiated easing. Looking ahead, the NBS will maintain a cautious approach to monetary policy relaxation and will base its decisions on the incoming inflation and macroeconomic data.

Though somewhat more gradual than initially expected, global inflation continued to slow on the back of both supply- and demand-side factors. On the supply side, the previously trimmed prices of energy and food, as well as the better functioning of global supply chains acted as a drag on inflation. On the demand side, the interest rates of leading central banks are still having a disinflationary effect, and, in real terms, they will remain elevated for a while longer. The Executive Board was aware of the predictions by relevant institutions as to the downward trend in global oil price movements going forward, thanks to the better oil supply in the market by the OPEC+ countries, as well as slower growth in oil demand.

Inflation in Serbia is within the bounds of the target tolerance band (3±1.5%) and on the path consistent with the NBS projection. In July, y-o-y inflation equalled 4.3%, while monthly inflation measured 0.4%, equalling the average monthly outturns since the start of the year. Inflation growth in July is also partly attributable to international movements, and the monthly inflation dynamics was marked by hikes in the prices of certain categories of processed food – bread, coffee and confectionery, as they reflected the increased prices of their counterparts in the global market or of raw materials in production, as well as growth in the prices of services. Going forward, inflation should continue to move within the bounds of the target tolerance band, slowing down to around 4% at year end, only to gradually come close to the 3% target midpoint during the next year. This will mostly be facilitated by the still tight monetary conditions, lower imported inflation and inflation expectations, as well as the anticipated fall in global oil prices in line with futures. The "Best Price" campaign, scheduled to unfold until end-October and aimed at preserving citizens' living standard, should also work towards driving inflation down.

In making monetary policy decisions, the Executive Board took account of the fact that Serbia's economic growth is supported by declining inflation, real wage growth and falling unemployment (to an all-time low of 8.2% in Q2, according to the Labour Force Survey), current investment cycle and the improvement of credit conditions resulting from monetary policy easing. GDP growth measured 4.3% y-o-y in H1 2024, guided by domestic demand, with the largest contribution coming from household consumption and gross fixed investment. On the production side, economic growth was mostly supported by the service sectors, particularly trade, as well as by construction and manufacturing. Though the results of this year's agricultural production will probably be poorer than anticipated due to the summer drought, in our estimate this will not reflect on our annual GDP growth projection of 3.8% as trends in other sectors remain favourable.

The NBS Executive Board will continue to follow closely and analyse developments in the domestic and international market and make monetary policy decisions on a meeting-to-meeting basis depending on the assessment of incoming data, the outlook for inflation and its key factors, and the effects of past monetary policy measures. In making decisions, the Board will remain mindful of the preservation of financial stability and favourable growth prospects.

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

Press release from Executive Board meeting held on 10 October 2024

At its meeting today, the NBS Executive Board voted to keep the key policy rate at 5.75%, as well as the rates on deposit and lending facilities: 4.5% and 7.0%, respectively.

In making the decision, the Board highlighted that the key policy rate has been cut by 75 bp in total since June and that the effects of past monetary policy easing will play out in the coming period as well. As noted by the Board, although inflation has returned within the target tolerance band and continues to move therein, monetary policy caution by the NBS is mandated by the unpredictability of macroeconomic developments in the international environment and mounting geopolitical risks, including their impact on the global prices of energy and other primary commodities. The global crude oil price hikes so far have been contained owing primarily to ample supply and substantial inventories. However, there is pronounced concern over the potential detrimental impact of further escalation of the Middle East conflict on oil flows from this key export region, which may fuel global oil prices in the period to come. This may reflect on global inflation, the pace of monetary easing by leading central banks and global financial conditions.

On the other hand, the Executive Board expects that Serbia's investment grade granted by Standard & Poor's will contribute to a lower country risk premium and more favourable financing conditions. This will support a further rise in income available for investment and consumption, and, by extension, economic growth. Monetary policy caution is also needed in view of this year's agricultural season at home, which was affected by unfavourable weather and drought over summer months, reflecting on the subdued supply of agricultural commodities and their higher prices.

Inflation in Serbia is within the target band (3±1.5%) and on a path consistent with the NBS projection. In August, as well as in July, y-o-y inflation measured 4.3% and monthly 0.4%, in line with the average monthly outturns since the beginning of the year. The monthly inflation dynamics in August was marked by the rise in food and non-alcoholic beverage prices (0.9%) and the adjustment of some administered prices, while the prices of petroleum products declined (3.4%), following in the footsteps of global oil prices. In the coming period inflation should continue to move within the target band, slowing until the end of the year to around 4% and gradually converging to the 3% midpoint in the course of 2025. Such inflation profile will be underpinned primarily by the still restrictive monetary conditions, lower imported inflation and inflation expectations.

In its monetary policy decision-making, the Executive Board had in mind that real sector indicators continued recording positive trends in Q3, supported by disinflation, real wage growth and unemployment cuts, as well as by the ongoing investment cycle. Economic growth is also supported by lending activity, which stepped up in August to 5.9% y-o-y, owing to a more favourable price of borrowing amid expected and then initiated monetary policy easing by the NBS and ECB.

The NBS Executive Board will continue to follow closely and analyse developments in the domestic and international market and make monetary policy decisions on a meeting-to-meeting basis depending on the assessment of incoming data, the outlook for inflation and its key factors, and the effects of past monetary policy measures. In making decisions, the Board will remain mindful of the preservation of financial stability and favourable growth prospects.

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

Press release from Executive Board meeting held on 7 November 2024

At its meeting today, the NBS Executive Board voted to keep the key policy rate at 5.75%, as well as the rates on deposit and lending facilities: 4.5% and 7.0%, respectively.

In making the decision, the Board highlighted that the key policy rate has been cut by 75 bp in total since June and that the effects of past monetary policy easing will play out in the coming period as well. As underscored by the Board, although inflation has returned within the target tolerance band (3±1.5%) and continues to move therein, it is necessary to continue to pursue a cautious and restrictive monetary policy given somewhat greater resilience of inflationary pressures – notably core inflation, and in light of the unpredictable developments in the international environment, mounting geopolitical risks and their impact on global prices of energy and other primary commodities, including other macroeconomic indicators. In the past two months, the crude oil price moved between USD 70 and 80 per barrel, mainly under the impact of developments in the Middle East, while any significant increase in the global oil price was contained

by solid oil inventories globally and the expected weakening of demand. Still, concerns remain that the escalation of the Middle East conflict may disrupt oil flows from this key export region and push up global oil prices going forward. This may reflect on global inflation and the pace of monetary easing by central banks, as well as financing conditions in the international market.

Inflation in Serbia is within the bounds of the target tolerance band, slowing down to 4.2% y-o-y in September. Its movements are in line with the trajectory projected by the NBS, though vegetable and fruit price growth was higher than expected due to the drought; however, this was offset by the fall in the prices of petroleum products amid the previously contracted global oil price. As in countries of the region, core inflation is higher than headline, equalling slightly above 5.0% y-o-y. Going forward, inflation should remain within the target tolerance band, mostly owing to the still tight monetary conditions, lower imported inflation and inflation expectations. Still, the Executive Board stressed that a cautious monetary policy is mandated by the subdued supply of agricultural products in the domestic market due to adverse weather conditions and the summer drought.

When making monetary policy decisions, the Executive Board was aware of the fact that real sector indicators continue to post positive trends. According to SORS flash estimates, real y-o-y GDP growth in Q3 equalled 3.1%. Positive developments in the real sector were propped by lower inflation, real wage growth and decreased unemployment, as well as the ongoing investment cycle. Economic growth is unfolding on the back of lending activity growth, which picked up to 6.6% y-o-y in September thanks to more favourable interest rates amid monetary policy accommodation by the NBS and the ECB. After the October cuts, market participants expect the ECB to trim its interest rates further in the December meeting, and similar market expectations prevail with regard to today's Fed meeting as well.

The Executive Board also took account of the fact that the improvement in Serbia's credit rating to investment grade by Standard & Poor's will contribute to a lower country risk premium and more favourable financing conditions, supporting a further rise in income disposable for investment and consumption and, by extension, to economic growth.

The NBS Executive Board will continue to follow closely and analyse developments in the domestic and international markets and make monetary policy decisions on a meeting-to-meeting basis depending on the assessment of incoming data, the outlook for inflation and its key factors, and the effects of past monetary policy measures. In making its decisions, the Board will remain mindful of the preservation of financial stability and favourable growth prospects.

At today's meeting, the Executive Board adopted the November Inflation Report with the latest macroeconomic projections that will be presented to the public in more detail at the press conference on 13 November, along with additional explanations of monetary policy decisions.

The next rate-setting meeting will take place on 12 December.

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