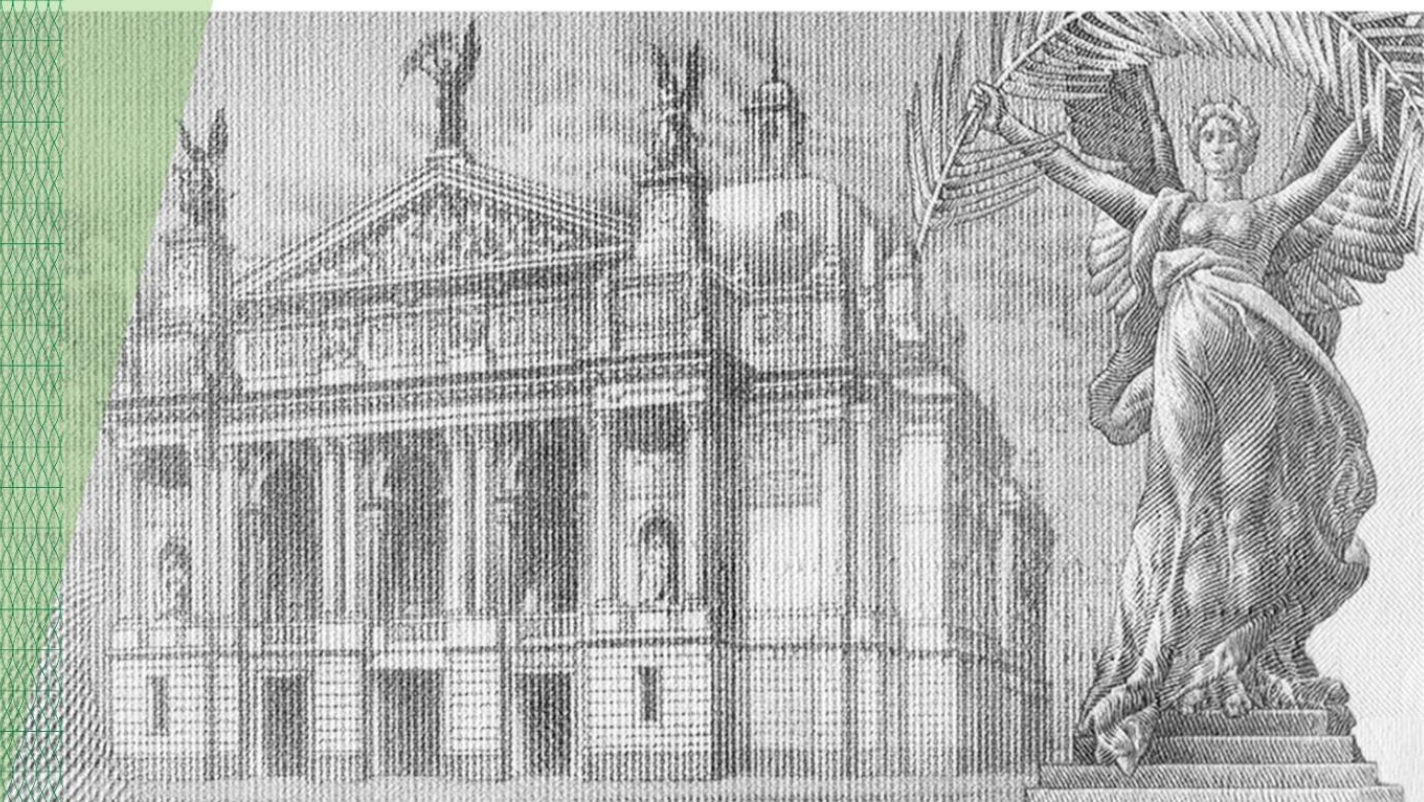
National Bank of Ukraine

Inflation Report

October 2024



Despite the full-scale war's challenges, the NBU remains committed to its mandate to ensure price and financial stability – the key to achieving sustainable economic recovery. At the current stage, these goals are being achieved by a coordinated combination of interest-rate-policy and exchange-rate-policy instruments, as well as FX restrictions in accordance with the *Monetary Policy Guidelines for the Medium Term* and the *Strategy for Easing FX Restrictions, Transitioning to Greater Flexibility of the Exchange Rate, and Returning to Inflation Targeting*.

In particular, monetary policy aims to bring inflation, measured by the year-on-year change in the CPI, to its target of 5% over the relevant policy horizon which length does not exceed three years. The flexibility of the current monetary regime allows moderate and relatively short-term deviations of inflation from its quantitative target due to domestic and external factors beyond the effective reach of the NBU's monetary policy. On the one hand, such approach helps the Ukrainian economy adapt to shocks and supports its recovery, and, on the other hand, allows keeping inflation expectations under control.

The NBU is taking steps to strengthen the effectiveness of monetary transmission channels and to continue to revive the key policy rate's performance as the monetary instrument. Changes in the key policy rate and adjustments to the operational framework of interest rate policy take into account significant shifts in the balance of risks, and are primarily aimed at maintaining the sustainability of the FX market and ensuring price and financial stability.

Considering the principles of managed flexibility of the exchange rate, the NBU maintains an active presence in the FX market and compensates for the structural shortage of foreign currency in the private sector to ensure that the exchange rate fluctuates moderately in both directions as market conditions change. Coupled with smoothing out excessive exchange rate volatility, this contributes to keeping inflation and exchange-rate expectations in check, maintaining confidence in the hryvnia, and bringing inflation to the target of 5%. Concurrently, exchange rate flexibility makes it possible to fortify the Ukrainian economy's and the FX market's resilience to domestic and external shocks and reduces the risk of accumulation of external trade imbalances.

Aware of the urgent need to minimize FX market distortions, improve the conditions for doing business in Ukraine and for entry of domestic businesses into new markets, support the economy's recovery, and promote new investment inflows into the country, the NBU is gradually easing the FX restrictions as appropriate prerequisites are met.

The NBU plans to use flexible inflation targeting until the economy's functioning normalizes and inflation targeting is restored to its full format with a floating exchange rate.

The analysis in the current Inflation Report (October 2024) is based on the data available at the date of its preparation. Thus, the time horizon of the analysis may vary for some indicators. For the majority of indicators, the cut-off date for the data in this report is 30 October 2024. The Inflation Report presents a forecast for the country's economic development in 2024–2026 that was prepared by the Monetary Policy and Economic Analysis Department and approved by the NBU Board at its monetary policy meeting on 31 October 2024[1].

The NBU Board makes decisions on the key policy rate and other monetary instruments in line with the schedule published in advance. The decisions the NBU Board makes in January, April, July, and October are based on a new macroeconomic forecast. At the remaining four meetings (in March, June, September, and December), the NBU Board makes its decisions based on assessments of risks and uncertainty that take into account the economic developments in Ukraine and abroad since the latest forecast. The decisions are announced at a press briefing held at 2 p.m., after the NBU Board's monetary policy meeting. A press release that reflects the NBU Board's consensus perspective on its decisions is published at the same time. The summary of the discussion at the Monetary Policy Committee is published on the 11th day after the decision is taken. The summary shows the depersonalized opinions of all MPC members on the optimal monetary policy decisions to be made. It includes differences of opinion and the reasoning behind them.

Previous issues and presentations of the Inflation Report, the forecast of the main macroeconomic indicators, and data in tables and figures are available here.

[1] NBU Board decision No. 392 *On Approval of the Inflation Report* dated 31 October 2024.

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Summary

The baseline scenario of the NBU's macroeconomic forecast assumes that Ukraine will continue to conduct prudent monetary and fiscal policies aiming at maintaining macrofinancial stability and will consistently meet its commitments under programs with international partners, which will keep providing sufficient financial support. The NBU assumes that conditions in which the economy operates will gradually normalize over the forecast horizon. This will take the form of the full unblocking of sea ports, the expansion of opportunities for investment and economic activity, and the gradual return of forced migrants to Ukraine.

As expected, inflation has increased in recent months. However, the pace of the increase was somewhat faster than forecast

In September, inflation accelerated to 8.6% yoy. It rose in October as well, according to the NBU's estimates. The increase in the price pressure in H2 2024 was expected, being reflected in the NBU's previous forecasts (Inflation Reports of January, April, and July 2024). At the same time, the growth in both consumer and core inflation (7.3% yoy in September) was faster than forecast.

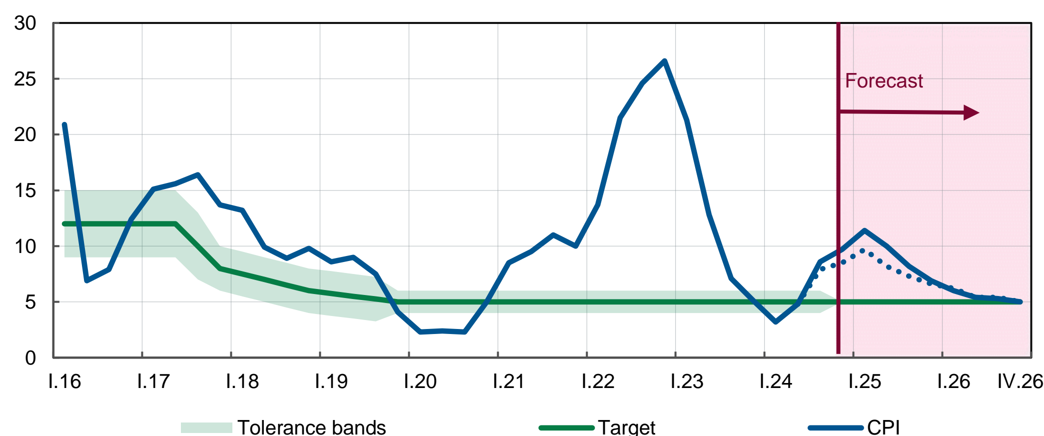
An important contribution to these dynamics came from an increase in food prices on the back of smaller-than-expected harvests of various crops, and from the related growth in the cost of food industry inputs. The rise in inflation was also driven by further increases in production costs, including the costs of electricity and labor, as well as by exchange rate effects from the weakening of the hryvnia in previous periods.

Despite the acceleration of inflation in recent months, economic agents' inflation expectations remained sufficiently stable and manageable, albeit worsening marginally.

The pressure on prices will persist in the coming months, but inflation will start to slow in spring 2025

In the coming months, the pressure on prices will persist due to the further impact of food supply factors, increases in budget expenditures, rapid wage growth, and wider energy shortages during the heating season. As a result, inflation will hit 9.7% at the end of 2024.

Figure 1.[2] **CPI change (end of period, % yoy) and inflation targets**



Source: SSSU, NBU staff estimates.

That said, inflation will start to decline in spring 2025. A deceleration in the price growth next year will be driven by the NBU's prudent monetary policy and weaker external price pressures, as well as by an improvement in the energy sector and an increase in

2 Unless specified otherwise, a dashed line in the figures indicates the previous forecast.

harvests. The NBU forecasts inflation to decline to 6.9% at the end of 2025 and return to the 5% target in 2026.

The economy continues to grow, although the growth remains limited due to the war

The waves of russia's attacks on the energy infrastructure, an increase in migration, and labor shortages slowed the economic recovery. However, real GDP kept growing, in both Q2 and Q3 2024. That said, smaller shortages of electricity and somewhat larger harvests of early grain crops enabled the NBU to revise its forecast for real GDP growth in 2024 upward, to 4%.

Significant budget stimuli, backed by large volumes of international financing, rising household income, growing outputs in crop farming, and sustained external demand will support further growth in the Ukrainian economy, at 4.3%–4.6% in 2025–2026.

The uncertainty about volumes of international assistance decreased. Sufficient inflows of external support will allow the government to continue financing large budget expenditures and enable the NBU to maintain the sustainability of the FX market

In October, the IMF disbursed another tranche to Ukraine in the amount of USD 1.1 billion as a result of the fifth review of the Extended Fund Facility (EFF). Around USD 300 million of concessional financing came from Canada. By the end of the year, Ukraine is expected to receive more than USD 15 billion, of which USD 4.8 billion under the World Bank's SPUR program supported by financing from the United States. In addition, considerable progress was made in confirming future volumes of assistance. International partners came much closer to the disbursement to Ukraine of a non-repayable loan secured by proceeds from frozen russian assets, to the total amount of USD 50 billion as part of the Extraordinary Revenue Acceleration (ERA) Loans.

Therefore, international support for Ukraine will remain significant. Taking into account the expected inflows, the NBU has improved its assumptions about external financial support for 2024–2026. The total amount of international financing is expected to reach USD
41.5 billion this year and USD 38.4 billion next year. The continued external support, together with sufficient volumes of borrowing from the domestic market, will enable the government to keep covering the large budget deficit without resorting to monetary financing.

In order to bring inflation back to its target over the coming years, the NBU is keeping the key policy rate at 13%, while maintaining an active presence on the FX market

Given that inflation has not yet peaked, and that upside risks to inflation have even increased for the coming months, the NBU believes it appropriate to remain cautious while conducting its interest rate policy, and to take prudent measures to safeguard the sustainability of the FX market.

To counteract price pressures, the NBU suspended its easing cycle of interest rate policy starting from July. This has supported interest in hryvnia savings, the interest rates of which currently provide adequate protection against inflationary depreciation. In particular, the inflow of households' hryvnia term deposits resumed in the autumn, and investments in hryvnia-denominated domestic government debt securities continued to grow.

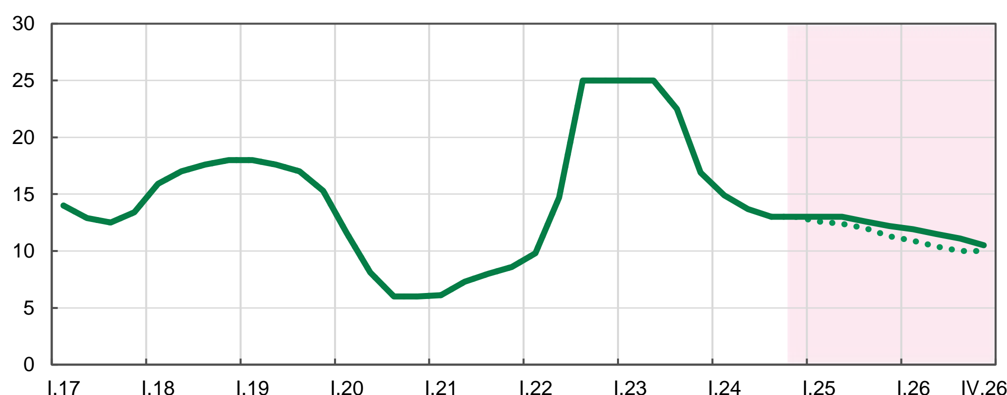
The policy of protecting hryvnia savings from being eroded away by inflation will continue to help limit pressures on the FX market and preserve international reserves. Using the regime of the managed flexibility of the exchange rate, the NBU will compensate for the structural deficit of foreign currency in the private sector and smooth out excessive exchange rate fluctuations. The exchange rate will fluctuate moderately in both directions in response to changing market conditions, which will further strengthen the adaptability of the FX market and the economy. Exchange rate movements will be in line with the NBU's objectives of keeping inflation expectations

under control, slowing inflation next year, and returning it to its 5% target over the policy horizon.

If upside risks to inflation continue to materialize, the NBU stands ready to deploy all available monetary policy tools

The revised NBU forecast envisages keeping the key policy rate at 13% for a longer period – at least until the summer of 2025. In the event that price pressures continue to rise above the forecast and threaten to unanchor inflation expectations, the NBU will stand ready to tighten its interest rate policy and apply additional monetary measures.

Figure 2. **Key policy rate, quarter average**



Source: NBU staff estimates.

The course of the full-scale war continues to be the key risk to inflation dynamics and economic development

Due to the war, the risks of a further decline in economic potential remain, in particular due to the loss of people, territories, and production facilities. The speed of the economy's return to normal functioning conditions will depend on the nature and duration of the war.

What is more, russian aggression continues to generate the following risks:

- the emergence of additional budget needs, mainly those to maintain defense capabilities
- the likelihood of an additional hike in taxes, which – depending on its parameters – might drive up pressures on prices
- further damage to infrastructure, especially energy and port infrastructure, which will restrain economic activity and put supply-side pressures on prices
- a deepening of adverse migration trends and a further widening of labor shortages on the domestic labor market.

There is also a risk of increased geopolitical tensions in the world amid the war in the Middle East, the electoral cycles in a number of countries, and russia's attempts to form a coalition of states to confront the democratic world.

At the same time, a number of positive scenarios might materialize, resulting from further acceleration of European integration processes and recovery in the energy sector.

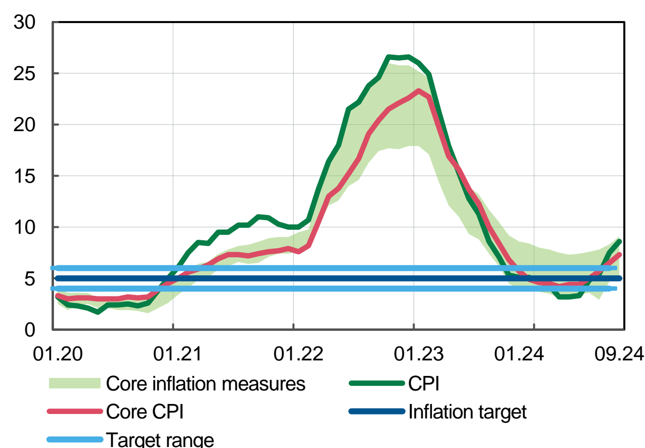
Part 1. Inflation Developments

- In Q3 2024, consumer price growth accelerated to 8.6% yoy, while core CPI growth rose to 7.3% yoy. This acceleration in inflation had been expected, but inflationary pressures increased more than previously forecast due to a more significant pass-through to prices of production costs, including the costs of food production inputs, labor, and electricity.
- Price pressures will persist in the coming months, driven by a lower supply of some food products compared to last year, an expansion of aggregate demand, fueled by significant budget spending, a further exacerbation of mismatches in the labor market, and power shortages during the heating season. As a result, consumer inflation will hit 9.7% as of the end of 2024 and remain high in H1 2025.
- Next spring, inflation will start declining and will reach its 5% target in 2026 due to the NBU's interest rate and exchange rate policies, the easing of external price pressures, the improvement of the situation in the energy sector, and higher harvests.

After a temporary surge, inflation will decline toward the 5% target starting next spring as a result of the NBU's monetary policy, an increase in food supply, and lower external price pressures

As anticipated, consumer inflation has been rising in recent months: in September, it accelerated to 8.6% yoy (compared to 4.8% yoy in June). However, this rate of inflation was higher than the NBU had forecast in its July 2024 Inflation Report. In particular, underlying price pressures, as measured by core inflation, intensified by more than expected (to 7.3% yoy from 5.0% yoy in June). Food inflation also continued to rise rapidly, driven by a limited supply of certain food products due to unfavorable weather conditions.

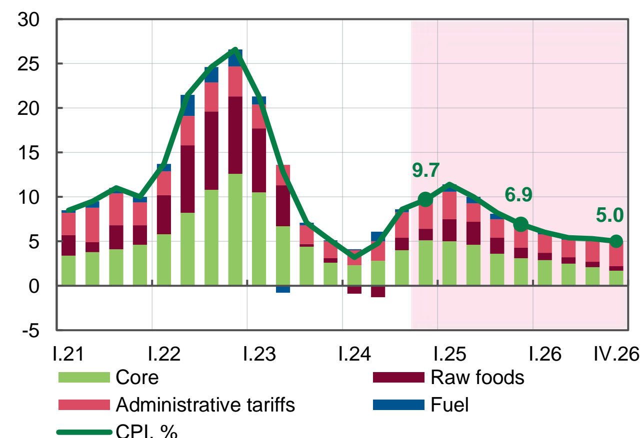
Figure 1.1. Consumer inflation and underlying inflation trends*, % yoy



* Read more in the January 2017 Inflation Report (pages 20–21). The target range remained in effect until August 2024 inclusive.

Source: SSSU, NBU staff estimates.

Figure 1.2. Contributions to annual CPI growth by main components at the end of period, pp



Source: SSSU, NBU staff estimates.

The NBU estimates that core inflation will continue to accelerate in late 2024 and early 2025, and will make a decisive contribution to the growth of headline inflation to 9.7% at the end of 2024. Food inflation will continue to rise over the same period. In the medium term, the growth in administered prices will accelerate due to the need to bring tariffs to the level of production costs and due to increases in excise taxes. Therefore, to achieve the 5% target for headline inflation in the medium term, monetary policy should aim to keep other CPI components, especially core inflation, at around 3%–4%.

Under the influence of monetary policy measures aimed at curbing underlying price pressures, and against the backdrop of rising food supply and lower inflation in Ukraine's main trading partners (MTPs), consumer inflation will slow to 6.9% at the end of 2025.

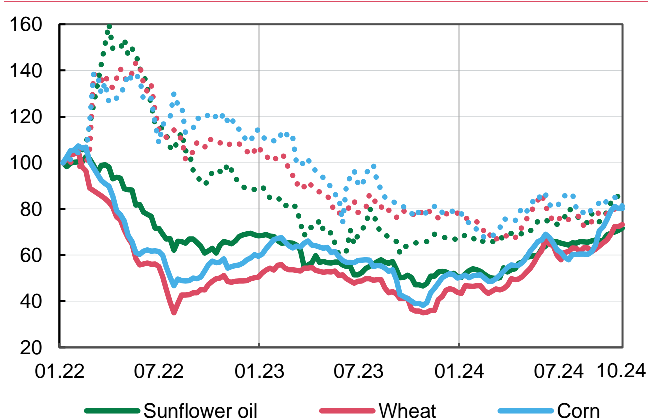
In 2026, it will continue to decline, reaching the 5% target thanks to the recovery of the energy sector and further growth in agricultural productivity.

Food inflation will have a significant impact on the acceleration of headline inflation in the short run, but will remain relatively low thereafter

The acceleration in food inflation in Q3 2024 was driven primarily by the waning effects of last year's high harvests, as well as by a marked reduction in the supply of certain foods due to unfavorable weather conditions. This year, the supply of food products was affected by the weeks-long heat wave in July and long periods of no precipitation in summer and early autumn. Spring frosts also affected harvests. This impacted prices of both raw and processed foods. In particular, the impact of the summer drought on the supply of a number of fruits and vegetables, as well as animal farming products was more significant than expected, which led to a deterioration in the harvest estimates for certain crops this year (read more in *Assumptions and Risks to the Forecast* on page 44).

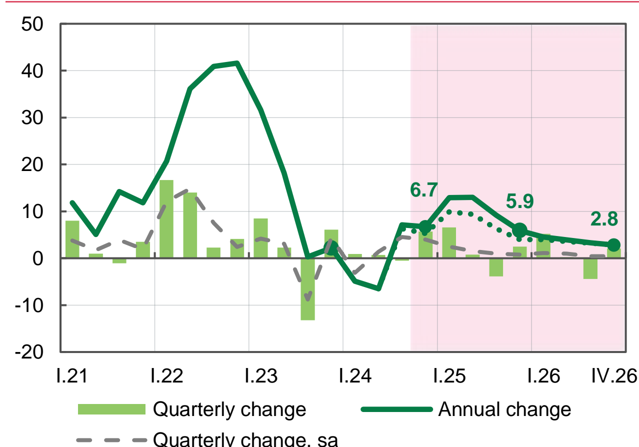
As a result, after a prolonged decline in raw food prices due to last year's bumper harvests, the growth in prices for raw foods resumed in August and accelerated in September (up to 7.1% yoy, compared to a 6.5% yoy decline in June 2024).

Figure 1.3. Prices for major agricultural commodities in Ukraine and on foreign markets* in dollar terms, 01.2022 = 100



* The solid lines refer to prices for agricultural products in Ukraine on EXW terms, and the dashed lines are prices in foreign markets on FOB terms.
Source: APK-Inform, NBU staff estimates.

Figure 1.4. Raw food inflation, %



Source: SSSU, NBU staff estimates.

Hot weather without rain affected the yields, ripening time, and quality of a number of fruits and vegetables, leading to a rapid growth in the prices of these products. The depletion of last year's stocks, higher prices for raw inputs from the new harvest, and their poorer quality slowed the decline in cereal prices and accelerated the rise in flour prices. Weather conditions also affected fodder crops and constrained the supply of animal farming products. As a result, milk and certain types of meat grew in price at a faster pace. However, due to sufficient supply, egg prices continued to decline. In addition, thanks to high ending stocks, the start of the sugar production season led to a drop in sugar prices and lower prices in its production.

Rising costs and a limited supply of raw food inputs were important factors behind the rapid acceleration in the growth of prices for processed foods (to 8.9% yoy, compared to 5.9% yoy in June 2024), which significantly exceeded the NBU's forecast. In particular, prices increased rapidly for bread, certain flour and confectionery products, and for dairy products. The decline in vegetable oil prices slowed, while the growth in prices for oil-based products accelerated. Meat product prices also continued to rise. In addition, domestic supply and prices were affected by a pickup in food exports. These factors contributed to the persistence of high growth rates of prices in the food processing industry (in particular, in the production of dairy and flour products), which may be passed on to consumer prices in future periods.

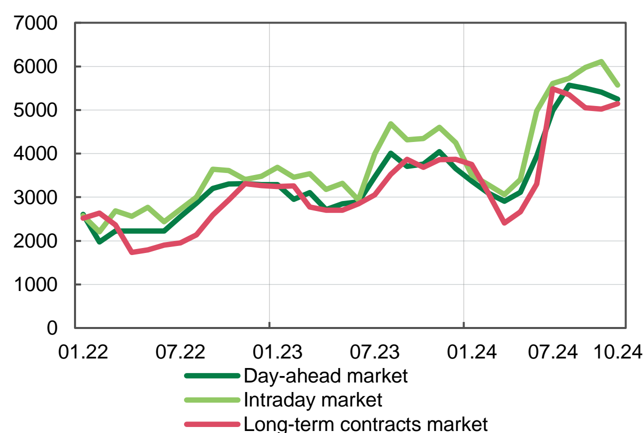
Pressure on food prices will persist in the near term. As a result, against the low comparison base of last year, food inflation will accelerate until Q2 2025. Due to second-

round effects, the rise in raw food prices will also affect the prices of processed foods. However, as supply from new harvests enters the market, raw food inflation will begin to slow, declining to around 6% by the end of 2025. This trend will continue going forward thanks to a gradual increase in food production, further improvements in logistics, and lower global food prices, which will help slow food inflation to around 3% in 2026.

Rapid wage growth, as well as continued pressure from other business costs, will cause underlying inflationary pressures to temporarily increase over the next few quarters, but they will subside in the future – primarily as a result of the NBU's monetary policy measures

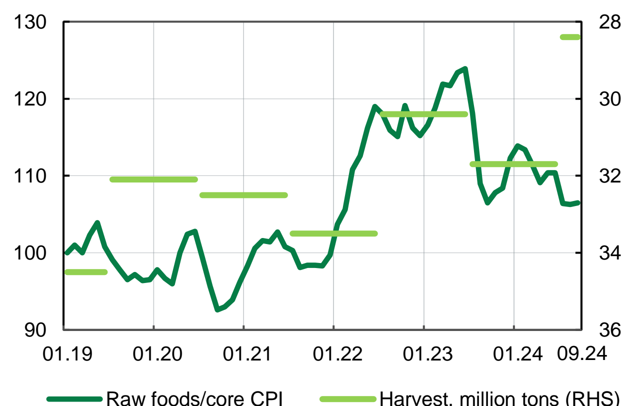
The acceleration in core inflation in Q3 largely reflected higher production costs, as well as a sharp rise in prices for processed foods due to the increase in costs of raw food inputs, which was in turn spurred by poorer harvests. At the same time, the impact of underlying price pressures was more pronounced than in previous periods, due to stronger pass-through effects of production costs to prices. As a result, prices for such core inflation components as services and non-food products grew more rapidly (10.9% yoy in September, compared to 9.9% yoy in June; and 2.2% yoy in September, compared to 0.4% yoy in June, respectively).

Figure 1.5. Electricity prices for non-household consumers, UAH/MWh



Source: Ukrainian Energy Exchange, Market operator.

Figure 1.6. Price index for raw foods relative to core CPI, 01.2019 = 100, and harvest of major crops*



* Harvest is the sum of harvests of fruit and berry crops, vegetables, and potatoes in the reporting marketing year (July of the reporting year to June of the following year). Data for 2024 are NBU staff estimates.

Source: SSSU, NBU staff estimates.

As in Q2, prices came under pressure from the high cost of electricity for non-household consumers. This was evidenced by high producer price inflation (27.1% yoy in September, compared to 26.7% yoy in June, and peaking at 33.3% yoy in July), the largest contribution to which was made by the persistently high prices in the electricity, gas, steam, and air conditioning supply sector (47.1% yoy in September, compared to 48.1% yoy in June). This, together with electricity deficit being covered by imports from the EU at higher prices than are charged in Ukraine, led to an increase in prices in the production of energy-intensive goods, which might also have second-round effects on the growth in consumer prices. Businesses' energy costs will continue to pass through to headline inflation, particularly given the expected increase in price caps on the electricity market[3].

Rising production costs will also contribute to further increases in core inflation. The results of the business outlook survey show that, over the next 12 months, selling prices will be driven mainly by energy prices due to the expected electricity shortages, as well as by prices for raw inputs – including raw foods, and materials.

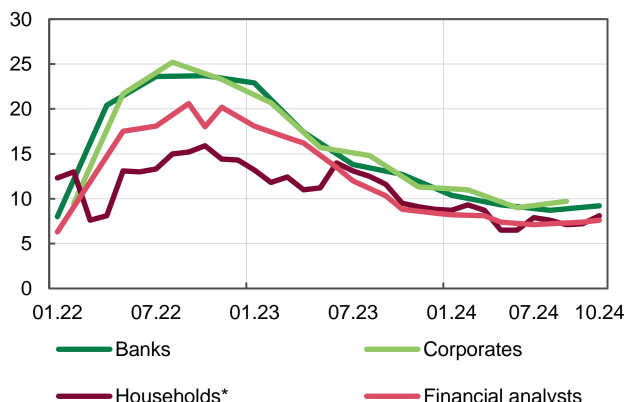
Additional pressure on production costs will come from further increases in labor costs due to labor shortages. Companies said the shortage of labor was a significant factor in

[3] Given the need to finance the restoration of energy infrastructure damaged as a result of russia's air attacks, and considering the intent to align prices with European ones to improve conditions on the electricity market and ensure effective balancing with the EU, the National Energy and Utilities Regulatory Commission (NEURC) has started the revision of electricity market price caps for businesses.

setting their prices, although its impact weakened somewhat in Q3 as labor force participation increased. At the same time, the rapid growth in wages over the forecast horizon will also put pressure on inflation from the demand side.

The dynamics of core inflation might be affected by the pricing patterns of companies, which already incorporate their higher exchange rate expectations into current prices. This is particularly evident in companies reporting a growing weight of fluctuations in the hryvnia exchange rate as a factor. At the same time, inflation expectations of various categories of respondents, primarily households and financial analysts, showed a certain level of resilience to price and exchange rate dynamics, and remained at their lowest levels since 2022. This will partially limit demand-side inflationary pressures.

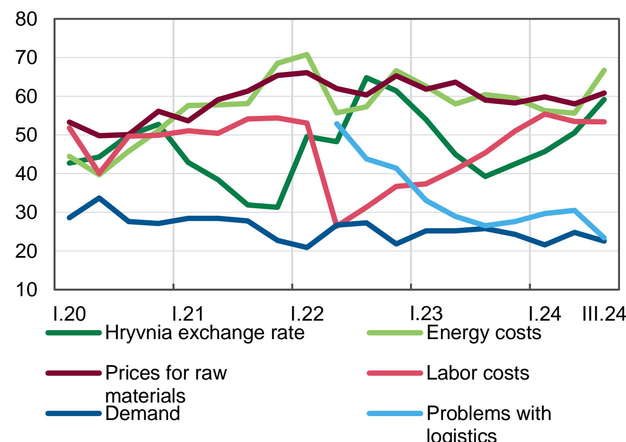
Figure 1.7. 12-month-ahead inflation expectations*, %



* In March 2022, the survey method was changed from face-to-face to telephone interviews.

Source: NBU, Info Sapiens.

Figure 1.8. Major factors affecting businesses' expectations of price changes for their goods and services, % of respondents

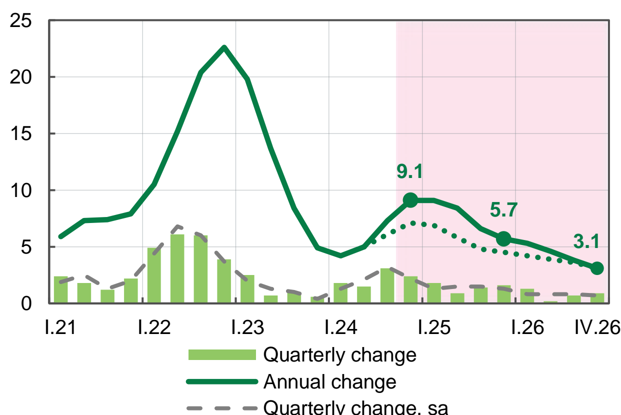


Source: NBU.

As a result of these factors, core inflation will accelerate at the end of this year and early next year, but will remain in the single digits. At its peak, it will only slightly exceed 9%. As early as Q2 2025, core inflation will start to slow, thanks to monetary policy measures and a decline in imported inflation. This will be further supported by second-round effects from cheaper raw food products and optimized logistical and production processes.

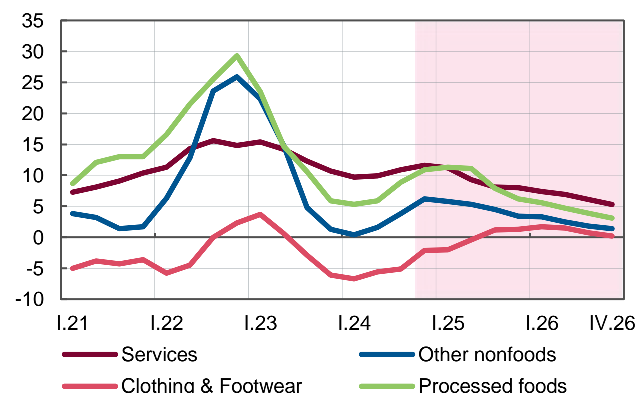
However, intense competition for labor will sustain underlying price pressures due to rising wages, which will primarily manifest in persistently high growth in prices for services. The slowdown in core inflation to almost 3% at the end of 2026 will be the key factor in achieving the inflation target, even with administrative prices growing faster.

Figure 1.9. Core inflation, % yoy



Source: SSSU, NBU staff estimates.

Figure 1.10. Core CPI components at the end of period, % yoy



Source: SSSU, NBU staff estimates.

Administered inflation will remain high due to further hikes of excise tax rates and the need to bring utility tariffs to economically justified levels

The growth in administered prices accelerated in September (to 14.0% yoy, compared to 13.3% yoy in June 2024), primarily due to the rise in prices for tobacco products, which was driven, among other things, by exchange rate effects from previous months and measures to combat shadow-market products that affected production costs (video surveillance at production facilities, labeling, etc.). Prices for alcoholic beverages went down somewhat more slowly due to increases in some of the excise tax rates.

On the other hand, administered inflation continued to be constrained by the moratorium on raising certain utility tariffs for households. The moratorium is expected to limit the growth of administrative prices next year as well. The gradual adjustment of fixed tariffs to market levels, which, as assumed, will start in 2026 (read more in the section *Assumptions and Risks to the Forecast* on page 44), will be a significant inflationary factor at the end of the forecast period.

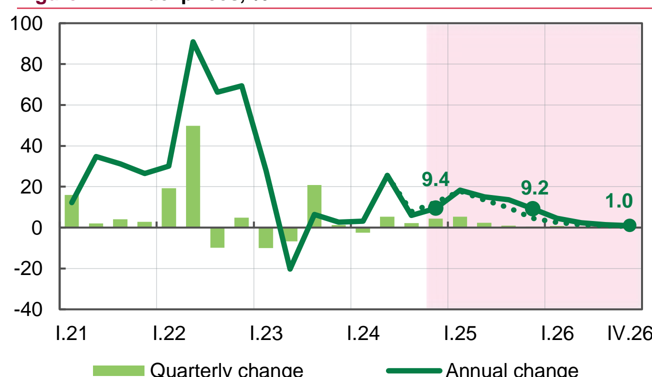
The implementation of certain tax initiatives aimed at increasing budget revenues will also fuel inflationary pressures. This primarily concerns excise tax policy, which is taken into account in the baseline scenario of the forecast, and which has an impact on the administrative component of inflation and the cost of fuel (for more details on the baseline scenario assumptions and risks of the introduction of new taxes or rate hikes for existing ones, see the section *Assumptions and Risks to the Forecast* on page 44). Thus, in order to fulfill Ukraine's European integration commitments, excise tax rates on tobacco products will keep being gradually raised and excise tax rates on alcoholic beverages will increase. The fight against the shadow market of excisable goods will also continue[4]. All of this will push up tobacco and alcohol prices.

Fuel price increases slowed markedly, to 6.0% yoy in September (from 25.5% yoy in June), which was less than expected. The first stage of the fuel excise tax rate hike[5] was primarily reflected in the price of LPG. At the same time, low crude oil prices and high stocks at gasoline stations that were built up before the excise tax rate hike limited the rise in the prices of gasoline and diesel fuel. Prices were also constrained by the base effect caused by tax changes in July 2023[6]. However, the effect of large fuel stocks will have a rather short-term downward effect on prices. As the stocks are depleted, and under the influence of further excise tax rates increases and pass-through effects from previous hryvnia depreciation, fuel price growth will accelerate to more than 9% by the end of 2024 and remain at a high level throughout most of 2025. This will put additional pressure on prices for certain goods and transportation services through cost channels. However, the expected gradual decline in global crude oil prices will offset the further increase in the excise tax burden, and fuel price growth will slow in the medium term.

Figure 1.11. Administered prices, %

Source: SSSU, NBU staff estimates.

Figure 1.12. Fuel prices, %



Source: SSSU, NBU staff estimates.

[4] In early October 2024, the government adopted regulations on the functioning of the *eAktsyz* (eExcise) system, which is scheduled to be fully implemented in 2026.

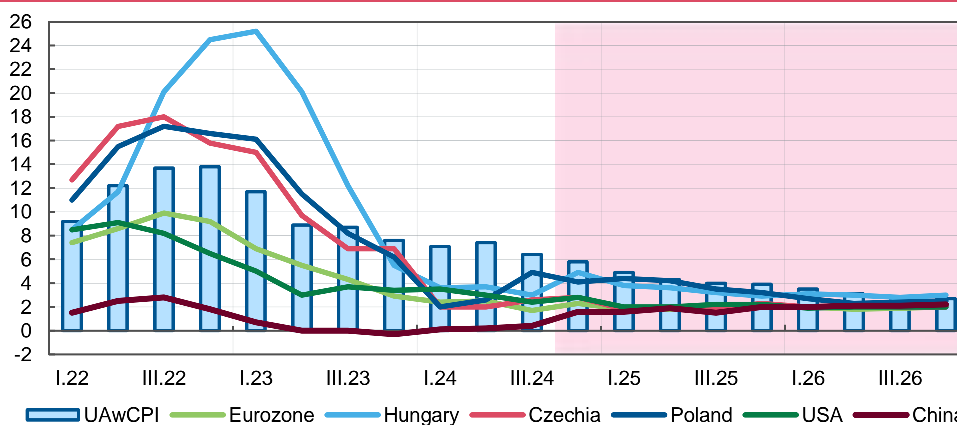
[5] On 18 July 2024, the Ukrainian parliament adopted Law No. 11256-2 on increasing excise tax rates for fuel from September 2024.

[6] Starting from July 2023, the VAT rate was restored to 20%, up from 7% applicable since March 2022. Excise duty rates were also raised.

The easing of external price pressures will also contribute to a decline in inflation in Ukraine

Although inflation in most of Ukraine's MTPs remained above the target levels, it slowed synchronously as a result of lower prices for both food and energy products due to oversupply. An additional contribution came from weaker consumer demand caused by a gradual cooling of the labor market in the euro area, the United States, and CEE countries, amid monetary policy tightening in previous periods. However, inflation in the services sector has remained rather high in recent months, leading to a slower reduction in headline inflation. The temporary rise in inflation anticipated in some countries toward the end of this year will primarily result from base effects linked to the sharp decline in energy prices in 2023.

Figure 1.13. Consumer inflation in selected countries – Ukraine's MTPs (eop) and weighted average of Ukraine's MTP countries' CPI (UAwCPI), % yoy



Source: National statistical agencies, NBU staff estimates.

Overall, inflation in the majority of Ukraine's MTPs is expected to decline steadily to its targets in H2 2025 as global energy prices decrease. Services prices inflation will decline more slowly than goods prices inflation due to a more stepwise response to supply shocks, which will constrain the disinflationary process. Instead, disinflation will be driven by better anchoring of inflation expectations as actual inflation approaches its targets.

Türkiye and China will remain the exceptions. The Turkish central bank's growing commitment to orthodox monetary policy will contribute to a further gradual decline in inflation in the country. However, the target is expected to be achieved beyond the forecast horizon. At the same time, China's fiscal and monetary stimuli to its economy will lead to a gradual increase in inflationary pressures. However, given the current ultra-low inflation rate, this increase will only bring inflation closer to its target.

The weighted average inflation rate in Ukraine's MTPs will reach its long-term equilibrium level of around 3% no earlier than H2 2026. External inflationary pressures for Ukraine, as measured by the annual change in the weighted average CPIs in Ukraine's MTPs in U.S. dollar terms, will decline to 5% at the end of 2024, and to 3.8% and 2.6% at the end of 2025 and 2026, respectively.

Box 1. In Search of Optimal Flexibility: The Quantitative Inflation Target and the Monetary Policy Horizon

Increased economic uncertainty may require an inflation targeting central bank (CB) to adjust the formulation of the quantitative inflation target and the length of the policy horizon. This is necessary to respond more flexibly to higher-intensity shocks in order to adapt the economy to changing external and domestic conditions. At the same time, increased flexibility in monetary policy should not call into question the central bank's commitment to its mandate and/or its ability to ensure price stability. Maintaining trust in the NBU, and in the clarity, and predictability of its actions, is a critical prerequisite for anchoring expectations, and thus a key to maintaining macrofinancial stability in the long run

The quantitative target and the length of the monetary policy horizon are systemically important elements of the inflation targeting (IT) regime. Inflation-targeting CBs usually set price stability as their primary goal. To fulfill their mandate, they set and publicly announce a clear quantitative inflation target and declare a commitment to achieve it over a specified period of time using monetary policy instruments.

Currently, inflation targets in various countries range from 2% to 5%, with one exception – Ghana with its 8% target. In 2024, most CBs (25 out of 44[7]) set a point target with a tolerance band. The CBs of 13 countries have set their target exclusively as a point target, and another 6 countries have set it as a target range.

Figure 1. Quantitative inflation targets of inflation targeting central banks, %

* The NBU has a point inflation target of 5% effective 11 September 2024.
Source: AREAER 2023, official web pages of central banks, as of 11 October 2024.

Figure 2. Duration of the monetary policy horizon of selected inflation targeting central banks, years

* Duration of the monetary policy forecast horizon.
** The NBU's MP horizon does not exceed three years effective 11 September 2024.
Source: AREAER 2023, official web pages of central banks, as of 11 October 2024.

In practice, inflation may in some periods deviate from the CB's target, particularly due to domestic and external shocks beyond the effective reach of monetary policy. These may include changes in prices of commodities and other highly volatile components of the CPI, deviations of administered prices, and so on. And the greater the level of trust in a CB, which is historically built up through consistent and transparent monetary policy, the higher the likelihood that such temporary deviations from the inflation target will not lead to an unanchoring of expectations, as such deviations will not raise doubts about the CB's commitment to its mandate to ensure price stability. Therefore, along with setting a quantitative target, CBs usually announce a policy horizon – a period of time over which they are committed to eliminating any deviations of actual inflation from the target (Meyer, 2001). Most CBs set their policy horizon to between one year and two to three years. However, some CBs use a more flexible formulation, the "medium-term horizon," while the Swedish and Norwegian central banks do not consider it reasonable

[7]According to AREAER 2022, the CBs of 45 countries are inflation targeters. The analyzed sample did not include the Republic of the Seychelles.

to define the length of their policy horizon at all, and declare that it can change depending on conditions.

The variation in the levels and types of inflation targets, as well as the length of policy horizons of various CBs, is largely due to historical factors. As a rule, the inflation targets of emerging market (EM) central banks are higher than those of the leading central banks[8]. This is in part due to the convergence of the overall level of prices (especially for services) in line with the Balassa-Samuelson effect, which leads to higher inflation rates in EMs than in advanced economies. Higher and more volatile price growth rates, and thus higher inflation expectations of economic agents, and weaker confidence in domestic currencies and monetary policy, make it difficult for a CB to maintain inflation low on a sustained basis and to quickly bring it back to the target. In addition, less developed open economies are usually more vulnerable to price fluctuations on the global commodity markets and shocks that affect relative prices on the domestic market (Gorodnichenko, 2014).

The length of the policy horizon in individual countries may also be determined by time lags in monetary transmission. Longer response lags may objectively limit the ability of CBs to quickly influence the behavior of economic agents and bring inflation back to the target.

A relatively low level of the inflation target and its long-term invariability, as well as a consistent return of inflation to the target over the foreseeable policy horizon, are key to the effectiveness of the IT regime. A clear understanding by the general public of the objectives and principles of monetary policy enhances the predictability of a CB's actions, simplifies the assessment of their effectiveness, and helps strengthen the confidence of economic agents in the CB, the domestic currency, the banks, and other financial institutions (Blinder et al., 2024). This strengthens the role of inflation as a nominal anchor, helps anchor inflation expectations, and, as a result, improves monetary transmission (Schnabel, 2024). The persistence of inflation under such conditions is significantly reduced, making it easier to bring it back to the target (Coletti et al., 2006). As a result, economic uncertainty declines and a predictable economic environment is formed. The risk premium in the structure of market interest rates decreases, and rates stabilize at a low level. Together with the strengthening of monetary impulses, this allows a CB – by ensuring macrofinancial stability – to eliminate distortions in the redistribution of financial resources while providing effective support for economic growth and ensuring its sustainability in the long run.

Increased economic uncertainty may require a temporary optimization of the formulation of the quantitative inflation target and the length of the policy horizon. In general, it is believed that a point target contributes to better anchoring of expectations, while the use of a tolerance band or a target range increases the flexibility of CB policy (Svensson, 2001). In practice, under conditions of high economic uncertainty, the opposite may be the case: inflation going outside these ranges can be perceived as an "alert" or even as a policy failure, which would prompt the CB to take overly aggressive actions instead of a flexible response (Apel and Claussen, 2017).

At the same time, in the face of growing intensity and/or expected persistence of non-monetary shocks, pursuing a rather aggressive monetary policy to quickly return and sustain inflation around the target may increase volatility in financial markets and generate additional negative effects on lending, economic growth, and employment (Coletti et al., 2006). Therefore, instead of focusing on keeping inflation close to the target at all costs, CBs sometimes (at least temporarily) adopt a more flexible approach based on a combination of "rules" (in particular, in the form of a commitment to achieve the inflation target in the medium term) and "discretion" (in particular, tolerating temporary shocks) (Jahan, 2010; Batini and Nelson, 2000).

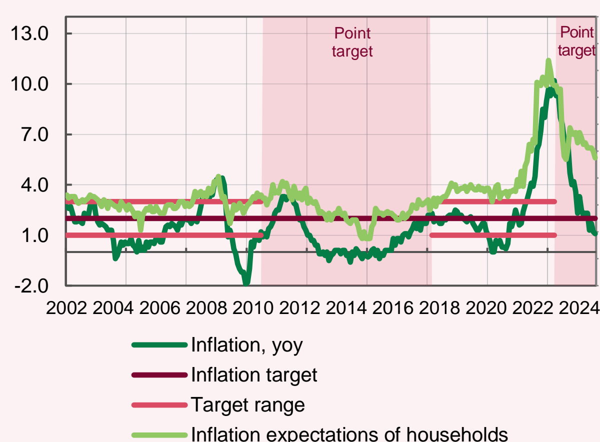
For example, moving to a point target and/or extending the policy horizon leaves more room for a CB to respond flexibly to macroeconomic turbulence to avoid the

[8]Read more in the July 2021 Inflation Report (box 5).

abovementioned negative effects. This approach helps economic agents to understand that it is impossible for a CB to micromanage and fully control inflation. It also improves the perception that temporary moderate deviations from the target are "natural" in conditions of intense shocks, if the deviations are also insensitive to monetary impulses (Apel and Claussen, 2017). To a certain extent, this causes economic agents to get used to price fluctuations and, if they intensify, reduces the risks of expectations unanchoring and there being a loss of confidence in the CB (Bernanke et al., 1999).

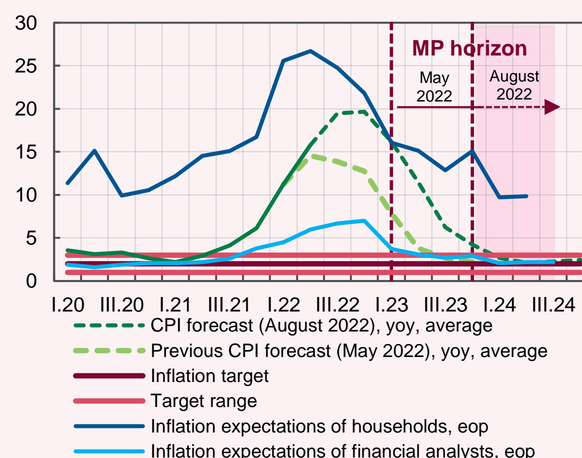
For example, in 2010–2017 and since the start of 2023, in the wake of a significant increase in price volatility, the Swedish central bank publicly abandoned the band of tolerable ("normal") inflation deviations for a while and moved to a point target. At the same time, the CB emphasized its commitment to the IT regime and the invariability of the principles of monetary policy implementation. As a result, this transition added flexibility to monetary policy, but did not cause inflation expectations to deviate significantly from the inflation target.

Figure 3. Sweden: inflation target, inflation rate*, and 12-month-ahead inflation expectations of households, %



* CPI – until August 2017 inclusive; CPI with a fixed interest rate (CPIF) – since September 2017.
Source: Riksbank, Statistics Sweden.

Figure 4. Czech Republic: inflation target, CPI, and 12-month-ahead inflation expectations, %



Source: Czech National Bank.

The CB of Canada, the approach of which to IT is often recognized as the "best practice," adapts the monetary policy horizon (which averages six to eight quarters) at each macroeconomic forecast review, depending on the nature and expected persistence of inflation shocks, the degree of economic uncertainty, and the state of lending. At the same time, the CB emphasizes that its ability to demonstrate appropriate flexibility in terms of changes in the policy horizon is based on the credibility gained thanks to its previous success in achieving the inflation target. A flexible approach, in which the policy horizon is adjusted according to the current situation and the forecast, is also used by the CBs of Norway and the United Kingdom.

The Czech central bank also resorted to expanding its monetary policy horizon. In August 2022, the CB temporarily extended its monetary policy horizon by two quarters (from 12–18 months to 18–24 months) due to "extraordinary cost pressures amid greatly increased uncertainty." However, as soon as price pressures eased, the CB reduced the monetary policy horizon to the usual 12–18 months in February 2023, realizing the communication benefits of bringing inflation back to its target faster.

Increased monetary policy flexibility should not harm the credibility of a CB's monetary policy. Despite the obvious advantages of using flexible IT in an environment of high uncertainty, too large and prolonged deviations of inflation from the target increase the risk that inflation expectations might unanchor and price dynamics might get out of control. This determines the limits of a CB's flexibility in tolerating the amplitude and duration of inflation deviations from the target, regardless of the initial nature of their causes and sensitivity to monetary impulses.

The policy horizon should not be so protracted that it calls into question the CB's willingness and/or ability to ensure price stability. The maximum length of the foreseeable future at which a CB can publicly illustrate and communicate the expected return of inflation to the target is closely linked to and limited by the length of the forecast horizon. For this reason, the IT regime is sometimes also called inflation forecast targeting (Mu and Voss, 2022; Schnabel, 2024).

And that is why CBs, even in periods of increased economic uncertainty, usually opt not to publicly declare their intention to pursue a monetary policy that does not allow them to bring inflation to the target/target range over the forecast horizon.

The unprecedented challenges of the war and the uncertainty associated with it make it necessary for the NBU to maintain high flexibility in its monetary policy. From December 2019 until russia's full-scale invasion in 2022, the NBU had set its quantitative inflation target at 5%, with a tolerance band of ±1 pp. The policy horizon for bringing inflation to this target was 9–18 months. The IT regime allowed the NBU to tolerate temporary deviations from the target if they did not pose a threat of unanchoring of inflation expectations and did not prevent inflation from returning to the target within an acceptable policy horizon.

In September 2024, the NBU's transition to a flexible IT regime was approved in the *Monetary Policy Guidelines for the Medium Term*. Under this monetary regime, the NBU switched to a 5% point target for inflation, and extended the maximum policy horizon from 18 months to 3 years. The acceptable length of the policy horizon is expected to be determined on the basis of the need to balance between facilitating the Ukrainian economy's adaptation to shocks and maintaining its recovery on the one hand, and retaining control over inflation expectations on the other. The NBU will continue to flexibly adjust its monetary policy when macroeconomic indicators deviate from expectations and when significant changes occur in the balance of risks to inflation, the sustainability of the FX market, and economic development.

Flexible IT is an intermediate step towards the NBU's return to a full-fledged IT format with a floating exchange rate, as the practice of many central CBs has proven this regime to be effective in ensuring macroeconomic stability in the long run.

Box 2. In Search of Optimal Flexibility: What Is an Acceptable Deviation of Inflation from the Target?

A central bank's mechanistic focus on keeping inflation close to its target may be ineffective and sometimes even counterproductive. At the same time, a rapid and prolonged acceleration in inflation significantly increases the risks of a loss of confidence in the central bank and an unanchoring of inflation expectations, with negative consequences for macrofinancial stability and economic growth. In practice, this prompts inflation-targeting central banks to pursue a flexible, non-linear monetary policy in search of a compromise between maintaining the economy's adaptability to shocks and ensuring price stability over the medium term. To this end, in some short-term periods, a central bank may refrain from tightening its monetary policy, allowing inflation to deviate moderately from the target. However, central banks should respond in a timely and decisive manner to the risk of inflation remaining above the threshold for a long time to avoid excessive threats to price stability.

The desire of a central bank (CB) to avoid any deviations of inflation from the target, even in the short term, may be ineffective and sometimes counterproductive. It takes time for monetary impulses to pass through to the economy. In addition, when inflation slows below a certain level, subsequent tight measures to bring it to the target might require stronger monetary impulses (Orphanides and Wieland, 2000). This is, in particular, due to the reluctance of businesses to reduce nominal prices and the unwillingness of workers to accept lower wages (Blanco et al., 2024). The Phillips curve in its broader sense becomes flat, so the cost of aggressive monetary policy increases: economic growth and employment are suppressed, and volatility in financial markets increases (Coletti et al., 2006). According to Forbes et al. (2021), in OECD[9] countries, the relationship between the GDP gap and inflation almost disappears when the latter declines below 2%–4% (in particular, below its median value). In EM countries, this level is higher and in some cases can reach almost 7%.

In addition, economic agents become “rationally inattentive” to inflation when it fluctuates moderately at a relatively low level (Buelens, 2023). In part, this is due to the reluctance to search for relevant information, difficulties in processing it (Cavallo et al., 2017), and relatively small losses from ignoring low inflation when making economic decisions (Maćkowiak et al., 2021). As a result, during periods of low attention to inflation, the impact of inflation dynamics on inflation expectations decreases, and the pass-through effect from the cost of highly volatile components, such as energy, to core inflation becomes more moderate (Galeone and Gros, 2023; Pfauti, 2024). This further lowers risks to price stability, and thus reduces the need for aggressive monetary policy. Moreover, a CB might fall into a “low attention trap,” when its efforts to bring inflation to the target from an already relatively low level remain unnoticed and thus will not have a proper impact on the behavior of economic agents through the expectations channel (Pfauti, 2024).

All of this makes it advisable for CBs to tolerate relatively predictable, moderate, and short-lived deviations of inflation from the inflation target/target range in search of a short-term compromise between maintaining economic activity and easing price pressures.

At the same time, there are threshold levels of inflation that, if exceeded, lead to a non-linear increase in risks of unanchoring of inflation expectations. For example, rapid, significant, and/or prolonged price increases attract the attention of economic agents (Link et al., 2023), raise their expectations about the persistence of an inflationary surge (Sims, 2003; Maćkowiak and Wiederholt, 2009), and worsen the cost-benefit ratio of ignoring inflation in making consumer and investment decisions.

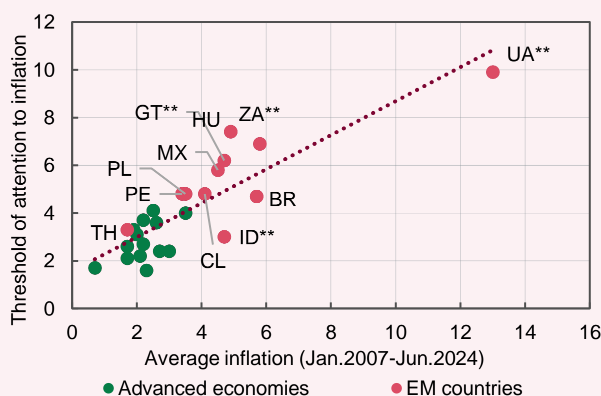
There is a *non-linear* increase in web searches for inflation in periods when inflation crosses a certain threshold, price increases cover a wide range of goods, and news and political discussions about anti-inflationary measures gain traction. This was observed,

[9] Excluding Colombia, Costa Rica, Estonia, South Korea, Lithuania, Slovenia, and Türkiye.

in particular, in the countries of the euro area and other advanced economies during the inflationary surge of 2021–2023 (Buelens, 2023).

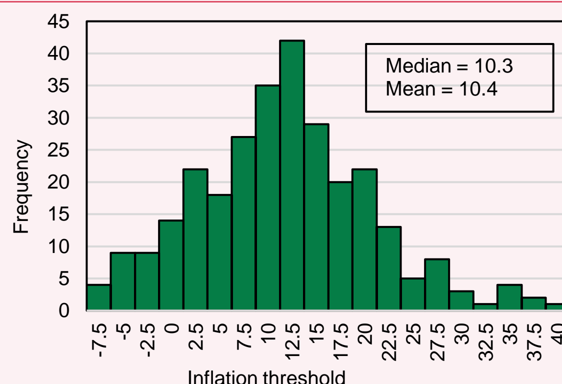
In recent years, a number of empirical studies have shown that there is a *threshold level* of attention to the pace of price growth for each country (Pfauti, 2024; Buelens, 2023). This threshold is usually higher in EMs, which is, among other things, due to a longer history of high inflation, with economic agents "getting used to it" (Cavallo et al., 2017). Thus, according to estimates based on Google and Twitter searches (as in Korenok et al., 2023), the threshold of attention to the pace of price growth is mostly above the average inflation rate, being 0.9 pp higher on average in advanced economies and 1.4 pp higher in EMs[10].

Figure 1. Average inflation rates in some inflation-targeting countries and inflation attention thresholds*, %



* Estimated according to the methodology by Korenok et al. (2022) with the seasonally-adjusted index in Google Trends for the "Inflation" topic in 2007–2024. The figure shows only the countries where the values of the coefficients in the equation correspond to the expected ones.
** Adjusted for the trend in 2007–2010, before the change in methodology. For Ukraine, it is also adjusted for periods of active hostilities in 2014−2016 and from 2022 using dummy variables.
Source: Google Trends, Bloomberg, NBU staff estimates.

Figure 2. Distribution of estimated* inflation attention thresholds in Ukraine for specific components of the CPI**



* Calculations are based on Korenok et al. (2023) using Google searches on the "Inflation" topic.
** Estimated for 320 CPI components that have been included in the consumption basket over the entire estimation period (2018−2024). Estimated threshold levels are adjusted for outliers (the figure displays results from the 5th to 95th percentiles).
Source: Google Trends, SSSU, NBU staff estimates.

Estimates for Ukraine based on Google searches for various components of the consumer price index show that attention to inflation most often increases rapidly after it reaches a double-digit level[11] (10.3%). This is also confirmed by the calculations for core inflation (9.8%), which reflects the overall inflationary dynamics in the country. Empirical estimates of inflation thresholds based on other approaches suggest that EM CBs should maintain inflation at single-digit levels (Khan and Khan, 2020). This helps avoid the asymmetric negative effects from the unanchoring of inflation expectations and the unfolding of an inflationary spiral (Arias et al., 2020).

Inflation persistently exceeding the attention threshold significantly increases risks to macrofinancial stability and economic growth. For example, when the threshold of attention to inflation is exceeded, the sensitivity of economic agents' inflation expectations to price dynamics increases *non-linearly* (Bracha and Tang, 2022; Weber et al., 2023). At the same time, a CB's explanations of the factors behind the inflationary surge to the general public might be ineffective in such circumstances (Coibion et al, 2020). This raises the risk that high inflation might be interpreted as the CB's failure (Buelens, 2023), which would undermine confidence in monetary policy (van der Cruijsen et al., 2023). Deteriorating expectations about the persistence of the price surge increase households' propensity to consume and level of wages they demand. Firms revise prices more quickly (Blanco et al., 2024), incorporating higher production costs and an inflationary premium (Joussier et al., 2023). The inflationary effect of supply shocks, which is usually relatively short-lived, might become stronger

[10] Average for countries where the threshold is higher than average inflation (80% of the sample shown in Figure 1).
[11] It should be borne in mind that estimates of the inflation attention thresholds using this methodology for countries with high and volatile inflation are unstable and sensitive to the selected period of analysis. The results for Ukraine reflect the period from 2018 to 2024 and cover periods of low, moderate, and high inflation.

and more persistent when the attention threshold is exceeded (Pfauti, 2024). Taken together, this spurs further acceleration of inflation and makes the price surge more powerful and long-lasting (Pfauti, 2024; Marcellino and Stevanovic, 2022).

In addition, inflation *persistently exceeding the threshold* causes a decrease in the expected return on investment projects, the external competitiveness of producers, export volumes, and households' purchasing power and propensity to save in the domestic currency. The sustainability of economic growth also deteriorates, and inequality deepens. This may eventually even lead to greater social instability (Ekinci et al., 2020; Khan and Khan, 2020).

CBs' ability to rein in "above-threshold" inflation is declining. This is, in particular, a consequence of rising economic uncertainty (Castelnuovo et al., 2024) and a decline in the effectiveness of monetary transmission channels (Schnabel, 2024; Buelens, 2023). The latter necessitates a more substantial and prolonged tightening of monetary policy, with consequent implications for economic growth and employment (Forbes et al., 2024). In the future, as inflation gradually slows down, a CB also risks falling into the trap of low attention to price dynamics, which creates the problem of inflation expectations staying high for a long time and complicates the "last mile" of returning inflation to the target (Blanco et al., 2022). In addition, high inflation expectations that closely approach the attention threshold increase the risk of a repeated inflationary surge (Pfauti, 2024). It might even be triggered by a CB's own decision to start easing its monetary policy (Buelens, 2023).

CBs' recent experience has shown the importance of a timely and decisive monetary response to the threat of inflation exceeding the threshold. Excessively loose monetary policy during the coronavirus crisis was one of the factors behind the inflationary surge (Gagliardone and Gertler, 2023). During a long time, CBs were convinced that the inflationary surge was of a non-monetary nature and was temporary, and therefore were mostly slow to provide an appropriate monetary policy response. Monetary and fiscal stimuli continued even when inflation was already picking up. Thus, even in Brazil, the Czech Republic, or Hungary, which were among the leaders in interest rate policy tightening, the initial reaction was more moderate than required by indicative rate calculations under the standard Taylor rule.

At an early stage, the price surge was indeed fueled by supply shocks to a significant extent – namely by supply chain disruptions due to lockdowns and a rapid rise in global commodity prices, particularly energy prices. However, the record acceleration in inflation did not go unnoticed: inflation expectations deteriorated. Short-term expectations worsened first, later followed by long-term ones.

The understanding of the negative consequences of the inflationary spiral led to a tightening of interest rate policy that was unprecedented in many ways, but above all in its synchronicity, aggressiveness, and duration (Forbes et al., 2024). Key rates in EM countries (mostly excluding Asia), which were the first to start the hike cycle, rose by 6–12 pp in less than a year and a half. The United States and the euro area were forced to raise rates from around 0% to 4%–5.5% over the same period.

Numerous studies have convincingly shown that a consistent and sufficiently tight monetary policy reduces the risk of recurrent price surges and prevents inflation from becoming entrenched at high levels. Consistent and sufficiently tight monetary policy allows inflation to be reined in more quickly and the depreciation of the domestic currency and the increase in production costs to be curbed. Short-term losses for the economy as a result of such a policy are fully offset in the medium term (Ari et al., 2023). That is why the NBU aims to maintain moderate inflation even in times of war and prevent it from remaining at double-digit levels for a long time. According to the NBU's forecast, inflation will accelerate to 9.7% this year, but it will start to slow next spring and return to the 5% target in 2026. To restrain price pressures, the NBU suspended the cycle of key policy rate cuts from the middle of the year and took efforts to maintain the sustainability of the FX market. If upside risks to inflation continue to materialize, the NBU stands ready to deploy all available monetary policy tools.

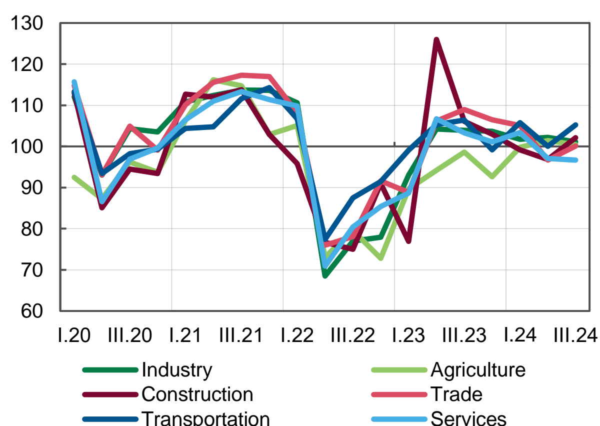
Part 2. Economic Developments

- The economy is recovering faster than expected due to a larger harvest of early grain crops, fewer electricity shortages, and the faster adaptation of businesses to power outages. The forecast for real GDP growth in 2024 has been revised upward, to 4.0%.
- Economic growth will accelerate to 4.3%–4.6% in 2025–2026, driven by the rebuilding of energy facilities, the stimulating role of the public sector, rising household incomes, and robust external demand. As a result, the gap between real and potential GDP will narrow and virtually vanish by the end of the forecast period.

The GDP growth forecast for 2024 has been revised upward thanks to better-than-expected early crop harvests, fewer electricity shortages, and a weaker impact from power outages on production

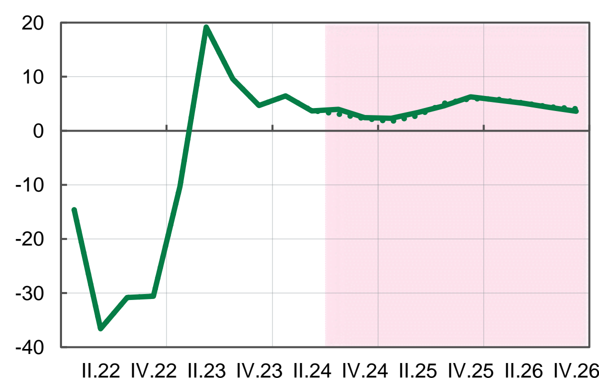
Real GDP grew by 3.7% yoy in Q2 2024, which is fully in line with the NBU estimate published in the July 2024 Inflation Report. Economic growth slowed as expected amid significant electricity shortages, which negatively affected business and consumer sentiment, and weakened business activity in some sectors.

Figure 2.1. Business Expectations Index by selected types of activity, %



Source: NBU.

Figure 2.2. Real GDP, % yoy



Source: SSSU, NBU staff estimates.

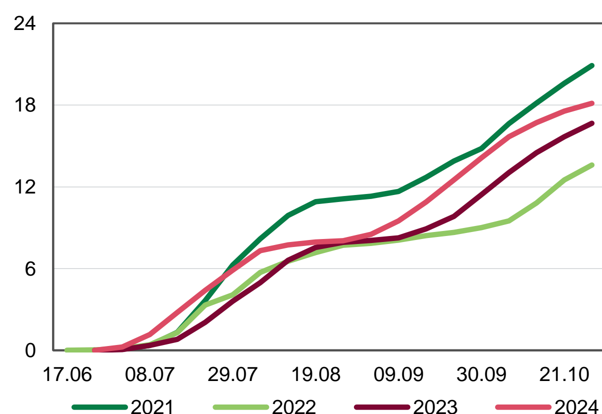
Despite the slowdown, growth continued across most sectors. In particular, favorable weather conditions made it possible to cultivate larger areas and, accordingly, harvest more early crops than in Q2 2023. The full functioning of the sea corridor has boosted exports of both agricultural products, including new crops, and those of iron ore and metals. The latter was an important contributor to rising production volumes in metallurgy and ore mining, and ensured a steady increase in cargo turnover. Budget funding for defense orders, the construction of fortifications, and the restoration of damaged critical infrastructure and housing continued to fuel growth in a number of industries, as well as in the construction sector. Strong demand for fertilizers from agricultural companies supported the chemical industry, while the processing of last year's large harvests shored up the food industry.

Higher capital expenditures from the budget and the improved financial performance of companies promoted a further increase in investment, in particular in autonomous power supply equipment amid electricity shortages, as well as in the development of logistics and trade infrastructure. Consumer demand also remained resilient, propelled by rapid growth in real wages (by 17.6% yoy in Q2), which continued to stimulate the retail and service sectors. At the same time, consumer and investment demand was still largely met through imports, which have increased as the blockade of the western borders was lifted; imports of electricity also rose, mitigating the effects of electricity shortages. As a result, the contribution of net exports to GDP growth in Q2 was negative, as expected.

In Q3, the energy situation became significantly more challenging due to the need for nuclear power plant repairs and the extreme heat in July. However, in August–October, improved weather conditions and faster-than-expected repairs at energy facilities helped stabilize the situation. As a result, electricity deficit in Q3 was lower than expected. The negative impact of power shortages on a number of industries was also weaker, in particular due to direct imports of electricity by companies for production purposes, the development of their own energy generation, and high consumption limits. The increase in natural gas production and the pumping of gas, along with imported gas, into storage facilities, as well as the increase of electricity import capacities from the EU to 2.1 GW aim to contribute to a stable heating season.

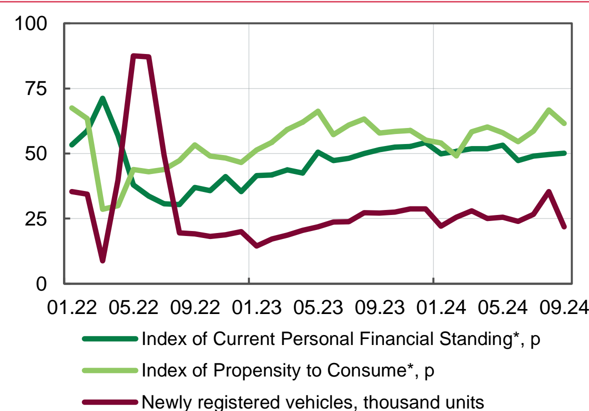
Harvesting of early crops was completed faster than last year. The heat had almost no effect on their yields, and the harvest was larger than estimated in the July 2024 Inflation Report.[12] The harvesting of late crops has started and is continuing faster than last year, which supported agricultural performance in Q3.[13] However, yields are considerably lower than last year due to the impact of the drought. A shift in harvesting timeframe and a smaller harvest than last year (for more details, see *Assumptions and Risks* on page 44) will result in agriculture having a negative contribution to real GDP growth in Q4.

Figure 2.3. Harvested areas of the main agricultural crops since the beginning of the respective marketing year, million hectares



Source: Ministry of Agrarian Policy and Food of Ukraine.

Figure 2.4. Selected indicators of consumer demand



*Change of the survey method from face-to-face to the phone interview in March 2022.

Source: Info Sapiens, Ukravtoprom.

The stable operation of the sea corridor and a loose fiscal policy also supported economic activity[14]. As a result, the forecast for real GDP growth in Q3 was revised upward, from 3.1% to 4.0%, which gave rise to an upward revision of the forecast for 2024 economic growth, from 3.7% to 4.0%.

Looking ahead, Ukraine's real GDP growth will accelerate (to 4.3% in 2025 and to 4.6% in 2026). The growth will be facilitated by the continuing loose fiscal policy, a revival in domestic demand propped up by rising wages, higher harvests and robust external demand, and investments in recovery, particularly in the energy sector. However, economic growth will be constrained by labor shortages, security risks, migration processes, and the slow normalization of economic conditions.

The expansionary fiscal policy will continue to stimulate economic activity, despite occasional fluctuations in spending

Fiscal policy remained the main driver of the economic recovery, although its impact weakened somewhat this year. The cyclically adjusted primary deficit was significant,

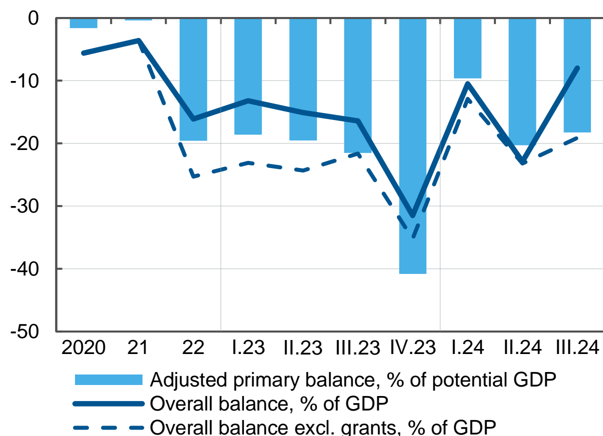
[12] According to the Ministry of Agrarian Policy and Food, as of 25 October 2024, the wheat harvest totaled 22.3 million tonnes (-0.4% compared to the same date last year), barley 5.5 million tonnes (-6.0%), and rapeseed 3.5 million tonnes (-13.7%).

[13] According to the Ministry of Agrarian Policy and Food, in late Q3, the harvested area of late crops was 81% higher than last year, and the harvest was 68% higher.

[14] According to the USPA, cargo transshipment for export in seaports increased by 2.1 times yoy in Q3 2024; according to Ukrainian Railways, rail freight grew by 15% yoy in Q3 2024.

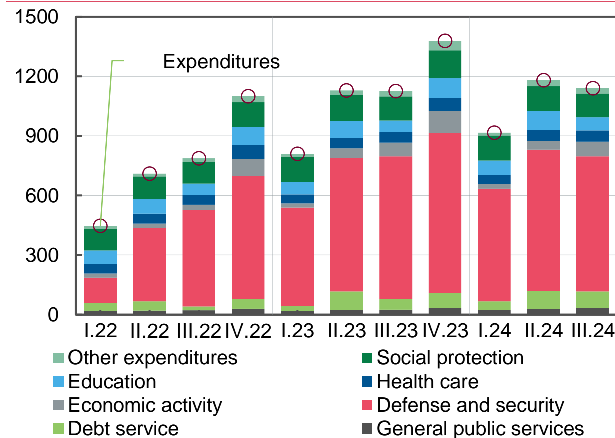
but decreased in Q3 of 2024.[15] Tax revenues growth continued, although it slowed somewhat due to the weakening of economic activity as a result of electricity shortages. Total expenditures remained almost at the level of the previous quarter, with the priorities of military and humanitarian spending supporting economic activity in many sectors.

Figure 2.5. General government fiscal balance*, % of GDP



* Overall balance is the consolidated budget balance, taking into account loans to the PFU from the STA. Cyclically adjusted primary fiscal balance (CAPB) is the difference between seasonally adjusted revenues, in the structure of which tax revenues are adjusted for cyclical changes in GDP, and seasonally adjusted primary expenditures. Additionally, one-off proceeds are subtracted from revenues. A negative value indicates expansionary fiscal policy. 2024 GDP figure is the NBU's estimate.
Source: STSU, SSSU, NBU staff estimates.

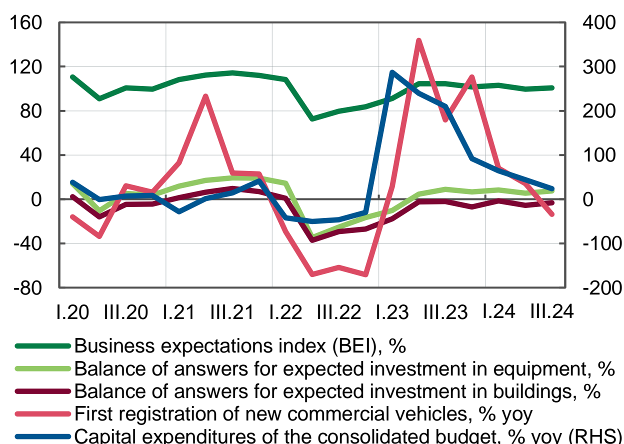
Figure 2.6. Consolidated budget expenditures, UAH bn (functional classification)



Source: STSU, NBU staff estimates.

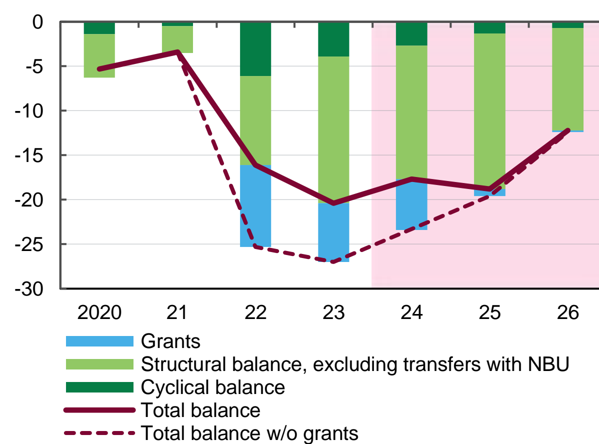
As in previous quarters, investment demand made a positive contribution to GDP growth in Q3. In particular, it was bolstered by public capital investment in defense and related projects, such as weapons production, as well as spending to eliminate the consequences of destruction. Private sector investments also grew due to further improvements in the financial performance of companies, and due to firms' significant demand for autonomous energy generation and supply equipment, given the difficult situation in the energy sector.[16] Investment in energy production was on the rise.

Figure 2.7. Selected indicators of investment demand



Source: SSSU, STSU, NBU, Ukravtoprom.

Figure 2.8. Consolidated budget balance, % of GDP



Source: STSU, SSSU, NBU staff estimates.

The public sector will continue to provide a strong impetus to economic growth over the forecast horizon, primarily due to significant spending on defense and security,

[15] The consolidated budget deficit in Q3 remained at the level of the previous quarter, amounting to UAH 399 billion excluding grants in revenues, or about 19% of GDP.
[16] Companies' profits in H1 grew by 49.7% yoy (compared to 39.5% yoy in Q1 2024), while companies' losses in H1 increased by 10.6% yoy (compared to a decrease of 3.5% yoy in Q1 2024).

reconstruction projects, and humanitarian aid, which will boost private consumption and investment. Consequently, the budget deficit will remain significant, although it will gradually decline (from over 23% of GDP in 2024 to 12.4% of GDP in 2026) thanks to the strengthening of the domestic resource base amid further economic growth. The reduction in budgetary incentives will be offset by the intensification of European integration processes, with a corresponding increase in the country's investment attractiveness, as well as improvements in business and consumer sentiment, which will contribute to a faster recovery in investment demand and private consumption.

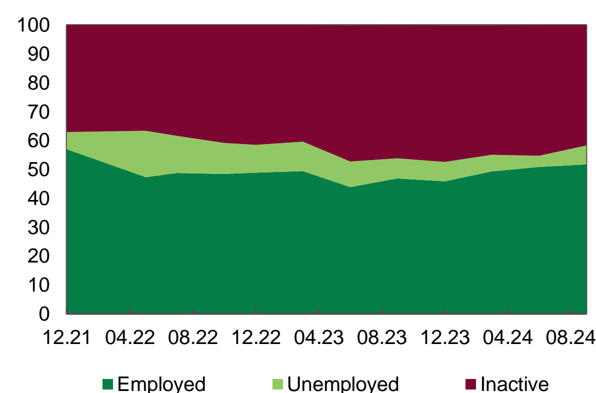
The labor market will remain tight, limiting economic recovery

The labor market remained challenging in Q3 2024. Demand for workers, as measured by the number of job openings on job search sites, continued to grow as economic activity recovers. More specifically, the number of job openings in absolute terms was the highest since the beginning of the full-scale invasion, and growth occurred in almost all professions. The leaders in terms of demand remain blue-collar occupations, the service sector, and retail, with Kyiv, Lviv, and Dnipro leading in the regional dimension. At the same time, the structure of job openings by type of activity and by region remained virtually unchanged compared to September last year, indicating a certain stabilization of the wartime economic structure.

Figure 2.9. New resumes and job openings, thousands

Source: work.ua, NBU staff estimates.

Figure 2.10. Surveyed respondents by economic activity status, % of responses



Source: Info Sapiens, NBU staff estimates.

For the first time in the last two years, the number of resumes has increased in absolute terms. It is likely that people who dropped out of the labor market for various reasons in previous periods are returning to the workforce. An important reason for this could be higher wages, as well as the transition from unofficial to official employment. This is confirmed by the decline in the share of the economically inactive population according to Info Sapiens surveys, and the corresponding increase in both employment and labor force participation.

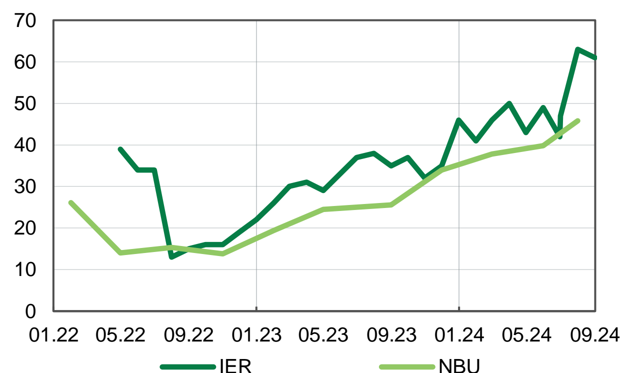
Despite the growing supply in the labor market, the shortage of personnel and its negative impact on business operations, according to surveys, has increased significantly across almost all sectors. Mismatches in the labor market remain significant, with uneven ratios of job openings to resumes between professions. In general, the ratio of applicants per job opening is currently lower even than in 2021, which also indicates there is a tight labor market. [17][18]As a result, companies are mostly understaffed, and despite generally favorable expectations for an increase in sales over the next 12 months, companies do not expect to hire more staff. Consequently, firms

[17] According to the August 2024 Advanter survey, companies are staffed at a level of 71%, while almost a quarter (23%) of companies are staffed at a level of less than 50%.

[18] According to the NBU's Q3 2024 Business Outlook Survey, the balance of responses regarding changes in the number of employees over the next 12 months remained negative, at (-10.9%). In particular, the share of respondents who intended to hire more staff was 12.3%, that of those who intended to lay off staff was 23.2%, while 64.5% expected no change in their staff level. Respondents across all sectors said they intended to reduce their workforces. The strongest intentions were reported by construction companies (-20.0%), while the weakest intentions were declared by trading companies (-5.2%).

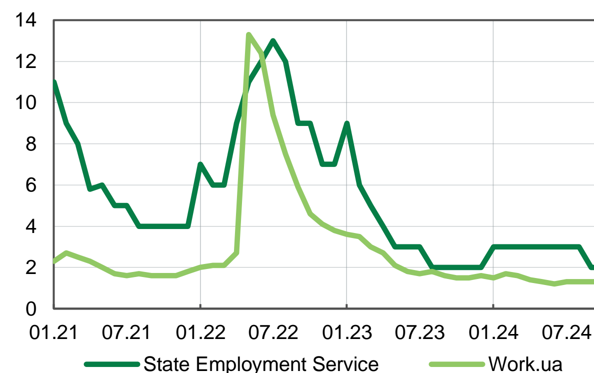
anticipate a continued shortage of personnel and further growth in competition for employees.

Figure 2.11. Shortage of skilled workers as one of the most influential factors limiting the ability of enterprises to increase production, % of responses



Source: NBU, IER.

Figure 2.12. Number of applicants per one job opening, persons

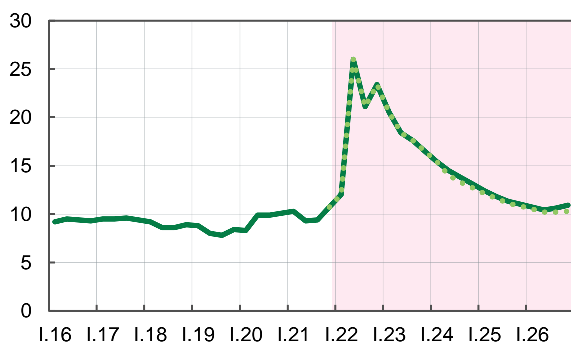


Source: SES, work.ua, NBU staff estimates.

To a large extent, the increased pressure on businesses from the shortage of workers in Q3 was due to a higher than expected growth in migration outflows abroad, in particular due to the prolonged power outages in the summer. More specifically, according to the UNHCR, the number of Ukrainian migrants went up by almost 200,000 in Q3, and the growth continued at the beginning of Q4, reaching almost 6.8 million people as of mid-October 2024. Risks of a further increase in migration outflows remain substantial (for more details, see *Assumptions and Risks* on page 44).

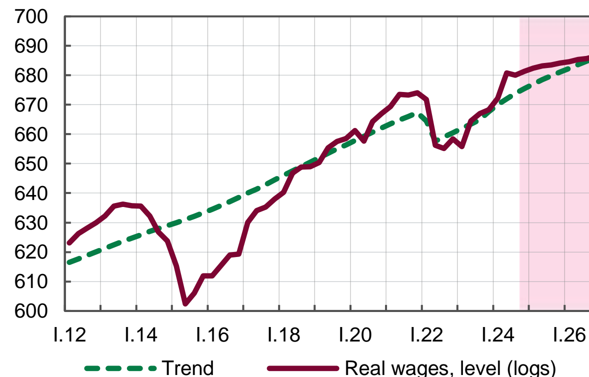
The labor market shortages continue to fuel wage growth. In particular, in Q2 2024, real wages increased by 17.6% yoy on average, while nominal wages rose by 22.1% yoy. According to available indirect evidence, the high growth rate of nominal wages continued into Q3. However, rising inflationary pressures slightly decelerated the growth in real wages, although wages remained quite high and continued to support private consumption.

Figure 2.13. ILO unemployment rate, sa, %



Source: SSSU, NBU staff estimates.

Figure 2.14. Real wages, level (logs)



Source: SSSU, NBU staff estimates.

Real wages are expected to exceed pre-war levels by the end of 2024 and continue to rise due to strong competition among employers for available labor. This, coupled with a loose fiscal policy, will further boost consumer demand.

The unemployment rate in the economy will gradually decline as labor demand grows, but remaining higher than before the full-scale invasion. The unemployment rate will be driven by persisting mismatches in the labor market, primarily due to the limited supply of skilled labor, which will be affected by the repercussions of the war, including challenges in reintegrating demobilized soldiers into the workforce. This supply will also be constrained by migration processes (for more details, see *Assumptions and Risks* on page 44) and the further adaptation of migrants to life abroad, which reduces the

likelihood of their massive and rapid return to Ukraine. The impact of labor market mismatches will be uneven across regions and industries because of migration and structural changes in the economy.

The economies of Ukraine's MTPs will grow slowly, keeping external demand steady

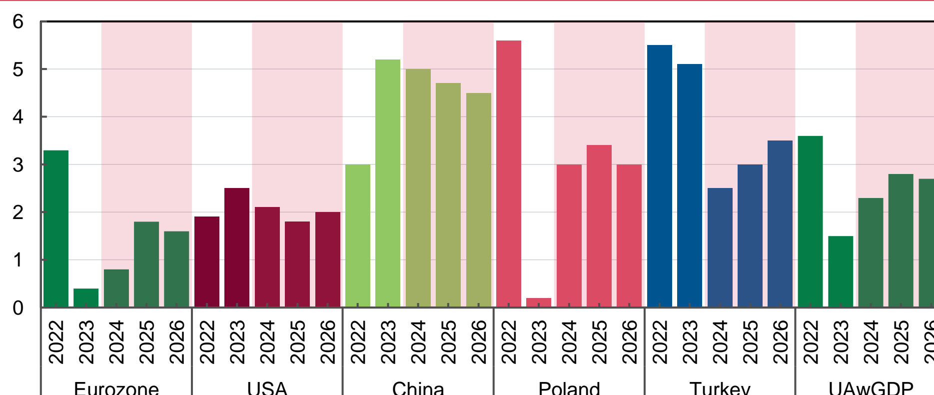
Leading indicators showed relative weakness in the economies of most of Ukraine's MTPs in Q3 due to a further contraction in manufacturing amid tight financing and investment conditions. In contrast, the services sector remains relatively resilient. Additional support for economic growth was provided by an increase in wages (albeit at a slower pace), which shored up consumer demand, and growth in global trade in goods. At the regional level, however, European trade is weaker, and Asian trade is stronger. In addition, some indicators, such as low exports orders and estimates for trade turnover based on vessel movements, point toward a slowdown in trade in Q3. However, until the end of the year, high inventories and a pickup in external demand will support trade.

In the coming years, the economies of Ukraine's MTP countries are expected to grow moderately, which will keep external demand for Ukrainian products robust. The weighted average UAwGDP indicator will grow at a rate of about 3%, which is close to the average of the last eight years before the shock of the COVID-19 pandemic. Sustained growth will be ensured by a synchronized easing of financial conditions and the stable functioning of global supply chains, which will promote expansion of global trade and investment. In addition, technological advances and digital transformation, especially in sectors such as healthcare, clean energy, and digital finance, will drive productivity gains – particularly in EMs.

The moderate growth of the US economy is largely due to the Fed's aggressive monetary policy, which has led to a slowdown in demand, primarily in such sectors as housing and consumer goods. The effects of the previous monetary policy tightening are expected to peak in H1 2025, leading to a slowdown in corporate hiring. This will depress household income growth and constrain consumer spending, which is a critical driver of economic revival. At the same time, the gradual easing of financial conditions will boost investment growth, which will bolster economic activity.

Real GDP growth in the euro area and most CEE countries will remain low in 2024 due to weakness in manufacturing, while the service sector is developing noticeably better. Weak business investment and considerable household savings continue to hinder a stronger economic recovery. In the coming years, a robust labor market, along with a gradual increase in consumer sentiment and lower uncertainty, will propel household spending. Unemployment will remain at historically low levels, while labor productivity will gradually improve. Additional support will be provided by increased public spending under the EU's recovery fund, NextGenerationEU, and a revival of business investment activity thanks to the easing of monetary policy.

Figure 2.15. Real GDP of selected countries and weighted average of annual GDP growth in Ukraine's MTP countries (UAwGDP), % yoy



Source: National statistical offices, NBU staff estimates.

China's economy will slow down due to further contraction in domestic demand, particularly consumer spending, and problems in the real estate market. Recent data indicate a broad-based cooling of activity in key sectors, including in manufacturing and retail. This indicates a cyclical decline that will continue in the coming years. However, the government's commitment to fiscal stimulus and structural reforms, aimed at promoting consumption and innovation, as well as monetary policy easing, will ensure relatively high growth rates in China's economy.

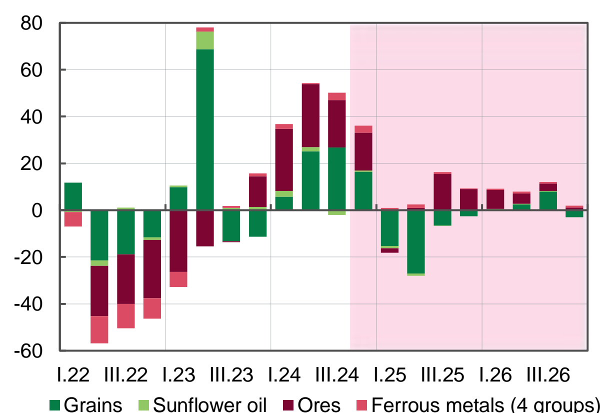
In contrast to China, India continues to maintain its economic resilience thanks to strong domestic demand, driven by the rapid growth of the middle class and rising public and private investment. Moreover, a favorable demographic situation and continued structural reforms, particularly those aimed at improving infrastructure and the business environment, are expected to provide a solid foundation for sustainable growth in the coming years.

However, geopolitical tensions remain high, driven by ongoing conflicts and a noticeable cooling in relations between the EU, the United States, and China. In addition, there are mounting signs of trade fragmentation arising from geopolitical issues and a shift towards regionalization, in particular as a result of russia's attempts to form a coalition of states to confront the democratic world. Such processes could lead to disruptions in supply chains, push up commodity prices, and increase volatility in commodity and financial markets, which would adversely affect external demand (for more details, see *Assumptions and Risks* on page 44).

The contribution of net exports to GDP will remain negative in the face of stronger competition on foreign markets and substantial import needs for recovery

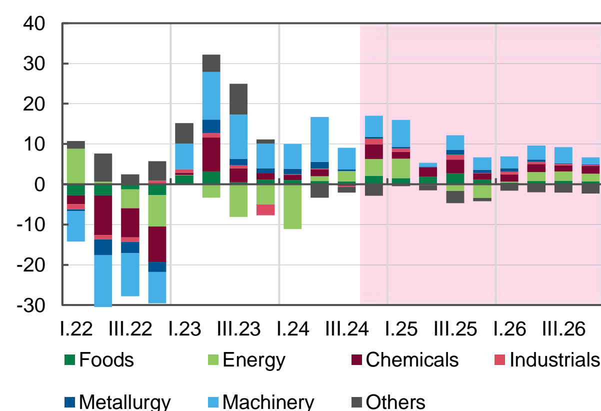
The growth of exports of goods remained unchanged in Q3 2024, but divergent trends could be observed by product groups. For example, a narrowing in demand for iron ore and metals from China amid the country's weakening economic activity decelerated iron ore exports. In addition, exports of sunflower oil decreased significantly due to the limited supply of raw materials in the domestic market. At the same time, the full functioning of the sea corridor ensured stable exports of grain crops, which accelerated year-on-year due to the low base effect of the previous year. The latter resulted from the complete shutdown of the grain corridor and the slow pace of the sea corridor at its initial stage of operations. At the same time, growth in service exports slowed noticeably: weaker external demand and high security risks are causing a continued decline in demand for the services of the Ukrainian IT industry. As a result, growth in exports of goods and services slowed in Q3 compared to the previous quarter.

Figure 2.16. Contributions of selected commodities to the annual change in exports volumes, pp.



Source: SCSU, NBU staff estimates.

Figure 2.17. Contributions to the annual change in imports, pp



Source: SCSU, NBU staff estimates.

The growth in imports of goods and services slowed more pronouncedly due to the non-energy component. For example, an increase in domestic production narrowed demand for certain imported machinery and metallurgy products. In addition, a further change in the residency of forced migrants curtailed imports of travel services. At the same time, significant power shortages and improved consumer sentiment contributed to an

increase in purchases of energy equipment and consumer products. As a result, the negative contribution of net exports to GDP growth declined slightly in Q3.

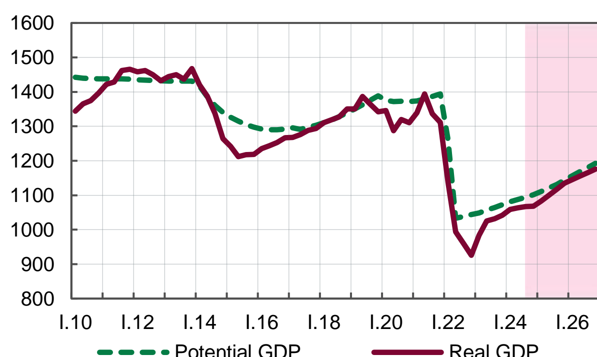
The rapid growth in exports of goods over the forecast horizon will be constrained by limited production capacity and more intense global competition. For instance, amid the revival of business activity in Ukraine's MTPs, exports of iron ore and metals will gradually increase, but will be constrained by competition between the world's major steel producers for market share. An increase in domestic market capacity and labor shortages will prevent a rapid recovery of exports of machinery and chemical products. At the same time, the uninterrupted functioning of the sea corridor and limited global supply will ensure stable grain exports. However, a lower harvest in 2024 will lead to a temporary decline in exports next year. In addition, demand for Ukrainian IT services will remain weak in 2025. As a result, exports of goods and services will drop in 2025, but will resume growth in 2026 as the economy gradually returns to normal.

Although the growth rate of imports of goods and services will slow, it will remain high. This will be due to the still high needs of the defense sector, current consumption, and the need to invest in infrastructure restoration. In particular, demand is expected to be strong for machinery, energy equipment, metals and plastics. In addition, imports of food and industrial goods, electrical appliances, and household appliances will also be driven by increased budget spending. Significant power shortages will stimulate imports of electricity and oil products. Only imports of services will decline in the coming years, primarily that of travel services, as Ukrainian migrants' tax residency status continues to change, and some of them return. Therefore, the growth in imports of goods and services will exceed the growth in exports, and thus the negative contribution to GDP growth will continue until the end of the forecast period.

Real GDP will approach its potential level over the forecast horizon

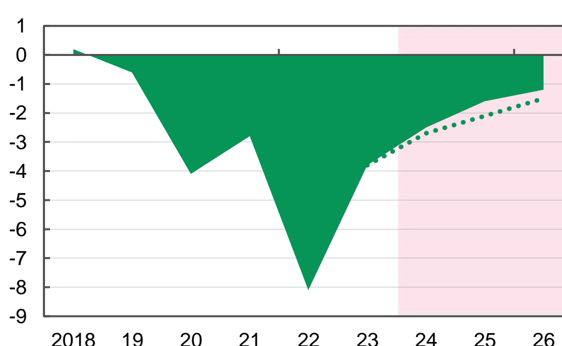
Significant destruction of production facilities and the loss of human capital and markets since the beginning of the full-scale invasion has led to a significant drop in potential GDP. However, thanks to the economy's adaptation to the new reality, potential GDP has returned to growth. This trend will continue over the forecast period. This will be facilitated by further business optimization through the adoption of new technologies that will compensate for the scarcity of growth factors (labor and capital). Ukraine's further integration into European markets, the construction of new modern production facilities, and the streamlining of logistics will contribute to the growth of potential GDP in the medium term. However, due to large-scale losses, potential GDP will not reach its pre-war level in the forecast period.

Figure 2.18. Real and potential GDP, sa, at 2021 constant prices



Source: SSSU, NBU staff estimates.

Figure 2.19. Output gap, % of potential GDP



Source: NBU staff estimates, SSSU.

The GDP gap has narrowed significantly, but remains negative due to mismatches in the labor market, and restrictions on economic activity resulting from shortages of electricity and the dampening effect that significant uncertainty has on investment. Some production facilities will remain underutilized due to the loss of certain foreign markets and a shortage of skilled labor in the domestic labor market. The situation will be different across Ukraine's regions, but the mismatches will gradually level off, significantly reducing the negative GDP gap.

Part 3. Monetary Conditions and Financial Markets

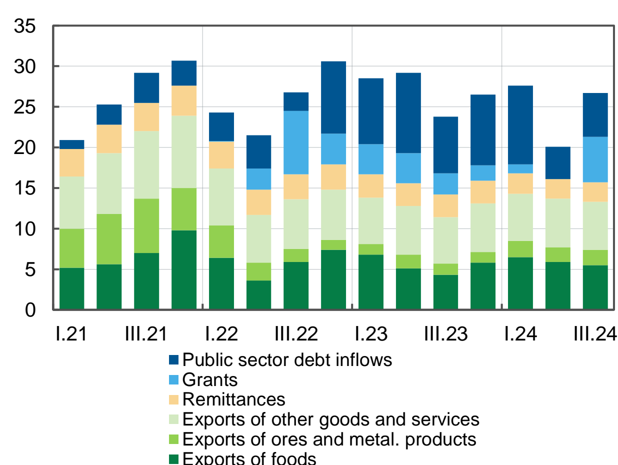
- The updated NBU forecast envisages keeping the key policy rate at 13% for a longer period – at least until the summer of 2025. This decision, combined with maintaining the sustainability of the FX market, will help the NBU maintain control over inflation expectations, slow inflation next year, and later bring it back to its 5% target.
- Substantial financial assistance will continue to ensure there is a sufficient level of international reserves, which will allow the NBU to compensate for the structural FX deficit in the private sector, and smooth out excessive exchange rate fluctuations.
- Measures taken by the NBU to increase the banks' flexibility in managing their own liquidity and to stimulate additional demand for domestic government debt securities will support the government's ability to raise the required funding on the domestic debt market without resorting to monetary financing.

The FX market is stable and under control

The relative stability of net demand for FX, which was in line with the NBU's estimates of the structural deficit, has provided the fundamental basis for the sideways trend in the hryvnia exchange rate in recent months. The NBU continued to be an active participant in the FX market in order to prevent inflation and exchange rate expectations from unanchoring.

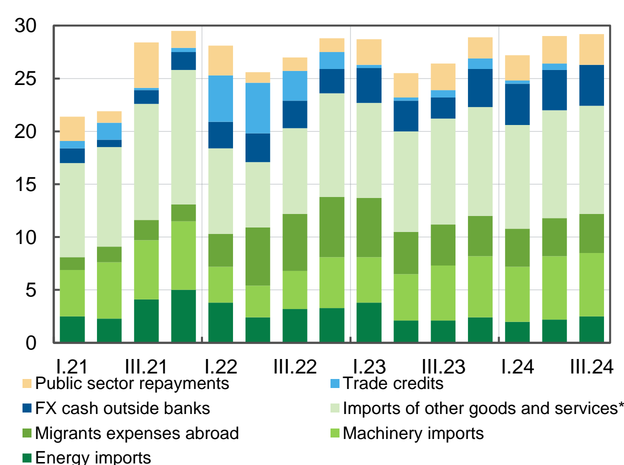
Adhering to the declared principles of managed flexibility, the NBU ensured moderate two-way fluctuations in the official hryvnia exchange rate against the US dollar, with their direction being determined by changes in the balance of supply and demand in the market. Overall, the average official hryvnia exchange rate against the US dollar depreciated by 3.2% in Q3, primarily due to increased turbulence in the FX market in July. In response to a certain deterioration in exchange rate expectations and given the evolution of inflation, the NBU increased net FX sales in Q3 to USD 9.2 billion (compared to USD 8.3 billion in Q2). This helped reduce the amplitude of hryvnia exchange rate fluctuations and reassured market participants. This was also facilitated by the arrival of significant amounts of official financing in August.

Figure 3.1. Key components of FX inflows to Ukraine, USD billions



Source: NBU.

Figure 3.2. Key components of FX outflows, USD billions



* Excluding humanitarian aid.
Source: NBU.

High budget expenditures, made possible by significant amounts of international aid, remained among the key factors driving demand for FX. The FX market was also affected by seasonal (due to the depletion of corn stocks and exports of a new crop of agricultural products) and situational (related to the regulation of payment terms) fluctuations in the supply and demand for FX from agricultural producers. Weak global demand reduced revenues from iron ore exports, which was offset by an increase in metallurgical exports amid a gradual recovery in the ferroalloy industry. At the same time, demand for FX increased slightly because of a significant need to purchase energy

equipment and electricity given the difficult situation in the energy sector and rising fuel imports – due to both seasonal factors and in anticipation of higher taxes. An increase in summer vacations and intensified migration led to higher spending by Ukrainians abroad. What is more, the volume of permitted business transactions has increased following the liberalization of FX restrictions.

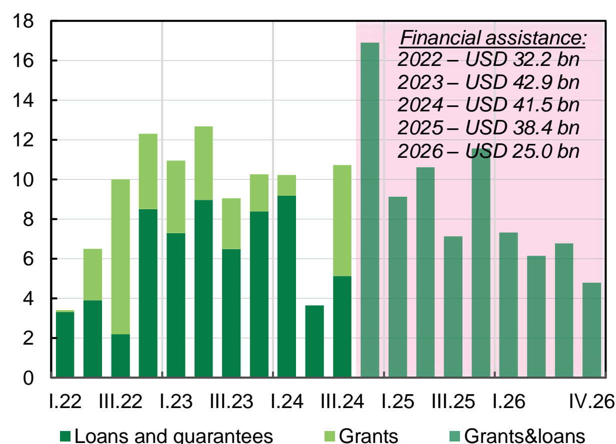
Demand for FX cash also remained strong in Q3, although it declined slightly in August as the market situation stabilized. Despite occasional spikes, the difference between the cash and official exchange rates in Q3 was low, barely exceeding 1%. Moderate exchange rate fluctuations in response to fundamental and situational market factors did not unanchor inflation expectations, which remained relatively resistant to price and exchange rate movements. This, together with the rather high yields on hryvnia instruments, is an important factor in curbing pressures on the FX market, maintaining its sustainability, and anchoring inflation expectations in the future.

The market was also calmed by the news of substantial amount of international financial assistance, the successful restructuring of the external public debt, and the completion of the fifth review of the IMF's EFF for Ukraine. This news have sent a positive signal that external assistance was sufficient to safeguard macrofinancial stability.

Large inflows of international aid generated a net inflow of FX currency in Q3, and enabled the NBU to maintain an adequate level of reserves (USD 38.9 billion as of the end of September). This amount exceeded the IMF minimum required composite metric by over 10%.

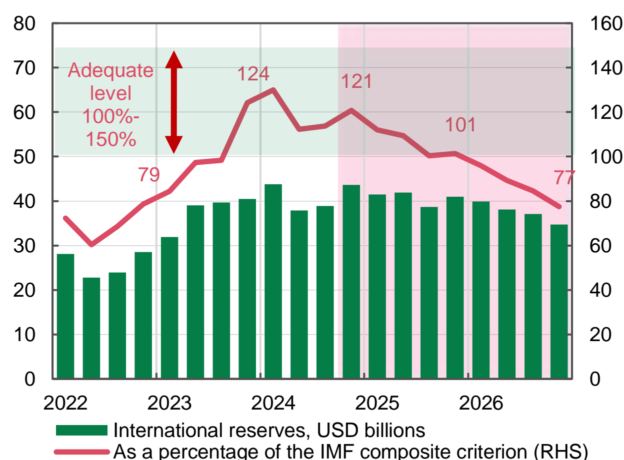
Thus, the NBU maintained its high capability to ensure the sustainability of the FX market. At the same time, the prudent use of international reserves remained the NBU's priority. In view of this, the NBU continued to take well considered, gradual FX liberalization measures to improve the business climate and maintain the country's defense capabilities, while also taking additional steps to counteract unproductive capital outflows from the country.

Figure 3.3. International financial assistance, USD billions



Source: NBU, MFU, data from open sources, NBU assumptions.

Figure 3.4. Gross international reserves



Source: NBU staff estimates.

The private sector's structural FX deficit will remain significant over the forecast horizon, driven by strong demand for imported goods and the large number of migrants abroad. At the same time, the growth of export revenues will remain restrained, dragged down by the effects of the war and global price movements (for more details, see *Economic Developments* on page 20). Demand for FX cash will remain high amid large budget expenditures, but will be restrained by monetary measures aimed at protecting hryvnia savings from inflation. Moderate progress in easing FX restrictions will somewhat increase pressure on international reserves, but will help improve the business climate and boost investment inflows in the medium term.

Public sector borrowing in the form of international financial assistance will remain the main source of net FX inflows over the forecast horizon, but their role will gradually

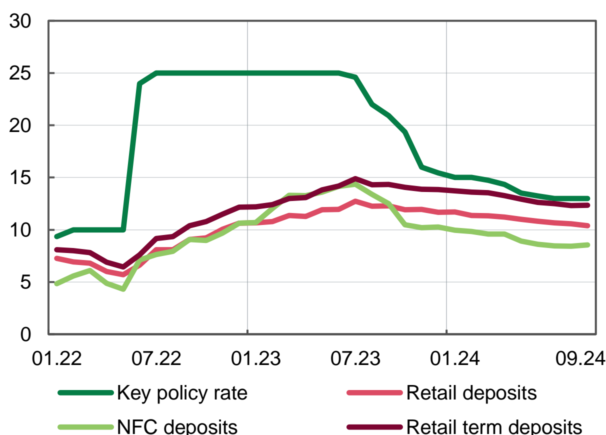
decline. Given the significant structural FX deficit of the private sector, this will decrease international reserves to USD 41 billion by the end of 2025, and to USD 35 billion by the end of 2026. Until the end of 2025, reserves will be higher than the IMF's minimum required composite metric, and by the end of 2026 they will be about 80% of this metric. These amounts will be sufficient to safeguard the sustainability of the FX market. Applying the managed exchange rate flexibility regime, the NBU will compensate for the structural FX deficit in the private sector and smooth out excessive exchange rate fluctuations. The exchange rate will fluctuate moderately in both directions in response to changing market conditions, which will further enhance the adaptability of the FX market and the economy. Exchange rate movements will be in line with the NBU's goals of keeping inflation expectations under control, slowing inflation next year, and returning it to the 5% target over the policy horizon.

The NBU kept the key policy rate unchanged, at 13%, to maintain FX market sustainability and limit price pressures

Since July, the NBU has suspended its interest rate policy easing, and the central bank's updated forecast envisages keeping the key policy rate at 13% for a longer period – at least until the summer of 2025. These decisions are aimed at maintaining interest in hryvnia savings, curbing demand in the FX market, and gradually bringing inflation to its target over the coming years.

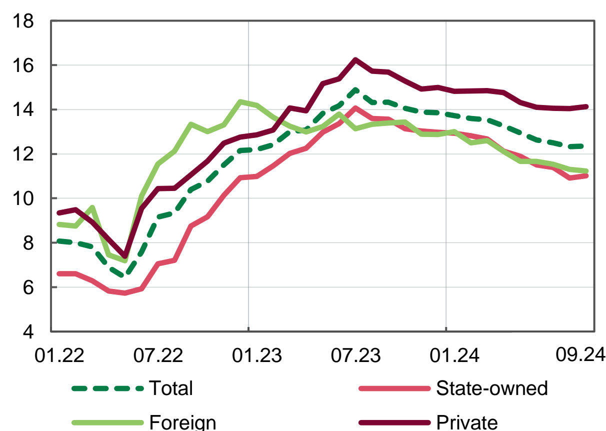
Keeping the key policy rate unchanged in recent months amid rising inflationary pressures has had an impact on the dynamics of hryvnia deposit rates. More specifically, in July–August, the rate of decline in these rates slowed noticeably, and starting in September, the deposit rates even increased slightly in some segments. In particular, in Q3, the weighted average interest rate on demand deposits from NFCs increased by 0.7 pp to 5.3%, while the interest rate on term deposits returned to their June level (8.7%).

Figure 3.5. Weighted average interest rates on hryvnia deposits and monthly average key policy rate, %



Source: NBU.

Figure 3.6. Weighted average interest rates on hryvnia retail term deposits (by bank group), %



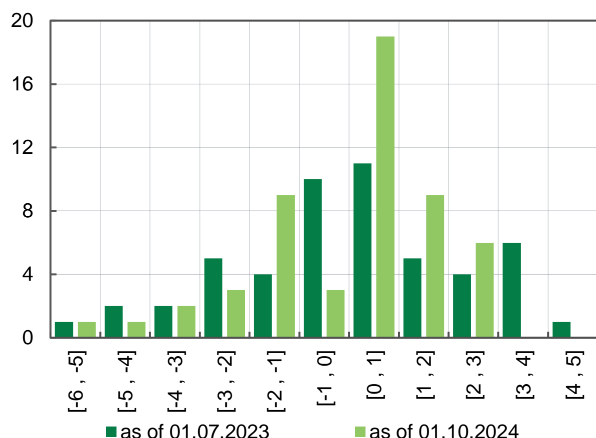
Source: NBU.

Interest rates on retail term deposits also stopped declining in September, despite the fact that the expected impetus from previous key policy rate cuts had not yet been exhausted, according to model calculations. The banking system continues to operate under conditions of a significant liquidity surplus, but the uneven distribution of liquidity and tightened reserve requirements are forcing some banks to compete more aggressively with interest rates for resources. In addition, the intensification of highly profitable consumer lending allows some banks to offer higher interest rates on term deposits. In general, the term deposit market has become more competitive, and in order not to lose clients banks are increasingly less likely to deviate from the average level of interest rates in the system.

Despite a slight deterioration in households' exchange rate and inflation expectations, current yields on hryvnia instruments are sufficient to support the demand of individuals amid the stabilization of the FX market. Term deposits returned to growth in September, and the portfolio of hryvnia domestic government debt securities resumed growth after

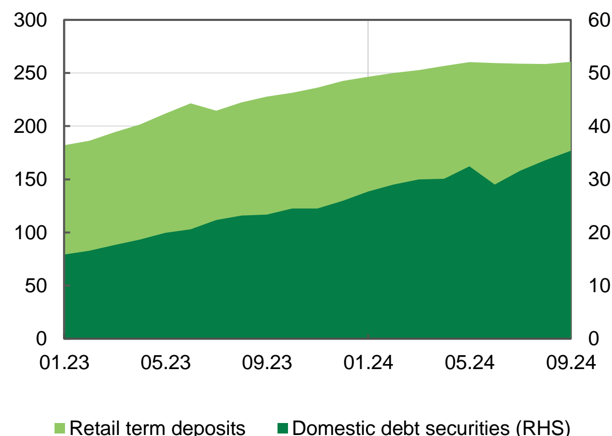
a temporary decline in June. The NBU will continue to seek to keep real interest rates on hryvnia term instruments at a sufficiently high level to protect hryvnia household savings from inflation.

Figure 3.7. Distribution of deviations of interest rates on hryvnia retail deposits with a maturity of more than three months from the average market level, pp



Source: NBU.

Figure 3.8. Stock of hryvnia domestic debt securities held by individuals and hryvnia retail term deposits, UAH billions

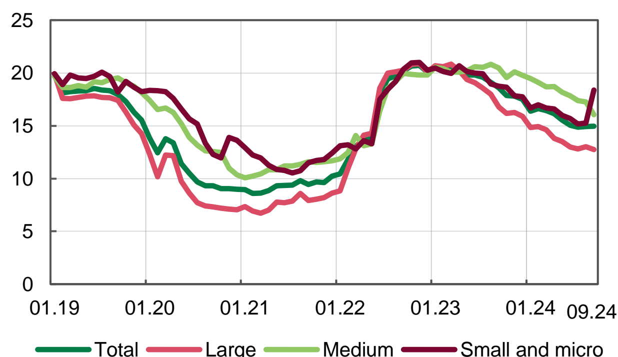


* At outstanding nominal value.
Source: NBU.

Interest rates on corporate loans continued to decline: during the quarter, the weighted average interest rate on hryvnia loans to NFCs dropped by 0.5 pp. At the same time, interest rates on loans to large and medium-sized companies were declining (especially on new loans to large companies), while interest rates on loans to small and micro-sized companies rose significantly in September, which may have reflected the banks' expectations of rising risks. Currently, the level of interest rates is in line with the pre-Covid-19 period and, given the need for capital investment and working capital, is driving demand for loans. Thus, hryvnia corporate loans grew by 4.2% in Q3, or by 9.3% year-to-date. The leading areas in terms of growth in Q3 were the manufacturing industry and real estate transactions. The joint lending initiative to support the energy sector also had a positive effect, with the banks approving UAH 8 billion worth of loan applications for such projects as of the end of September.

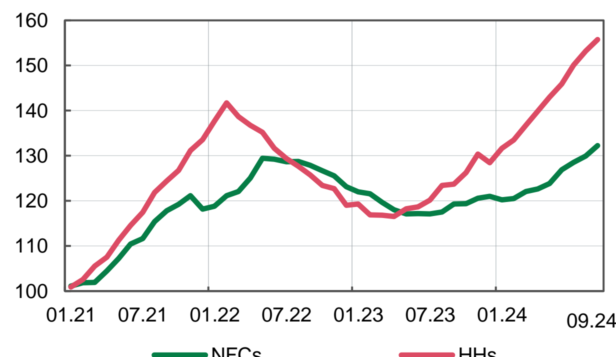
Interest rates on hryvnia loans to households remained almost unchanged in Q3, while the growth rate of household loan portfolio remained high – 6.8% over the quarter or 21.3% year-to-date. Unsecured loans continue to form the basis of the portfolio, with credit card lending by two leading banks driving this growth. Mortgage lending is also growing rapidly (mostly under the government's eOselya program), but the volume is still insignificant.

Figure 3.9. Weighted average interest rates on new* hryvnia loans to NFCs (by size of enterprise), %



* Excluding transactions under additional agreements where there was a change in the loan principal and/or interest rate, as well as prolongation.
Source: NBU.

Figure 3.10. Gross hryvnia loans, 12.2020 = 100



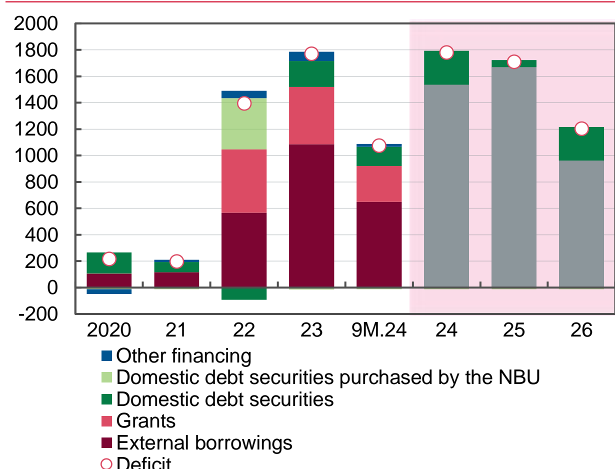
Source: NBU.

The NBU will continue to promote lending as a key element of the country's sustainable economic development, in line with the Lending Development Strategy, which was approved by the Financial Stability Council in June. What is more, measures to ensure macrofinancial stability will help improve the financial sector's capacity to step up lending.

Additional measures taken by the NBU were aimed at expanding the capacity of the domestic public borrowing market to enable the government to meet its budgetary needs without resorting to monetary financing

The domestic debt market picked up significantly in Q3, while yields on securities rose, albeit moderately. On the one hand, this is due to the expected need for additional funds to finance defense and security spending. On the other hand, the irregular inflow of foreign aid (of the USD 10.7 billion that arrived in Q3, USD 8.4 billion was received in August) necessitates the creation of a liquidity buffer for future expenditures, in particular by raising funds on the domestic market.

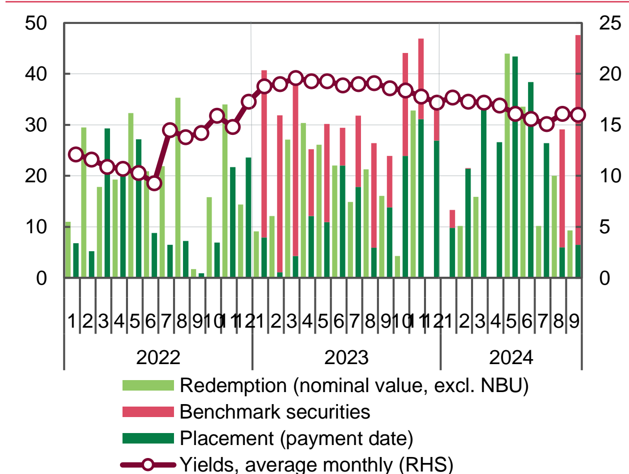
Figure 3.11. Financing* of the state budget deficit (excluding grants in revenues), UAH billions



* Net borrowing. Hryvnia-denominated borrowings include domestic government debt securities issued to increase the authorized capital of banks, the Deposit Guarantee Fund (DGF), and other state-owned enterprises. Deficit in 2024–2026 reflects the NBU's forecast. The grey color denotes external borrowings, grant funds, and other financing, in particular, the use of relatively large cash balances on gov`t accounts at the end of the previous period.

Source: STSU, NBU staff estimates.

Figure 3.12. Primary placement* and redemption of hryvnia domestic government debt securities, UAH billions and YTM



* According to the results of auctions for the placement of domestic government debt securities before reflecting the price effects due to the additional placement of securities. Excluding hryvnia-denominated domestic government debt securities issued in 2022 for recapitalization of Ukrfinzhytlo and purchase of war bonds by the NBU.

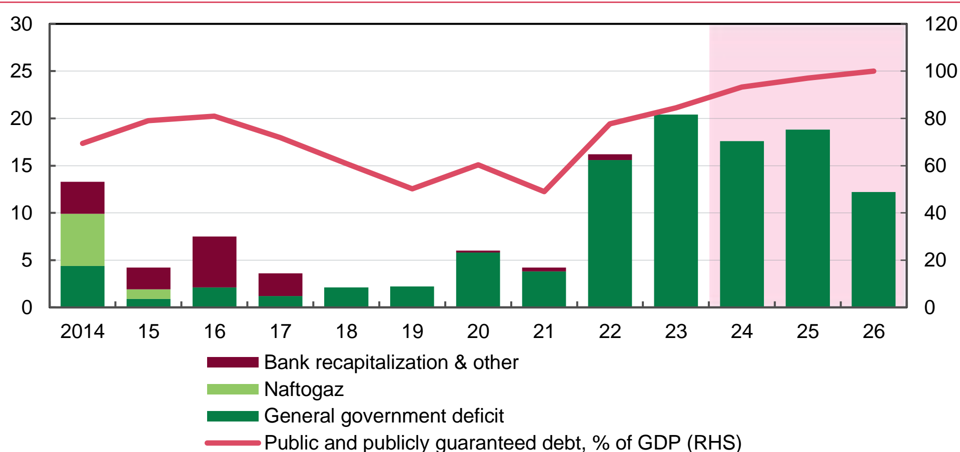
Source: NBU staff estimates.

Interest in government debt securities was stimulated both by their yields, which remained some of the highest among all other financial instruments, and by additional measures taken by the NBU. In September, the NBU announced and in October it implemented a combination of measures to enhance the banks' flexibility in managing their own liquidity, and to boost additional demand for domestic government debt securities. In particular, the NBU raised the required reserve ratios, while at the same time increasing the share of required reserves the banks can meet using benchmark domestic government debt securities. Thus, in anticipation of the announced measures, the banks invested in domestic government debt securities for the long term, which bolstered the government's ability to raise the necessary funding on the domestic debt market without resorting to monetary financing (in August–September, the placement of benchmark domestic government debt securities raised over UAH 64 billion). As a result, in Q3, borrowing exceeded repayments more than twofold, while net borrowing of domestic government debt securities in the first nine months of the year amounted to almost UAH 133 billion.

The expected increase in tax rates, together with additional government`s measures to improve tax administration amid the economic recovery, will promote the growth of the budget's own resources. At the same time, expenditures will continue to be substantial for a long period, so the role of the domestic debt market will remain important given the expected gradual decline in international assistance (for more details, see

Assumptions and Risks on page 44). International financial support and domestic resource mobilization measures will enable the government to finance the budget deficit without resorting to monetary financing.

Figure 3.13. Broad public sector deficit, public and publicly guaranteed debt, % of GDP



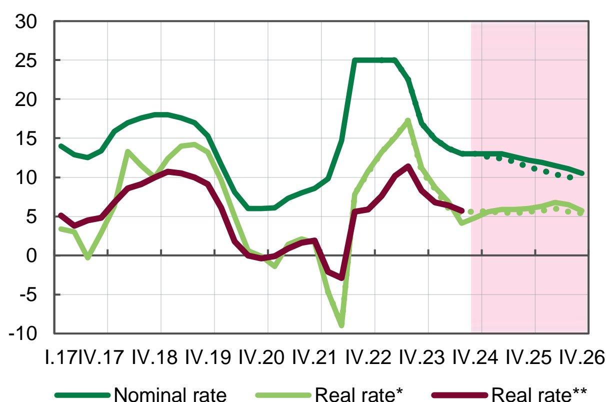
Source: IMF, STSU, MFU, SSSU, NBU staff estimates.

Due to large budget deficits and the smaller share of grants in the total volume of international financial assistance, public and publicly guaranteed debt will continue to rise. However, it will not exceed 100% of GDP over the forecast horizon thanks to the steady economic growth. Debt sustainability will be facilitated by concessional loans from international partners (on much better terms and conditions than the market ones), the restructuring of most commercial sovereign debt securities, and improved domestic debt management. Thus, despite the high level of debt and the increase in its share denominated in FX, the debt burden will not pose any risks to the budget, the FX market, and economic development in the coming years.

A more cautious approach to interest rate policy, along with the continued sustainability of the FX market, will help slow inflation next year and bring it back to its 5% target further on

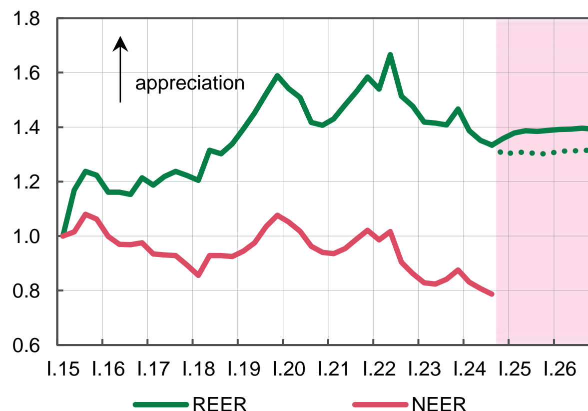
Maintaining moderate inflation and further reducing it to its 5% target amid the current increase in price pressures will require the NBU to take a more cautious approach to interest rate policy and to take prudent measures to balance the FX market. The depreciation of the nominal exchange rate against the currencies of trading partners in the previous quarters supported Ukraine's external trade balance and FX earnings. However, the hryvnia's REER is still relatively strong, which means that real monetary conditions remain rather tight.

Figure 3.14. Nominal and real key policy rate, period average, %



* Deflated on the model expectations (QPM).
** Deflated on the expectations of financial analysts.
Source: NBU staff estimates.

Figure 3.15. REER and NEER indices, Q1 2015 = 1



Source: IMF, national statistical offices, NBU staff estimates.

Maintaining the key policy rate at an appropriate level has the aim of further ensuring that hryvnia savings are adequately protected from inflationary depreciation, which in turn will limit pressures on the FX market. The NBU will also smooth out excessive exchange rate fluctuations and continue to compensate for structural deficit in the FX market, adapting its FX intervention tactics to fundamental changes in the market as necessary. This will ensure that the exchange rate develops in a way that is consistent with the NBU's objectives of keeping inflation expectations under control, slowing inflation next year, and returning it to 5% target over the policy horizon.

In 2025–2026, the gradual improvement in the terms of trade and a prudent monetary policy will keep the hryvnia's REER relatively stable and strong, despite higher inflation in Ukraine compared to its main trading partners. As a result, real monetary conditions will remain tight enough to help shape a sustainable disinflationary trend over the forecast horizon.

Box 3. From an Exchange Rate Peg to Flexible Inflation Targeting amid Full-Scale War

The full-scale russian invasion forced the NBU to fundamentally revise its approaches to monetary policy. The central bank had to temporarily switch to a fixed exchange rate, impose strict FX restrictions, and resort to the monetary financing of the public debt to support the country's defense capabilities in the first months of the war. However, the NBU immediately declared its strategic intention to return to its regular inflation targeting (IT) regime with a floating exchange rate as soon as the proper macroeconomic preconditions are met. In 2022–2024, such conditions were partially created, enabling the NBU to switch to a flexible IT regime. This intermediate regime should strike a balance between keeping inflation under control and helping Ukraine's economy adapt to the shocks of the war, while also supporting its recovery.

Before the full-scale invasion, the NBU saw seven years of successful IT regime implementation with a floating exchange rate. More specifically, in 2015, Ukraine carried out a number of important reforms, including the NBU's switch to a classic IT regime with a floating exchange rate. As a result, the NBU was able to eliminate macroeconomic imbalances in a short period, significantly decelerate inflation, and gradually stabilize economic agents' expectations. This set the stage for the sustainable growth of the Ukrainian economy in 2016–2019 after the first shocks of the war were overcome, and contributed to a relatively rapid recovery from the effects of the Covid-19 crisis in 2020–2021.

The full-scale russian invasion forced the NBU to reconsider its approaches to monetary policy. The central bank temporarily pegged the hryvnia's official exchange rate to the U.S. dollar and imposed strict administrative restrictions on the FX market as well as capital controls. The key policy rate lost its effectiveness in the face of extreme uncertainty, so the NBU did not change it during the first months of the war. The role of the main monetary policy instrument was assigned to FX interventions, through which the NBU kept the exchange rate fixed, meeting FX deficit in the market, and thus stabilizing economic expectations.

The de jure abandonment of the IT regime was enshrined in the Monetary Policy Guidelines for the Duration of Martial Law ("Martial Law Guidelines") in April 2022. This step was fully justified, given the unprecedented level of uncertainty and the enormous shock that hit the Ukrainian economy. The measures introduced by the NBU helped to stabilize expectations and buy time for economic agents to adapt to the conditions of war. In this way, the NBU was able to maintain the confidence of Ukrainians in monetary policy and the hryvnia, which ultimately helped safeguard macrofinancial sustainability.

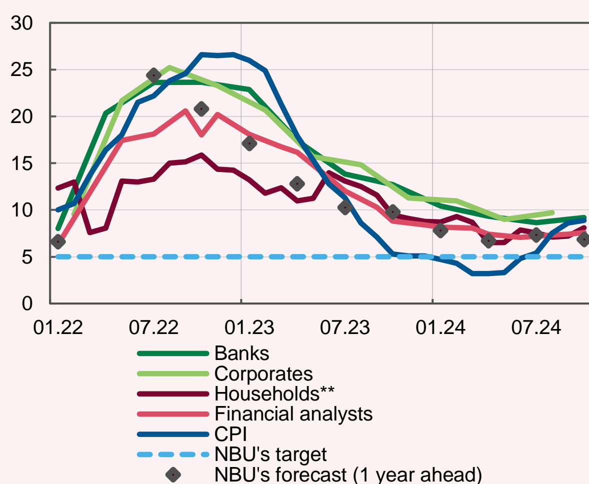
The Martial Law Guidelines cemented the NBU's commitment to gradually return to a full-fledged IT regime as the economy and financial system normalize. This path included a return to proactive monetary decision-making based on the most likely macroeconomic forecast scenarios, a gradual improvement in the efficacy of the transmission mechanism, making the key policy rate effective again, enhancing the exchange rate flexibility and its role as a shock absorber, and a gradual rollback of administrative FX restrictions as the appropriate preconditions are met. These preconditions were outlined in the Martial Law Guidelines only in general terms, so in July 2023, the NBU detailed them in its Strategy for Easing FX restrictions, Transitioning to a More Flexible Exchange Rate and Returning to Inflation Targeting (hereinafter referred to as "the Strategy").

The NBU took its first steps toward returning to IT back in 2022. More specifically, in view of the gradual adaptation of economic agents to life and business amid a full-scale war, the NBU began using the key policy rate as an auxiliary tool, in addition to FX interventions, to reduce pressures in the FX market. To forestall threatening trends in the "gray" and cash segments of the FX market, the NBU has begun to ease administrative restrictions on a case-by-case basis. Furthermore, to enhance the transparency of its actions, immediately after restoring the collection of statistical data

the NBU resumed publishing its inflation reports – the main analytical document to explain the rationale and expected effects of its monetary policy decisions.

Subsequently, the NBU focused on measures to strengthen the transmission of key policy rate hikes to market rates amid a substantial structural liquidity surplus. In particular, the NBU raised and differentiated required reserve ratios, and introduced transactions with 3-month certificates of deposit with a higher rate to bolster competition for retail term deposits among the banks. This contributed to a significant revival in demand for hryvnia term instruments – both deposits and domestic government bonds. In October 2023, the NBU modernized the operational design of its interest rate policy by adopting the floor system to boost the effectiveness of communications about current monetary conditions and expected changes in interest rate policy. This enhanced the role of the key policy rate as a monetary instrument (for more details, see Box *Restoring Sufficient Effectiveness of the Key Policy Rate as a Prerequisite for the Transition to Flexible Inflation Targeting* on page 40).

Figure 1. Actual and projected inflation, inflation expectations (IE)*, %

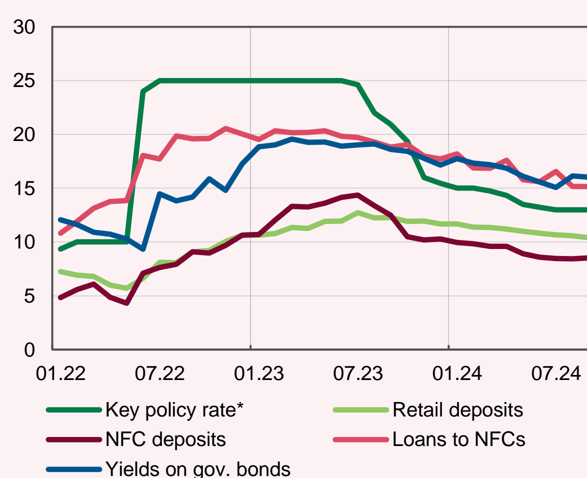


* 12-month-ahead inflation expectations.

** In March 2022, the households' survey method was changed from face-to-face to telephone interviews.

Source: NBU, Info Sapiens.

Figure 2. NBU's key rate*, interest rates on banking products, and domestic government debt securities***, %**



* Monthly average.

** Weighted average interest rates on hryvnia products.

*** Yields on hryvnia domestic government debt securities on the primary market.

Source: NBU.

In addition, allowing the banks to use government securities to meet a portion of their required reserve ratios helped revive the domestic debt market, which made it possible to avoid the monetary financing of the budget deficit from 2023.

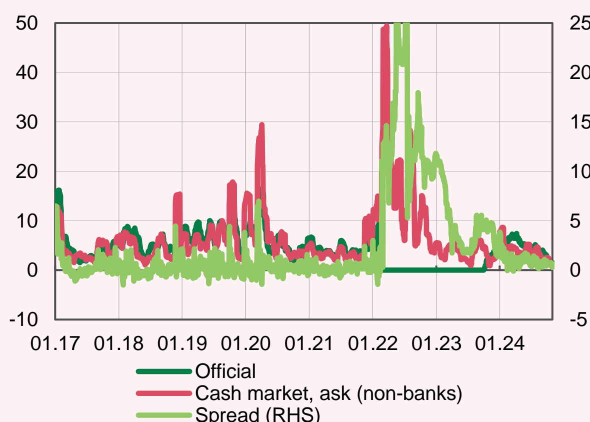
What is more, the NBU managed to **curb pressures on the exchange rate, which contributed to the prudent use of international financial assistance**. At the same time, the gradual easing of FX restrictions has significantly reduced market distortions and, accordingly, improved the manageability of various segments of the FX market. In particular, the difference between the official and cash exchange rates narrowed to less than 5% in July–September 2023, while before that the spread sometimes reached 20% to 30%.

Significant progress in these areas has created room for greater exchange rate flexibility. These changes were necessary given that the fixed exchange rate regime with strict FX restrictions, as shown by the experience of many countries, including Ukraine, loses its effectiveness over time and usually leads to the accumulation of micro- and macroeconomic imbalances and higher risks of a currency crisis in the medium term.

Consequently, in October 2023, the NBU announced a switch to a regime of managed exchange rate flexibility. Under the new regime, to prevent expectations from being unanchored, the NBU maintained an active presence in the FX market, compensating for the structural FX deficit in the private sector with its surplus in the public sector (which

was generated by large-scale international support), and smoothing out excessive exchange rate fluctuations.

Figure 3. Monthly volatility* of UAH/USD exchange rate and the spread between official and cash exchange rates, %**

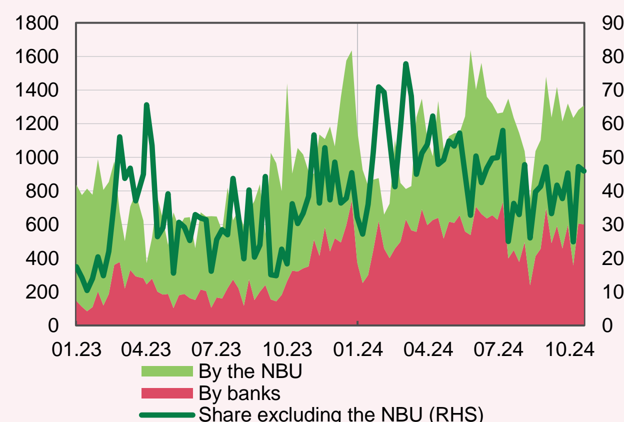


* The standard deviation of the daily change in the exchange rate during moving month is annualized.

** Cash market ask (non banks).

Source: NBU, open sources, NBU staff calculations.

Figure 3. Volumes of transactions in the interbank FX market*, USD m, and the share of transactions excluding the NBU, %



* Weekly sales volumes by banks and the NBU on tod, tom, and spot terms (all currencies in dollar terms).

Source: NBU.

The greater flexibility of the exchange rate ultimately had a number of positive effects. In particular, the depth of the FX market increased significantly: the share of transactions without the NBU's participation rose from 28% to 46% on average. It also decreased the multiplicity of exchange rates: the difference between the official and cash exchange rates fell to 0.5%-1%. Overall, this helped reduce the FX market's sensitivity to situational factors and improve its ability to self-balance. The role of the exchange rate as a corrective mechanism for Ukraine's economy has strengthened.

This strengthened Ukraine's macrofinancial sustainability, and increased the role of inflation as an anchor for expectations. The NBU's measures, along with other factors, contributed to a significant slowdown in inflation (from 26.6% yoy in December 2022 to 5% at the end of 2023), improving inflation expectations and anchoring them to the NBU's forecast. Together with the switch to a regime of managed exchange rate flexibility, this helped shift the role of the nominal anchor of monetary policy from the exchange rate to inflation.

The restoration of the key policy rate's effectiveness, the strengthening of the role of inflation as a nominal anchor, and the successful introduction of the managed exchange rate flexibility regime allowed the NBU to switch to a flexible IT regime. De facto, in early 2024, the NBU declared, for the first time since the onset of the full-scale war, that monetary policy would from that moment on be aimed at maintaining moderate inflation and at bringing inflation to its 5% target over the forecast horizon. The NBU's switch to a flexible IT regime was de jure approved by the Monetary Policy Guidelines for the medium term (hereinafter referred to as the "Guidelines").

On the one hand, the new strategic document enshrined the NBU's commitment to bringing inflation to its 5% target, which remained unchanged. On the other hand, the NBU took into account the high uncertainty arising from the war and its repercussions, the still incomplete recovery of inflation's ability to serve as an anchor for expectations, and the impossibility of a quick return to a floating exchange rate. All of this necessitates a greater level of flexibility in the new monetary regime.

The flexible IT regime envisages extending the policy horizon, moving to a point inflation target, and using a consistent mix of policies to achieve it. In order to respond more flexibly to macroeconomic turbulence, the NBU switched from its usual 5% ±1 pp target to a point target (for more details, see Box *In Search of Optimal Flexibility: The Quantitative Inflation Target and the Monetary Policy Horizon* on page 13). Using the flexibility of the IT regime, the NBU will tolerate temporary deviations of inflation from the target to strike the optimum balance between facilitating the adaptation

of the economy and supporting its recovery, as long as this does not pose a threat of inflation expectations becoming unanchored for a long time (for more details, see Box *In Search of Optimal Flexibility: What Is an Acceptable Deviation of Inflation from the Target?* on page 17). The policy horizon, i.e., the period over which the NBU is expected to return inflation to its target, has become medium-term, lasting up to three years (as opposed to 9 to 18 months before the full-scale invasion).

Another difference between flexible IT and the full-fledged floating exchange rate regime is the more active use of exchange rate policy tools in combination with interest rate policy, FX restrictions, and other monetary instruments to achieve the NBU's statutory goals. Under the flexible IT regime, the NBU will continue to adhere to the principles of managed exchange rate flexibility, which are now clearly defined in the new Guidelines. The gradual strengthening of the link between the exchange rate and market conditions will further enhance the role of the exchange rate as a shock absorber, improve awareness of currency risks, and help boost the adaptability of the Ukrainian economy. At the same time, the NBU will still have the important task of maintaining a sustainable FX market in order to keep inflation expectations in check and achieve the inflation target over the policy horizon.

This will be facilitated, in particular, by maintaining an appropriate level of attractiveness of hryvnia term instruments, i.e. a level of real interest rates that protects households' hryvnia savings from being eroded away by inflation. What is more, the NBU will continue to consider supporting the state budget only in exceptional cases, as an option of last resort.

Thus, the new Guidelines have enhanced the transparency and predictability of monetary policy, while maintaining sufficient operational flexibility for the NBU to respond to economic turbulence. The new Guidelines clarify the NBU's priorities, principles, and other key parameters of the central bank's monetary policy for the medium term. This simplifies and streamlines monetary decision-making, while also enhancing the transparency, consistency, and predictability of monetary policy. Economic agents' better understanding of the objectives and potential outcomes of monetary decisions will help manage expectations more effectively, and thus enabling the NBU to achieve its goals more efficiently.

The NBU intends to use flexible inflation targeting until the economy is fully normalized, which is unlikely to happen before the active phase of the war is over. At the same time, the NBU's ultimate goal remains unchanged: to return to the full-fledged IT regime with a floating exchange rate that allows the NBU to achieve its goals of price and financial stability and sustained economic growth in the long term.

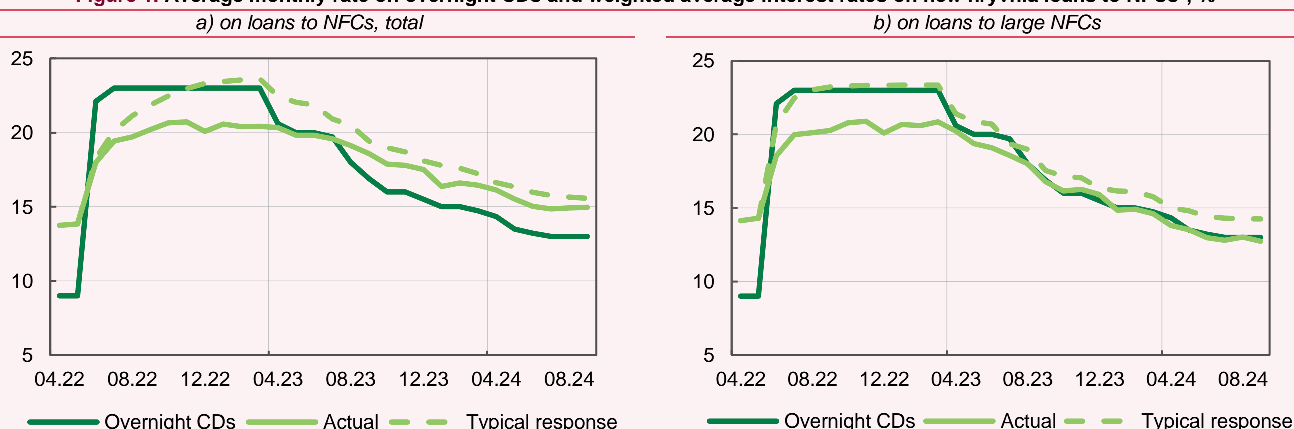
Box 4. Restoring Sufficient Effectiveness of the Key Policy Rate as a Prerequisite for the Transition to Flexible Inflation Targeting

Effective inflation targeting (IT) is impossible without the stable and efficient functioning of the transmission mechanism, which allows the central bank to have the necessary and predictable impact on market interest rates and, subsequently, on price movements (Schnabel, 2024). russia's full-scale invasion has distorted the economic environment and significantly weakened monetary transmission channels. However, the reduction in economic uncertainty, the economy's adaptation to the war, and a number of measures taken by the NBU have gradually made the key policy rate more effective as a monetary policy instrument. This has become one of the important prerequisites for the switch to flexible IT to fulfill strategic priorities.

The degree of influence of the key policy rate on some market rates is gradually increasing, although it has its own specific features. russia’s full-scale invasion has considerably weakened monetary transmission channels in Ukraine. In June 2022, the NBU returned to an active interest rate policy after economic agents partially adapted to the shock of the war. However, it used interest rate policy as a supplementary instrument to curb pressures on the exchange rate and international reserves. Further decline in economic uncertainty, the economy’s adaptation to the war, and a number of measures taken by the NBU contributed to the gradual restoration of the strength of long-term transmission (Shapovalenko and Vdovychenko, 2023). At the same time, the impact of the NBU’s key policy rate on market interest rates on certain hryvnia instruments has its own specific features, which are taken into account when the NBU makes monetary decisions.

As usual, interest rates on loans to non-financial corporations (NFCs) are highly responsive to changes in the key policy rate. Since the start of the full-scale invasion, banks have significantly curtailed their lending, actively competing for the most reliable borrowers. This considerably restrained the initial rise in interest rates in the large company loans segment. Therefore, although the initial response of interest rates on riskier loans to SMEs was fairly close to a typical response[19], the weighted average interest rate on total NFC loans rose less than one would expect in response to a 14 pp increase in the interest rate on overnight certificates of deposit (the NBU’s main interest rate on operations with banks).

Figure 1. Average monthly rate on overnight CDs and weighted average interest rates on new hryvnia loans to NFCs*, %



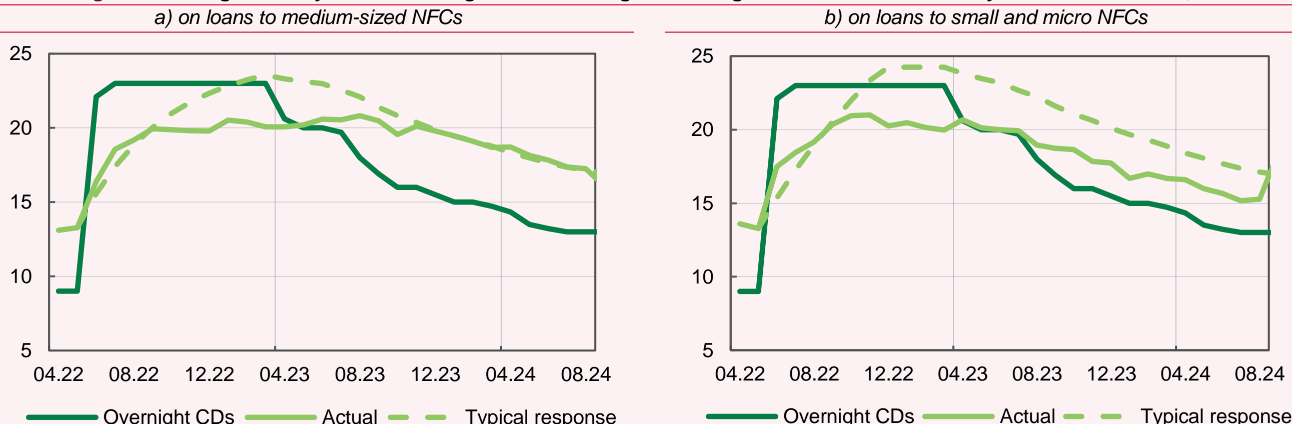
* Excluding transactions under additional agreements where there was a change in the loan principal and/or interest rate, as well as prolongation.
Source: NBU staff estimates.

Further modifications to government programs to support lending at concessional rates have restrained the potential increase in interest rates of loans to medium, small, and micro NFCs. Although such interest rates responded somewhat more moderately to the

[19] Estimates were made using ARDL (Autoregressive Distributed Lag) models calibrated on monthly data from January 2015 to January 2022 (from January 2019 to January 2022 for estimates by company size).

shift towards the NBU's interest rate easing cycle, their subsequent decline was generally followed the typical response. Interest rates on loans to large NFCs dropped in tandem with the NBU's interest rate cuts.

Figure 2. Average monthly rate on overnight CDs and weighted average interest rates on new hryvnia loans to NFCs*, %

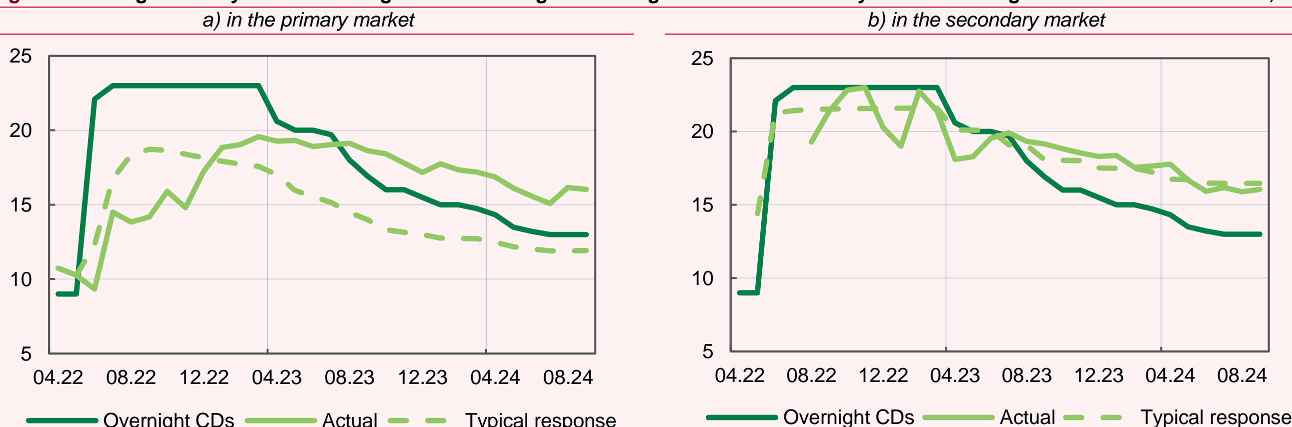


* Excluding transactions under additional agreements where there was a change in the loan principal and/or interest rate, as well as prolongation.
Source: NBU staff estimates.

Overall, despite still-high risk premiums, market-based lending to businesses is slowly recovering, and the speed and strength of transmission to NFC lending rates are rather predictable, including due to persisting macrofinancial sustainability.

Pricing at primary auctions for domestic government debt securities continues to be driven largely by budgetary needs, while the yield transmission in the secondary market is close to the typical one. In the first months of the full-scale invasion, despite an unprecedented increase in risk premiums and accelerating inflation, the yields on domestic government debt securities in the primary market declined. This was made possible, in part, by the willingness of households, banks, and businesses to support the financing of the budget deficit in this way during a difficult period. However, over time, economic agents began to distinguish more clearly between charity (through targeted assistance, donations) and economic motives for investing in term financial instruments. Since the beginning of 2023, the attractiveness of these instruments has been increasing due to stronger coordination of efforts with the Ministry of Finance of Ukraine to revive the domestic debt market. As a result, the growth of yields at the primary auctions not only caught up with, but surpassed the trajectory of a typical response.

Figure 3. Average monthly rate on overnight CDs and weighted average interest rates on hryvnia domestic government debt securities, %



Source: NBU staff estimates.

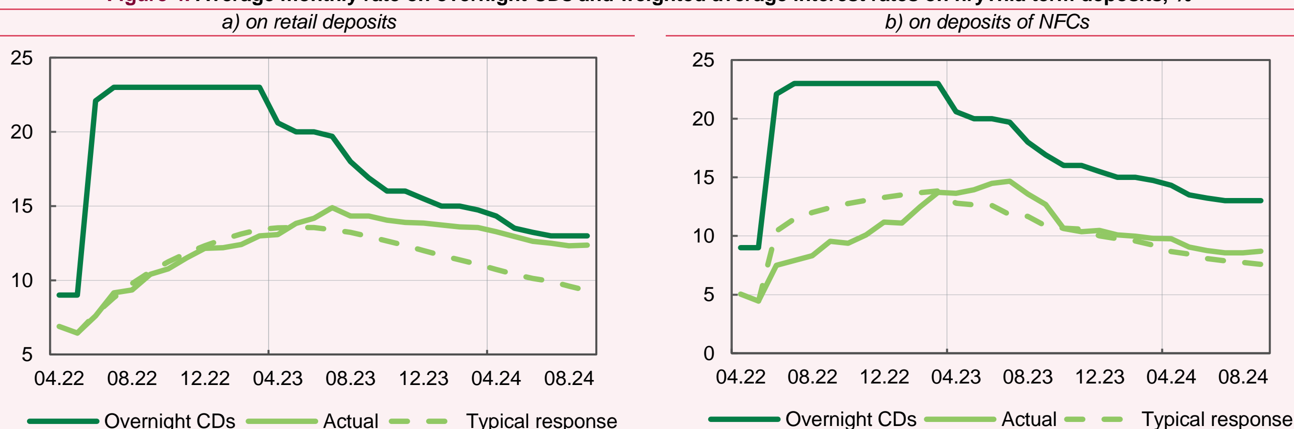
Given the persisting considerable needs to finance the budget deficit, yields on domestic government debt securities in the primary market responded more moderately to the NBU's interest rate cuts than usual. The suspension of the NBU's interest rate easing

cycle in mid-2024, amid accelerating inflation and rising budgetary needs, limited the room for further interest rate cuts on domestic government debt securities. As a result, these interest rates have continued to protect hryvnia savings from inflationary depreciation, stimulating interest in hryvnia domestic government debt securities, and reining in FX demand.

Weighted average yield on domestic government debt securities in the secondary market, after it resumed operations in August 2022, was quite volatile and was mainly driven by temporary factors. Conversely, with the start of the NBU's interest rate easing cycle and the revival of the secondary market, the situation stabilized, and the decline in weighted average yield was generally followed the typical response.

The NBU succeeded in targeting the strength of transmission in interest rates on retail term deposits. The transmission to deposit rates in Ukraine is usually asymmetric – the banks are normally more willing to decrease their interest rates in response to key policy rate cuts than to raise them when the NBU tightens interest rate policy[20]. What is more, in 2022, this asymmetry was exacerbated by a substantial liquidity surplus and the concentration of the deposit market. As a result, the response of deposit rates to the NBU's considerable tightening of its interest rate policy was rather restrained. Further on, a strong impetus to cut deposit rates could be expected, as the NBU shifted to a monetary policy easing cycle.

Figure 4. Average monthly rate on overnight CDs and weighted average interest rates on hryvnia term deposits, %



Source: NBU staff estimates.

The weak response of deposit rates undermined the protection of hryvnia household savings from inflationary depreciation, and thus increased risks to FX market sustainability and the NBU's ability to keep inflation in check. Therefore, despite the above-mentioned asymmetry, the NBU sought to increase the response of deposit rates during the tightening cycle of its interest rate policy, and then, on the contrary, to restrain their decline during the easing cycle. To this end, the NBU applied a set of measures, including a considerable increase in reserve requirement ratios and an improvement to the mandatory reserve requirement mechanism, the modification of the operational design of its interest rate policy, as well as numerous communications to boost competition for retail term hryvnia deposits among the banks.

As a result, the growth in term deposit rates in H1 2023 caught up with and exceeded a typical response, which was appropriate from the perspective of ensuring that hryvnia assets remain attractive. Later in its interest rate cutting cycle, the NBU was able, in a targeted manner, to restrain the decline in yields on retail deposits maturing in 93 days or more, while interest rates on corporate deposits and short-term retail deposits responded much more strongly. This, on the one hand, allowed the banks to gradually reduce their funding costs (thanks to corporate deposits), while also bolstering the transmission of key policy rate cuts to interest rates on loans. On the other hand, this

[20] For more details, see Box 4 *Transmission of NBU Key Policy Rate to Rates on Households' Hryvnia Term Deposits* in the July 2023 Inflation Report.

made it possible to maintain a sufficient level of attractiveness of hryvnia term deposits by keeping real interest rates high, as well as to safeguard FX market sustainability.

The NBU will continue to make best effort to enhance the effectiveness of the key policy rate as a monetary instrument. As Ukraine's economy is adapting to the war, market interest rates are increasingly shaping the behavior of economic agents, and thus, the dynamics of macroeconomic indicators, including inflation and exchange rate. The effectiveness and predictability of the impact of the NBU's interest rate policy on market rates is gradually increasing. This is still not enough for the key policy rate to fully serve as the main monetary instrument. However, combined with other monetary policy tools, it is sufficient for the switch to flexible IT to meet the NBU's strategic priorities.

Part 4. Assumptions and Risks to the Forecast

- The current macroeconomic forecast is based on the assumptions that external support will remain significant and that the environment for the functioning of the economy will gradually normalize. The forecast also assumes stable operation of the sea corridor. Electricity shortages will persist over the forecast horizon, especially during periods of peak load on the power system, but will decrease thanks to the restoration of infrastructure.
- The main risks of the baseline scenario of the macroeconomic forecast are associated with the course of the full-scale war, related additional budgetary needs, and an increase in electricity shortages, as well as with the uncertainty over sources of external financing.

The full-scale war remains the key risk to the forecast, although the high adaptability of Ukrainian households and businesses supports a steady recovery in the Ukrainian economy

Large-scale hostilities make a rapid economic recovery impossible and complicate the task of keeping inflation close to the 5% target. The speed of the economy's return to the normal functioning will depend on the nature and duration of the war. As long as the war grinds on, the risks of a further decline in economic potential remain, in particular due to the loss of people, territories, and production facilities. War risks faced by Ukraine are also exacerbated by global geopolitical tensions amid the war in the Middle East, the electoral cycles of a number of countries, and russia's attempts to form a coalition of states to confront the democratic world. At the same time, the high adaptability of businesses and households to the difficult security situation is partially compensating for the restraining effect of security challenges on economic development.

The baseline scenario of the forecast assumes that budget deficits will remain significant but will gradually decline over the forecast horizon. However, the risks of increased needs to support defense capabilities are still substantial

The NBU has raised its forecast of the budget deficit for the current year to 23.3% of GDP (excluding grants in revenues), taking into account changes made to the budget to increase defense spending. The baseline scenario takes account of the draft budget for 2025, as well as relevant legislative changes in taxation. High defense spending will be covered by additional measures to mobilize budget revenues and by higher borrowing. The main effect of these measures will be seen in next year's revenues, so the budget deficit will shrink to 19.6% of GDP in 2025. Further expansion of the domestic funding base amid economic growth and expenditure optimization will help reduce the budget deficit to 12.4% of GDP in 2026. However, there remains a high risk that the needs of the defense sector or the need to quickly repair damage to critical infrastructure might increase against the backdrop of limited potential for optimizing other expenditures. If this risk materializes, the government is expected to seek additional sources of financing by mobilizing domestic resources. In particular, it is likely that tax revenues will continue to grow, and domestic market borrowing will increase, helping to avoid monetary financing of the budget deficit.

The forecast takes into account the latest tax changes, but additional tax initiatives are also possible, which, depending on their parameters, will have various impacts on inflation

The macroeconomic forecast assumptions are based on draft legislative amendments[21] to increase the rates of certain taxes (including the military tax, the income tax rates for banks and non-bank financial institutions, and others) and previously approved changes to revise excise tax rates.

However, if additional budget needs arise, they may be covered by raising the rates of existing taxes, or by introducing new ones. Such initiatives may have various impacts

[21] Draft Law No. 3939-IX *On Amendments to the Tax Code of Ukraine Regarding the Specifics of Taxation under Martial Law* dated 3 September 2024.

on inflation, depending on their parameters. For example, a potential increase in consumption taxes (VAT, in particular) carries more short-term upside risks to inflation, as increases in these are immediately reflected in consumer prices. Direct taxes mostly have a neutral impact, as the inflationary effect of higher budget spending offsets the contraction of private consumption. The NBU will take further potential tax changes into account in its monetary policy decisions.

The NBU's forecast assumes the continuation of large external financial support, primarily in 2025. However, risks to the forecast – both downside and upside ones – might stem from significant changes in assistance volumes

The assumption of this macroeconomic forecast is that Ukraine will continue to receive significant external financial support from its international partners. Ukraine is expected to receive USD 42 billion, USD 38 billion, and USD 25 billion in international financing in 2024, 2025, and 2026, respectively. By the end of 2024, Ukraine should receive more than USD 4.8 billion under the World Bank's SPUR program, which is supported by financing from the United States (USD 1.6 billion). In addition, significant progress has been made in confirming volumes of assistance to be provided in 2025–2026. In particular, the EU Council approved a loan of up to EUR 35 billion (the final amount will be revised taking into account funding proposed by other donor countries) to Ukraine under the Extraordinary Revenue Acceleration (ERA) Loans for Ukraine, which will not be tied to specific expenditures. Other G7 countries, including the United States (with a contribution of USD 20 billion), have also confirmed their readiness to join in this program. Funding volumes under the program will amount to USD 50 billion. The funding will be provided through the Ukraine Loan Cooperation Mechanism (ULCM), which envisages non-repayable macrofinancial assistance. The ERA loan will be repaid exclusively from future proceeds from the immobilized sovereign assets of russia.

The risk of not receiving the expected funding is low for the current year, but remains significant for following years – although it has decreased markedly. Despite assurances from partners of continued support for Ukraine, the regularity and sufficiency of official funding may not be fully secured, as budgets for next year have not yet been approved in most countries. The materialization of this risk will require both fiscal and monetary policy responses. On the fiscal policy side, additional measures are expected to mobilize budget revenues, cut spending, and increase borrowing from the market. Depending on the amount of under-received funding, the risk of a resumption of monetary financing of the budget will increase. This challenge will also require the NBU to respond by using available monetary policy tools – namely the key policy rate and interventions to sell foreign currency. As a result, international reserves will decline, weakening the country's external sustainability.

At the same time, arrangements may be reached to increase international assistance from partners, in particular through the newly created ULCM mechanism and other programs designed to meet the large social and defense needs of the budget. In 2022–2024, the NBU more than once revised its external financing assumptions upward as the democratic world realized the long-term consequences of russian aggression and the need to maintain support for Ukraine. The materialization of this upside risk could enable the NBU to return sooner to easing its interest rate policy.

The situation in the energy sector remains difficult, but due to repairs and better-than-expected adaptation of businesses to power outages, assumptions about electricity shortages and their impact on economic activity have been improved

Despite the repairs, the situation in the energy sector remains difficult, given the significant losses and damage to both generating and transmission capacities. At the same time, in Q3, the electricity deficit was smaller than expected by the NBU, likely due to rapid repairs at key facilities and mild weather conditions after the record heat wave in July. This allowed the estimates of electricity shortages for the forecast horizon to be improved.

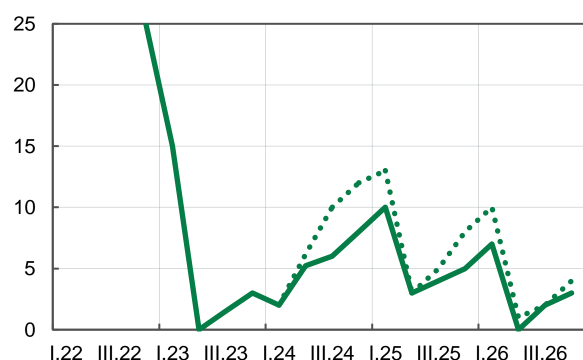
As previously expected, due to the integration of the Ukrainian energy system, the deficit of the country's own capacities will be partially covered by imports, the annual cost of which will be around USD 1 billion. This will be facilitated by the expected expansion of

the maximum capacity for electricity imports from the EU from 1.7 GW to 2.1 GW from December 2024.

Taking into account electricity imports, the electricity deficit is estimated at 5% in 2024 (previous estimate: 7%), around 6% in 2025 (previous estimate: 8%), and 3% in 2026 (previous estimate: 5%). Despite the improved assumptions, the shortage of electricity will hinder GDP recovery over the entire forecast horizon, while electricity imports and companies' efforts to develop and use more expensive autonomous energy supplies will increase their production costs, which will be a significant inflationary factor.

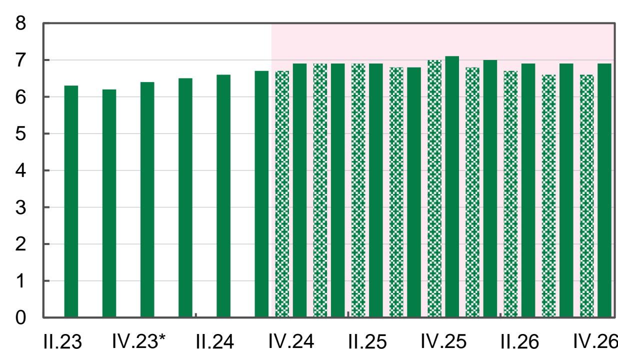
The risks of further destruction and a widening of the deficit remain significant. If they materialize, GDP growth will be lower than under the baseline scenario, while price growth will be higher. An upside risk to the forecast is that completing repairs and/or launching new capacities might be done more quickly than expected, and that imports might increase, resulting in a smaller electricity deficit.

Figure 4.1. Electricity deficit, %



Source: NBU staff estimates.

Figure 4.2. Number of migrants staying abroad, million persons (end of quarter)



* UNHCR refined data on the number of migrants at the end of 2023.
Shaded bars are assumptions of the July 2024 Inflation Report.
Source: UNHCR, NBU staff estimates.

The protracted war and a significant shortage of electricity will lead to continued migration abroad, and later to a slow return of migrants to Ukraine over the forecast horizon

In the summer of 2024, the risk of a larger outflow of migrants abroad than previously expected materialized due to the very difficult energy situation. Therefore, assumptions about the net outflow of external migrants in 2024 have been downgraded compared to previous estimates (to around 500,000 people). At the same time, the larger outflows of the current year imply a decline in the number of those planning and able to leave later on, so in 2025 the outflow is assumed to be smaller than previously estimated (around 200,000). As before, the net return of migrants to Ukraine is expected to start in 2026. However, as people are adapting to new locations abroad, and economic conditions in Ukraine are normalizing only gradually, the return will be somewhat lower than previously expected (around 200,000).

The risks of a larger outflow of migrants abroad and a smaller return still prevail. Due to the longer duration of Ukrainians' stay abroad, their adaptation to recipient countries is increasing, which both poses risks to their return and creates risks of additional out-migration of those currently in Ukraine to reunite with their families abroad. This would affect the supply of labor and reduce potential consumer demand. The increased demand for skilled labor in the economy would further increase imbalances in the labor market, and would make wage growth outpace productivity growth in certain sectors.

The baseline scenario does not assume the western borders to be blocked or other restrictions to be imposed on the entry of Ukrainian goods into the European market. At the same time, there remains a moderate risk of short-term

blocking of certain border crossing points, which will have a minor impact on trade flows

Sporadic border closures after the blockade was lifted in late April did not have any significant impact on exports and imports of goods. However, there remains a risk that short-term border blockades will resume and that certain restrictions will be imposed on the entry of Ukrainian goods into the European market. If these risks materialize, it is assumed that logistics for Ukrainian products will be reoriented relatively quickly to other modes of transportation and to other destination countries.

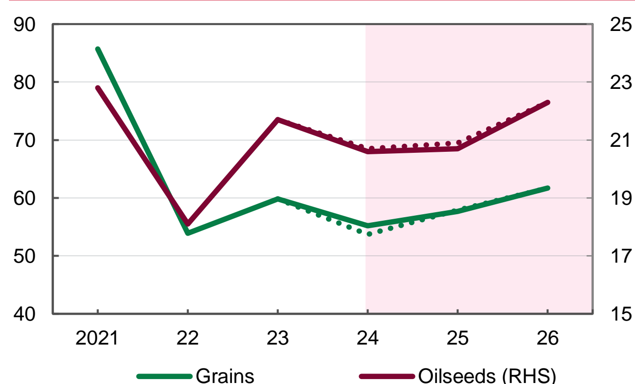
In 2024, the grain harvest estimate was improved due to higher harvests of early crops, but harvest estimates for late crops, vegetables, and fruits were downgraded due to unfavorable weather conditions in summer 2024. Harvest volumes will gradually increase going forward

The drought that hit a number of regions this summer will have a negative impact on the harvest of late crops, particularly corn and oilseeds. However, the unfavorable weather conditions did not affect the harvest of early crops. According to current data, the harvest of early crops in 2024 exceeded the estimates published in the July 2024 Inflation Report due to both larger areas under crops and higher yields. This outweighed the expected decline in the corn harvest, and overall, the estimate of the 2024 harvest of grains and pulses has been improved (to 55.2 million tons). At the same time, the estimate of the oilseed harvest for 2024 was lowered slightly (to 20.6 million tons). Vegetable, potato, fruit, and berry crops were also badly affected from the heat wave in July, which also led to a deterioration in their harvest estimates this year. Lower harvest volumes also pose risks to the production of a number of animal farming products, in particular due to higher feed prices. These factors have been taken into account in the pressure on raw food prices this year and early next year.

In 2025–2026, harvests will gradually increase. At the same time, prolonged dry weather conditions in the summer and autumn of 2024 pose risks to the winter crop sowing campaign for the 2025 harvest. As a result, the forecast for 2025 of harvests of grains and pulses has been slightly lowered, to 57.7 million tons, and for harvests of oilseeds, to 20.7 million tons. In 2026, harvests will continue to grow (grains harvests up to 61.7 million tons; oilseeds harvests up to 22.3 million tons). Harvests of vegetables, fruits, and berries will also grow. Animal farming will continue to recover thanks to relatively cheap feed and stronger external demand, which will curb inflationary pressures and support GDP growth. The supply of these products is expected to be sufficient to meet demand, which will keep inflation in check.

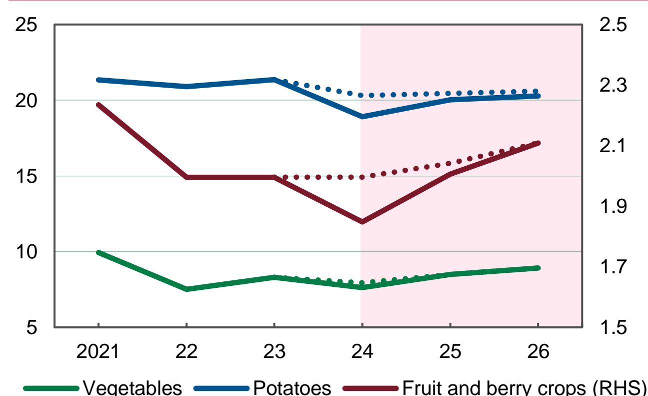
However, significant risks remain of increased volatility in harvest volumes due to weather conditions, which would have a corresponding impact on inflation. At the same time, the expansion of planted areas and additional investments could lead to higher harvests and a revival in animal farming. This would result in faster GDP growth and larger proceeds from exports. An increase in food supply would restrain inflation and allow for a looser monetary policy.

Figure 4.3. Harvest of grains and oilseeds, million tons



Source: SSSU, NBU staff estimates.

Figure 4.4. Harvest of fruits and vegetables, million tons



Source: SSSU, NBU staff estimates.

Excise taxes and utility tariffs will gradually increase over the forecast horizon, but the timing and parameters of tariffs adjustment are an area of uncertainty and a risk to the inflation forecast

The NBU expects that the current tariffs for gas, heating, and hot water supplies will not be revised in 2024–2025. However, given the difficult situation in the energy sector, these tariffs are expected to be gradually brought to their economically justified levels starting from 2026. Uncertainty over the timing and scale of tariff adjustments, primarily for energy, is a separate risk to the inflation forecast. If energy prices or other utility tariffs rise rapidly, they will make an additional contribution to inflation, and there will be a need to increase subsidies for households. On the other hand, the prolonged postponement of decisions to raise utility tariffs would result in lower inflation, but quasi-fiscal imbalances would accumulate, and worsen the financial standing of state-owned energy companies. This would increase the risks of instability on the energy market and deteriorate the investment potential of the industry, while price pressures would be postponed to the future.

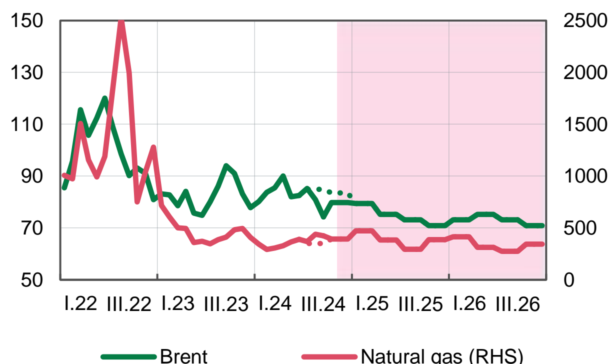
The NBU's forecast includes moderately conservative estimates of investment, while large-scale reconstruction projects in Ukraine, along with rapid European integration, could significantly accelerate economic growth

Restoration of Ukraine's destroyed infrastructure and production facilities requires large investments, which will only be attracted if there is an appropriate reconstruction program adopted in close cooperation with international lenders and donors. Such projects are not accounted for in the baseline scenario of the macroeconomic forecast, but are considered as a positive risk to the forecast. In particular, there could be a decision by Western partners to transfer russia’s frozen assets to Ukraine, which would increase the potential for such projects. The implementation of such a program, together with European integration reforms, would significantly accelerate economic recovery. Household income would also grow much faster than in the baseline scenario, leading to an increase in underlying inflationary pressures. At the same time, the inflow of foreign currency into the country and a decline in the risk premium would create an appreciation pressure on the hryvnia, limiting the growth in consumer prices.

Global commodity market conditions will improve for Ukraine, but this might be impeded by the realization of geopolitical risks

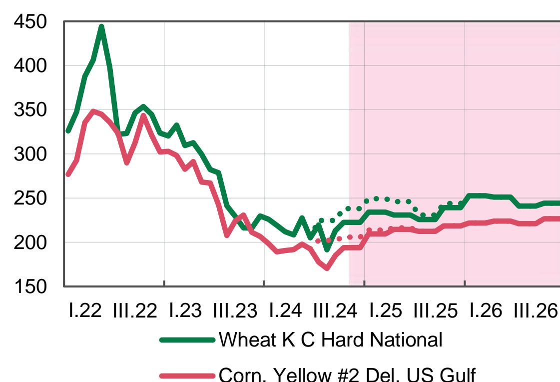
Global energy prices will remain highly volatile. Given the weakening of global demand, primarily from the world's largest importers – China and the United States – global crude oil prices will fluctuate within the lower-than-expected range of 70–80 USD/bbl by the end of this year. Relatively stable production volumes by the United States, Iran, Angola, and Venezuela will put additional downward pressure on prices. On the other hand, the expected moderate recovery in demand in the United States and Europe, in particular due to the gradual easing of monetary policy by leading central banks, as well as the OPEC+ countries retaining production restrictions until December, will restrain prices from falling. In the coming years, crude oil prices will remain within the range of 70–80 USD/bbl: a significant supply on the market, including due to a gradual increase in production by OPEC+ countries, will be offset by a resumption of demand growth due to the revival of the global economy. Natural gas prices in the European market will also gradually decline over the forecast horizon on the back of increased global LNG production, primarily in the United States, Qatar, and Australia; russia's increased supply of relatively cheaper energy to Asian countries; growing energy production from renewable sources; and balanced stockpiling. However, an escalation of geopolitical tensions in the Middle East could create significant disruptions in the energy supply chain on the global market. Given the expected pickup in demand, this could offset the oversupply and, consequently, lead to increases in oil and gas prices.

Figure 4.5. World crude oil prices (USD/bbl) and Dutch TTF natural gas prices (USD/kcm)



Source: World Bank, LSEG, NBU staff estimates.

Figure 4.6. World prices for wheat and corn, USD/MT



Source: World Bank, IMF, NBU staff estimates.

Global grain prices will gradually rise. Despite a significant decline in prices in the middle of the year under the pressure of oversupply and strong competition, wheat and corn prices have been rising since early September. The upward trend will be driven by another drought in the largest exporting countries, which will affect both the current harvest of late crops and the sowing of winter crops. On the wheat market, expectations for the MY 2024/2025 harvest have been lowered (primarily for russia) due to worsened weather conditions in the Black Sea region. In addition, supply will be pressured by significantly lower and poorer-quality harvests in the EU, as well as a decline in harvests in the west of North Africa. Accordingly, global imports will continue to grow. Improvements in the United States and Australia will not be sufficient to compensate for the losses of other exporters. Consequently, global wheat stocks will decline markedly, which will put an upward pressure on prices in the coming years. On the corn market, the expected record harvest in the United States will still not be large enough to compensate for smaller harvests in other major exporting countries, such as Brazil and Ukraine, leading to a decrease in expected global output. At the same time, demand will grow, driven by Asian countries as they develop their animal farming, and by ethanol producers, primarily in the United States, Brazil, Indonesia, and India. Therefore, the upward trend in corn prices will last over the forecast period.

Global prices for steel and iron ore will decline gradually. The revival of economic activity in all regions of the world will lead to a faster increase in supply amid higher competition, which will substantially exceed demand. On the other hand, the intensification of emission control policies in most countries, including the EU member states, the United States, and China, will push up production costs, which will keep prices from falling too far.

Global financial conditions will ease amid slowing inflation

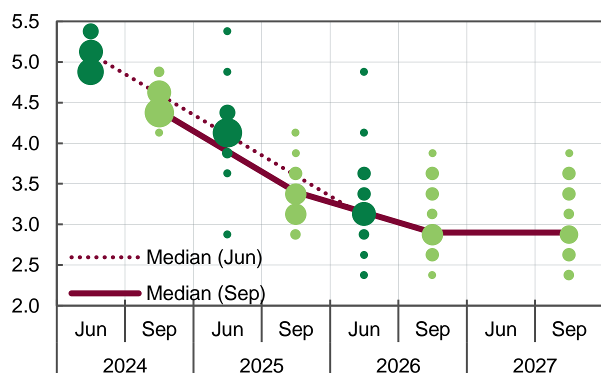
After an aggressive start to monetary policy easing amid signs of a cooling labor market, the Fed forecasts another rate cut of 50 bp by the end of 2024, 100 bp in 2025, and 50 bp more in 2026 (a slightly faster but shallower easing cycle compared to the previous projections). Financial markets expect the Fed to cut the federal funds target range by another 50 bp by the end of 2024, and by a total of 175 bp by July 2025 (the probability of deeper cuts is about 80% and 30%, respectively).

At the same time, the ECB has already cut its key rates three times, but in relatively small steps. Going forward, a cautious approach will be maintained amid high uncertainty caused by the unsustainability of the economy and inflation in the euro area. Investors expect another 25 bp cut in the ECB’s deposit rate by December this year, and a total reduction of 125 bp by July 2025 (the probability of deeper cuts is 52% and 90%, respectively).

As a result, the Fed's more rapid rate cuts compared to the ECB will increase the depreciation pressure on the U.S. dollar in the global financial markets. An additional factor in these dynamics will be the tightening of monetary policy by the Bank of Japan.

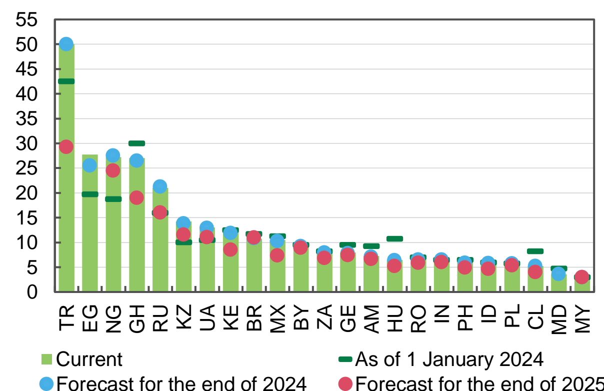
EM CBs are slowing the pace of rate cuts and taking a wait-and-see approach, given the shift in the balance of risks to the upside. The widening spread between interest rates on EM and U.S. assets as a result of the Fed's interest rate cuts will increase the attractiveness of EM assets and help attract foreign capital. A weaker U.S. dollar will make local currency assets, especially bonds, even more attractive. This will contribute to economic growth in EM countries and stabilize their financial markets. As a result, external demand for Ukrainian products will rise.

Figure 4.7. Projected appropriate policy path at the end of the year according to the expectations of the FOMC members, based on the results of the meetings



* The size of the circle is determined by the number of participants supporting the respective rate level.
Source: Fed.

Figure 4.8. Key policy rates in selected EM countries, %



Source: official web pages of central banks, Focus Economics, Oxford Economics, as of 31 October 2024.

The balance of risks in the baseline forecast is shifted toward an increase in the pressure on prices

Table 4.1.1. Probability that a risk will materialize

Degree of impact on the baseline scenario	Low <15%	Medium 15%–25%	High 25%–50%
Weak	Renewed blockade of the western borders or establishing of additional restrictions on the entry into the European market		
Moderate	Quick restoration of the damaged energy infrastructure	Intensified emigration Increasing geopolitical tensions	Potential pass-through to prices of additional tax rate increases and/or introduction of new taxes
Strong	Rapid implementation of the large-scale reconstruction plan for Ukraine	Changes in the announced volumes of international aid	Escalation of hostilities, further destruction of production facilities Larger electricity deficit due to further damage to the energy infrastructure Additional budget needs

Macroeconomic forecast (October 2024)

Indicators	2021	2022	2023	2024						2025						2026					
				I	II	III	IV	current forecast	forecast 07.2024	I	II	III	IV	current forecast	forecast 07.2024	I	II	III	IV	current forecast	forecast 07.2024
REAL ECONOMY, % yoy, unless otherwise stated																					
Nominal GDP, UAH bn	**5451**	**5239**	**6538**	1609	1706	2088	2226	**7630**	**7590**	1821	1941	2387	2572	**8720**	**8620**	2060	2176	2649	2830	**9715**	**9625**
Real GDP	**3.4**	**-28.8**	**5.3**	6.5	3.7	4.0	2.4	**4.0**	**3.7**	2.3	3.4	4.6	6.3	**4.3**	**4.1**	5.7	5.1	4.4	3.6	**4.6**	**4.8**
GDP Deflator	24.8	34.9	18.5	10.9	12.4	12.8	12.4	12.2	11.9	10.6	10.0	9.4	8.7	9.6	9.1	7.0	6.7	6.3	6.2	6.5	6.5
Consumer prices (period average)	9.4	20.2	12.9	-	-	-	-	6.1	5.8	-	-	-	-	9.5	8.2	-	-	-	-	5.7	5.7
Consumer prices (end of period)	**10.0**	**26.6**	**5.1**	3.2	4.8	8.6	9.7	**9.7**	**8.5**	11.4	10.0	8.2	6.9	**6.9**	**6.6**	6.0	5.4	5.3	5.0	**5.0**	**5.0**
Core inflation (end of period)	7.9	22.6	4.9	4.2	5.0	7.3	9.1	9.1	7.1	9.1	8.4	6.6	5.7	5.7	4.5	5.3	4.6	3.8	3.1	3.1	3.1
Non-core inflation (end of period)	13.5	30.6	5.7	2.4	4.5	10.5	10.4	10.4	10.0	14.4	12.1	10.1	8.2	8.2	9.0	6.9	6.3	7.0	7.3	7.3	7.1
raw foods (end of period)	11.8	41.6	2.2	-4.9	-6.5	7.1	6.7	6.7	5.3	12.9	13.0	9.2	5.9	5.9	4.0	4.5	3.9	3.3	2.8	2.8	2.8
administrative prices (end of period)	13.6	15.3	10.7	9.9	13.3	14.0	14.0	14.0	14.0	14.9	10.6	10.1	10.0	10.0	14.2	9.7	9.2	11.3	12.3	12.3	11.9
Nominal wages (period average)	20.9	6.0	17.4	22.5	22.1	19.4	20.5	21.0	16.1	22.0	17.1	15.1	10.8	16.0	14.6	9.0	9.4	8.7	8.6	8.9	8.7
Real wages (period average)	10.5	-11.4	3.7	17.7	17.6	11.4	10.1	14.0	9.7	10.3	6.2	6.3	3.8	6.5	5.8	2.6	3.3	2.7	3.1	2.9	2.9
Unemployment rate (ILO, period average)	9.8	21.1	18.2	-	-	-	-	14.2	13.9	-	-	-	-	11.6	11.4	-	-	-	-	10.6	10.3
FISCAL SECTOR																					
Consolidated budget balance, UAH bn	**-187**	**-845**	**-1331**	-	-	-	-	**-1347**	-1241	-	-	-	-	**-1640**	-1176	-	-	-	-	**-1182**	-853
% of GDP	-3.4	-16.1	-20.4	-	-	-	-	-17.7	-16.3	-	-	-	-	-18.8	-13.6	-	-	-	-	-12.2	-8.9
excluding grants from revenues, % of GDP	-3.4	-25.3	-27.0	-	-	-	-	-23.3	-22.8	-	-	-	-	-19.6	-17.8	-	-	-	-	-12.4	-10.3
BALANCE OF PAYMENTS (analytical presentation)																					
Current account balance, USD bn	-3.9	8.0	-9.6	-3.4	-6.1	-1.5	-5.3	-16.3	-14.2	-7.2	-6.9	-7.4	-6.4	-27.9	-19.0	-7.0	-7.1	-7.3	-6.9	-28.4	-23.5
Exports of goods and services, USD bn	81.5	57.5	51.3	14.2	13.8	13.3	15.8	57.2	57.0	13.8	13.0	14.2	16.7	57.7	57.3	14.9	14.6	16.3	17.8	63.6	63.4
Imports of goods and services, USD bn	84.2	83.3	89.2	21.1	22.5	23.1	25.4	92.1	91.9	23.4	22.8	24.2	25.2	95.6	93.9	23.6	23.3	24.8	25.6	97.3	95.6
Remittances in Ukraine, USD bn	14.0	12.5	11.3	2.5	2.4	2.4	2.7	9.9	10.6	2.7	2.7	2.8	2.9	11.1	11.6	3.0	3.1	3.1	3.2	12.4	12.8
Financial account, USD bn	-4.4	11.1	-18.9	-6.5	-0.4	-0.6	-7.7	-15.2	-11.4	-5.1	-7.1	-4.1	-8.6	-24.9	-15.5	-5.6	-5.8	-5.8	-5.1	-22.2	-17.6
BOP overall balance, USD bn	**0.5**	**-2.9**	**9.5**	3.2	-5.6	-0.8	2.5	**-0.8**	**-2.6**	-2.0	0.2	-3.2	2.2	**-2.9**	**-3.5**	-1.5	-1.3	-1.6	-1.9	**-6.2**	**-5.9**
Gross reserves, USD bn	**30.9**	**28.5**	**40.5**	43.8	37.9	38.9	43.6	**43.6**	**41.2**	41.5	41.9	38.7	41.0	**41.0**	**37.3**	39.9	38.1	37.1	34.7	**34.7**	**32.0**
Months of future imports	4.5	3.8	5.3	5.6	4.8	4.9	5.5	5.5	5.3	5.2	5.2	4.8	5.1	5.1	4.7	4.9	4.6	4.4	4.1	4.1	3.8
MONETARY ACCOUNTS (cumulative since the beginning of the year)																					
Monetary base, %	**11.2**	**19.6**	**23.3**	3.1	10.5	7.4	13.3	**13.3**	15.5	3.0	5.8	8.1	13.1	**13.1**	12.1	0.7	3.7	5.7	11.4	**11.4**	10.0
Broad money, %	**12.0**	**20.8**	**23.0**	1.7	6.0	6.1	13.3	**13.3**	16.1	0.7	3.6	5.0	11.2	**11.2**	11.4	0.4	2.8	4.8	9.7	**9.7**	9.2
Velocity of broad money (end of year)	**2.6**	**2.1**	**2.1**	-	-	-	-	**2.2**	2.1	-	-	-	-	**2.2**	2.2	-	-	-	-	**2.3**	2.2

Comments on the dynamics of the main indicators in the macro forecast and factors behind their revision

Indicators	2024	2025	2026	Factors behind the revision
Inflation, %, eop	**9.7**	**6.9**	**5.0**	Higher path-through of production costs to prices, food price increases due to adverse weather conditions, increase in budget expenditures, higher mismatches in the labor market
	1.2	0.3	0.0	
Real GDP growth, %	**4.0**	**4.3**	**4.6**	Higher harvest, reconstruction of energy capacities, higher budget incentives
	0.3	0.2	-0.2	
Nominal GDP, UAH bn	**7630**	**8720**	**9715**	Faster economic recovery and higher inflation
	40	100	90	
Consolidated budget balance (excluding grants from revenues), % of GDP	**-23.3**	**-19.6**	**-12.4**	Higher budget expenditures for defense, social support and reconstruction
	-0.5	-1.8	-2.1	
Current account balance, USD bn	**-16.3**	**-27.9**	**-28.4**	Worse trade balance, lower amounts of official grants (albeit higher amounts of loans)
	-2.1	-8.9	-4.8	
Gross international reserves, USD bn	**43.6**	**41.0**	**34.7**	Higher amounts of official financing
	2.4	3.7	2.7	
Key policy rate (period average), %	**13.6**	**12.7**	**11.2**	Higher inflation pressure
	0	*0.6*	*0.9*	

The indicator has been revised downwards (pp)

The indicator has been revised upwards (pp)

Forecast assumptions

Indicators		2021*	2022*	2023*	2024	2025	2026
Official financing	USD bn		32.2	42.9	41.5	38.4	25.0
Migration (net, excluding russia and belarus)	m			-0.2	-0.5	-0.2	0.2
Real GDP of Ukraine's MTP (UAwGDP)	% yoy	6.9	3.6	1.5	2.3	2.8	2.7
Consumer inflation in Ukraine's MTP (UAwCPI)	% yoy	6.4	13.8	7.6	5.8	3.9	2.7
World prices:**							
Steel price, Steel Billet Exp FOB Ukraine	USD/t	615.0	618.1	539.7	506.6	507.0	494.3
	% yoy	57.9	0.5	-12.7	-6.1	0.1	-2.5
Iron ore price, China import Iron Ore Fines 62% FE	USD/t	161.7	121.4	120.6	107.4	87.6	76.2
	% yoy	48.5	-24.9	-0.7	-10.9	-18.4	-13.0
Steel price, No.1 Hard Red Winter, ordinary protein, Kansas City	USD/t	265.8	360.2	272.3	215.8	232.5	247.3
	% yoy	43.3	35.5	-24.4	-20.7	7.7	6.4
Corn price, Yellow #2 Delivery USA Gulf	USD/t	259.4	318.4	252.7	189.6	213.8	223.3
	% yoy	56.8	22.7	-20.6	-25.0	12.8	4.4
Oil price, Brent	USD/bbl	70.4	99.8	82.6	82.0	74.7	73.1
	% yoy	66.5	41.8	-17.2	-0.7	-8.9	-2.1
Natural gas price, Netherlands TTF	USD/kcm	574.8	1355.9	465.6	370.1	384.7	336.5
	% yoy	399.9	135.9	-65.7	-20.5	3.9	-12.5
Volumes of gas transit	bcm	41.6	20.6	14.6	15.0	0.0	0.0
Harvest of grain and leguminous crops	t m	86.0	53.9	59.8	55.2	57.9	61.7
Minimum wage**	UAH	6042	6550	6700	7775	8370	8950

** Actual data*

*** Annual average.*

Terms and Abbreviations

NPP	Nuclear power plant
USPA	Ukrainian Sea Ports Authority
GDP	Gross domestic product
GVA	Gross value added
GW	Gigawatt
HPP	Hydropower plant
STSU	State Treasury Service of Ukraine
SCSU	State Customs Service of Ukraine
CD	Certificate of deposit
SESU	State Employment Service of Ukraine
SSSU	State Statistics Service of Ukraine
EU	European Union
ECB	European Central Bank
IER	Institute for Economic Research
CPI	Consumer Price Index
MPC	Monetary Policy Committee
IMF	International Monetary Fund
Ministry of Agriculture	Ministry of Agrarian Policy and Food of Ukraine
ILO	International Labour Organization
MY	Marketing year
MFU	Ministry of Finance of Ukraine
NBU	National Bank of Ukraine
NEER	Nominal effective exchange rate
NFC	Non-financial corporation
T-Bills&Bonds	Domestic government debt securities
OECD	Organisation for Economic Co-operation and Development
UN	United Nations Organization
OPEC	Organization of the Petroleum Exporting Countries
MTP	Main trading partner
VAT	Value-added tax
PFU	Pension Fund of Ukraine
REER	Real effective exchange rate
russia	russian federation
U.S.	United States of America
Fed	U.S. Federal Reserve System
CB	Central bank
CEE	Central and Eastern Europe
EM	Emerging market
PMI	Purchasing Managers' Index, business activity index
SPUR	Special Program for Ukraine and Moldova Recovery
UAwCPI	Weighted average of the CPI in Ukraine's MTP countries
UAwGDP	Weighted average of economic growth in Ukraine's MTP countries
UIIR	Ukrainian Index of Interbank Rates

m	million
bn	billion
UAH	Ukrainian hryvnia
USD	U.S. dollar
p	point
bp	basis point
pp	percentage point
bbl	barrel
yoy	in annual terms; year-on-year change
qoq	in quarterly terms; quarter-on-quarter change
sa	seasonally adjusted
mom	in monthly terms; month-on-month change month-on-month
RHS	right-hand scale