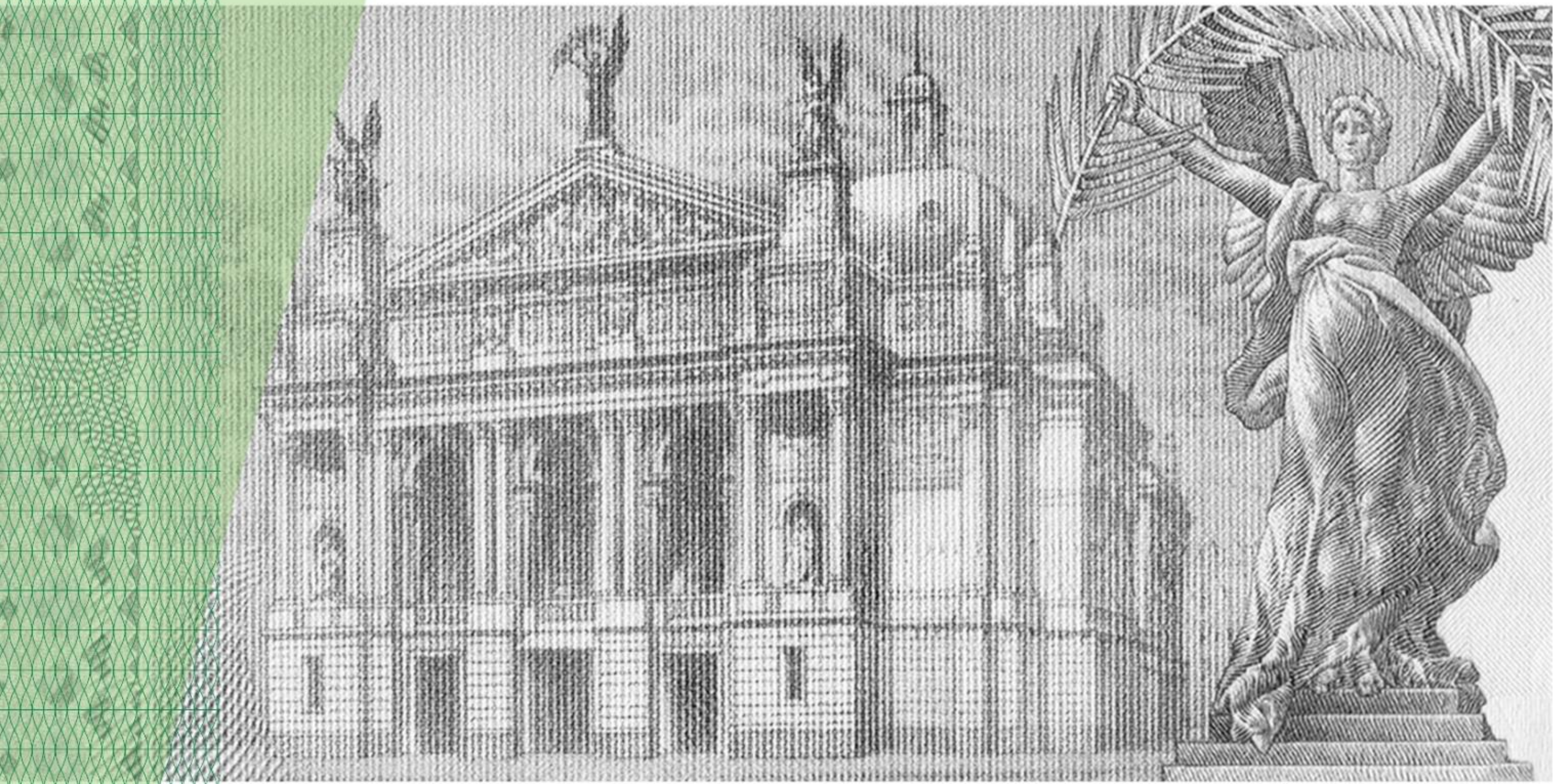
National Bank of Ukraine

Inflation Report

January 2024



Despite the full-scale war, the NBU remains committed to its mandate to ensure price and financial stability, which are the keys to achieving sustainable economic growth. The NBU's intentions to return to traditional inflation targeting with a floating exchange rate were set out in the *Monetary Policy Guidelines for the Duration of Martial Law* and the *Strategy for Easing FX Restrictions, Transitioning to Greater Flexibility of the Exchange Rate, and Returning to Inflation Targeting* (the Strategy). The NBU is taking further steps in this direction as proper preconditions are formed. The steady progress in reducing inflation, the accumulation of a significant level of international reserves, and the increase in the attractiveness of hryvnia deposits and domestic government debt securities have made it possible to move from the fixed exchange rate to managed exchange rate flexibility. With proper conditions in place, the NBU gradually allows the exchange rate to fluctuate more in response to changes in the market. This helps strengthen the resilience of the Ukrainian economy and FX market, improve their adaptation to internal and external shocks, and reduce the risk of the accumulation of foreign trade imbalances. At the same time, maintaining exchange rate sustainability currently remains the key means for stabilizing expectations, keeping inflation moderate in 2024, and bringing it to the target range of 5% ± 1 pp in 2025. To this end, the NBU continues to be active on the FX market by covering the structural deficit of foreign currency and smoothing out excessive exchange rate fluctuations in either direction.

FX market sustainability is also supported by maintaining and calibrating a number of administrative restrictions (in particular, restrictions on FX transactions and capital movement), refusing from monetary financing, and ensuring proper monetary conditions to prop up the attractiveness of hryvnia instruments. The NBU is directing its interest rate policy, continuing to provide stimuli for the banks in the form of transactions with three-month certificates of deposit, and applying other monetary policy instruments (in particular, the differentiation and adjustment of reserve requirement ratios), primarily in order to protect hryvnia term deposits from inflation. This restrains demand for foreign currency, helps protect international reserves and maintain exchange rate sustainability, and keeps inflation dynamics under control. Updating the operational design of interest rate policy while continuing to provide stimuli for the banks to keep competing for depositors has ensured that the major number of liquidity absorption transactions were carried out at the key policy rate. This contributes to further recovery in monetary transmission channels and a gradual increase in the importance of the key policy rate, which will regain its role of the main monetary tool in the future.

The analysis in the current Inflation Report (January 2024) is based on the data available at the date of its preparation. Thus, for some indicators, the time horizon of the analysis may vary. The cut-off date for the data in this report is 24 January 2024 for the majority of indicators. The Inflation Report contains a forecast for the economic development of the country in 2024–2026 that was prepared by the Monetary Policy and Economic Analysis Department. The NBU Board approved the report at its monetary policy meeting on 25 January 2024.[1]

The NBU Board makes decisions on the key policy rate and other monetary tools in line with the schedule published in advance. The decisions the NBU Board makes in January, April, July, and October are based on new macroeconomic forecasts. At the remaining four meetings (taking place in March, June, September, and December), the NBU Board takes its decisions on the basis of the results of assessments of risks and uncertainly that take into account the economic developments in Ukraine and abroad that have occurred since the latest forecast. The decisions are announced at a press briefing held at 2 p.m., after the respective NBU Board's monetary policy meeting. A press release that reflects the NBU Board's consensus position 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 dissenting views and the reasoning behind them.

Previous issues of the Inflation Report, 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. 30 *On Approval of the Inflation Report* dated 25 January 2024.

Contents

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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 focusing on maintaining macrofinancial stability and will consistently meet its commitments under programs with international partners, which in turn will keep providing sufficient amount of financial support. In addition, the baseline scenario assumes a significant decline in security risks starting from 2025, which would contribute to the complete unblocking of seaports, wider opportunities for investment and economic activity, and a gradual return of forced migrants to Ukraine.

In 2023, inflation slowed markedly, including thanks to the NBU's consistent monetary policy

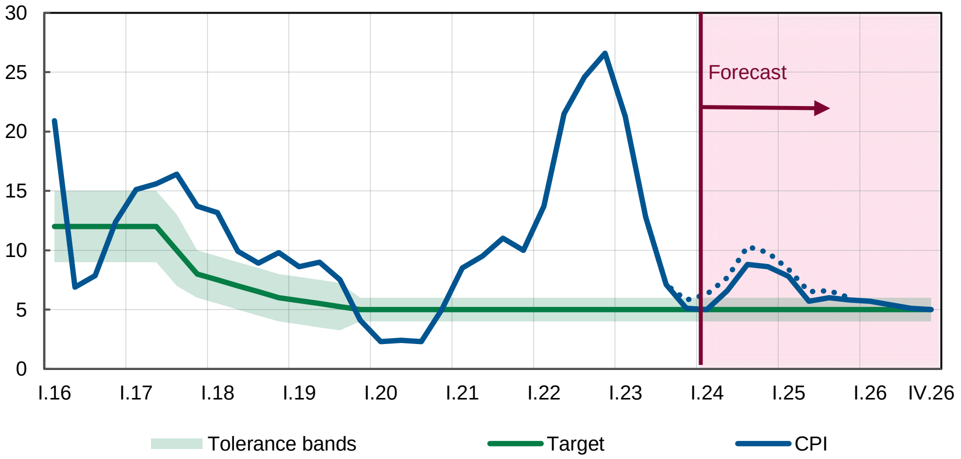
Despite russia continuing its aggression against Ukraine, the inflationary pressure eased significantly last year. Inflation slowed to 5.1% yoy in November and stood at this level in December. Higher harvests and lower global energy prices were major factors behind the decrease in the pressure on prices. The moratorium on tariff increases for certain utilities played an important role. At the same time, a decline in core inflation to 4.9% as of the end of the year also points to a notable contribution made by the NBU's consistent monetary policy, in particular measures to ensure exchange rate sustainability and attractiveness of hryvnia assets. These measures helped improve exchange-rate and inflation expectations.

Despite the expected acceleration of inflation in 2024, it will remain moderate and return to the target range in 2025

Inflation will be within the target range of 5% ± 1 pp in the coming months. From the middle of the year, it will accelerate somewhat as effects of last year's large harvests wane. Additional pressure on prices will come from the further recovery in consumer demand, as well as from the pass-through of business costs to consumer prices, in particular due to still high security risks and upward wage pressure. However, inflation will remain moderate, in part due to the NBU's measures to maintain exchange rate sustainability and the attractiveness of hryvnia assets. Inflation is expected to reach 8.6% as of the end of the year.

In 2025, it will return to its target range, slowing to 5.8% as of the end of the year. In 2026, inflation will meet the target of 5%. This will be primarily driven by a decline in security risks, which is assumed by the forecast. It will ensure an overall improvement in expectations, and will allow restoring the logistics and production processes. The price pressure easing will continue to be also driven by the NBU's interest rate and currency policy measures.

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



Source: SSSU, NBU staff estimates.

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

The economy returned to growth in 2023 and will continue to recover in the coming years

The economy has been recovering throughout the entire 2023 thanks to the high adaptability of businesses and households to wartime conditions and thanks to the loose fiscal policy supported by large-scale international financing. In Q4, the growth in real GDP exceeded expectations, primary due to better harvests of late crops and the development of alternative export routes. This created grounds for an improvement in estimates of real GDP growth for the whole of 2023, to 5.7%.

The economic growth will continue despite the war. In 2024, real GDP will rise by 3.6%, mainly thanks to budget expenditures remaining high in view of expected sufficient inflows of international financial assistance. However, the pace of economic growth will be lower than last year due to an expected decrease in harvests and greater labor market mismatches caused by the war.

In 2025–2026, economic growth will accelerate to 4%–6% per year, thanks to a decline in security risks, which is the main assumption of the NBU's forecast, an improvement in consumer and investment sentiments, and the implementation of European integration reforms. In the post-war period, the loose fiscal policy will continue to support the economy. At the same time, the budget deficit will significantly narrow as the internal resource base strengthens.

International financial support of Ukraine will continue, albeit declining in volume. This will enable the NBU to maintain international reserves at a high level and ensure exchange rate sustainability

Thanks to external support and the NBU's consistent policy, Ukraine's international reserves increased by 42% in 2023, to USD 40.5 billion. International aid will continue to be the main source of capital inflows into the country. Despite delays in international aid disbursement at the beginning of the year, its regularity is anticipated to resume in the coming months. Under the baseline scenario of the NBU's forecast, Ukraine is expected to receive about USD 37 billion in foreign loans and grants in 2024.

As security risks are expected to decline in the coming years, Ukraine will restore its ability to independently finance its own needs, and so the volume of official external financing will taper off (to about USD 25 billion in 2025 and USD 12 billion in 2026). At the same time, this aid will be enough to maintain a sufficient level of international reserves. They are forecast to be in the USD 37–42 billion range during 2024–2026, sufficient to ensure exchange rate sustainability. Combined with domestic market borrowing, international support will also help meet the still significant fiscal needs of the government.

Taking into account the need to safeguard exchange rate sustainability, maintain moderate inflation in 2024, and bring it to its 5% ± 1 pp target range in 2025, the NBU kept its key policy rate unchanged at 15%

In July–December, interest rates on hryvnia instruments declined moderately in response to the NBU's easing of its interest rate policy. The continued stimuli for the banks, provided in the form of three-month certificates of deposit, restrained the drop in interest rates on hryvnia retail term deposits. Yields on hryvnia instruments exceeded current and expected inflation. As a result, households' hryvnia term deposits and investments in domestic government debt securities continued to rise, which was in line with the NBU's objectives.

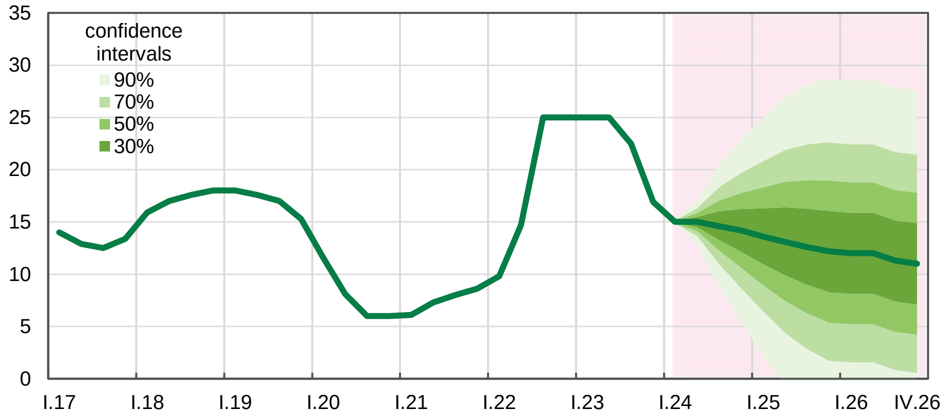
However, in view of the expected acceleration of inflation in 2024 and the upward shift of the balance of risks, the NBU considers it appropriate to keep the key policy rate and other interest rates on its transactions unchanged. This will help maintain the attractiveness of hryvnia instruments, which will limit demand on the FX market, while also helping the NBU to discharge its task of safeguarding exchange rate sustainability. The NBU will also maintain an active presence on the FX market to smooth out excessive exchange rate fluctuations within the framework of the regime of managed exchange rate flexibility.

In turn, maintaining exchange rate sustainability will remain an important means to keep inflation and inflation expectations in check in 2024, and to bring inflation to its target range in 2025.

The baseline scenario of the forecast assumes that the key policy rate will be slightly lowered in H2 2024. Nevertheless, the NBU stands ready to adapt its monetary policy if the balance of risks for inflation and exchange rate sustainability changes

Any further decisions on the key policy rate will depend on inflation dynamics, the state of the FX market, the regularity of international aid inflows, the evolution of security risks, and other factors.

Figure 2. Key policy rate, average, %



Source: NBU staff estimates.

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

The war is grinding on. As before, the key assumption in the NBU's forecast is that high security risks will subside considerably from 2025. However, risks of prolonged large-scale hostilities have increased compared to the previous forecast. A longer persistence of high security risks will adversely impact business and consumer sentiments and exchange-rate and inflation expectations. It will also put more pressure on public finances and aggravate problems in the labor market. Under such a scenario, the potential for economic growth will be lower and inflationary pressure higher than currently expected.

In addition, significant risks exist that regular international aid inflows might be repeatedly interrupted and/or decline in volumes more that envisaged by the baseline scenario.

The following risks also remain relevant:

- emergence of additional budget needs (to maintain defense capabilities, eliminate the consequences of terrorist attacks, and more) and substantial quasi-fiscal deficits, in the energy sector in particular
- port and energy infrastructure damage significant enough that it restrains exports
- continuation of the partial blockade of freight transportation at border crossings with some EU countries, which will reduce imports and make exports more expensive
- deepening of adverse trends in migration.

On the other hand, more positive scenarios could also happen, and some of them have already materialized. In particular, the rapid expansion of alternative export routes in Q4 2023 helped compensate for the losses from the halt of the grain corridor. Ukraine also began transporting other goods, including metallurgical products, via the new route.

Continued positive trends will push up export volumes, while a further increase in the effectiveness of currency supervision measures will ensure the timely receipt of FX earnings. This, in turn, will contribute to a faster economic recovery, boost the NBU's ability to maintain exchange rate sustainability, while also enabling the central bank to speed up the easing of FX restrictions.

The implementation of large-scale reconstruction projects in Ukraine could give a considerable impetus to the economic recovery. Moreover, in recent months, Ukraine's Western partners have been more actively looking into transferring frozen russian assets to Ukraine. The handing over of these assets to Ukraine would significantly improve the country's key macroeconomic indicators.

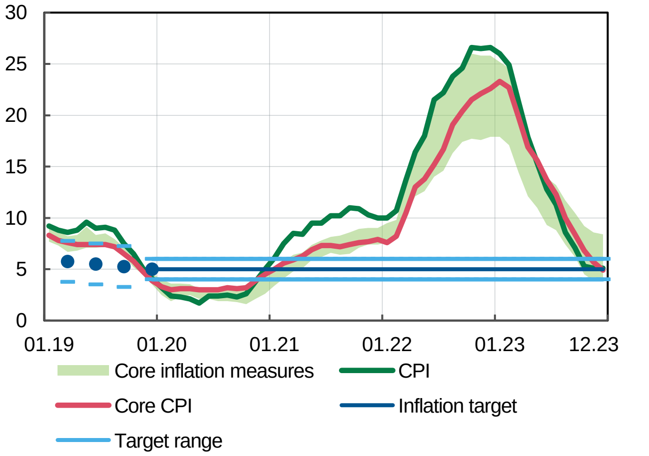
Part 1. Inflation Developments

- Consumer inflation continued to decline at the end of 2023, driven by a strong supply of food products and improved expectations amid continued exchange rate sustainability.
- Inflation will remain close to 5% yoy in the coming months, but will temporarily accelerate from mid-2024. This will be driven by the waning impact of extremely favorable weather conditions on food supply, while the pressure from business costs, particularly labor costs, will continue. These factors, along with a further recovery in consumer demand, will fuel underlying inflationary pressures. However, inflation will remain moderate thanks to monetary policy measures – in particular those aimed at ensuring exchange rate sustainability and the attractiveness of hryvnia assets.
- After security risks decline in 2025, inflation will gradually slow down, returning to the target range, and reaching its target in 2026, thanks to consistent monetary policy measures, improved logistics, and an easing of external inflationary pressures.

After slowing to 5.1% yoy at the end of 2023, consumer inflation will remain moderate, although it will temporarily accelerate in 2024

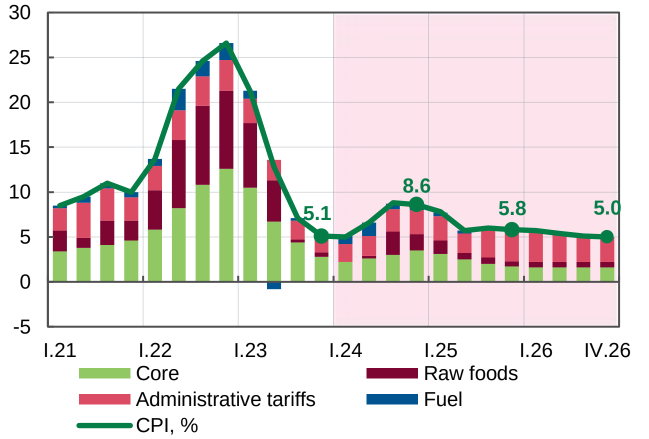
Consumer price growth continued to slow in Q4 2023. In December, headline CPI grew by 5.1% yoy, and core CPI by 4.9% yoy. Both figures were lower than projected in the October forecast, and consumer inflation almost met the 5% yoy target (for more details, see the box *Factors That Brought Inflation to Its Target in 2023* on page 12).

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



* Read more in the January 2017 Inflation Report (pages 20–21).
Source: NBU staff estimates.

Figure 1.2. Contributions to annual CPI growth by main components, pp



Source: SSSU, NBU staff estimates.

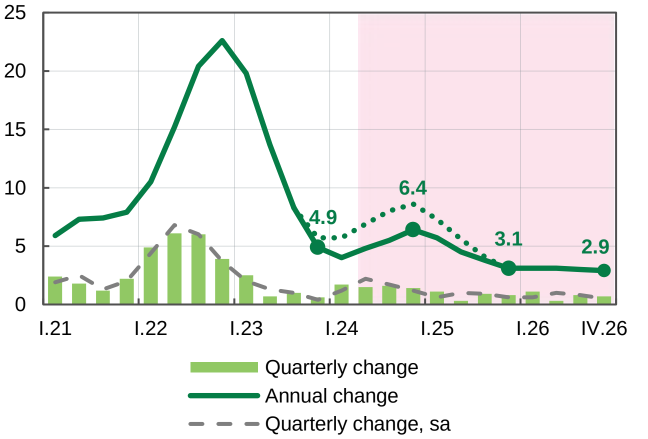
In early 2024, inflation will remain close to its current levels, but will accelerate moderately from the middle of the year, reaching 8.6% by the end of 2024. This will primarily result from the waning impact of last year's extremely favorable weather conditions on food supply. Further pressure on inflation, especially its core component, will come from significant business costs amid high security risks. The increase in excise taxes and a certain rise in crude oil prices at the start of the year will remain inflationary factors (for more details, see the *Assumptions and Risks to the Forecast* part on page 37).

After security risks decline, price growth will gradually slow (to 5.8% in 2025 and 5% in 2026). This will be facilitated by consistent monetary policy measures, the arranging of optimal logistics, and an easing of external inflationary pressures. At the same time, disinflation will be restrained by continuing significant pressure from business costs, in particular labor costs (for more details, see the *Economic Developments* on page 14), the need to bring administered tariffs closer to their market levels, and a further recovery in consumer demand.

Underlying inflationary pressures have eased, but remain persistent

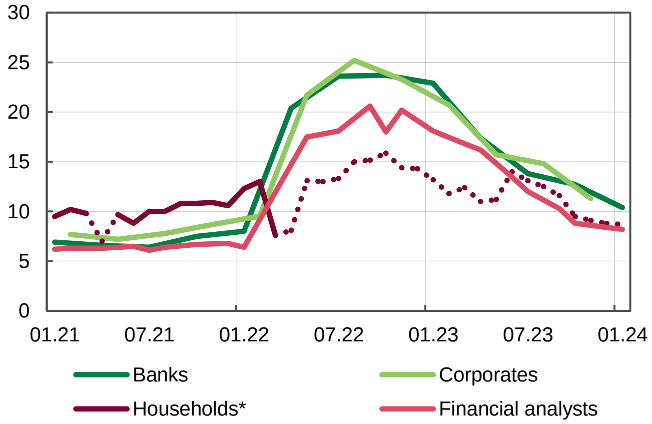
In 2023, the growth in core CPI slowed due to improved inflation expectations against the backdrop of lower actual inflation, a decrease in pressure from production costs for raw materials and feeds, and a stable FX market. The latter had the most pronounced effect on prices for those goods and services that have a significant import component. In particular, price growth slowed for non-food products (medicines, furniture, household and personal care products, and cars), imported food, and a number of services (healthcare, telecommunications, car repairs, and beauty salons), while electronics, household appliances, clothing, and footwear fell in price.

Figure 1.3. Core inflation, %



Source: SSSU, NBU staff estimates.

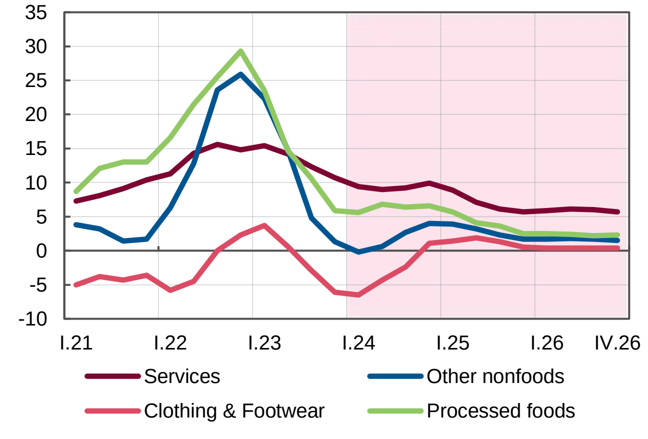
Figure 1.4. 12-month-ahead inflation expectations*, %



* The dotted line indicates a change in the method of survey for a telephone interview.
Source: NBU, Info Sapiens.

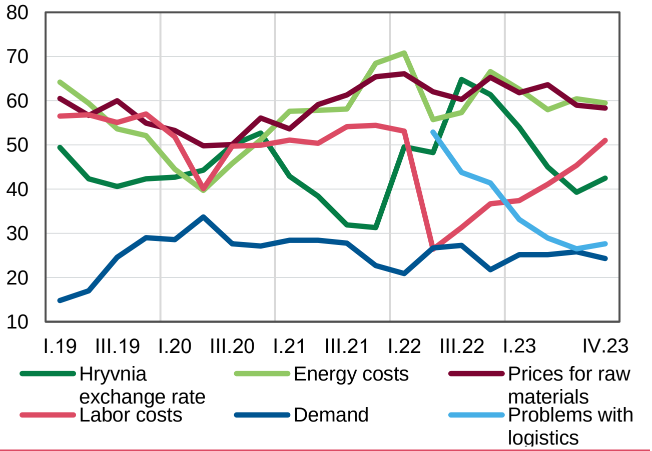
Despite the deceleration, underlying inflationary pressures remained persistent. Service price inflation was 10.7% yoy in December. Among other things, this was due to structural changes in the economy, including an uneven recovery in consumer demand, and labor market mismatches. For example, services to rebuild destroyed or damaged housing and construction goods are in high demand as people return to their homes, as are education services. This had a corresponding impact on the prices of these services.

Figure 1.5. Core CPI components at the end of period, % yoy



Source: SSSU, NBU staff estimates.

Figure 1.6. Major factors affecting businesses' expectations of price changes for their goods and services, % of respondents



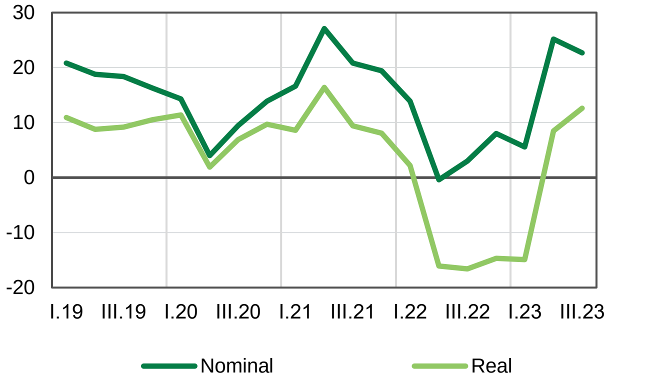
Source: NBU.

In addition, according to the business outlook survey, the impact of labor costs on businesses' pricing continued to increase in Q4 2023. The outflow of labor due to forced migration had the strongest impact on the services sector, as labor costs have a larger weight in their cost structure compared to other sectors.[3] Pressure from other business costs, such as higher energy prices, also persisted. Thus, the limited supply of

[3] According to the Input-Output tables for 2021, the ratio of wages to output was 25.7% in transportation, 44.4% in postal and courier activities, 27.7% in financial and insurance services, 61.7% in education, and 48.1% in healthcare, while the average for the economy was 16.7%.

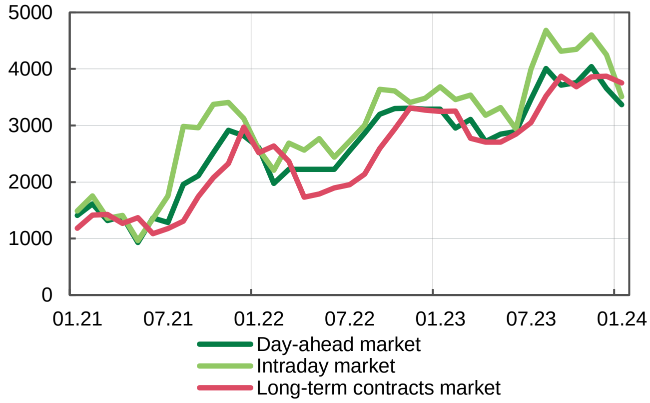
domestically produced electricity amid repairs of energy facilities and higher maximum prices on the spot markets led to an increase in the cost of electricity for non-household consumers. Although this did not have a direct impact on consumer inflation, the rise in electricity prices for businesses affected the prices of consumer goods and services through second-round effects, such as an increase in production costs.

Figure 1.7. Average wages, % yoy



Source: SSSU, NBU staff estimates.

Figure 1.8. Electricity prices for non-household consumers, UAH/MWh



Source: Ukrainian Energy Exchange, Market operator.

Businesses' logistics costs also remained elevated due to high security risks, the occupation of part of the territory, and continued russian attacks on Ukraine's critical infrastructure. An additional factor was the blocking of certain checkpoints of Ukraine's western border. Although the latter had the greatest impact on the cost of imported products with a short shelf life (milk, exotic fruits, and greenhouse vegetables), as well as some types of fuel (primarily LPG car fuel), it also affected the prices of other goods. In particular, the prices of some medicines rose because pharmacy chains were forced to stockpile them in larger quantities. At the same time, in December, this factor weakened due to a reorientation to alternative supply routes (for more details, see the box *Development of Ukraine's External Trade Routes: Time to Take Back What's Ours* on page 21). In 2024, underlying inflationary pressures are expected to temporarily increase. This will be driven by the effects of the hryvnia's weakening at the end of last year, as well as by significant pressure on business costs and a contraction of the labor market amid the ongoing war. Accordingly, service price inflation will remain the highest of all the core CPI components, with the contribution of the imported component also increasing.

In 2025–2026, underlying pressures will ease due to subsiding security risks and the NBU's consistent monetary policy

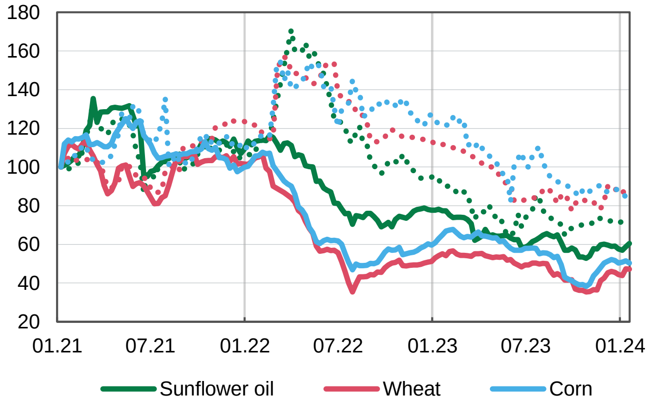
Core inflation will slow significantly starting from 2025. This will be driven by a gradual reduction of security risks, with a corresponding decrease in uncertainty and improvements in expectations. On the one hand, in the post-war period, rising household incomes and the return of migrants will stimulate demand for housing repair services and durable goods. Demand for recreation, tourism, restaurants, and other services is also expected to increase. All of this will boost underlying inflationary pressures. On the other hand, the economy will still be operating below its potential. In addition, the impact of monetary policy will also be a restraining factor. Therefore, core inflation is forecast to grow by around 3%.

Good harvests contributed to a significant slowdown in inflation in 2023, but their impact will soon wear off, fueling inflation this year

Thanks to extremely favorable weather conditions and increased production in some regions, the supply of vegetables and some fruits in 2023 was much larger than in the previous year. The harvest of grains and oilseeds was also notably higher than that of the previous year. In addition, the persistence of logistical and trade constraints for exports kept domestic prices for agricultural products in Ukraine significantly below global levels. These factors had both a direct impact on the cost of food (cereals, flour, and sunflower oil) and an indirect impact through a slowdown in the growth of prices for food production inputs and feed used in other production chains. In particular, prices for oil-based products, bread, and flour products rose more slowly, while prices of eggs declined year-on-year. The growth in prices of pork and chicken slowed, although their prices remained relatively high due to limited supply.

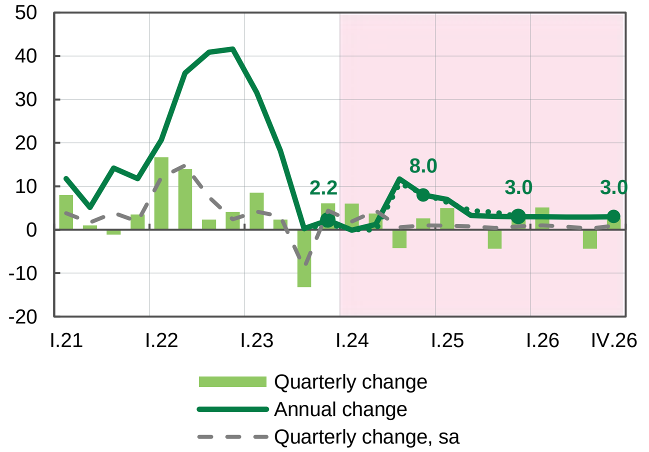
As a result, the raw food price index in Q4 2023 was only slightly higher than in the previous year (up 2.2% yoy in December), while the rise in prices for processed food slowed markedly (to 5.9% yoy, down from 10.6% yoy in September). The impact of these factors will continue into H1 2024. Therefore, food inflation will remain low (up to 3% yoy).

Figure 1.9. Prices for major agricultural commodities in Ukraine and on foreign markets* in U.S. dollar terms, January 2021 = 100



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

Figure 1.10. Raw food inflation, %



Source: SSSU, NBU staff estimates.

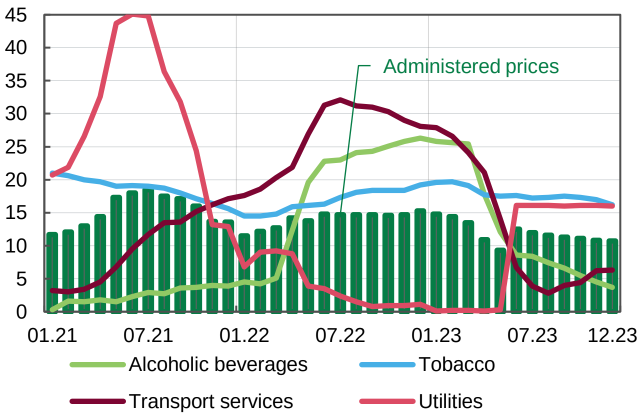
At the same time, the effect of high harvests is gradually wearing off, primarily due to a reduction in the supply of cheaper products of lower quality. The blockade of Ukraine's western borders put additional upward pressure mostly on prices of raw foods (exotic fruits and greenhouse vegetables). In H2, food inflation will accelerate against a low base due to weaker harvests, as weather conditions are expected to return to average climatic norms. However, if there are no significant supply shocks, food inflation will slow to 3% in 2025. This will be facilitated by an increase in food production, higher harvests – in particular from the de-occupied territories and demined sown areas – and the complete unblocking of the country's ports. Global food prices will also tend to decline. However, rising household incomes and consumption fueled by the return of migrants will result in a slight increase in food prices due to higher demand.

Administered inflation will remain high due to further increases in excise taxes and the need to bring utility tariffs to economically justified levels

Growth in administered prices slowed to 10.7% yoy in December 2023. Fixed tariffs for certain utility services, such as supplies of natural gas, hot water, and heating, restrained the rise in administered and headline inflation, and helped lower inflation expectations. Prices for alcoholic beverages and tobacco products grew more slowly, likely reflecting a reduction in the pressure from production costs against the backdrop of the FX market being under control, as well as competition from shadow market supply.

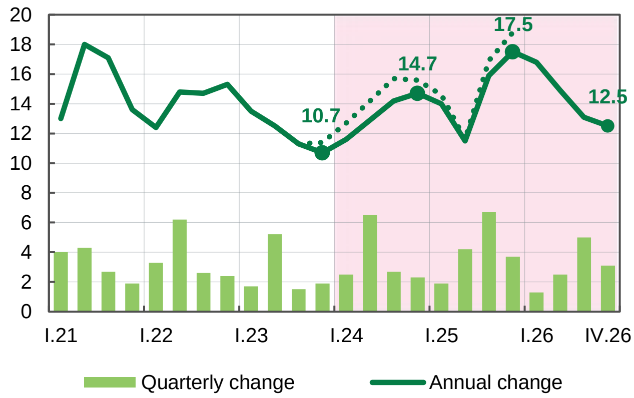
Administered inflation will remain high over the forecast horizon. This will mainly be driven by a further rise in prices of tobacco products as Ukraine raises the excise taxes in line with its European integration commitments. In addition, the moratorium on tariff increases for certain utility services is expected to be lifted after security risks subside (for more details, see the *Assumptions and Risks to the Forecast* on page 37).

Figure 1.11. Components of administered inflation, % yoy



Source: SSSU, NBU staff estimates.

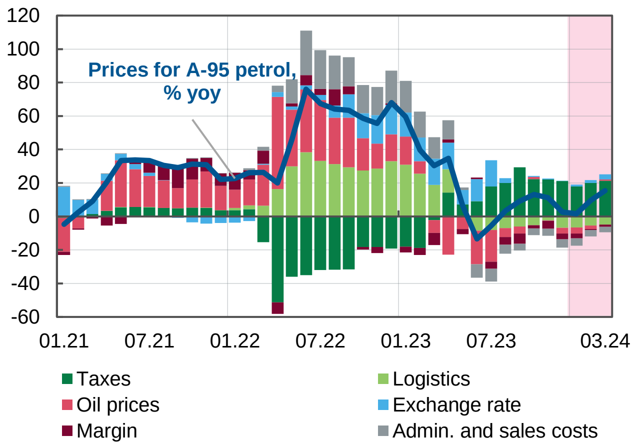
Figure 1.12. Administered price inflation, %



Source: SSSU, NBU staff estimates.

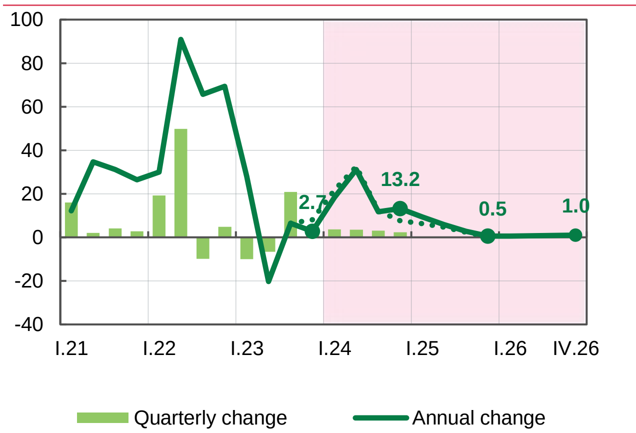
A decline in global crude oil prices in 2023 contributed to a slowdown in fuel price growth. However, an expected increase in global oil prices in the spring of 2024 and a moderate decline thereafter will result in a slightly faster rise in fuel prices this year. This will have an indirect inflationary effect on the cost of transportation services and certain goods. Further on, fuel prices will stabilize due to a gradual decline in global oil prices.

Figure 1.13. Contributions of factors to the change in price of A-95 petrol, pp



* Data for January–March 2024 reflects NBU staff estimates.
Source: minfin.com.ua, Refinitiv Datastream, NBU staff estimates.

Figure 1.14. Fuel price, % yoy



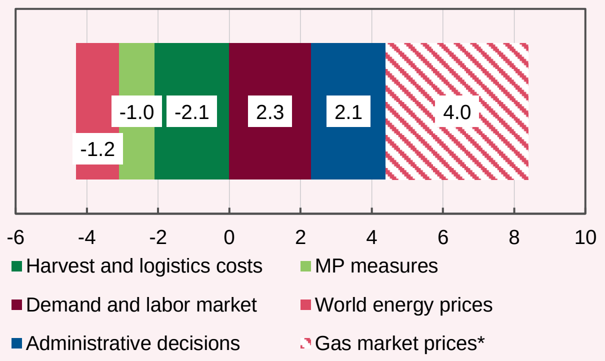
Source: SSSU, NBU staff estimates.

Box 1. Factors That Brought Inflation to Its Target in 2023

Maintaining price stability is a priority for the NBU, despite a temporary departure from inflation targeting with the outbreak of full-scale war. After a sharp surge in inflation in 2022, the NBU managed to ease price pressures significantly. In December 2023, consumer inflation slowed to the target of 5% ± 1 pp. This was primarily driven by a bumper harvest, which, in the face of still limited export logistics, had a strong impact on food supply and prices. The NBU's measures to maintain exchange rate sustainability also played an important role. An additional factor in relieving price pressure was the decrease in global energy prices. The moratorium on raising utility tariffs for households also restrained the impact of still-high global natural gas prices. At the same time, a revival of consumer demand, in particular due to the loose fiscal policy and the resumption of real wage growth, which pushed up labor costs for businesses, put upward pressure on prices.

In 2023, Ukraine's economy showed signs of recovery as households and businesses adapted to martial law, as well as to a series of favorable shocks. These factors allowed inflation to slow to 5.1% yoy in December. Inflation approaching its target level was the result of mutually offsetting effects that put pressure on inflation from opposite directions.

Figure 1. Decomposition of inflation deviation from the target in December 2023, pp



* The difference between market-justified gas prices and tariffs for households was compensated for by a moratorium on raising utility tariffs.
Source: SSSU, NBU staff estimates.

Table 1. Comparison of the values of individual variables in 2022 and 2023

Indicator	2022	2023
Brent oil price, USD/bbl, annual average	99.8	82.6
Price of gas at the TTF hub (Netherlands), USD/kcm, annual average	1356	466
Grain harvest, million tons	53.9	60.1*
Vegetable harvest, million tons	7.5	8.4*
Consolidated budget deficit (excl. grants), % of GDP	25.3	27.1
Real wages growth, % yoy	-11.4	3.5

* NBU staff estimates.
Source: Refinitiv, SSSU, NBU staff estimates.

Factors driving up inflationary pressures included:

- **Consumer demand and mismatches on the labor market.** Loose fiscal policy and rising real household incomes led to a noticeable recovery in domestic demand. At the same time, the recovery was uneven across different goods and services. In addition, labor market mismatches made it difficult to find skilled workers. Against the backdrop of economic recovery, this fueled growth in real wages, which in turn was reflected in prices through the production costs of businesses
- **Administrative decisions.** The difficult situation in the energy sector led to an increase in electricity tariffs for households in June. Also, the fuel taxes that had been in effect before the full-scale invasion were restored in July 2023. This made a direct positive contribution to the annual change in the CPI in 2023 (around 0.7 pp). Moreover, an important inflationary factor was the increase in excise taxes on tobacco products, which is meant to gradually bring them in line with European levels
- **Deviation of some utility tariffs from market natural gas prices for households.** Despite a significant decline in 2023, global natural gas prices remained much higher than those reflected in tariffs for a number of utility services for households (supplies of natural gas, heating, and hot water). Bringing them to a market-justified level could have made a sizeable positive contribution to CPI growth (around 4 pp), but this impact was not realized due to the moratorium on tariff increases for certain utility services.

Meanwhile, inflation was restrained by:

- **Lower pressure of expenses on raw materials and logistics.** First, the restoration of broken supply chains and the creation of alternative routes contributed to disinflation. Second, extremely favorable weather conditions resulted in high yields of grain and vegetable crops. Despite the improvement in domestic logistics, prices for Ukrainian grain remained below global market prices due to still-limited export logistics and high security risks. This restrained domestic food inflation and the rise in prices for certain types of services (including restaurant services) due to lower costs of raw materials and feed
- **Monetary policy measures.** The exchange rate remained fixed until October 2023. Despite the shift to greater flexibility in October, the NBU maintained its presence on the market, smoothing out excessive exchange rate fluctuations. Thus, the exchange rate fluctuated both ways, influenced by situational changes in supply and demand on the FX market. In addition, measures to improve monetary transmission maintained the attractiveness of hryvnia financial instruments even after the NBU started a cycle of key policy rate cuts in H2. This policy allowed the NBU to ensure exchange rate sustainability and restrained price growth – primarily due to improved inflation and exchange-rate expectations of households and businesses
- **Energy prices.** The decline in global crude oil prices at the end of the year almost offset the effect of the restoration of the pre-invasion fuel taxes. At the same time, the fall in global natural gas prices, while not having a direct effect on consumer inflation, slowed CPI growth as production costs decreased.

An analysis of the factors influencing inflation shows that a significant portion of the negative shocks that materialized in 2022 have weakened. The gradual economic recovery was consistent with the normalization and easing of monetary policy by the NBU in H2.

In 2024, the strong negative contribution from favorable food supply shocks is expected to fade, causing inflation to temporarily accelerate. In addition, administrative decisions will continue to make a positive contribution, in particular due to higher excise taxes on tobacco products. Significant mismatches on the labor market will maintain upward pressure on prices through the business costs channel (read more in the *Inflation Developments* on page 7), while the continued loose fiscal policy will support demand-driven inflation. At the same time, the NBU will focus its efforts on containing inflationary pressures and bringing inflation to its target over the monetary policy horizon.

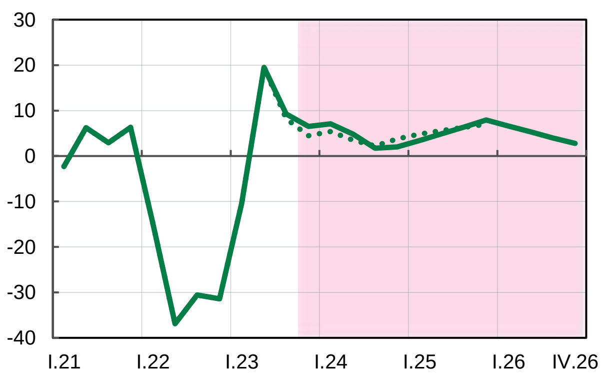
Part 2. Economic Developments

- In Q4 2023, real GDP growth exceeded expectations due to a higher harvest of late crops, the development of alternative export routes, and the stable situation in the energy sector. This led to an improvement in the estimate of real GDP growth in 2023 to 5.7%.
- In 2024, the economy will continue to grow due to the continuation of the loose fiscal policy and the high adaptability of businesses and households to wartime conditions. However, the growth will be slower (3.6%) than last year due to an expected decline in harvests and increased pressure on the labor market.
- In 2025 and 2026, economic growth will accelerate to 5.8% and 4.5% respectively, due to lower security risks, improved consumer and investment sentiments, and the implementation of European integration reforms. GDP will come close to its potential level in late 2025, but it will not return to pre-full-scale-invasion levels over the forecast horizon.

The economic recovery continues, although it will be restrained this year due to still-high security risks and the waning effects of extremely favorable weather conditions

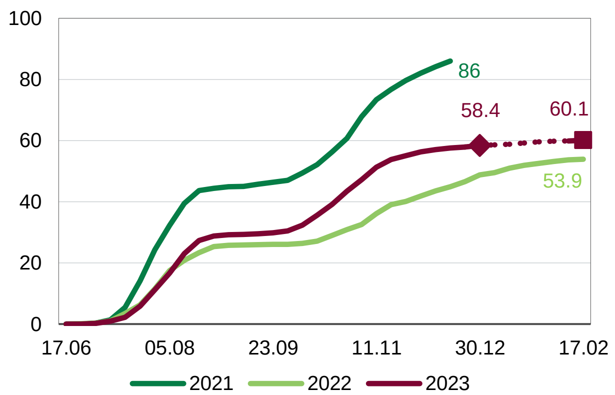
According to the NBU's estimates, in Q4, real GDP grew by 6.5% yoy, and by 5.7% in 2023 as a whole. Growth resumed in the vast majority of sectors. The recovery was faster than envisaged in the NBU's previous forecast. It was primarily driven by larger harvests of late crops, as well as the higher resilience of households and businesses to the crisis.

Figure 2.1. Real GDP, % yoy



Source: SSSU, NBU staff estimates.

Figure 2.2. Grains and legumes harvest volumes, million tons, cumulative



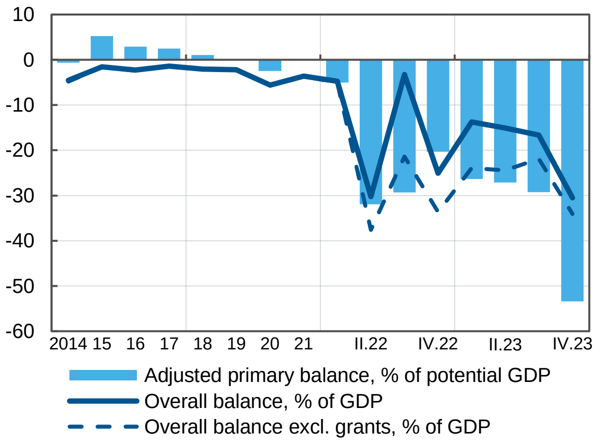
The data for 2023 are the first estimates by the Ministry of Agrarian Policy as of 29 December 2023 and the NBU's estimate of the total harvest volume.
Source: SSSU, Ministry of Agrarian Policy.

The situation in the energy sector in late 2023 was a vivid illustration of economic agents' adaptability to the war. The intensification of air attacks, the depth of destruction of energy facilities last winter, and the increased load due to cold weather, as expected, led to electricity shortages. However, these turned out to be situational and localized. The NBU estimates that the electricity supply shortfall in Q4 was only around 3%, which was less than previously expected. In addition, the shortages were mostly local and almost entirely offset by electricity imports, and so had no additional negative impact on economic activity. This, in turn, had a positive impact on the operations of industrial enterprises – in particular allowing them to maintain stable volumes of metallurgical production – and the services sector. At the same time, preparations for the heating season, taking into account the risks of air attacks, stimulated growth in the mining industry, in particular natural gas production and coal mining.

Due to favorable weather conditions, the harvest of late crops, primarily corn, exceeded both the NBU's October forecast and last year's levels. The harvest of grains and legumes as of the end of 2023 was almost 8% higher than the final figure for 2022.[4] The harvests of sunflower, soybeans, and sugar beet were also higher. The processing of these large harvests supported growth in the food industry. At the same time, the shift in active harvesting to early autumn 2023 was one of the factors behind a slight slowdown in real GDP growth in Q4.

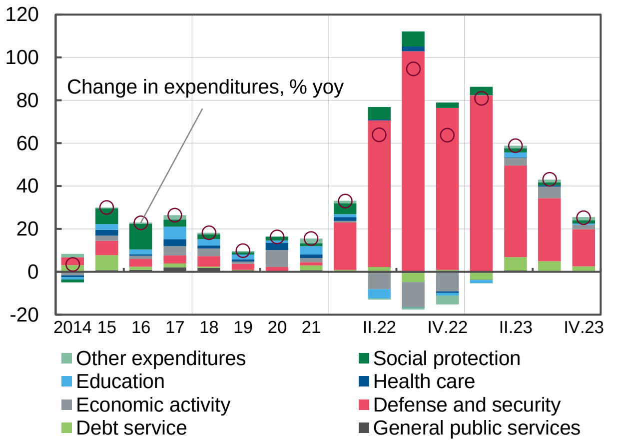
For the second year in a row, the extremely loose fiscal policy has stimulated a recovery in both consumer and investment demand. The fiscal impulse was particularly strong at the end of 2023, and its effects will also be visible at the start of this year. Despite the strengthening of domestic resource base, significant budget expenditures led to a large expansion of the consolidated budget deficit and a negative cyclically adjusted primary balance in Q4 2023. For the year as a whole, the consolidated budget deficit reached a record high of over UAH 1,760 billion (excluding grants in revenues) or 27% of GDP (25.3% of GDP last year).

Figure 2.3. 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 (such as the funds from special confiscation, effects from the Stockholm Arbitration, etc.). A negative value indicates expansionary fiscal policy. GDP data for 2023 are the NBU's estimate.
Source: STSU, SSSU, NBU staff estimates.

Figure 2.4. Contributions to the annual change in expenditures of the consolidated budget, pp



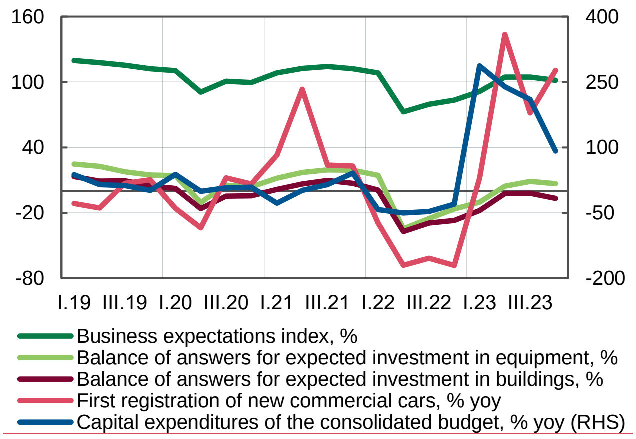
Source: STSU, NBU staff calculations.

Security and defense remained the priority areas of budget allocations. Government orders, in particular defense orders, including through capital budget expenditures, supported the further localization of weapons production. This had a positive impact on the machine building and the metals industries. Capital budget expenditures on infrastructure reconstruction and repair projects and compensations to households for damaged property were also significant, which was an important factor behind the growth in investment. Investment activity in the private sector also picked up due to the improved financial results of enterprises.[5] In particular, investments were made in industrial equipment and commercial vehicles, as well as in the development of logistical infrastructure. The latter, in turn, led to an increase in construction volumes, primarily in non-residential construction, and the production of building materials. Transportation of building materials and agricultural goods supported the transportation services sector. At the same time, in Q4, the growth in capital budget expenditures slowed in annual terms, which was another factor behind the slowdown in real GDP growth at the end of the year.

[4] The actual 2023 harvest numbers are likely to be even higher due to the harvesting of corn in the winter of this year. In particular, according to the Ministry of Agrarian Policy, more than 10% of the area sown with this crop remained unharvested as of the end of 2023.

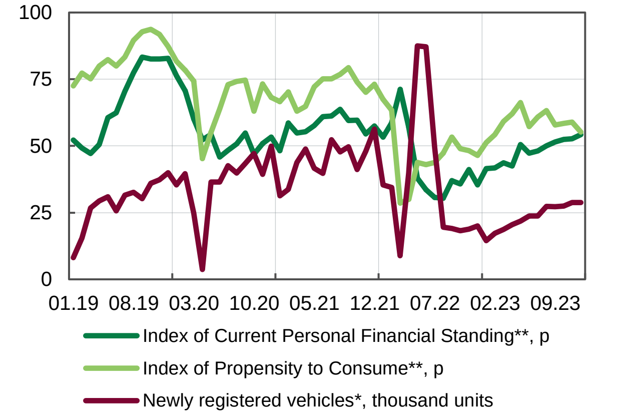
[5] In Q3 2023, profits continued to grow in industrial production, trade, transportation, and financial activities, although profitability grew somewhat slower in many sectors. The losses of trade, transportation, and financial services companies continued to decline.

Figure 2.5. **Selected indicators of investment …**



Source: SSSU, STSU, NBU, Ukravtoprom.

Figure 2.6. **… and consumer demand**

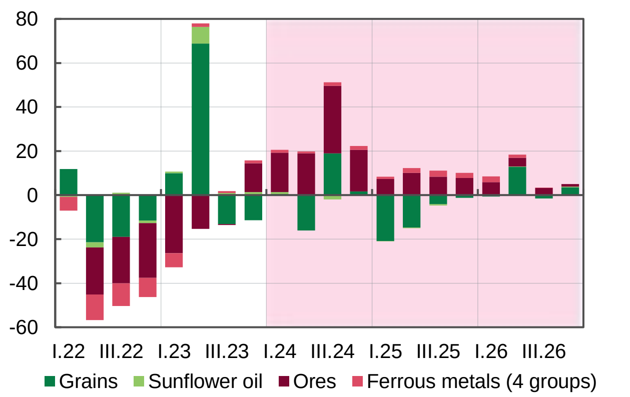


* New and used ones, excluding cars imported with violation of customs regulations. ** Change of the survey method from face-to-face to the phone interview from March 2022.
Source: Info Sapiens, Ukravtoprom.

Significant current budget expenditures, in particular on social programs and military allowances, along with a resumption of wage growth in the private sector, were important drivers of further recovery in consumer demand. This supported the services sectors and retail trade. Meanwhile, the recovery in domestic demand was accompanied by dynamic growth in imports, which temporarily slowed at the end of the year. This was primarily due to the blockade of the western borders, which affected purchases of machinery, as well as those of some foods and industrial goods. At the same time, the blockade did not affect the volume of energy purchases due to a reorientation to other types of transportation.

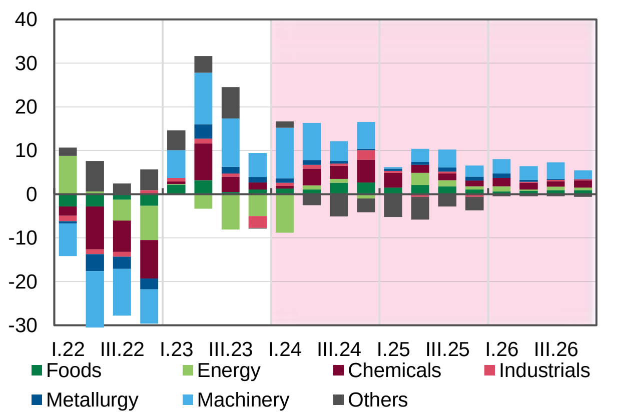
The decline in exports of goods and services slowed considerably in Q4, despite the new logistical difficulties caused by the blockade. Exports were supported by measures to further develop alternative routes (read more in the box *Development of Ukraine's External Trade Routes: Time to Take Back What's Ours* on page 21). Due to the increased capacity of the new sea route, grain shipments increased compared to the previous quarter, although they still remained lower than in the corresponding quarter of the previous year, when the grain corridor was operating at full capacity. However, a wider range of goods was shipped via the new sea route, which led to an increase in exports of not only certain food products, but also of mining and metals products. As a result, the NBU estimates that the negative contribution of net exports to real GDP growth decreased in Q4 2023.

Figure 2.7. **Contributions of selected commodities to the annual change in export volumes, pp**



Source: NBU staff estimates.

Figure 2.8. **Contributions to the annual change in imports, pp**

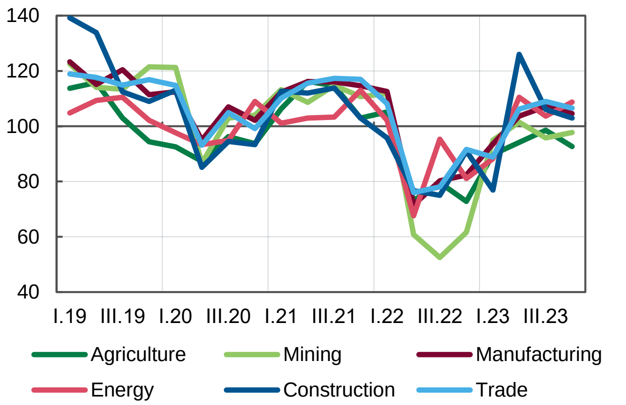


Source: NBU staff estimates.

The new sea route will provide the agricultural sector with the necessary logistics capacity to export the 2023–2024 harvest and will help to gradually increase exports of mining and metals products. In 2024, the average monthly shipments of goods through the new sea corridor is expected to reach around 7 million tons, of which 4 million tons will be food products. This will support agriculture, certain industrial sectors, transportation, and wholesale trade.

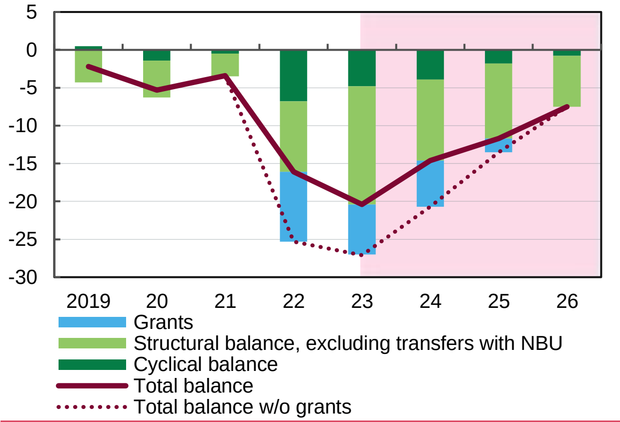
At the same time, still-high security risks will restrain economic growth this year, and the depth of losses and destruction will be a drag throughout the entire forecast horizon. Businesses were rather cautious in their assessments of both their performance in 2023 and the outlook for 2024, as evidenced by a slight deterioration in the business expectations index in Q4, as well as by the results of other surveys.[6] Additionally, agriculture will make a negative contribution to real GDP growth in 2024 due to the expected decline in harvests. This, together with limited production capacity due to destruction in the war, will constrain export potential.

Figure 2.9. BEI by selected types of activity, %



Source: NBU.

Figure 2.10. Consolidated budget balance, % of GDP



Source: STSU, NBU staff estimates.

However, the expansionary fiscal policy and the need to restore companies' fixed assets and expand logistics capacities due to the effects of the war are creating the potential for further growth in consumer demand and investment activity. As in the previous year, government investment is expected to be large in 2024 as the country's defense capability is strengthened and maintained, including through the continued localization of weapons production. At the same time, along with the continued need for goods to ensure the country's defense capability and the expected intensification of domestic consumer demand, imports will also grow at a significant pace. This will result in a continued negative contribution of net exports to GDP change over the entire forecast horizon. Therefore, Ukraine's economy will keep growing in 2024, but at a slower pace than in 2023 (3.6%).

Economic growth will also be supported by the recovery of the labor market, which, however, will be hampered by significant skill mismatches and migration

Labor demand grew rapidly in 2023. Although labor market activity declined seasonally at the end of the year, the number of new vacancies almost reached the level of December 2021. Business surveys showed a recovery in labor demand, although expectations for employment growth remained subdued overall,[7] with only trade and services companies expecting an increase in their staff numbers this year.

These results primarily reflect the persistence of high security risks in 2024. On the other hand, they may also take into account limited labor supply due to migration and mobilization, along with significant difficulties in finding skilled workers. After a certain increase in the number of migrants returning to Ukraine in the summer, with the approach of winter and with risks for the heating season rising, the number of departures from Ukraine, as expected, grew – albeit only slightly. According to the UNHCR, the number of external migrants reached 6.3 million persons as of the end of 2023. This figure increased by around 200,000 people over the year, as estimated by the NBU.[8]

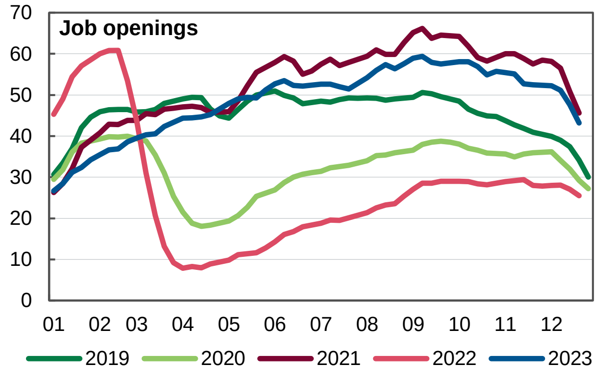
[6] According to a survey by Advanter (November 2023), half (51%) of businesses ended the first ten months of the year with financial results below expectations, while only 14% reported it had exceeded expectations. In 2024, 36% of companies expect the state of their business to improve, while 28% expect a deterioration.

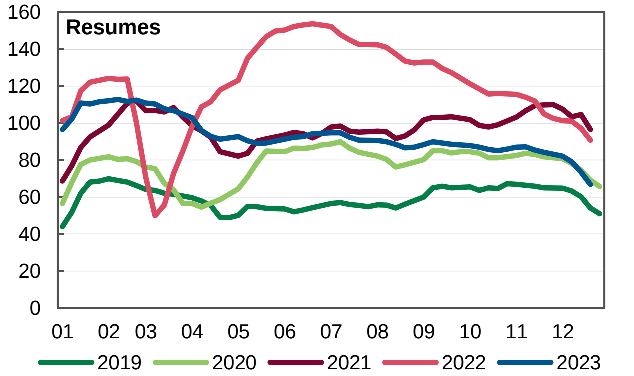
[7] The balance of answers for businesses' expectations regarding staff numbers in the next 12 months improved from (-16.4%) in Q1 2023 to (-6.5%) in Q4 2023 due to a decline in the share of those expecting a decrease in staff numbers (from 25.4% in Q1 to 20.3% in Q4 2023), and an increase in the share of those expecting staff numbers to grow (from 9% in Q1 to 13.9% in Q4 2023).

[8] In June 2023, the UNHCR revised its approach to estimating the number of Ukrainian migrants. Whereas previous estimates drew on migrant flow data from border crossings statistics, the new methodology uses the number of migrants with temporary protection status or similar as of a date in the host countries' relevant reports. As a result, the estimate of the number of migrants abroad decreased to 6.3 million (down from 8.2 million), mainly due

The number of internally displaced persons (IDPs) was 3.7 million (as of September), according to the International Organization for Migration. A significant share of the external migrants still plan to return to Ukraine, but the share of those who have already adapted to living in their recipient country has been increasing.[9]

Figure 2.11. New job openings and resumes on work.ua, three-week moving average, thousands

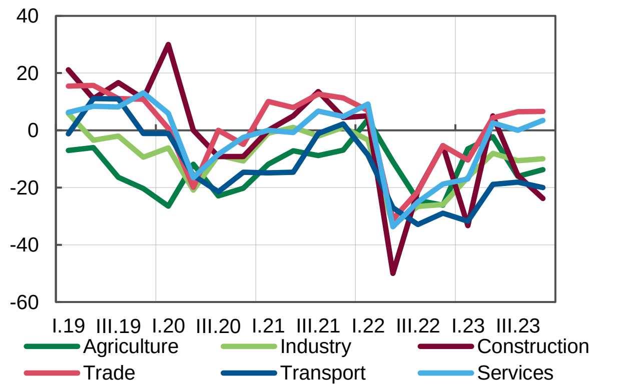




Source: work.ua, NBU staff estimates.

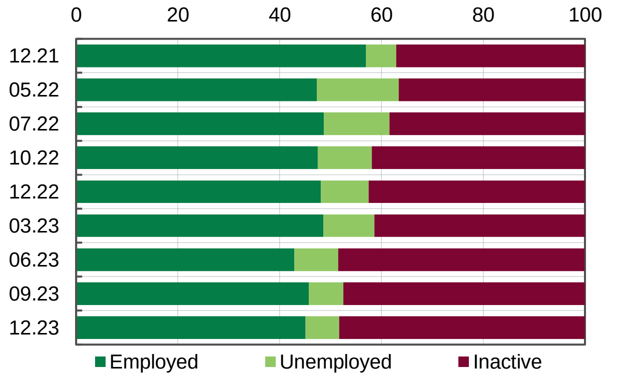
In addition, in H2 2023, the downward trend in labor force participation rate[10] intensified, primarily among men, which may be related to the hostilities. The labor force participation rate for women also remained significantly lower than before the full-scale war, although this indicator resumed moderate growth at the end of the year. The decline in overall labor force participation may also indicate a decrease in employment among pensioners, as well as a certain level of disappointment and the cessation of job seeking among those who changed their place of residence or lost their jobs due to the destruction of, or damage to production facilities. As a result, the number of resumes posted, which is used as an indicator of labor supply, remained much lower than in 2021 and even declined over the year.

Figure 2.12. Expectations regarding the change in the number of workers over the next 12 months, by sector (balance of answers), pp



Source: NBU.

Figure 2.13. Surveyed households, by economic activity*, %



* The category "employed" includes households that selected the following options: "Employed"; "Self-employed"; "Registered private entrepreneur", "Absence of answer," and "Other." The "unemployed" category includes those who chose "Temporarily unemployed, but looking for a job."
Source: InfoSapiens, NBU staff estimates.

As a result of rising demand for labor amid limited supply, more and more businesses are experiencing a shortage of skilled workers. This is also a sign of structural changes and growing mismatches on the labor market. As a result, the NBU estimates that the unemployment rate remained high in Q4 2023, although it decreased compared to Q3.

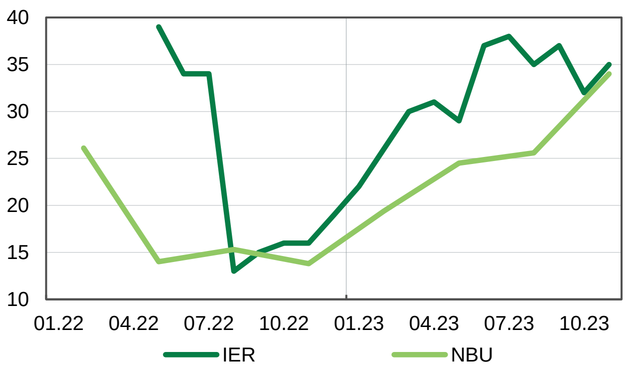
to a decrease in the number of migrants in russia and belarus. The UNHCR did not make retrospective calculations. To make its estimates, the NBU used available information from surveys, data from the State Border Guard Service of Ukraine on border crossings, and European Commission data on the number of persons under temporary protection.

[9] In particular, according to PAO Research, 78% of economically active refugees from Ukraine were already employed in the Czech Republic in November 2023 (including 58% full-time, 14% part-time, and 7% working remotely in Ukraine), compared to 53% in August 2022.

[10] That is, people aged 15 or older who are working or actively searching for a job.

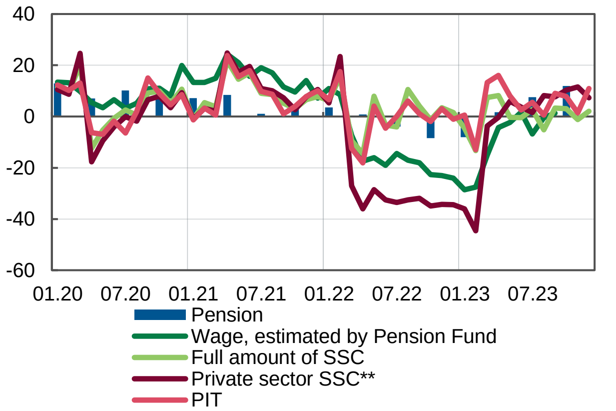
At the same time, the differences increased between certain categories of unemployed people. Whereas unemployment rates for men and women were quite close before the full-scale war[11], and the shock that came in Q1 2022 pushed up unemployment for both sexes almost equally, unemployment among men declined much faster later on, which was likely due to mobilization processes.

Figure 2.14. Lack of employees as a factor limiting business development according to surveys, % of answers



Source: IER, NBU.

Figure 2.15. Indirect indicators for estimating real* household incomes, % yoy



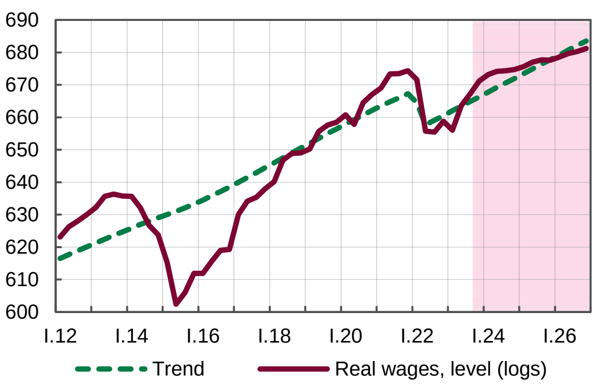
* Deflated by CPI.
** The private sector social security contribution (SSC) is calculated as the difference between total SSC and SSC on wages from the consolidated budget.
Source: Pension Fund of Ukraine, STSU, SSSU, NBU staff calculations.

Demand for labor will continue to grow over the forecast horizon, especially as security risks subside. This will contribute to a decline in the unemployment rate. However, it will remain high and above its natural rate due to the long-term effects of the war. In particular, the supply of labor will remain limited: in 2024 due to mobilization, and in subsequent years due to the slow return of migrants from abroad. Mismatches in the labor market will persist because of changes in the structure of the economy – due to both the destruction caused by the war, and the potentially uneven recovery of industries and regions in the post-war period. Mismatches in the labor market amid a revival in economic activity and improved financial standing of companies, will, among other things, put upward pressure on wages in the private sector.

Figure 2.16. Unemployment rate, sa, %

Source: SSSU, NBU staff estimates.

Figure 2.17. Real wages*, level (logs)



Source: SSSU, NBU staff estimates.

The acceleration of the economic recovery starting in 2025 will contribute to further growth in real wages, which will exceed their pre-war levels by the end of next year. In the future, increased competition for labor with foreign employers will be a significant factor in the increase in wages.

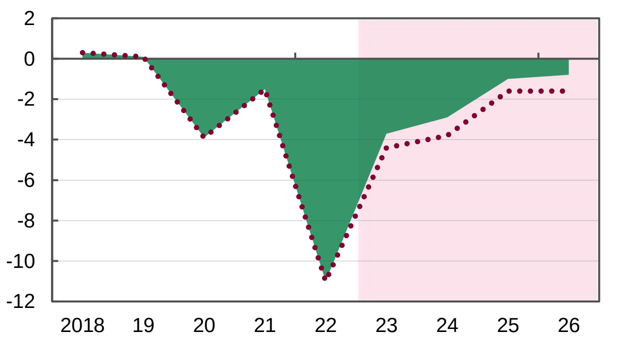
[11] According to the State Statistics Service of Ukraine (SSSU), in 2021, the unemployment rate was 10.1% for women and 9.5% for men. In 2016–2021, the gap between unemployment rates for the two sexes averaged 1.9 pp, and ranged from 0.6 pp to 3.4 pp.

Economic growth will accelerate in 2025–2026. However, limited production capacity, labor market mismatches, and other structural changes will restrain the growth in economic potential

Real GDP will grow by 5.8% in 2025 and by 4.5% in 2026. A decline in security risks will lead to an overall improvement in expectations, allowing there to be an optimization of logistics and production processes. In addition, fiscal policy will continue to be expansionary, thanks to the still-high amount of international financial assistance. Whereas in 2024 the large budget deficit (almost 21% of GDP excluding grants) will be driven by high spending on defense, in subsequent years it will be caused by significant needs to restore infrastructure, production facilities, and social assistance. At the same time, a stronger domestic resource base and lower security risks will help reduce the budget deficit to 13.5% and 7.5% of GDP in 2025 and 2026 respectively. In the post-war period, the private sector is expected to contribute significantly more to reconstruction. Thanks to the European integration reforms, Ukraine's investment attractiveness will increase, which will stimulate foreign investment. At the same time, employment and wage growth, as well as the return of migrants, will fuel consumer demand.

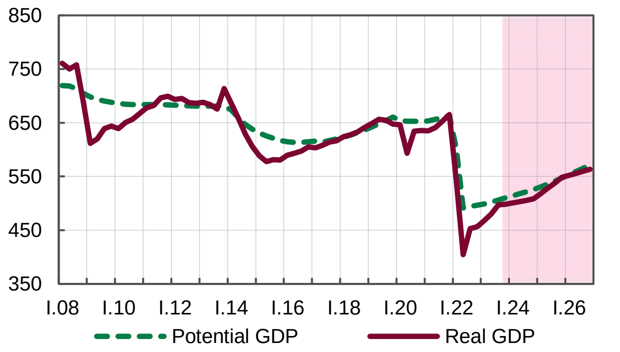
Thanks to the economy's adaptation to wartime conditions, potential GDP resumed growth in 2023. This trend is expected to continue over the forecast period, especially after security risks subside. This will be facilitated by the gradual return of forced migrants and the restoration of destroyed or halted production facilities. The revival of European integration processes will also play an important role (read more in the box *European Integration and Scenarios of Accelerated Economic Growth in Ukraine* on page 41). However, over the forecast period, potential GDP will not reach the level before the full-scale invasion due to the scale of the war-driven losses of capital, sales markets, and labor forces. An acceleration in the growth of potential GDP would only be possible in the event of the implementation of a large-scale reconstruction plan involving international organizations, related private investor activity, and/or the use of confiscated russian assets, which is not currently taken into account in the baseline scenario.

Figure 2.18. Output gap, % of potential GDP



Source: NBU staff estimates, SSSU.

Figure 2.19. Real and potential GDP, sa, at 2016 constant prices



Source: SSSU, NBU staff estimates.

The GDP gap will gradually narrow, but will remain negative in the coming years due to high unemployment, significant risks that depress the recovery of investment activity and consumer demand, and suboptimal logistics. Even after security risks subside, some production capacity will remain underutilized due to mismatches in the labor market and the relatively slow return of Ukrainian exporters to lost external markets. GDP will come close to its potential level in late 2025, but will not return to pre-full-scale-invasion levels over the forecast horizon.

Box 2. Development of Ukraine's External Trade Routes: Time to Take Back What's Ours

Despite the significant negative effects of russian aggression, including on external trade, Ukraine is gradually regaining its position on the international markets. This is facilitated by the active development of alternative supply routes, in particular with the support of international partners. For example, the role of roads and railways increased in 2022–2023. Despite numerous challenges, there were positive developments in maritime transportation as well. Investments in port and dockside infrastructure have significantly expanded the shipping potential of the Danube. Between July 2022 and July 2023, the "grain corridor" was in operation, accounting for about a third of total exports of goods in its most productive months. In August 2023, Ukraine managed to open a new sea corridor for merchant ships, primarily due to the military success of the Armed Forces of Ukraine. In December 2023, the volume of shipments through this route exceeded the most productive months of the "grain corridor." Moreover, in addition to food products, this sea route allows to export a wider range of goods than the "grain corridor" and try out deliveries of imported goods. The development of external trade routes makes it possible to diversify transportation and compensate for losses arising from complications in one of the transportation routes. In general, the existing capacities will be sufficient not only to export the 2023–2024 harvest, but also to gradually return to other traditional markets, including sales of mining-and-metals products to far-off markets.

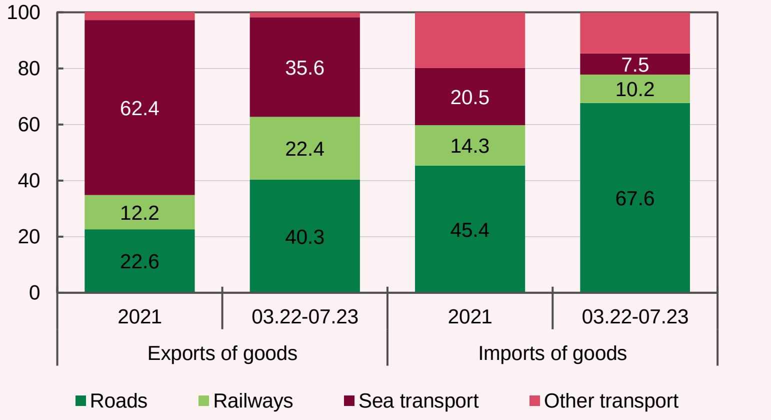
The full-scale war has disrupted traditional supply chains and led to a deterioration in Ukraine's external trade position. The blocking of sea routes, the destruction of production facilities, and russian terror attacks on port and energy infrastructure caused a sharp decrease in exports of goods. Imports were affected less due to lower dependence on sea transportation, as well as there being a great need for goods to ensure the country's defense capability and economic recovery, and significant migration abroad.

At the same time, work began almost immediately to **expand existing and develop new logistics routes**. In particular, **transportation through Danube ports**, once a secondary logistics route, **has intensified**. In 2023, their capacity continued to be increased: 23 terminals were opened, operational dredging was carried out, pilotage staff numbers were increased, and dispatching and operational processes were improved. As a result, according to the Ukrainian Sea Ports Authority (USPA), the volume of transshipment through the Danube ports in 2023 grew to 29 million tons, which was twice as much as in 2022 and almost six times as much as in 2021.

The expanded throughput of railway crossings contributed to an increase in the exports of goods by rail. In March–December 2023, the total volume of rail transportation increased by 23% compared to the corresponding period of the previous year, while the volume of export transportation increased by 14%. Grains (40.6%), ores (35.2%), and ferrous metals (8.1%) dominated the structure of rail exports. Monthly total rail transportation averaged 12.6 million tons of cargo, including 4.7 million tons of exports. November 2023 was a record month, when 14.1 million tons of cargo were transported by rail, which may have been caused by a reorientation to these routes due to the blockade of roads on the border with Poland. However, the railroad's capacity still remains limited, primarily due to the difference in track gauges in Ukraine and the EU, significant wear of both rolling stock and railway station facilities, and complicated bureaucratic procedures.

The introduction of the maritime "grain corridor" in July 2022 expanded opportunities for exporting crops. In its most productive months, it accounted for around a third of total merchandise exports (read more in the April 2023 Inflation Report on page 39). Despite the obvious advantages, the operation of this route faced numerous challenges due to its high dependence on the political will of the aggressor country. russian forces delayed ship inspections and demanded unregulated documentation. This repeatedly led to long queues of ships and delays in deliveries. Regular air attacks on port infrastructure and threats by russian officials to shut down the corridor created high uncertainty about its further functioning. In addition, the grain deal applied only to food products, which limited the logistics and, consequently, production capabilities of other export-oriented sectors of the economy. Eventually, russia's withdrawal from the grain deal put an end to the operation of the "grain corridor" in July 2023.

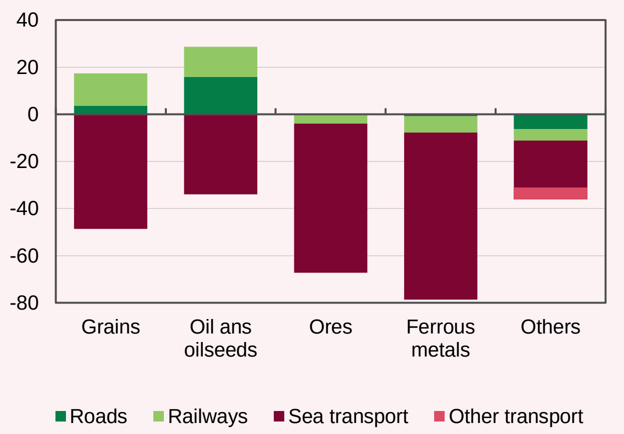
Figure 1. Transportation of external trade flows,[12] USD billion



Source: SCSU.

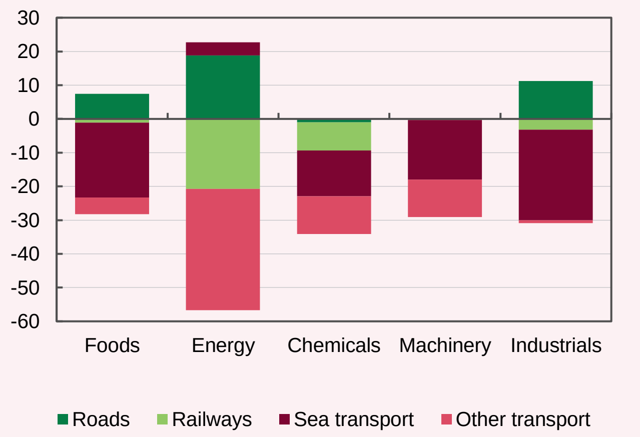
However, already in August 2023, Ukraine managed to establish **a new sea corridor through the Black Sea** along certain routes, with the significant support from the Ukrainian defense forces and international partners. Since the new route was set up, the volume of shipments by sea has been growing every month. While 250,000 tons[13] of products were shipped in September, in December it was almost 7 million tons, which exceeded the most productive months of the "grain corridor." In addition, unlike the "grain corridor," this route transports not only food but also products of the mining and chemical industries. Thus, some Ukrainian goods, such as ore and metals, have partially returned to their traditional markets. Trial deliveries of imported goods were also made along this route.

Figure 2. Contributions of routes to changes in monthly average exports in March 2022–July 2023 compared to 2021, pp



Source: SCSU, NBU staff estimates.

Figure 3. Contributions of routes to changes in monthly average imports of selected goods in March 2022–July 2023 compared to 2021, pp



Source: SCSU, NBU staff estimates.

The active development of alternative routes primarily affected the resumption of food exports. The establishment of road and rail transportation provided a positive contribution to the change in food exports during the full-scale war. The development and restoration of sea routes had the greatest impact on food exports. Between July 2022 and June 2023, 75% of agricultural products were shipped through Danube ports and the "grain corridor." As a result, the loss of agricultural exports since the start of the invasion has been smaller compared to exports of other goods, including products of the mining-and-metals industry.

[12] The latest SCSU data are for July 2023.
[13] The data for the entire period were estimated as 90% of the deadweight of vessels passing through the sea corridor.

The increase in road transportation also supported the recovery in exports, and was one of the factors behind the continued high level of imports of goods in 2022 and their growth in 2023. Road transportation played the largest role in the transportation of petrol and diesel fuel in 2022, amid high demand as the occupiers destroyed production facilities and stocks of petroleum products. The role of road transport in the importing of industrial and food products has also increased.

The low diversification of transportation routes for imports has led to a significant reduction in imports under the influence of the blockade of the western borders According to data from the eQueue system, more than half of international road transportation passes through the border with Poland. That is why the blockade of cargo flows on the Polish side of the border since 6 November 2023 has had a significant impact on external trade volumes. During the blockade period (6 November 2023 – 16 January 2024), the average daily number of trucks crossing the border with Poland decreased by 45% compared to the corresponding figure for October 2023, and the total number of trucks decreased by 28%. The reorientation to other road destinations was constrained by high congestion at border crossings, additional logistics costs, and carriers from other countries joining in the blockade for a short time. As a result, the high share of road transportation in imports resulted in higher losses compared to exports (read more in the *Domestic Assumptions and Risks* on page 37).

According to the NBU, **the existing logistics capacities**, including those provided by the new sea corridor, **will be sufficient to export the 2023–2024 harvest and increase volumes of exports of other products**. The sea corridor will also expand the geography and product range of trade, and revive production in certain sectors of the economy. Diversification of transportation routes will reduce logistical risks and facilitate a rerouting of supply chains. As the security of the sea corridor is reinforced further, the role of maritime transport in external trade will increase, which will help reduce the cost of logistics and make Ukrainian goods more competitive in external markets.

Part 3. Monetary Conditions and Financial Markets

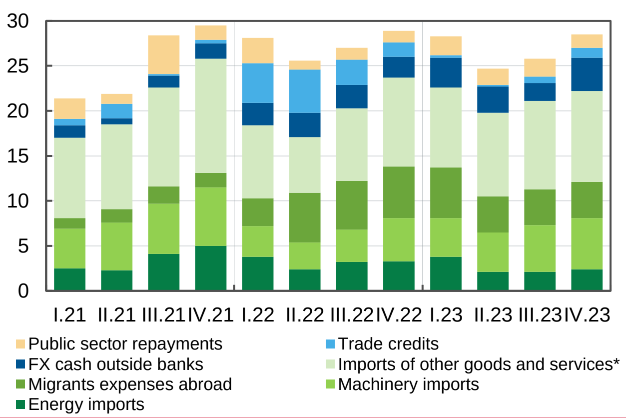
- The NBU is continuing its efforts to maintain exchange rate sustainability as the main means of keeping inflation moderate in 2024 and bringing it to the target range of 5% ± 1 pp over the monetary policy horizon. The NBU maintains an active presence in the FX market, keeping the situation in this market under control, in the face of seasonal factors and uncertainty over external financing.
- Exchange rate sustainability is being maintained thanks to high international reserves, which by end-2023 had risen to USD 40.5 billion, despite lower-than-expected external financing in Q4. International aid will remain the main source of capital inflows to the country over the forecast horizon. The amount of reserves, which will range between USD 37 and USD 42 billion, will be sufficient to safeguarding exchange rate sustainability. Together with domestic market borrowing, this will help meet the still significant fiscal needs of the government.
- As preconditions for this develop, the NBU will allow for greater exchange rate flexibility, but the central bank will continue to take steps to ensure that hryvnia assets are attractive. This will make it possible to maintain exchange rate sustainability and keep inflation moderate, fueling interest in government securities, the role of which in financing the budget deficit will gradually increase. At the same time, under these conditions, the potential for easing interest rate policy by the end of 2024 will be rather limited.

The situation in the FX market in Q4 2023 and in early 2024 remained under control

Despite the transition to a managed flexibility regime, ensuring exchange rate sustainability remains the main means of achieving inflation targets and maintaining macrofinancial stability. The NBU is maintaining its presence in the FX market and compensating for the structural deficit in the market, allowing the exchange rate to fluctuate in both directions, driven by the situational changes in the supply of, and demand for foreign currency.

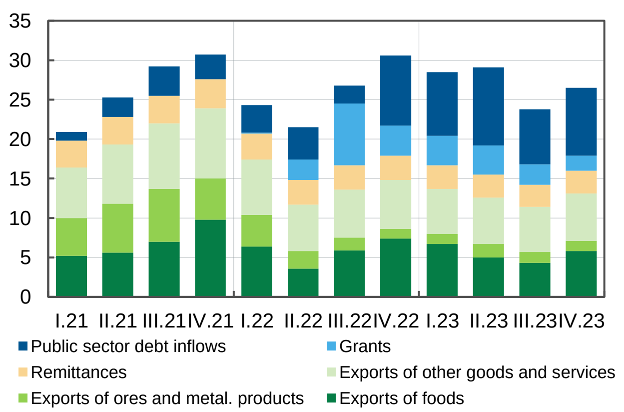
Thus, in October and the first half of November, the balance of supply and demand in the FX market improved. This was largely due to the blockade of certain checkpoints on Ukraine's western border, which had a greater impact on imports than on exports (for more details, see Box *The Development of Ukraine's External Trade Routes: Time to Take Back What's Ours* on page 21). Instead, export earnings even slightly increased thanks to the higher/expanded throughput of the new sea route and Danube ports. As a result, the NBU's interventions to sell foreign currency decreased, and the hryvnia strengthened.

Figure 3.1. Key components of FX outflows, USD bn



* w/o humanitarian aid.
Source: NBU.

Figure 3.2. Key components of FX inflows to Ukraine, USD bn

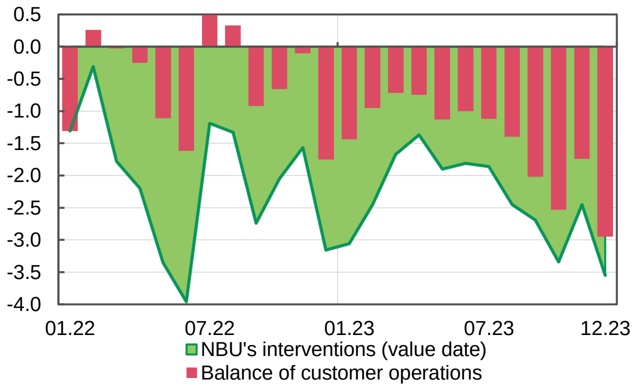


Source: NBU.

At the same time, net demand for foreign currency increased again starting in the latter half of November. This was due to both seasonal factors and the objective consequences of the war. More specifically, there was higher demand for imported foods, intermediate consumption goods for farmers, fuel, certain machinery products, and pharmaceuticals. What is more, rising uncertainty over the flow of official financing and record-large budgetary spending pushed up demand for FX. Spending by forced migrants abroad remained a significant channel of FX outflows. As a result, overall FX outflows increased over the quarter. The FX inflows of the private sector also grew, primarily due to increased shipments via the new sea corridor, but this was restrained by lower global prices and significant price discounts for exports amid still high military risks to shipping.

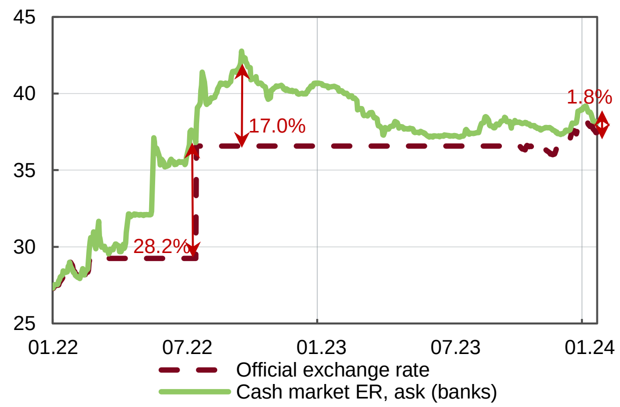
Under these conditions, in December the NBU significantly stepped up its interventions to sell FX (up to USD 3.6 billion), while the hryvnia exchange rate weakened by 2.6% on average compared to November. In Q4, the NBU was a net seller of USD 9.3 billion, up from USD 7 billion in Q3. Sufficient interventions and measures taken by the NBU to maintain the attractiveness of hryvnia instruments kept the FX market in check. As a result, on average in Q4, the hryvnia exchange rate remained practically unchanged on the previous quarter.

Figure 3.3. Bank clients' FX transactions* and NBU interventions, USD bn



* Net sale and purchase of noncash and cash foreign currency by bank clients (Tod, Tom, Spot).
Source: NBU.

Figure 3.4. Hryvnia exchange rates, UAH/USD



Source: NBU.

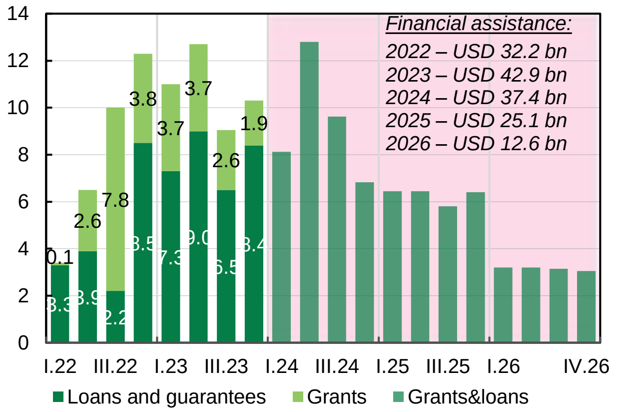
As the right preconditions are put into place, the NBU will gradually allow for greater exchange rate fluctuations to match changing market conditions. Boosting the flexibility of the exchange rate is a necessary step to restore its role as a means of adapting the economy to external and internal shocks. More specifically, after the transition to the managed flexibility regime, banks' operations excluding the NBU grew significantly. This indicates an increase in the depth of the interbank FX market and, consequently, its greater resilience to situational factors.

The link between the cash and non-cash segments of the FX market has also strengthened. With the exception of the last few days of the year, the spread between the cash and the official exchange rates was narrowing, in part due to the lifting of the restrictions for banks and nonbank financial institutions to sell FX cash to households. What is more, the NBU took a number of measures, in particular, to ensure that FX arrives more regularly, to expand opportunities for electricity exports and imports, and to insure risks to sea transportation and exports.

High international reserves will enable the NBU to continue to compensate for the FX deficit in the market, and to ensure exchange rate sustainability

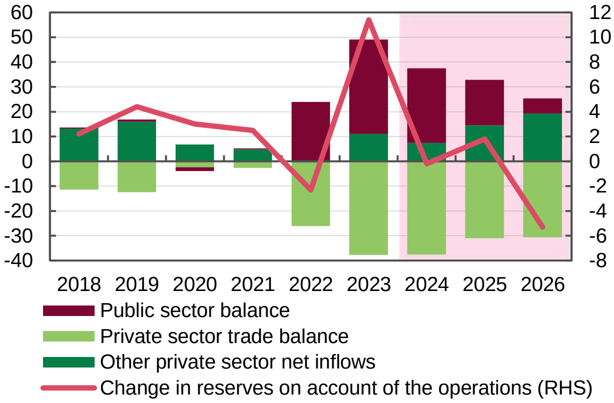
A significant increase in international financial aid, especially in December, exceeded the NBU's FX sales. This generated a net FX inflow in Q4. As a result, by the end of 2023, gross international reserves had grown to USD 40.5 billion, exceeding the pre-war level by USD 13 billion.

Figure 3.5. International financial assistance, USD bn



Source: NBU, MoF, data from the open sources, NBU assumptions.

Figure 3.6. Gross international reserves, changes on account of selected operations, USD bn



Source: NBU staff estimates.

In 2024, reserves will remain close to the level of 2023. Despite being somewhat smaller, international aid will fully offset the still high FX outflows from the private sector. These outflows will be driven by a long-lasting substantial deficit in the trade in goods, spending by forced migrants abroad, and households' demand for FX cash. Export growth will be dampened by the damage to production facilities, which will take a long time to restore, imbalances in the labor market, and the slow recovery of exporters' position in traditional markets amid weak external demand and logistical hurdles. Imports of goods will grow faster, propelled by considerable defense and postwar recovery needs.

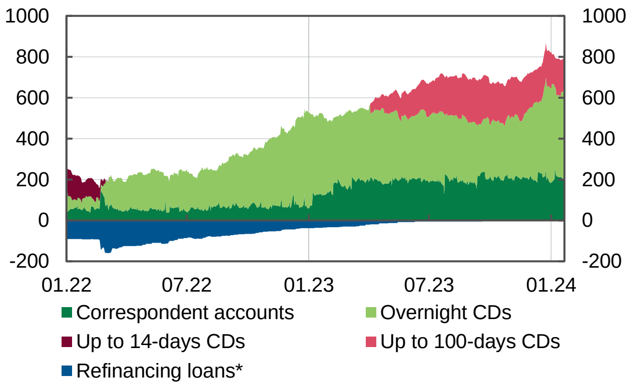
International aid and FX outflows from the private sector are expected to decline starting in 2025. As security risks subside, private sector investment and debt inflows will increase, while households' demand for FX will drop. Imports of travel services are also expected to decline because of the gradual return of migrants and due to their further adaptation to life abroad and changes in their residency. In addition, global economic recovery will boost proceeds from IT services and remittances. Most of these processes will be particularly noticeable in 2025, with gross reserves increasing to USD 42 billion as a result. However, a significant reduction in international financial assistance is expected in 2026, which will decrease reserves to USD 37 billion.

The easing of interest rate policy in H2 2023 was consistent with the need to maintain the attractiveness of hryvnia instruments, while also supporting lending

Under current conditions, the managed flexibility of the exchange rate plays a key role in ensuring price and financial stability, while the key policy rate is an auxiliary instrument. The policy of maintaining the attractiveness of hryvnia assets helps minimize risks to the FX market by restraining demand for FX. In order to strengthen the signaling role of the key policy rate, and to deepen market participants' understanding of monetary conditions and changes in monetary policy, the NBU in October 2023 modernized its monetary policy operational design based on the lower bound system (for more details, see Box *International Experience in Applying Various Systems to Build Operational Designs of Interest Rate Policy* on page 30). This transition effectively placed interbank market rates and the key policy rate at the same level, while also increasing the share of transactions the NBU conducts with banks at the key policy rate from about 40% to over 70%.

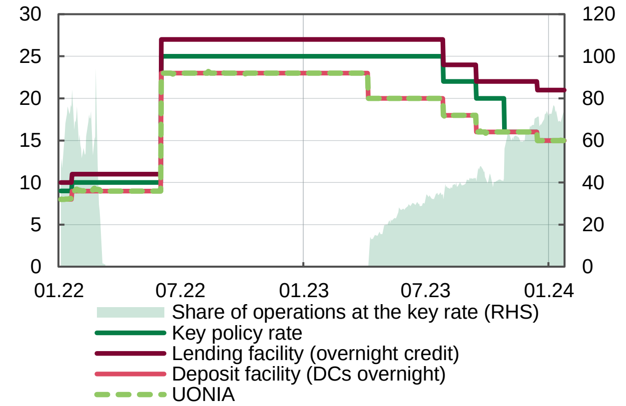
This bolstered the NBU's ability to influence the money-market amid a significant liquidity surplus in the banking system, which continued to expand in Q4. The main factor behind the increase in liquidity was a considerable rise in government spending. Government spending exceeded the NBU's interventions to sell foreign currency and the seasonal increase in cash in circulation at the end of the year. Liquidity will continue to expand in 2024, primarily due to substantial government spending. Looking ahead, due to a reduction in the financing of the budget deficit through international assistance, the liquidity of the banking system will gradually decline, but will still remain significant.

Figure 3.7. Liquidity of the banking system and the outstanding amount on NBU operations, UAH bn



* Excluding insolvent banks and banks undergoing liquidation.
Source: NBU.

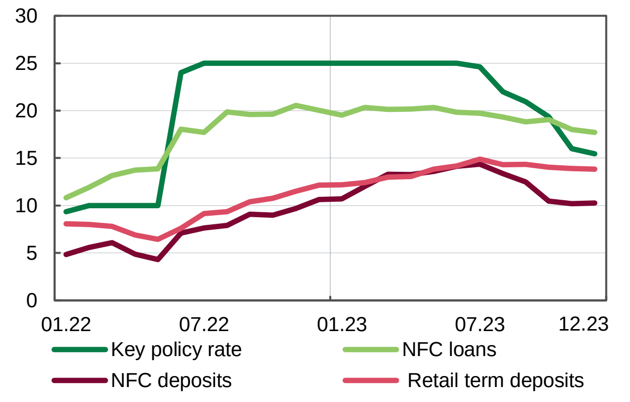
Figure 3.8. NBU's interest rate corridor, UONIA, and the share of operations at the key policy rate, %



Source: NBU.

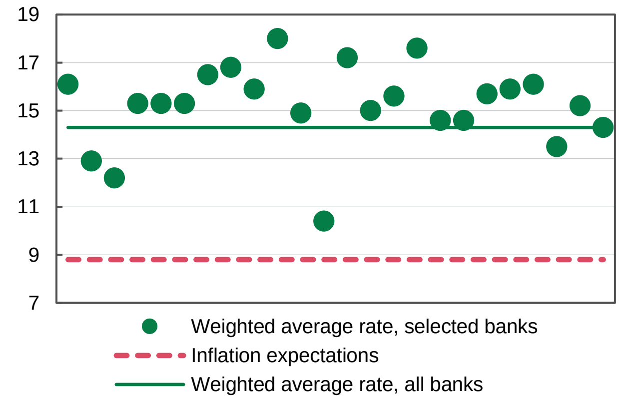
The expected moderate inflationary dynamics over the forecast horizon in conditions of a controlled situation in the FX market enabled the NBU to cut the key policy rate, to 15% in December. At the same time, the response of household deposit rates to previous key policy rate cuts was restrained, mainly because of the unconventional design of the NBU's monetary policy. In particular, the incentives embedded in three-month certificates of deposit prevented the banks from significantly reducing interest rates on term deposits and fueled competition for hryvnia deposits. More specifically, the weighted average interest rate on hryvnia term deposits from households dropped by only 0.5 pp in Q4 2023, while the weighted average interest rate on similar deposits from nonfinancial corporations decreased by 2.2 pp. Thus, despite the nominal decline in interest rates, interest rates on hryvnia instruments remained positive in real terms and even rose in December thanks to further improvements in inflation expectations. This, in turn, contributed to further growth in household term deposits. Despite increasing depreciation pressures in the FX market at the end of the year, the dollarization rate of household deposits in December remained at the level of October, at around 34%, while in January–March 2023 this indicator exceeded 37%. These trends were in line with the NBU's efforts to maintain the attractiveness of hryvnia instruments.

Figure 3.9. Weighted average interest rates on hryvnia products of banks and monthly average key policy rate, %



Source: NBU.

Figure 3.10. Weighted average interest rates of selected banks* on hryvnia retail deposits with a term more than 3 months (December 2023) and inflation expectations, %**



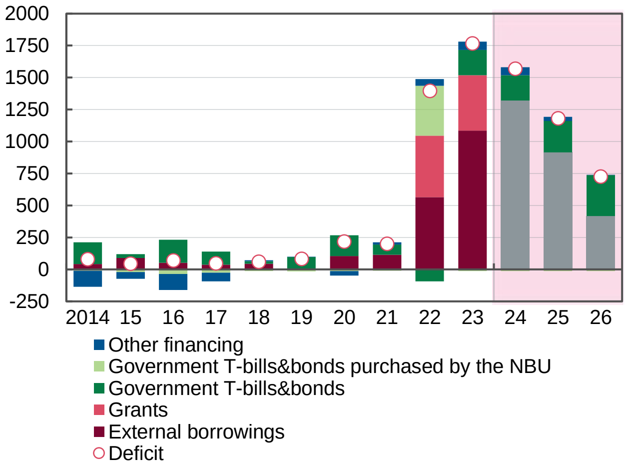
* Banks with the stock of hryvnia retail term deposits exceeding UAH 1 billion as of 1 January 2024 (according to preliminary data).
** According to the December household survey.
Source: NBU, Info Sapiens.

The continuation of the interest rate policy easing cycle also contributed to decrease in borrowing costs. The weighted average interest rates on hryvnia loans to nonfinancial corporations declined by 1.1 pp in Q4, to 17.7%. Lower interest rates on unsubsidized loans are helping to restore market relations between clients and banks, while also having a positive effect on lending volumes. Interest rates on hryvnia loans to households also declined, but they remained significantly higher than those on corporate loans due to a high share of unsecured and, consequently, high-risk loans. As a result, bank lending gradually recovered. In particular, in Q4 outstanding hryvnia loans to nonfinancial corporations increased by 1.4%, while those to households rose by 3.9%.

Attractive yields on hryvnia domestic government debt securities helped revive the domestic borrowing market, which will continue to play an increasingly important role in financing budgetary needs

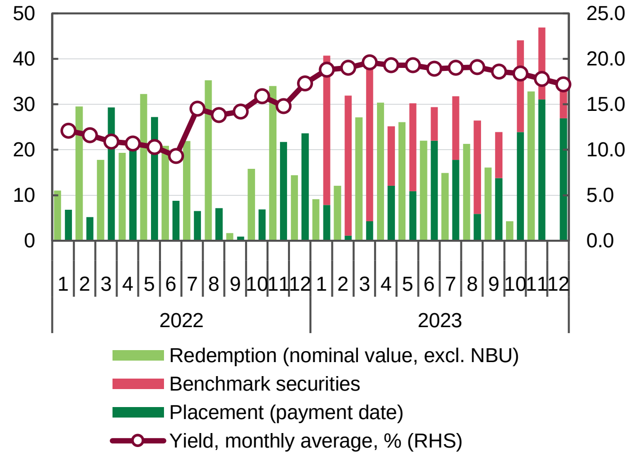
Despite a certain downward shift in the yield curve, interest rates on domestic government debt securities even rose slightly in real terms amid improved inflation expectations. What is more, while benchmark domestic government debt securities, which were used to cover the required reserves for banks, were the key factor in increasing domestic borrowing at the beginning of the year, by the end of the year, it was attractive yields that played the key role.

Figure 3.11 **State budget deficit financing*, UAH bn**



* Net borrowing. Domestic borrowing includes government T-bills & bonds issued to increase the authorized capital of banks, the Deposit Guarantee Fund (DGF), and other state-owned enterprises. Deficit from 2022 is presented excluding grants in revenues. Deficits in 2024-2026 reflect the NBU's forecast. The grey fill denotes external borrowing and grant funds.
Source: STSU, MFU, NBU staff estimates.

Figure 3.12. **Primary placement* and redemption of domestic government T-bills & bonds, UAH bn and YTM**



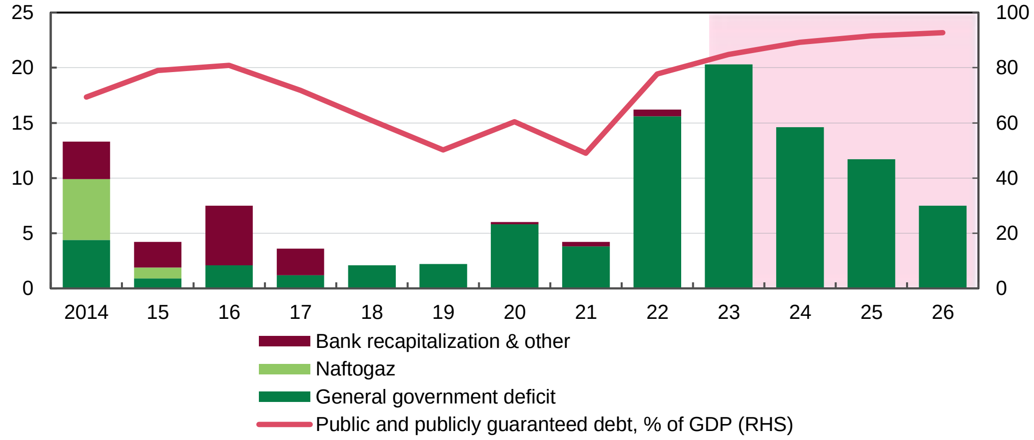
* According to the results of auctions for the placement of domestic government T-bills & bonds before reflecting the price effects due to the additional placement of securities. Excluding hryvnia domestic government T-bills & bonds issued in 2022 for recapitalization of Ukrfinzhytlo and purchase of war bonds by the NBU.
Source: NBU staff estimates.

As a result, market demand for domestic government debt securities remained robust. In Q4, the amount of domestic government debt securities placed was the highest in the whole year, primarily due to the issue of hryvnia securities, and for the year as a whole, domestic borrowings were twice as high as last year. The role of the domestic debt market will increase over the forecast horizon amid the gradual decline in international assistance. An active debt policy in the domestic market is important for avoiding further monetary financing of budgetary needs.

That said, the potential of the domestic market will not be sufficient to meet the government's fiscal needs. High security risks and recovery needs will generate significant budget deficits, despite their gradual narrowing. International aid will remain the main source for financing the deficit. The amount of direct budget support in 2023 was USD 42.5 billion, of which almost USD 10 billion was provided in Q4. In 2024–2026, although declining, official financing will remain substantial (read more in the *Assumptions and Forecast Risks* on page 37). To receive this support, Ukraine needs to continue to cooperate with its partners and to fulfill its obligations to the IMF.

A decrease in the share of grants in total international aid and an increase in domestic borrowing will push up public and publicly guaranteed debt. The NBU estimates that in the medium term the debt will be higher than 90% of GDP, compared to almost 85% of GDP in late 2023. That said, this debt will not put any additional significant pressures on the budget in the coming years due to having a lower cost and long average maturity, thanks to the preferential terms of international assistance.

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

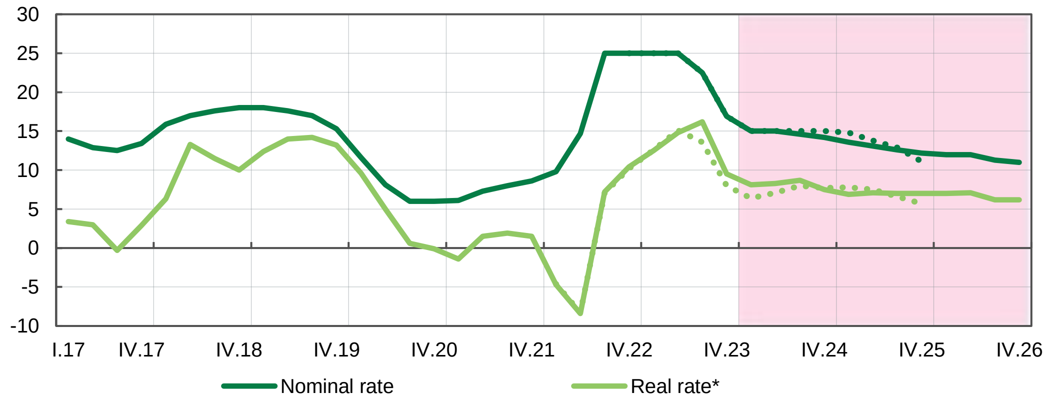


Source: IMF, STSU, MFU, NBU staff estimates.

The forecast envisages a gradual reduction in the key policy rate starting in H2 2024. However, the NBU will adapt its monetary policy if the balance of risks to inflation and exchange rate sustainability changes

In January, the NBU kept its key policy rate at 15%. This decision is in line with the need to maintain exchange rate sustainability, retain single-digit inflation in 2024, and gradually return inflation to the target range of 5% ± 1 pp in 2025. The NBU's interest rate policy will continue to be aimed at keeping hryvnia instruments attractive through maintaining interest rates at a level that will protect hryvnia savings from being eroded away by inflation. As inflationary pressures ease and the security situation improves, the NBU will gradually normalize its monetary policy. This will allow the NBU to start a cycle of more active interest rate cuts in 2025. However, in real terms, interest rates will remain relatively high, which will be consistent with the need to maintain the attractiveness of hryvnia assets during the implementation of the Strategy.

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



* Deflated by model expectations (QPM).
Source: NBU staff estimates.

Box 3. International Experience in Applying Various Systems to Build Operational Designs of Interest Rate Policy

The widespread use of unconventional instruments by central banks to stimulate the economies of their countries has generated a number of undesirable monetary effects. These effects include a sizeable increase in banks' structural liquidity surpluses. This has reduced the effectiveness of the key policy rate as a benchmark for the cost of financial resources and an indicator of future changes in monetary policy. This, in turn, has necessitated a rethinking of usual approaches to building operational designs for interest rate policy to restore its effectiveness and to create appropriate monetary conditions.

The key policy rate is an effective monetary instrument only if short-term interbank interest rates are reliably anchored to it. Short-term interbank money market rates are the starting point for the entire yield curve. Therefore, for changes in the key policy rate to have an impact on the economy, interbank rates should remain as close as possible to a central bank's key policy rate, and change in sync with it. To this end, the central bank should conduct its main operations, which have the greatest effect on banks' liquidity, at its key policy rate. Other, auxiliary operations, are also needed to fine-tune liquidity and limit the deviations of interbank interest rates from the key policy rate.

The set of operations with certain parameters that a central bank carries out to manage banks' liquidity and create appropriate monetary conditions is referred to as the operational design (OD) of interest rate policy. The range of these operations, the mechanism of their implementation, their maturity, the specifics of bank access to them, and other parameters are the factors that determine the effectiveness of an OD.

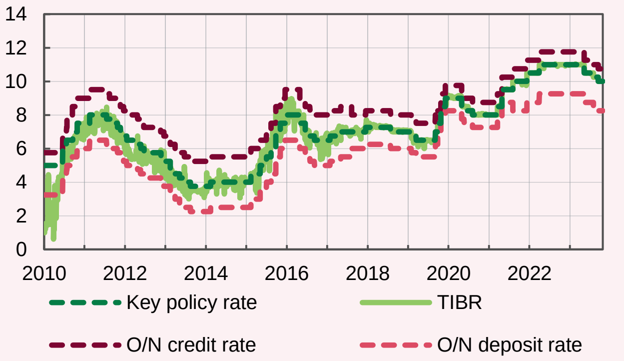
There are two main approaches to building ODs – the mid-corridor system, and the floor system. Their names reflect the operational objectives of interest rate policy. The main difference between the two systems lies primarily in the approaches to managing the banking system's liquidity, which are designed to ensure that interbank rates are anchored to the key policy rate, as well as to meet other goals and objectives of a CB.

Mid-corridor systems require a CB to accurately forecast and maintain the banking system's liquidity at a relatively balanced level. A CB forecasts the likely liquidity needs of the entire banking system, and then manages the amount of liquidity by conducting operations at the key policy rate or at rates that are close to it. Liquidity is not always evenly distributed among banks. Banks with temporary liquidity shortages or surpluses can borrow or place the desired amount of funds with a CB on a daily basis through standing facilities. The rates on these operations are usually pegged to the key policy rate at the same distance, and form the ceiling and the floor of the CB's interest rate corridor.

Under this OD, the difference between the key policy rate and interest rates on standing facilities makes the latter less attractive to banks than the market rates. This creates incentives for the banks to redistribute liquidity among themselves, which contributes to the development of the interbank market and improves the banks' business processes. Therefore, it is not surprising that the mid-corridor system has become the most widespread and usual approach among central banks. It is currently being quite successfully applied by the central banks of Georgia, the Philippines, Chile, Armenia, Israel, and others.

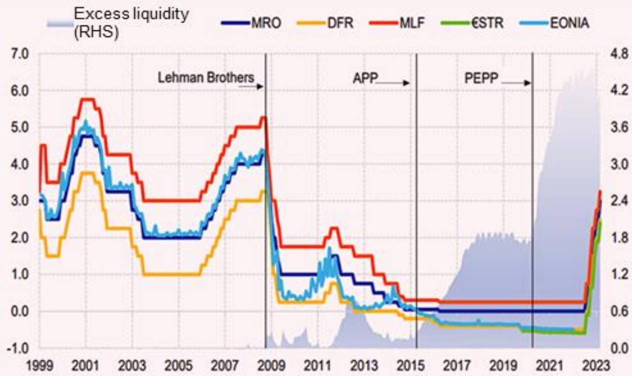
At the same time, the mid-corridor system only brings advantages when liquidity is balanced, or better still, when there are liquidity shortages. More specifically, although Georgia's central bank, amid a growing liquidity surplus (such as in 2012–2017), was able to keep the interbank rate within its corridor, the rate was still much more volatile than at the time there were liquidity shortages (such as in 2018–2022).

Figure 1. CB's interest rates and overnight interbank rate in Georgia, %



Source: National Bank of Georgia.

Figure 2. ECB interest rates*, overnight interbank rate, %, and excess liquidity, EUR trillion

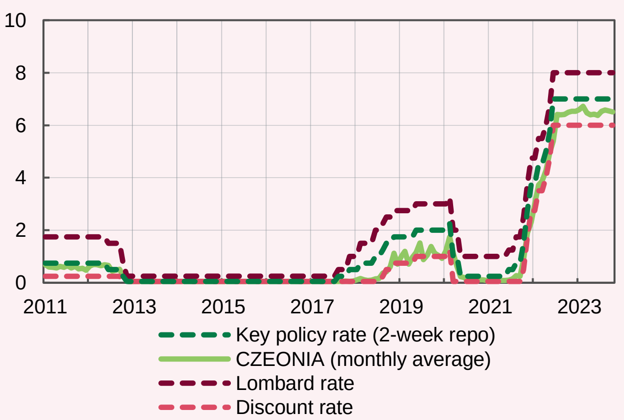


* MRO – interest rate on the main refinancing operations, DFR – interest rate on ECB overnight deposits, MLF – interest rate on ECB overnight refinancing loans; APP – the ECB asset purchase program; PEPP – the ECB anti-crisis asset purchase program during the pandemic.
Source: Schnabel, 2023.

When there is a rapid and significant increase in banks' liquidity surpluses, mid-corridor systems lose their effectiveness. This problem is made worse when the increase in liquidity is driven by factors independent of a CB, such as substantial government spending, or foreign capital or international aid inflows. Under such conditions, it becomes operationally difficult and costly for CBs to accurately forecast banks' liquidity needs and to maintain liquidity at a relatively balanced level. Without this, interbank interest rates on short-term transactions tend to gravitate towards the floor of the corridor rather than towards the CB's key policy rate. This decreases the role of the latter as a benchmark for the cost of financial resources and as an indicator of future changes in monetary policy.

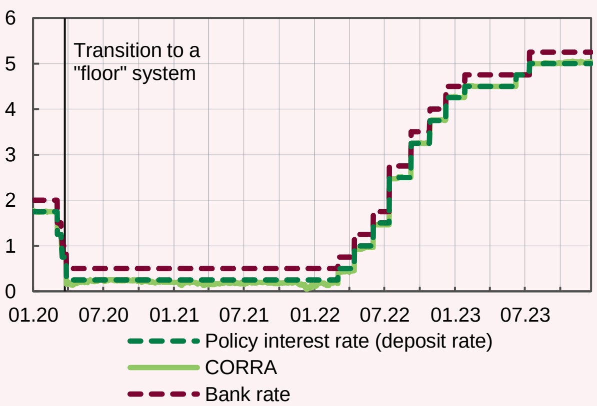
Due to liquidity surpluses, a number of central banks, without officially announcing their abandonment of the mid-corridor system, de facto apply the floor system. Thus, since the end of 2015, because the liquidity surpluses caused by the asset repurchase program, the ECB's mid-corridor system has de facto transformed into a floor system. Isabel Schnabel, Member of the Executive Board of the ECB, and Marc Resinek from Germany's central bank, were among those who acknowledged this fact in their speeches. The Czech Republic and Poland also saw a significant increase in their structural liquidity surpluses due to programs of government bond repurchases in the secondary market and targeted refinancing operations. Thus, since the start of the monetary policy tightening cycle in 2021, the POLONIA and CZEONIA rates have mostly been moving in the lower part of the interest rate corridor.

Figure 3. CB's interest rates and overnight interbank rate in Czech Republic, %



Source: Czech National Bank.

Figure 4. CB's interest rates and overnight interbank rate in Canada, %



Source: Bank of Canada.

Many other CBs have tried unsuccessfully to keep interbank rates close to the midpoint of the interest rate corridor during periods of substantial increases in liquidity surpluses.

Among them were the central banks of Romania (from 2016 through 2017 and from end-2022 to the present), Serbia (from 2013 to the present), and Egypt (from 2007 through March 2011; from September 2013 through early 2017; from September 2017 through March 2020; and from mid-2022 to the present) and others.

Floor system ODs allow CBs to achieve their goals more effectively when there is a substantial and sustained increase in liquidity surpluses. Under these ODs, the key policy rate is used to determine the interest rate on overnight liquidity-absorbing operations. Therefore, as long as a structural liquidity surplus prevails, short-term market rates steadily gravitate toward the key policy rate. This boosts the signaling function of the latter and makes it easier for market participants to understand a CB's actions. These ODs are much less sensitive to forecast errors and liquidity fluctuations, and are effective even when the interbank market is weak and underdeveloped. To limit possible spikes in market rates during extraordinary liquidity fluctuations, CBs offer overnight standing facilities to provide liquidity at a rate higher than the key policy rate.

Classical floor systems are officially used by the central banks of the United Kingdom (since 2009), Canada (since 2020), and New Zealand (since 2020). Before the global financial crisis, Canada's central bank rather effectively applied the mid-corridor system. However, during the crisis, the central bank temporarily and officially introduced a floor system to maintain the overnight rate at the effective lower bound. At the beginning of the COVID-19 crisis, due to a significant increase in the liquidity surplus caused by quantitative easing, the CB again officially switched to this system and has been applying it ever since.

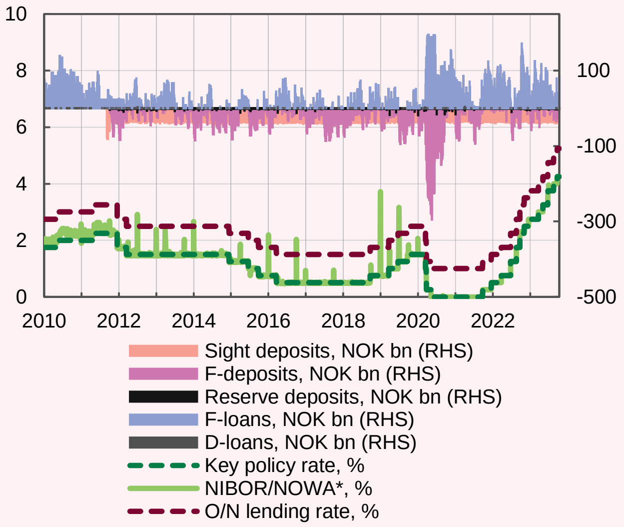
It is believed that the main disadvantages of the classical floor system compared to the mid-corridor system are potentially higher interest expenses of a central bank, weaker incentives for the development of the interbank market, and thus a higher risk that bank treasuries will be sidelined. However, in practice, these shortcomings are more likely to be the negative effects of a significant widening of the liquidity surplus, which often occurs for reasons beyond the control of central banks.

Various modifications partially offset the disadvantages of the classical floor system. For example, Norway's central bank was one of the first to introduce a floor system in the mid-1990s due to the excessive sensitivity of short-term market rates to errors in structural liquidity forecasts resulting from large-scale and unpredictable government operations. In October 2011, Norway's central bank introduced quotas for banks to place liquidity overnight at the key policy rate. Free liquidity in excess of the quota could still be deposited overnight in unlimited amounts with the central bank. However, the interest rate at which this surfeit was deposited was lower than the key policy rate. As a result, this system encourages banks that have accumulated liquidity in excess of the quota to place it in the interbank market.

Thus, in contrast to the usual floor system, this modified system, with quotas that are based on the spread between the key policy rate and the rate at which liquidity is absorbed overnight, discourages banks from building up liquidity in excess of the quota, creates incentives for reviving the interbank market, and promotes a more even distribution of liquidity.

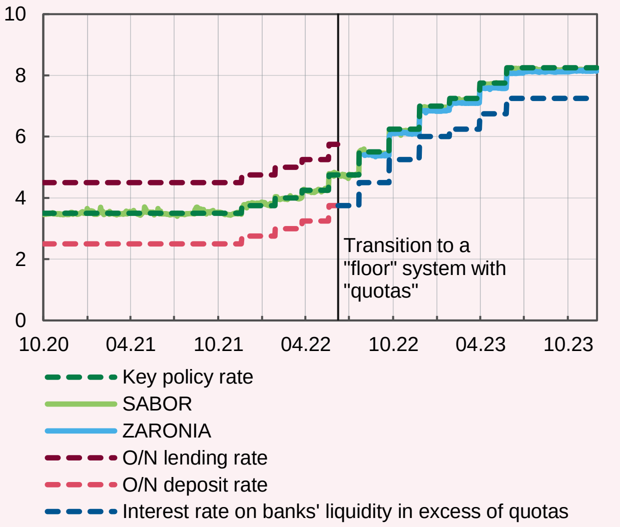
Since 1998, the South African Reserve Bank has rather effectively used a system that relied on a structural liquidity deficit to implement its interest rate policy. When in the mid-2000s the country's banking system started facing liquidity surpluses due to the accumulation of international reserves, the central bank officially announced a transition to a modified floor system with quotas (similar to that used in Norway).

Figure 5. Interest rates, volumes of liquidity regulation operations of the Norges Bank, and the interbank rate



* NOWA – from 30 September 2011.
Source: Norges Bank.

Figure 6. CB's interest rates and interbank rates in South Africa, %



Source: South African Reserve Bank.

A floor system OD also leaves room for deploying additional elements, which enable a central bank to meet more effectively several goals at the same time. More specifically, in October 2023, the NBU switched from the mid-corridor system to a modified floor system. The distinctive feature of the NBU's OD lies in conducting transactions with limited three-month certificates of deposit at a rate that is 4 pp higher than the key policy rate. The volume of these transactions is limited by being linked to changes in portfolios of household hryvnia deposits with maturities of at least three months, which encourages banks to compete more strongly for depositors. At one time, despite a significant increase in the liquidity surplus, these transactions contributed substantially to a rise in interest rates on hryvnia deposits and government bonds in response to a key policy rate hike. The greater attractiveness of the hryvnia reduced FX demand and increased the maturity of retail deposits, while also decreasing the dollarization of these deposits. Currently, in the context of the interest rate policy easing cycle, the NBU is using transactions with three-month certificates of deposit for the targeted restraining of the reduction in interest rates on long-term retail deposits. This is important for meeting the objective of maintaining the sufficient attractiveness of hryvnia instruments, which, in turn, is an important condition for safeguarding exchange rate sustainability and bringing inflation back to its 5% target over the policy horizon.

Box 4. FX Interventions by CEE Central Banks: Lifebuoy Even for Those Who Float

It is widely believed that central banks usually use FX interventions either when the exchange rate is fixed or during crises. At the same time, the experience of other countries, and CEE economies in particular, shows that the use of FX interventions under different regimes and macroeconomic conditions can greatly benefit both monetary policy and the economy as a whole. In particular, interventions are used to smooth out short-term exchange rate volatility, minimize external shocks, and mitigate risks to financial stability. Complementing FX interventions with verbal ones boosts central banks' credibility and enhances the effectiveness of central bank participation in the FX market. Moreover, this maximum effect is achieved in turbulent times. The accumulation of FX reserves as a buffer for future shocks can further increase the credibility of a central bank.

The reasons for using FX interventions. FX interventions play a central role in countries with fixed exchange rates – they are used to maintain the exchange rate at a certain level or within a certain range. Although the reasons for deploying interventions under a flexible exchange rate regime are less obvious, FX interventions, in general, are an important monetary policy tool, just like the interest rate. As a rule, interventions are carried out to mitigate risks to financial stability, decrease the pass-through effect of exchange rate changes to inflation, build up international reserves, and offset persistent shocks resulting from large capital flows (Nordstrom et al., 2009, Chamon et al., 2019).

Ghosh et al. (2016) believe that, for emerging markets, the use of FX interventions under the IT regime could be the optimum policy choice. Central banks in these markets have two targets (inflation and the exchange rate) and two instruments to achieve them (the key policy rate and FX interventions). That said, the use of interventions as an additional tool under the inflation-targeting regime does not undermine the credibility of a central bank. On the contrary, it could increase trust in the inflation target, especially when the country faces external shocks, such as volatile capital flows. FX interventions are usually asymmetric, with a bias toward FX purchases (Adler et al. (2020). These interventions are believed to be effective in achieving their objectives mainly in the short run (up to a month), but in some cases they can be effective in the medium run (up to six months) (Patel and Cavallino, 2019; BIS, 2022). Although central bank participation in the spot market remains the most widely used intervention mechanism for both advanced economies and emerging markets, some emerging markets have in recent years stepped up, at least sporadically, their interventions in derivatives markets.

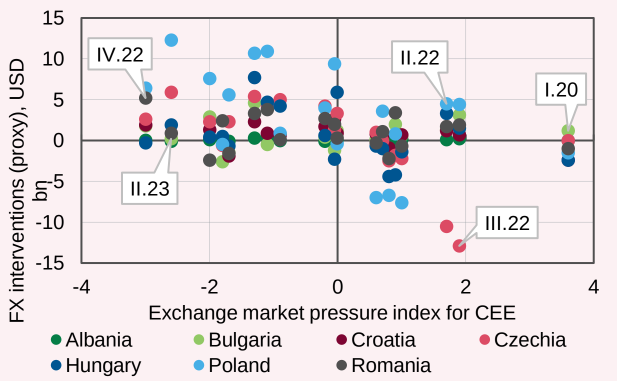
The peculiarities of CEE interventions. The CEE region includes different countries in terms of economic development and monetary policy.[14] The motives for FX interventions by the central banks of these countries are in line with the general trends in emerging markets (the Czech Republic is an exception, as it is an advanced economy), but they have their own specific features. Interventions are mostly carried out on the spot markets; are asymmetric, with a bias toward FX purchases; and are usually driven by the desire to minimize the impact of external shocks. Central banks' involvement in FX markets intensified during the COVID-19 pandemic, when they eased their monetary policies, increased banking system liquidity, and responded to rapid changes in FX markets to support the economy. Later on, interventions were also used to contain the shocks that arose from russia's invasion of Ukraine. Interventions have not only a transactional, but also a verbal (press releases and press conferences) form, because, as studies show, the latter enhances the effectiveness of FX interventions.

For example, the central banks of Bulgaria and Croatia (the latter until 2023) intervene in the FX market in the context of de facto fixed exchange rates to the euro, while the

[14] Slovenia, Slovakia, Estonia, Latvia, and Lithuania are members of the euro area, Croatia became a member in January 2023, and Bulgaria joined ERM II in July 2020, using the exchange rate as a nominal anchor of monetary policy. The study relies on data about Albania, Bulgaria, Poland, Romania, Hungary, the Czech Republic and Croatia (the latter until 2023) to analyze the features of FX interventions of CEE's central banks. Of the countries selected, only the central banks of Albania, the Czech Republic, and Croatia publish official data on their FX interventions. Therefore, to compare the countries from the entire group, we used estimated proxies for interventions following the methodology of Adler et al. (2021). The proxies were calculated as a change in the central banks' reserves according to BOP statistics less income on reserves. The proxies were also adjusted for changes in other foreign currency assets and liabilities, and FX assets and liabilities vis-à-vis residents, as well as they include derivatives transactions. To obtain relative indicators, we used absolute volumes of interventions, ignoring the direction of the transaction – purchase (+)/sale (-).

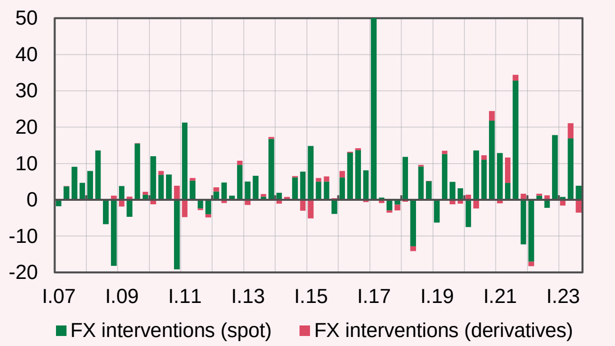
central bank of Romania does it under a managed floating exchange rate. Hungary's central bank has a floating exchange rate, but intervenes discretionarily to prevent excessive market volatility. At various stages, the central bank also resorted to indirect and targeted intervention (such as, obligations to sell euros to meet the needs related to energy import coverage). At the same time, Poland's central bank, which actively uses an IT regime and also has a free floating exchange rate for the zloty, does not rule out the possibility of intervening to maintain macroeconomic and financial stability. In particular, in 2016, the share of the central bank's operations in total foreign exchange turnover (the largest FX market among CEE countries) grew to 2.2% in Q2, only to decrease to about 0.7% in 2022.

Figure 1. FX interventions and the weighted-average exchange market pressure (EMP) index for CEE*, I.2019 - III.2023



* Exchange market pressure index is a weighted average of individual EMP indices for CEE countries, with 2022 nominal GDP used to compute weights (Kaminsky et al., 1998; Tanner, 2002). Positive values indicate an appreciation pressure on the exchange rate.
Source: Adler et al. (2021), WEO, Bloomberg, NBU staff estimates.

Figure 2. FX interventions (proxy) of CEE* economies in spot and derivative markets, USD bn



* Albania, Bulgaria, Poland, Romania, Hungary, Czechia, and Croatia.
Source: Adler et al. (2021), NBU staff estimates.

The share of FX interventions of CEE central banks in total turnover of their FX markets varied from 0.01% to over 6% between 2007 and 2022 (according to calculations based on BIS data). In particular, interventions in spot markets increased during a period of significant fluctuations in FX flows in 2007, primarily in Bulgaria (FX purchases of over 6% of total turnover in Q3), and Romania (FX purchases and sales of about 4% in Q1 and Q3). The need to reduce exchange rate volatility increased the participation of Hungary's central bank in Q1 and Q4 2010 to over 3% (to purchase and sell FX respectively). Curbing external pressures on the FX markets caused by russia's invasion of Ukraine increased, on average, the shares of CEE central banks' interventions to 0.6% to 2% in 2022, compared to 0.2% to 1.2% in 2019.

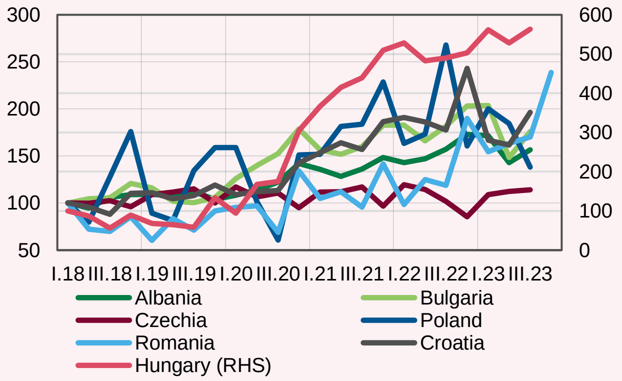
Excess liquidity and international reserves. Many CEE countries see periods of substantial liquidity surpluses in the banking system. There are many reasons for it: significant inflows of foreign capital; the banks' greater propensity to conduct transactions with the central bank than on the interbank market; and the use of unconventional policy measures, such as monetary easing or asset purchase programs. Excess liquidity could lower the effectiveness of the transmission mechanism, which increases the need to use other policy instruments, such as FX interventions.

Countries in the region also rely on FX interventions to build up international reserves in case there are future shocks. However, reserves are accumulated exclusively in accordance with clearly defined rules and pre-established schedules. For example, Poland's central bank builds up its reserves mainly by purchasing FX from the Ministry of Finance. Albania's central bank buys FX through auctions, the schedule of which is announced in advance, and the sole purpose of which is to accumulate reserves.

The example of the Czech Republic: Openness and trust. As an advanced economy, the Czech Republic has low volumes of FX interventions relative to the size of the country's FX market (up to 1%). However, in certain periods (during 2013–2016, the period when an exchange rate commitment was in place), interventions grew to almost 5%. More specifically, after the key policy rate hit technical zero, the central bank of the Czech Republic, despite having a de jure floating exchange rate regime, imposed a floor on the exchange rate and weakened the koruna through interventions in

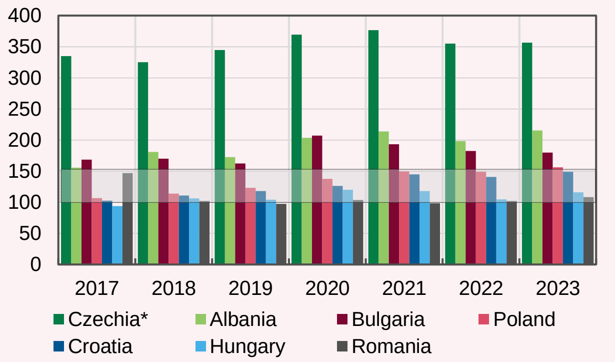
November 2013. The central bank communicated its preparedness to intervene further without any time and volume restrictions to achieve its target, thus retaining credibility. After achieving its targets in April 2017, the central bank discontinued its exchange rate commitment and gradually returned to a traditional monetary policy with an inflation-targeting regime. However, in March 2022, the central bank intervened in the FX market to limit the rapid depreciation of the koruna caused by russia's invasion of Ukraine, and in May 2022, it launched FX market interventions to prevent a long-term weakening of the koruna due to high inflation. As a result, the share of interventions to sell FX reached 2.9% to 3.6% in Q2 and Q3 2022. The central bank formally ended the intervention regime in August 2023 (although FX interventions had not been conducted since October 2022). Subsequently, the central bank resumed its program of sales of part of the income on international reserves to slow the growth of the reserves.

Figure 3. Excess liquidity*, index, I.2018 = 100



* CB liabilities to other depository corporations as an indicator of excess liquidity of the banking system (operational definition).
Source: IMF IFS, NBU staff estimates.

Figure 4. International reserves adequacy, % of ARA metric



* ARA metric is a measure for assessing adequacy of reserve holdings of EM economies (100%-150% is considered adequate). The Czech Republic is an advanced economy.
Source: IMF.

Ukraine's experience. When the full-scale invasion started, the NBU fixed the hryvnia exchange rate. Fixing the exchange rate was supported by the NBU's interventions to sell FX and a number of administrative restrictions on FX transactions and capital flows. Given the high uncertainty caused by the hostilities, these steps helped maintain monetary and financial stability. In the past, Ukraine already had an experience of applying a fixed exchange rate regime for many years. It created the illusion of stability and led to the accumulation of significant macrofinancial imbalances, the correction of which resulted in deep currency and economic crises. That is why the NBU repeatedly stated that fixing the exchange rate, even in wartime, was a temporary solution. In October 2023, the NBU switched to a managed flexibility regime.

'With proper conditions in place, the NBU will allow greater flexibility in the exchange rate, and the role of the interest rate will increase. Nevertheless, the NBU will maintain its presence on the market to compensate for the structural shortage of foreign currency. With inflation expectations being very sensitive to the exchange rate, the combination of a classical interest rate policy and FX interventions seems to be the optimum regime. On the one hand, greater exchange rate flexibility will enable the country's economy to adjust to shocks, cycles, and market fluctuations, while also preventing the depletion of international reserves. On the other hand, using FX interventions to smooth out high volatility will promote macrofinancial stability, enabling the NBU to achieve its inflation target in the medium term. Although it is difficult to draw parallels between a country at war and global experience, the ongoing special role of FX interventions in Ukraine's monetary policy will be in line with global trends.

Part 4. Assumptions and Risks to the Forecast

4.1. Domestic assumptions and risks

- Developments in the security situation, specifically with regard to the duration, nature, and intensity of hostilities, are the key risk to this macroeconomic forecast. If hostilities intensify or high security risks persist longer over the forecast horizon, the Ukrainian economy will sustain a greater loss of potential, and inflationary pressures will rise.
- The risks of insufficient regularity in international financing, and a decline in its volumes, are increasing, which may undermine macroeconomic stability.

Risks of prolonged hostilities or their escalation have increased significantly in 2024, which may degrade the main indicators of the forecast

The key assumption in the NBU's forecast is that high security risks will begin to ease considerably from 2025. If the war is longer or more intense than in the baseline scenario, it will worsen the Ukrainian economy's prospects for recovery, business and consumer sentiment, and significantly aggravate demographic problems and labor market conditions. Depreciation and inflation expectations will deteriorate. Pressure on public finances will remain high. However, inflation will be restrained by subdued demand and the continuation of the moratorium on tariff increases for certain utilities. If such a scenario materializes, the NBU will have to resort to a tighter monetary policy than the baseline scenario of this forecast assumes.

A longer war and more large-scale destruction from russia's terrorist attacks may slow the gradual fiscal consolidation that is expected to start in 2025

The NBU forecast envisages a gradual reduction of the budget deficit from the anticipated 20.7% of GDP in 2024 to 13.5% and 7.5% of GDP in 2025–2026, in part due to the increase in domestic revenues as the economy recovers. Public finances are very vulnerable in wartime due to the unpredictable nature of hostilities, and the potential for the optimization of expenditures is limited. There is a significant risk that expenditures will have to be increased, primarily in the event of the longer duration of security risks or damage to critical infrastructure. This may in turn lead to an increase in the budget deficit and require there to be a search for additional sources of financing. In addition, an increase in expenditures will have an adverse impact on external sustainability indicators and will require expedited fiscal consolidation going forward.

Persistent disruptions to the rhythm of international aid and/or a more significant reduction in its volumes will significantly undermine the sustainability of public finances, which may worsen macroeconomic stability

The forecast assumes the continuation of significant external financial support. In 2024–2026, Ukraine stands to receive USD 37.4 billion, USD 25.1 billion, and USD 12.6 billion in international financing, respectively. It is important that donors adhere to the agreements not only with regard to the amount, but also in terms of the regularity of aid inflows, which will ensure the monthly fulfillment of all planned budget expenditures. Between the end of 2023 and the beginning of 2024, aid inflows became irregular, and uncertainty over the approval of external financial assistance for the current year by the largest donors increased significantly. The capacity of the domestic financial market is rather limited. Should foreign aid disbursements run into further delays, the threat that the NBU may have to resort to monetary financing of the budget will increase. A decrease in financing volumes will also lead to a drawdown of international reserves, which will have an adverse impact on the state's external sustainability indicators. This will worsen exchange-rate and inflation expectations, and require the NBU to pursue a tighter monetary policy than in the baseline scenario.

The NBU expects a slight shortage of electricity. However, russian terrorist attacks against the energy infrastructure pose another significant risk to the economy

If there is no significant new destruction, then in 2024 a slight deficit of power may occur during the heating season. On the one hand, air defense capabilities have been significantly fortified, and repairs and adjustment of the energy system to wartime challenges are underway. On the other hand, the energy system has taken substantial damage, and russia continues its attacks, while the pickup in economic activity increases energy consumption. However, the shortfall is expected to be offset by EU imports, so it will have little impact on economic activity. No deficit of electricity is anticipated after that, as repairs will be made and new equipment delivered.

Increased attacks by russia on Ukraine's energy infrastructure constitute a risk that may entail a greater-than-expected deficit of domestic power generation capacities. There might not be sufficient technological capabilities to import electricity to cover the significant shortfall. As a result, blackouts will take place for both household and industrial consumers, limiting economic activity. GDP growth will be lower than foreseen in the baseline scenario. However, the level of preparedness of businesses and households for potential power outages is higher than last winter, limiting the adverse impact of power shortages on the economy.

The assumption is that significant volumes of goods will be delivered via the new sea route, and that their range will be expanded. Attacks by russia could complicate maritime transportation. However, the logistical capacity of this route may increase further

This forecast assumes that food shipments via the new sea route that opened in August will make up for the terminated Black Sea Grain Initiative. The average monthly volume of goods coming through the new sea corridor will be about seven million tons. The throughput capacity will be sufficient not only to export the 2023–2024 harvest, but also to ramp up exports of metals-and-mining products.

Continued positive trends will push up export volumes, while a further increase in the effectiveness of currency supervision measures will ensure the timely receipt of FX earnings. This will contribute to a faster economic recovery, boost the NBU's ability to maintain exchange rate sustainability, and also enabling the central bank to speed up the easing of FX restrictions. However, further shelling by russia of port infrastructure could adversely affect maritime transport. This would complicate the exports of products and lead to a decrease in FX earnings and, accordingly, a deterioration in the financial standing of exporters.

The NBU assumes that the partial blocking of cargo transportation at border crossings with some EU countries will be lifted by Q2. If restrictions persist for a longer period, or are tightened, this would lead to additional economic losses

The obstruction of Ukraine's western border crossings by protesters is causing a decrease in exports and imports of goods. The maximum adverse effect of these restrictions came in November 2023. The NBU estimates that outright losses amounted to about USD 160 million in exports and USD 500 million in imports of goods. However, a rather quick reorientation of trade flows to other modes of transport and routes, specifically the maritime corridor, made it possible to make up for all of the lost exports and part of the lost imports. In addition, Polish protesters said in mid-January that they had lifted their blockade of the border crossings. This should reduce the January loss of imports to USD 150–200 million. The NBU expects that certain restrictions from neighboring countries will continue in February–March, but will stop later on. Ukraine will sustain USD 100 million per month in losses of imports during this period.

A gradual return of migrants is anticipated from 2025, as is an easing of security risks. However, the war's protracted nature is driving up risks that a large number of Ukrainians may never return

With security risks running high, the outflow of migrants is expected to continue in 2024, although it will be small (some 100,000 people by the year's end). After security risks abate, approximately 400,000 people will return to Ukraine in 2025. Reconstruction of housing and infrastructure, and an increase in the number of jobs as the Ukrainian economy grows, will lead to a more active return of about 800,000 people in 2026.

However, those who have better adjusted to life in their host countries may decide not to return to Ukraine or might choose to come back later. In addition, the risk is rising that the return of migrants will be slowed by the protracted war, the high intensity of hostilities, and the shelling of civilian infrastructure. After the war is over, the pace of outbound migration may pick up as men join their families abroad after being allowed to leave Ukraine. Family reunions may also be driven by still-difficult economic conditions. This will further degrade not only the recovery of domestic demand due to the decrease in the number of potential consumers, but also the supply of labor. Labor market mismatches will also broaden, driving up business expenses on employee compensation and increasing their pass-through to prices. This, however, will be partially compensated for by weaker demand.

The NBU assumes that most utility tariffs will remain flat during the period of high security risks. The dates and parameters of change of these tariffs are a source of uncertainty in this forecast

The forecast assumes that the moratorium on raising certain utility tariffs (including those for heating and hot water) will remain in effect until martial law ends. Going forward, it is expected that the tariffs will be gradually adjusted to economically reasonable levels over several years.

Uncertainty around the timing and amount of tariff adjustments, primarily for energy, is a separate risk to the inflation forecast. Delaying decisions to bring utility tariffs into line with economically reasonable levels will accumulate quasi-fiscal imbalances and worsen the financial standing of state-owned energy companies. Accordingly, risks of instability in the domestic energy market will rise, and the industry's investment potential will deteriorate. Price pressure will also be postponed into the future. In contrast, an accelerated increase in energy prices that will eliminate imbalances in the energy sector will be a source of additional inflationary pressure and lead to the need for a significant increase in subsidies for households.

In 2024, harvest volumes are expected to come in slightly lower as crop yields return to their average levels. Going forward, yields will gradually rise, although weather conditions and climate change may increase the volatility of harvest volumes

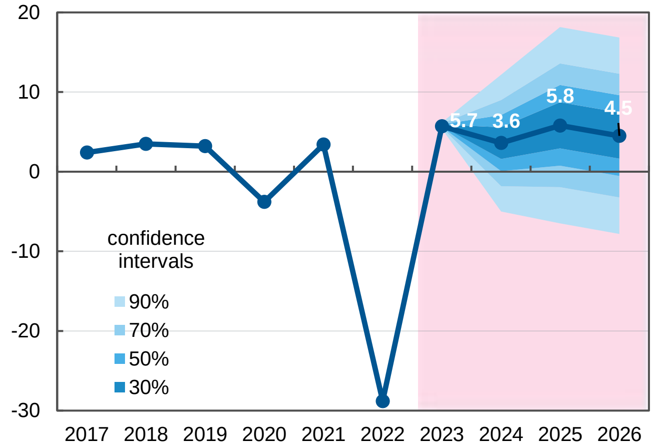
Extremely favorable weather conditions in 2023 bolstered Ukraine's economic recovery and led to a sharp pullback in inflation. The weather is highly likely to go back to average climate norms in 2024 and beyond. This will cause a slight decline in harvest volumes in 2024 (with cereals and leguminous crops edging lower to about 56 million tons). When security risks abate, areas under crops will expand after de-occupation and demining. Harvest volumes will therefore increase over the forecast horizon. However, planted areas will grow only gradually due to significant financial and time costs of demining, meaning it will be long before harvest volumes reach the record figures seen in 2021. As a result, it is expected that about 59 million tons of cereals and legumes will be harvested in 2025, and some 61 million tons in 2026. However, it is also possible that temperature will deviate from its normal average, adding volatility to harvest volumes, with a corresponding impact on food inflation.

A significant incentive for recovery could come from large-scale projects to rebuild Ukraine, especially in combination with accelerated European integration.

To restore destroyed infrastructure and production capacities, Ukraine will need significant investments, which can be raised only by implementing large-scale projects to rebuild the country and/or by transferring frozen russian assets to Ukraine. The baseline scenario of the macroeconomic forecast does not include such projects, as it will take an extended period of time to accumulate such resources and work out a corresponding program. The aggressor's assets frozen abroad may serve as a source of funding for the said program. In recent months, Western partners have stepped up the consideration of issues related to transferring such assets, and profits from their use, to Ukraine.

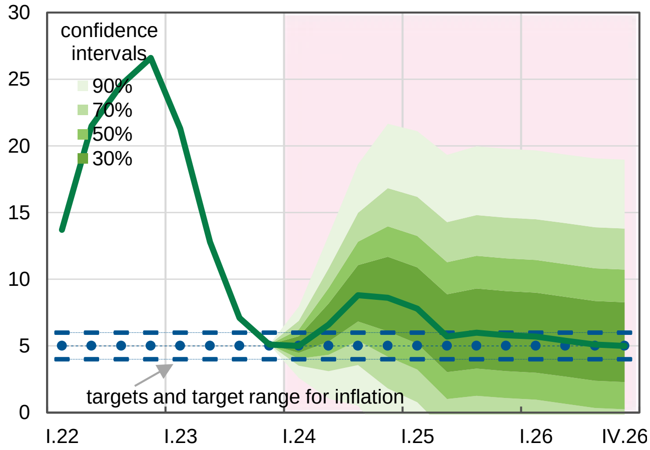
The implementation of recovery programs, especially against the backdrop of European integration reforms (more on this in the box *European Integration and Scenarios of Accelerated Economic Growth in Ukraine* on page 41), will significantly accelerate economic growth. It will also considerably increase underlying inflationary pressures due to more active growth in household income. The NBU will therefore be forced to maintain a tighter monetary policy. At the same time, a lower risk premium and revaluation effects from capital inflows will inhibit inflationary pressure.

Figure 4.1.1. Real GDP forecast, % yoy



Source: NBU staff estimates.

Figure 4.2.1. CPI forecast and inflation targets, % yoy



Source: NBU staff estimates.

The fan Figures illustrate the projections for the key macroeconomic indicators. The confidence intervals which are symmetric represent the historical accuracy of the past forecasts dating back to 2016. They incorporate expert assessments of the recent economic conditions for the GDP projections. The confidence intervals widen over a two-year period and remain constant forward.

Таблиця 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			Continuation of the partial blockade of freight transportation at border crossings with certain EU countries
Moderat		Intensified emigration Increased capacity of maritime export routes	Damage to energy and port infrastructure
Strong		Additional budgetary needs and significant quasi-fiscal deficits, in particular in the energy sector Rapid implementation of the large-scale reconstruction plan for Ukraine (the "Marshall Plan")	Prolonged war, escalation, eco-terrorism of the occupiers Decreased or less regular disbursements of international assistance

Source: NBU staff estimates.

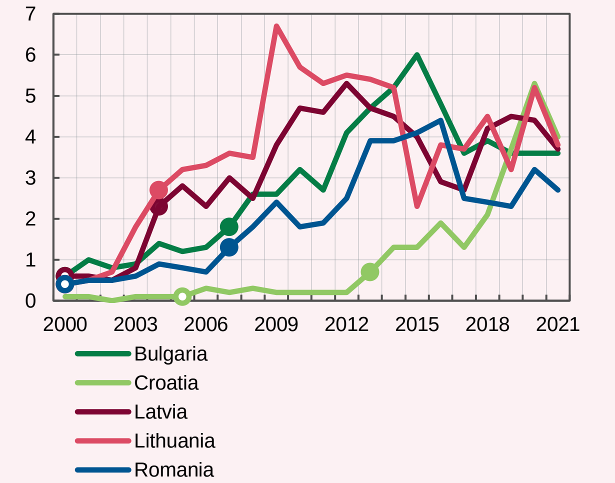
Box 5. European Integration and Scenarios of Accelerated Economic Growth in Ukraine

The Ukrainian economy is gradually reviving, mostly by recovering the losses caused by russia's full-scale invasion. However, sustained economic growth at a fast pace is only possible through a steady increase in productivity. This increase could be achieved through reform and convergence with more advanced economies, provided that an important condition is met – that macroeconomic stability is maintained. European integration should drive these processes. The process of integration, even before official accession to the European Union, will promote foreign trade and investment, while also bolstering the country's institutional capacity. This will boost the efficiency of resource utilization, curb corruption, and deepen market competition. If European integration reforms are carried out slowly, the Ukrainian economy could grow by about 4% over a decade, while rapid transformation will ensure economic growth of about 7%.

The prospect of EU membership starts to stimulate economic activity several years before the actual accession due to the expectations effect. According to Campos et al. (2019), the CEE countries that joined the EU in 2004 had on average almost 10% higher levels of labor productivity and GDP per capita in 2003 than they would have had without the prospect of membership. The fulfillment of EU accession criteria generated stimuli for economic growth. However, this impact varied across countries, with higher levels of trade openness and financial integration enhancing the benefits of membership. Other studies (Cieślik and Turgut, 2021; Hagemejer et al., 2021) showed a positive impact mainly in the long run, although it was weaker in countries with better infrastructure. At the same time, the growth of investment in the first years following accession laid the foundation for further economic growth, as happened in Croatia (Rukavina, 2021).

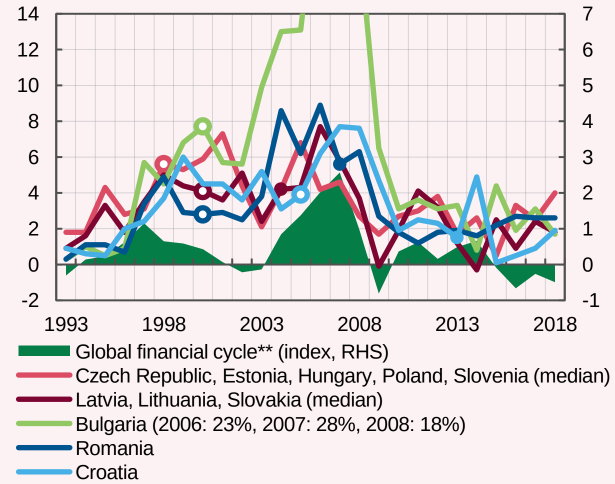
The convergence of CEE countries was based on FDI inflows, improved economic freedom, a profound institutional transformation, and EU funding to support reform (Rapacki and Próchniak, 2009). That said, the funding usually did not exceed 1% of GDP, unlike the structural funds that became available after accession. Instead, FDI inflows to candidate countries, in particular from the then EU members, played a greater role in the context of reforms and privatization.

Figure 1. EU budget expenditures on selected countries, % of GDP*



* An empty dot indicates the year negotiations started, a filled dot – the year of EU accession.
Source: European Commission, Eurostat.

Figure 2. Foreign direct investment (FDI), flows, % of GDP*



** Miranda-Agrippino and Rey (2020).
Source: UNCTAD, Silvia Miranda-Agrippino.

Increased economic productivity is positively related to the quality of government institutions and the rule of law. Ari and Pula (2021) identify a weak judicial system as a major impediment to economic growth in Ukraine. Full-fledged reforms, including the rebooting of the judicial system, could bring real GDP growth close to 7% per annum.

Dieppe (2021) also emphasizes the crucial role of the rule of law and the protection of property rights. Foreign investors (Dragon Capital, 2020) identified corruption, a lack of trust in the judiciary, and market monopolization by oligarchs in Ukraine as three main obstacles to investment. Reining in corruption and strengthening the rule of law will have a positive effect on other areas of activity.

Emerging markets catch up with more advanced economies through trading with these economies, and through foreign investment inflows. Open economies become more productive thanks to specialization, participating in global supply chains, and importing advanced technologies. Convergence with more advanced economies is facilitated by the production of highly processed goods, although this process is much slower in economies with high employment in agriculture (Dieppe, 2021).

A stable macroeconomic environment fosters private investment and innovation, accelerates convergence with more advanced economies, and enhances the impact of other factors of productivity growth. Dieppe (2021) links stability to low inflation and low exchange rate spreads on the black market. Prioritized price stability in the NBU's mandate is an important condition for successful European integration.

Model simulations were used to assess two scenarios of Ukraine's development – a moderate one and a favorable one, which primarily differ in the completeness of reforms and the speed of European integration. Economic growth rates are expected to diverge significantly in the two scenarios: a higher pace and faster narrowing of the income gap with EU economies require long-term political determination in implementing reforms. Under the moderate scenario with partial reforms, Ukraine's GDP per capita will exceed USD 10,000 in 2033. This is less than 70% of Romania's level in 2021. Under the favorable scenario, these figures will rise to almost USD 15,500 and over 100% respectively.

Table 1. **Macroeconomic scenarios for the long-term development of Ukraine**

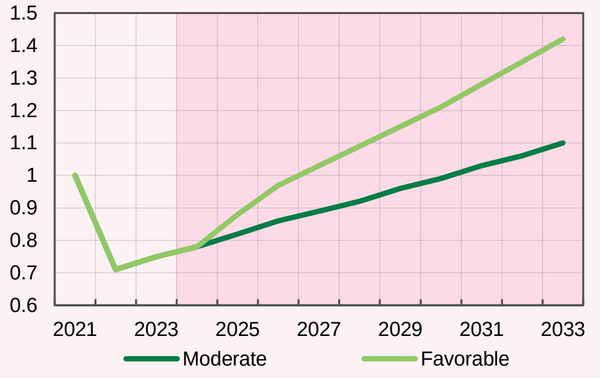
	Moderate	**Favorable**
Reforms	**Partial** (enhanced market competitiveness, access to the EU market, price stability)	**Full** (+ strengthen anti-corruption agencies, legal system overhaul)
Population	**32.5 million** in 2033 (14% below 2021), 4 million migrants return	**34.7 million** in 2034 (9% below 2021), all 6.3 million migrants return
Real GDP	average growth rate of **3.9%** in 2024–2033	average growth rate of **6.6%** in 2024–2033

Source: NBU staff estimates.

The convergence with the income levels of the EU economies will be achieved through real GDP growth and the strengthening of the real exchange rate. The successful implementation of the favorable scenario for Ukraine's recovery and inflows of foreign funds at the initial stage could even lead to a temporary overheating of the economy and a corresponding increase in consumer price growth. Under this scenario, the NBU will maintain a tighter monetary policy to curb inflation than under the moderate scenario. At the same time, Ukraine's inflation target will continue to be higher than those in the EU countries, providing room for real convergence. However, if convergence progresses quickly, maintaining low inflation would require a strengthening of the nominal exchange rate.

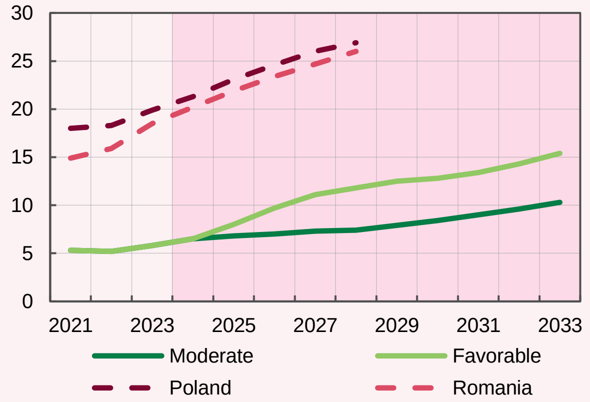
The favorable scenario for economic growth envisages that the trade deficit will continue to be significant, as investment inflows will fuel both investment and consumer imports.

Figure 3. Real GDP, 2021=1



Source: NBU staff estimates.

Figure 4. GDP per capita, USD thousand



Source: IMF forecast (April 2023), NBU staff estimates.

4.2. External Assumptions and Risks

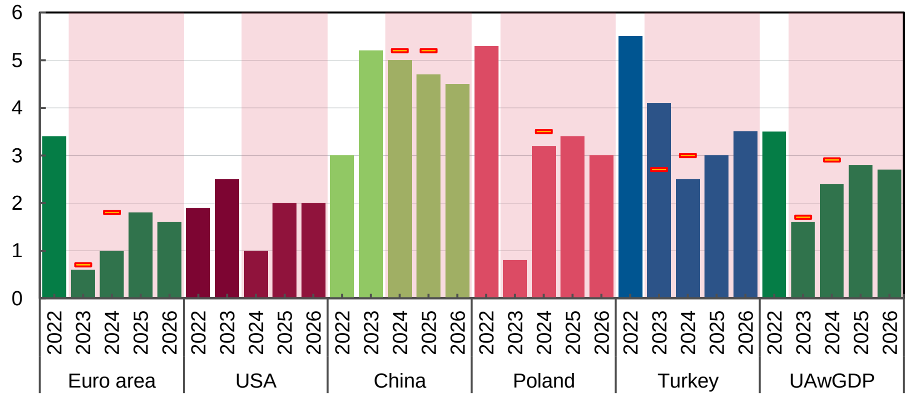
- Economic growth in Ukraine's main trading partners (MTPs) is expected to gradually revive in 2024–2026, driven by stronger consumer demand and international trade.
- External inflationary pressures will slowly wane, given the downward trend in global commodity prices and lower transportation costs. However, the slowdown in core inflation will be moderate, primarily due to the resilient labor markets. This will also be the main risk that could keep inflation high.
- Given the persistence of inflation, global financial conditions will remain tight amid the still-high rates set by leading central banks, despite rate cuts being expected.

The main external assumption is that external demand will pick up as inflation slows, although the weakening of the Chinese economy poses a significant risk to external demand

External demand, as measured by the weighted average annual economic growth rate in Ukraine's MTPs (UAwGDP), remained sluggish at the end of 2023. Rising borrowing costs (as a result of a pass-through effect from an increase in interest rates), a narrowing of global trade flows, depleting inventories, and still-high inflation restrained economic growth in both the advanced economies and in emerging markets.

Economic growth in Ukraine's MTPs will remain sluggish in H1 2024. Primarily, the euro area's GDP growth will be weak, in part due to the effects of the ECB tightening its monetary policy in 2023. Unlike in the United States, where private consumption was supported by the use of extra savings during the pandemic, in the euro area the level of savings is high and will remain so. The weakness of the euro area's economy will have a negative impact on growth in CEE countries. However, the disbursement of funds from the Recovery and Resilience Facility (RRF, until December 2026), in particular to Poland and Hungary (funds for them are temporarily blocked due to the democratic backsliding), will help revive investment activity in these countries. Real wages in both the euro area and CEE countries will grow amid a gradual slowdown in current inflation and under pressure from employees' growing demands to be compensated for loss of income due to high inflation. This will support a recovery in private consumption.

Figure 4.2.1. Real GDP of selected countries and weighted average of annual GDP growth of Ukraine's MTP countries (UAwGDP), % yoy



- previous forecast.
Source: National statistical offices, NBU staff estimates.

External demand will rebound in H2 2024 and grow at a relatively strong pace in 2025–2026. Strong labor markets amid the expected easing of inflationary pressures (in particular, due to lower energy prices) will boost consumer demand. The end of the inventory destocking cycle and the associated revival of manufacturing activity, as well as the positive effect of public financing of the private sector in the euro area in previous years, will be additional factors behind economic growth in Ukraine's MTPs. In addition, despite an expected slowdown, the growth in China's economy will remain quite strong, primarily due to fiscal stimuli.

Subsiding security risks, the concurrent increase in external demand, and a pickup in global trade in 2025–2026 will be important factors behind the acceleration of Ukraine's economic recovery.

A risk to this assumption could be unfavorable developments in China, where, despite stimulus measures being taken, a real estate crisis has not yet been resolved. If this crisis continues, China's economic slowdown could be more rapid than projected. This will lead to a decrease in external demand, particularly for commodities, which dominate Ukraine's exports.

Global trade will resume growing, but its increased fragmentation amid geopolitical tensions might slow this process

The WTO's Goods Trade Barometer shows a gradual recovery in global trade. This process will continue. Global merchandise trade growth is expected to recover to 3%–4% in 2024, and then to accelerate to 4%–6% in 2025–2026. This will be facilitated by higher business confidence, fewer logistical problems (including due to subsiding security risks in the Middle East and Ukraine), and a recovery in consumer demand for durable goods.

However, cyclical growth in global trade might not materialize due to the deepening fragmentation of trade relations amid rising geopolitical tensions. Fragmentation is evidenced by the increase in international trade restrictions imposed by the G20 countries. The latter may weaken the position of Ukrainian exporters on their traditional markets.

The economic recovery will be accompanied by a more rapid increase in supply than in demand, which will lead to a decline in global prices for both Ukraine's main imports and exports

After a temporary seasonal upward correction in Q1 2024, crude oil prices will go on to decline. The active increase in oil production by the United States and some Latin American and African countries amid unrestricted production in Iran and Angola will put downward pressure on prices. However, the OPEC+ production cuts (which will last until the end of 2024), tighter measures by Saudi Arabia, russia's export restrictions, and relatively stable demand from the United States will keep prices from falling significantly. Natural gas prices on the European market will also slowly decline after a seasonal rise during the heating season. This will be facilitated by increased LNG production in the United States, Australia, and Qatar, cheaper russian gas supplies to China and India (which reduces competition for LNG), and balanced stockpiling. At the same time, an escalation of the conflict between Hamas and Israel, which could involve other countries, is a significant risk that could lead to higher oil and gas prices due to possible disruptions in supply, or higher transportation costs.

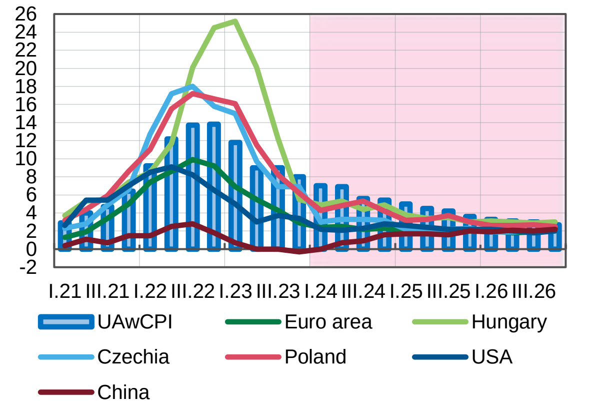
Wheat and corn prices will fluctuate in a narrow range due to the balance of supply and demand. A decrease in global wheat production in MY 2023/2024 amid significant growth in consumption will lead to the fastest decline in global stocks in seven years (according to the USDA forecast in December 2023). However, thanks to significantly better-than-expected harvests in major exporting countries (primarily economies in the Black Sea region and the United States), prices will fluctuate within a relatively narrow range. Expected growth in demand for corn from China's animal farming sector and for ethanol, particularly from the U.S. aviation industry, will put upward pressure on prices. At the same time, higher than previously forecast global corn production and stocks in MY 2023/2024 will restrain price growth. In the following years, thanks to the market equilibrium, grain price volatility is expected to be limited, with prices trending sideways.

External inflationary pressures will gradually ease, but core inflation will remain persistent

The rapid decline in consumer inflation in Ukraine's MTPs, which started in late 2022, slowed in mid-2023. The reasons for this were persistent underlying pressures from rising wages, especially in the services sector, and a certain increase in energy prices. However, as financial conditions tightened and food prices dropped, the downward trend in inflation resumed at the end of the year and will continue in 2024–2025, with stabilization expected in 2026.

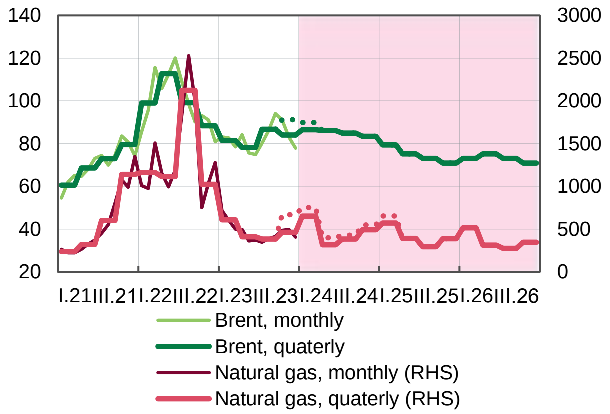
The slowdown in inflation will be facilitated by a faster increase in supply than demand on the markets. Among other things, energy resources, which caused around 40% of global inflation fluctuations over the two-year horizon, will fall in price. More moderate cost pressures, along with a correction in international transportation costs (in particular as a result of easing tensions in the Middle East and the resumption of full ship traffic through the Panama Canal), will also restrain external inflation. Weak external demand in H1 2024 will be an additional factor in easing price pressures.

Figure 4.2.2. UAwCPI (quarterly average) and consumer inflation of selected countries (eop), % yoy



Source: National statistical agencies, NBU staff estimates.

Figure 4.2.3. World crude oil prices (USD/bbl) and Netherlands TTF natural gas prices (USD/kcm)



Source: Refinitiv, World bank, NBU staff estimates.

Unlike energy and food prices, which have tended to decline, core inflation has remained high in many countries, especially in advanced economies. This was due to the tightening of their labor markets after the pandemic crisis, while the basic labor market indicators in emerging markets (EMs) have not yet returned to pre-pandemic levels.

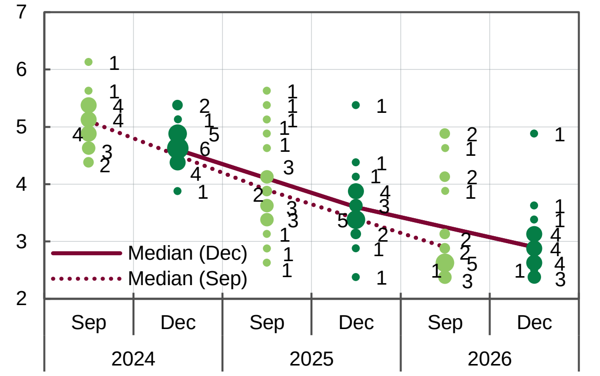
The revival of economic growth is expected to strengthen labor markets in Ukraine's MTPs. As a result, higher consumer spending, including due to a fiscal impulse (particularly given the tight election schedule), might keep inflation from slowing. An additional inflationary factor will be volatility in the commodity markets due to uncertainty caused by rising geopolitical tensions. Therefore, inflation in most of Ukraine's MTPs is expected to converge with their targets only in 2025. External inflationary pressures will decline from around 8% at the end of 2023 to 3% and 2.6% at the end of 2025 and 2026, respectively.

Global financial conditions will remain tight despite the expected decline in interest rates

The central banks of most of Ukraine's MTPs continue to balance opposing goals: the need to reduce inflation and also to support economic growth. If the central banks pursue a monetary policy that is too loose, inflation might accelerate again; if the policy is too tight, it might slow down the economic recovery and even trigger a recession. In early 2024, key interest rates have been at or near their peak in most countries. Inflation is slowing, but monetary policy will remain tight until there are convincing signs of a sustained decline in inflationary pressures. As the central banks try to make a "soft landing," their efforts in 2024 will lead to a compromise: relatively weak growth and a moderate decline in inflation. However, reaching the target of potentially higher and more volatile inflation in the face of new sources of uncertainty, such as geo-economic fragmentation and climate change, may require tighter policy and thus higher real rates.

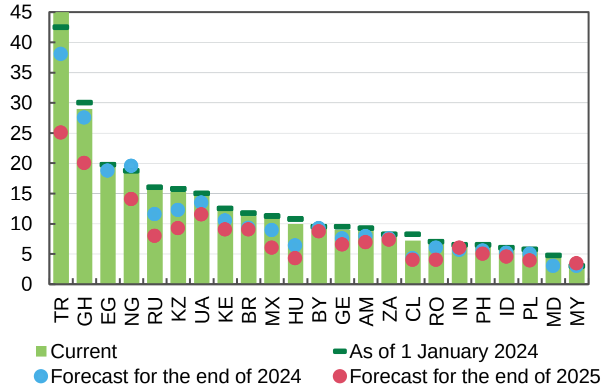
Expectations are growing that the leading central banks will start cutting interest rates soon. Fed members have already started discussing future policy easing and are currently forecasting rate cuts of a total of 75 bp in 2024. Although ECB officials rule out discussions on rate cuts in the near future, some of them are talking about the possibility of such a cut in the summer. Financial market participants and investors also have different views as to the timing of rate cuts. The NBU's forecast assumes that the Fed and the ECB will both cut rates by 75 bp in 2024.

Figure 4.2.4. **The number of FOMC members that expect the respective policy rate at the end of the year, based on the results of the meetings**



Source: Fed (according to the meetings in September and December 2023).

Figure 4.2.5. **Key policy rates in selected EM countries, %**



Source: official web pages of central banks, Focus Economics, Oxford Economics, as of 31.01.2024.

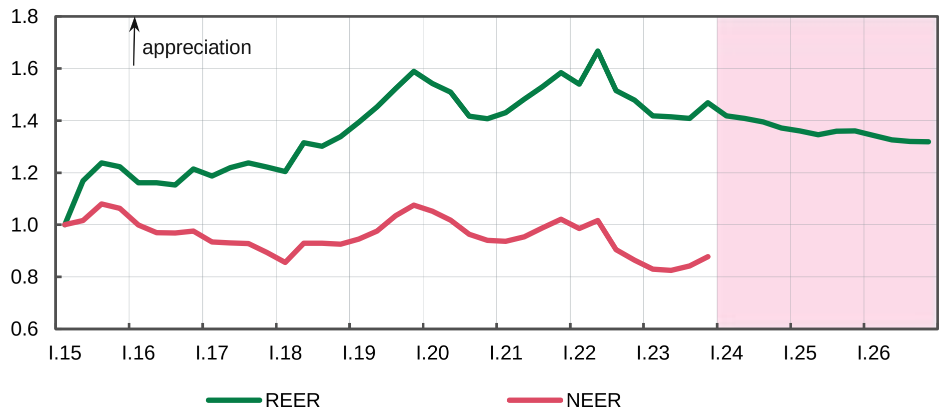
At the same time, inflation in EMs is declining faster, and core inflation in these markets is slowing more sustainably than in the advanced economies. In addition, the real key policy rates of EM central banks are far into positive territory. This gives grounds to expect further policy easing over the forecast horizon, although tight global financial conditions will limit its pace.

Increased market expectations that the leading central banks will begin to cut interest rates have already led to a decline in yields on government securities, although they remain rather high. On the other hand, most factors (expected real rate, expected inflation, and term premium) point to a potentially higher level of long-term yields in advanced economies compared to their historical levels. Therefore, global financial conditions will remain tight in real terms until at least mid-2025.

As government securities yields decline, the hryvnia's real effective exchange rate (REER) will weaken further, although it will still be stronger than its equilibrium level

Lower inflation in the United States and growing expectations that the Fed will begin to cut rates have renewed investors' interest in risky assets, particularly EM assets. At the same time, lower yields on government securities and the depreciation of the U.S. dollar have contributed to the strengthening of the currencies of most of Ukraine's MTPs.

Figure 4.2.6. **REER and NEER Indices, I.2015=1**



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

This trend is expected to continue in the next few years. This, against the backdrop of higher inflation in Ukraine compared to its trading partners (with the exception of Turkey) and a still-high risk premium, will lead to a weakening of the hryvnia REER. On the one hand, a weaker REER will contribute to a certain improvement in Ukraine's foreign trade balance, especially as security risks subside. On the other hand, despite the weakening, the REER will remain stronger than its equilibrium level, which will restrain inflationary pressures in Ukraine.

Macroeconomic forecast (January 2024)

Indicators	2019	2020	2021	2022	2023		2024						2025						2026				
					act./est.	forecast 10.2023	I	II	III	IV	current forecast	forecast 10.2023	I	II	III	IV	current forecast	forecast 10.2023	I	II	III	IV	current forecast
REAL ECONOMY, % yoy, unless otherwise stated																							
Nominal GDP, UAH bn	**3977**	**4222**	**5451**	**5239**	**6510**	6625	1597	1721	2002	2261	**7580**	7730	1813	1976	2305	2616	**8710**	8900	2067	2219	2554	2850	**9690**
Real GDP	**3.2**	**-3.8**	**3.4**	**-28.8**	**5.7**	**4.9**	7.1	4.8	1.7	2.0	**3.6**	**3.6**	3.4	4.9	6.4	7.9	**5.8**	**6.0**	6.6	5.3	4.0	2.8	**4.5**
GDP Deflator	8.2	10.3	24.8	34.9	17.5	21.7	13.5	12.6	12.1	11.8	12.4	12.6	9.8	9.5	8.4	7.3	8.6	8.6	7.0	6.6	6.4	6.0	6.5
Consumer prices (period average)	7.9	2.7	9.4	20.2	12.8	13.0	-	-	-	-	7.0	9.0	-	-	-	-	6.8	7.5	-	-	-	-	5.4
Consumer prices (end of period)	**4.1**	**5.0**	**10.0**	**26.6**	**5.1**	**5.8**	5.0	6.6	8.8	8.6	**8.6**	**9.8**	7.8	5.7	6.0	5.8	**5.8**	**6.0**	5.7	5.4	5.1	5.0	**5.0**
Core inflation (end of period)	3.9	4.5	7.9	22.6	4.9	5.7	4.0	4.8	5.5	6.4	6.4	8.6	5.7	4.5	3.8	3.1	3.1	3.0	3.1	3.1	3.0	2.9	2.9
Non-core inflation (end of period)	4.8	5.9	13.5	30.6	5.7	6.0	6.2	8.4	12.8	11.3	11.3	11.3	10.1	7.0	8.6	9.0	9.0	9.6	8.6	7.9	7.4	7.2	7.2
raw foods (end of period)	3.9	4.1	11.8	41.6	2.2	1.2	-0.1	1.2	11.6	8.0	8.0	8.3	7.0	3.3	3.1	3.0	3.0	3.1	3.0	2.9	2.9	3.0	3.0
administrative prices (end of period)	8.6	9.9	13.6	15.3	10.7	11.4	11.6	12.9	14.2	14.7	14.7	15.6	14.0	11.5	15.9	17.5	17.5	18.8	16.8	14.9	13.1	12.5	12.5
Nominal wages (period average)	18.4	10.4	20.9	6.0	17.1	**17.7**	22.3	17.9	13.1	12.9	16.2	**15.8**	12.6	12.9	12.7	9.9	12.0	**14.0**	8.8	7.8	7.7	8.5	8.2
Real wages (period average)	9.8	7.4	10.5	-11.4	3.5	3.9	16.5	11.2	4.7	3.9	8.7	6.9	4.0	6.1	5.9	3.6	4.9	6.2	2.9	2.1	2.5	3.3	2.7
Unemployment rate (ILO, period average)	8.2	9.5	9.8	21.1	19.0	19.1	-	-	-	-	16.2	16.5	-	-	-	-	13.9	14.2	-	-	-	-	12.2
FISCAL SECTOR																							
Consolidated budget balance, UAH bn	**-87**	**-224**	**-187**	**-845**	**-1328**	-1352	**-**	**-**	**-**	**-**	**-1108**	-1035	**-**	**-**	**-**	**-**	**-1022**	-1010	**-**	**-**	**-**	**-**	**-726**
% of GDP	-2.2	-5.3	-3.4	-16.1	-20.4	-20.4	-	-	-	-	-14.6	-13.4	-	-	-	-	-11.7	-11.3	-	-	-	-	-7.5
excluding grants from revenues, % of GDP	-2.2	-5.3	-3.4	-25.3	-27.1	-28.7	-	-	-	-	-20.7	-20.3	-	-	-	-	-13.5	-13.3	-	-	-	-	-7.5
BALANCE OF PAYMENTS (NBU's analytic presentation)																							
Current account balance, USD bn	-4.1	5.3	-3.9	8.0	-9.7	-7.3	-4.1	-3.6	-3.1	-6.0	-16.9	-11.0	-5.4	-4.8	-4.5	-5.0	-19.8	-17.6	-6.1	-6.1	-6.4	-5.3	-23.8
Exports of goods and services, USD bn	63.6	60.7	81.5	57.5	50.9	51.7	13.2	12.1	13.3	14.7	53.3	54.6	13.5	13.3	15.5	17.1	59.4	59.0	15.1	15.0	16.1	18.1	64.3
Imports of goods and services, USD bn	76.1	63.1	84.2	83.3	88.6	90.1	22.6	22.0	22.4	23.9	90.9	89.4	21.9	21.7	22.9	23.9	90.4	90.2	22.8	22.9	24.3	24.9	94.8
Remittances in Ukraine, USD bn	11.9	12.0	14.0	12.5	11.6	11.7	3.1	3.1	3.2	3.1	12.5	12.6	3.1	3.3	3.5	3.7	13.6	13.7	3.6	3.6	3.7	3.9	14.8
Financial account, USD bn	-10.1	3.3	-4.4	11.1	-19.1	-18.2	-2.4	-4.7	-3.5	-3.1	-13.7	-10.9	-4.4	-5.3	-5.8	-6.5	-22.1	-18.4	-4.0	-4.5	-4.7	-4.7	-18.0
BOP overall balance, USD bn	**6.0**	**2.0**	**0.5**	**-2.9**	**9.5**	**11.0**	**-1.7**	**1.0**	**0.4**	**-2.9**	**-3.2**	**-0.1**	**-0.9**	**0.4**	**1.3**	**1.5**	**2.3**	**0.8**	**-2.0**	**-1.5**	**-1.6**	**-0.7**	**-5.8**
Gross reserves, USD bn	**25.3**	**29.1**	**30.9**	**28.5**	**40.5**	**41.8**	**38.9**	**41.8**	**42.5**	**40.4**	**40.4**	**44.7**	**39.1**	**39.6**	**40.4**	**42.1**	**42.1**	**45.0**	**40.3**	**38.9**	**37.4**	**36.9**	**36.9**
Months of future imports	4.8	4.2	4.5	3.9	5.3	5.6	5.2	5.6	5.6	5.4	5.4	6.0	5.1	5.1	5.2	5.3	5.3	5.7	5.3	5.3	5.2	5.5	5.5
MONETARY ACCOUNTS (Cumulative since the beginning of the year)																							
Monetary base, %	**9.6**	**24.8**	**11.2**	**19.6**	**23.3**	22.9	-0.8	4.1	6.8	11.6	**11.6**	16.2	1.1	5.0	6.0	10.1	**10.1**	9.8	-0.4	2.2	4.2	9.0	**9.0**
Broad money, %	**12.6**	**28.6**	**12.0**	**20.8**	**23.0**	23.0	1.0	3.9	5.5	10.2	**10.2**	13.0	0.3	2.4	3.5	8.3	**8.3**	7.9	0.3	2.2	3.8	5.5	**5.5**
Velocity of broad money (end of year)	**2.8**	**2.3**	**2.6**	**2.1**	**2.1**	2.2	-	-	-	-	**2.2**	2.2	-	-	-	-	**2.4**	2.4	-	-	-	-	**2.5**

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

Indicators	2023	2024	2025	2026	Factors behind the revision
Inflation, %, eop	**5.1**	**8.6**	**5.8**	**5**	Substantial supply of food products, improved expectations amidst controlled situation in the FX market, and reduced external inflationary pressures
	-0.7	*-1.2*	*-0.2*		
Real GDP, %	**5.7**	**3.6**	**5.8**	**4.5**	Higher yield of late crops, expansion of capacities for alternative export routes, and stable situation in the energy sector
	0.8	*0*	*-0.2*		
Nominal GDP, UAH bn	**6 510**	**7 580**	**8 710**	**9 690**	Lower GDP deflator due to lower inflationary pressures
	-115	*-150*	*-190*		
Consolidated budget balance (excluding grants from revenues), % of GDP	**27.1**	**20.7**	**13.5**	**7.5**	Increase in defense budget needs in 2024-2025, considering available financing sources
	-1.6	*0.4*	*0.2*		
Current account balance, USD bn	**-9.7**	**-16.9**	**-19.8**	**-23.8**	Worse ToT, accelerated FX liberalization, increased volumes of reinvested income, lower amounts of grant financing
	-2.4	*-5.9*	*-2.2*		
Gross international reserves, USD bn	**40.5**	**40.4**	**42.1**	**36.9**	Reduction in international aid in 2023-2024, trade deficit widening
	-1.3	*-4.3*	*-2.9*		
Key policy rate (period average), %	**22.4**	**14.7**	**12.9**	**11.6**	Inflationary pressures lower than expected
	0	*-0.3*	*-0.3*		

The indicator has been revised downwards (pp.)

The indicator has been revised upwards (pp.)

Forecast assumptions

Indicators		2021*	2022*	2023*	2024	2025	2026
Full access to Black Sea ports			-	-	-	+	+
Official financing	USD bn		32.2	42.9	37.4	25.1	12.6
Migration (net, excluding russia and belarus)	m			-0.2	-0.1	0.4	0.8
Real GDP of Ukraine's MTP (UAwGDP)	% yoy	6.5	3.5	1.6	2.4	2.8	2.7
Consumer inflation in Ukraine's MTP (UAwCPI)	% yoy	6.4	13.8	8.0	5.4	3.6	2.7
World prices:**							
Steel price, Steel Billet Exp FOB Ukraine	USD/t	615.0	618.1	539.7	541.4	497.2	493.7
	% yoy	57.9	0.5	-12.7	0.3	-8.2	-0.7
Iron ore price, China import Iron Ore Fines 62% FE	USD/t	161.7	121.4	120.6	95.5	75.2	73.9
	% yoy	48.5	-24.9	-0.7	-20.8	-21.3	-1.7
Steel price, No.1 Hard Red Winter, ordinary protein, Kansas City	USD/t	265.8	360.2	274.4	253.3	254.7	253.1
	% yoy	43.3	35.5	-23.8	-7.7	0.6	-0.6
Corn price, Yellow #2 Delivery USA Gulf	USD/t	259.4	318.4	252.7	222.2	215.8	223.3
	% yoy	56.7	22.7	-20.6	-12.1	-2.9	3.5
Oil price, Brent	USD/bbl	70.4	99.8	82.6	85.3	74.7	73.1
	% yoy	66.4	41.8	-17.2	3.3	-12.4	-2.1
Natural gas price, Netherlands TTF	USD/kcm	574.8	1355.9	465.6	461.6	411.8	361.5
	% yoy	399.8	135.9	-65.7	-0.9	-10.8	-12.2
Volumes of gas transit	bcm	41.6	20.6	15.0	15.0	0.0	0.0
Harvest of grain and leguminous crops	t m	86.0	53.9	60.1	56.1	58.6	61.0
Minimum wage**	UAH	6 042	6 550	6 700	7 775	8 370	8 950

** Actual data (Real GDP of Ukraine's MTP & migration - estimations).*

*** Annual average.*

Terms and Abbreviations

GDP	Gross domestic product
IDP	Internally displaced person
HPP	Hydropower plant
STSU	State Treasury Service of Ukraine
SCSU	State Customs Service of Ukraine
CD	Certificate of deposit
SSSU	State Statistics Service of Ukraine
STA	Single Treasury Account
EU	European Union
ECB	European Central Bank
BOI	Business Outlook Index
IER	Institute for Economic Research
CPI	Consumer Price Index
MPC	Monetary Policy Committee
IMF	International Monetary Fund
Ministry of Agrarian Policy	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	Nonfinancial corporation
T-bills&bonds	Domestic government debt securities
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
EM	Emerging market
IT	Information technologies
ITC	International Trade Centre
PMI	Purchasing Managers' Index
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