National Bank of Ukraine

Inflation Report (January 2024)

6 Feb 2024

Summary: monetary policy decisions

- **The Board of the NBU has decided to keep its key policy rate at 15% per annum** in view of the expected acceleration of inflation in 2024 and the upward shift of the balance of risks. This decision comes along with the need to maintain exchange rate sustainability, keep inflation moderate in 2024, and bring it to the target range of 5% ± 1 pp over the monetary policy horizon

- **The NBU's interest rate policy is aimed to maintain the attractiveness of hryvnia instruments**, which will limit demand on the FX market, while also helping the NBU to discharge its mandate for safeguarding exchange rate sustainability. In addition, the NBU will maintain an active presence on the FX market to smooth out excessive exchange rate fluctuations under the regime of managed exchange rate flexibility.

- **The baseline scenario of the NBU's forecast**, which assumes that Ukraine will receive sufficient international financing and that security risks will subside from next year, **provides for a slight reduction in the key policy rate starting in H2 2024**

- **At the same time, the NBU will 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

Summary: forecast

- **A significant decline in security risks is assumed 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
- **International financial support of Ukraine will remain sufficient**, albeit declining in volume. This will enable:
  - to maintain international reserves at a high level (USD 37-42 bn) and ensure exchange rate sustainability
  - combined with domestic market borrowing, it will help meet the still significant fiscal needs of the government
- **Inflation will remain moderate and relatively close to the target level:**
  - 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 (8.6% in 2024), in part due to the NBU's measures to maintain exchange rate sustainability and the attractiveness of hryvnia assets
  - 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%
- **The economic growth will continue:**
  - In 2024, real GDP will rise by 3.6%. The pace of 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. 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 domestic resource base strengthens

Forecast and its assumptions

Forecast	2023	2024	2025	2026
Real GDP growth, %	5.7 (4.9)	3.6 (3.6)	5.8 (6.0)	4.5
CPI, % yoy (eop)**	5.1 (5.8)	8.6 (9.8)	5.8 (6.0)	5.0
Core CPI, % yoy (eop)**	4.9 (5.7)	6.4 (8.6)	3.1 (3.0)	2.9
Current account balance, USD bn	-9.7 (-7.3)	-16.9 (-11.0)	-19.8 (-17.6)	-23.8
Gross reserves, USD bn	40.5 (41.8)	40.4 (44.7)	42.1 (45.0)	36.9
Budget deficit, % GDP (w/o grants)	27.1 (28.7)	20.7 (20.3)	13.5 (13.3)	7.5

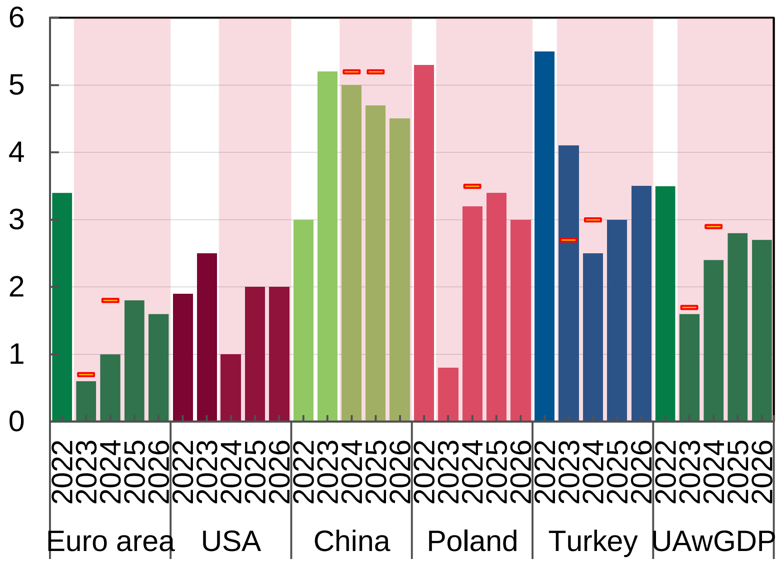
In brackets: previous forecast (October 2023)

Assumptions		**2023***	**2024**	**2025**	**2026**
Full access to Black Sea ports		-	-	+	+
Official financing	USD bn	42.9	37.4	25.1	12.6
Migration (net, “+” return)	m	-0.2	-0.1	0.4	0.8
Real GDP of Ukraine's MTP (UAwGDP)	% yoy	1.6	2.4	2.8	2.7
Consumer inflation in Ukraine's MTP (UAwCPI)	% yoy	8.0	5.4	3.6	2.7
World prices:**					
Steel price, Steel Billet Exp FOB Ukraine	USD/t	539.7	541.4	497.2	493.7
Iron ore price, China import Iron Ore Fines 62% FE	USD/t	120.6	95.5	75.2	73.9
Wheat price, No.1 Hard Red Winter, ordinary protein, Kansas City	USD/t	274.4	253.3	254.7	253.1
Corn price, Yellow #2 Delivery USA Gulf	USD/t	252.7	222.2	215.8	223.3
Oil price, Brent	USD/bbl	82.6	85.3	74.7	73.1
Natural gas price, Netherlands TTF	USD/kcm	465.6	461.6	411.8	361.5
Volumes of gas transit	bcm	15.0	15.0	0.0	0.0
Harvest of grain and leguminous crops	m t	60.1	56.1	58.6	61.0
Minimum wage**	UAH	6700	7775	8370	8950

* actual data
** period average

The main external assumption is that demand from the MTPs will revive in the context of slowing inflation

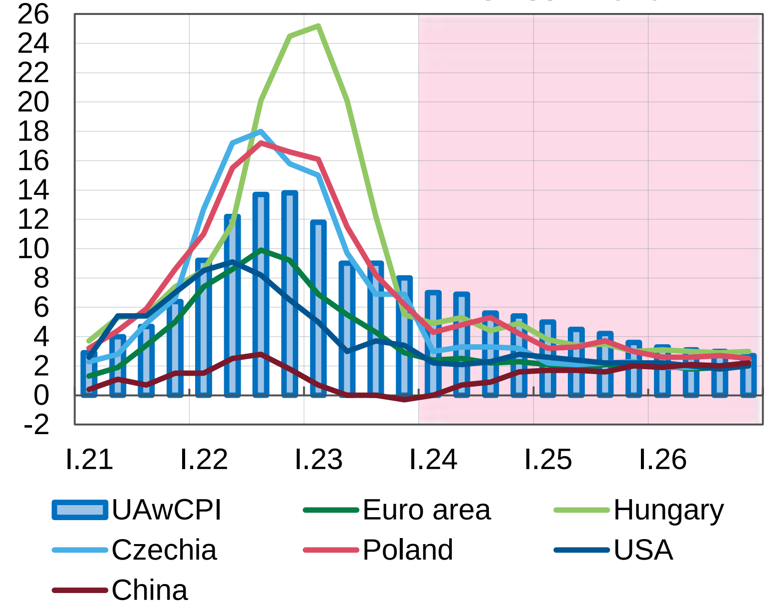
Real GDP of selected countries and UAwGDP, % yoy



- previous forecast

Source: national statistical agencies, NBU staff estimates.

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

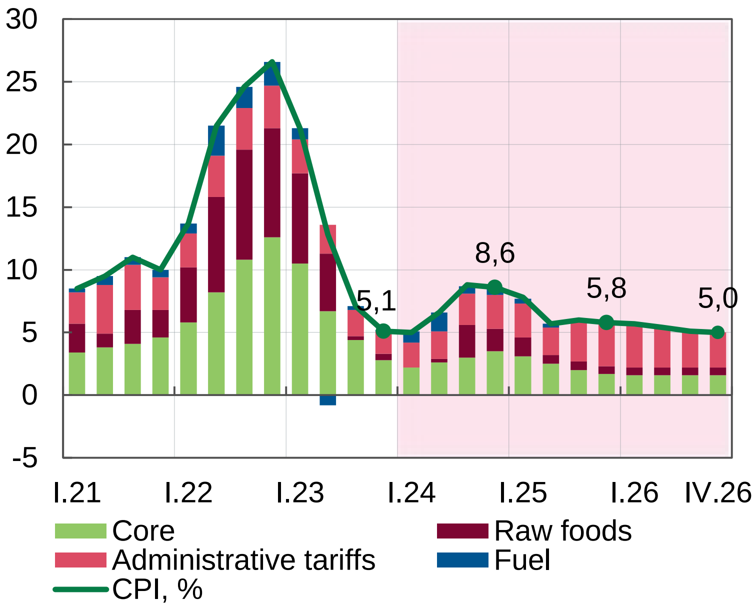


Source: national statistical agencies, NBU staff estimates.

- **Economic growth in Ukraine's MTP countries is expected to gradually revive in 2024-2026**, driven by increased consumer demand and international trade
- **External inflationary pressures will slowly fade**, given the downward trend in global commodity prices and cheaper transportation costs. However, the deceleration in core inflation will be restrained, primarily due to resilient labor markets. This will also be the main risk that inflation will remain high
- **Given the persistence of inflation, global financial conditions will remain tight** amid still high rates from leading central banks, despite their expected decline

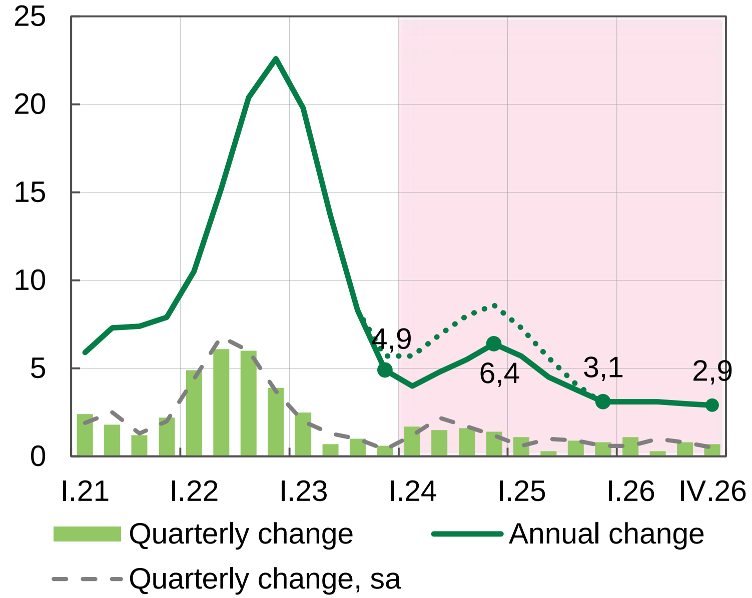
Inflation will temporarily accelerate from the middle of the year, however will be moderate and enter the target range in 2025

Inflation, yoy, %



Source: SSSU, NBU staff estimates.

Core inflation, yoy, %

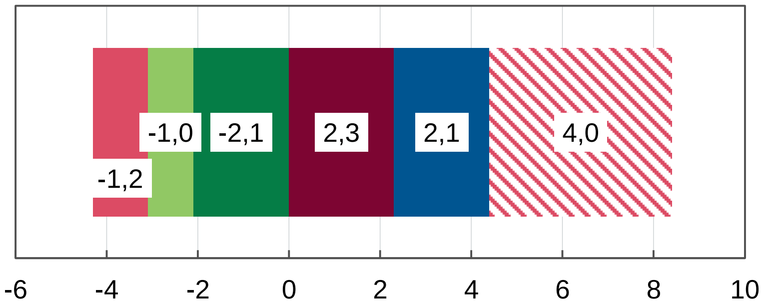


Source: SSSU, NBU staff estimates.

- **Inflation will remain close to 5% yoy in the coming months, but will temporarily accelerate from the middle of the year.** This will be due to the waning impact of extremely favorable weather conditions on the supply of food against the background of continued pressure from the business costs, in particular on labor. These factors, together with the further recovery of consumer demand, will fuel fundamental inflationary 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
- **As security risks recede, inflation will gradually moderate in 2025, returning to the target range** due to consistent monetary policy measures, improving logistics and easing external inflationary pressures

Box. The factors that contributed to achieving the inflation target in 2023

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



Source: SSSU, NBU staff estimates.
*The difference between market-justified gas prices and tariffs for the population was compensated by a moratorium on raising tariffs for housing and communal services.

Comparison of the values of individual variables in 2022 and 2023

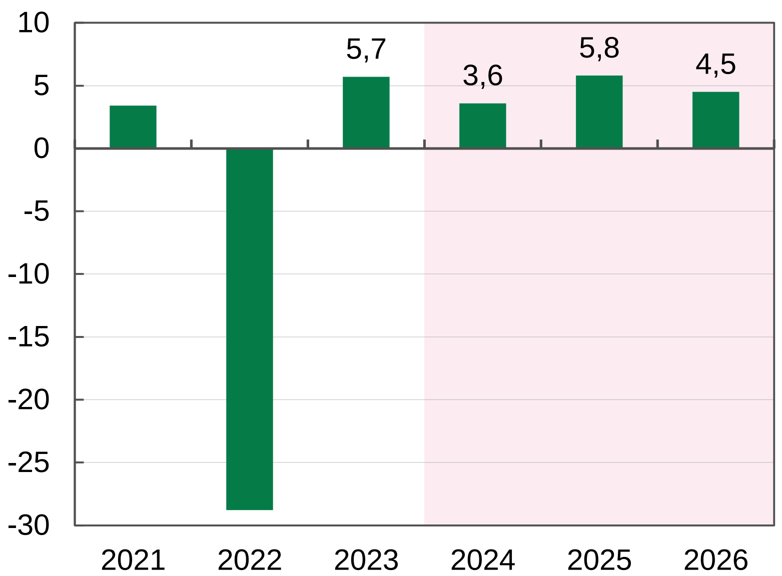
Indicator	2022	2023
Brent oil price, USD/bbl	99.8	82.6
Price of gas at the TTF hub (Netherlands), USD per thousand m3	1356	466
Grain harvest, million tons.	53.9	60.1*
Vegetable harvest, million tons.	7.5	8.4*
Consolidated budget deficit (without grants), % of GDP	25.3	27.0
Real wages growth, % yoy	-11.4	3.5

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

- The reduction in inflation was facilitated by **the reestablishment of previously disrupted supply chains** and **record-breaking harvests**. However, a **loose fiscal policy** and **labor market imbalances** intensified inflationary pressure
- **Administrative decisions,** specifically the increase in electricity tariffs for the population, fuel taxation, and higher excise taxes on tobacco, were contributing to inflation. **The reduction in global oil and gas prices** offset the impact of fuel taxation, lowering inflation through secondary effects
- **The moratorium on raising tariffs for utilities and housing services** for the population restrained the impact of **still-high global gas prices**
- **The managed exchange rate** and **other monetary policy measures** restrained inflation

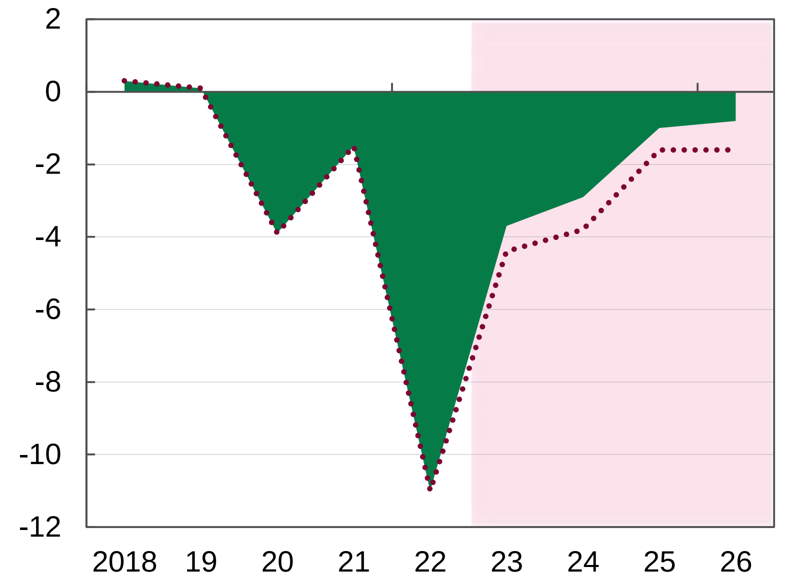
The economy will continue to recover thanks to the its high adaptability to wartime conditions and the loose fiscal policy

Real GDP, %



Source: SSSU, NBU staff estimates.

Output gap, % of potential GDP



Source: SSSU, NBU staff estimates.

- **In 2024, the economy will continue to grow thanks to the still soft fiscal policy and the high adaptability of business and the population to the conditions of war.** However, the pace of economic growth will be lower (3.6%) than last year due to an expected decrease in harvests and increased pressure on the labor market
- **In 2025–2026, economic growth will accelerate** to 5.8% and 4.5%, respectively thanks to a decline in security risks, an improvement in consumer and investment sentiments, and the implementation of European integration reforms. GDP will approach its potential level in late 2025, but will not yet return to pre-full-scale invasion levels over the forecast horizon

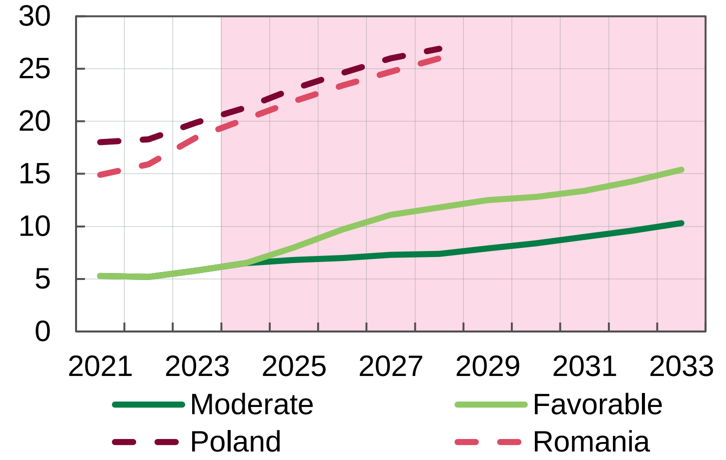
Box. European integration and scenarios for accelerated economic growth in Ukraine

Macroeconomic scenarios for the long-term development

	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 people** in 2033 (14% below 2021), 4 million migrants return	**34.7 million people** in 2033 (9% below 2021), all 6.3 million migrants return or inflows from other countries
Real GDP	**3.9%** average growth in 2024–2033	**6.6%** average growth in 2024–2033

Source: NBU staff estimates.

GDP per capita, thousands of USD

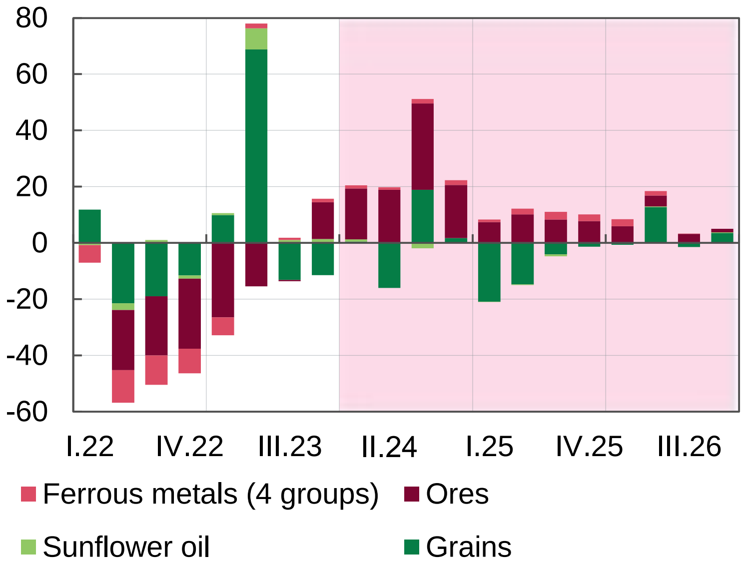


Source: IMF forecast (April 2023), NBU staff estimates.

- **The prospect of EU membership and the fulfillment of pre-accession agreements** contribute to economic growth even before actual membership acquisition (Campos et al., 2019)
- Technological progress is positively associated with **the quality of state institutions and the rule of law** (Ari and Pula, 2021). The main obstacles to investments in 2020 were corruption, lack of trust in the judicial system, and market monopolization by oligarchs (Dragon Capital, 2020)
- **Trade with more developed economies and inflow of FDIs** encourage growth in developing markets. Private innovation and investments are facilitated by overall **macroeconomic stability** (low inflation and a stable exchange rate)
- The implementation of a favorable scenario and an influx of foreign funds can lead to a temporary "overheating" of the economy, higher inflation rates, and a tighter monetary policy

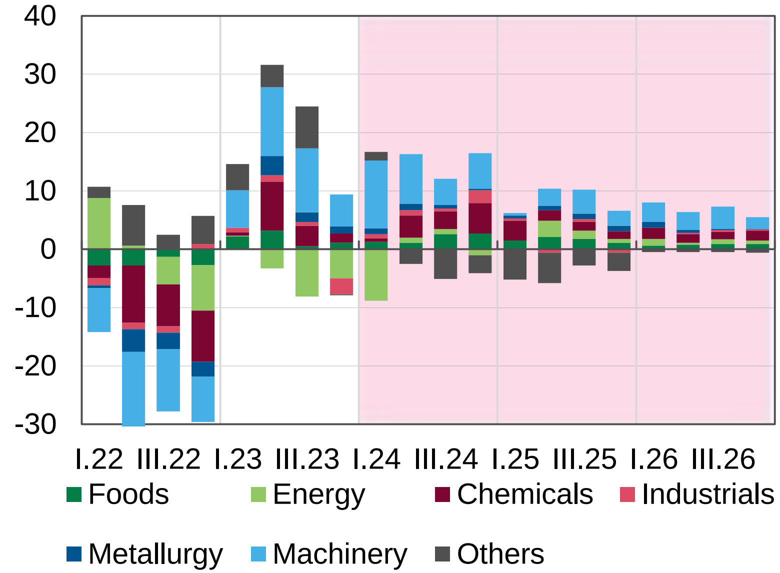
Export potential will be restrained by limited production capacities due to the war destruction, while imports will increase

Contributions of selected commodities to the annual change in export volumes, pp



Source: NBU staff estimates.

Contributions to the annual change in imports, pp

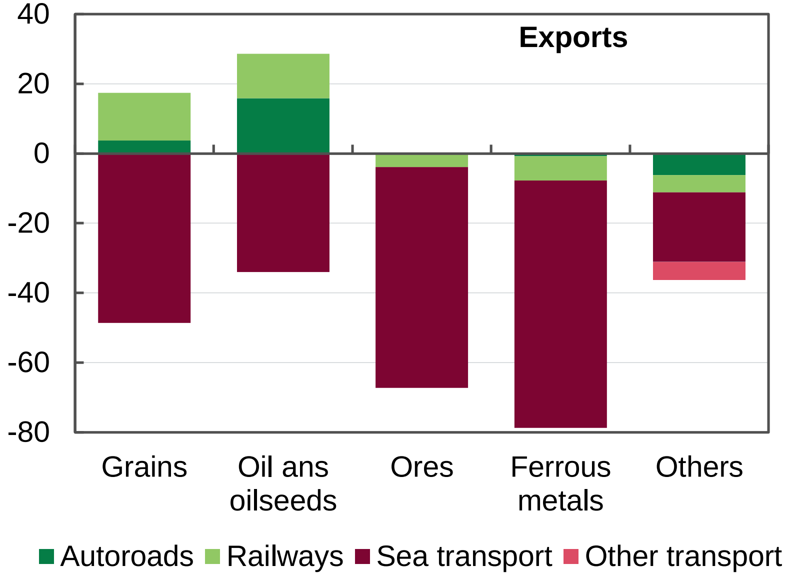


Source: NBU staff estimates.

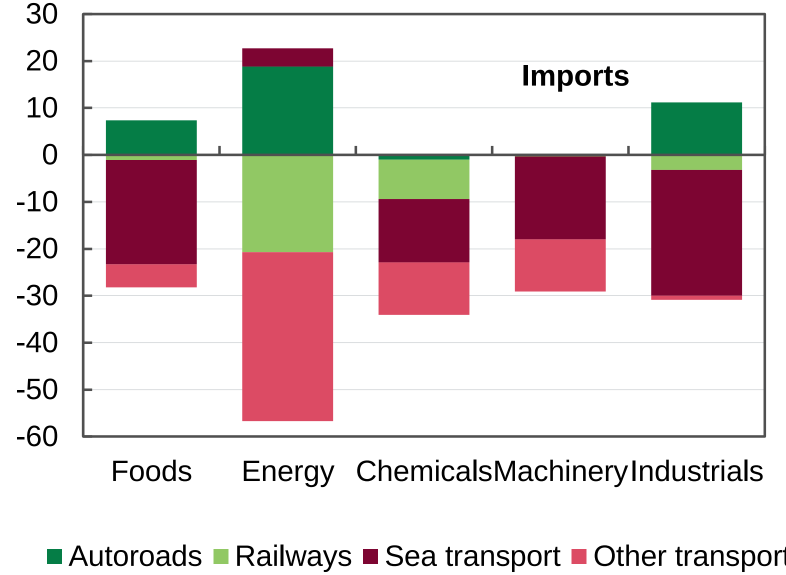
- **The decline in exports slowed down significantly in Q4** thanks to measures to further expand the potential of alternative routes. Meanwhile, the recovery of domestic demand was accompanied by **dynamic import growth**, which temporarily slowed down at the end of the year
- **The export potential will be restrained** by limited production capacities due to the destruction. Simultaneously**, imports will grow at a significant rate** given the further need for goods to ensure the country's defense capability and the expected rebound in domestic consumer demand. This will result in a continued negative contribution of net exports to GDP growth over the entire forecast horizon

Box. Development of external trade routes: it's time to get back what is ours

Contributions of routes to changes in monthly average exports and imports in 03.22 - 07.23 compared to 2021, pp



Source: SCSU, NBU staff estimates.

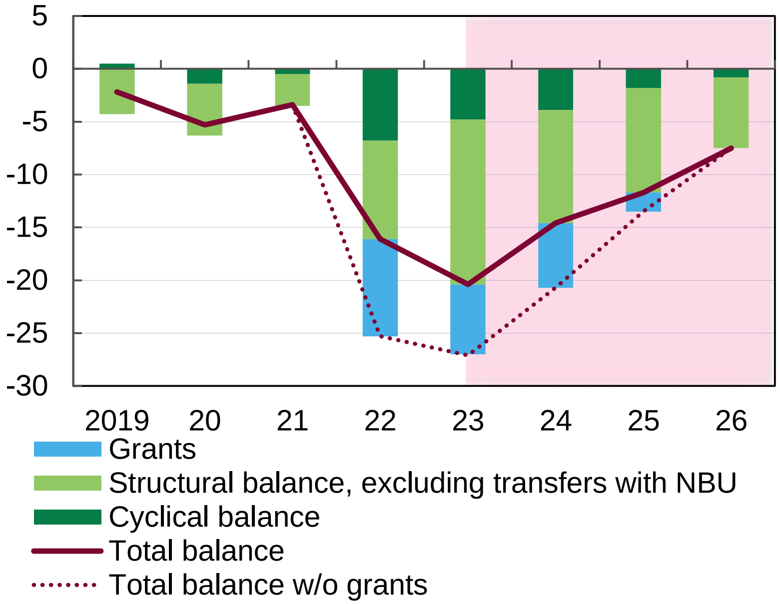


Source: SCSU, NBU staff estimates.

- **Ukraine gradually regained its international market positions**, thanks to the active development of supply routes (road and rail transport)
- Positive changes also occurred in **maritime transportation**. The potential of the Danube ports expanded, and in June 2022, the "grain corridor" was opened. After russia withdrew from the "grain agreement," a new sea route was opened in summer 2023 with defense forces' efforts
- The existing logistical capabilities **will be sufficient for exporting the harvests of 2023-2024** and increasing the volumes of other product exports. The new sea route will enable the expansion of the geography and commodity composition of exports, as well as reduce logistical risks

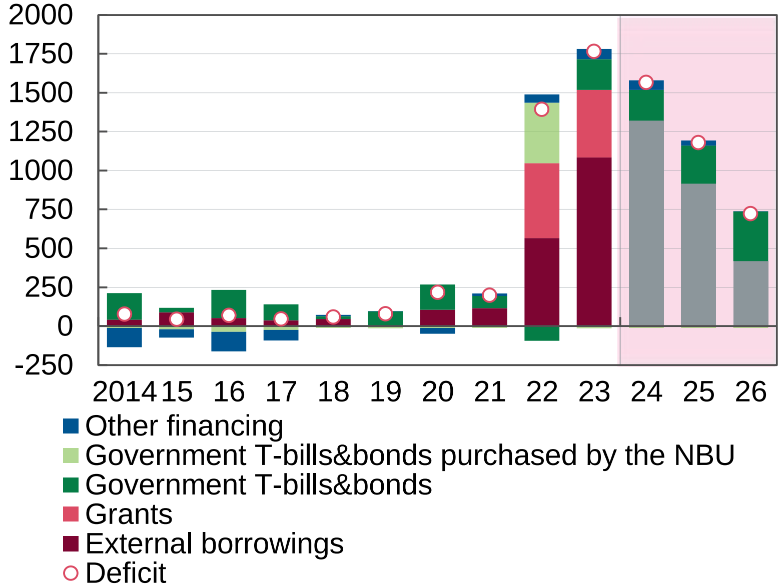
The stimulating nature of the fiscal policy creates the potential for further growth of consumer demand and investment

Consolidated budget balance, % of GDP



Source: STSU, NBU staff estimates.

State budget deficit financing, UAH bn

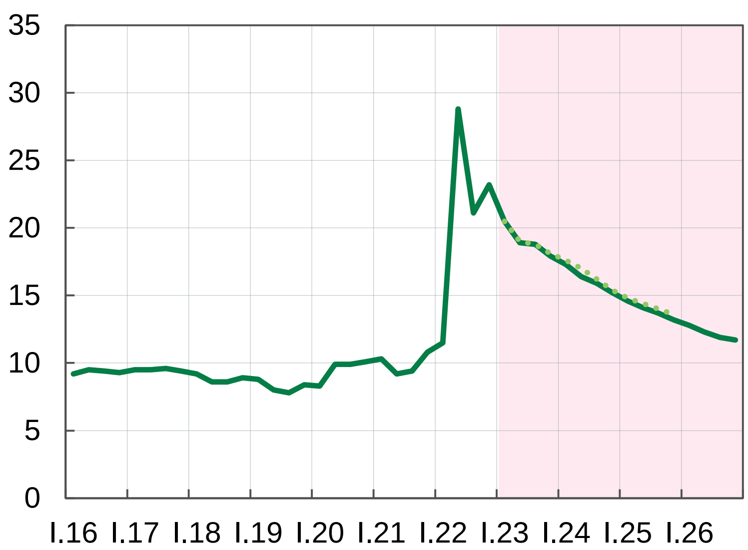


Source: STSU, MFU, NBU staff estimates.

- **High security risks and reconstruction needs will create significant budget deficits,** despite their gradual narrowing
- **International assistance will remain the main source of financing the deficit**
- A decrease in the share of grants in the total amount of aid and an increase in domestic borrowing will determine the upward dynamics of state and state-guaranteed debt. **In the medium term, the debt will exceed 90% of GDP**, but will not create significant additional pressure on the budget due to the lower cost and long average maturity due to the preferential terms of international aid

GDP growth will also support the recovery of the labor market, which will be hampered by skill mismatches and migration

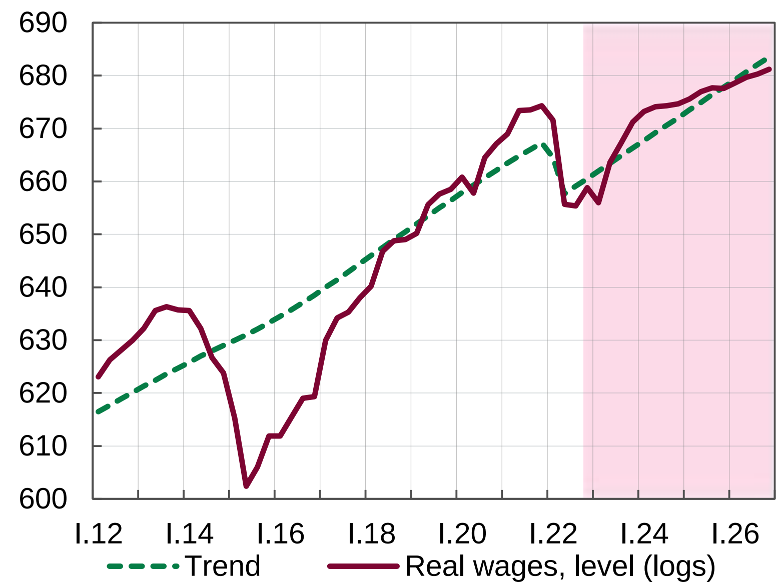
Unemployment* (ILO), %, sa



* Including migrants from 2022.

Source: SSSU, NBU staff estimates.

Real wages, level (logarithms)

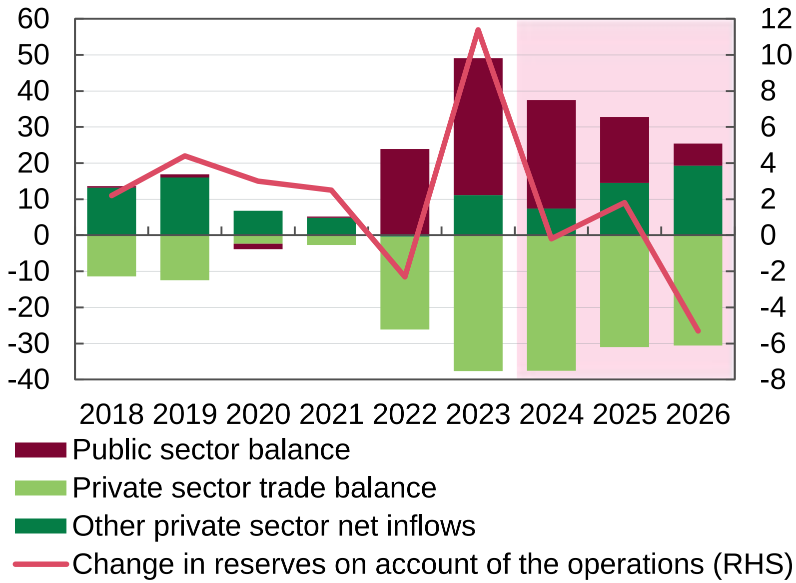


Source: SSSU, NBU staff estimates.

- **Demand for labor will increase**, especially as security risks ease. This will help reduce the unemployment rate. However, it will remain significant and exceed its natural level due to the long-term effects of war. In particular, the labor supply will remain limited: in 2024 due to mobilization, in the following years due to the slow return of migrants from abroad
- **Mismatches will persist in the labor market due to a change in the structure of the economy.** These mismatches, against the background of the revival of economic activity and the improvement of the financial condition of enterprises, among other things, will push towards an increase in salaries in the private sector

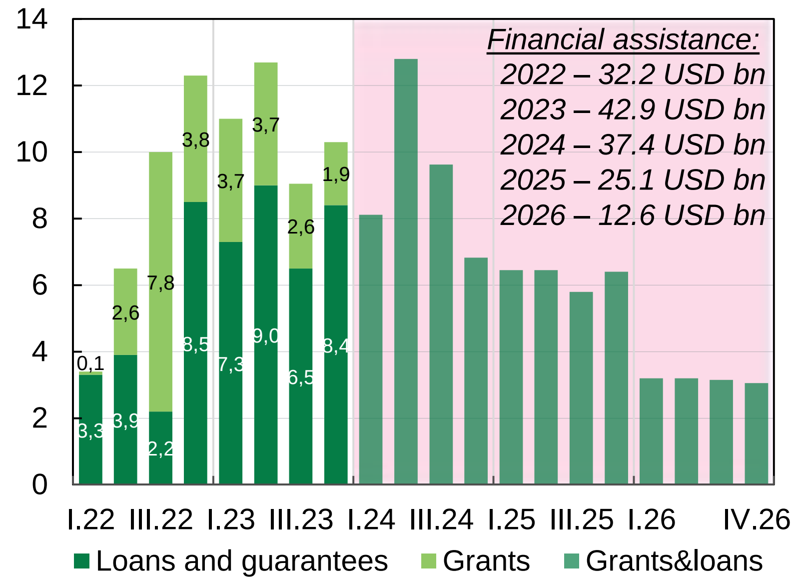
International reserves will fluctuate between USD 37-42 bn and will remain sufficient to ensure exchange rate sustainability

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



Source: NBU staff estimates.

International financial assistance, USD bn

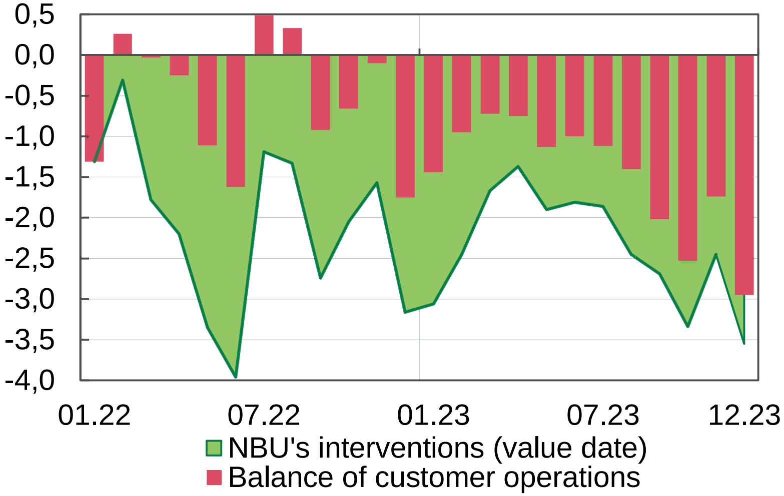


Source: NBU, MoF, data from the open sources, NBU assumptions.

- **International aid will remain the main source of capital inflows to the country, and the level of reserves will be sufficient to ensure exchange rate sustainability.** Combined with domestic market borrowings, this will help finance the government's still significant fiscal needs
- **In 2024, reserves are expected to remain close to the level of 2023.** Despite a slight decrease in international aid, it will fully cover still sizable FX outflows from the private sector. The latter will be driven by a persistently large trade deficit in goods, expenses of forced migrants abroad, and the population's demand for FX

The NBU will continue to aim its policies at ensuring ER sustainability as the key for maintaining moderate inflation

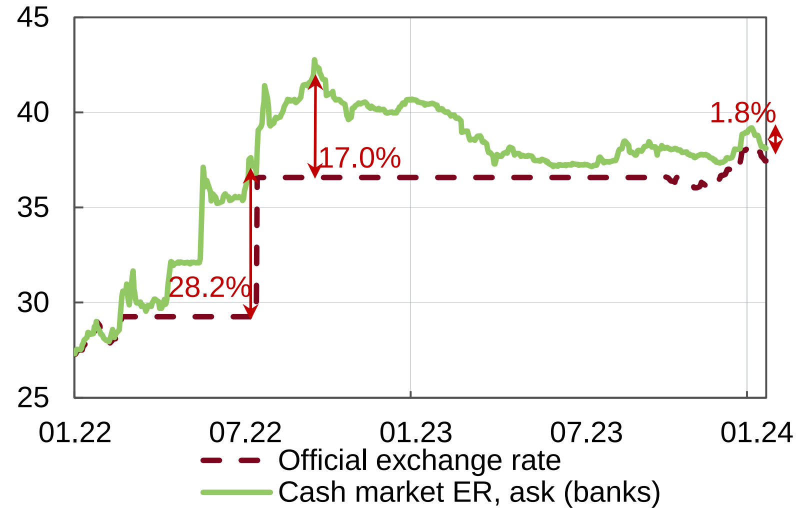
Bank clients' FX transactions* and NBU interventions, USD bn



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

Source: NBU.

Hryvnia exchange rates, UAH/USD

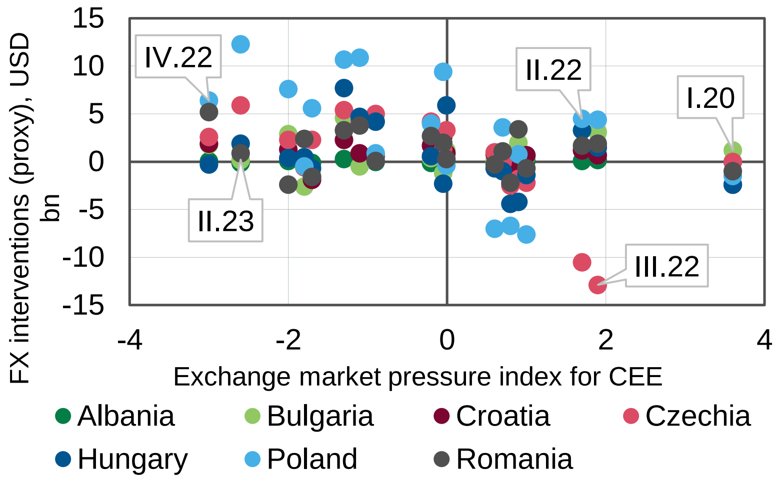


Source: NBU.

- **The NBU maintains its presence in the FX market and compensates for the structural deficit of foreign currency in it**, allowing the exchange rate to move in both directions. As proper preconditions are formed, the NBU will gradually increase the flexibility of the exchange rate in accordance with market conditions
- Rising uncertainty concerning official financing inflows and record levels of budget expenditures led to increased demand for the foreign currency in December. Meanwhile, **in January, the demand significantly decreased** (due to the minimal budget expenditures, lower defense costs, lower imports of energy and household goods) **and supply gradually increased**
- **The spread between the cash market and the official exchange rates is currently minimal**, in particular due to the lifting of restrictions for the banks and non-bank financial institutions to sell FX cash to households

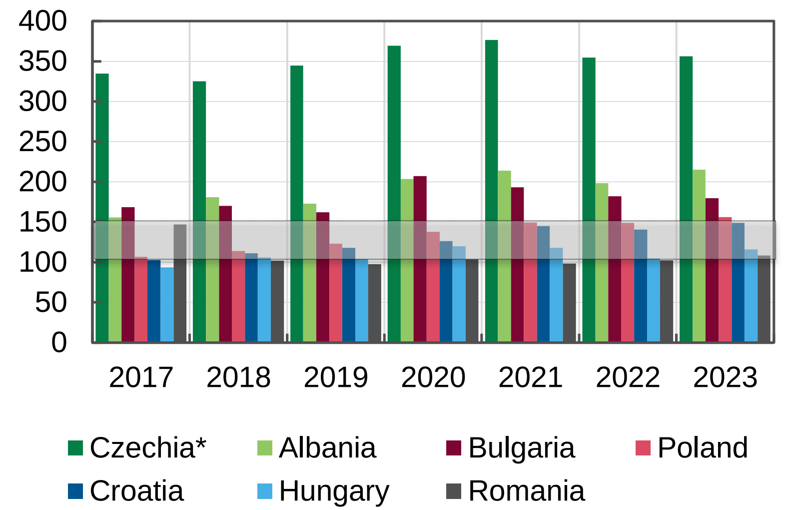
Box. FX interventions of CEE CBs: lifeline for those floating

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.

International reserves adequacy, % of ARA metric

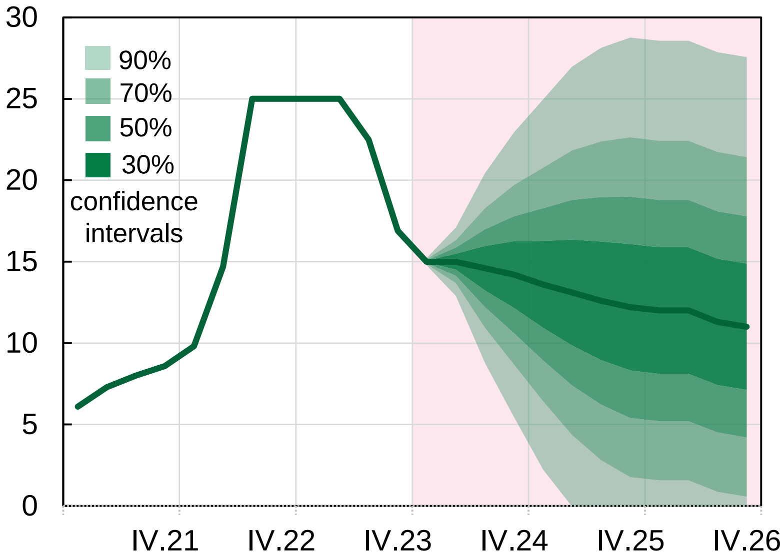


* ARA metric is a measure for assessing adequacy of reserve holdings of EM economies (100%-150% is considered adequate). The Czech Republic is an advanced economy. Source: IMF.

- **FX interventions of CEE CBs are used under various exchange rate regimes**, mostly in the spot markets, and they are asymmetric with a bias towards FX purchases. Verbal interventions make transactional ones more effective. The share of FX interventions in the total FX turnover – from 0.01% to >6% in 2007-2022
- **External shocks minimization is an important motivation.** This also encourages the accumulation of official reserves. In order to contain the external pressure on the FX market from effects of russia's invasion of Ukraine, CEE CBs increased their shares of FX interventions to 0.6%-2% in 2022, compared with 0.2%-1.2% in 2019

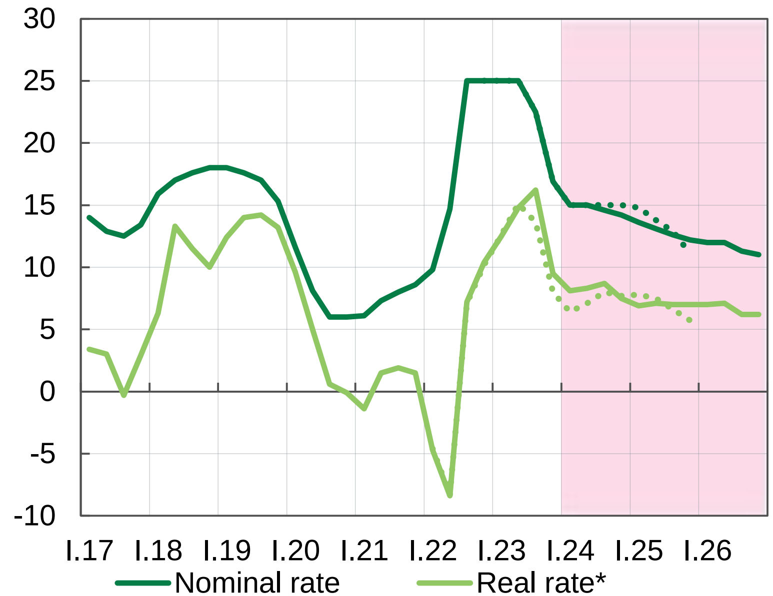
The forecast foresees a gradual reduction of the key interest rate from the second half of 2024

Key rate, %*



* quarterly average
Source: NBU staff estimates.

Key rate (nominal and real), %



* quarterly average, deflated by model expectations (QPM)
Source: NBU staff estimates.

- **The NBU will adapt its monetary policy if the balance of risks for inflation and exchange rate sustainability changes**
- **The NBU's interest rate policy is further aimed to maintain the attractiveness of hryvnia instruments –** maintaining such a level of interest rates that will make it possible to protect hryvnia savings from inflation
- As inflationary pressure decreases and the security situation improves, the **NBU will gradually normalize monetary policy.** This will enable to begin a more active key interest rate cutting cycle in 2025

Box. International experience applying various systems to build operational designs of interest rate policy

SYSTEMS/APPROACHES FOR BUILDING THE OPERATIONAL DESIGN

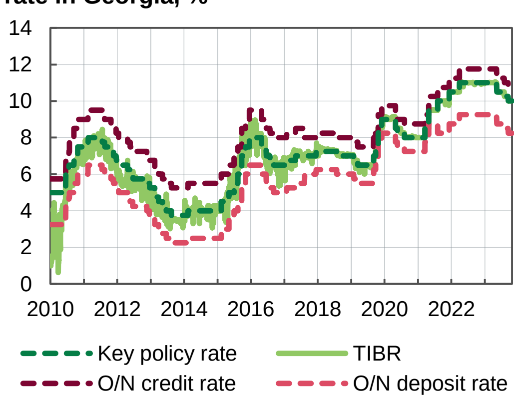
Mid-corridor system

CBs of Georgia, Philippines, Chile, Armenia, Israel

- Requires the CB to make high-quality forecasts of banking system liquidity and maintain it at a relatively balanced level
- Contributes to the interbank market development and improvement of banks' business processes

BUT! Loses its effectiveness amid a rapid and significant increase in the liquidity surplus

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



Source: National Bank of Georgia.

Floor system

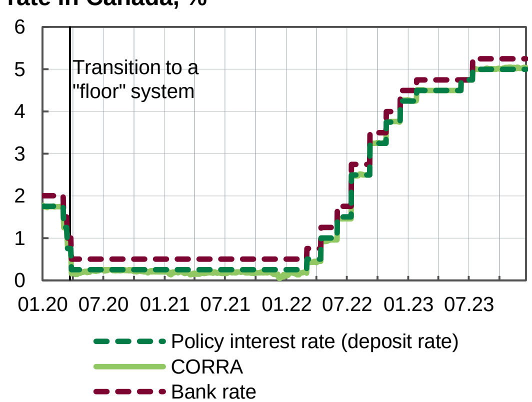
Classical approach

CBs of the UK, Canada, New Zealand

- Enables the CB to more effectively achieve its goals amid a significant sustained increase in the liquidity surplus
- Less sensitive to forecast errors and liquidity fluctuations; remains effective even if the interbank market is weak and underdeveloped

Disadvantages: Potentially higher % expenses of the CB + lower incentives for the development of the interbank market

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



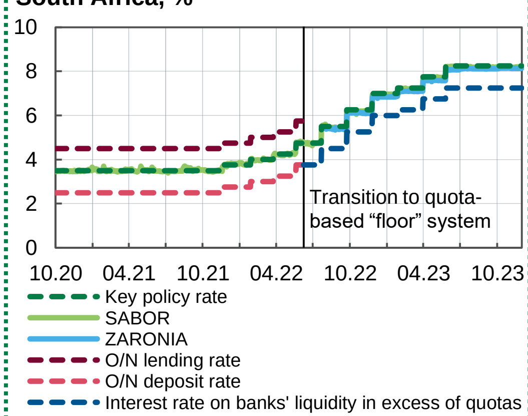
Source: Bank of Canada.

Modified approach (e.g., quota-based system)

CBs of Norway, South Africa

- The CB sets the quotas for the amount of banks' overnight allotment at the key policy rate
- **Partially eliminates the disadvantages of the classical "floor system":** limits banks' appetite to accumulate excess liquidity over quotas + creates incentives for the interbank market activation + promotes a more even distribution of liquidity

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



Source: South African Reserve Bank.

The security situation and decrease in the volume or delays in receiving of international financing are the main risks of the forecast

The degree of influence on the baseline scenario	The likelihood of risk: Low <15%	Average 15%–25%	High 25%–50%
Weak			Prolongation of partial blocking of borders with certain EU countries for freight traffic
Moderate		Increased emigration Increasing the capacity of sea export routes	Damage to port and energy infrastructure
Strong		The emergence of additional budgetary needs and significant quasi-fiscal deficits, in particular in the energy sector Rapid implementation of the large-scale plan for the reconstruction of Ukraine "Marshall Plan"	Longer duration of the war, escalation, eco-terrorism of the occupiers Decrease in the volume or delays in receiving of international financing