National Bank of Ukraine

Inflation Report (October 2023)

7 Nov 2023

Summary: monetary policy decisions

- **The Board of the NBU has taken a decision to set its key policy rate at 16% effective 27 October 2023, making it equal to the rate on overnight certificates of deposit (CDs).** In such a way, the NBU has modernized the operational design of its monetary policy based on a floor system
- **Interest rates on the NBU's other transactions with the banks have been set as follows:** the key policy rate + 4 pp (20%) for three-month CDs and the key policy rate + 6 pp (22%) for refinancing loans. The rates on the NBU's transactions with the banks will thus actually remain unchanged
- **The modernization of monetary policy operational design will reinforce the signaling role of the key policy rate amid the structural liquidity surplus.** In particular, such changes will enable the NBU to maintain short-term hryvnia interbank rates close to the key policy rate. As a result, the NBU will have more power to influence expectations of economic agents and motives of their economic behavior
- **Keeping on hold the rates on the NBU's transactions with the banks conforms to the need to maintain the attractiveness of hryvnia instruments**, which is important for ensuring moderate inflation and exchange rate sustainability over the forecast horizon
- **Provided there are no signs that the balance of risks is deteriorating, and provided that market participants have successfully adapted to the new ER regime, the NBU sees the possibility of cutting the key policy rate further at its upcoming meeting.** That said, the expected trajectory of inflation and planned steps to liberalize the FX market limit the room for easing interest rate policy next year. The NBU will only be able to return to the easing cycle in 2024 if risks to exchange rate sustainability and inflation decline substantially

Summary: forecast

- A significant reduction in security risks is assumed from 2025, which would contribute to the complete unblocking of seaports, help expand opportunities for investment and business activity, and a more active return of forced migrants to Ukraine
- **Inflation will remain moderate, although it will temporarily accelerate next year.** The NBU has improved its end-2023 inflation forecast, from 10.6% to 5.8%. This was mainly driven by the impact of the large harvest on food prices. At the same time, the NBU has revised its 2024 inflation forecast upward, from 8.5% to 9.8%. The faster growth in prices next year will be caused by this year's low comparison base for food prices, persisting pressures on business costs due to the revised assumption on security risks, higher wages, and faster growth of administered prices
- **Economic growth will resume in 2023 and continue further on.** The NBU has improved its real GDP growth forecast for 2023, raising it from 2.9% to 4.9%. A number of factors are driving the faster pace of economic recovery. They include the higher adaptability of businesses and households to wartime conditions, better-than-expected harvests, an expansion of alternative routes for exporting goods, and larger budget spending. In 2024, the economy will grow by 3.6%. The NBU forecasts that real GDP growth will accelerate to 6% in 2025. This will be primarily driven by the expected decline in security risks
- **Thanks to official financing, the NBU will have the means to sustain an adequate level of international reserves, thereby ensuring the stability of the FX market.** These funds remain the primary source for covering the significant deficit of the state budget. With the support of international partners, Ukraine can also address a substantial current account deficit, while the NBU – maintain a robust international reserves and stabilize the FX market

Forecast and its assumptions

Forecast	2022	2023	2024	2025
Real GDP growth, %	-29.1	4.9 (2.9)	3.6 (3.5)	6.0 (6.8)
CPI, % yoy (eop)**	26.6	5.8 (10.6)	9.8 (8.5)	6.0 (6.0)
Core CPI, % yoy (eop)**	22.6	5.7 (8.7)	8.6 (7.0)	3.0 (3.1)
Current account balance, USD bn	8.0	-7.3 (-11.0)	-11.0 (-17.2)	-17.6 (-16.1)
Gross reserves, USD bn	28.5	41.8 (38.3)	44.7 (42.6)	45.0 (44.1)
Budget deficit, % GDP (w/o grants)	25.5	28.7 (26.2)	20.3 (19.8)	13.3 (11.8)

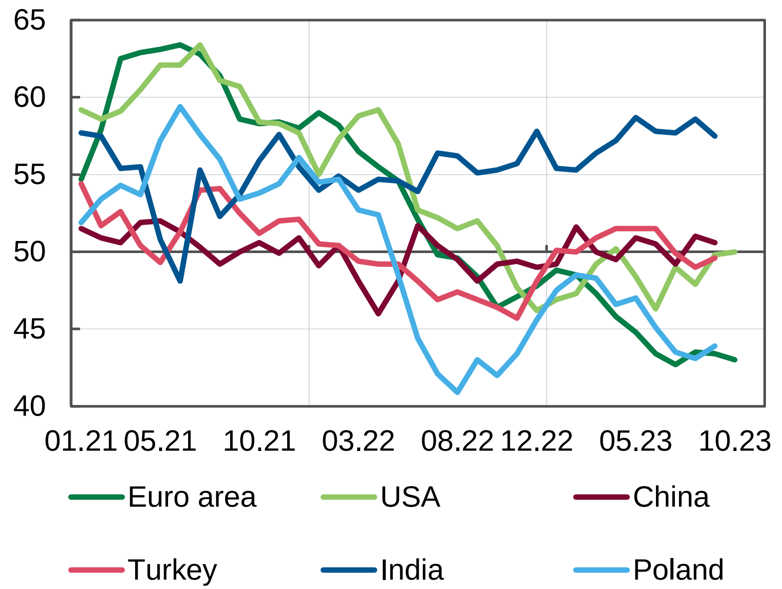
In brackets: previous forecast (July 2023)

Assumptions		**2022***	**2023**	**2024**	**2025**
Full access to Black Sea ports		-	-	-	+
Official financing	USD bln	32.2	45.4	38.6	25.1
Migration (net, “+” return)	mln people		-0.2	0.1	0.7
Real GDP of Ukraine's MTP (UAwGDP)	% yoy	3.5	1.7	2.9	2.9
Consumer inflation in Ukraine's MTP (UAwCPI)	% yoy	14.0	7.6	4.9	3.5
World prices:**					
Steel price, Steel Billet Exp FOB Ukraine	USD/t	618	555	549	497
Iron ore price, China import Iron Ore Fines 62% FE	USD/t	121	117	88.3	74.7
Steel price, No.1 Hard Red Winter, ordinary protein, Kansas City	USD/t	360	291	272	252
Corn price, Yellow #2 Delivery USA Gulf	USD/t	318	258	229	216
Oil price, Brent	USD/bbl	99.8	84.4	86.1	74.7
Natural gas price, Netherlands TTF	USD/kcm	1356	517	532	432
Volumes of gas transit	bcm	20.6	15.0	15.0	0
Harvest of grain and leguminous crops	m t	53.9	56.9	55.3	58.0
Minimum wage**	uah	6550	6700	7775	8300

* actual data
** period average

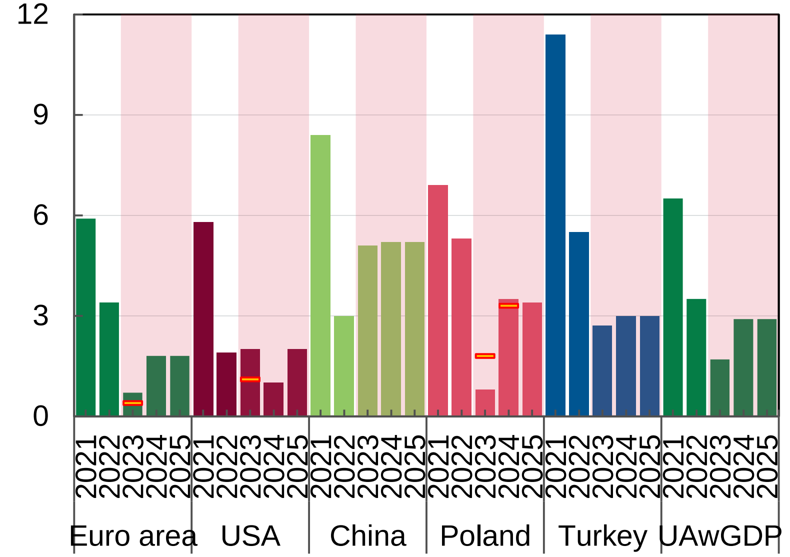
After weak growth in 2023, the economies of the MTP countries will recover despite high interest rates of major central banks

Manufacturing PMI of selected countries



Source: S&P Global.

Real GDP of selected Ukraine's MTPs and UAwGDP, % yoy

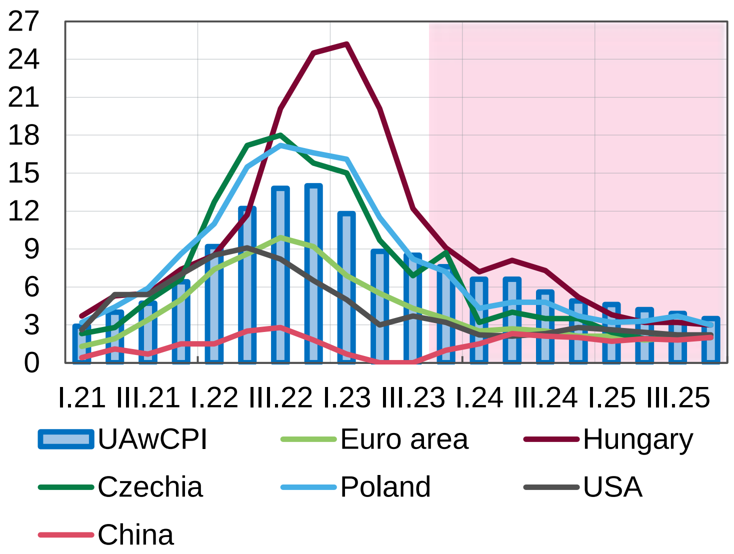


Source: National statistical offices, NBU staff estimates.

- **The effects of high inflation, tightening financial conditions, and geopolitical tensions will restrain external demand growth** at least until mid-2024
- **In the coming years, the growth of Ukraine's MTPs will revive**. This will be driven primarily by rising consumer demand, given strong labor markets, and an easing of inflationary pressures. Additional factors will include the pickup in global trade amid rising business confidence and a gradual adjustment to the high-interest rate environment

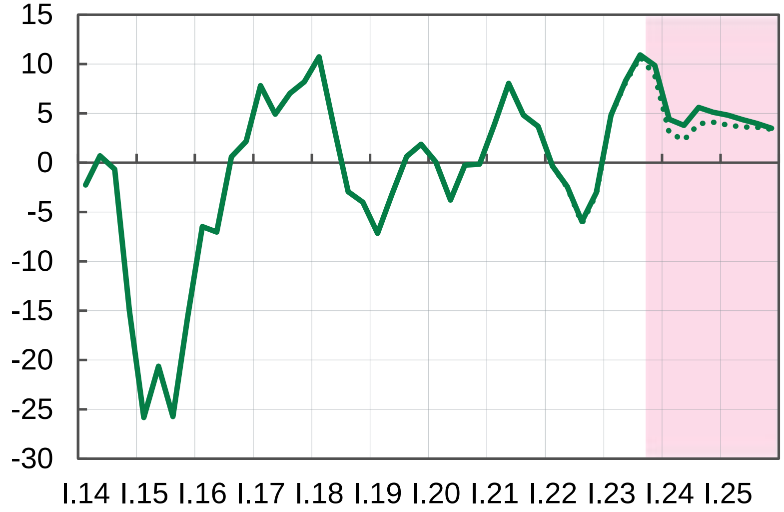
Tight monetary policy will help ease external inflation amid cheaper energy and food

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



Source: National statistical agencies, NBU staff estimates.

External inflationary pressure (weighted average of inflation rates in Ukraine's MTPs in dollar terms), % yoy

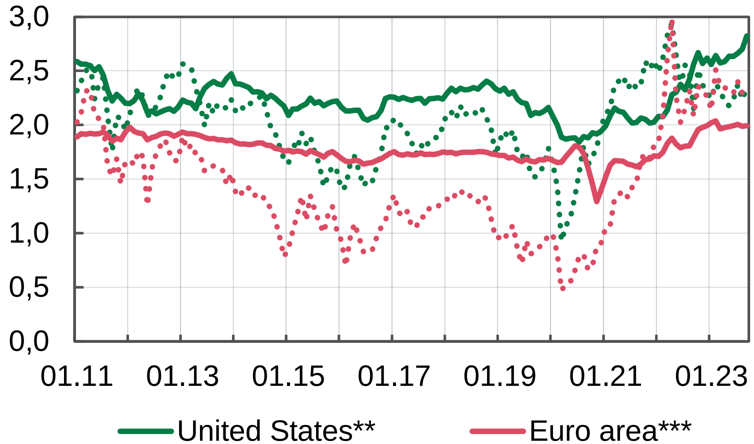


Source: NBU staff estimates.

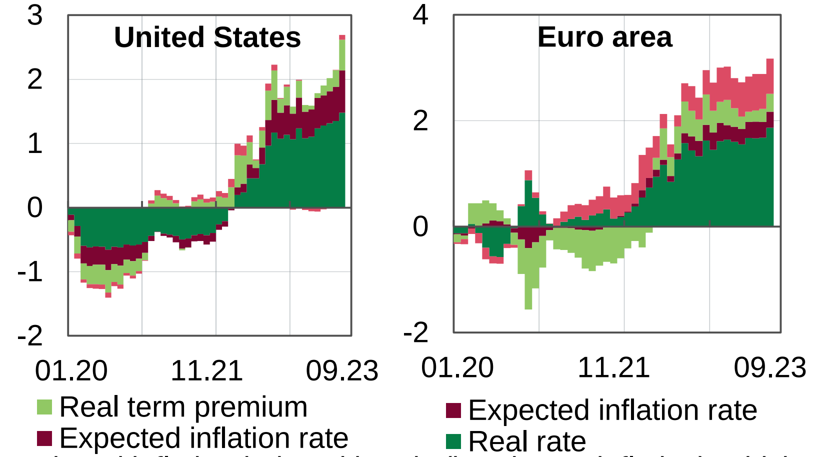
- **Inflationary pressures will decline as the effects of past energy price shocks fade and food prices grow cheaper**
- **Major central banks keeping interest rates at high levels for a long period of time**, despite some cuts by certain EM countries, will further weaken core inflation
- **Due to global price conditions and tight monetary policy, inflation in most of Ukraine's MTPs is expected to approach the target** in 2025

Box. Low long-term yields: sic transit gloria mundi

10-year market-based inflation expectations*, %



Contributions of components to the change in 10-year U.S. and euro area yields vs. December 2019, pp



* The dotted line indicates the difference between yields on benchmark and inflation-indexed bonds (breakeven inflation), which includes premia for inflation risk and lower liquidity. ** The Fed's inflation target is PCE (Personal Consumption Expenditures) inflation, while bonds are indexed to the CPI, which exceeds PCE by 0.5 p.p. *** The dotted line is the difference for German bonds.

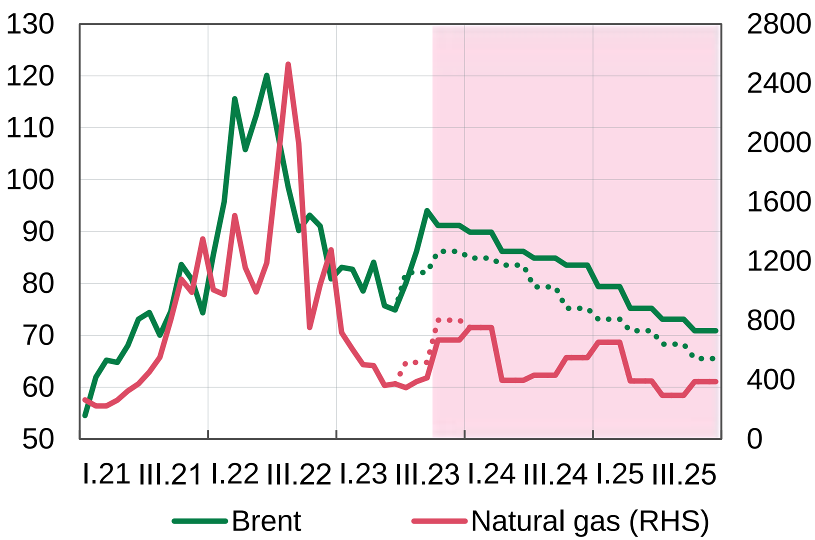
Source: Bloomberg, Kim et al. (2019), EUTERPE, NBU staff estimates.

- Record inflation in 2022 and scaling back of massive and long-lasting stimulus by the major CBs amid geoeconomic shifts move the center of gravity of long-term yields upwards due to:
  - **Higher expected inflation** – the current surge quickly reversed the previous downward trend in market-based inflation expectations that emerged after the global financial crisis
  - **Likely higher real rate** – the one needed to return potentially higher and more volatile inflation to the target amid fragmentation, climate change, and fiscal stimulus
  - **Higher term premium** – caused by an increase in the volatility of inflation and interest rates and a reduction in the volume of bonds held by the CBs (effect is opposite to that of quantitative easing)

Financial conditions for EM countries will be tight in the coming years, and it will increase risks to macro-financial stability, especially for countries with a significant debt burden

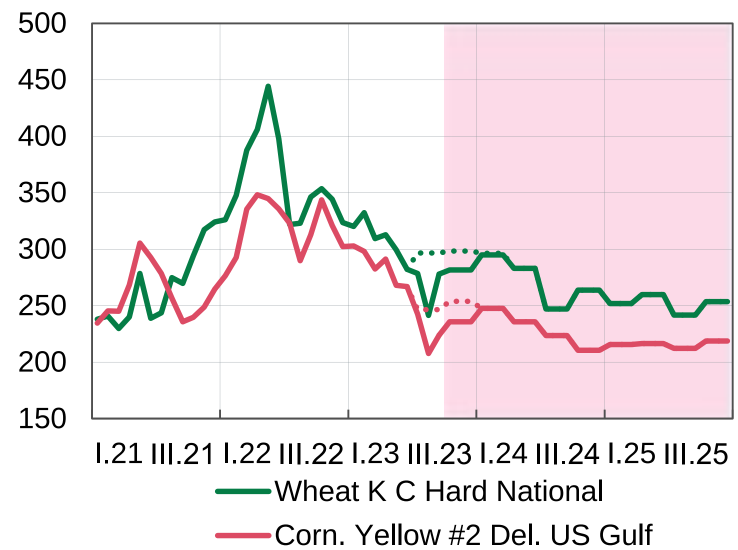
Global energy and grain prices will decline due to an outstripping increase in supply compared to demand

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



Source: Refinitiv, World Bank, NBU staff estimates.

World grain prices, USD/MT, quarterly average

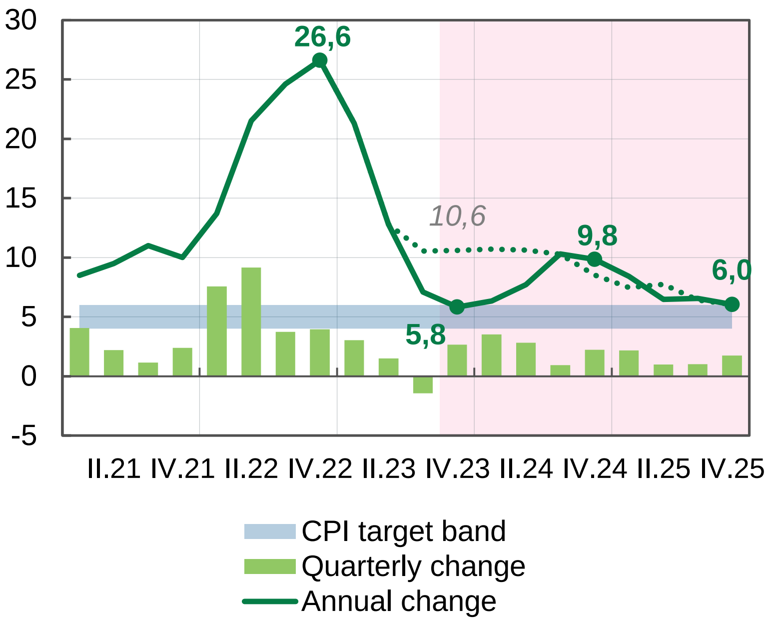


Source: Refinitiv, World Bank, NBU staff estimates.

- **Oil:** prices have been revised upward due to OPEC+ restrictions that will last until the end of 2024, Saudi Arabia's excessive production cuts, russia's export restrictions, and stronger US demand. However, increased production by the US, some Latin American and African countries will put downward pressure on prices
- **Natural gas:** after a seasonal rise, it will become cheaper due to: increased LNG production in the US and Africa, further orientation of cheaper russian gas supplies to China and India, balanced accumulation of stocks due to LNG supplies
- **Grains:** after falling, prices will rise until the end of 2023. Wheat – lower global production (lower harvests in Australia and Canada); corn – expected lower harvest in Brazil in MY 2023/24. In the coming years, grain prices will decline due to a steady increase in supply and slower demand growth amid large accumulated stocks

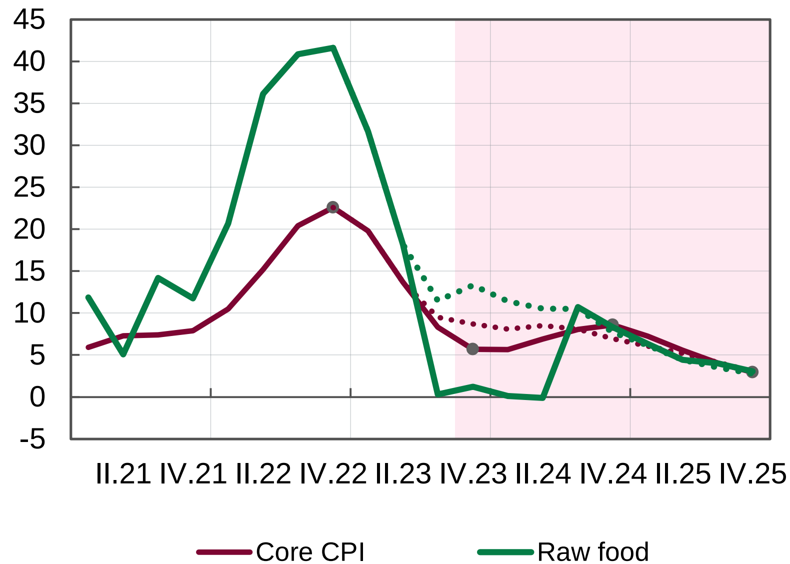
Headline inflation will decline in 2023 but rise moderately in 2024 due to a low base of comparison and further cost pressures

Inflation, yoy, %



Source: SSSU, NBU staff estimates.

Components of CPI, yoy, %

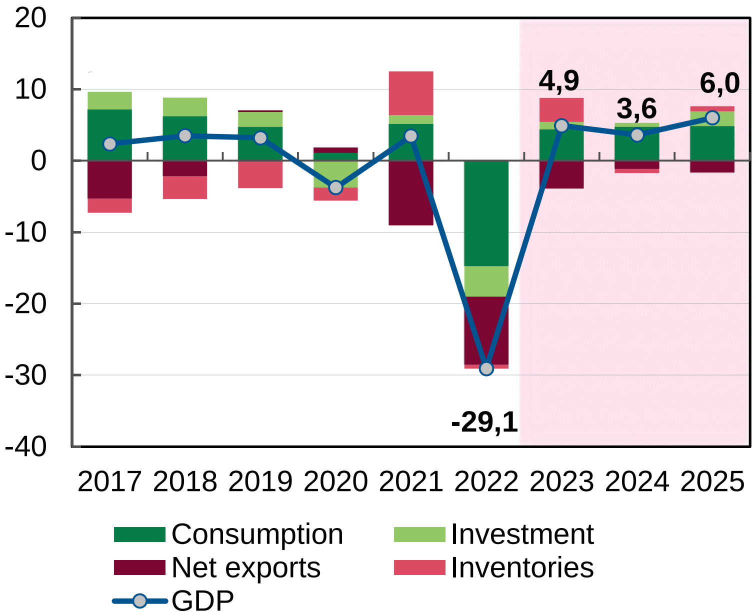


Source: SSSU, NBU staff estimates.

- **Inflation has been falling sharply (faster than expected) thanks to a higher food supply due to extremely favorable weather conditions.** The impact of higher yields on prices will persist in the short term
- **In the current year, inflation will decrease to 5.8%** primarily due to the effects of higher harvests. Going forward, the impact of this factor will gradually wear off, which, together with persisting pressures on business costs from wages and energy, will spur inflation to 9.8% in 2024
- **Inflation will return to a downward trajectory in 2025.** This will be facilitated by the reduction of security risks, the establishment of optimal logistics and production, the measures of the NBU's monetary policy, and the weakening of external inflationary pressure

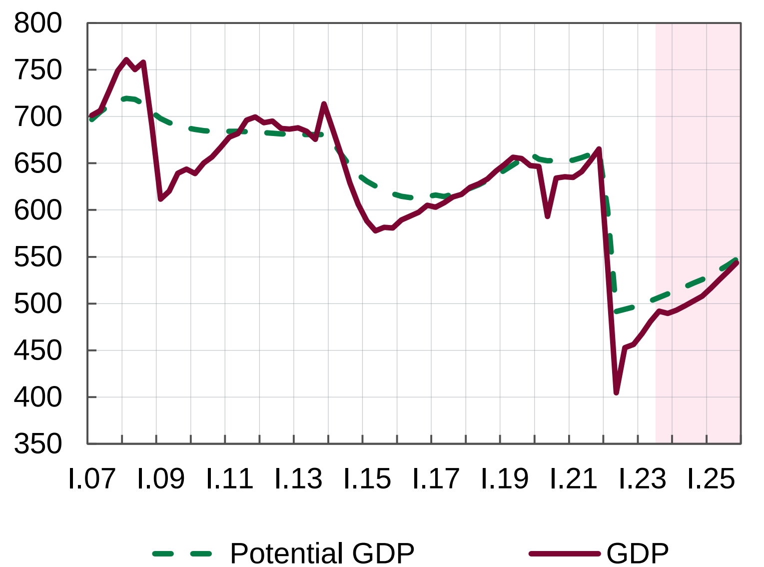
GDP will grow thanks to the resilience of the economy to wartime conditions and loose fiscal policy

Real GDP, component contributions, p.p.



Source: SSSU, NBU staff estimates.

Real and potential GDP, sa, at 2016 constant prices

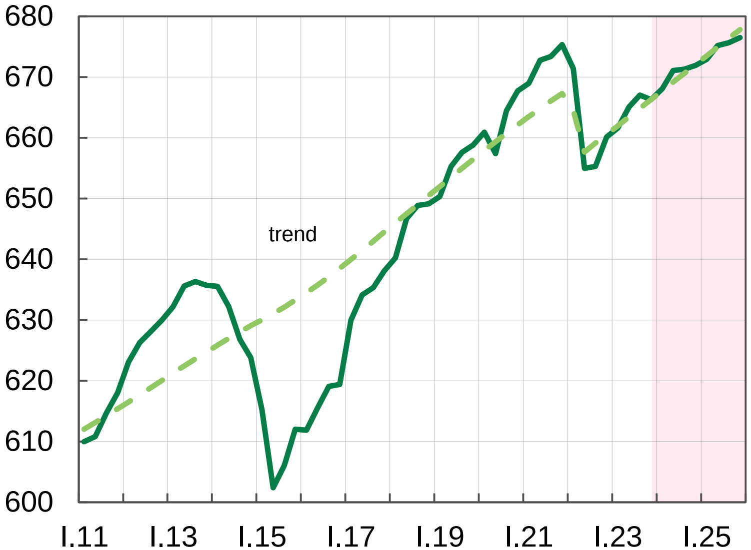


Source: SSSU, NBU staff estimates.

- **The NBU has improved its real GDP growth forecast for 2023** (from 2.9% to 4.9%) due to higher adaptability of businesses and households to wartime conditions, better-than-expected harvests, an expansion of alternative routes for exporting goods, and larger budget spending
- **High adaptability to the conditions of war and maintaining a loose fiscal policy will support economic growth next year.** However, a longer duration of high security risks will limit the economic recovery. In 2025, growth will accelerate due to the reduction of security risks, the improvement of business and consumer sentiments, and the implementation of European integration reforms. However, the negative GDP gap will persist due to the weakening of competitiveness and structural changes during the war

The labor market will gradually recover due to the revival of economic activity

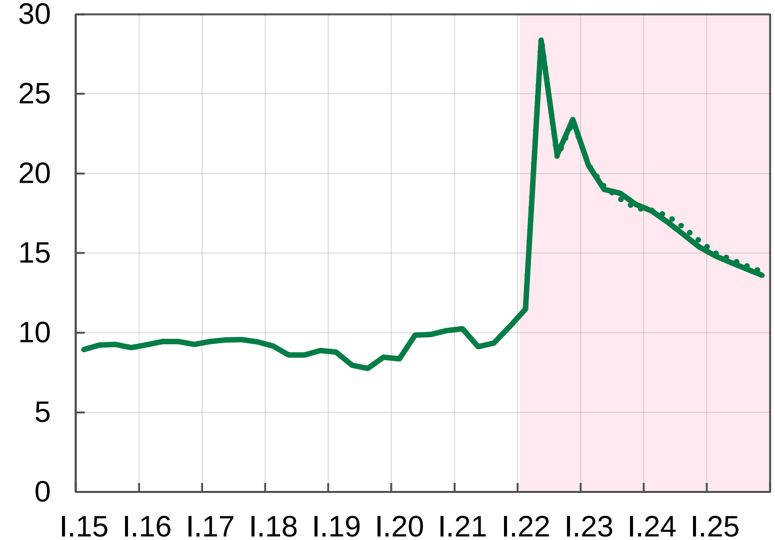
Real wages, level (logarithms)



* Until 2022 - the average wages of full-time employees, since 2023 - wages in the compensation of employees according to the SNA

Source: SSSU, NBU staff estimates.

Unemployment (ILO), %, s/a

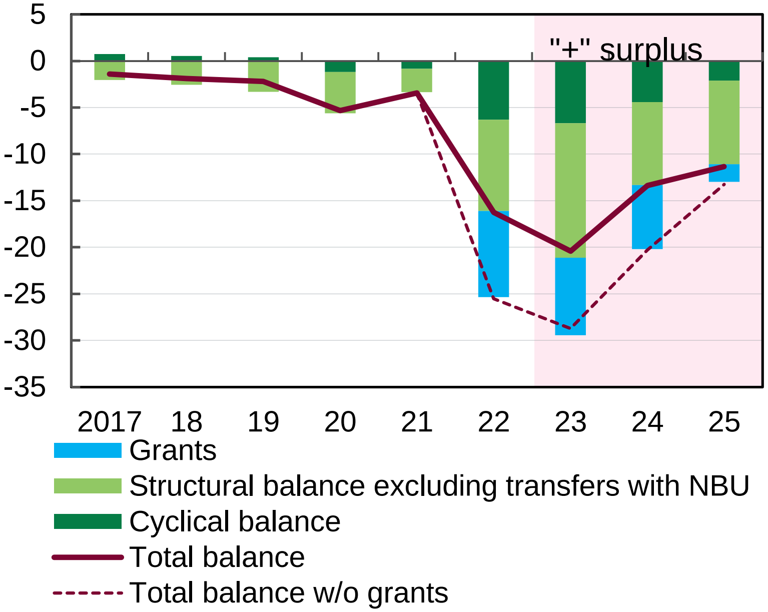


Source: SSSU, NBU staff estimates.

- **Due to the increase in demand for labor, employment is gradually increasing.** However, the situation on the labor market remains difficult: unemployment is slowly decreasing, while shortage of skilled labor remain
- **Longer persistence of high security risks will determine the return of migrants, which will limit the recovery of supply in the labor market.** Disparities that were characteristic of the labor market before will deepen due to the war's consequences, which will keep the unemployment rate at a high level
- **Real incomes will continue to grow** thanks to the revival of economic activity and loose fiscal policy

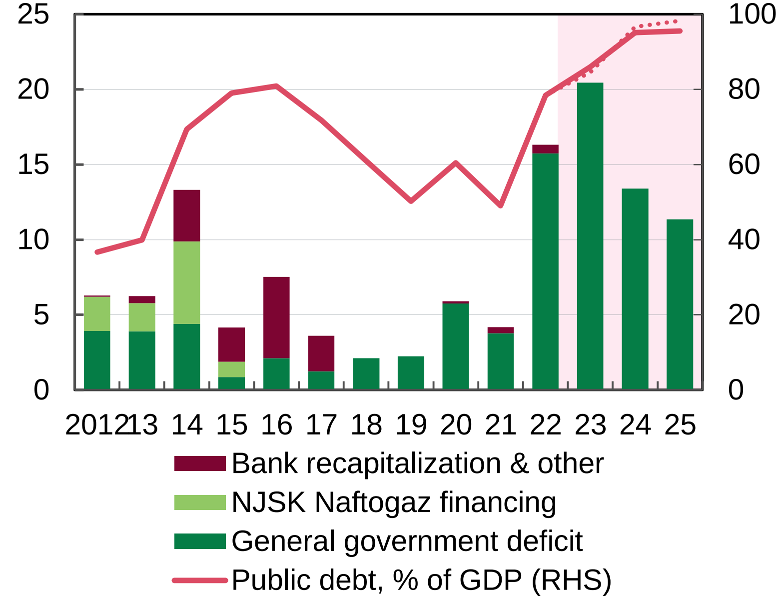
The budget deficit will remain significant in view of the security, social support and recovery needs

Consolidated budget balance, % of GDP



Source: STSU, NBU staff estimates.

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

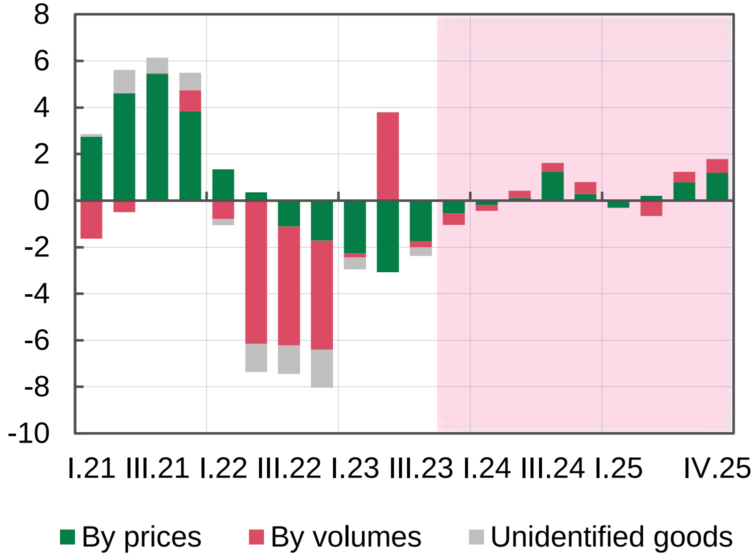


Source: IMF, STSU, MFU, NBU staff estimates.

- **The fiscal deficit continues to widen despite the improvement in incomes.** Due to higher spending, particularly on defense and security, the deficit will reach 29% of GDP this year. It is expected to be financed by international assistance and domestic borrowing
- **The consolidated budget deficit will continue to be significant,** primarily in 2024 due to high security and defense spending, and in 2025 also due to significant reconstruction needs. This will lead to the need for significant international assistance and further intensification of domestic funding.
- **The debt-to-GDP ratio will increase** as a result of significant budgetary needs

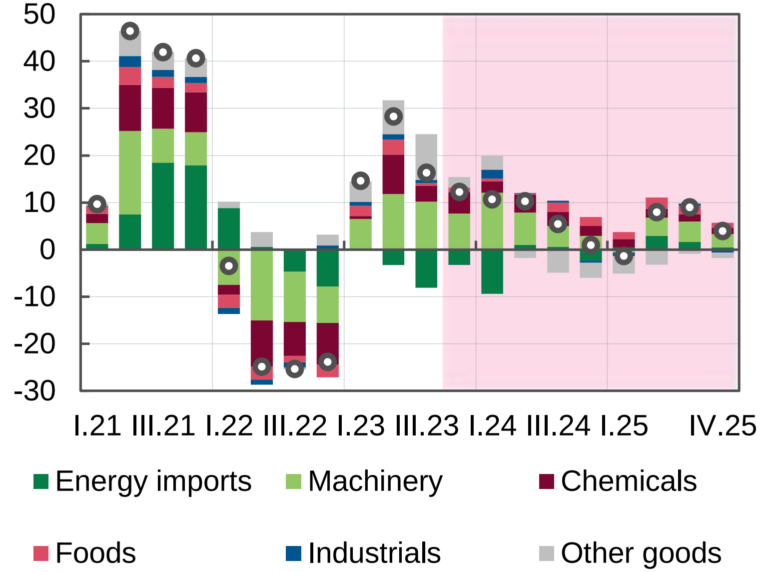
The private sector's FX deficit will remain significant primarily due to the limited potential for export recovery

Absolute annual change in merchandise exports by prices and volumes, USD bn



Source: SCSU, NBU staff estimates.

Contributions to annual change in imports of goods, pp

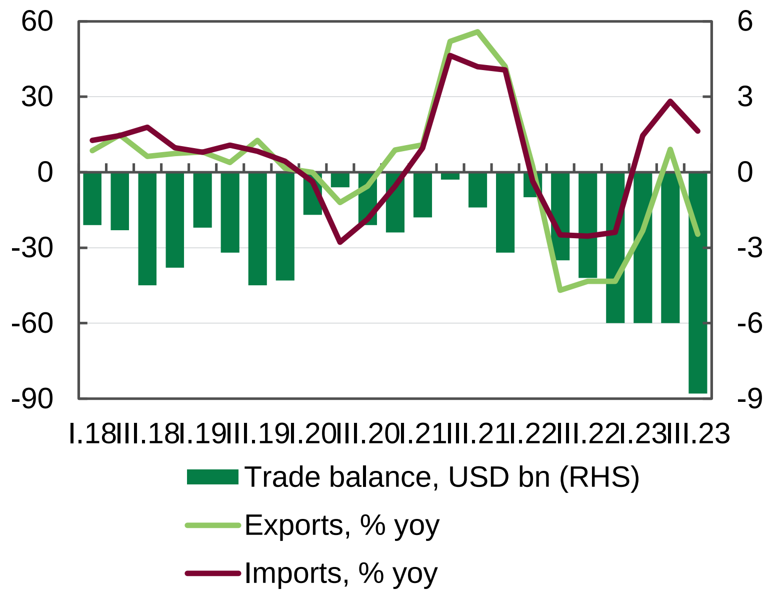


Source: NBU staff estimates.

- **In Q3, net FX outflow from the private sector expanded.** Export proceeds declined after the "grain corridor" ceased operations, while import volumes remained significant driven by the domestic market demand and migrant expenditures
- **The expansion of logistics routes' capacities is expected to bolster exports** over the forecast horizon, even in the absence of the "grain corridor". Nonetheless, the recovery of exports is likely to be constrained by the still limited transport routes and production capacities
- **FX outflows are expected to remain significant, driven by substantial import needs** for defense and the country's reconstruction efforts. The forecast also envisages capital outflows resulting from the relaxation of currency restrictions

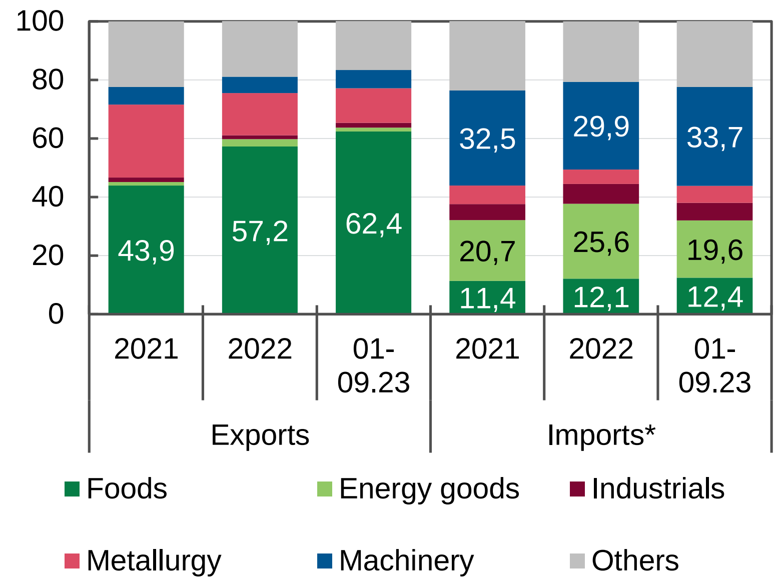
Box. Widening trade deficits due to war shocks: is there room for simple solutions?

Trade in goods



Source: NBU.

External trade, structure by goods, %

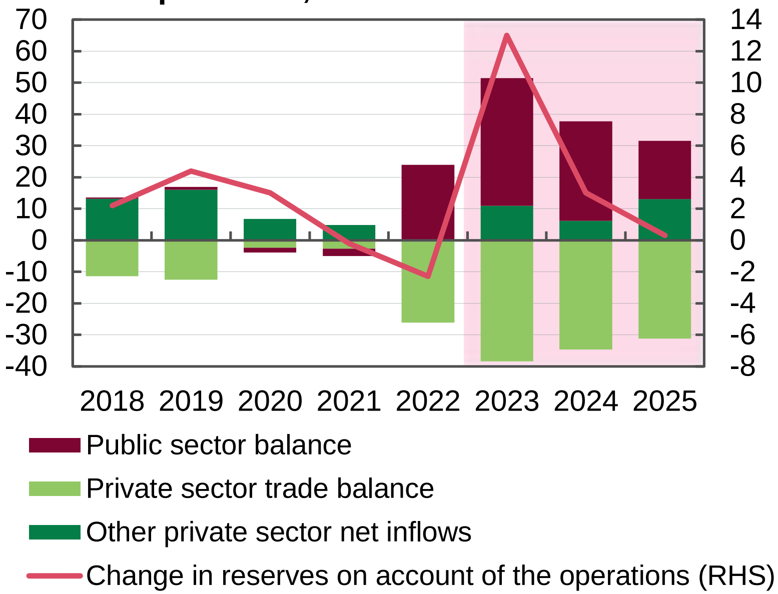


Source: NBU.

- **The full-scale war led to a significant widening of the deficit in trade in goods**, and changes in the structure of external trade became more fundamental. Given the experience of other countries, the expected duration of security risks and the narrowing of production potential, structural changes in Ukraine's foreign trade will have a long-term nature
- **Flexible exchange rate regime will have limited potential to improve the state of external trade**. As a result, the NBU will continue to compensate for the structural FX currency deficit with interventions. However, the transition to a regime of exchange rate flexibility will reduce the probability of accumulation of FX currency risks and economic imbalances. Therefore, the adaptability and the stability of the economy and the FX currency market to shocks will increase

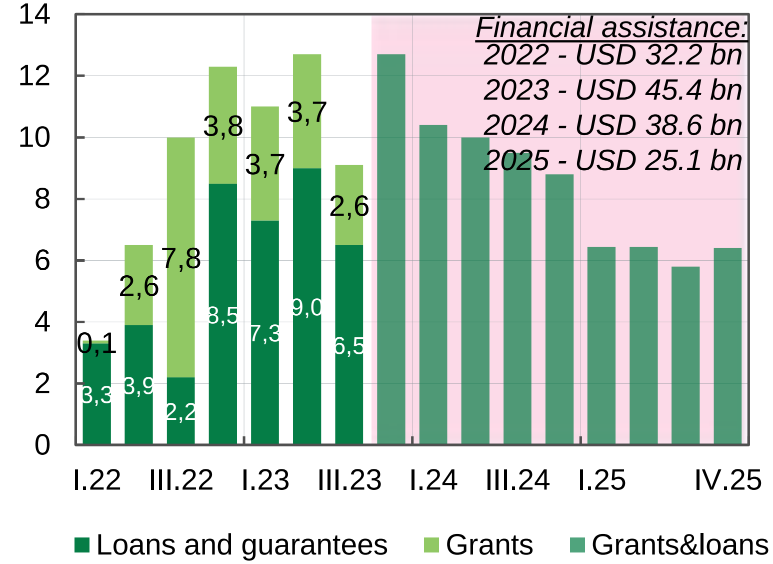
International reserves will grow thanks to international aid and the intensification of private investments in 2025

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



Source: NBU staff estimates.

International financial assistance, USD bn

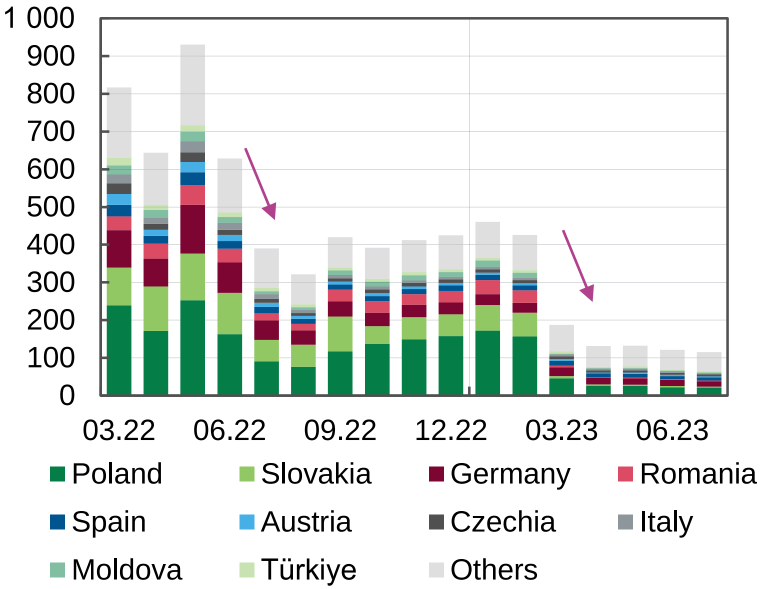


Source: NBU, MoF, data from the open sources, NBU assumptions.

- **In Q3, the volume of international financial aid saw a slight decrease** due to the shift of certain loans and grants into the following quarter. However, official financing remained substantial (over USD 9 bn), resulting in reserves totaling USD 39.7 bn as of September 30
- **Substantial volumes of external official financing are expected to maintain a net FX surplus over the forecast horizon.** As security risks subside, the private sector's role in attracting debt and investment capital will grow, contributing to a further increase in international reserves to USD 45 bn by the end of 2025

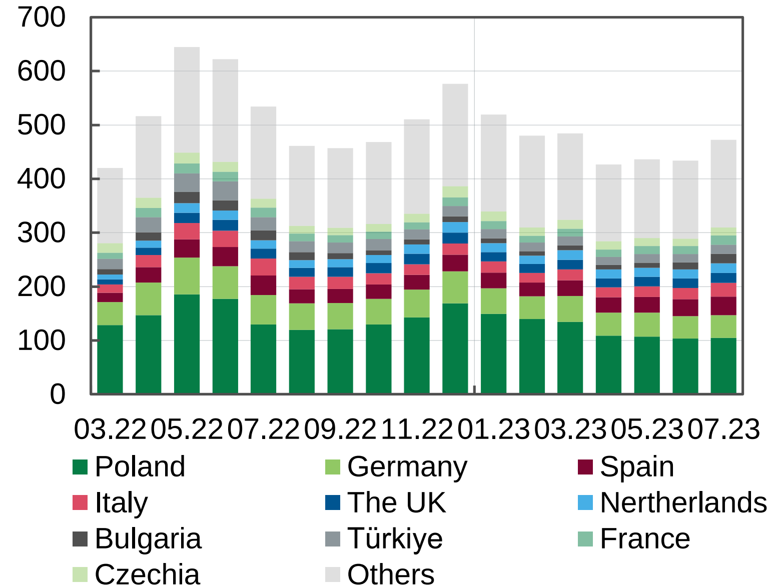
Box. Transactions with Ukrainian cards abroad

Cash withdrawals from the Ukrainian bank cards abroad, USD m



Source: NBU.

Transactions in retail networks abroad, USD m

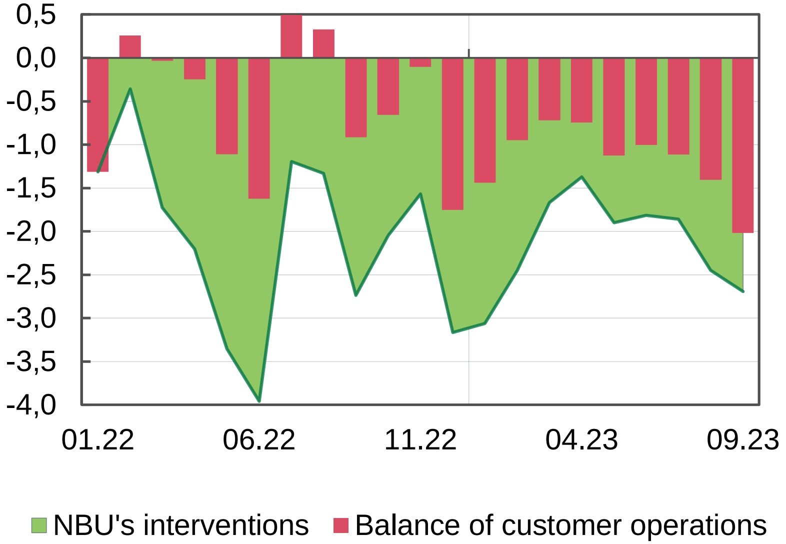


Source: NBU.

- **The results of the second wave of the survey showed consistently high expenditures by migrants and a sharp decline in the volume of cash withdrawals abroad since March 2023**. The latter was the result of NBU measures aimed at increasing the attractiveness of hryvnia assets, calibrating currency restrictions, improving currency flows between the interbank and cash markets in Ukraine, and strengthening the effectiveness of financial monitoring and currency supervision measures from March 2023
- **On the other hand, the total amount of transactions in retail networks remained high**, and their geographic structure was stable: the largest volumes of expenditure were traditionally observed in Poland and Germany

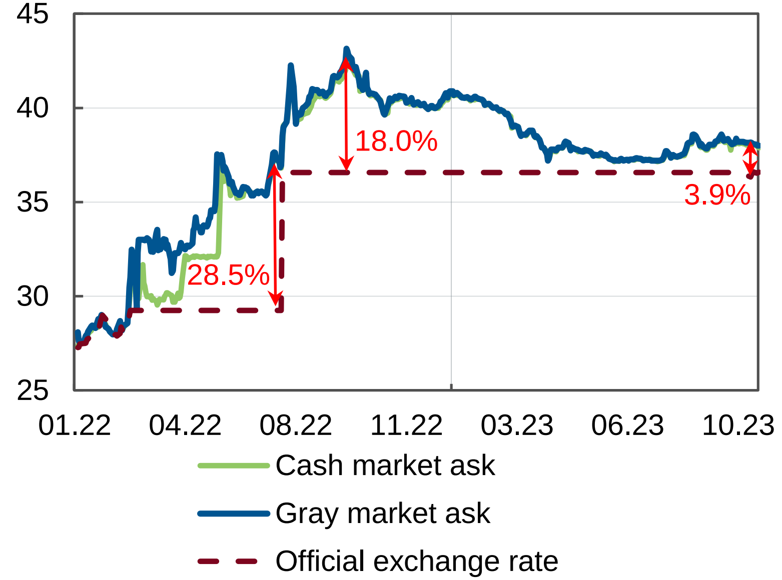
The situation in the FX market remained under control. The NBU will continue to cover the structural deficit of foreign currency

Bank clients' FX transactions and NBU interventions, USD bn



Source: NBU.

Hryvnia exchange rates, UAH per USD

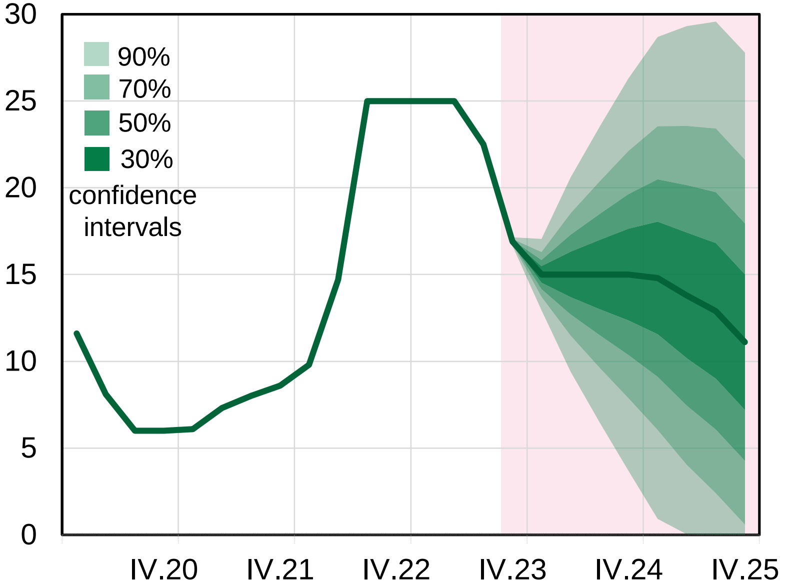


Source: NBU, open data sources.

- **The NBU has moved to the regime of managed flexibility of exchange rate.** This was preceded by the development of appropriate preconditions, including the steady progress in the reduction of inflation, the accumulation of international reserves to a substantial level, the increase in the attractiveness of hryvnia assets
- **Attractive interest rates on hryvnia-denominated instruments and sufficient volumes of the NBU interventions helped maintain the sustainability of the FX market.** Further measures aimed at the FX market liberalization, which ensured the effective currency flow between the non-cash and cash markets, also had a positive impact
- **The NBU will continue to focus on maintaining FX market sustainability** while significantly limiting exchange rate fluctuations through FX interventions

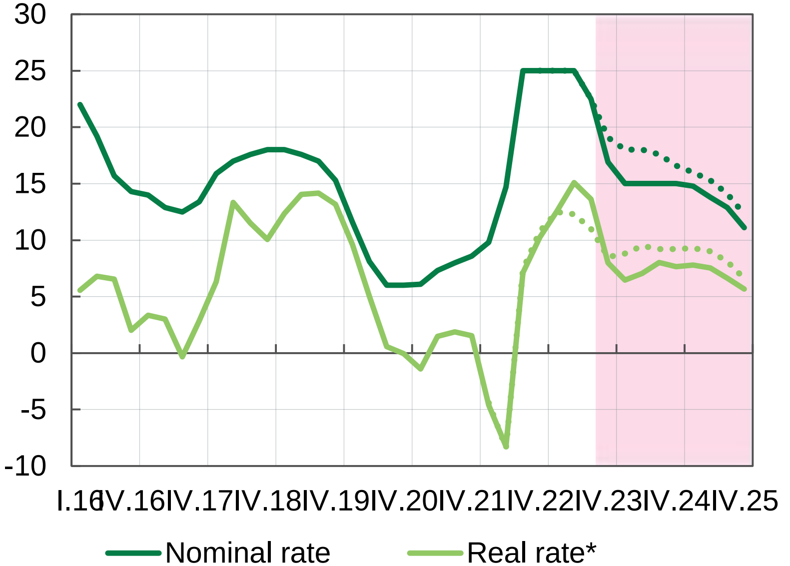
NBU Sets Key Policy Rate at 16% in October making it equal to the rate on overnight certificates of deposit (CDs)

Key rate, %*



* quarterly average
Source: NBU staff estimates.

Key rate (nominal and real), %



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

- **In such a way, the NBU has modernized the operational design of its monetary policy based on a floor system.** However, the rates on the NBU's transactions with the banks will thus actually remain unchanged. The modernization of monetary policy operational design will reinforce the signaling role of the key policy rate amid the structural liquidity surplus. It makes it possible to maintain incentives to keep the high attractiveness of hryvnia assets
- Provided there are no signs that the balance of risks is deteriorating, and provided that market participants have successfully adapted to the new ER regime, the NBU sees the possibility of cutting the key policy rate further in December. That said, the expected trajectory of inflation and planned steps to liberalize the FX market some more limit the room for easing policy next year

Box. On the way to floating: global best practices in applying different exchange rate regimes in wartime and the post-war period

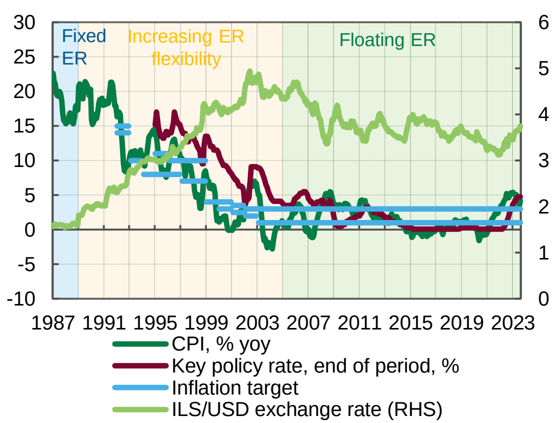
Each country has its own unique experience of conducting exchange rate (ER) policy during the war, but certain common patterns can be observed, in particular:

1 **Fixed or hard-pegged ER policy** is a common effective but temporary measure to stabilize the macro-financial situation and curb inflation (**Israel, Croatia, Georgia**)

BUT! *Central banks, whose experience was studied, considered the regimes of fixed / hard-pegged ER mostly as a temporary stabilization measure*. ***The return to floating was carried out via a gradual increase in ER flexibility***

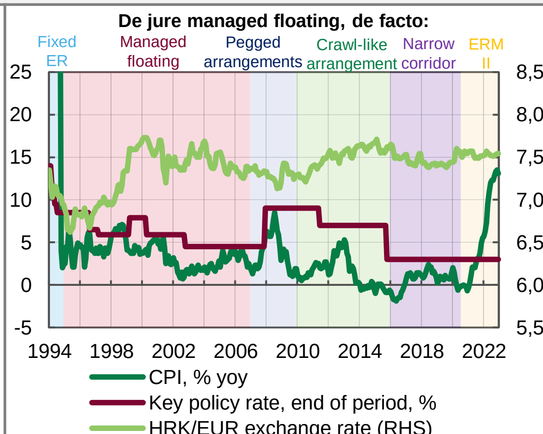
CPI, the official exchange rate, and the key policy rate in:

Israel



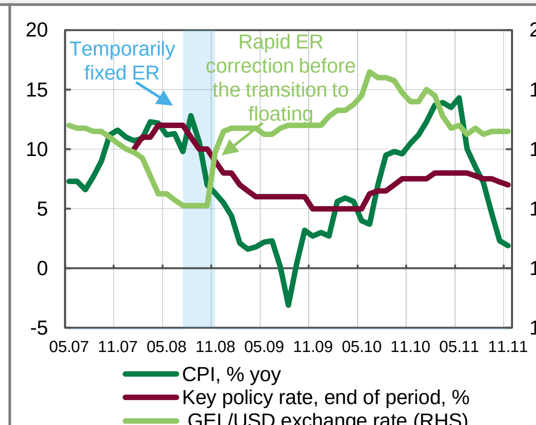
Source: IFS, Karnit Flug, Bank of Israel.

Croatia



Source: HNB.

Georgia



Source: NBG.

2 **FX interventions as the main monetary instrument**. A wide variety of ER targeting (stabilization) regimes require active actions by the central bank to balance the FX market conditions

3 **The key policy rate** is an **auxiliary instrument** for reducing the pressure on international reserves and maintaining sustainability of the FX market

The main risks of the forecast are the security situation and the prospects of international financial support

The degree of influence on the baseline scenario	The likelihood of risk: Low <15%	Average 15%–25%	High 25%–50%
Weak			
Moderate		Enhanced emigration	Damage to energy and port infrastructure
Strong		The emergence of additional budget needs and substantial quasi-fiscal deficits, including in the energy sector Rapid implementation of a large-scale plan for the reconstruction of Ukraine "Marshall Plan"	Longer war period, escalation,eco-terrorism of the occupiers International aid arriving in lower amounts or on a less regular basis

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