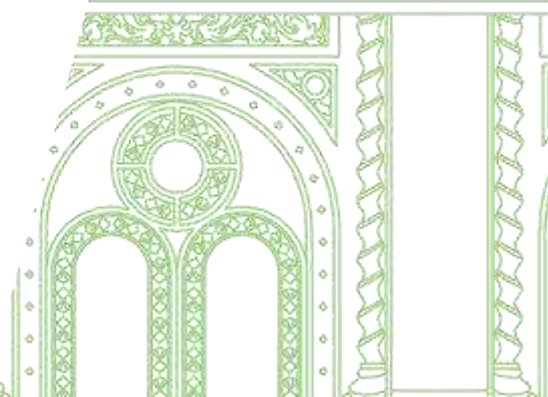




National Bank  
of Ukraine

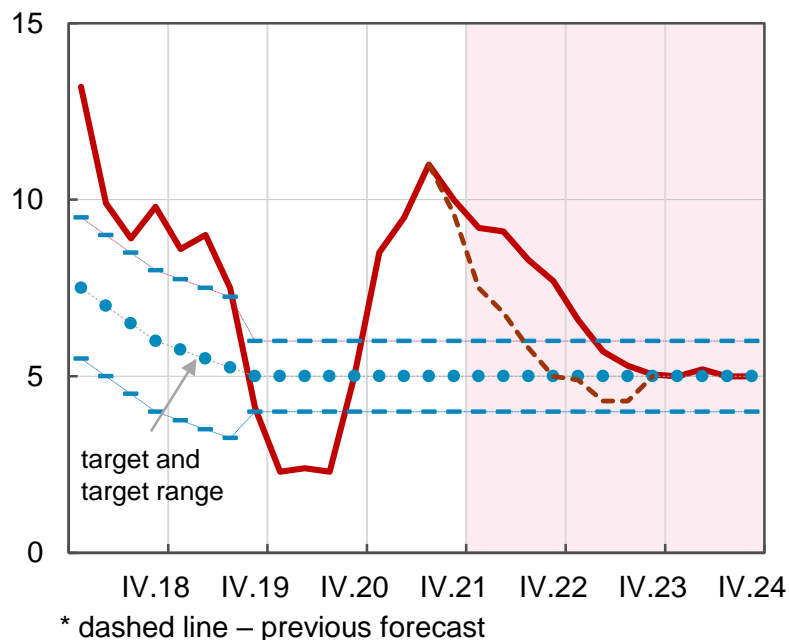
# Inflation report (January 2022)

February 1  
2022

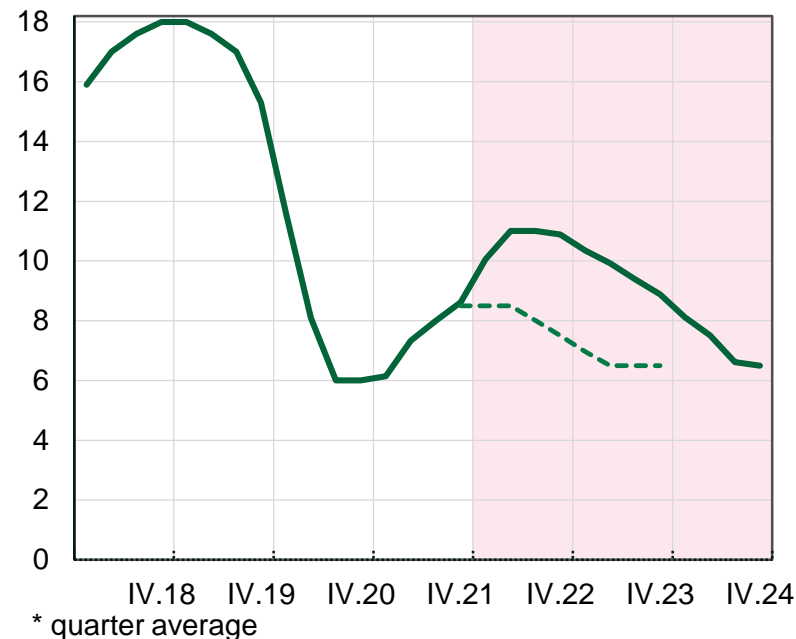


# Monetary tightening will bring inflation to target in 2023

CPI, %\*



Key rate, %\*



Indicators *	2020	2021	2022	2023	2024
Real GDP growth, %	-3.8 (-4.0)	3.0 (3.1)	3.4 (3.8)	3.7 (4.0)	4.0
CPI, % yoy (eop)**	5.0	10.0 (9.6)	7.7 (5.0)	5.0 (5.0)	5.0
Core CPI, % yoy (eop)**	4.5	7.9 (7.1)	5.9 (3.3)	3.8 (4.0)	3.8
Current account balance, % GDP	3.4	-1.1 (-1.0)	-3.3 (-2.6)	-3.5 (-4.0)	-3.3
Gross reserves, USD bn	29.1	30.9 (31.1)	29.2 (30.2)	28.2 (29.6)	28.7

\* in brackets – previous forecast (Inflation report, October 2021) \*\* end of period

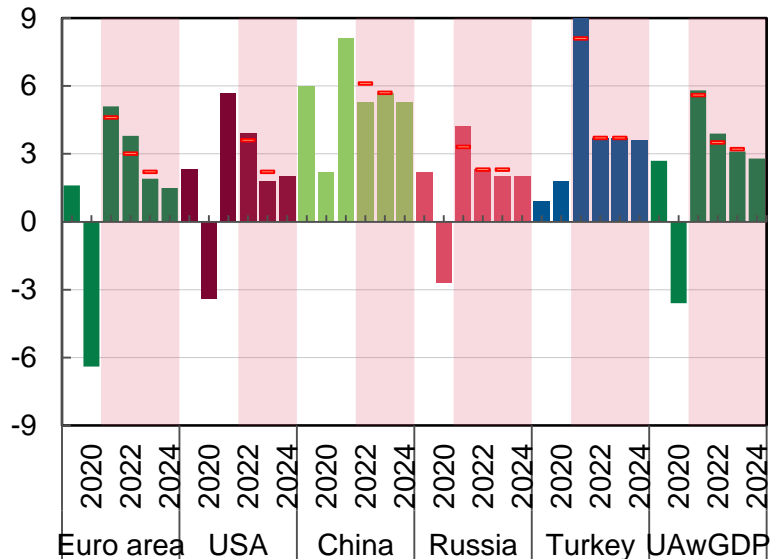
# Summary

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- **Inflation pressure** on the monetary policy horizon has increased due to the materialization of a number of factors:
  - **global energy prices** will remain high for longer than expected
  - **price pressures from trading partner** countries will remain strong
  - **second-round effects** from businesses' higher costs on raw materials and labor
  - an increase in demand for the Ukrainian labor force, both inside the country and abroad, and qualification mismatches on the labor market will impact the **growth in wages**
  - with household income rising, **consumer demand will remain robust**
  - **a deterioration in the information environment** amid geopolitical tensions putting pressure through exchange rate and expectations channels
- The persistence of pro-inflationary factors requires **the monetary tightening**
- The influence of last year's bumper harvest will foster a gradual disinflation. It will be additionally driven by the easing of the global inflation surge and the waning effects of the pandemic, reflected, among other things, in a larger correction of prices for raw materials, food, and logistical services
- However, **the decline of inflation will be slower** than expected. In 2022, it will fall to 7.7% and **return to the 5% target only in 2023**

# The global economic growth will slow down after a rapid recovery in 2021 but will sustain

Real GDP of selected countries and Weighted Average of annual GDP growth of Ukraine's MTP countries (UAWGDP), % yoy



Source: National statistical offices, NBU staff estimates..

PMI Subcomponents that are also part of the Global Supply Chain Pressure Index

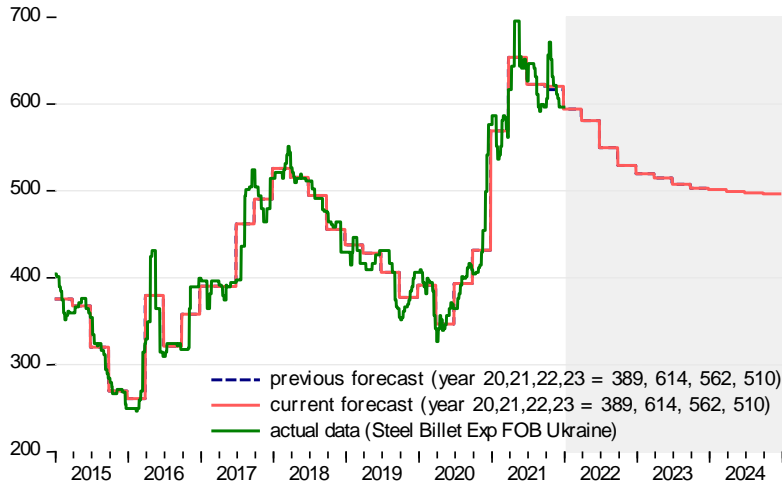


Source: FRB of New York.

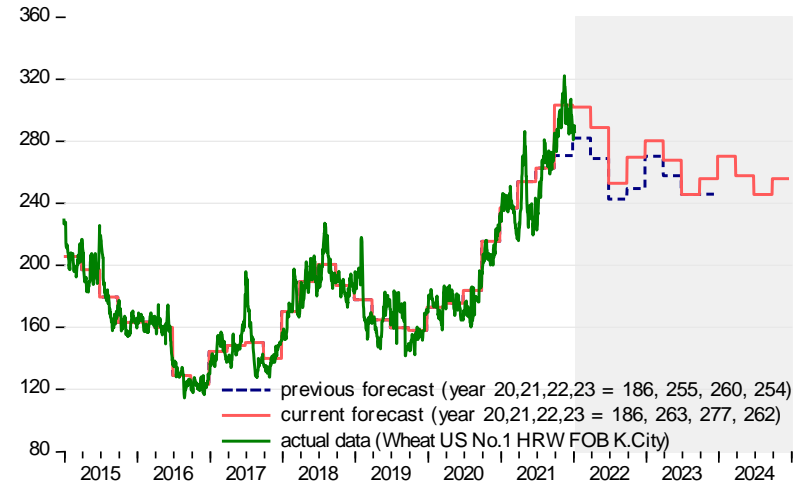
- The world economy growth will be sustainable due to the gradual abolition of quarantine measures, the establishment of supply chains, the intensification of world trade
- Uneven recovery persists between developed and EM countries
- Global pressures from supply chain disruptions, despite still being extremely high, are showing signs of weakening. In particular, the situation in the world automotive industry is improving

# As expected, world prices for export goods have adjusted and will continue to decline due to increased supply

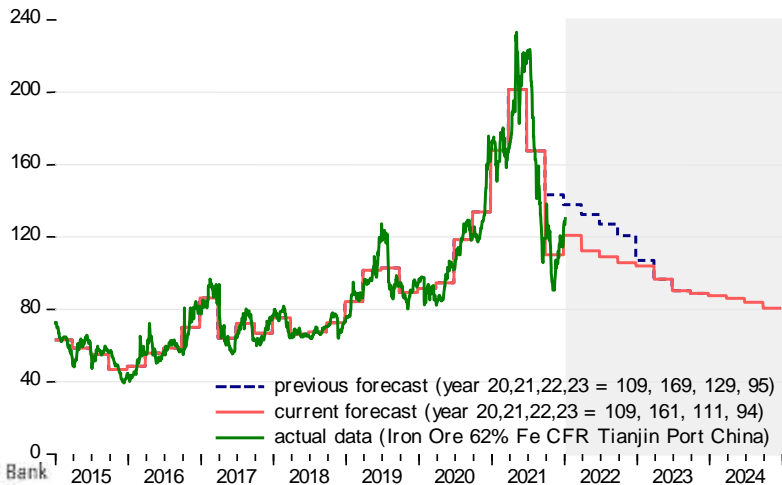
**Steel World Price, USD/MT**



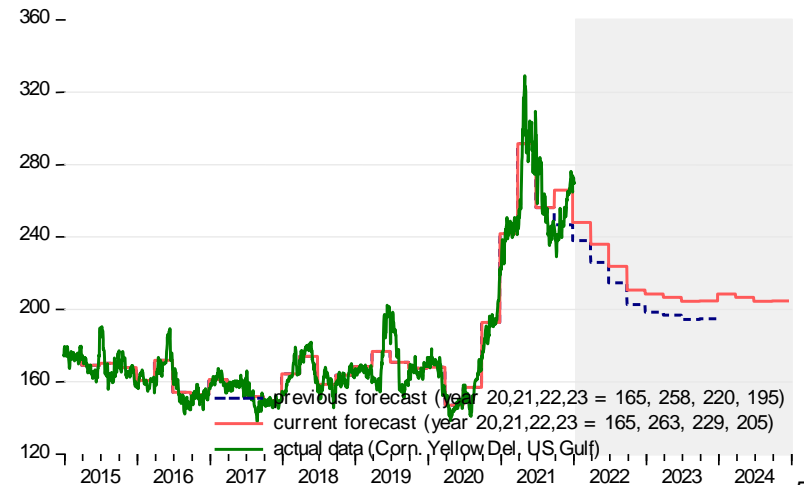
**Wheat World Price, USD/MT**



**Iron Ore World Price, USD/MT**

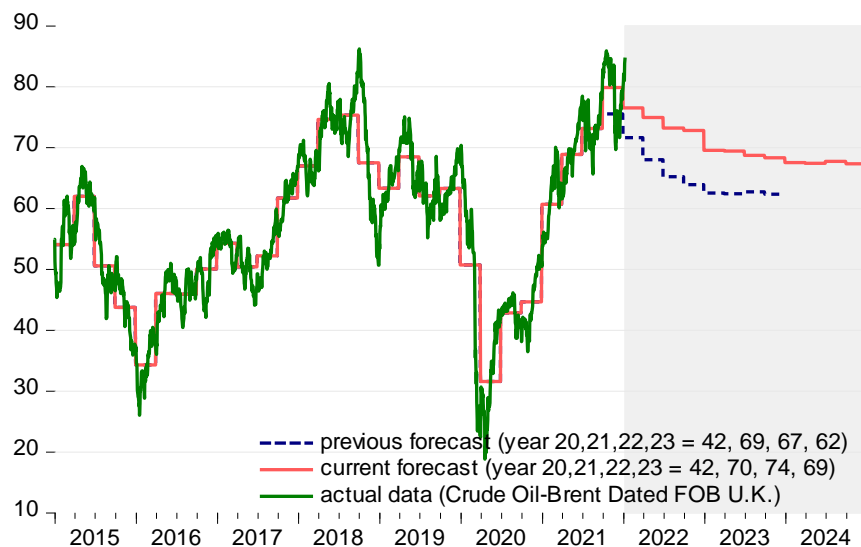


**Maize World Price, USD/MT**

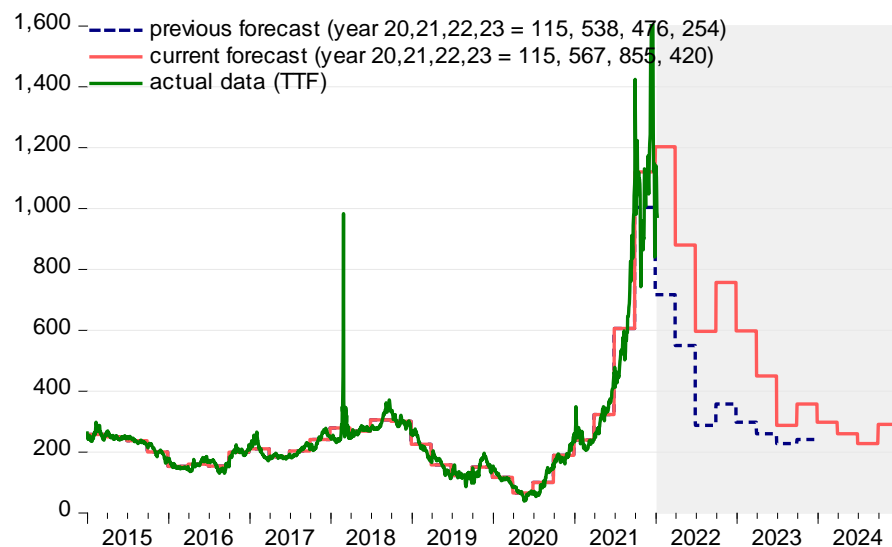


# Despite the relative stabilization of oil prices, natural gas will be expensive due to limited supply amid low reserves

### Brent World Price, USD/bbl

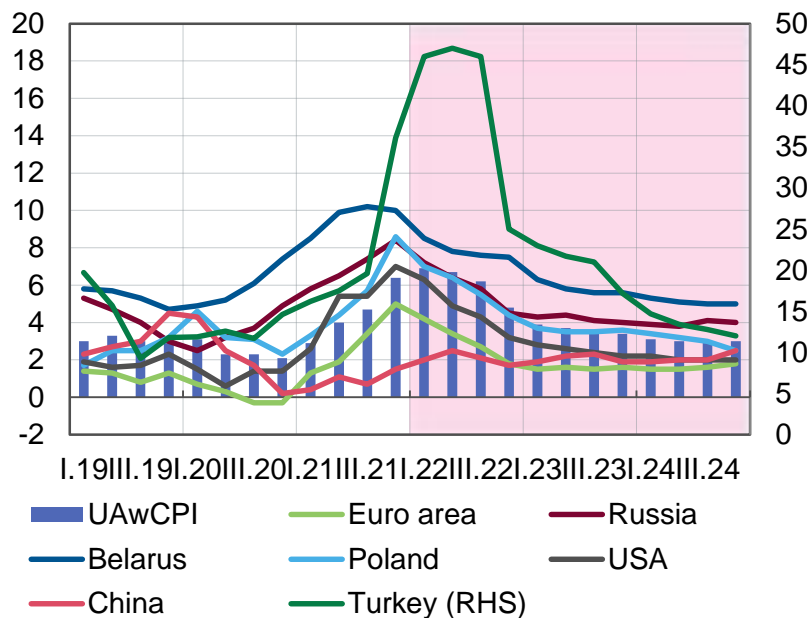


### Natural Gas Price, USD/1000m3



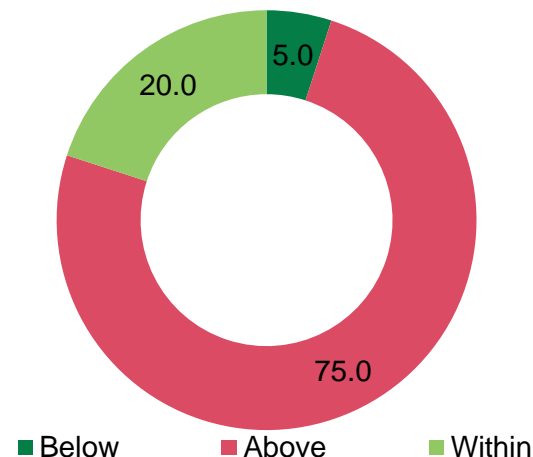
# World inflation will remain high for longer than previously expected due to significant increase in energy prices

CPI of selected countries and Weighted Average of Ukraine's MTP countries' CPI (UAWCPI), % yoy



Source: National statistical offices, NBU staff estimates.

Countries - inflation targeters distribution by the target / range achievement level at the end of 2021,%

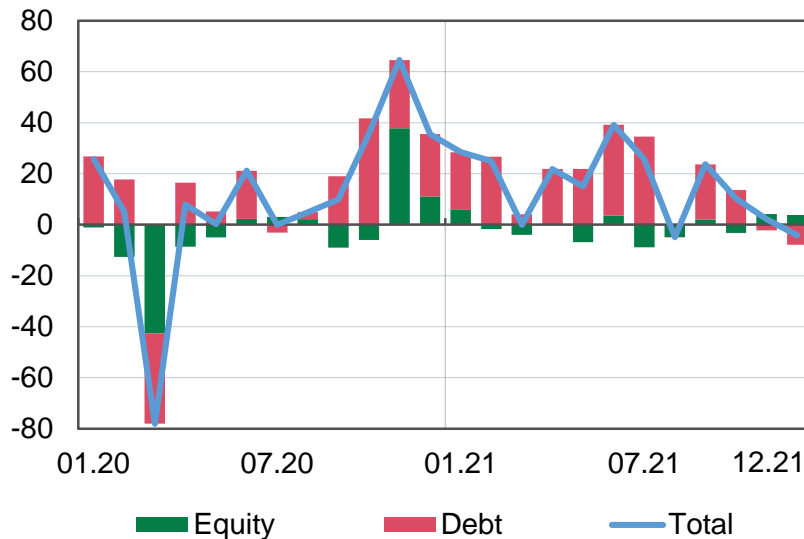


Source: official web-pages of central banks, IMF.

- The biggest contributor to rising inflation was the rise in energy prices
- In most IT countries, inflation exceeded target levels

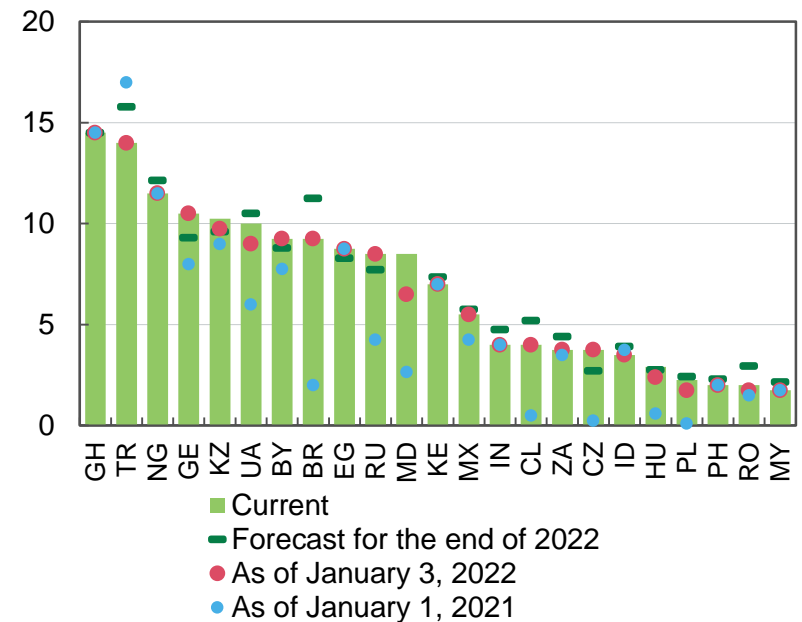
# Investor interest in the EM assets has weakened, competition for capital flows is intensifying

Nonresident portfolio flows to EM, excluding China, by asset class, USD bn



Source: IIF

Key policy rates in selected EM countries, %



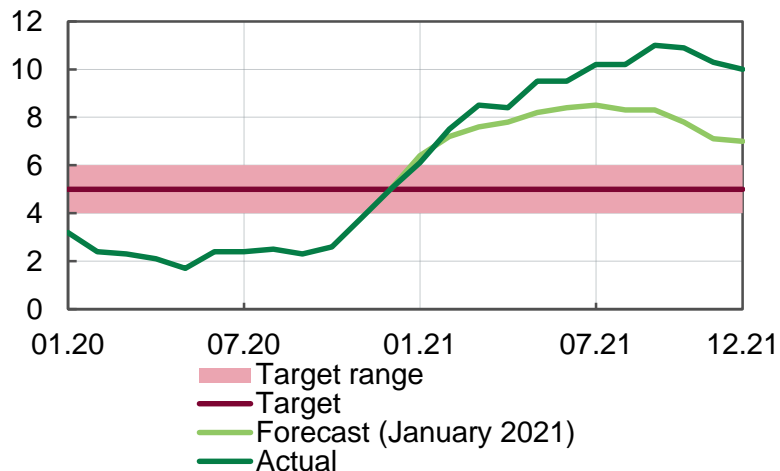
Source: official web-pages of central banks, Focus Economics, Trading Economics, as of 25.01.22.

- Central Banks of Russia, Poland, Hungary, Czechia, Kazakhstan, Chile, Brazil, Peru, Uruguay, Jamaica, Costa Rica have signaled their readiness to continue raising rates



## Box. Fulfillment of the inflation target in 2021: consumer inflation was larger than expected

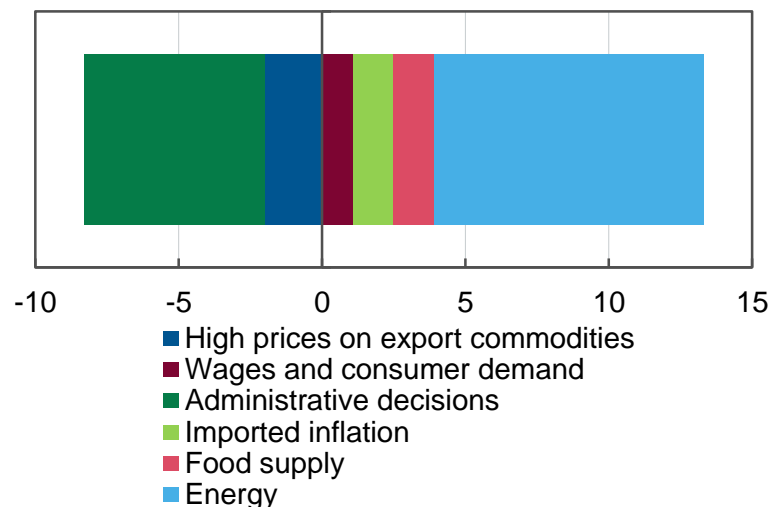
Inflation trajectory according to the NBU's January 2021 forecast and actual dynamics of consumer inflation, % yoy



Source: SSSU, NBU staff estimates.

- First of all, global processes were pro-inflationary:
  - global demand was rapidly recovering amid massive fiscal and monetary stimulus
  - supply was lagging behind the demand due to disruptions in production and supply chains
  - measures to strengthen environmental controls
  - significant demand for labor (especially for certain categories of workers), growing disparities in the world labor market because of the pandemic => pressure on wages in Ukraine
- There were also domestic pro-inflationary factors - rapidly recovering consumer demand
- However, high global prices on selected products of Ukrainian exports as well as remittances slowed down the rise in prices through FX channel
- Administrative decisions (the fixing of certain utility tariffs for the population and slow adjustment of others to market levels) restrained inflation as well.

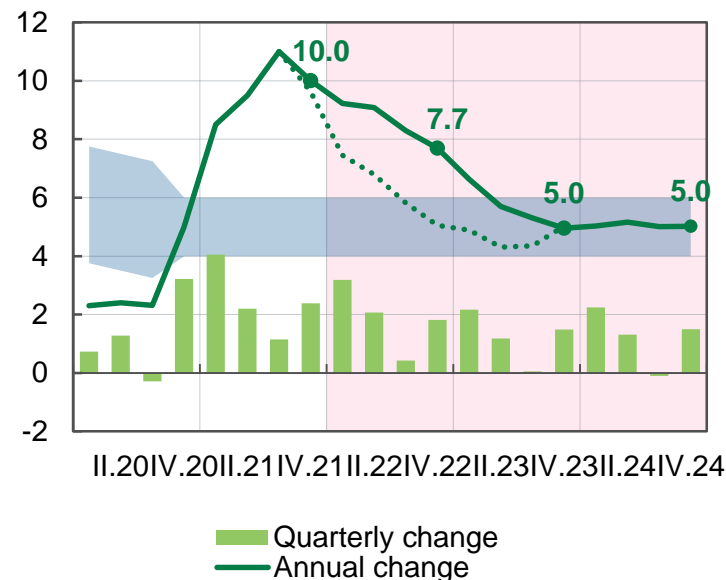
Decomposition of inflation deviations from the target, pp



Source: SSSU, NBU staff estimates.

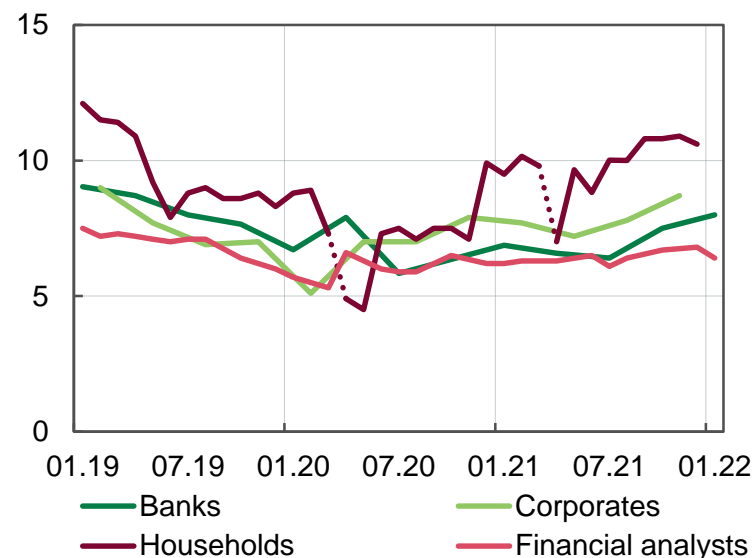
# Inflation has been declining. However, the decline has been slower than expected and will return to the 5% target only in 2023

CPI, %



Source: SSSU, NBU staff estimates.

12-month-ahead inflation expectations\*, %



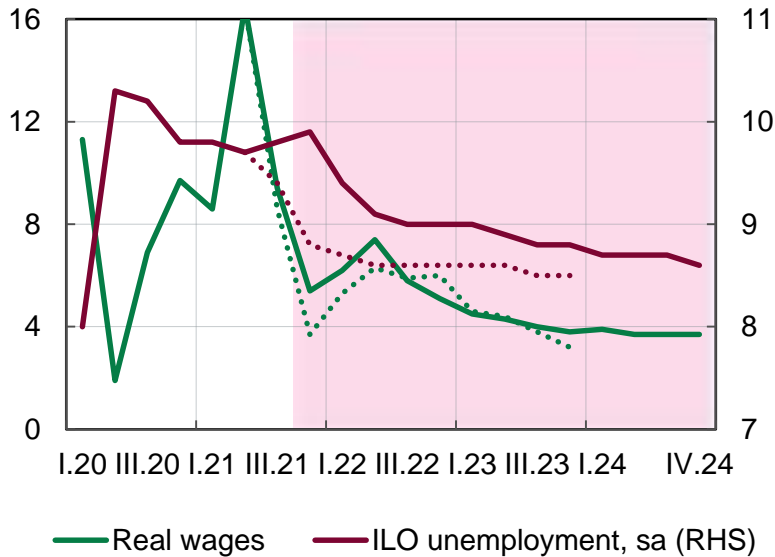
\* The dotted line indicates a change in the method of survey for a telephone interview due to quarantine restrictions.

Source: NBU, GfK Ukraine, Info Sapiens.

- Having peaked in autumn 2021, inflation has been declining. However, the decline has been slower than expected due to the realization of a number of risks (higher energy and food prices, and their second-round effects, as well as the weakening of the hryvnia at the end of 2021)
- Inflation will reach the target at the end of 2023 due to lower global inflation and the effects of monetary policy tightening by the National Bank
- Inflation expectations at the end of 2021 and the beginning of 2022 for certain groups of respondents improved for statistical reasons (sample bias) and, probably, due to the slowdown in food prices and unchanged utility tariffs

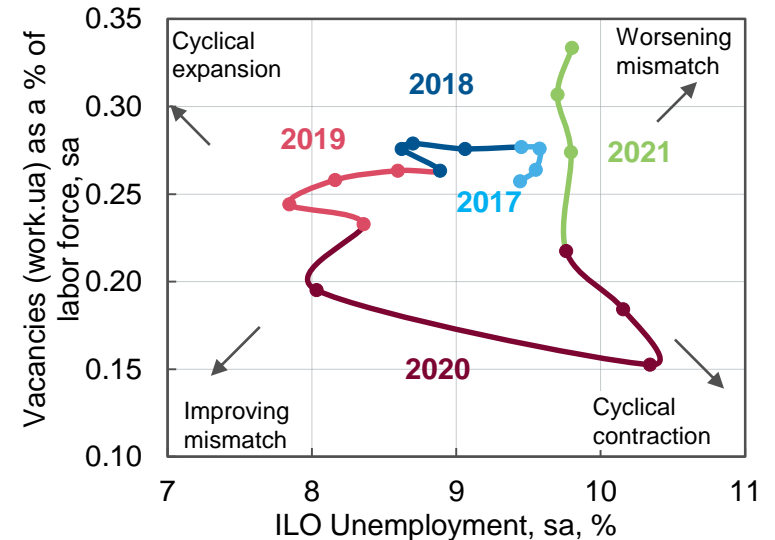
# Higher mismatches in the labor market and long-term effects of quarantine are hampering the decline in unemployment...

Real wages, % yoy and ILO Unemployment sa, %



.Source: SSSU, NBU staff estimates.

Beveridge curve

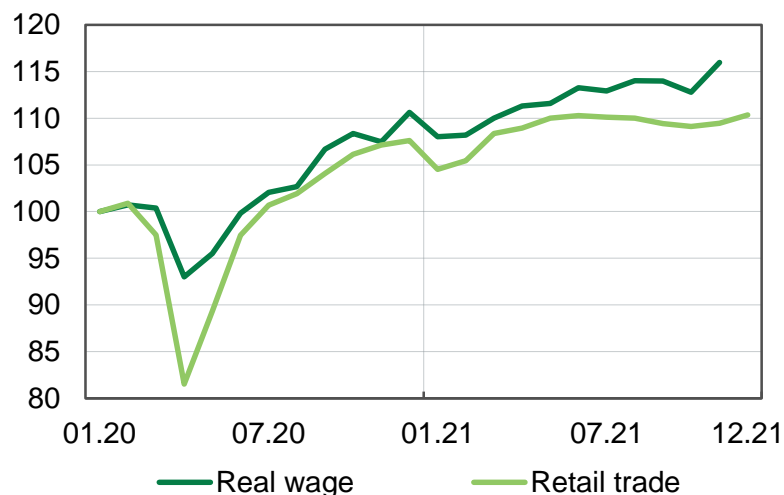


Source: SSSU, work.ua, NBU staff estimates.

- Quarantines and low levels of vaccination, weaker than expected economic recovery, and deepening labor market mismatches have created tough labor market conditions
- Further growth of the economy, spread of vaccination, improvement of business expectations will stimulate an increase in demand for labor
- However, the return of unemployment to its natural level (8.5%) will take longer than expected

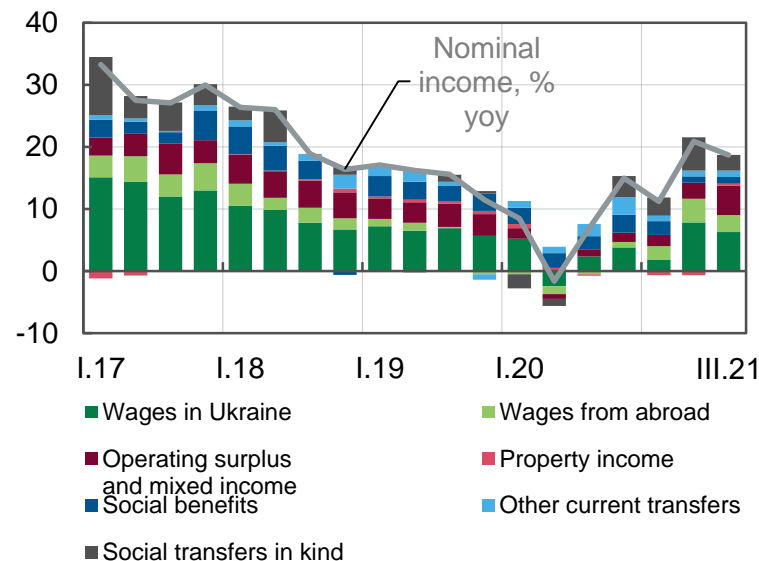
# Consumer demand remained steadfast due to rapid growth of wages and labor migrant remittances

Retail sales and real wages, sa, index 01.2017=100



Source: SSSU, NBU calculations.

Contributions to annual change in nominal household income, pp

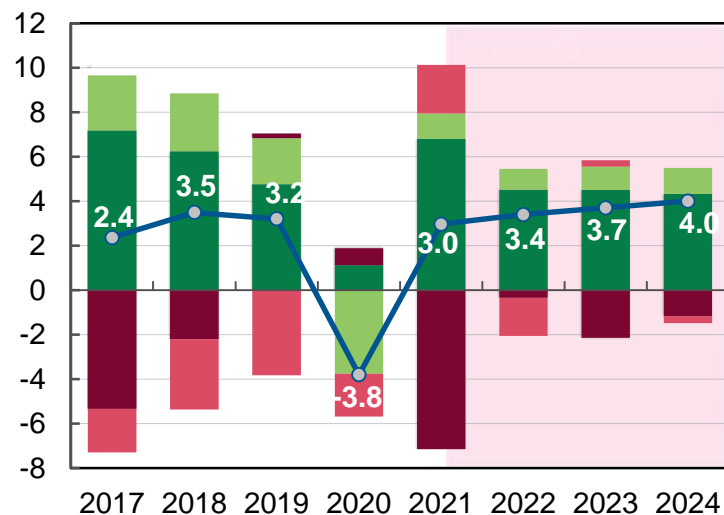


Source: SSSU, NBU staff estimates.

- Pressures from labor market mismatches and labor migration, as well as wage increases in the public sector, have supported high wage growth
- The sustained consumer demand is evidenced in particular by record car sales and the growth in consumer imports
- As the wage gap in Ukraine and abroad narrows, and disparities wane through retraining, wage growth will slow and correspond to the level of productivity growth in the economy in 2023–2024

# In 2021, the economy recovered slower than expected. GDP growth will accelerate somewhat

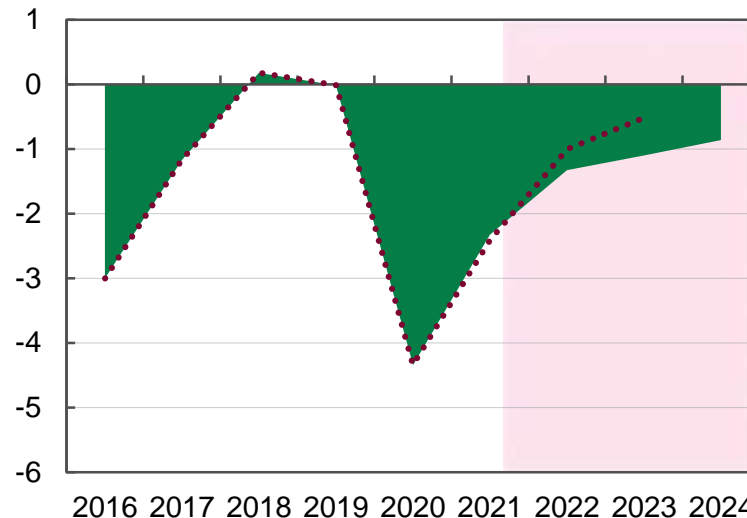
Contributions to annual GDP growth by final use, pp



■ Consumption    ■ Investment  
■ Net exports    ■ Inventories  
—○— GDP

\*Including non-profit institutions serving households.  
Source: SSSU, NBU staff estimates.

GDP GAP, %

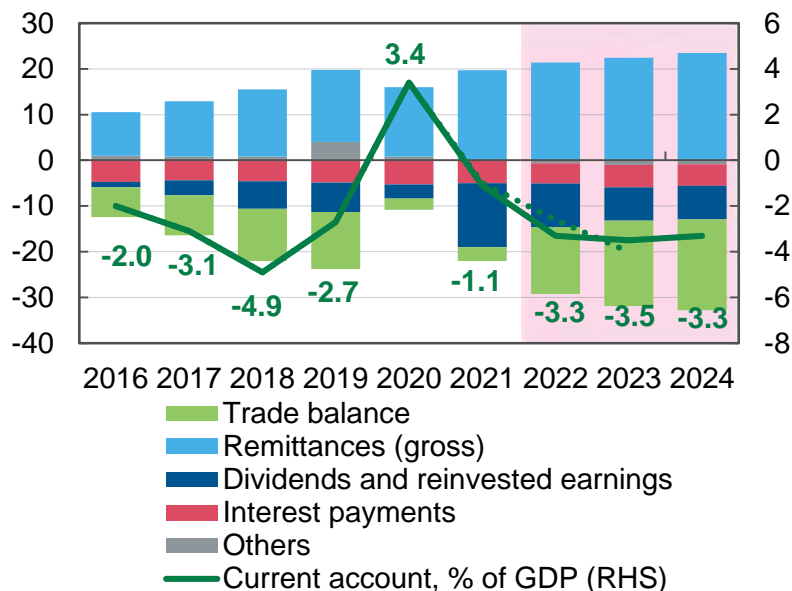


Source: SSSU, NBU staff estimates.

- **Real GDP grew by about 3%** in 2021, by NBU estimates. The economic recovery was driven by sustained consumer demand, increased investment by businesses after the crisis, a record harvest of crops
- **However, the recovery came out slower than expected.** This was in part due to a spike in energy prices and shortages, the impact of weak 2020 harvests, a slower recovery in the services sector, the limited production capacity of some manufacturing sectors, more significant losses from the pandemic, and a faster fiscal consolidation.
- In 2022, high energy prices, geopolitical tensions together with the consequences of the shortage of certain products in the world will limit economic recovery (+ 3.4%)
- **In 2023–2024, real GDP growth will accelerate to about 4%** per year due to further growth in the global economy, and the persistence of rather benign terms of trade.

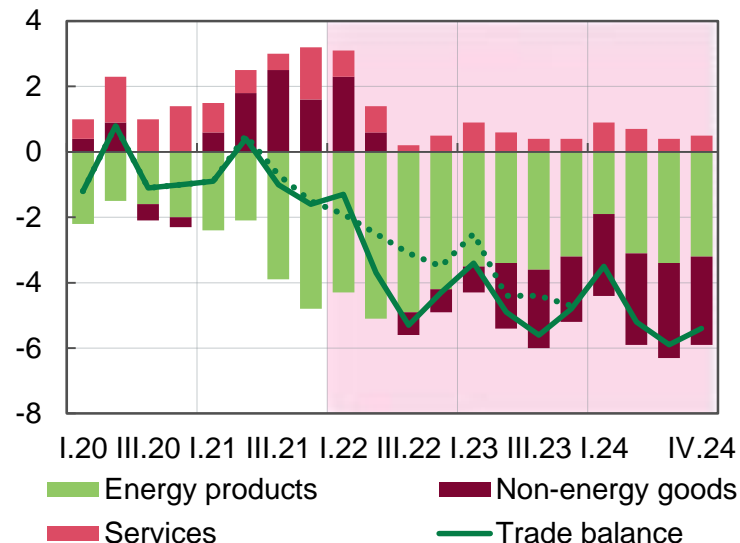
# In 2021, the current account returned to the deficit and will fluctuate at 3.3-3.5% of GDP on the forecast horizon

Current account balance\*, USD bn



\* Preliminary data for 2021.  
Source: NBU staff estimates.

Trade balance\*, USD bn

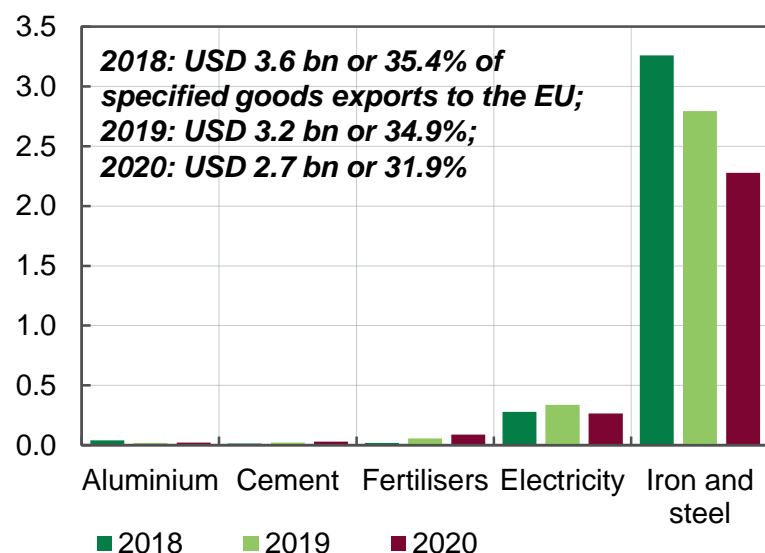


\* Preliminary data for Q4 2021.  
Source: NBU staff estimates.

- In 2021, the current account recorded a deficit (1.1% of GDP) which resulted from record high levels of investment earnings and dividends repatriation
- A small trade deficit remained at the level of the previous year, thanks to a positive impact of high global prices for the main Ukrainian export goods - food and mining&metallurgical complex products as well as increase in exports of IT-services
- In 2022, the current account deficit will widen due to high energy prices and the strengthening of hryvnia's REER. In 2022-24, CAD will be at 3.3–3.5% of GDP on the back of high domestic demand, which will be close to the equilibrium level

## Box. CBAM (Carbon Border Adjustment Mechanism) – a threat or chance for economy modernization?

Exports to the EU of goods covered by the CBAM, USD bn

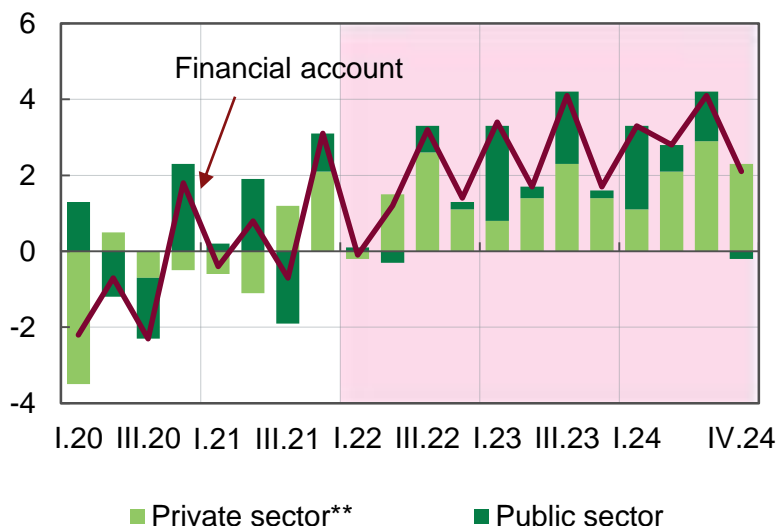


Source: NBU staff calculations.

- The CBAM is an analogue of the ad valorem duty on imports from outside the EU, which is to be paid by European importers. It also provides for a transitional period until the end of 2025
- Article 31 of the Regulation appears to be the most important for third countries. It stipulates that CBAM certificates to be surrendered will be adjusted to reflect the extent to which EU ETS allowances are allocated free of charge to installations producing, within the EU, the goods covered by CBAM
- The mechanism will apply to five industries: cement, electricity, fertilizers, iron and steel, aluminum
- CBAM payments by importers of Ukrainian goods in 2026 will amount to USD 0.6-0.8 bn
- CBAM is similar to an import tariff. Thus, most of the payments will be passed on to the final consumer in the form of a price increase. The total potential loss for Ukrainian exports is estimated at about USD 100 m per year from 2026. The greatest losses will be borne by electricity generation and metallurgy industries.
- However, losses may be higher in the event of the development of similar environmental protection mechanisms by other countries and faster environmental modernization of countries with which Ukraine competes in world markets. So, isn't this a chance to modernize Ukraine's economy?

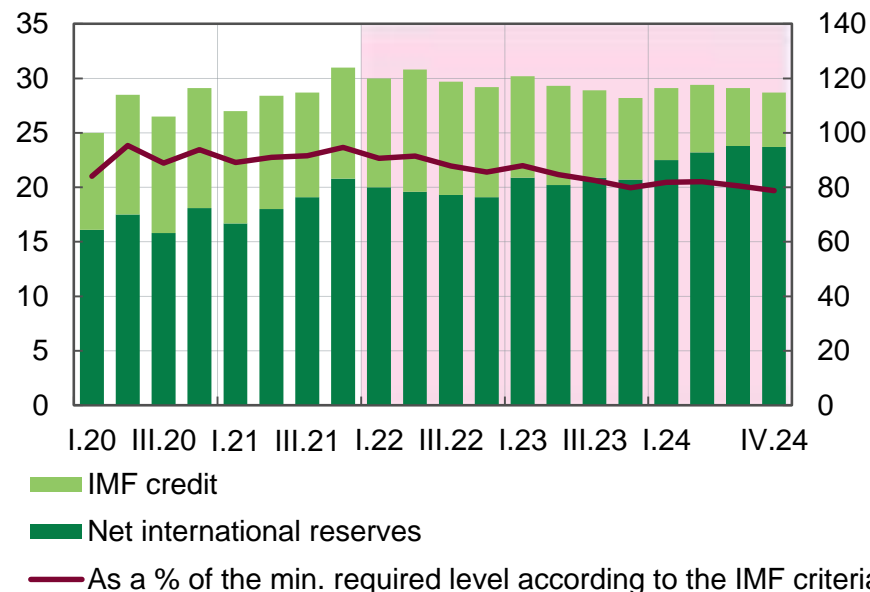
# Capital inflows will accelerate further due to tighter monetary policy and lower risk premium

Financial account\*: net external liabilities, USD bn



\* Preliminary data for Q4 2021.  
 \*\*Including net errors and omissions.  
 Source: NBU staff estimates.

International reserves, USD bn



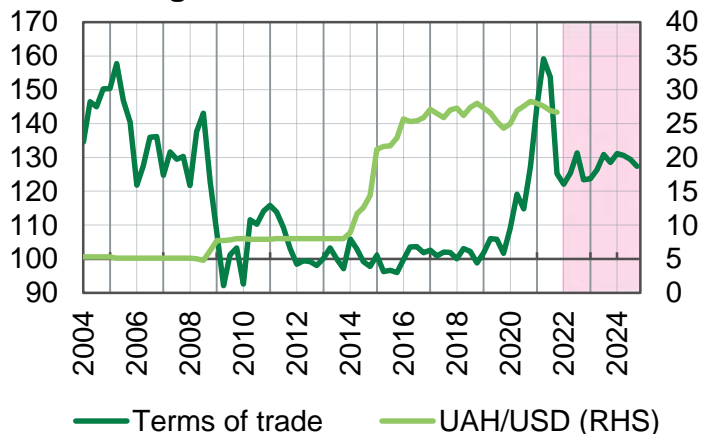
Source: NBU staff estimates.

- Despite investors being reluctant towards EM assets, Ukraine saw a capital inflow at the end of 2021, primarily to the private sector
- Significant official financing, along with the IMF tranches and SDR allocation, has helped build up the reserves to USD 31 bn, which is equivalent to about 95% of the required level according to the IMF composite criteria
- Supported by monetary policy tightening and lower risk premium capital inflows will help to maintain the reserves at USD 28-29 bn in 2022-2024



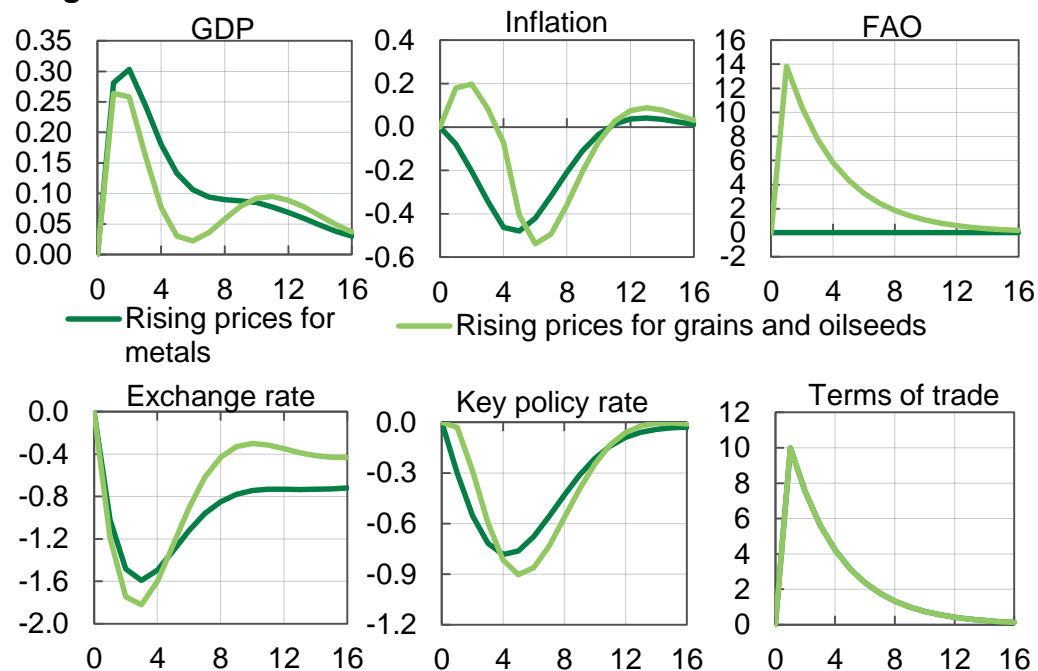
## Box. Commodity Terms of Trade and Monetary Policy

Terms of trade index (I.18 = 100) and exchange rate



Source: NBU staff estimates.

Impulse response functions of the main macroeconomic variables to the 10% shock of terms of trade due to rising prices of grain and sunflower oil or metals

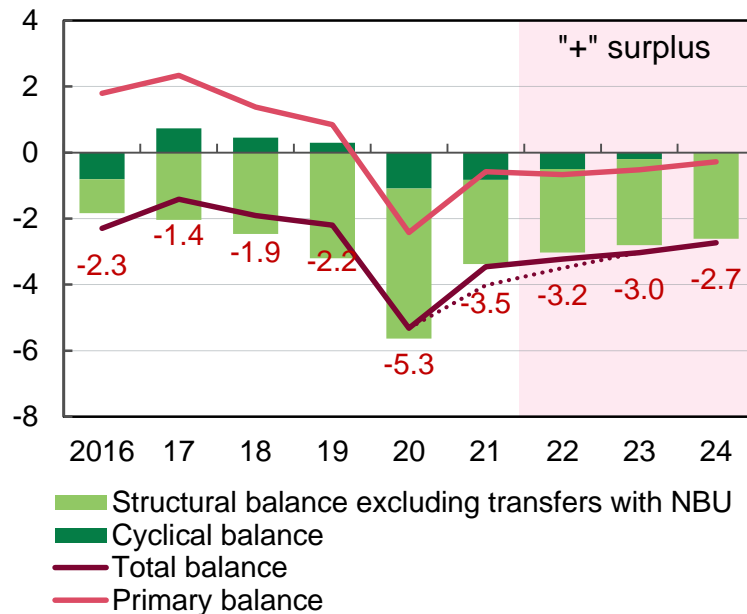


Source: NBU staff estimates.

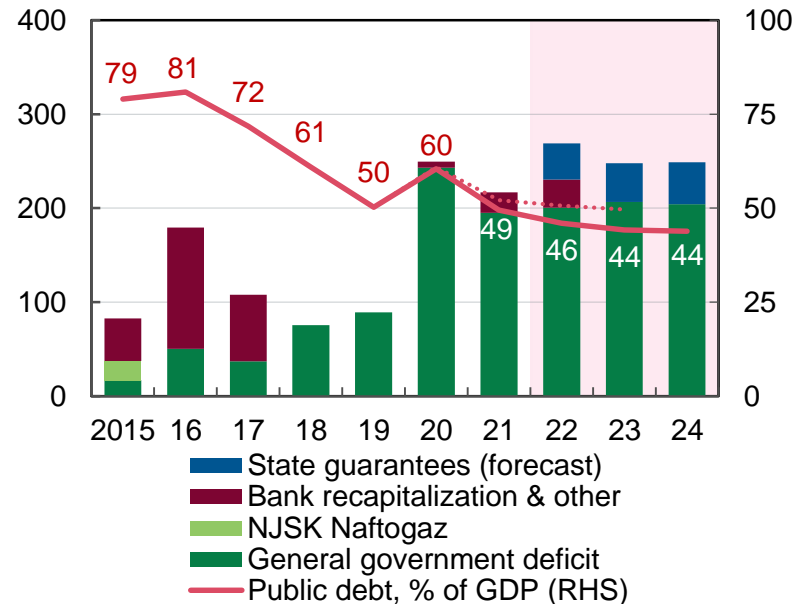
- Under a fixed exchange rate regime, terms of trade shocks are usually pro-inflationary
- In contrast, with a flexible exchange rate, the economy has a built-in mechanism for balancing changes in terms of trade, but its effect differs depending on the nature of price shocks, the strength of direct and indirect effects
- The monetary policy response will depend on whether the price of the product directly affects consumer prices

# The consolidated budget deficit has narrowed. Fiscal consolidation will continue

Consolidated Budget Balance, % of GDP



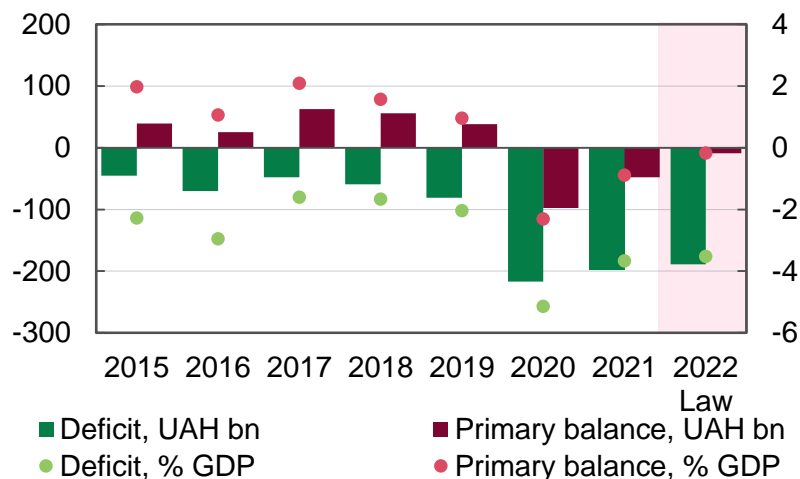
Public sector deficit, UAH bn, and public debt-to-GDP ratio, %



- Despite the sharp easing in Q4, fiscal consolidation was faster than expected and compared to other countries in the region.
- The consolidated budget deficit will be moderately reduced in the future. This will be largely due to limited opportunities of funding in tighter conditions on global financial markets and high risk premiums for Ukraine.
- Public debt-to-GDP ratio has decreased significantly to about 50% in 2021 and will continue to decline in the coming years

## Box. Fiscal consolidation will continue. Budget parameters for 2022 are quite conservative, the risk lies in financing the deficit

### State budget balance



Source: STSU, VRU, NBU staff estimates

### Macroeconomic parameters

Indicator	2022	
	CMU	NBU
Nominal GDP, UAH bn	5369	6200
Real GDP, %	3.8	3.4
CPI, % (yoy)	6.2	7.7
Exports of goods and services (USD bn)	70.3	83.5
Imports of goods and services (USD bn)	78.9	98.1
NER, UAH/USD (aver)	28.6	-
Nominal average wage (average for the period), thousand UAH	15.3	16.0

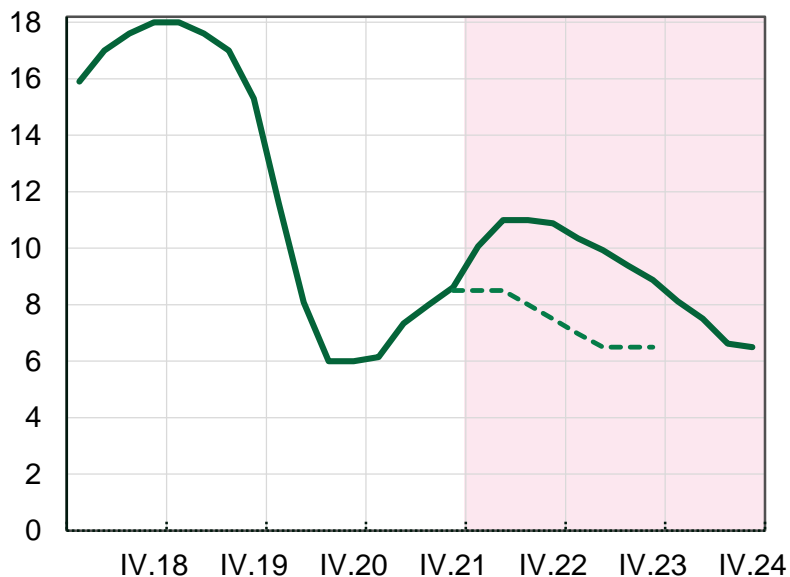
\* According to the Explanatory Note to the state budget draft law for 2022 before the first reading. \*\* NBU forecast (January 2022).

Source: VRU, NBU staff estimates.

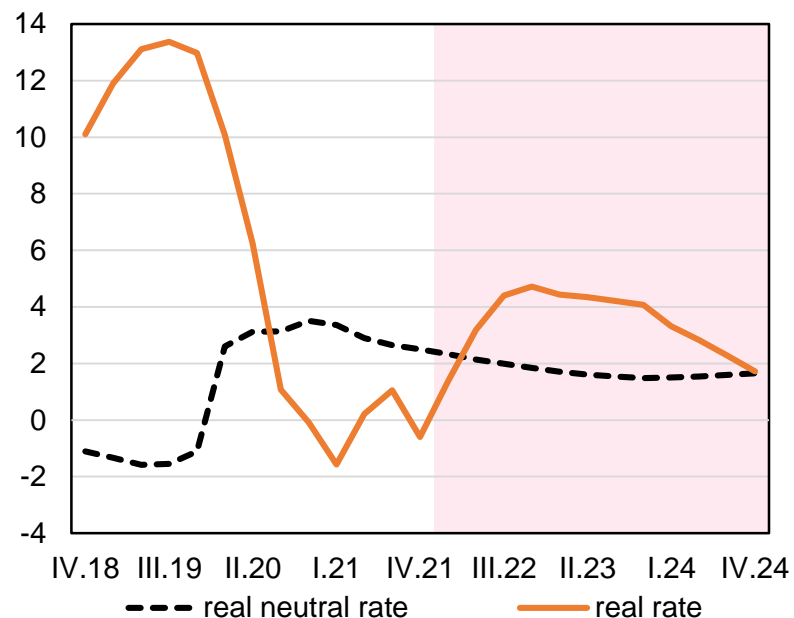
- The deficit for 2022 is in line with the 2022-2024 Budget Declaration parameters. It is lower than the actual deficit in 2021, and also has the potential for further narrowing
- Significant narrowing of the primary deficit indicates continued fiscal consolidation, which will help reduce public debt level and increase the sustainability and flexibility of the public finances
- The macroeconomic parameters are conservative, primarily in the nominal GDP and import estimations, which gives the reason to expect higher revenues and, consequently, higher expenditures. In particular, in 2022, revenues and expenditures are growing quite moderately (2.1% and 0.6% yoy, respectively, compared to 2021)
- Tighter financial conditions for EM countries and high-risk premium for Ukraine pose the financing risk. Therefore, cooperation with the IMF and other MFIs remains important

# The persistence of pro-inflationary factors requires the strengthening of monetary policy

Key rate, %



Real interest rate\* and its neutral level, %



\* Deflated by inflation expectations (QPM model).

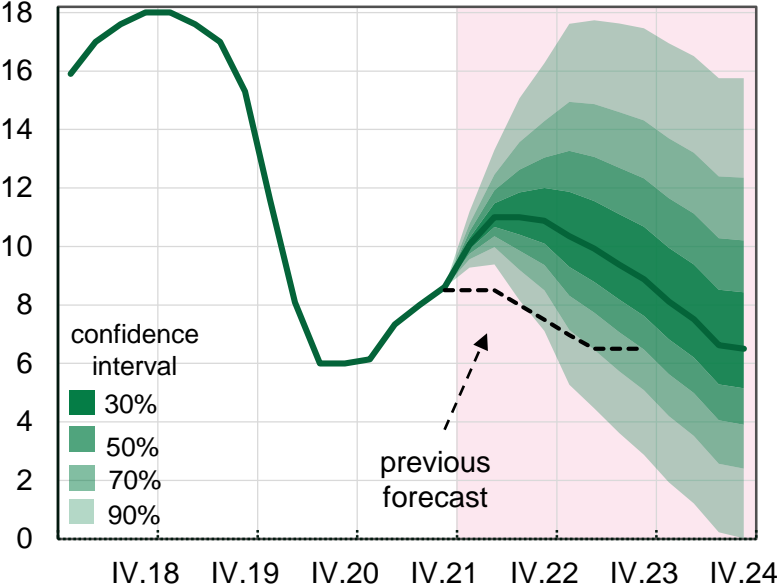
- as many of the pro-inflationary risks have materialized, tighter monetary policy is needed
- the NBU will begin reducing the key rate no earlier than the end of 2022
- however, even with the rate cut the monetary policy stance will remain moderately tight over the forecast horizon

# Risks

		Probability that a risk will materialize		
		Low <15%	Medium 15%–25%	High 25%–50%
Degree of impact on the baseline scenario	Weak		Accumulation of financial imbalances in the energy sector	
	Moderate		Smaller harvest of main agricultural crops Tightening of quarantine measures	Intensifying of labor migration and costs growth
	Strong	Rapid (one-off) adjustment of energy tariffs to market levels	Delays in cooperation with the IMF Global stagflation	Escalation of the geopolitical tensions Deterioration in the terms of trade Capital outflows from EM

# The NBU continues to assess the balance of risks for inflation and the key policy rate as having shifted upward

Key rate, %



CPI, %

