National Bank of Ukraine

Inflation report (April 2021)

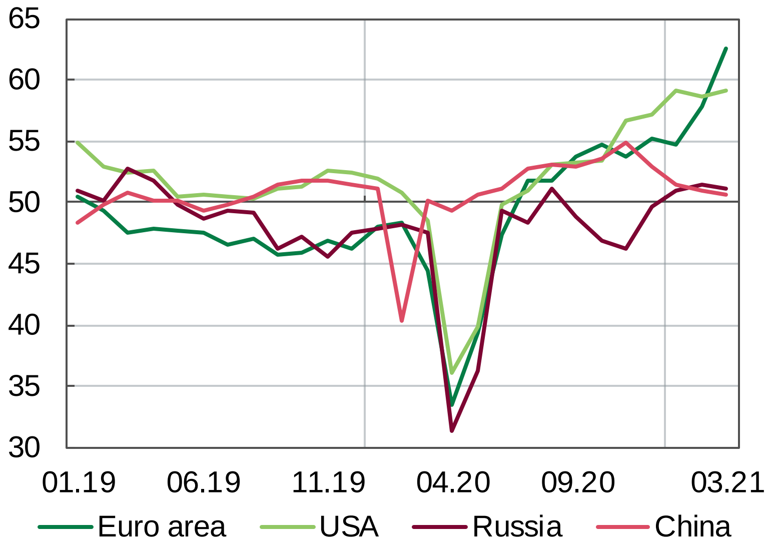
April 27
2021

Summary

- **Vaccine rollout and large-scale stimulus measures world-wide have boosted global economic recovery.** Global commodity prices have remained high
- **Trading partners' inflation has been rising.** Several central banks of these countries have already started normalizing their monetary policy
- **Inflation has also been on the rise in Ukraine** (accelerated to 8.5% yoy in March). Along with cost-push factors, steady consumer demand was a contributing factor. The risks to the inflation forecast have increased, and uncertainty remains high
- **Economic activity was weaker than expected** early in the year, both due to temporary and fundamental factors, such as animal production, competition, trade restrictions
- **Despite favorable global commodity prices in Q1 2021 the trade balance remained almost unchanged.** Growth in imports recovered strongly by all major components (energy, consumer and investment goods)
- **Fiscal policy remained socially focused, but turned out to be restrictive for the whole economy in Q1**
- **The rapid acceleration of inflation and high inflation expectations determines stronger response of the NBU** (key rate +1 pp)

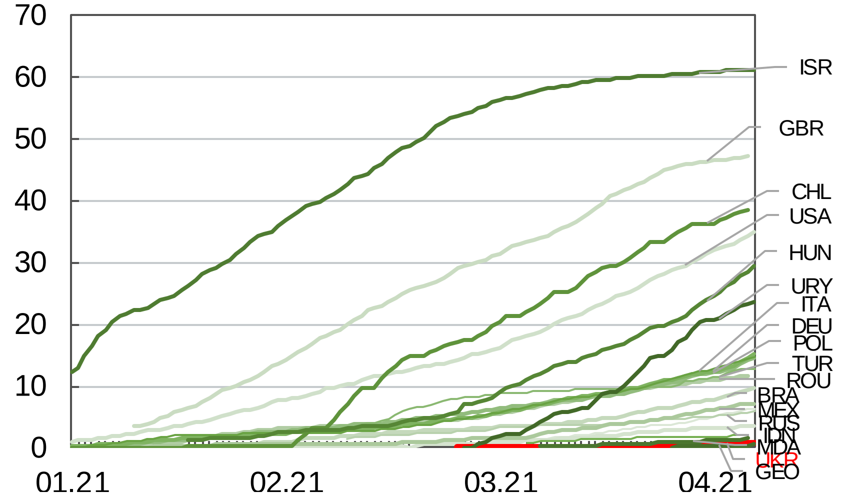
The global economy has continued to recover due to vaccination rollout, large-scale stimulus, increased optimism

Manufacturing PMI of selected countries



Source: IHS Markit.

Vaccination level, % of population that received at least one doze

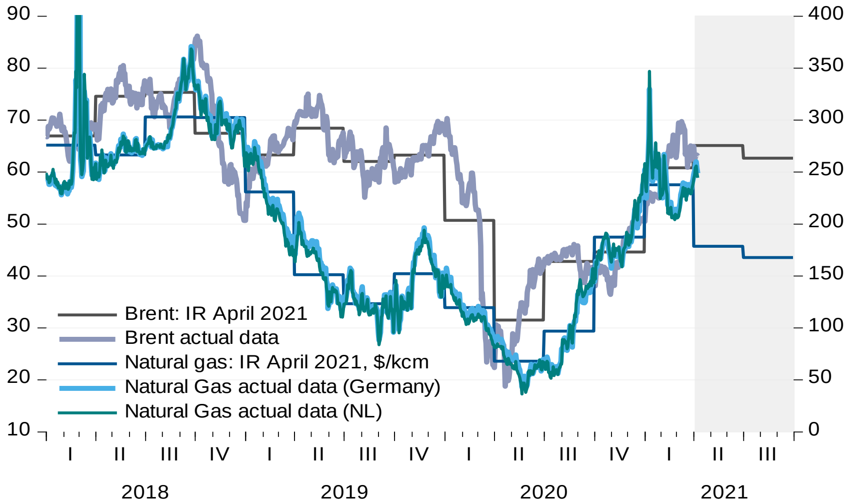


Source: Our world in data, as of 10.04.

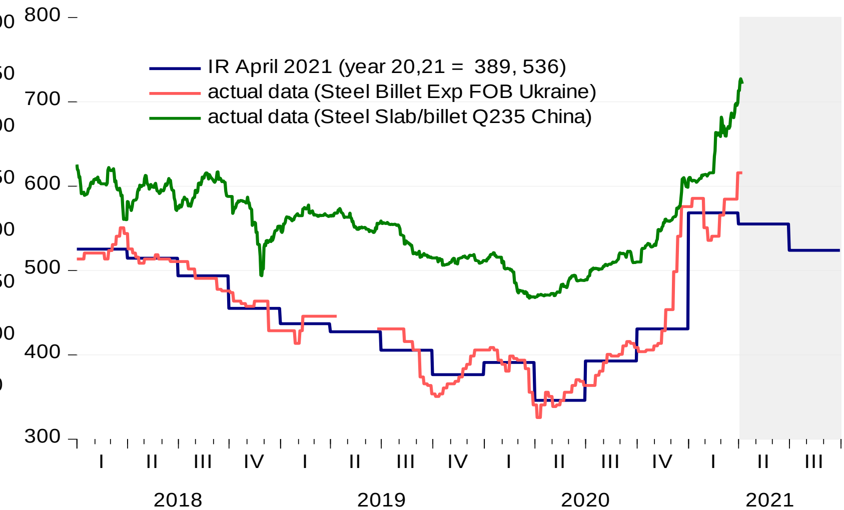
- Leading indicators signal improved sentiment of both businesses and households (despite lockdowns in several countries)

World commodity prices remain high due to global recovery

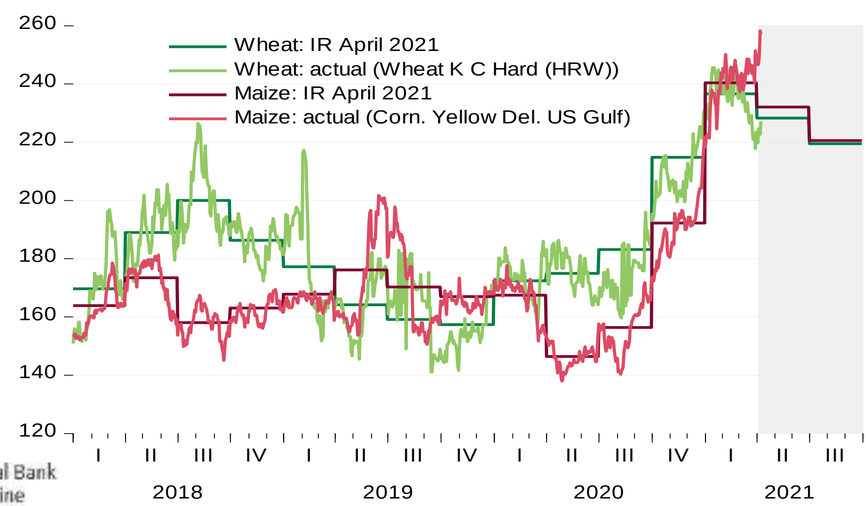
Brent and Natural Gas World Price



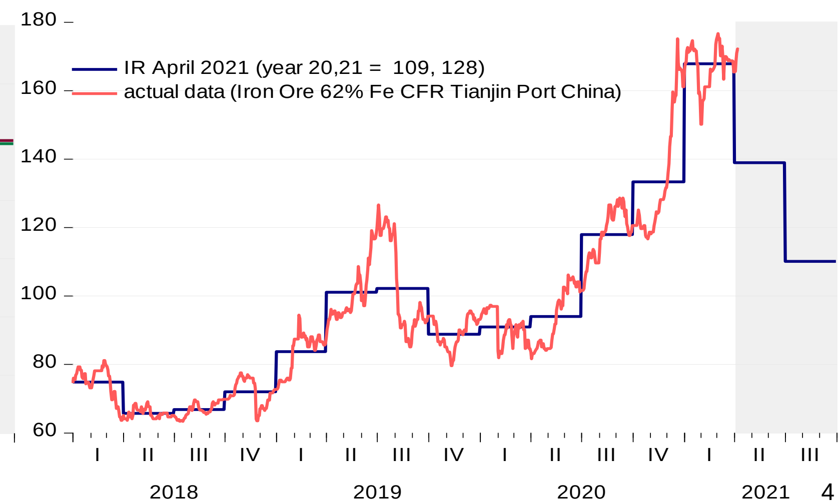
Steel World Price, USD/MT



Wheat and Maize World Prices, USD/MT



Iron Ore World Price, USD/MT



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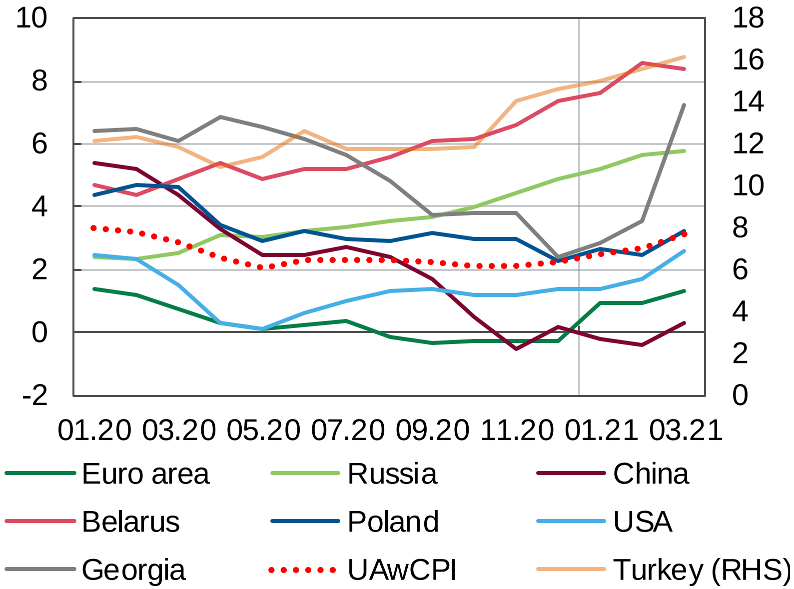
Source: Refinitiv, NBU estimates.

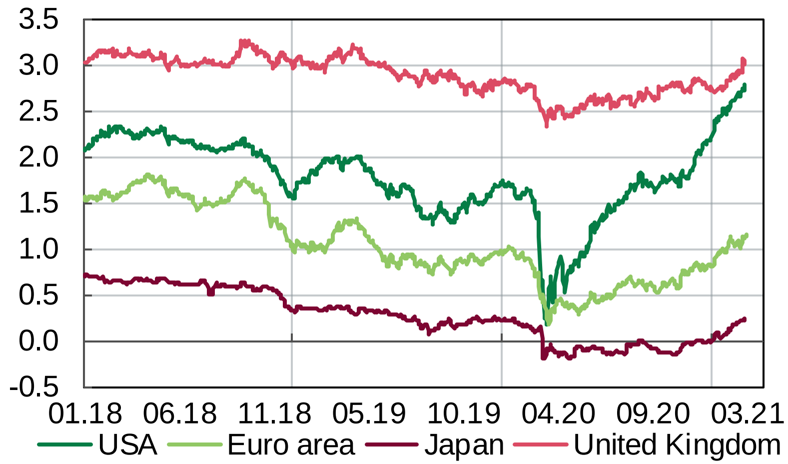
High world prices amid rising costs push up inflation in Ukraine's MTPs

CPI in selected countries, % yoy



Source: national statistical agencies.

Market Inflation Expectations*, %

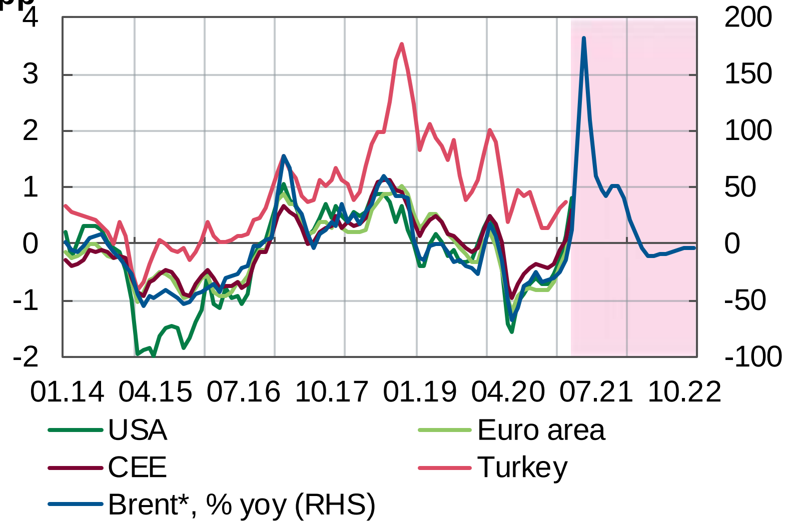


* Yield differential between 10-year government benchmark and inflation-indexed bonds.
Source: OECD.

- Uptick in inflation in 2021 is, in general, of a temporary nature – supply side effects and low base of previous year
- Inflation expectations in the leading countries, excluding the U.S., remain subdued, in particular due to the weakness of labor markets
- This allows the leading central banks to maintain loose monetary policy
- The rise in the U.S. bonds yields amid the strengthening dollar reduced appeal for EM assets

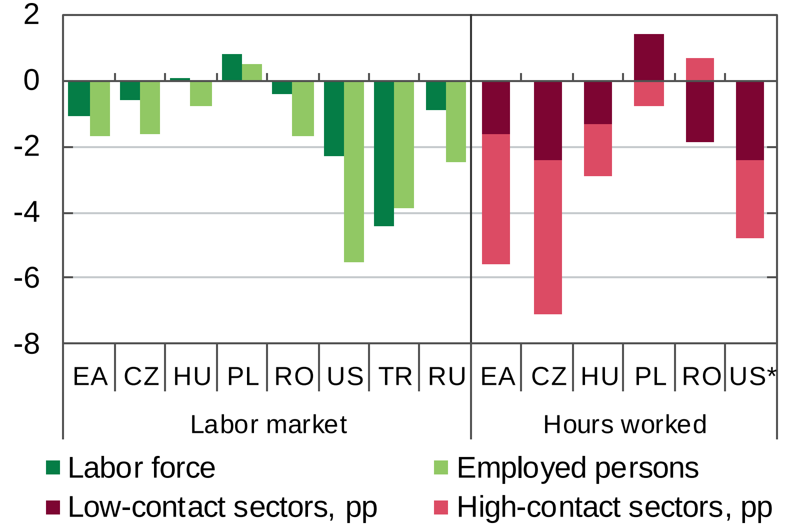
Box. Uptick in inflation in 2021 is, in general, of a temporary nature

Change in Brent oil price, yoy, and contributions of energy to annual change in CPI of selected countries, pp



* 1-month lag.
Calculated using dynamic weights.
Source: Eurostat, OECD, IMF, NBU staff forecast & estimates.

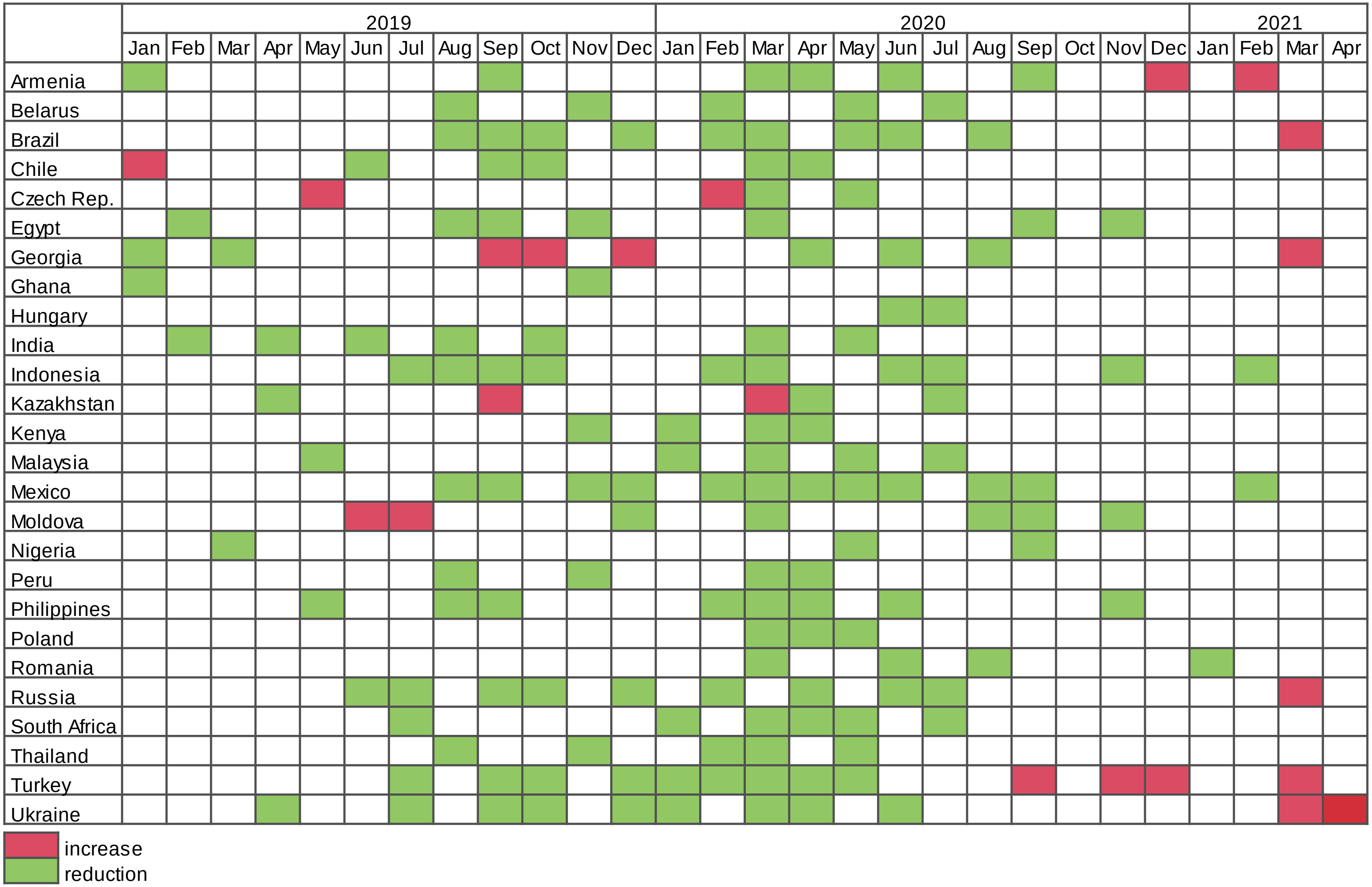
Changes in labor force, employed persons, and hours worked in 2020Q4, % yoy



* US - private non-farm sector.
High-contact sectors: retail and wholesale trade, transport, arts, entertainment, sports, accommodation and food services.
Source: national statistical offices, NBU staff estimates.

- In the current year, a number of temporary factors (increase in energy prices and freight rates, supply shortages of selected goods) will impact inflation, leading to its acceleration in advanced economies and emerging markets
- Fundamental inflation pressures, however, will remain subdued amid still weak labor markets and consumer demand
- Major CBs will continue to conduct easy monetary policy. By contrast, EM central banks can hardly ignore the spike in inflation in 2021, given shorter history of inflation targeting and less anchored inflation expectations

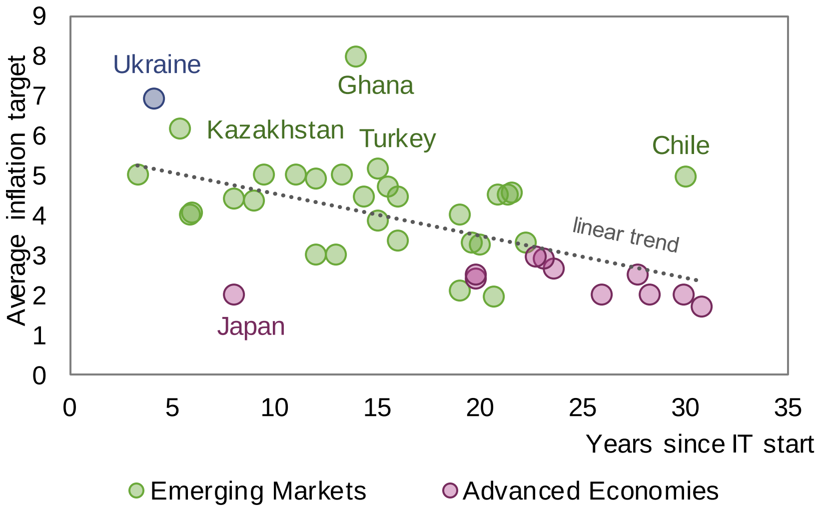
Movements in key policy rates in EM countries in 2019-21 years



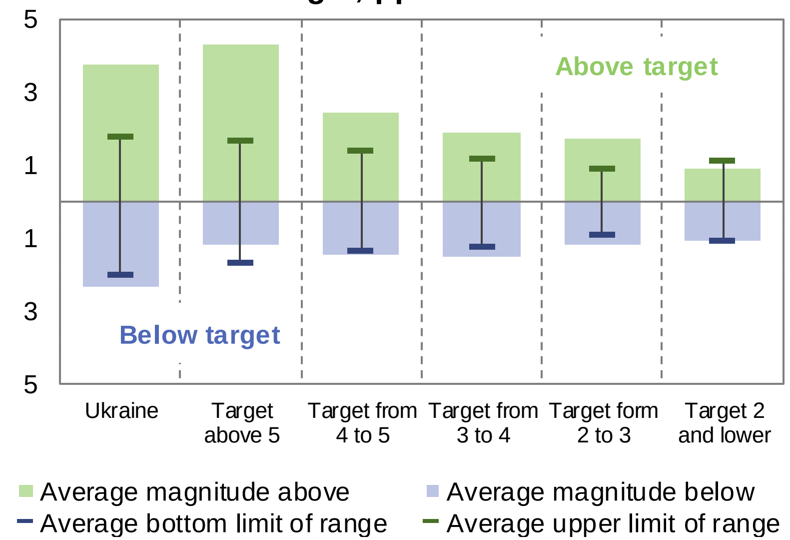
Source: official web-pages of central banks.

Box. The IT performance in Ukraine is generally in line with experience of other countries with a similar IT age and target level

Relationship between the average inflation target and the age of IT framework across countries



Average magnitude of deviations from the target center* in Ukraine and across groups of countries with different levels of inflation target, pp

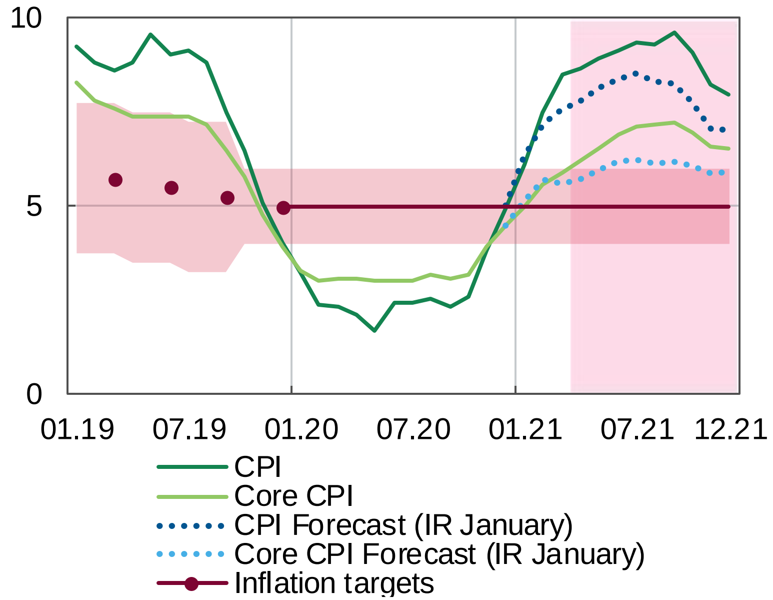


* Based on monthly inflation data, assuming that the inflation target is constant during the year, apart from Ukraine and Czech Republic, who announced a smooth decline in the inflation target in the course of the year
Source: NBU estimates based on SSSU, IMF and central banks websites.

- IT framework is flexible: central bank may tolerate temporary deviations of inflation even from the target range, given the balance of risks for inflation and economic outlook
- Inflation deviations are associated with two parameters: the level of the target and experience in the IT implementation. Ukraine is a young targeter, while the average inflation target is one of the world's highest. The average magnitude of inflation deviation is in line with experience of other countries with high inflation targets
- Further implementation of consistent IT policy will likely reduce the magnitude, frequency and the duration of inflation deviation from the target

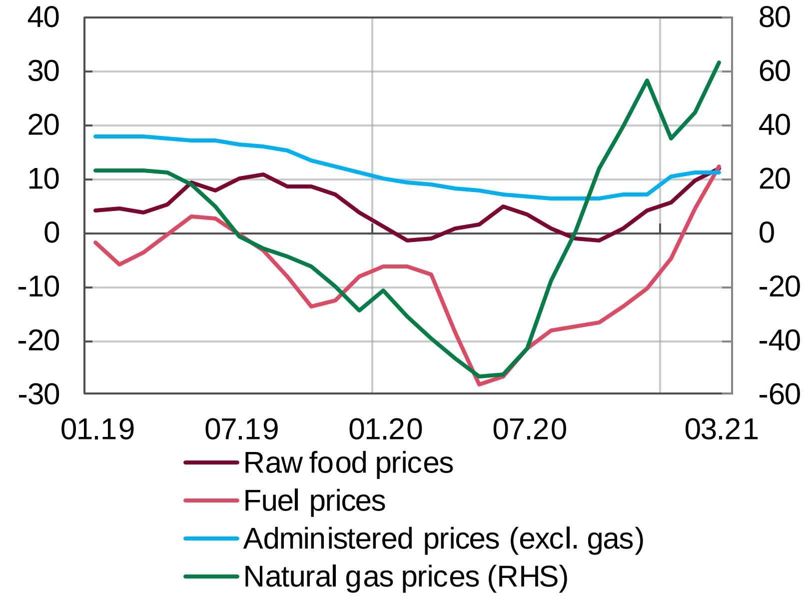
Inflation has been accelerating in Ukraine. Along with cost-push factors, steady consumer demand was a contributing factor

Headline and core CPI*, % yoy



Source: SSSU, NBU.

Main components of non-core CPI,% yoy

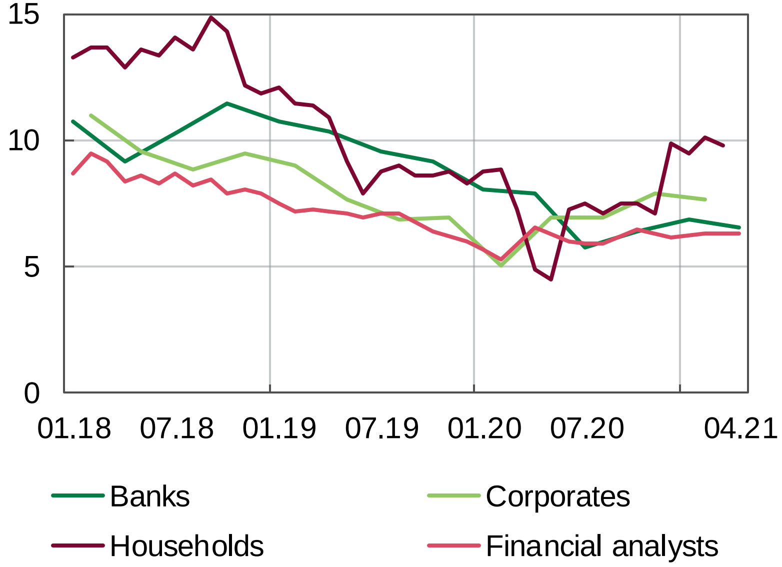


Source: SSSU, NBU staff estimates.

- As in previous months, inflation accelerated primarily due to higher prices for certain foods amid difficult situation in animal production and high external prices
- Inflation of services also picked up due to rising costs, including labor costs, and sustained consumer demand, despite quarantine restrictions

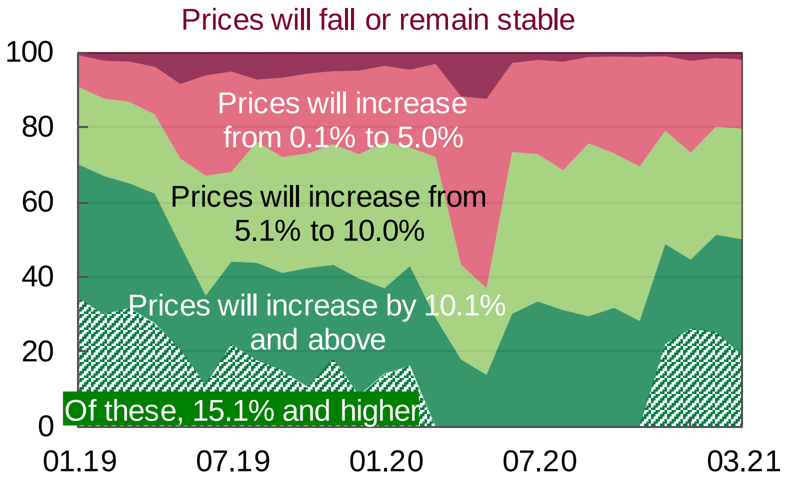
Inflation expectations, although improving marginally amid better exchange rate expectations, stayed on elevated levels

Main components of core CPI,% yoy



Source: SSSU, NBU staff estimates.

Households expectations distribution for the next 12m, %

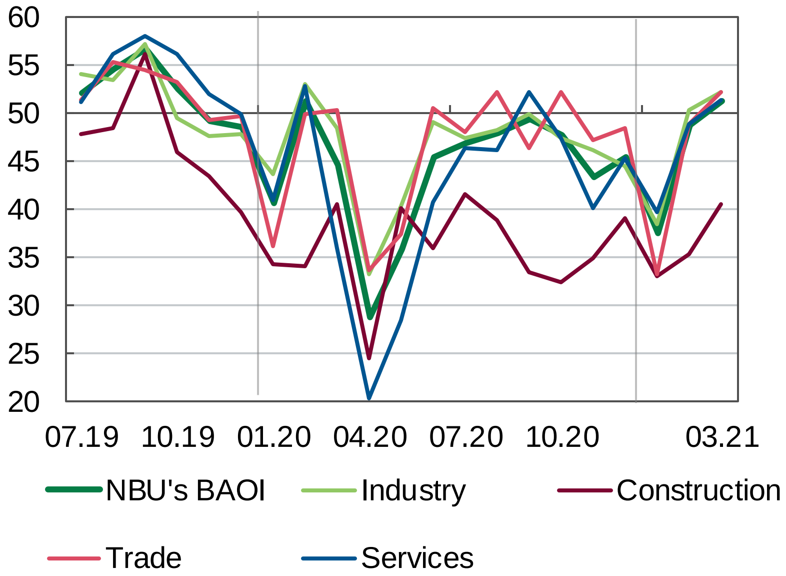


Source: НБУ, GfK Ukraine, Info Sapiens.

- Elevated inflation expectations also signaled about heightened inflation pressures
- The share of households that expect prices to rise by more than 10% remained significant
- This is primarily due to the rapid rise in price for staples

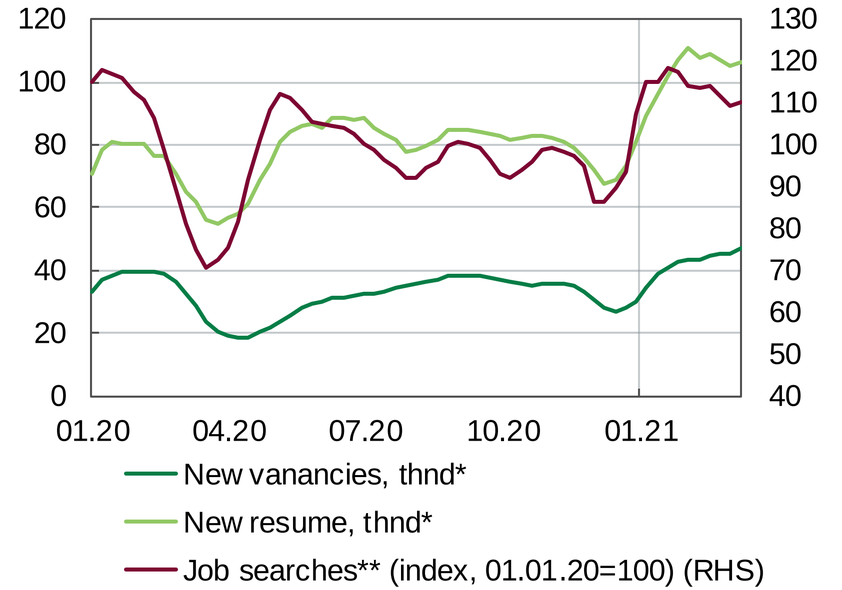
Business activity outlook and labor demand remain solid, despite of quarantine

NBU's business activity outlook index, p



A level above 50 indicates an expansion or growth, below 50 - a contraction. Source: NBU.

Selected high-frequency indicators of labor market



* Data from work.ua

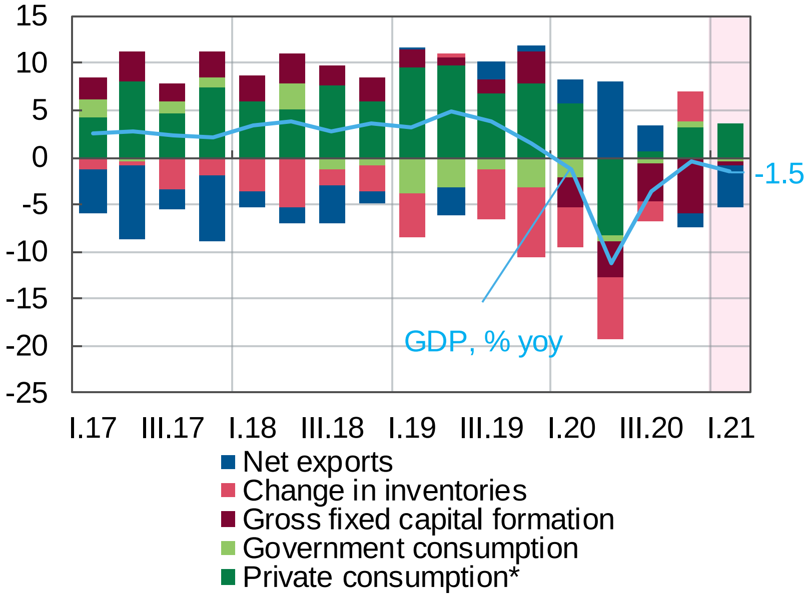
** Includes job search queries in Ukrainian and Russian, index – first week 2020 = 100.

Source: SSCU, work.ua, Google Trends, NBU staff estimates.

- Meanwhile, interest in job-seeking has weakened as the pandemic situation deteriorated

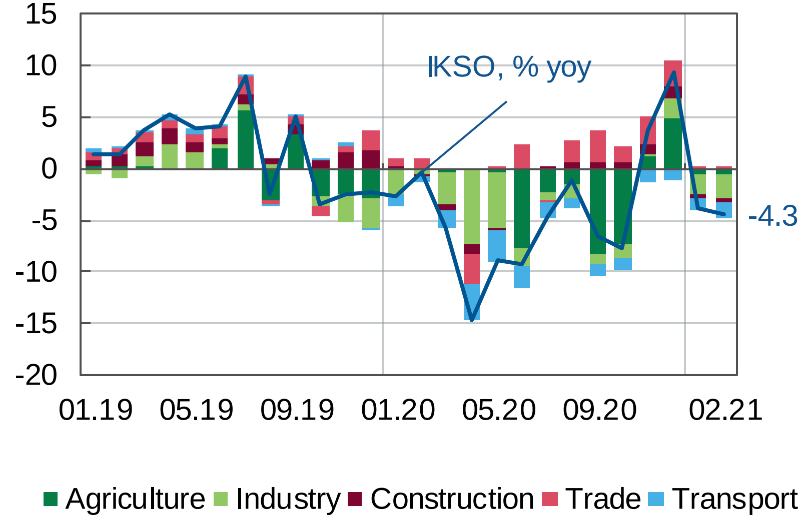
Economic activity weakened in early 2021 due to a number of both temporally and fundamental factors

Contributions to annual GDP growth by final use, pp



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

Contributions to the annual changes of Index of Key Sectors Output, pp



Source: SSSU, NBU staff estimates.

- Q1 real GDP estimates was downgraded (to -1.5% p/p) due to weak real sectors data, connected with:
  - increased competition in some foreign markets (metallurgy products)
  - extension of trade restrictions by the Russian Federation (engineering)
  - difficult situation in animal production and energy
  - unfavorable weather conditions
- The impact of the "red zones" quarantine in March on annual real GDP was estimated at -0.1 pp
- However, private consumption supported economy and the low base of comparison in March of last year should generate a positive contribution

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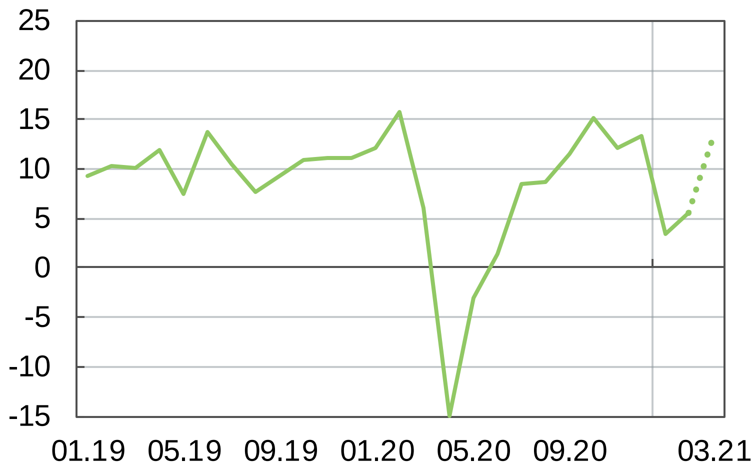
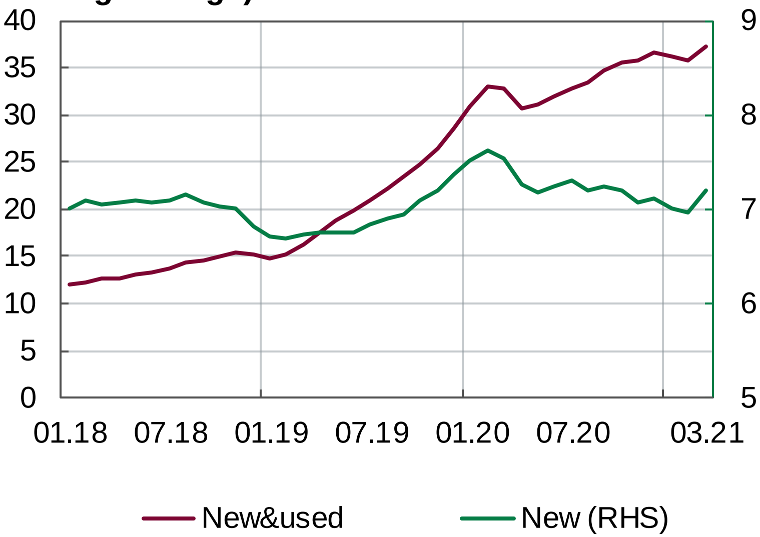
Private consumption remained solid

Retail trade, % yoy



Source: SSSU.

First registered vehicles, thousand units (12-month moving average)



Source: Ukravtoprom, MIA, SFS, NBU staff estimates.

- Despite the January lockdown, retail trade continued to grow, accelerating in February
- High frequency indicators show that demand remained stable in March despite the quarantine of the "red zones":
  - record car sales
  - accelerating consumer imports
  - improved dynamics of the number of flights

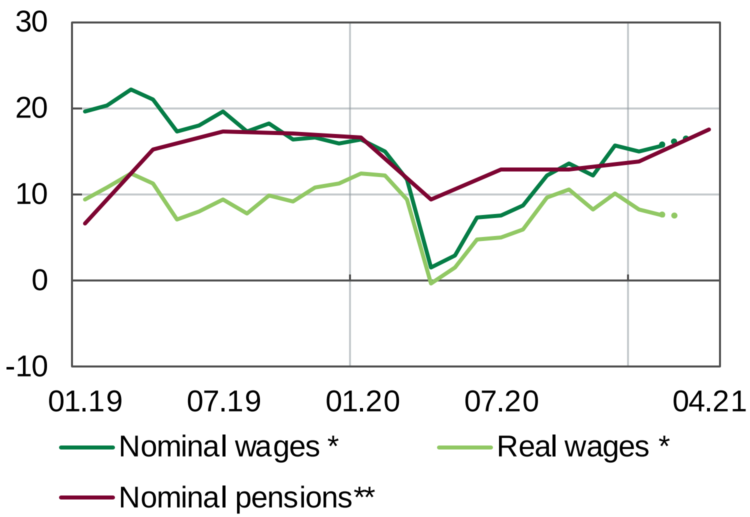
Selected categories of consumer import, % yoy

	01.21	02.21	03.21
Household appliances	5.9	15.6	46.4
Groceries	-3.1	13.7	30.8
Clothes and footwear	-37.3	-6.4	48.6

Source: SCS, NBU staff estimates.

Consumption has been supported by increased wages and pensions, government social programs and improving sentiments

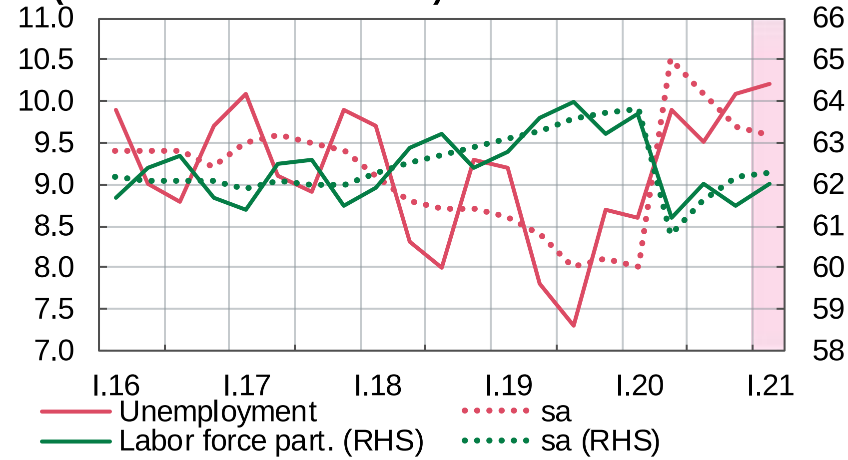
Nominal and real wages and pensions, % yoy



* March – nowcast based on SSC.
** Pensions at the beginning of the quarter.
Source: SSSU, PFU, NBU staff estimates.

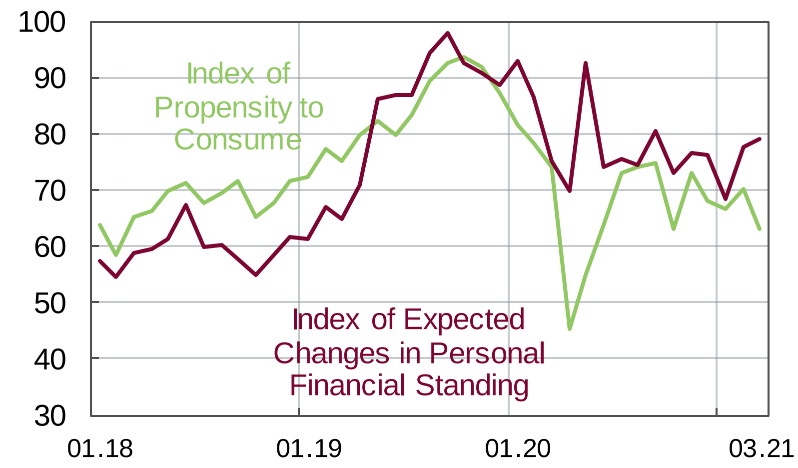
- The labor market has been improving, albeit slowly
- Pensions and wages have been increasing further at relatively fast paces
- Government has continued to support workers and private entrepreneurs subject to quarantine

ILO unemployment* and labor force participation rate, % (dash line – sa indicators)**



* As a % of population aged 15–70 in the labor force.
** As a % of total population aged 15–70.
Source: SSSU, NBU staff estimates.

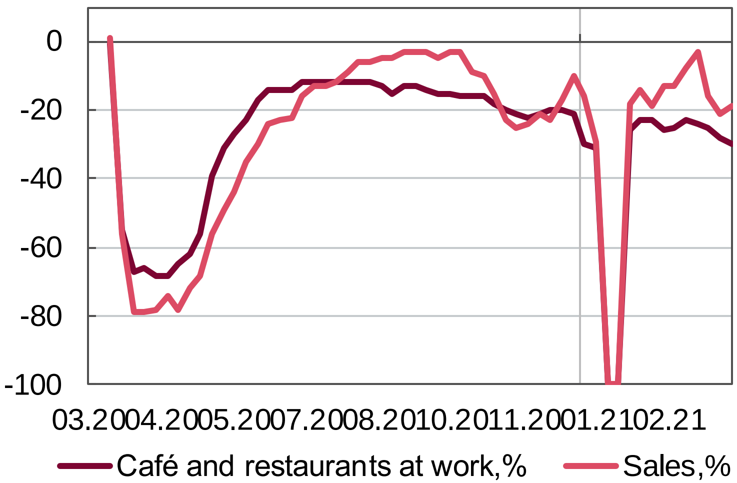
Selected indicators of consumer sentiment



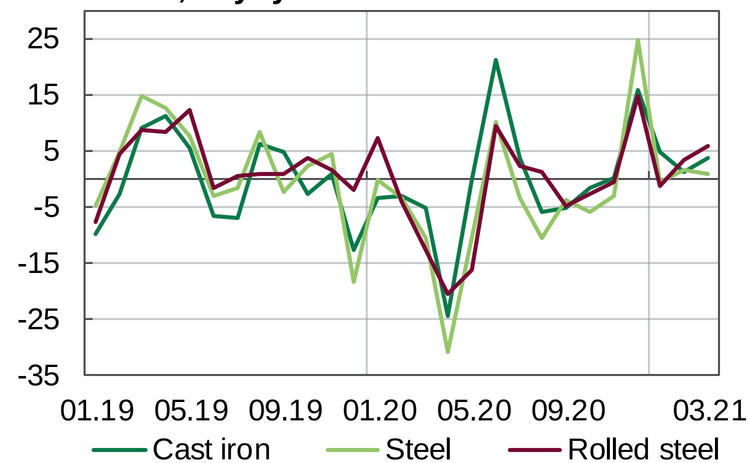
Source: InfoSapiens, GfK Ukraine.

The quarantine has almost no influence on productions sectors. Businesses and households have largely adapted to it

Activity of cafés and restaurants, % to pre-quarantine level

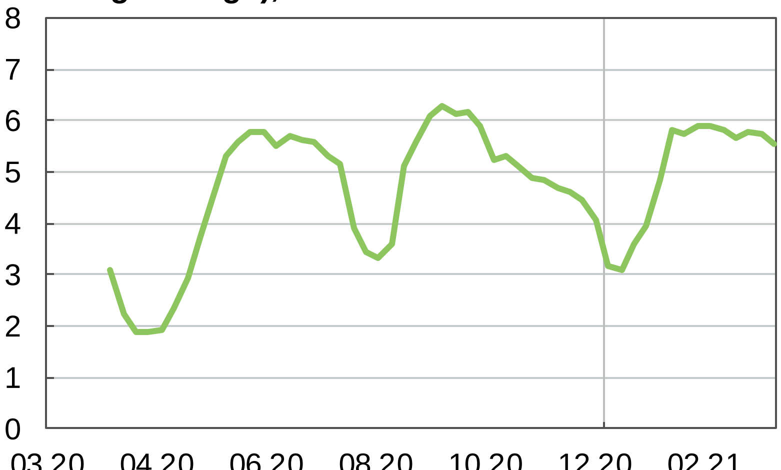


Average daily production of of steel, cast iron and rolled steel, % yoy



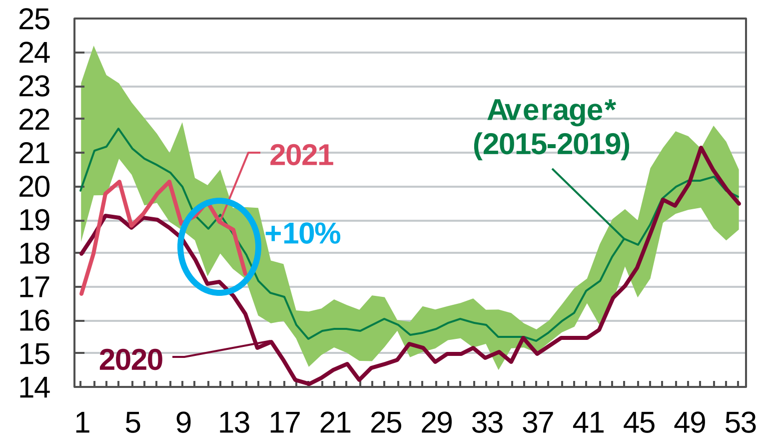
Source: Ukrmetallurgprom, NBU staff estimates.

New individual entrepreneurs registration (4-week moving average), thousand



Source: opendatabot.

Average daily power generation capacity e/e, GW



* Green field presents capacities range in 2015 – 2019.
1 – week from 01 January.
Source: "Ukrenergo".

Nonetheless, quarantine will have an adverse impact on economic activity, although not as strong, as it was last year

Impact of quarantine restrictions in Q2 on annual GDP

	04	05	06	Annual real GDP
Baseline scenario (11-12 oblasts & Kyiv)*		1/3		-0.4-0.5
Soft, all Ukraine	soft			-0.2
	soft	soft		-0.6
	soft	soft	soft	-0.8
Hard, all Ukraine				-0.5
	hard	hard		-1.0
	hard	hard	hard	-1.5
Mix, all Ukraine		soft		-0.8

* As of April 11, 2021.

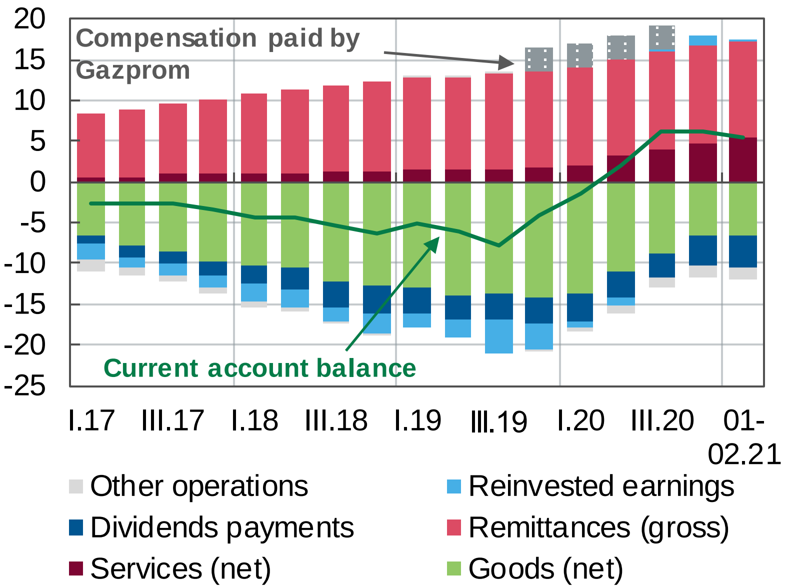
Levels of epidemic danger in Ukraine

Source: MOH.

- Actual restrictions in some regions appeared to be tighter than expected (restrictions on public transport) and may last longer (until May 10?)
- According to the new baseline scenario, the impact of quarantine restrictions on Q2 annual real GDP is estimated at -0.4-0.5 pp, with the overall impact of -0.5-0.6 (with March effect)

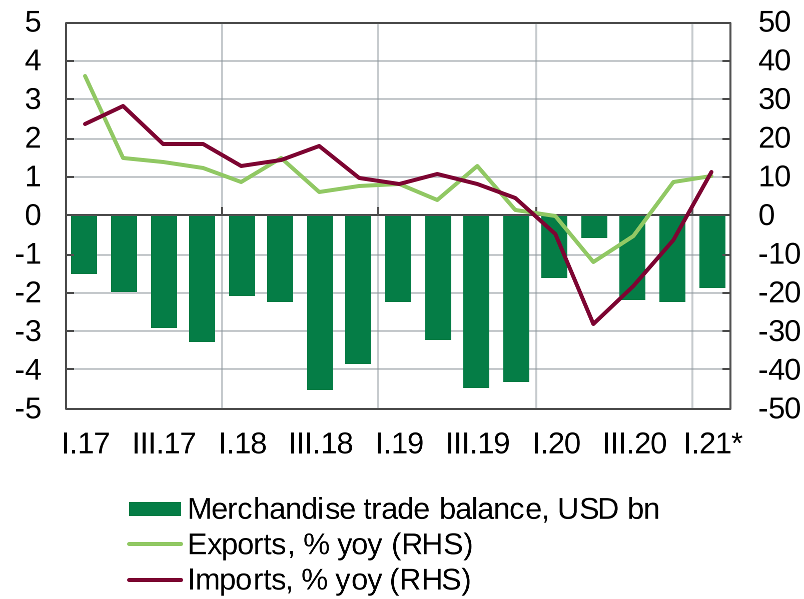
Despite high world prices for export goods, the merchandise trade deficit remained almost unchanged

Current account balance by main components, 12-rolling, USD bn



Source: NBU staff estimates.

Merchandise trade

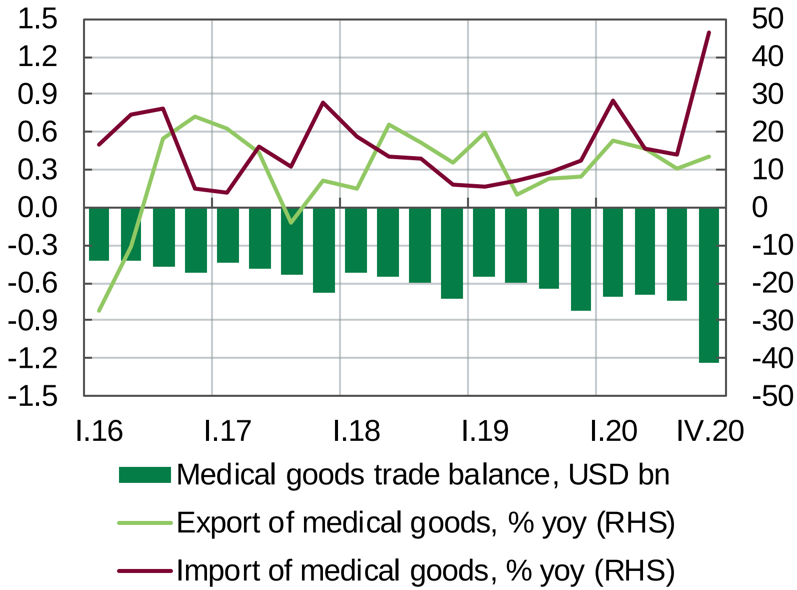


* Estimated data for March 2021.
Source: NBU.

- Exports have been rising thanks to high prices. At the same time, Ukraine didn't take a full advantage of favorable global prices due to:
  - lower stocks of agricultural products as a result of a lower harvest
  - increased competition in selected markets
  - restrictions imposed by Russia and still weak Europe's economic recovery
- However, imports rose sharply on account of all components - energy, consumer and investment
- At the same time, the CA surplus was maintained due to trade in services and still significant remittances

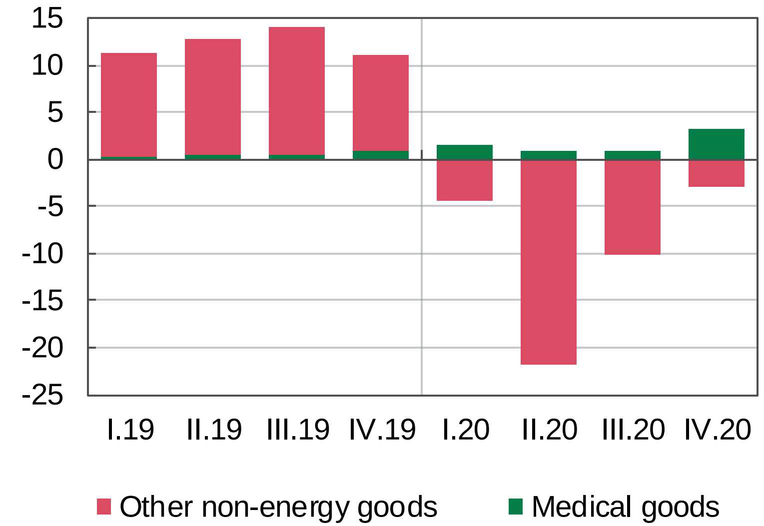
Box. Fight against the pandemic has intensified trade in medical goods globally, as well as in Ukraine

Ukrainian trade in medical goods



Source: NBU staff estimations.

Contributions to annual change in Ukrainian non-energy imports, pp

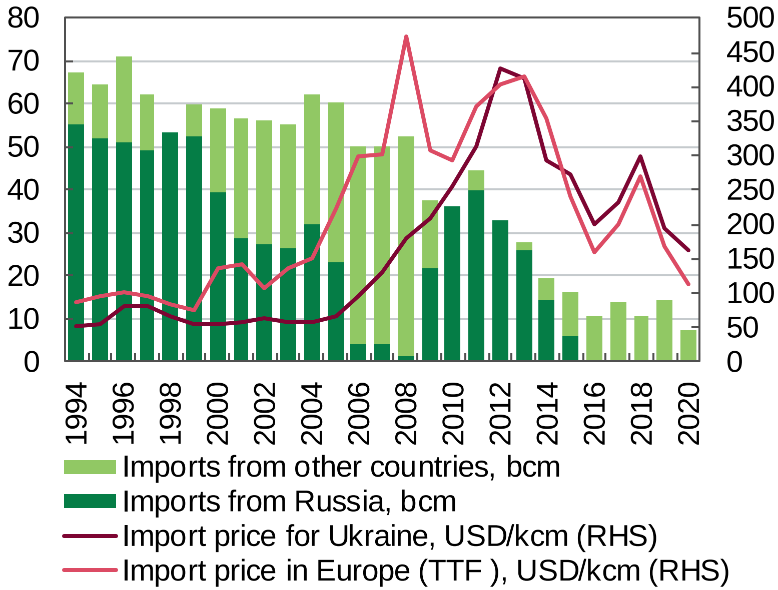


Source: NBU staff estimations.

- Against the background of the pandemic, world foreign medical goods trade turnover grew by 15.8% YoY in the 1H of 2020. The US, China, and Germany were the key players on this market
- Ukraine has also significantly increased the trade value in this category:
  - Supported mostly by pharmaceuticals and reagents for the production of coronavirus tests, exports of medical goods from Ukraine expanded by 14.2%. Although the share of these categories remained low
  - Meanwhile, imports growth was more pronounced (27.4%) due to medical equipment and pharmaceuticals categories. This restrained non-energy imports decline in 2020

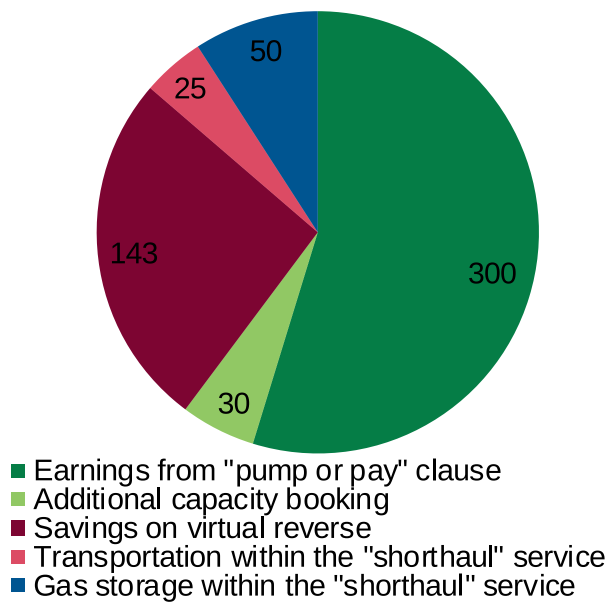
Box. The new transit contract for 2020-2024: amat victoria curam

Natural gas import volumes and price



Source: World Bank, NBU staff estimations.

Benefits from the new transit contract in 2020, USD mn.

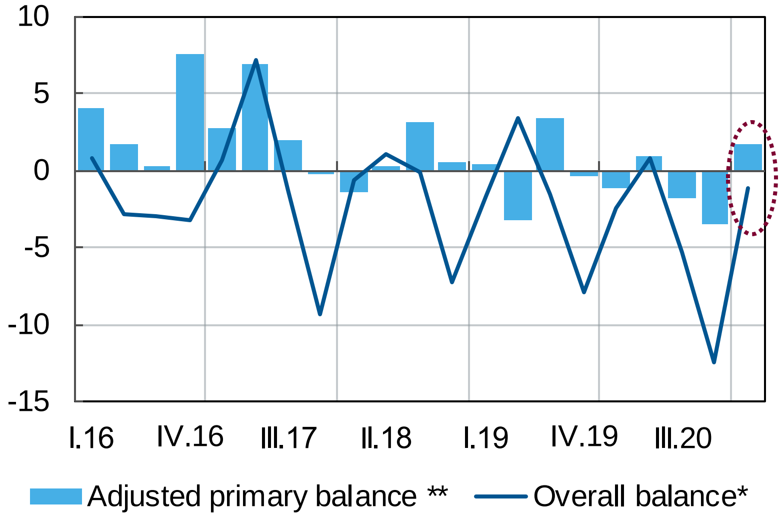


Source: World Bank, NBU staff estimations.

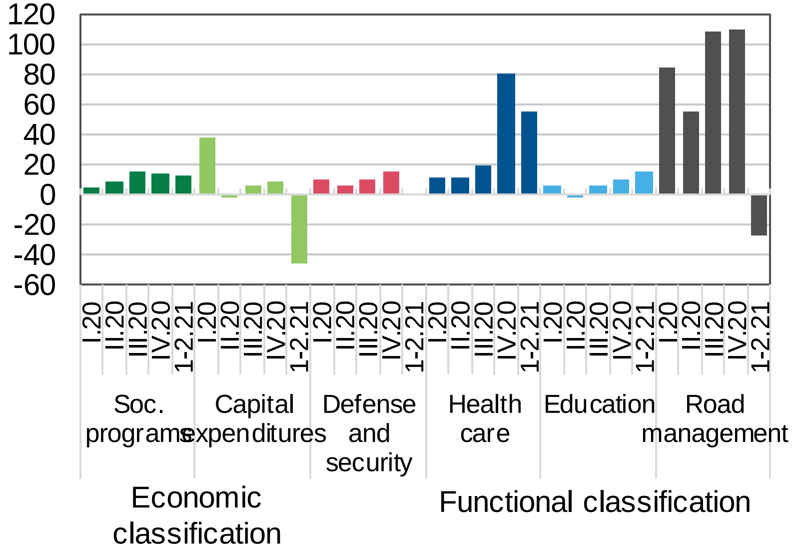
- The gas transit contract with Russia signed at the end of 2019 set a number of favorable provisions for Ukraine (establishment of the minimum volumes of gas transit on the 'ship-or-pay' principle, and elimination of binding to mandatory gas purchases from Russia etc.)
- In the course of the contract preparation during 2014-2019, a range of sectoral issues accumulated in previous years has been resolved – gas market liberalization, expansion of opportunities for GTSU to provide its services
- According to the NBU staff estimates, the benefits of the current contract amounted to USD 0.5 bn in 2020. Although further efforts needed for the market development and maintaining the country's transit status

Fiscal policy remained socially focused, but turned out to be restrictive for the whole economy in Q1

Fiscal balance indicators, % of GDP



Growth in consolidated budget expenditures by selected areas,% yoy

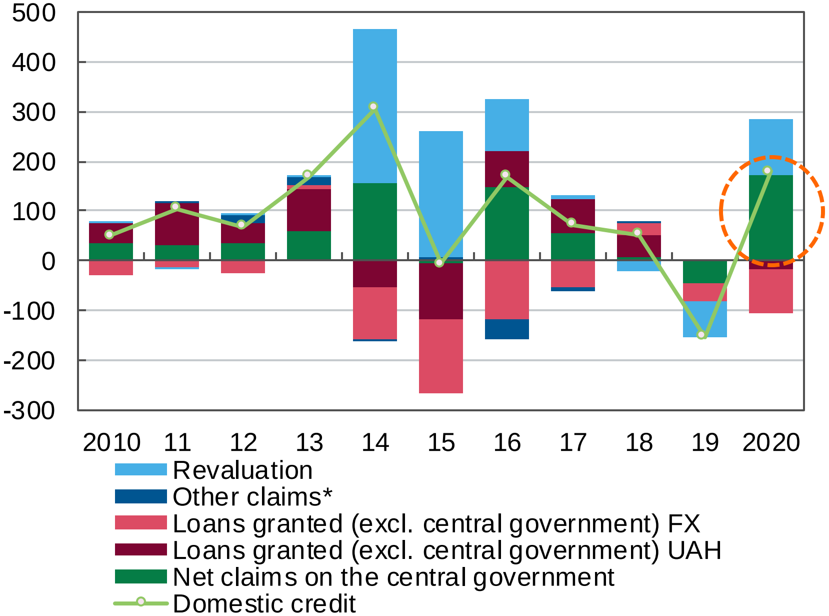


*Overall balance (% of GDP) is the consolidated budget balance, taking into account loans to the Pension Fund from the STA.
** Cyclically adjusted primary fiscal balance (CAPB) of the general government (% of potential GDP). CAPB is the difference between seasonally adjusted.
For Q1 2021 - preliminary data.
Source: Treasury, NBU staff estimates.

- Expenditures on social programs (wages, assistance to the poor, support for the period of quarantine restrictions) and health care remained a priority
- The moderate consolidated budget deficit and the positive cyclically-adjusted primary balance indicate a restraining effect on the economy as a whole, including through a reduction in capital expenditures

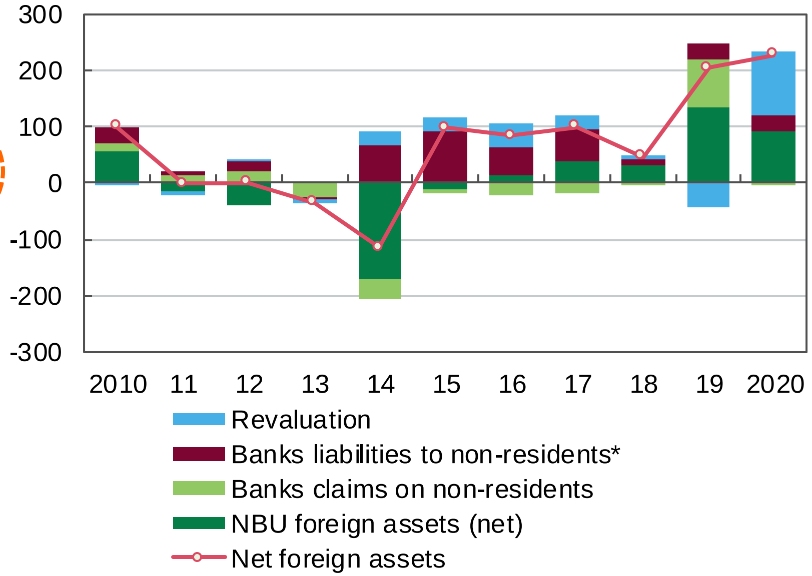
Box. Significant expansion of M3 and increase in private sector lending are not always synchronous processes

Changes in domestic credit, UAH bn



* - investments in other securities (excl. central government)

Changes in net foreign assets of the banking system, UAH bn



* A positive value means a reduction in liabilities

- The money supply grew by almost a third in 2020 - the highest rate in 12 years
- However, despite the domestic credit growth, loans to the private sector declined both due to the general weakening of lending during the crisis and the intensification of banks' write off non-performing loans
- The reason for the growth of domestic credit and the money supply was primarily substantial government borrowing to finance the expanded budget deficit
- Under the IT regime, what matters is not the amount of money in the economy, but its value

Macroeconomic forecast: summary

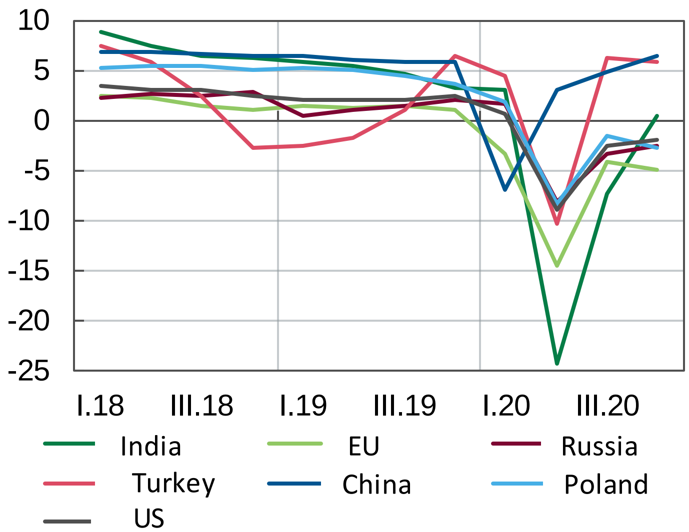
- **The world economy will recover** due to large-scale vaccination and QE programs
- **High prices on the world commodity markets** (despite some downward) due to high demand and relatively limited supply
- **The economy will grow on the back of the world economy recovery**, high export prices and the easing of restrictions
- **In 2021 CA will turn to the deficit** due to recovery of economic activity
- **Inflation will temporarily accelerate** on the back of supply shock, high world food prices and demand recovery. It will return to the target band in 2022 due to fading out of supply shocks and monetary policy reaction
- **The rapid acceleration of inflation determines stronger response of the NBU**

	2019	2020	2021	2022	2023
Real GDP, change, %	3.2	-4.0 (-4.4)	3.8 (4.2)	4.0 (3.8)	4.0 (4.0)
CPI, y-o-y, % (eop)**	4.1	5.0	8.0 (7.0)	5.0 (5.0)	5.0 (5.0)
Core CPI, y-o-y, % (eop)**	3.9	4.5	6.5 (5.9)	3.9 (3.8)	3.9 (3.8)
Current account balance, *% GDP*	-2.7	4.0 (4.4)	-0.8 (-2.0)	-3.6 (-4.2)	-4.5 (-4.9)
Gross reserves, USD bn	25.3	29.1	29.8 (30.7)	29.3 (29.7)	29.1 (29.1)

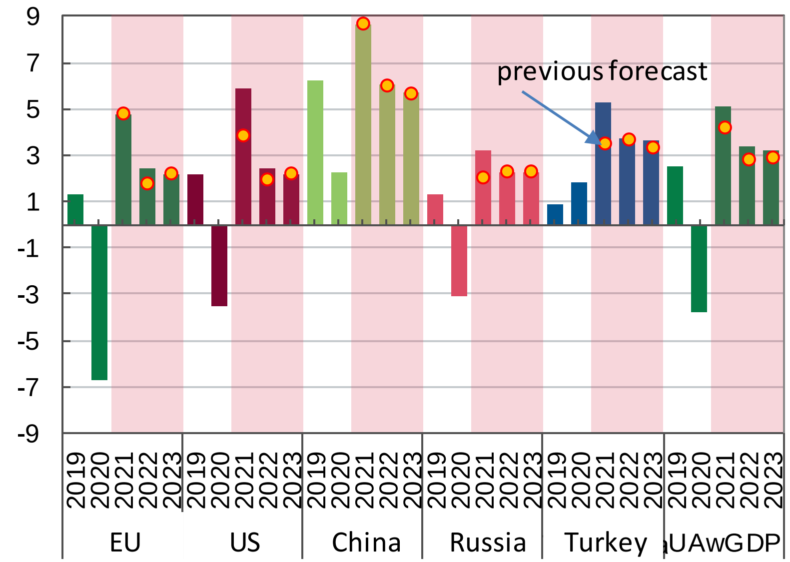
* in brackets – previous forecast (Inflation report, Janury 2021) ** end of period

The world economy will recover due to large-scale vaccination and QE programs

Real GDP, % yoy



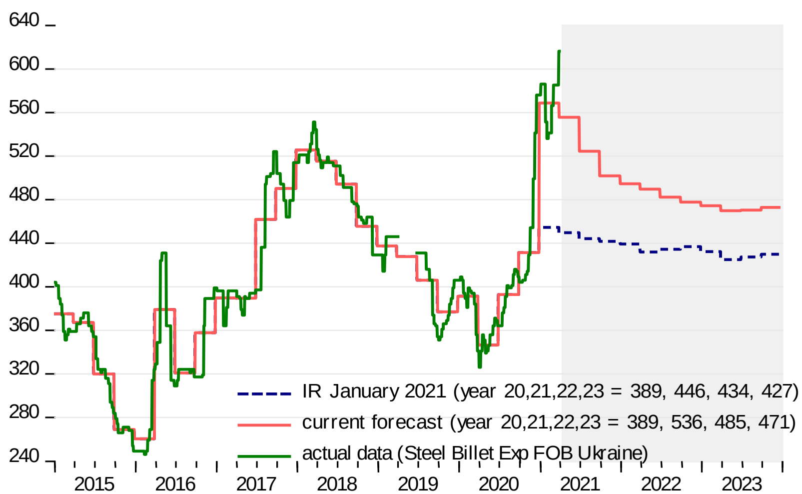
Real GDP of main trading partners, % yoy



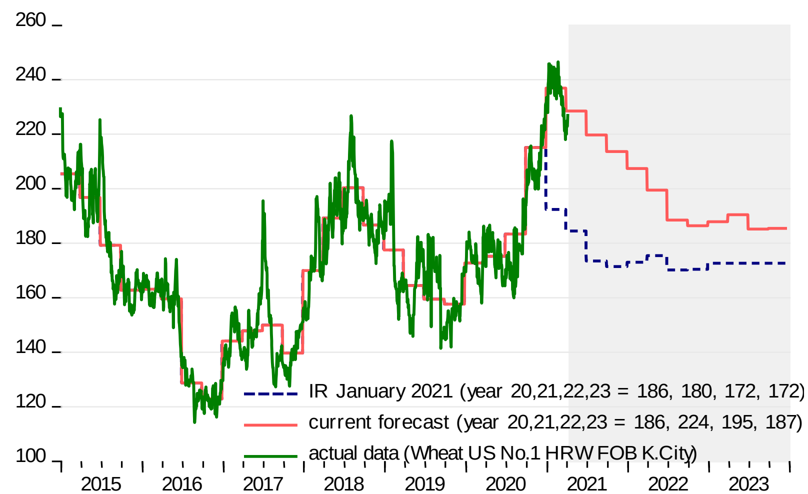
Given the positive business sentiment due to vaccination programs, expectations of global growth have improved

High prices on the world commodity markets (despite some downward) due to high demand and relatively limited supply

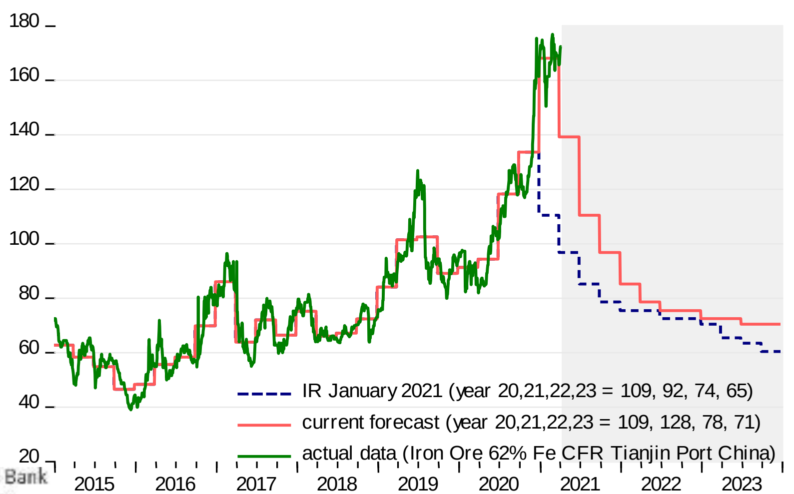
Steel World Price, USD/MT



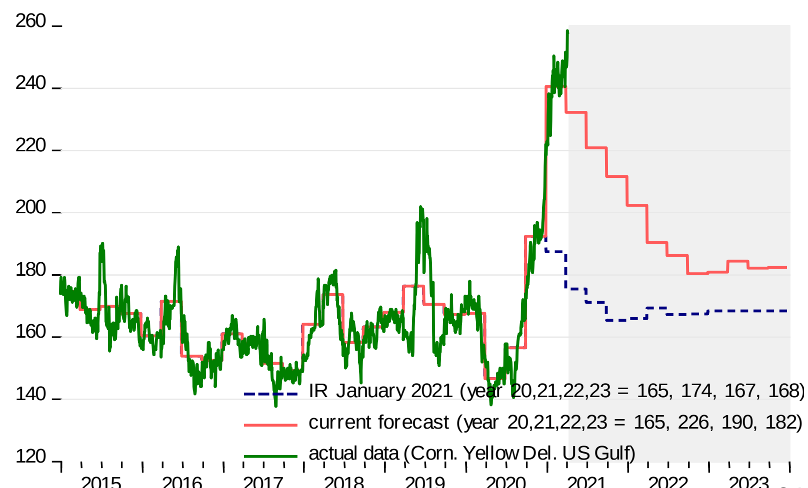
Wheat World Price, USD/MT



Iron Ore World Price, USD/MT

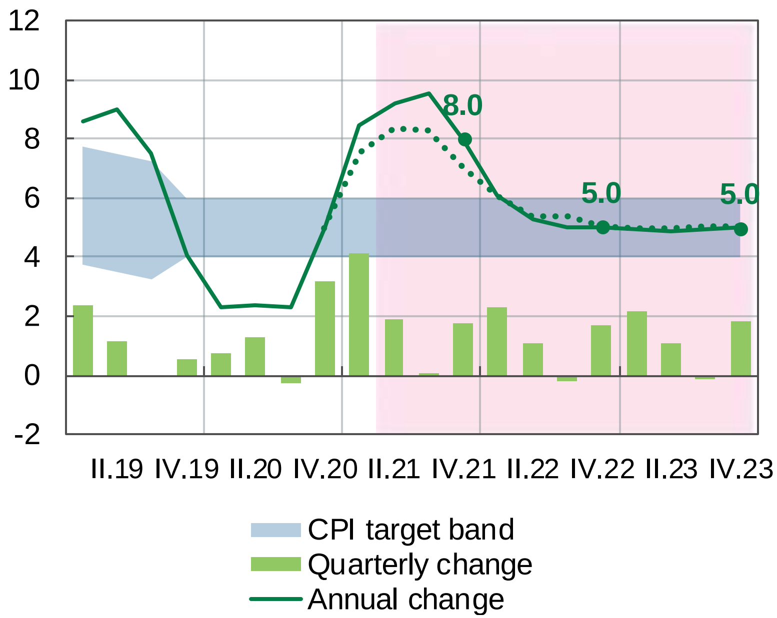


Maize World Price, USD/MT

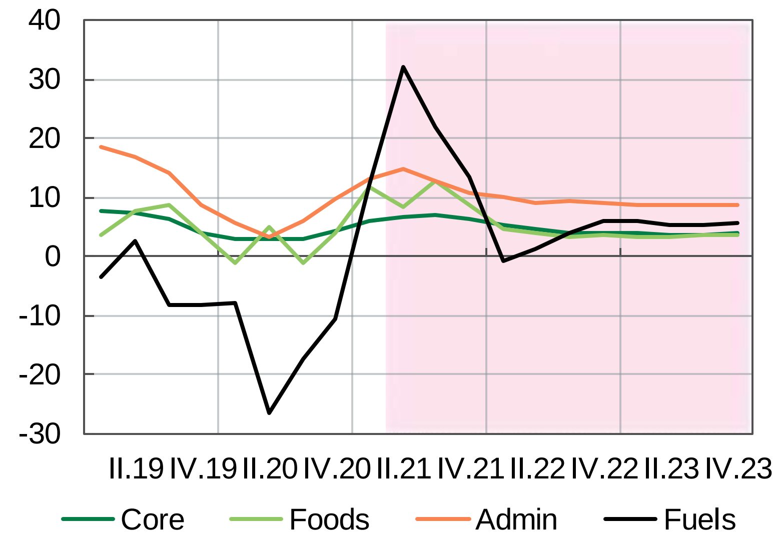


Inflation will temporarily accelerate on the back of supply shock, high world food prices and demand recovery

Headline inflation, yoy, %



CPI components, yoy, %

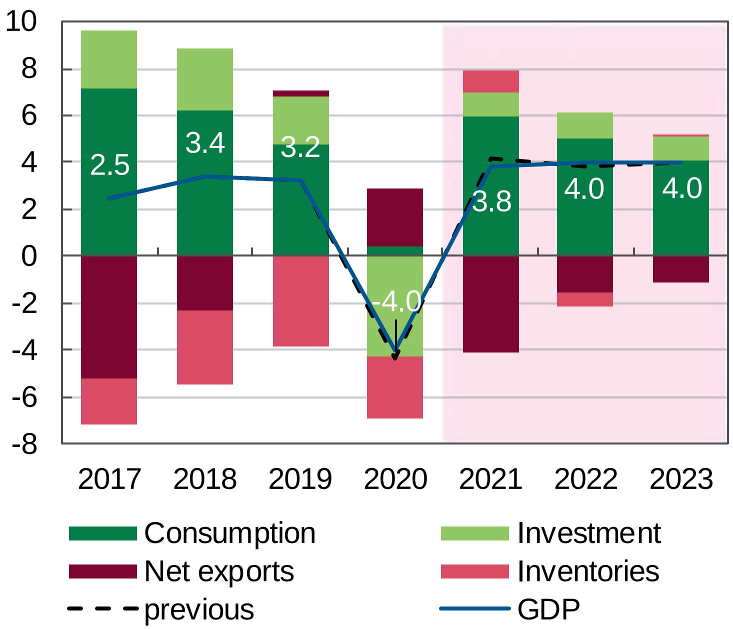


change, %	*weight, %*	2020	2021		2022		2023	
CPI	***100.0***	**5.0**	**8.0**	***7.0***	**5.0**	***5.0***	**5.0**	***5.0***
Core CPI	*59.0*	4.5	6.5	*5.9*	3.9	*3.8*	3.9	*3.8*
Raw food	*19.0*	4.1	8.8	*6.0*	3.5	*3.4*	3.5	*3.4*
Admin	*19.3*	9.9	10.9	*10.5*	9.2	*9.4*	8.6	*9.1*
Fuel	*2.8*	-10.5	13.5	*13.2*	6.0	*6.7*	5.5	*6.0*

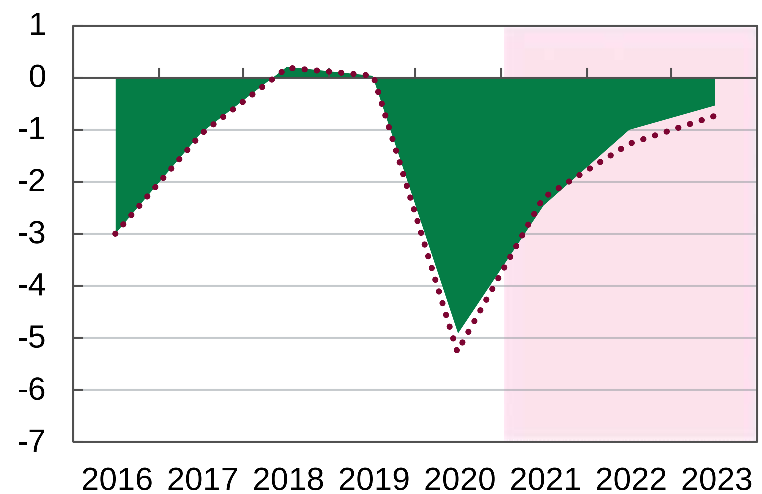
Inflation decline will be facilitated by the new harvest's arrival into the market, the depletion of the low comparison base effect for individual products, and the key policy rate hike by the NBU

The economy will grow on the back of the world economy recovery, high export prices and the easing of restrictions

Real GDP and contributions, pp



GDP gap, %

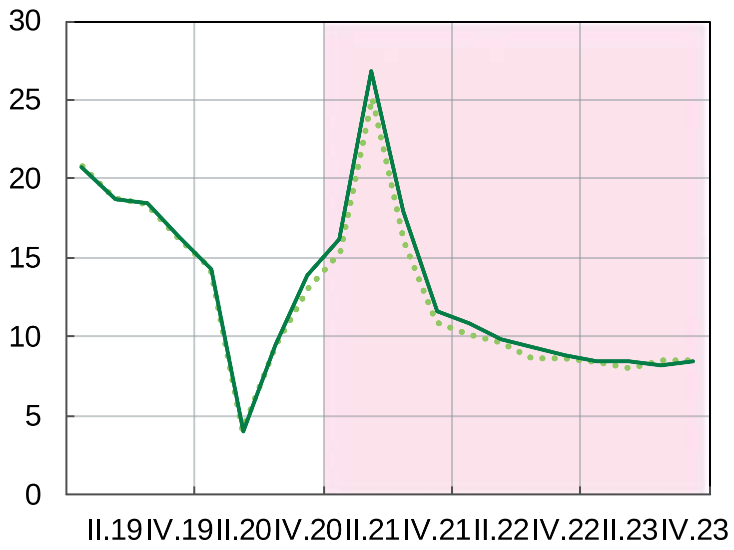


2021 GDP revised downwards due to quarantine effects (-0.6 pp on annual GDP).
The effect on GDP is partially offset by accelerated global economy and higher export prices

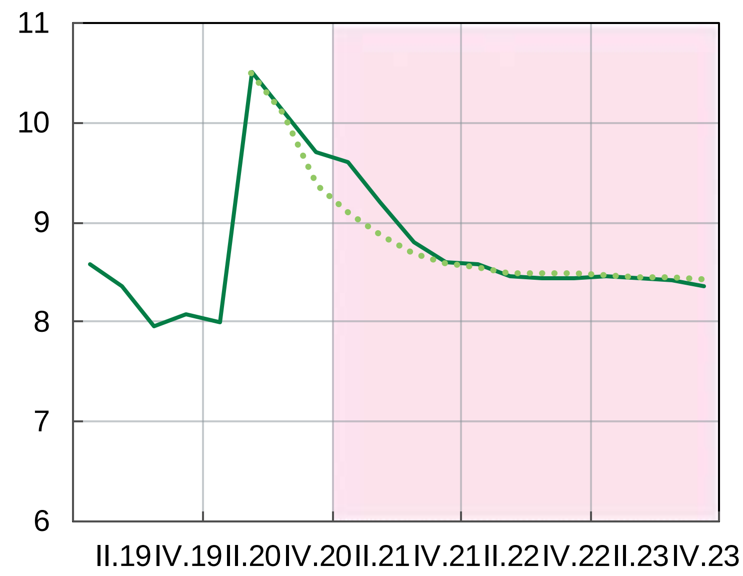
	share,%	2020	2021	2022	2023
GDP	100	**-4.0** (-4.4)	**3.8** (4.2)	**4.0** (3.8)	**4.0** (4.0)
Consumption	87	0.5 (1.0)	6.4 (6.7)	5.3 (4.7)	4.2 (4.1)
Private consumption	66	1.2 (0.7)	7.5 (7.7)	6.0 (5.3)	4.5 (4.5)
Gross fixed capital formation	16	-24.4 (-21.7)	7.5 (12.1)	9.2 (8.0)	8.0 (8.1)
Exports of G&S	48	-5.6 (-5.7)	2.7 (2.7)	2.2 (2.2)	3.0 (3.0)
Imports of G&S	56	-9.6 (-10.6)	13.0 (14.8)	5.5 (6.5)	5.1 (4.6)

Wages grow will accelerate due to economic recovery and the minimum wage hike

Nominal wages, annual change, %



ILO unemployment, sa, %

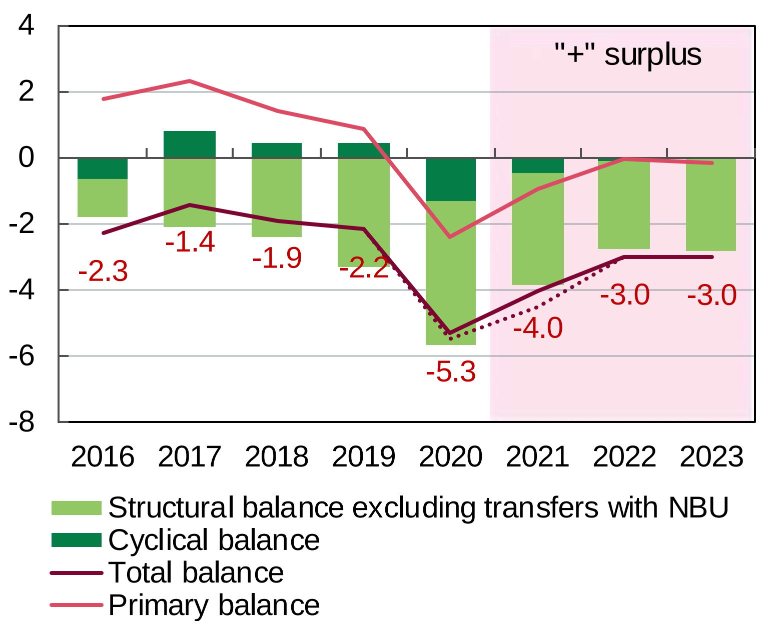


change, %	2020	2021	2022	2023
Real wages	**7.4**	**8.6**	**3.9**	**3.4**
- previous forecast	*7.2*	*8.3*	*3.6*	*3.2*
Nominal wages	**10.4**	**17.8**	**9.7**	**8.4**
- previous forecast	*10.2*	*16.6*	*9.3*	*8.3*

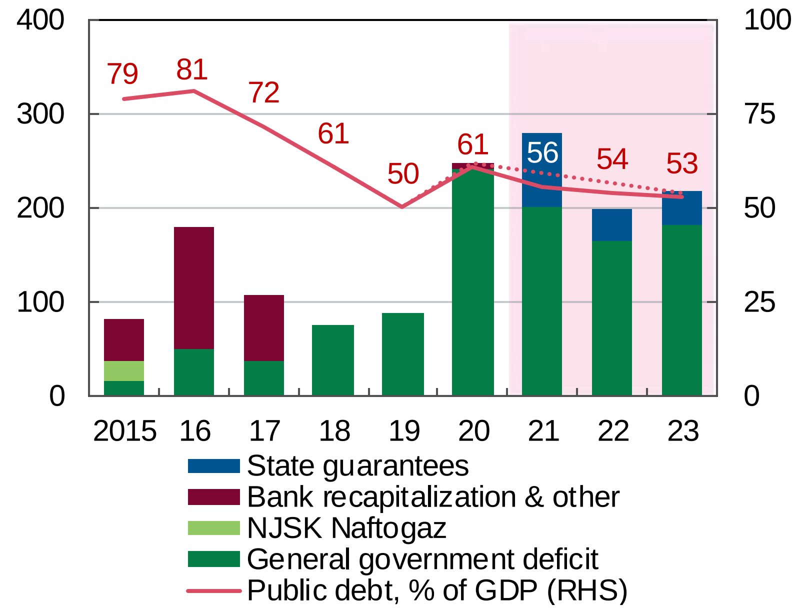
aop	2020	2021	2022	2023
Minimum wage, UAH	**4815**	**6042**	**6625**	**7200**
- previous forecast	*4815*	*6042*	*6625*	*7200*
change, %	***15.4***	***25.5***	***9.7***	***8.7***
- previous forecast	*15.4*	*25.5*	*9.7*	*8.7*

Rapid economic growth will allow to reduce the budget deficit (to 4% in 2021) and the debt-to-GDP ratio

Consolidated Budget Balance, % of GDP



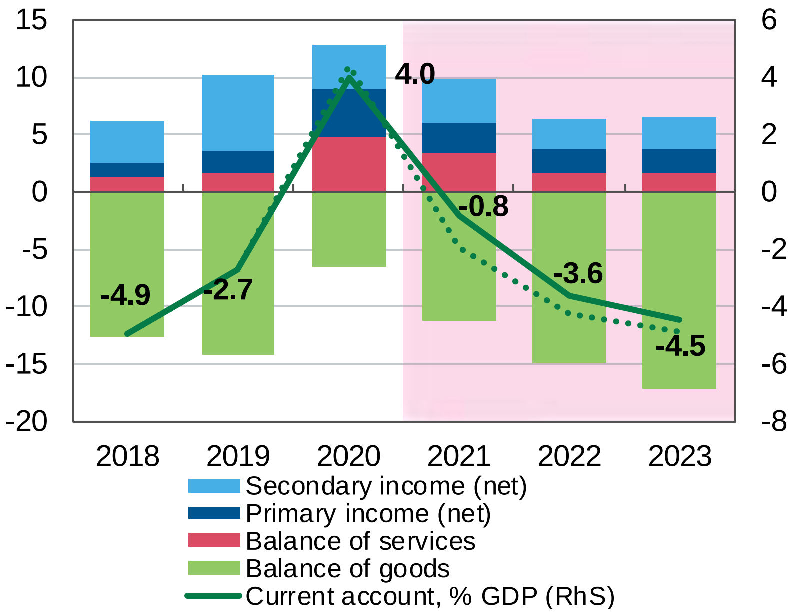
Public sector deficit, UAH bn, and public debt-to-GDP ratio, %



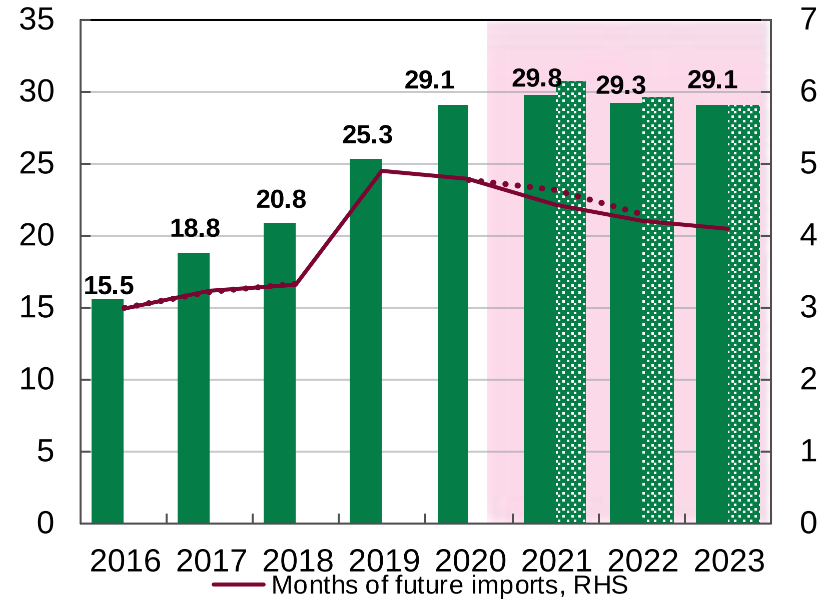
Public debt-to-GDP ratio will gradually decrease from 61% in 2020 due to the rapid growth of nominal GDP and prudent fiscal policy

CA deficit widening is expected due to recovery of economic activity and less favorable terms of trade

Current Account Balance, USD bn



International Reserves, USD bn



Main changes in CAB forecast in 2021-2023 compared with IR January	
Trade in goods	↑↑Terms of Trade
	Volumes of exports: ↓sunflower oil Volumes of imports: ↑chemicals, ↑agro
Primary income	↓ Remittances (2021)

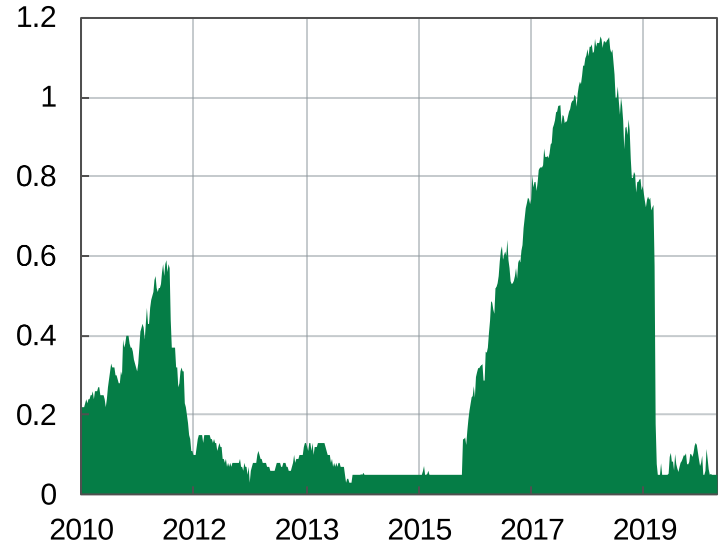
New IMF SDR allocation of $650 bn is possible in 2021

SDR Allocations, SDR[1] bn

Date	World	Ukraine
1970-1972	9.3	-
1979-1981	12.1	-
28.08.2009	161.2	1.0
9.9.2009 (special allocation)	21.5	0.3
Total at 04.2021	**204.2**	**1.3**
New allocation	456.6	1.9
Total, including new allocation	**660.8**	**3.2**

[1] 1 SDR = 1.425 USD (13.04.2021)

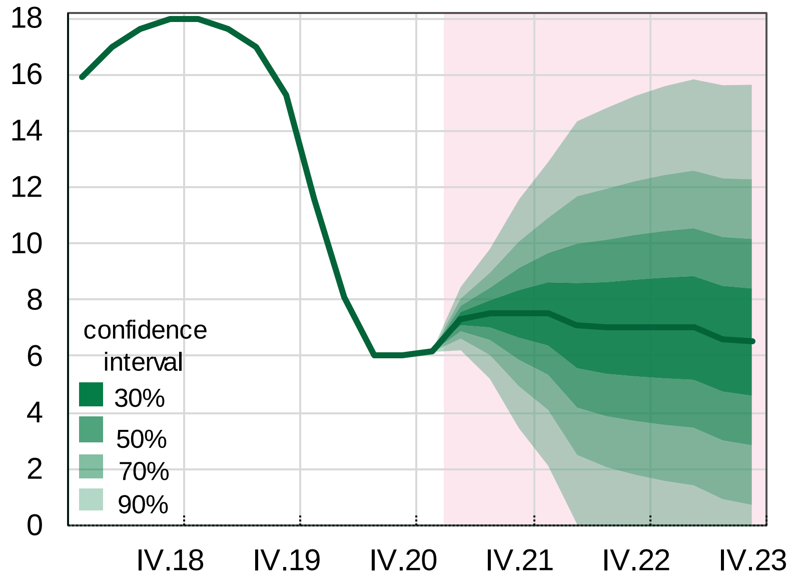
SDR Interest Rate, %



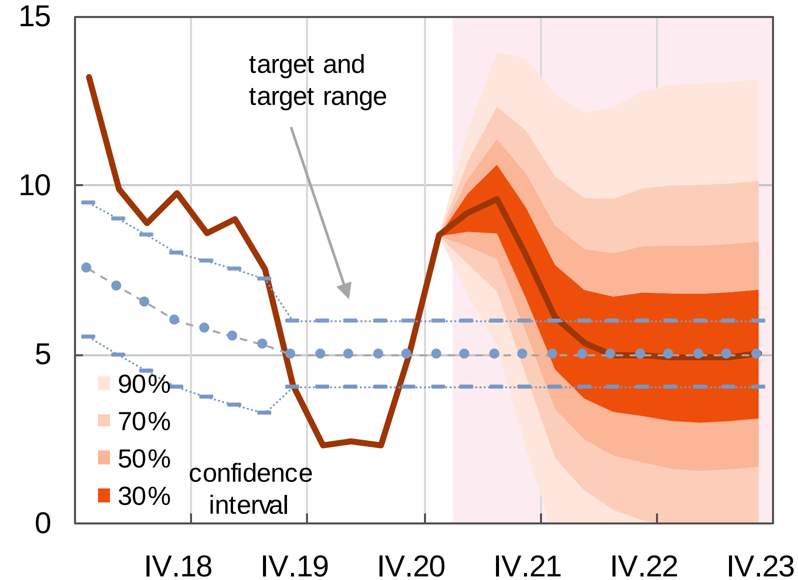
- For Ukraine, this will mean receiving an additional $2.7 bn in international reserves
- At the moment, the SDR rate is 0.05%, interest will be paid only as these funds are used (for example, to finance the budget deficit)
- The SDR allocation will boost Ukraine's international reserves. Whether the funds can be used for other purposes will be additionally decided
- According to external sector statistics (BPM6), this transaction is recorded in both external assets and liabilities. Thus, it does not affect the net external position, but increases the external debt (long-term)

Inflation will return to the target band in 2022 due to fading out of supply shocks and monetary policy reaction

Key rate, %

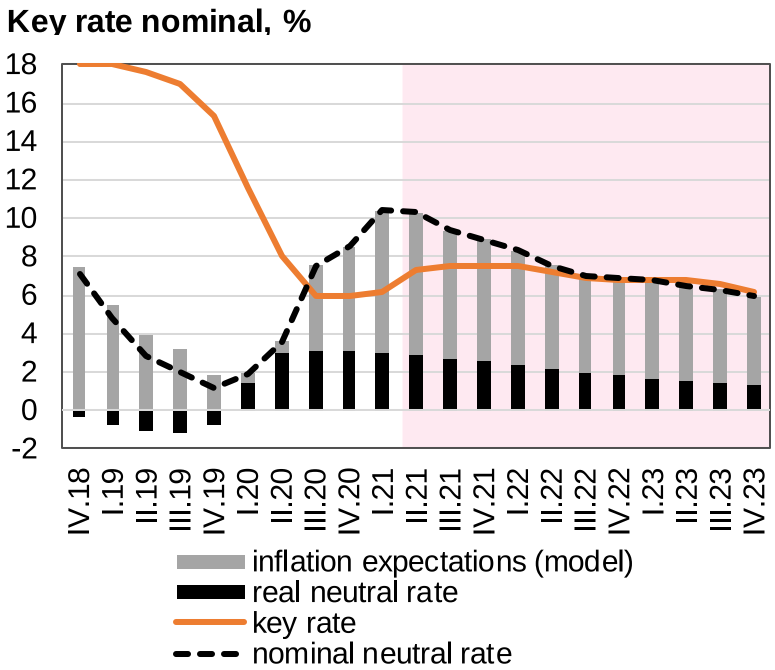


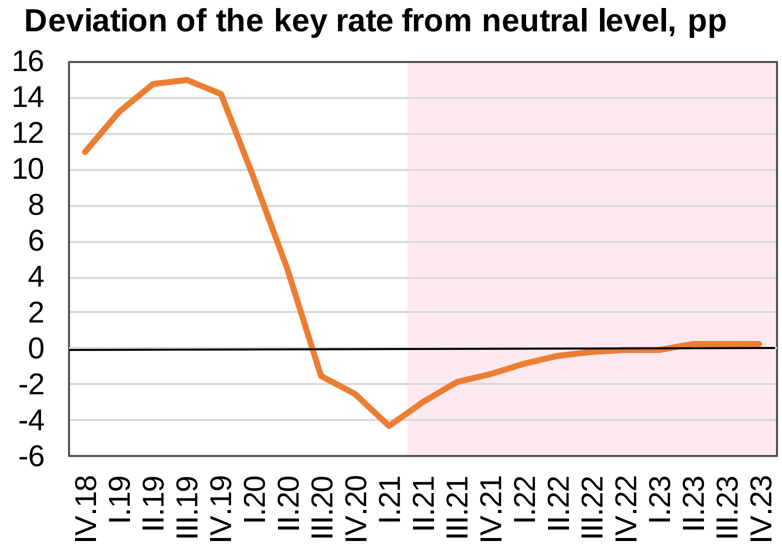
CPI, annual change, %

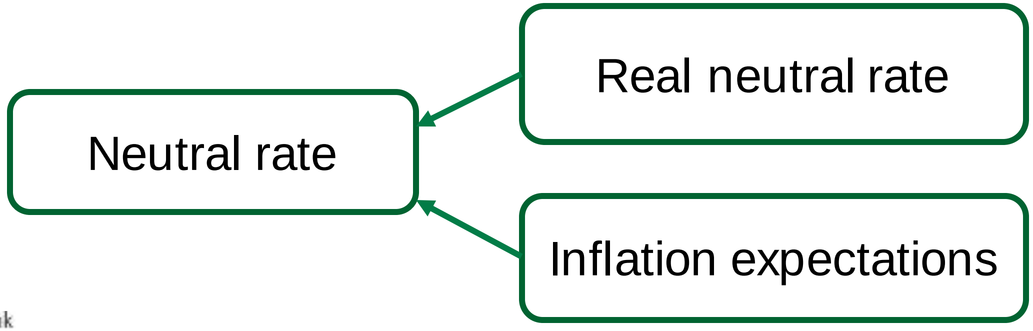


The forecast is given in a fan chart. This chart type is used to illustrate uncertainty with regard to predicted future values. For instance, the probability that the indicator will be in the range of the darkest shaded area in the chart (around the central line) is 30%. The same applies to other chart areas, implying the 90% probability that the indicator will be in the range of the lightest shaded area.

Monetary policy will remain loose until 2022 but loose stance will gradually decrease







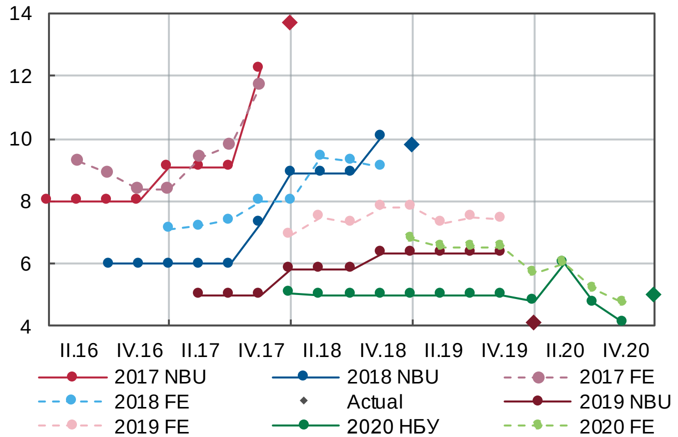
Risks

Influence on baseline / Risk probability

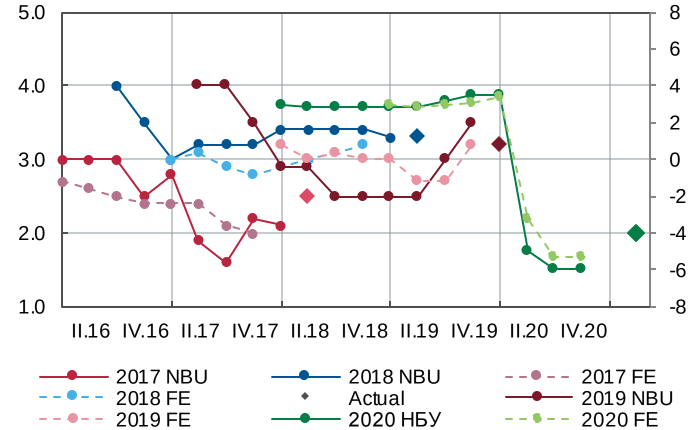
Influence on baseline	Low <15%	Middle 15%–25%	High 25%–50%
Weak	Higher volatility of global food prices		
Moderate	Lower harvest	A dramatic shift in the terms of trade	
Strong		Escalation of the military conflict in eastern Ukraine Suspension of the cooperation with IMF The faster recovery of the world economy Volatility in the global capital markets	Longer-lasting coronavirus pandemic

Box. NBU forecasts are as precise or better as consensus forecasts

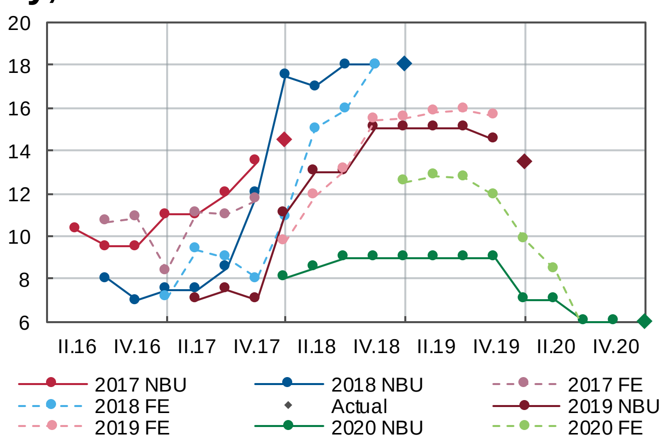
Forecast history: CPI (2017-2020), eoy, %*



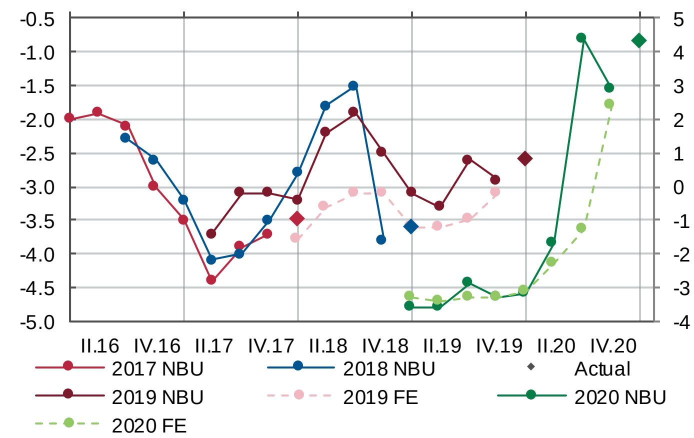
Forecast history: GDP (2017-2020), %



Forecast history: Interest rate (2017-2020), eoy, %*



Forecast history: CAB (2017-2020), % GDP



*FE – Focus Economics forecast based on survey of more than 30 organizations which provide individual forecasts

National Bank of Ukraine