National Bank of Ukraine

Ukraine: Macroeconomic and Policy Outlook

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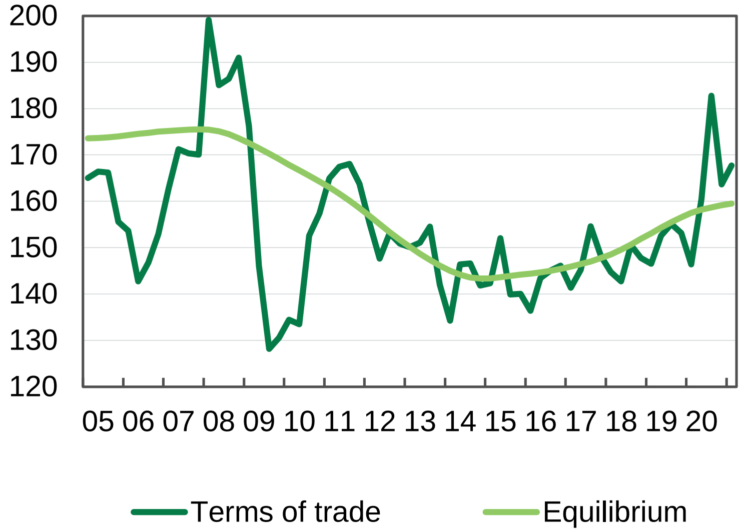
Deputy Governor

March 2021

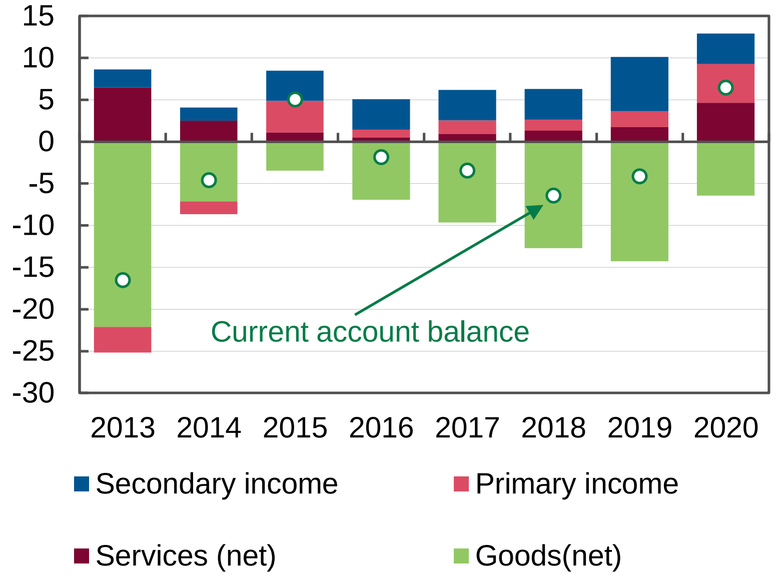
Ukraine had a good crisis thanks to:
1. Beneficial terms of trade and C/A rebalancing

Terms of trade index*



* Weighted average of prices of exported (ferrous metals, wheat and maize) and imported goods (crude oil and oil products, and natural gas). Equilibrium levels are computed via Kalman filtration.
Source: NBU staff estimations.

Current account, USD bn

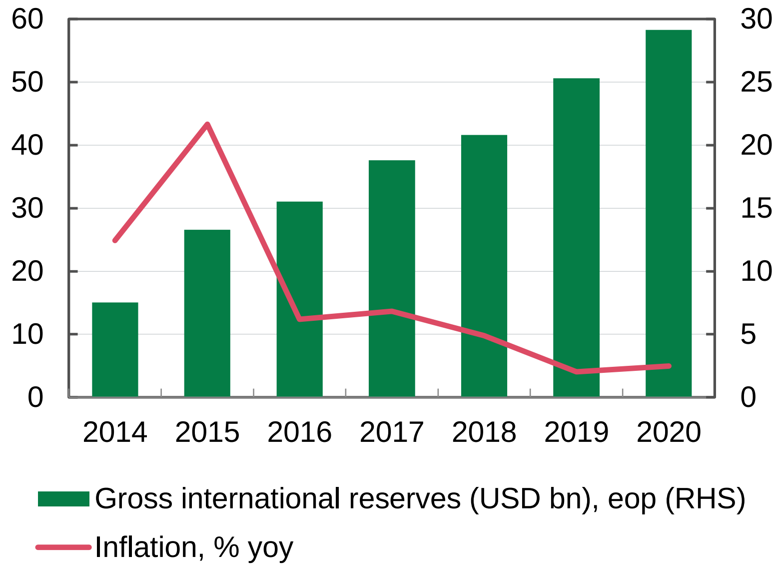


Source: NBU.

- In 2020, the current account surplus reached one of the highest levels on record – 4.3% of GDP
- The trade deficit narrowed significantly due to:
  - Favorable terms of trade, robust global demand for food and IT services, and rapid economic recovery in China (Ukraine's exports of goods and services decreased by a moderate 4.6%)
  - A decrease in energy prices, dwindling domestic demand and halt in the international tourism (imports fell by almost 18%)

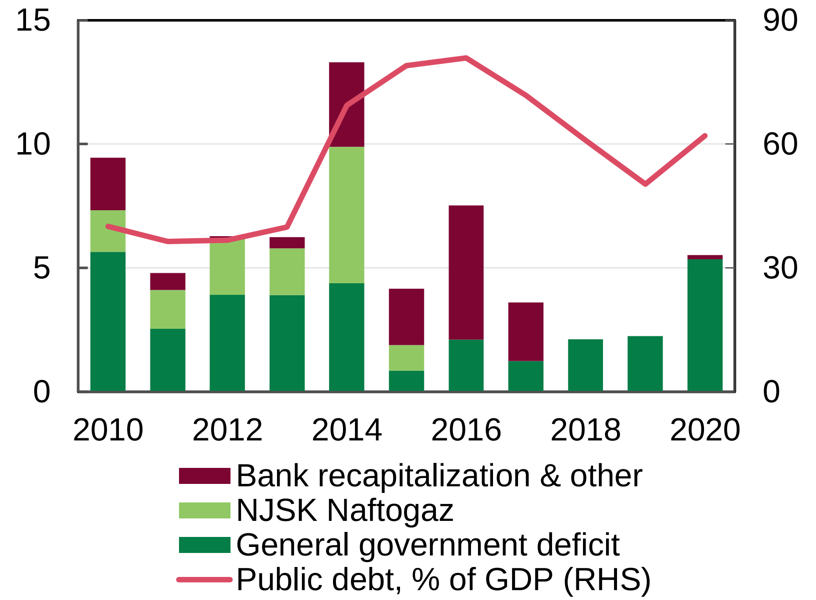
Ukraine had a good crisis thanks to:
2. Prudent macro policy framework in the last 5 years

Inflation and FX reserves



Source: SSSU, NBU.

Public sector deficit and public debt, % GDP

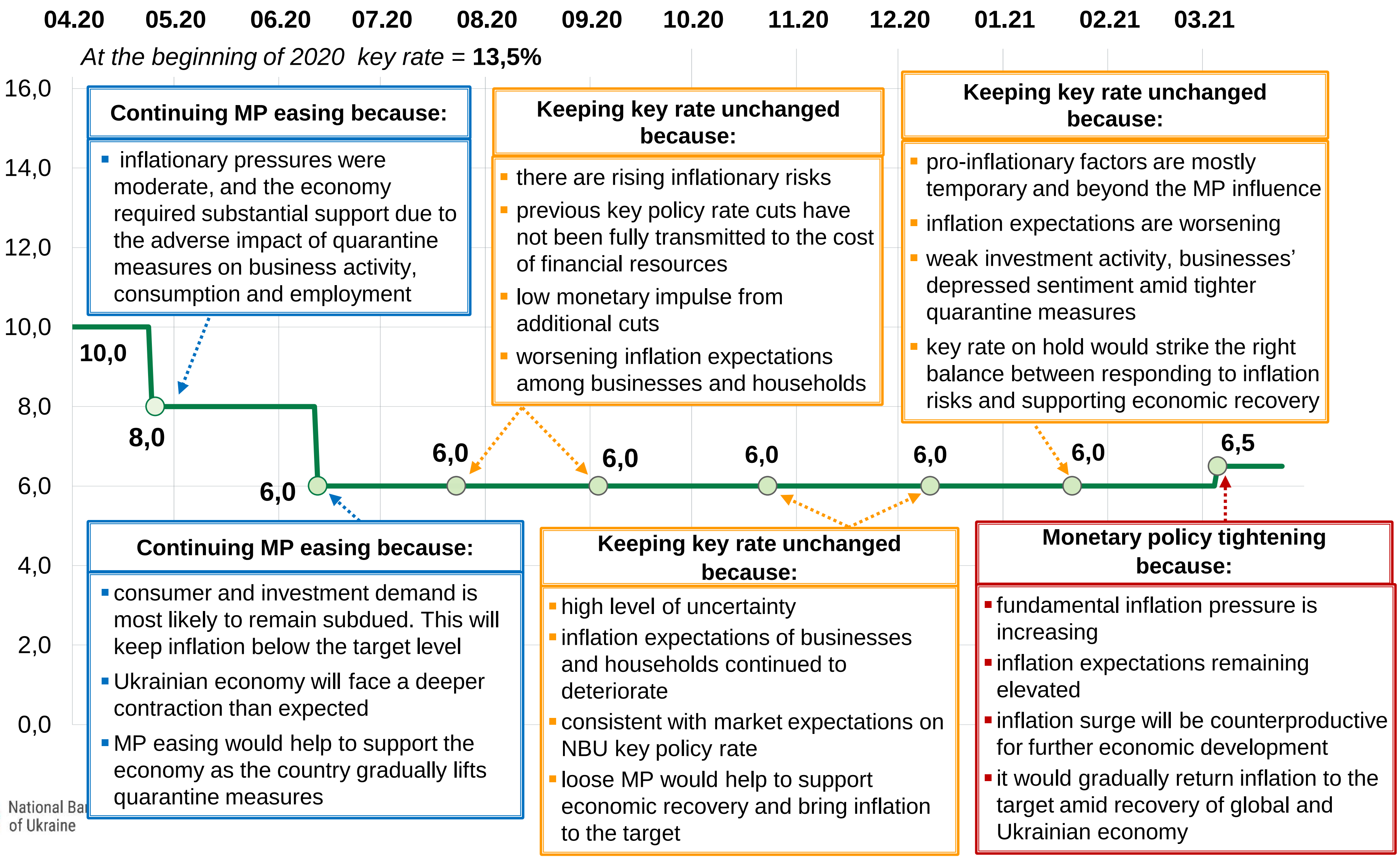


Source: MFU, Treasure, IMF, SSSU, NBU staff estimates.

- Following the painful realignment with market fundamentals in 2014-2015, macro stability has been restored: real GDP rose at a steady pace, disinflation proceeded well, reserves were on a solid path towards the healthy levels
- Ukraine managed to achieve a breakthrough in eliminating large quasi-fiscal deficits of the energy and banking sectors
- General government deficits were taken under control. All this helped to bring debt-to-GDP ratio to just slightly above 50% of GDP as of end-2019

Ukraine had a good crisis thanks to:
3. Proper countercyclical policy response

Key rate, %



Continuing MP easing because:

- inflationary pressures were moderate, and the economy required substantial support due to the adverse impact of quarantine measures on business activity, consumption and employment

Continuing MP easing because:

- consumer and investment demand is most likely to remain subdued. This will keep inflation below the target level
- Ukrainian economy will face a deeper contraction than expected
- MP easing would help to support the economy as the country gradually lifts quarantine measures

Keeping key rate unchanged because:

- there are rising inflationary risks
- previous key policy rate cuts have not been fully transmitted to the cost of financial resources
- low monetary impulse from additional cuts
- worsening inflation expectations among businesses and households

Keeping key rate unchanged because:

- high level of uncertainty
- inflation expectations of businesses and households continued to deteriorate
- consistent with market expectations on NBU key policy rate
- loose MP would help to support economic recovery and bring inflation to the target

Keeping key rate unchanged because:

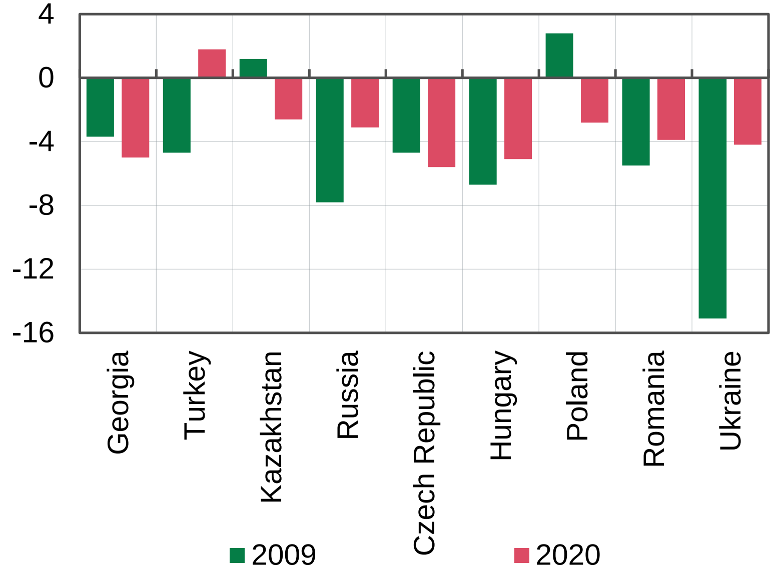
- pro-inflationary factors are mostly temporary and beyond the MP influence
- inflation expectations are worsening
- weak investment activity, businesses' depressed sentiment amid tighter quarantine measures
- key rate on hold would strike the right balance between responding to inflation risks and supporting economic recovery

Monetary policy tightening because:

- fundamental inflation pressure is increasing
- inflation expectations remaining elevated
- inflation surge will be counterproductive for further economic development
- it would gradually return inflation to the target amid recovery of global and Ukrainian economy

In contrast to 2008-09 crisis Ukraine this time fared relatively well comparing to the regional peers

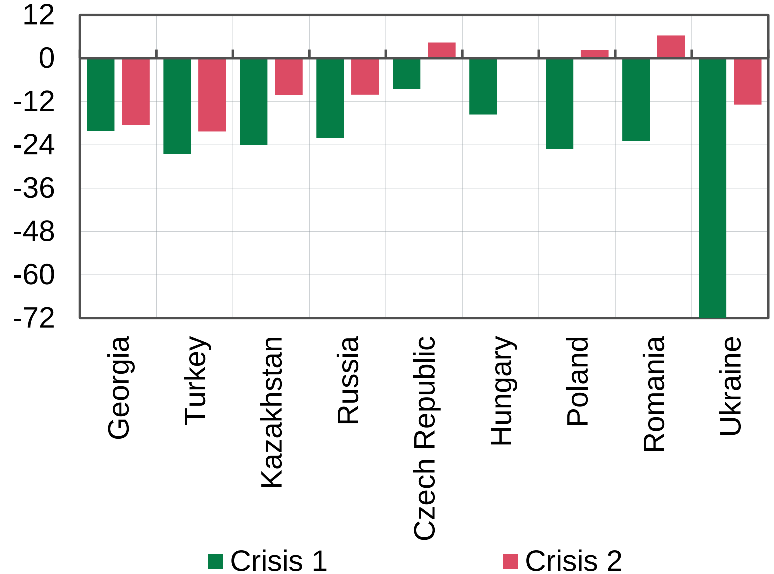
Real GDP of Ukraine and selected countries in different crisis periods,%



- Ukraine 2020 - preliminary estimate
- Georgia - Forecast 2020 GDP - IMF WEO October'20

Source: National statistical agencies..

Selected currencies vs USD, % change in different crisis periods



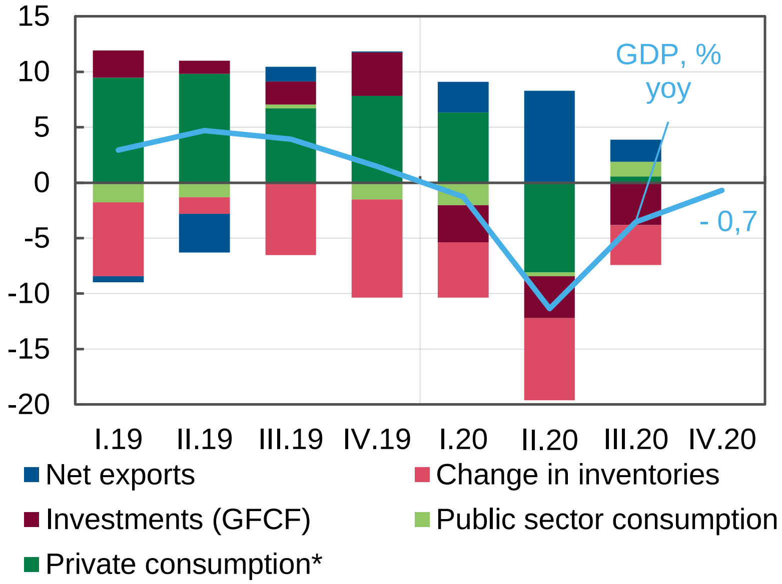
- Crisis 1 – from 01 September 2008 to 31 December 2009
- Crisis 2 – from 06 March 2020 to 02 March 2021

Source: Refinitiv, Investing, NBU estimates

- Unlike the previous global crisis episodes, when Ukraine was among the hardest hit countries, during the current crisis the decrease in GDP was on par with regional peers
- Ukraine avoided devastating depreciation thanks to the floating exchange rate that served as a shock absorber

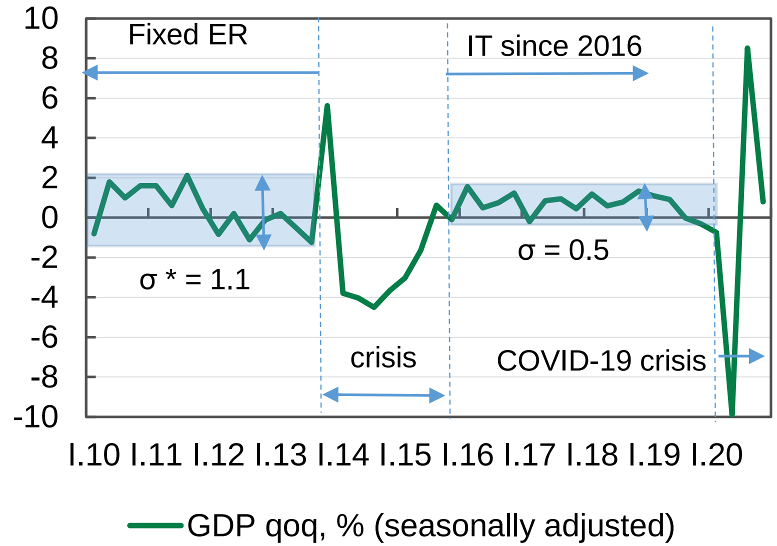
After double-digit slump in Q2, GDP recovered pretty quickly driven by robust external and domestic demand

Contributions to annual GDP growth by final use, pp



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

GDP volatility

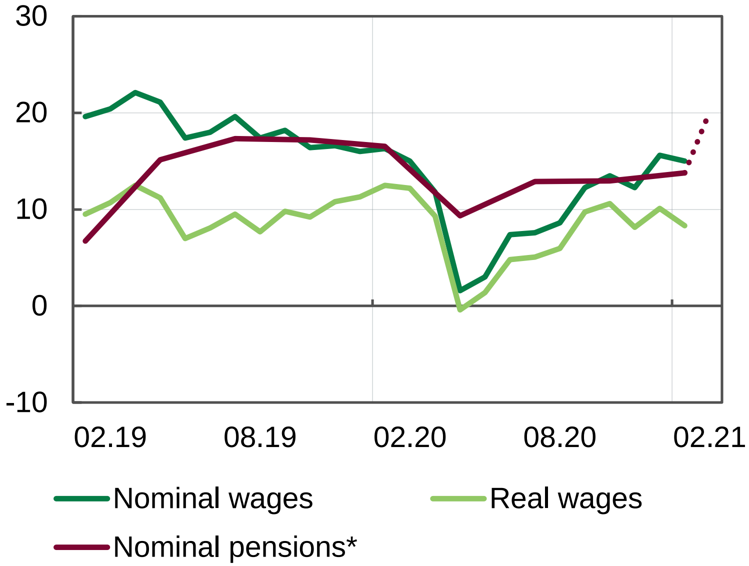


* σ – standard deviation.
Source: SSSU, NBU staff estimates.

- Real GDP shrank by in 2020, much less than expected at the start of the coronavirus crisis
- The uncertainty related to the pandemic and quarantine measure hit investment activity hard
- However, the Ukrainian economy recovered quickly in H2 2020, supported by:
  - steady foreign demand for food products and reviving industrial activity in many countries amid sizable fiscal and monetary stimulus
  - solid growth in domestic consumption, both private and government

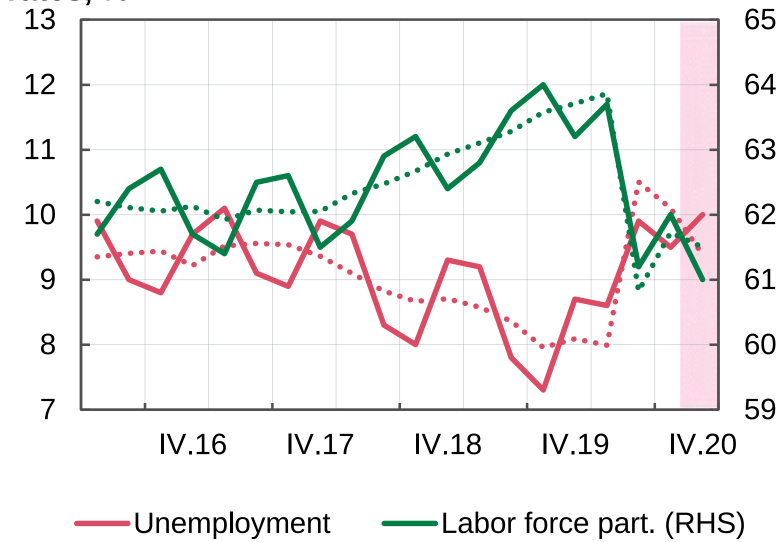
Private consumption was supported by mostly unabated wage growth despite weak labor market data

Nominal and real wages and pensions, % yoy



* Estimates as for 01.03.21.
Source: SSSU, PFU, NBU staff estimates.

ILO unemployment* and labor force participation rates, %**

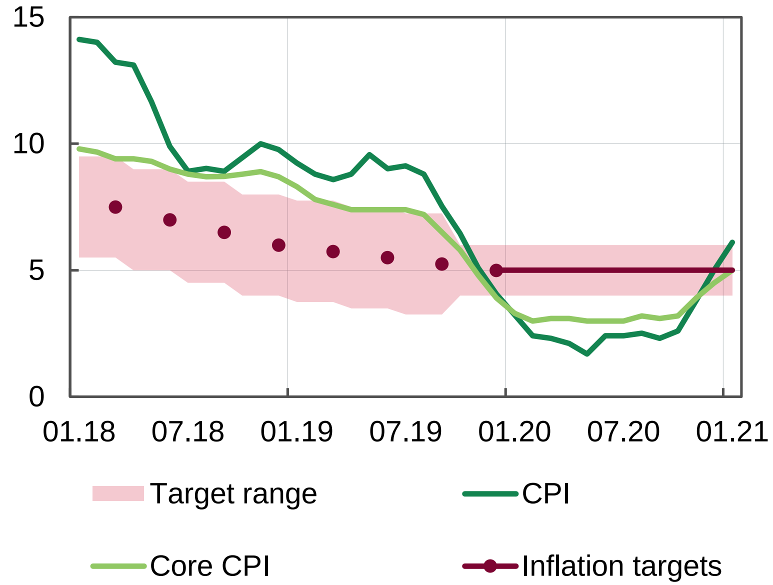


* As a % of population aged 15–70 in the labor force.
** As a % of total population aged 15–70.
Dotted lines show sa series.
Source: SSSU, NBU staff estimates (January 2021 Inflation Report).

- The unemployment rate shot up at the start of the pandemics but then has been ebbing gradually amid restart of the economic activity
- The weaknesses of the labor market were largely offset by the increased social support from the government and solid wage growth

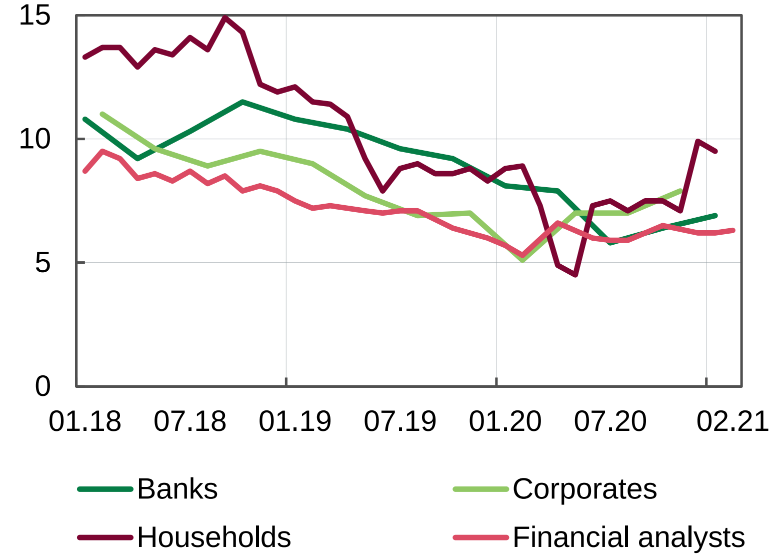
Rapid disinflation in 2019-20 supported expectations' anchoring, though the job is not yet finished

Headline and core inflation, % yoy



Source: SSSU, NBU.

12-month-ahead inflation expectations, %

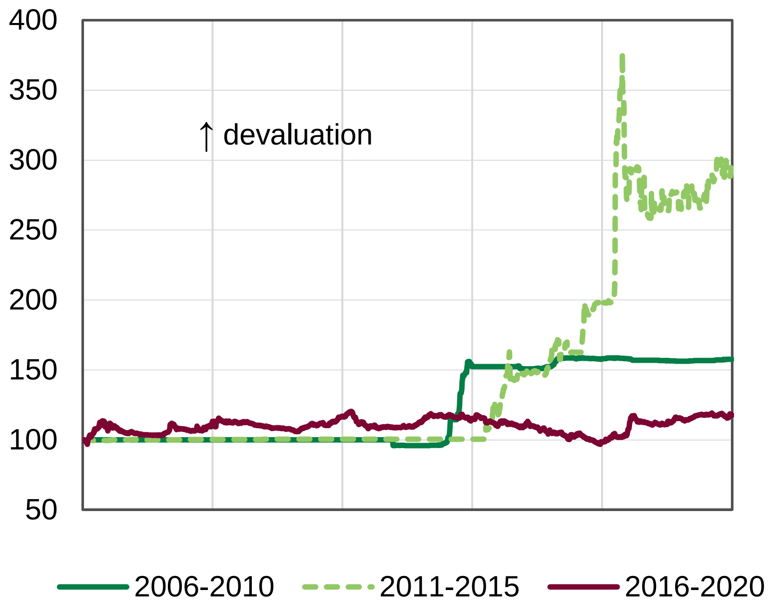


Source: NBU, GfK Ukraine, Info Sapiens surveys.

- During most of 2020, inflation was below the 5% ± 1 pp target range. Falling global energy prices coupled with narrowed demand for non-staple goods and services restrained price growth during the pandemic
- Inflation accelerated to the target (5%) in late 2020 and went above the upper bound of the target range in January 2021 due to the surging global commodity prices and robust domestic demand

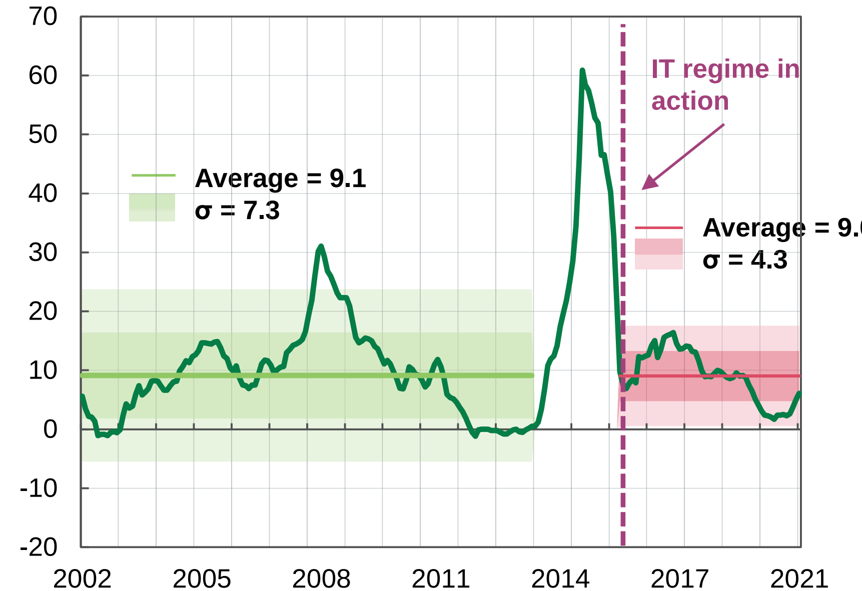
Inflation and FX volatility declined markedly, facilitating long-term investment and saving decisions

Official UAH/USD exchange rate, beginning of the period = 100



Source: NBU staff estimates.

Inflation volatility

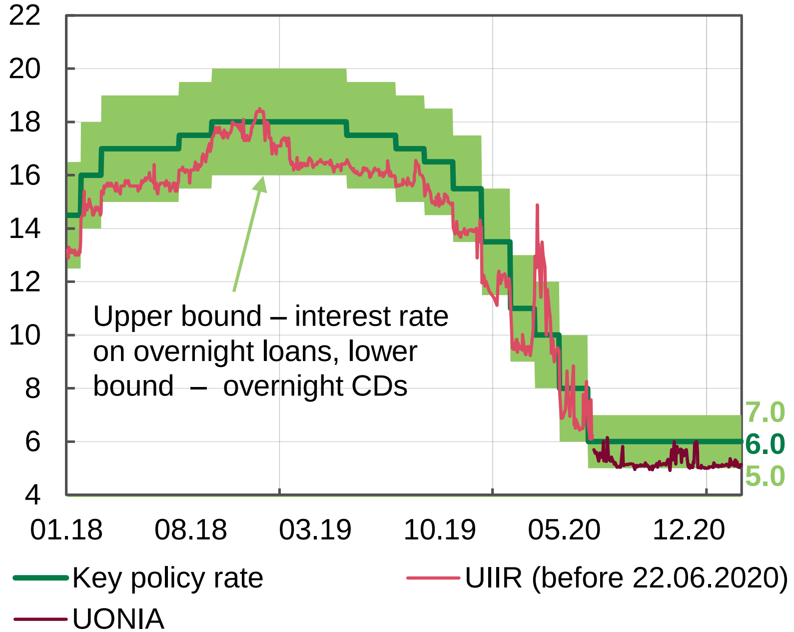


σ – standard deviation, dark color marks one standard deviation, light one – two standard deviations.
Source: SSSU, NBU.

- Following the introduction of the IT regime, the volatility of inflation decreased noticeably
- While the regime rests on the floating exchange rate, the volatility of the hryvnia exchange rate stayed within the range of 2-15%, typical for IT countries for non-crisis periods
- Moreover, volatility of the hryvnia exchange rate remained within this range even during the acute phase of the crisis

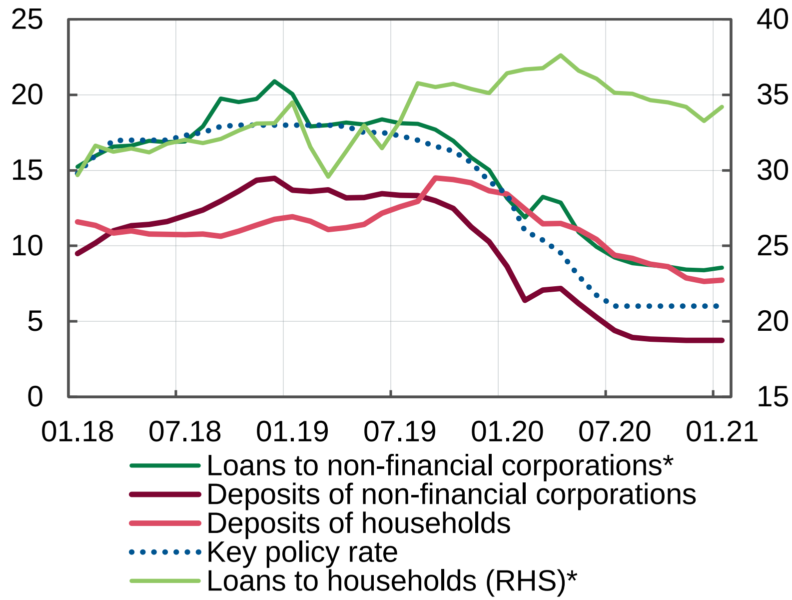
Monetary policy easing had a profound impact on the interest rates

NBU policy rates, UIIR/UONIA and government debt securities yields on the secondary market, %



Source: NBU.

Key policy rate, interest rates on new hryvnia loans and deposits, %



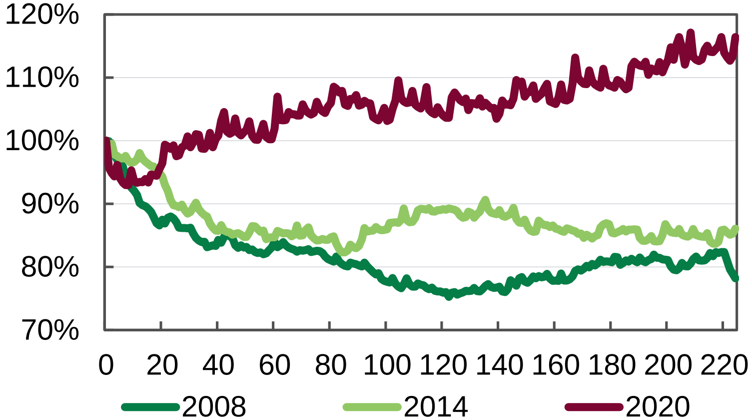
* Excluding overdraft.
Source: NBU.

- The accelerated cuts by the NBU in H1 2020 brought its key policy rate in real terms below the neutral level, making the monetary policy accommodative
- The cuts in the key policy rate were effectively transmitted into interbank rates, which hovered just above the lower bound of the NBU interest rate corridor
- The cost of funds in financial markets needed some time to respond and continued to reflect the cuts of the key rate in the subsequent months, albeit more slowly since late 2020

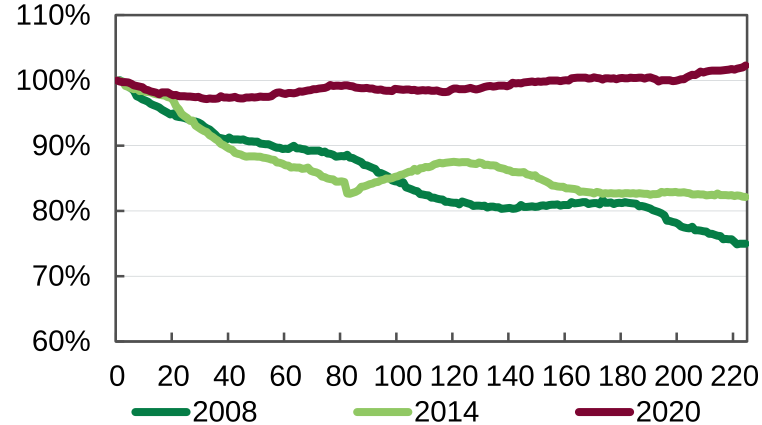
Contrary to the previous crisis episodes, the banking system is not facing funding squeeze this time

Retail deposits in hryvnia, the last day before the outflow*=100% *(at solvent banks as of 1 February 2021)*

All deposits

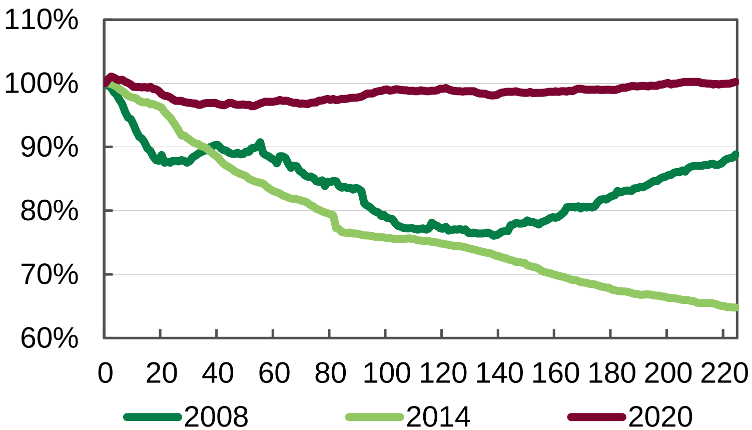


Term deposits and certificates of deposits

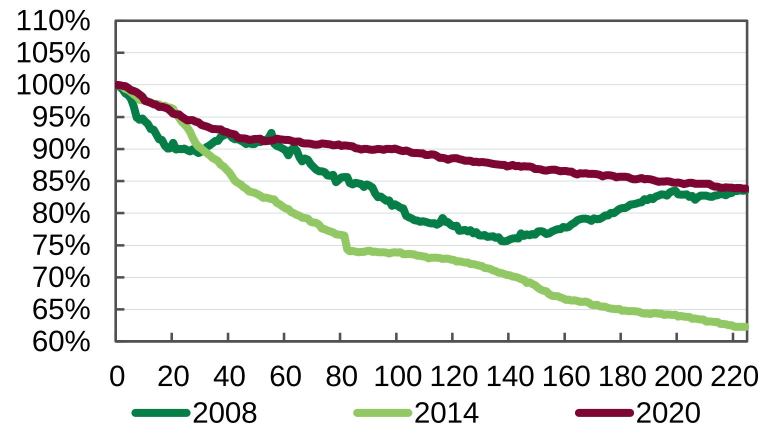


FX deposits (USD eq.), the last day before the outflow*=100% *(at solvent banks as of 1 February 2021)*

All deposits



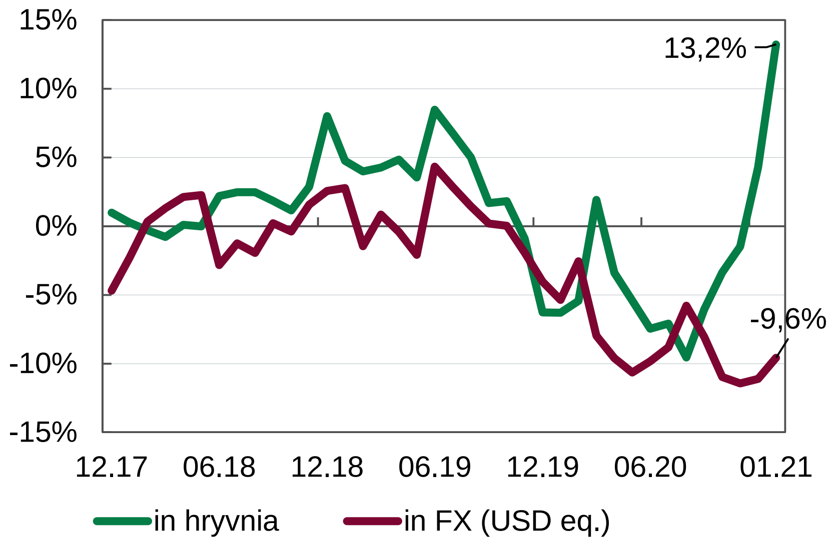
Term deposits and certificates of deposits



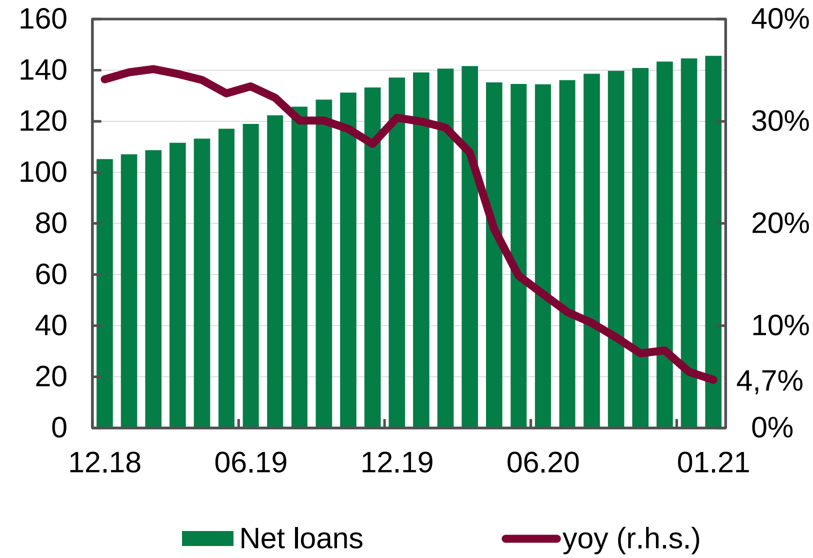
* The highest readings of hryvnia deposits recorded before the crises: in 2008 – 3 October 2008; in 2014 – 23 Jan 2014; in 2020 – 10 Mar 2020. X axis indicates number of working days.
Source: NBU, daily data, including certificates of deposit.

The corona crisis weighed down on bank lending

Net corporate loans, yoy change



Net retail loans in hryvnia, UAH billions

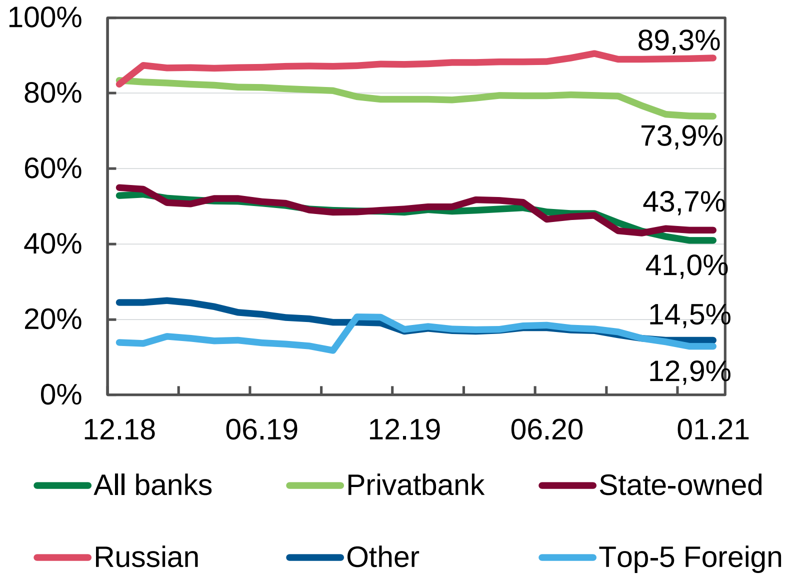


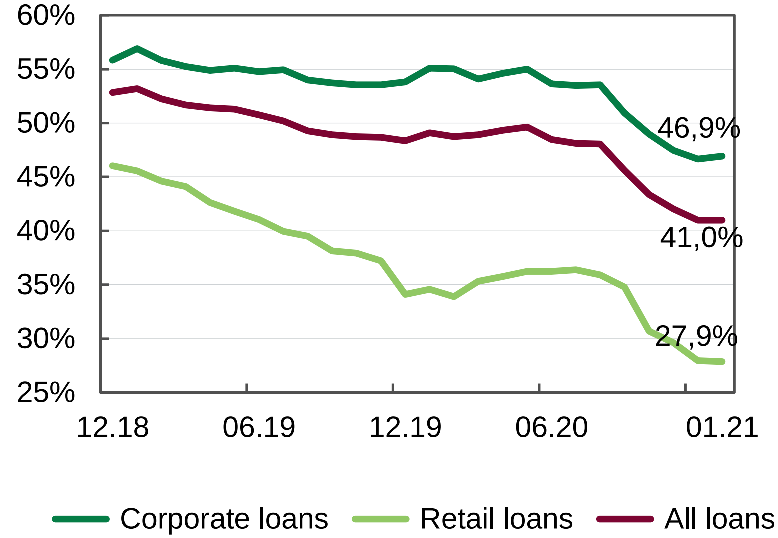
Source: NBU, at solvent banks as of 1 February 2021.

- Demand for corporate loans is low since the end of 2019
- In 2020-21, the slowdown in the growth of loans to households intensified

Banks' efforts on NPL resolution resulted in improved quality of loan portfolio

NPLs in loan portfolios



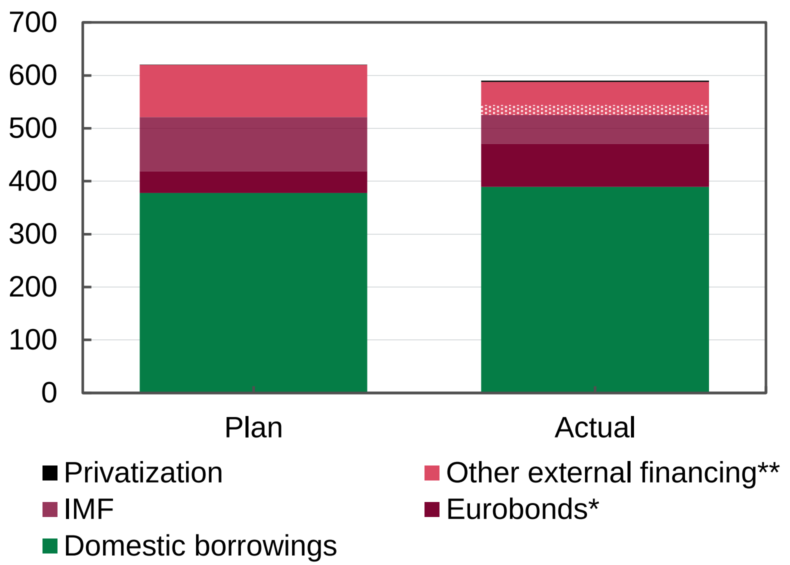


* Including interbank loans; all banks, including insolvent ones; no off-balance liabilities.
** The five largest foreign banks by net assets as of 1 February 2021 (not counting banks with Russian capital).
Source: NBU.

- The NPL ratio declined to 41% in January 2021 after peaking at 58% in July 2017. The NPL ratio decreased the most at private and foreign banks (except Russian banks)
- In 2H20, NPL ratio decline was mostly driven by write-offs of legacy NPLs
- NPL coverage ratio (all loan loss provisions / NPL) reached almost 98% in the end of 2020

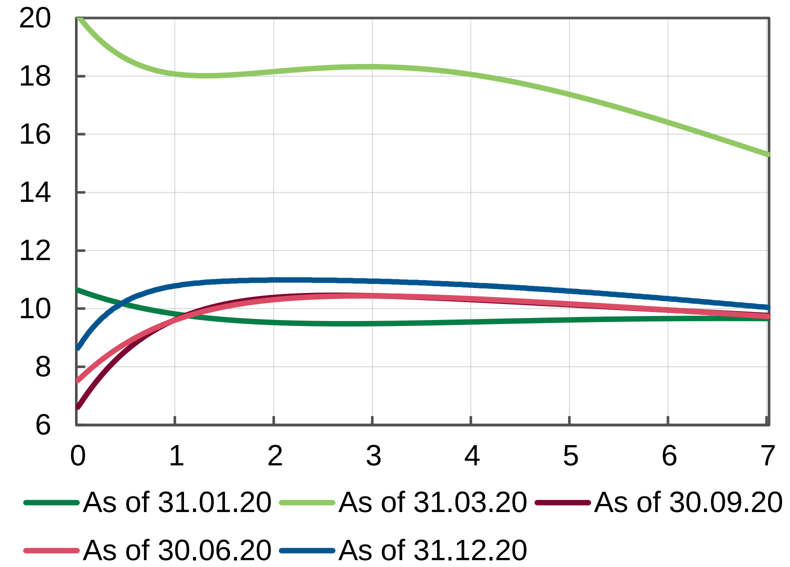
Fiscal sector proved the only soft spot last year as budget financing plans were strained by the delay in IMF program

State budget financing* in 2020, UAH bn



* Excluding special fund and extra debt operations (derivatives and early repayment/purchase of selected Eurobonds).
** Pattern fill reflects bilateral external financing not planned in the original budget)
Source: Treasure, MFU, NBU staff estimates.

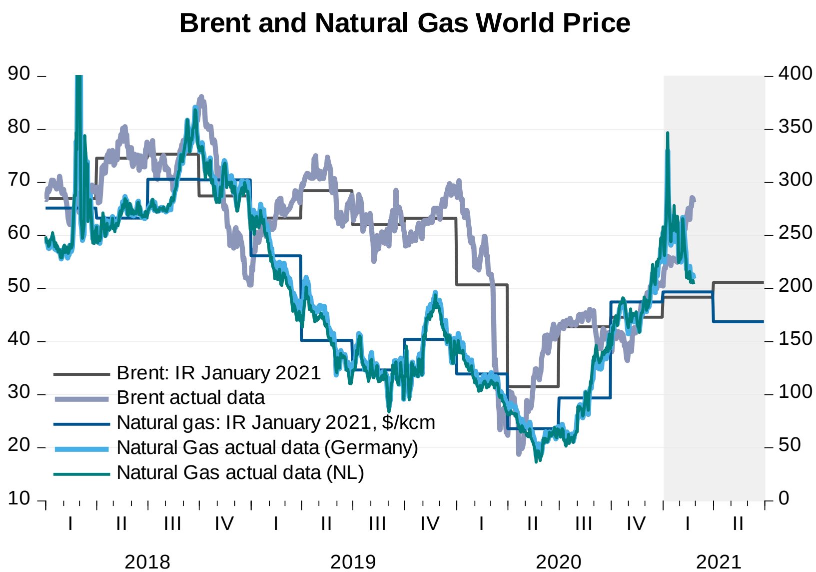
Zero coupon yield curves for hryvnia government debt securities on the secondary market*, %

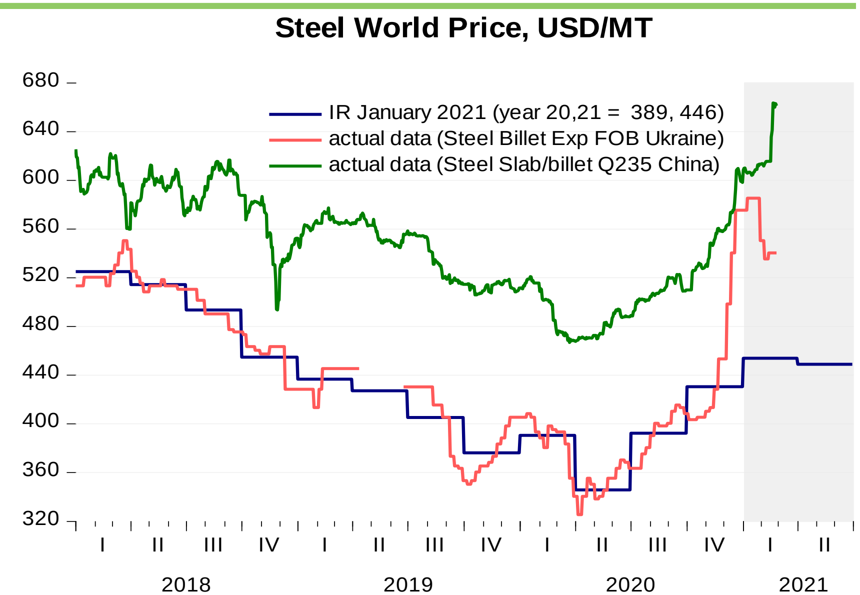


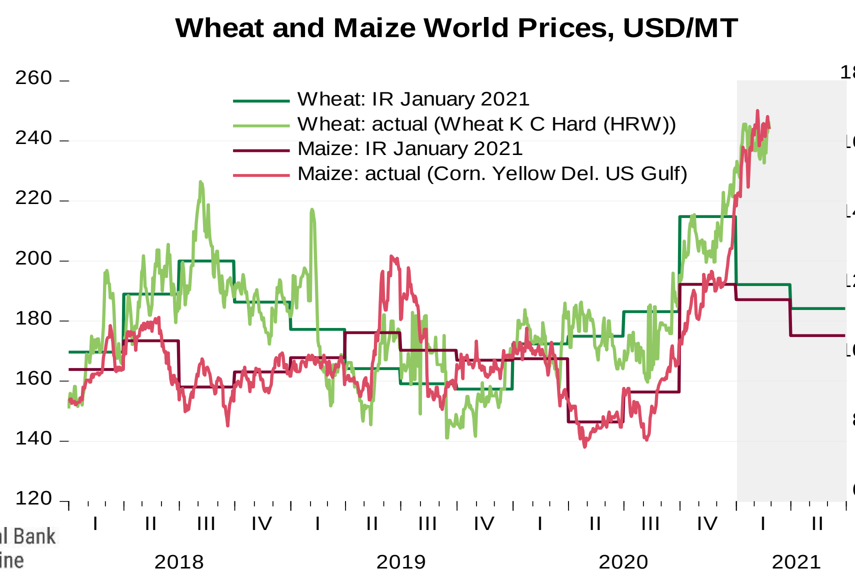
* Spot rates with continuously compounded interest plotted using Svensson parametric model.
Source: NBU.

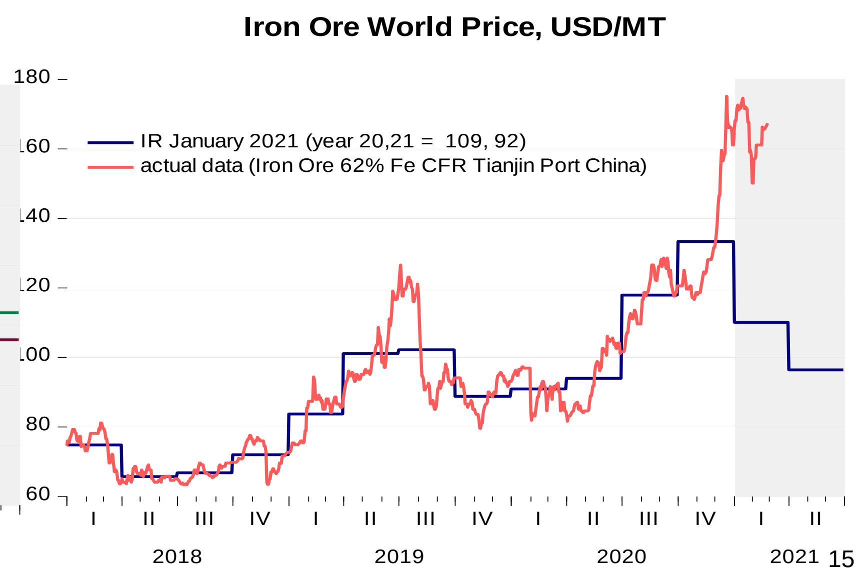
- At the start of the pandemics the government designed the proper countercyclical fiscal response drafting the amended budget with 8% of GDP deficit (to be financed by the official external borrowings)
- However, the delay in IMF program put budget financing plans in tatters, forcing the government to effectively cut budget deficit to 5.5% and tap domestic debt markets at a big scale, which promptly caused yields to shot up

World commodity prices rose, driven by global economic recovery and supply constraints





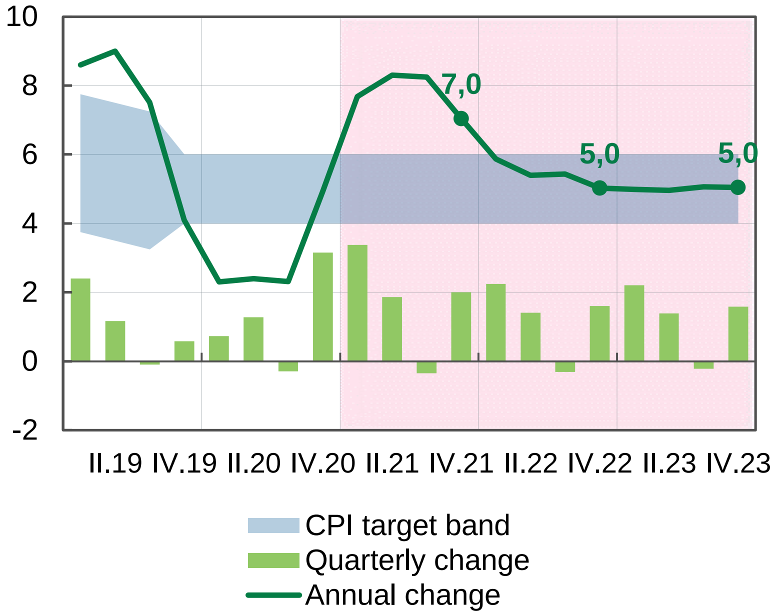




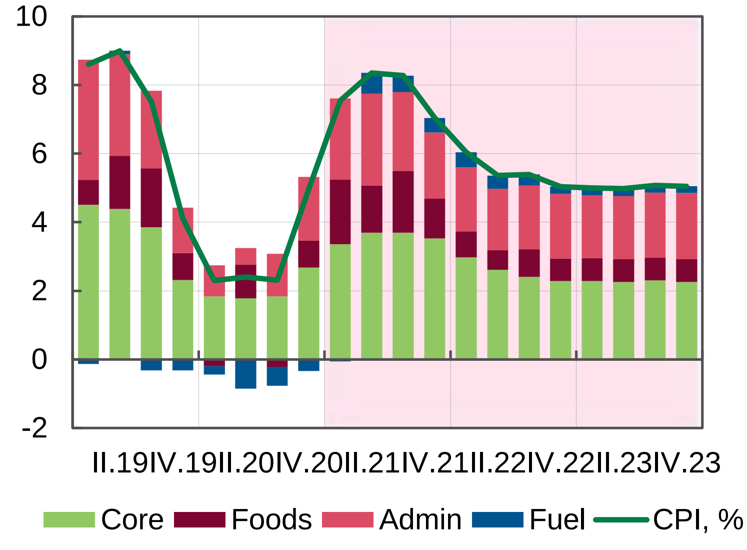
Source: Refinitiv, NBU estimates.

Inflation will temporarily accelerate on the back of supply shock, demand recovery, weaker ER and minimum wage hike

Headline inflation, %



Contributions to annual CPI growth, pp

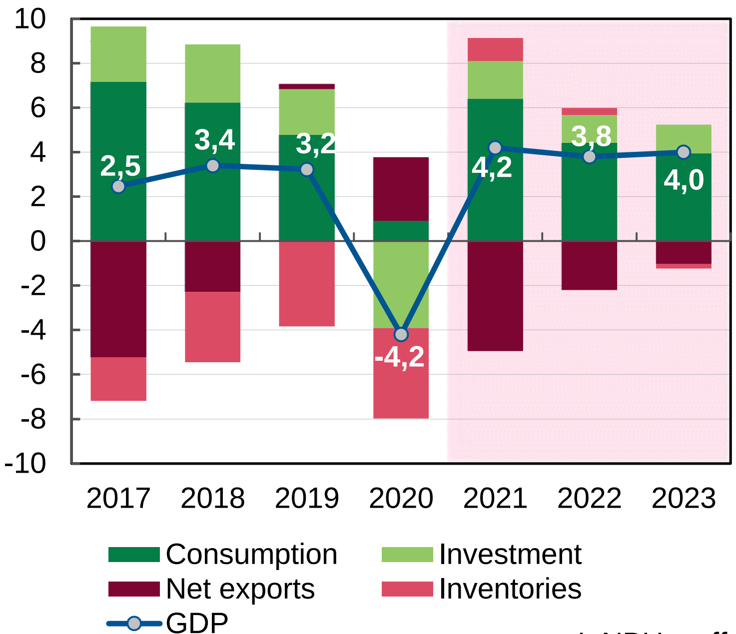


Source: SSSU, NBU staff calculations, IR January 2021.

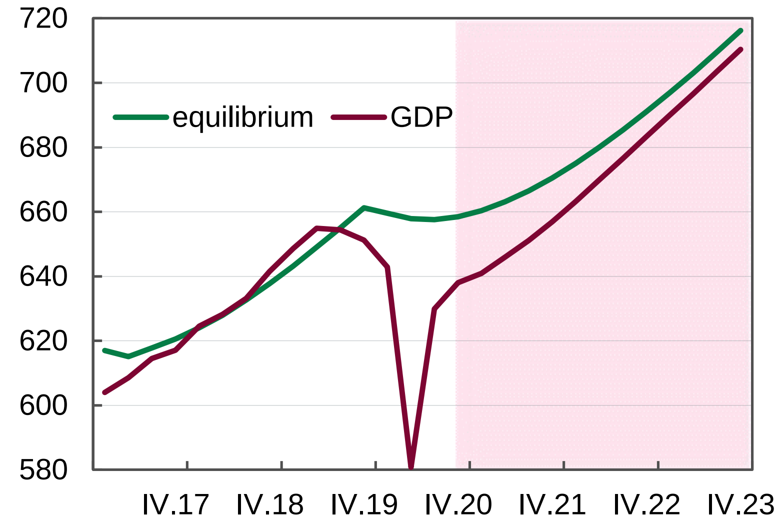
change, %	*weight, %*	2020	2021	2022	2023
CPI	***100.0***	**5.0**	**7.0**	**5.0**	**5.0**
Core CPI	*59.4*	4.5	5.9	3.8	3.8
Raw food	*19.4*	4.1	6.0	3.4	3.4
Admin	*18.0*	9.9	10.5	9.4	9.1
Fuel	*3.2*	-10.5	13.2	6.7	6.0

The economy will grow rapidly. GDP will still be below its equilibrium level, which will constrain the inflationary pressure

Real GDP and contributions, pp



Real GDP and equilibrium, level (in 2016 prices)

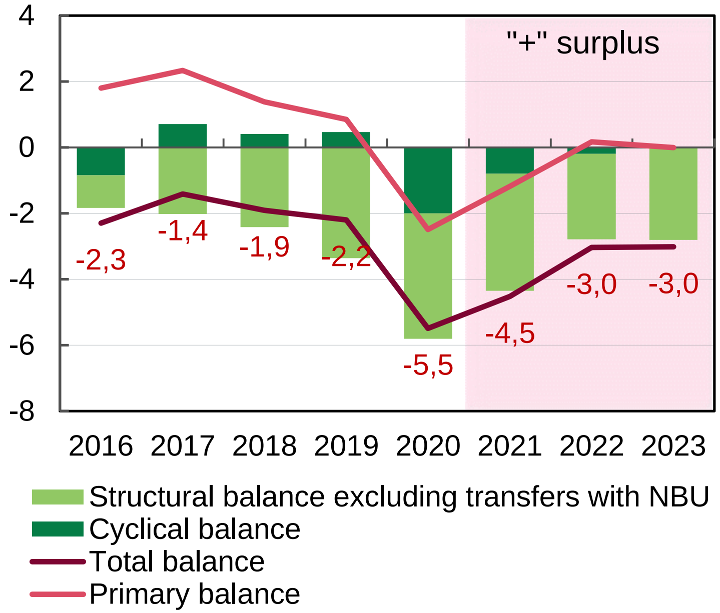


Source: SSSU, NBU staff calculations, IR January 2021.

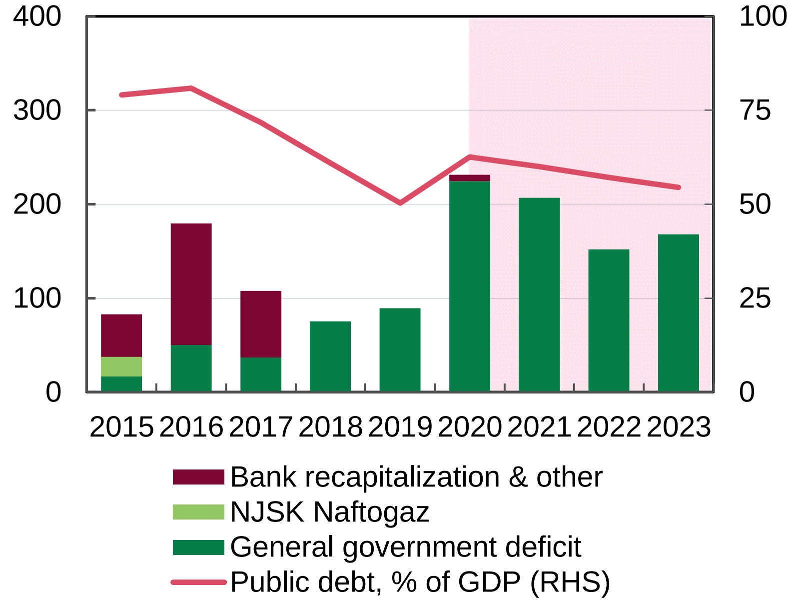
	share,%	2020	2021	2022	2023
GDP	100	**-4.2**	**4.2**	**3.8**	**4.0**
Consumption	87	1.0	6.7	4.7	4.1
Private consumption	66	0.7	7.7	5.3	4.5
Gross fixed capital formation	16	-21.7	12.1	8.0	8.1
Exports of G&S	48	-5.7	2.7	2.2	3.0
Imports of G&S	56	-10.6	14.8	6.5	4.6

Fiscal policy will be more restrained as the economy emerges from the crisis

Consolidated Budget Balance, % of GDP



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

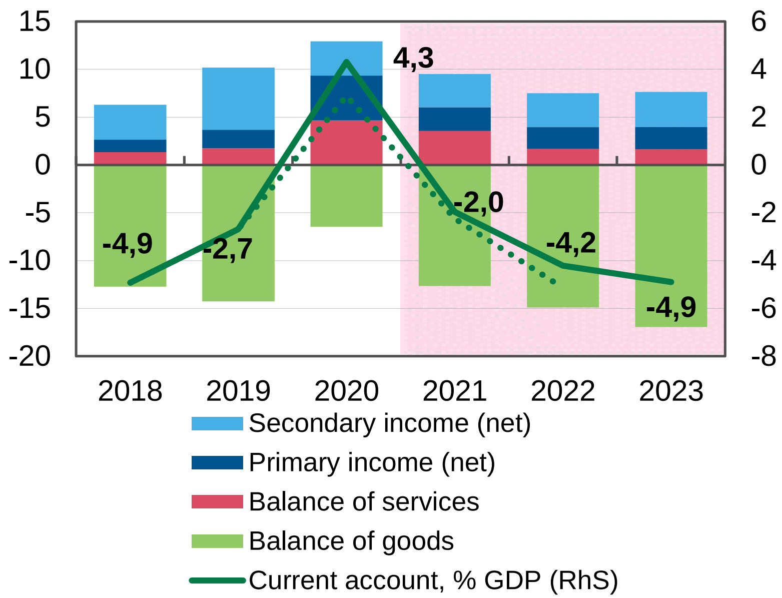


Source: SSSU, NBU staff calculations, IR January 2021.

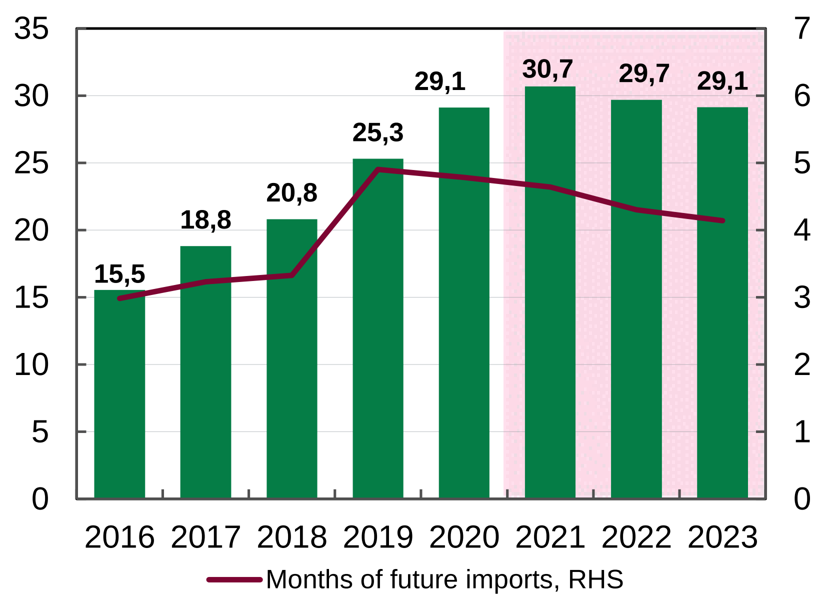
Public debt-to-GDP ratio will gradually decrease due to economic growth and prudent fiscal policy

The CA will turn to the deficit due to recovery of the economic activity. International reserves will hover at the level $29-$31 bn

Current Account Balance, USD bn



International Reserves, USD bn



Source: SSSU, NBU staff calculations, IR January 2021.

- Starting in 2021, the current account will return to deficit, which will widen in coming years, driven by rising domestic demand and a gradual worsening in terms of trade
- Capital inflows to Ukraine will resume on the back of continued cooperation with the IMF, rebounding economic activity, and persisting loose monetary conditionals globally
- As a result, international reserves will hit about USD 30 billion, or 90% to 100% of the IMF composite measure

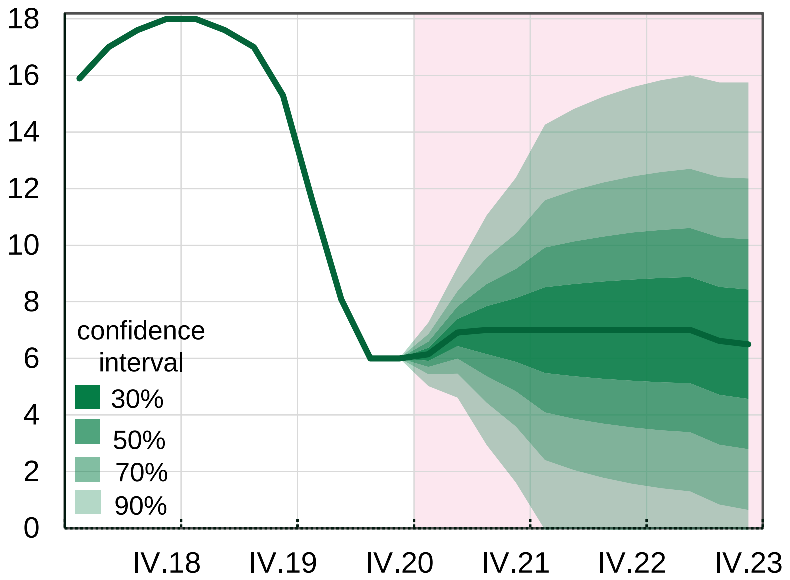
Macroeconomic forecast

	2019	2020 actual/est.	2021 forecast	2022 forecast	2023 forecast
Real GDP, change, %	3.2	-4.2	4.2	3.8	4.0
Nominal GDP, UAH bn	3 978	4 079	4 580	5 015	5475
CPI, % yoy (eop)**	4.1	5.0	7.0	5.0	5.0
Core CPI, % yoy (eop)**	3.9	4.5	5.9	3.8	3.8
Current account balance, USD bn	-4.1	6.5	-3.2	-7.4	-9.3
% GDP	-2.7	4.3	-2.0	-4.2	-4.9
Gross reserves, USD bn	25.3	29.1	30.7	29.7	29.1

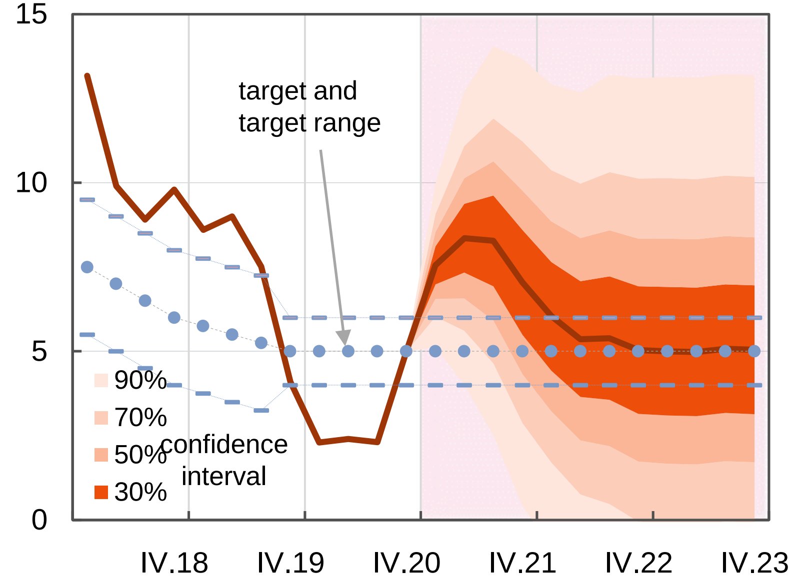
Source: SSSU, NBU, IR January 2021.

Despite raising the key rate, the policy will remain loose

Key rate, %



CPI, annual change, %



- An earlier increase in the key rate is due to the realization of pro-inflationary risks and faster recovery of consumer demand
- Higher export prices will curb inflationary pressures through the exchange rate channel, and therefore the rate increase in 2021 will be more moderate than previously expected. However, the rate will remain at 7% longer due to the effects of higher world inflation.

Risks

Influence on baseline	Risk probability: Low <15%	Risk probability: Middle 15%–25%	Risk probability: High 25%–50%
Weak	Higher volatility of global food prices		
Moderate	Lower harvest	Fiscal and quasi-fiscal risks Sharp deterioration in 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 High capital inflow	Longer-lasting coronavirus pandemic

Key takeaways

- Ukraine entered the COVID-19 crisis with solid fundamentals – GDP growth was stable, inflation and the current account deficit were moderate, and the banking sector and public finances were healthy
- The key difference with previous crises is that there is an IT regime in place, resting on a floating exchange rate, which serves as a cushion against adverse shocks. As a result, this crisis has not been accompanied by devastating depreciation and skyrocketing inflation
- The economy was hit hard by the lockdowns, both domestic and abroad. However, the real GDP contraction in 2020 (by 4.2%) was smaller than expected when the coronavirus crisis started. In 2021–2022, GDP will grow by about 4%, buoyed by monetary and fiscal stimulus and rebounding external demand
- In late 2020 - early 2021, inflation accelerated and breached the target range of 5% ± 1 pp. Inflation will accelerate in H1 2021 on the back of strong consumer demand, higher energy prices, last year's lower harvests of agricultural crops and higher production costs. The impact of pro-inflationary factors will weaken in H2, which will reverse the inflation pattern. The reaction of monetary policy in 2021 will return inflation to the target range of 5% ± 1 pp in H1 2022
- Continued cooperation with the IMF remains the key assumption underlying the NBU macroeconomic forecast