National Bank of Ukraine

Inflation Report (January 2019)

Kyiv

February 13, 2019

Monetary policy decision: Summary

In January, the NBU Board decided to keep key policy rate at 18%

- The tight monetary conditions will allow to bring inflation to its medium-term target of 5% within previously announced time horizon - in 2020
- The NBU keeps its inflation forecast for year-end 2019 (6.3%) and 2020 (5.0%) unchanged

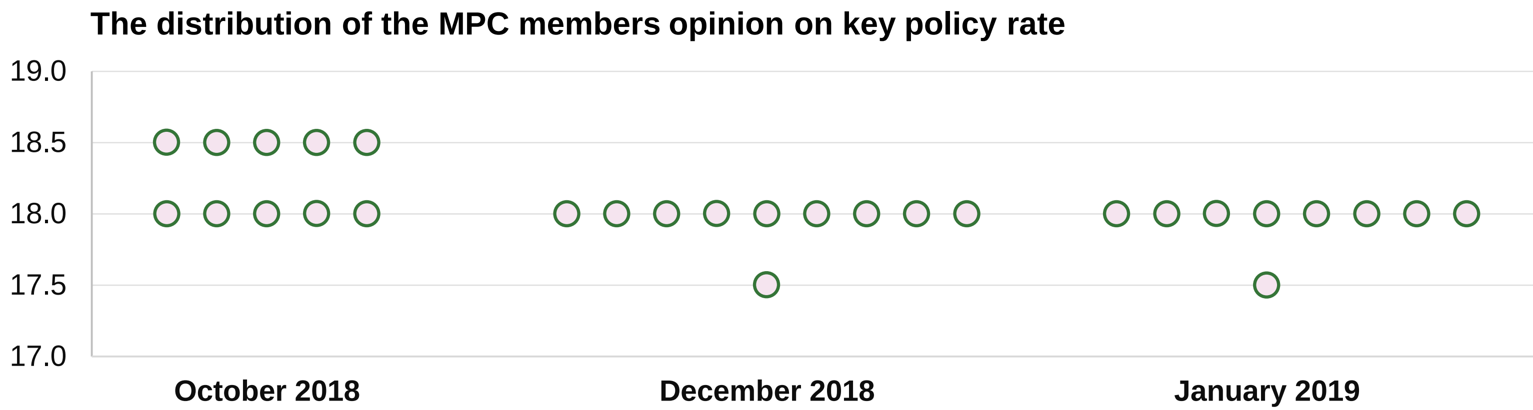
A key assumption of the macroeconomic forecast is that Ukraine will continue to cooperate with the IMF and enjoy relatively favorable access to the international capital markets.

Key risks:

- Worsening inflation expectations due to elections in 2019
- External risks (global economy slowdown, fall of commodities prices)
- Geopolitical risks, such as an escalation of the Azov Sea conflict

Any further changes to the key policy rate will depend on inflation developments, as well as on whether or not risks to price stability materialize.

Key rate was kept at 18% three times in a row but the mood is different



Inflation decrease would be slower than expected.

If inflation pressures do not ease or build up, the **central bank could raise the key policy** rate again.

Pro-inflation risks have declined in intensity but still remain high.

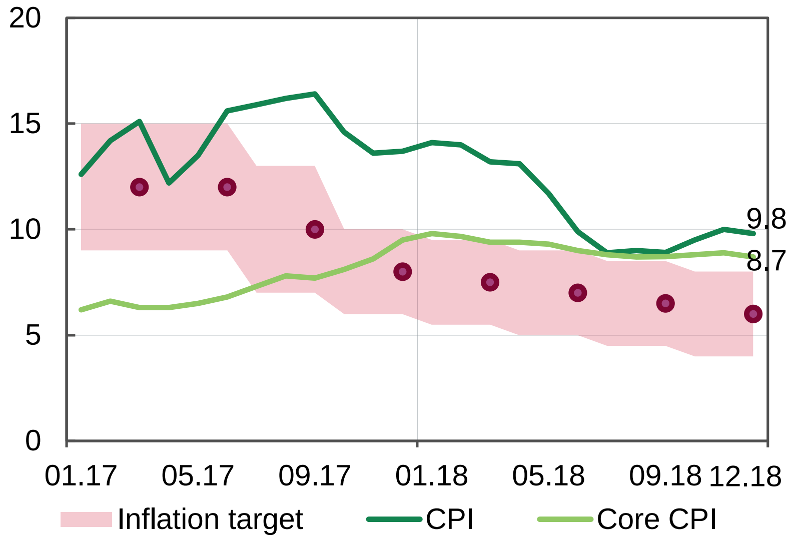
The NBU may raise the key policy rate to a level required to bring inflation back to its target within a reasonable timeframe.

There are a number of positive factors that make it possible to consider a future easing of monetary policy, as risks of inflation decrease steadily.

However, if underlying inflationary pressures rise and risks that inflation may not return to its target increase, ***the NBU could raise the key policy rate***.

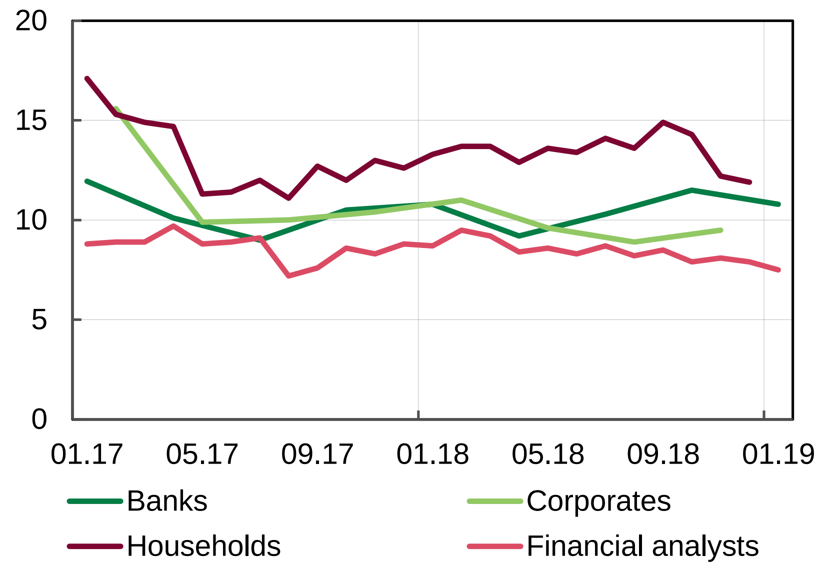
Inflation slowed to 9.8% from 13.7% in 2017. Inflation expectations kept improving but still exceed targets and forecast.

Inflation Indicators*, % yoy



Source: SSSU, NBU staff estimates.

Inflation Expectations for the Next 12 Months, %

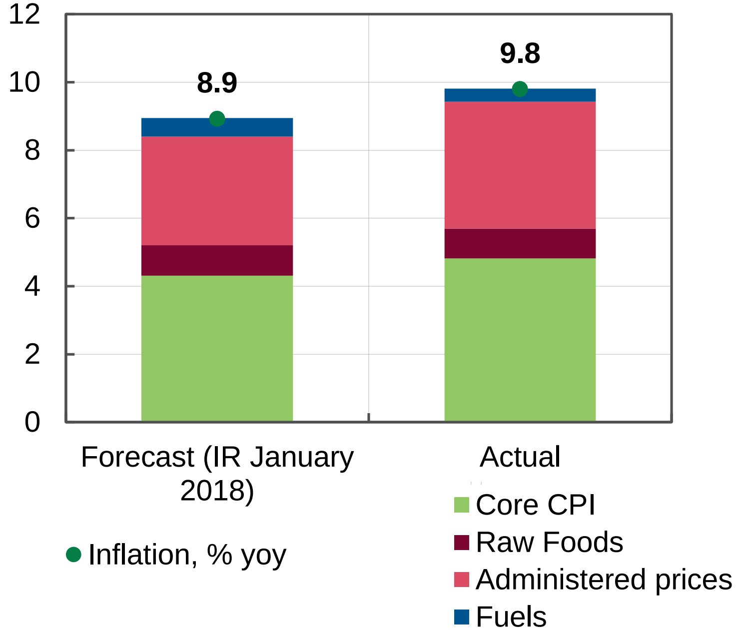


Source: NBU, GfK Ukraine surveys

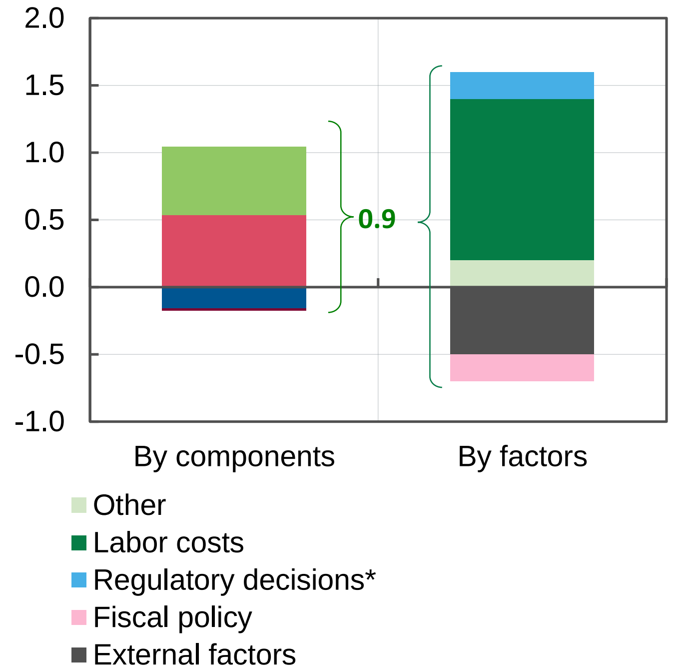
- The central bank's tight monetary policy was instrumental in reversing the upward trend and reducing the annual inflation rate to single-digit figures
- Despite the drop, inflation, as predicted, exceeded the 2018 year-end target of 6% ± 2 pp
- It was largely due to factors over which monetary policy has only a limited effect (administered price increases, higher production costs on the back of wage hikes, rising global oil prices seen throughout most of the year, and the narrowing supply of the vegetables that are used for cooking borshch on the back of unfavorable weather conditions)

Box. Actual inflation exceeded the NBU forecast published a year ago by 0.9 pp, mainly on account of higher labor cost pressure

Forecast and Actual Structure of Year-End Inflation in 2018, pp



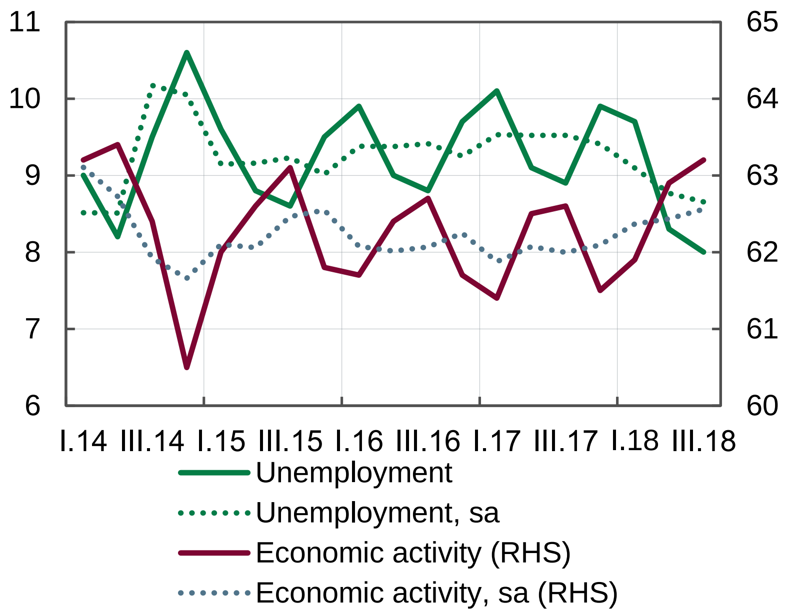
Error Decomposition of 2018 Year-End Inflation Forecast, pp



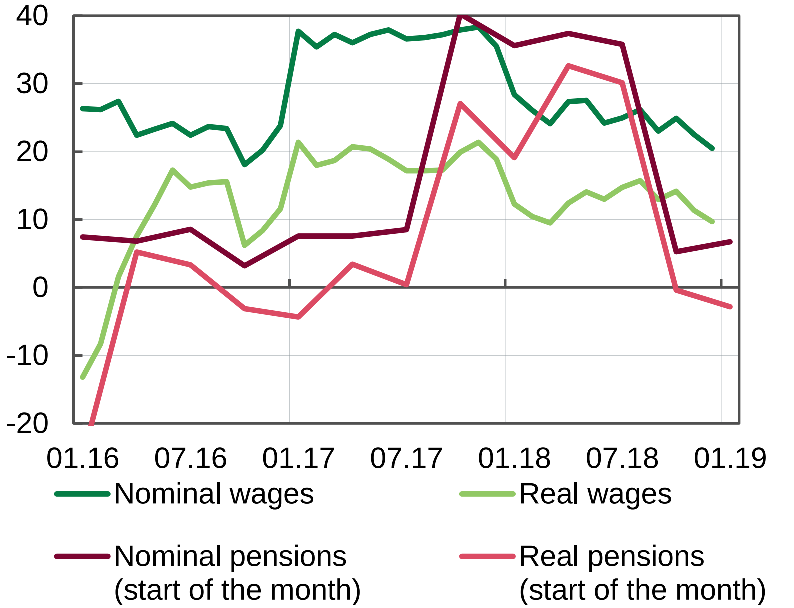
- The deviation of actual inflation from the forecast was due to higher administered and core inflation. Both chiefly reflected stronger wage growth, transmitting into prices through cost channel
- Lower fuel price growth had an opposite effect but mainly at the year-end. Throughout most of the year higher-than-forecast world crude oil prices contributed to cost pressure

In 2018, people were returning to labor force, unemployment decreased, and wages continued growing fast

Economic Activity Indicators (ILO methodology*)



Wages and pensions,% yoy

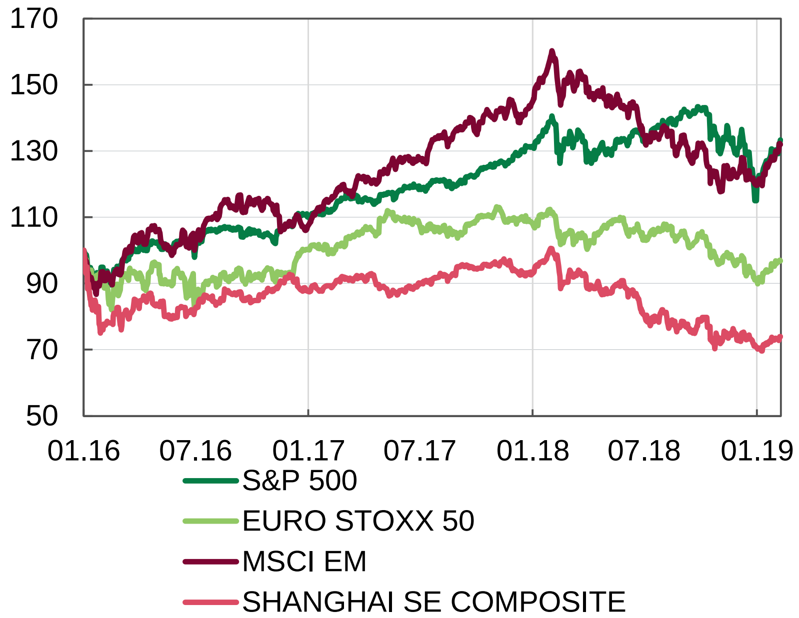


* Unemployment – as a % of economically active population aged 15-70, economic activity - as a % of total population aged 15-70.
Source: SSSU, NBU staff estimates.

- Amendments to pension-setting rules and strong wage growth over the last several years prompted people to return to labor market
- Meanwhile, due to robust labor demand the number of unemployed also fell. Altogether this caused unemployment rate to decrease almost to pre-crisis levels
- Despite some deceleration through the end of 2018, nominal and real wages for the whole 2018 grew by solid 25.0% yoy and 12.5% yoy respectively

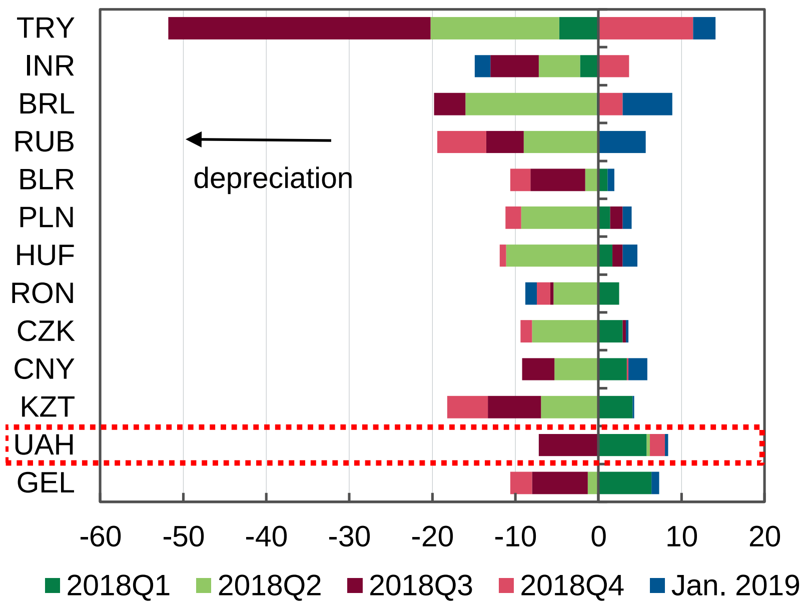
Financial conditions for EMs have been tightening during most of 2018, but investors' risk appetite improved recently

World Stock Indexes, 01 Jan 2016 = 100, as of 08.02.2018



Source: Thomson Reuters.

Exchange Rates of National Currencies of Selected Countries to US Dollar, eop % change

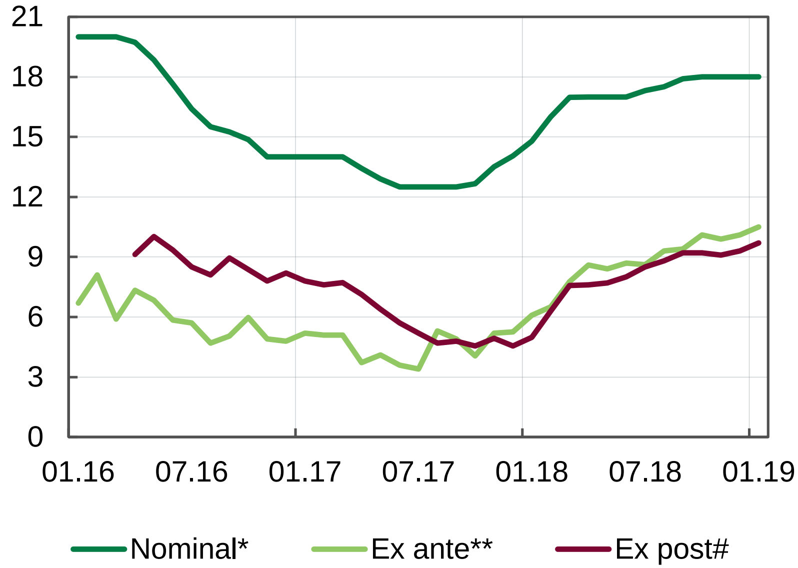


Source: Thomson Reuters.

- Investors' attitude towards EMs improved due to:
  - expectations of a less aggressive Fed tightening
  - progress in trade negotiations between the US and China, US-Mexico-Canada
  - weakening growth prospects for advanced economies
- But overall, they stay cautious about these countries amid high debt repayments

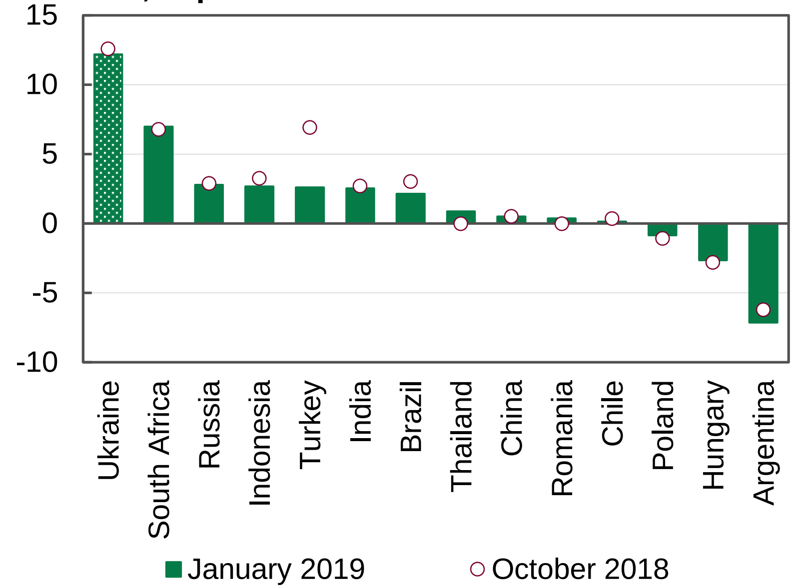
Monetary stance remains tight, in particular, reflecting high risks

Real Key Policy Rates, % pa



* Average monthly interest rate on 14-day CDs** Deflated by 12-month ahead inflation expectations of financial analysts. # Deflated by annual rate of core inflation.
Source: NBU`s estimates.

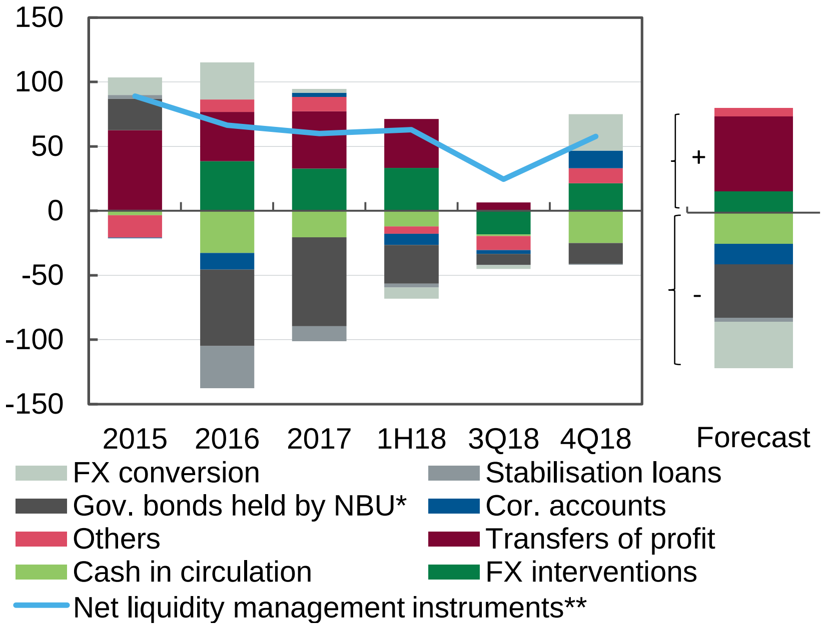
Real Sovereign Bond Yields in Selected Emerging Markets, % pa



* A difference of average monthly 1-year bond yield on the primary market and inflation forecasts as of end-2019.
Source: DekaBank, Consensus Economics, Thomson Reuters, NBU`s forecast and estimates.

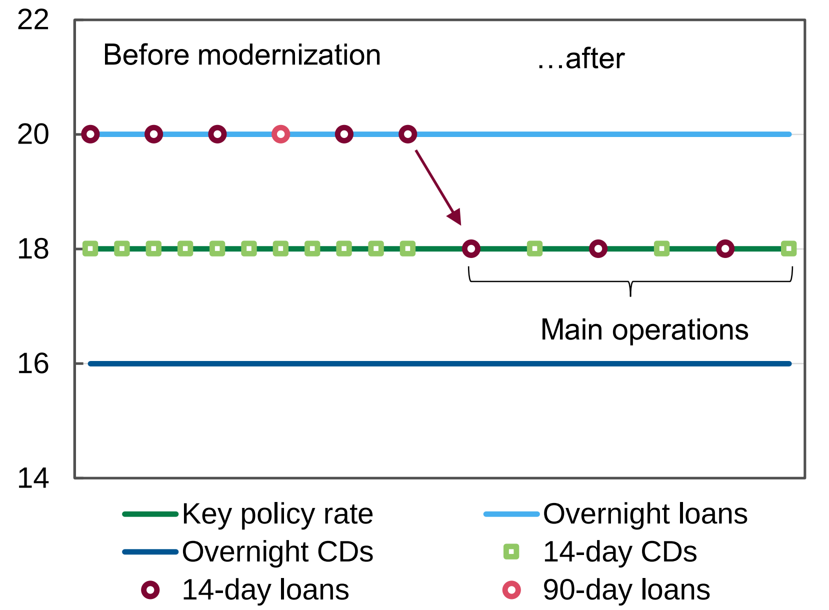
Box. Recent changes to operational design were aimed at increasing flexibility of monetary policy

Factors Affecting the Banking System Liquidity in 2015-2018, UAH bn, and Forecast for 2019



Source: NBU estimates and forecast

Operational Design of Monetary Policy of the NBU

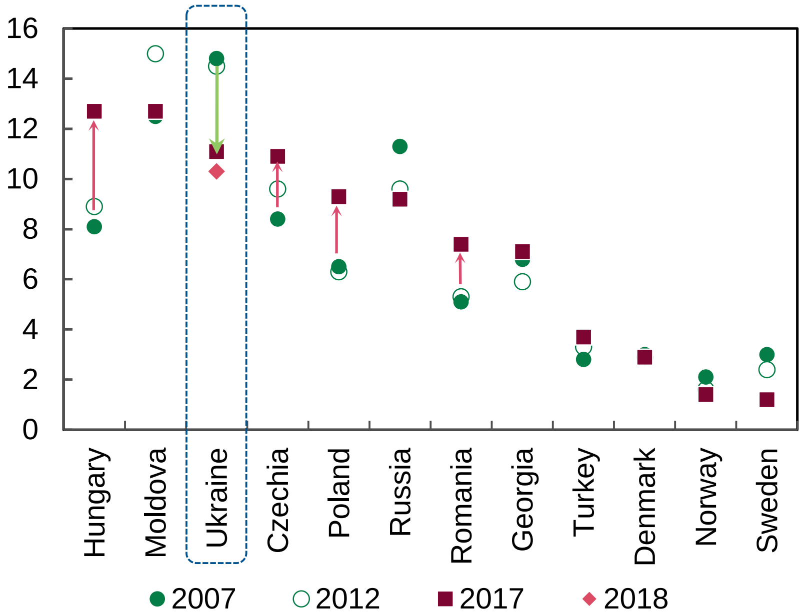


Source: NBU

- An increase in cash in circulation alongside substantial government debt repayments may cause a further decrease in banking system liquidity, eventually switching to the deficit. During transition, the position can be unstable causing unwanted volatility of market interest rates
- Following the modernization of the operational design of monetary policy, effective since 11.01.2019, now key policy rate is applied to both main liquidity management instruments: 14-day CDs and 14-day refinancing loans, which are held every Friday by turn

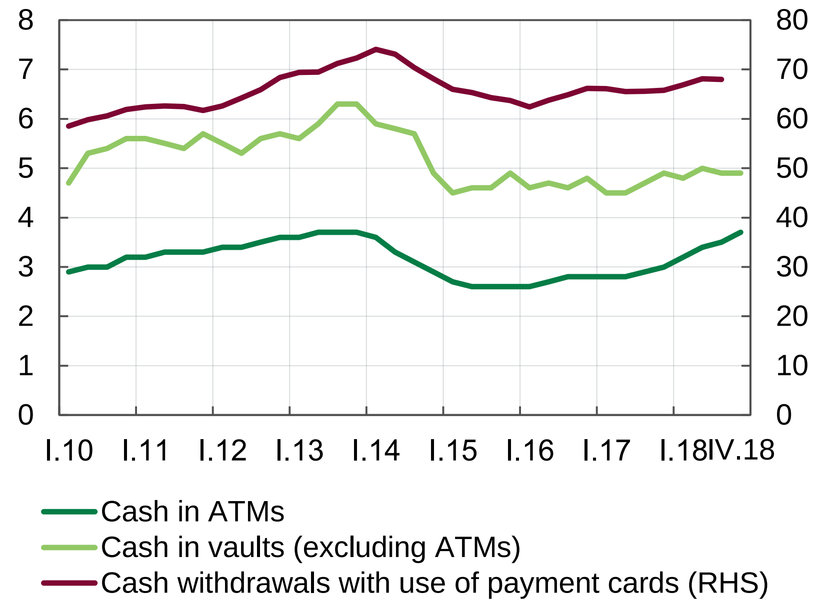
Cashless development has brought us closer to our neighbors in context of cash demand

M0-to-GDP Ratio in Selected Countries, %



Source: IMF,SSSU, NBU`s estimates and calculations.

Ratios of Cash in Vault/M0, Cash Withdrawals with Use of Payment Cards/Final Consumer Expenses of HH, %

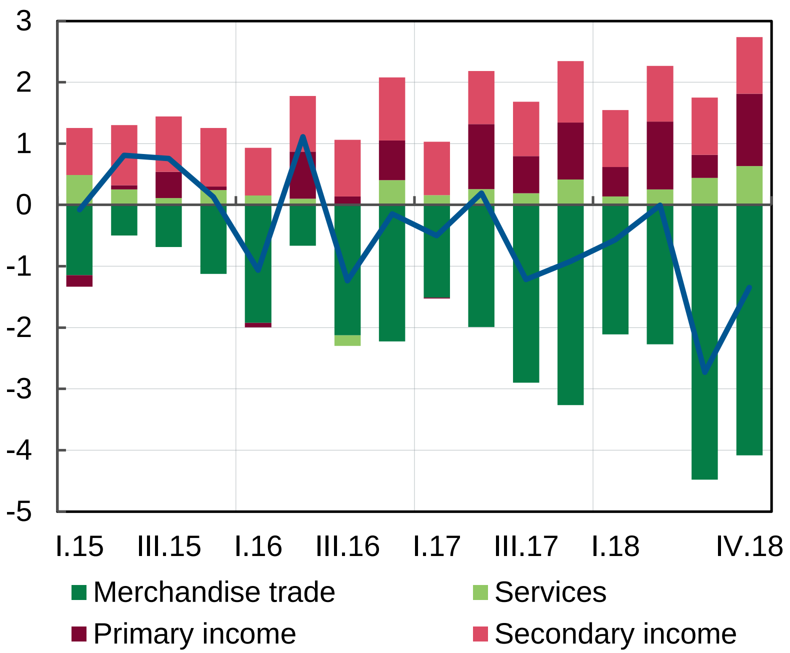


Source: NBU.

- Demand for cash rose in 2018 as the growth of the Ukrainian economy accelerated
- However, due to robust increase in non-cash transactions, cash-to-GDP ratio kept decreasing
- Ironically, however, rising use of payment cards also intermediates cash circulation

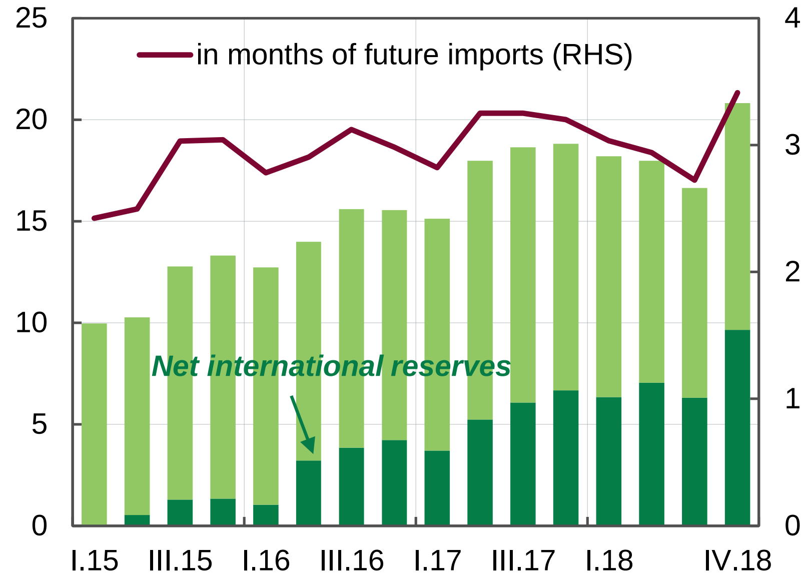
In Q4 2018, current account deficit slightly narrowed compared to Q3 2018, strong capital inflows led to accumulation of reserves

Current Account Balance, USD bn



Source: NBU.

International Reserves, USD bn

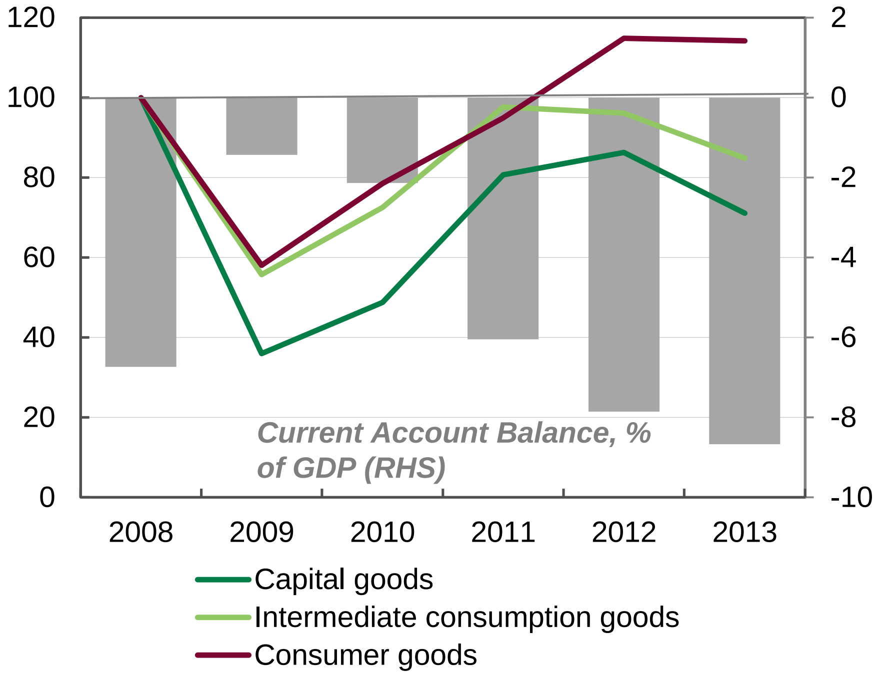


Source: NBU.

- In Q4, the growth in imports weakened noticeably. That can be attributed to the deterioration of business sentiments, favorable FX market performance and some idiosyncratic factors
- Worse metallurgical industry performance and less benign external environment weighed on exports growth. However, thanks to a bumper corn harvest, merchandise exports growth moderately accelerated in Q4
- Balance of payments surplus along with IMF tranche disbursement led to an increase in gross international reserves to 5-year maximum

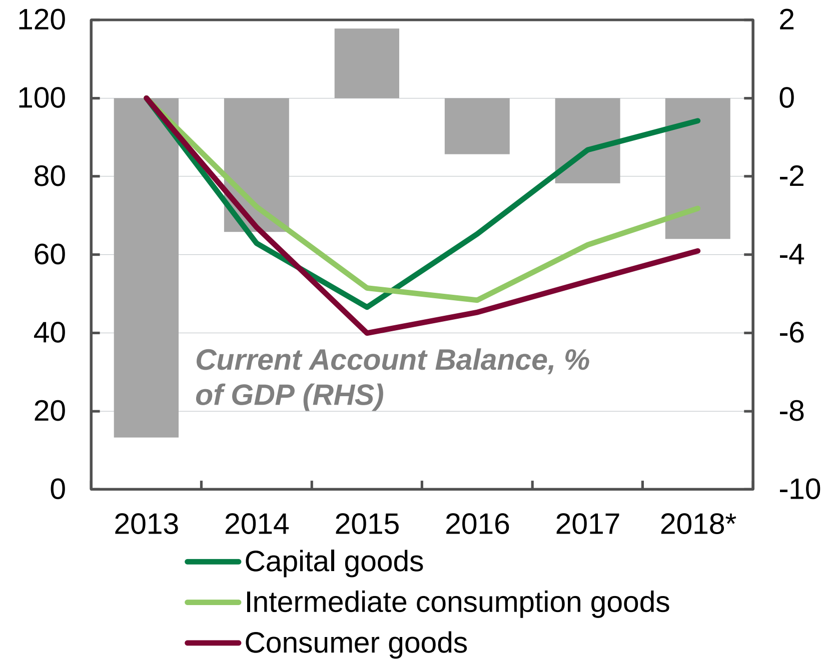
Box. After the 2014-2015 crisis, investment demand was the main driver for the recovery in imports

CA Balance and Imports by BEC, 2008=100



Source: NBU.

CA Balance and Imports by BEC, 2013=100

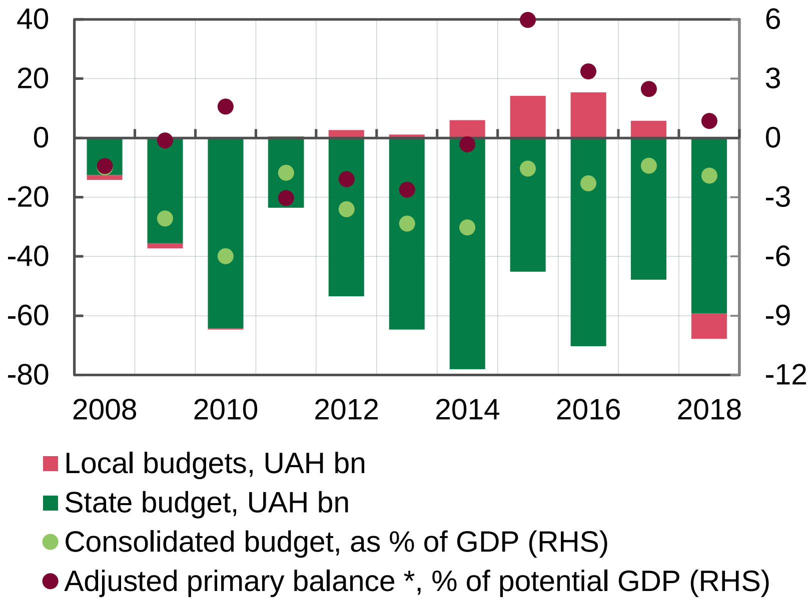


* Estimates based on January – November 2018 data
Source: NBU.

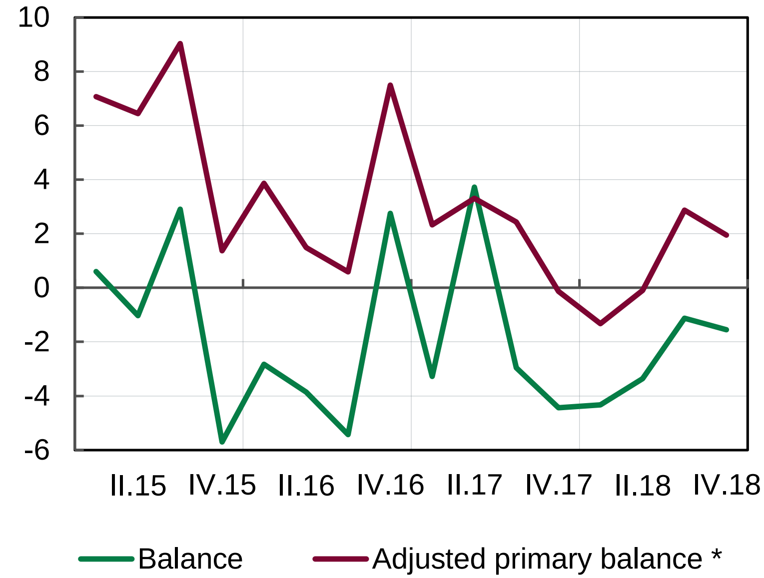
- During 2009 - 2013, buoyant consumer demand, mainly on cars and non-durable consumer goods, was the key factor, driving the widening of the current account deficit
- Investment growth also contributed in 2011-2012, but it was partly boosted by Euro-2012 football championship projects
- After 2014-2015 crisis, CA deficit has been also gradually widening. However, unlike in the previous periods, it was mainly driven by robust investment activity, including due to high demand from agricultural sector and green energy projects

In 2018, fiscal policy softened compared to a year before due to its expansionary stance in H1 2018

Selected Indicators of Consolidated Budget Balance and Fiscal Stance*



Fiscal Balance of the General Government, % of potential GDP

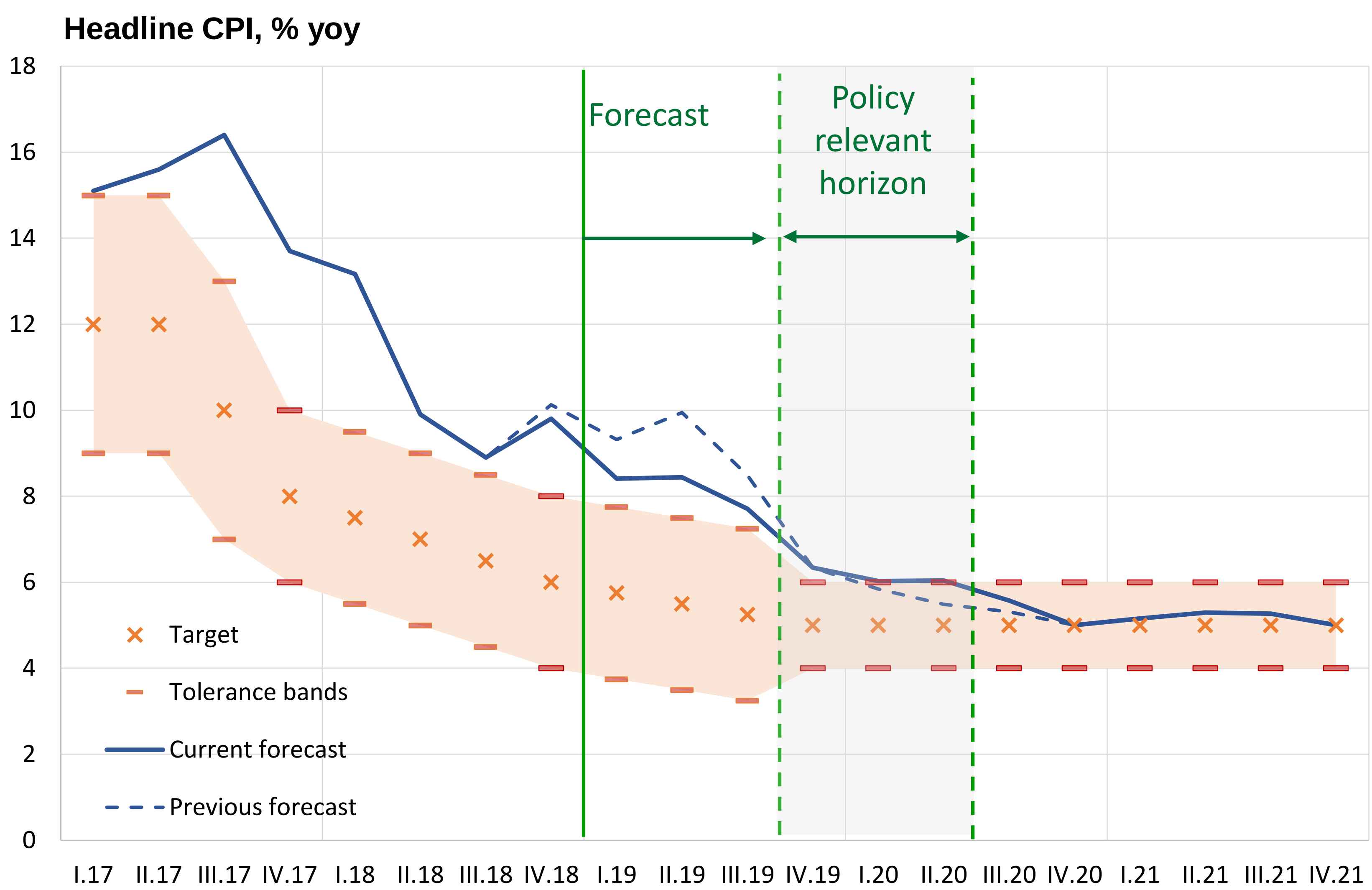


*The fiscal stance is calculated as the cyclically adjusted primary fiscal balance (CAPB) of the general government. CAPB is the difference between seasonally adjusted revenues, in the structure of which tax revenues are adjusted for cyclical changes in GDP, and seasonally adjusted primary expenditures). Additionally, one-off proceeds (such as unplanned funds from special confiscation and effects from the Stockholm Arbitration) are subtracted from revenues. Positive value means tight fiscal policy, negative – expansionary fiscal policy.

Source: Treasury, NBU staff estimates.

- In 2018, the state budget deficit widened compared to 2017. However, the ratio of deficit to GDP remained almost flat, including thanks to one-off revenues (UAH 18.5 bn)
- Pension Fund ran implicit deficits for most months of 2018. Local budgets also reported a UAH 8.5 bn deficit, for the first time since 2010
- Despite significant fiscal expenditures in December, overall fiscal policy was tight in H2 2018

Baseline scenario is consistent with previous commitment: inflation will enter the target range at the beginning of 2020



Summary

- Main export commodities prices are flat on forecast horizon in line with the previous forecast. Lower world energy prices lead to terms of trade improvement and stronger hryvnia.
- GDP outlook remains unchanged. Tight monetary and fiscal policy along with political uncertainty put drag on GDP in 2019. In 2020-2021, growth acceleration is expected due to monetary policy loosening and rise of investment activity after political situation stabilization
- Inflation will slowdown to the target in 2020. In 2019, appreciation and lower energy prices effects will be offset by higher growth of utilities prices and stronger momentum in services prices growth
- Stronger ER and effects from Russian trade sanctions determine relatively high CA deficit on the forecast horizon (3-4% GDP) amid lower gas transit volumes from 2020
- CA account deficit will be financed by the inflows of debt capital against the background of high interest rates, as well as the sales of FX cash by the population
- As a result, international reserves will remain at the current level (around USD 21 bn) on the forecast horizon

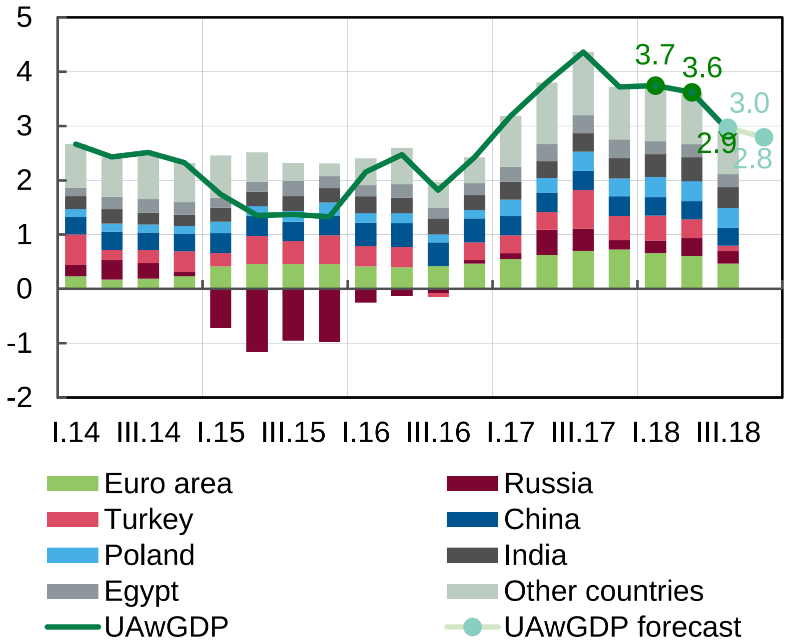
Key macroeconomic indicators

	2017	2018	2019	2020	2021
Real GDP, change, %	2.5	3.3 (3.4)	2.5 (2.5)	2.9 (2.9)	3.7
Nominal GDP, UAH bn	2983	3 553 (3 540)	3 965 (3 950)	4 336 (4 320)	4 744
CPI, y-o-y, %	13.7	9.8 (10.1)	6.3 (6.3)	5.0 (5.0)	5.0
Core CPI, y-o-y, %	9.5	8.7 (7.9)	5.0 (5.1)	3.6 (3.6)	3.7
Current account balance, USD bn	-2.4	-4.7 (-3.4)	-4.5 (-3.5)	-5.6 (-4.2)	-6.2
% GDP	-2.2	-3.6 (-2.7)	-3.1 (-2.5)	-3.6 (-2.8)	-3.9
BOP (overall), USD bn	2.6	2.9 (0.8)	-1.1 (-1.6)	-0.1 (-0.4)	-0.7
Gross reserves, USD bn	18.8	20.8 (19.2)	20.6 (18.6)	21.4 (19.1)	21.4

in ( ) – previous forecast (IR, October 2018)

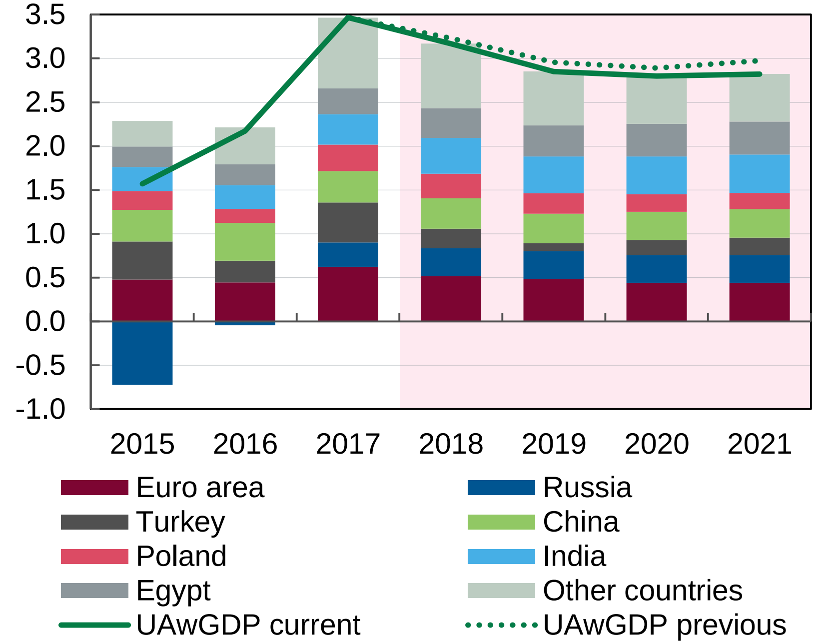
Rising geopolitical tensions and trade wars determine weak external demand outlook

Contributions of Main Trading Partners of Ukraine to the Annual Change of UAwGDP, % y-o-y



Source: NBU estimate (preliminary data).

Contributions of Main Trading Partners of Ukraine to the Annual Change of UAwGDP, % y-o-y

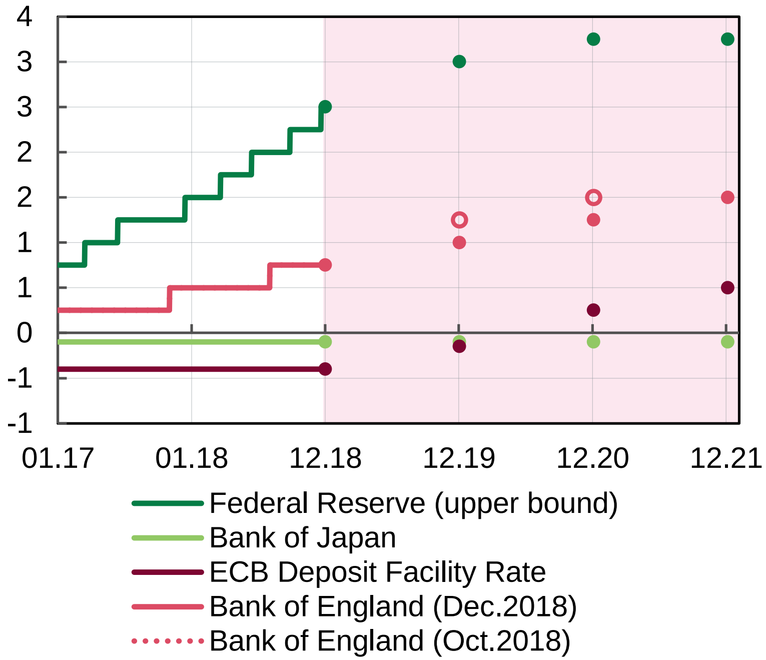


Source: NBU estimate (preliminary data).

	2018	2019	2020
Euro area	2.0 (-0.1)	1.9	1.7
USA	2.8 (+0.3)	2.2	2.0 (-0.2)
China	6.7	6.5	6.3
Turkey	3.6	1.5 (-1.0)	2.8 (-0.4)
Russia	1.7	1.7 (-0.3)	1.7 (-0.3)

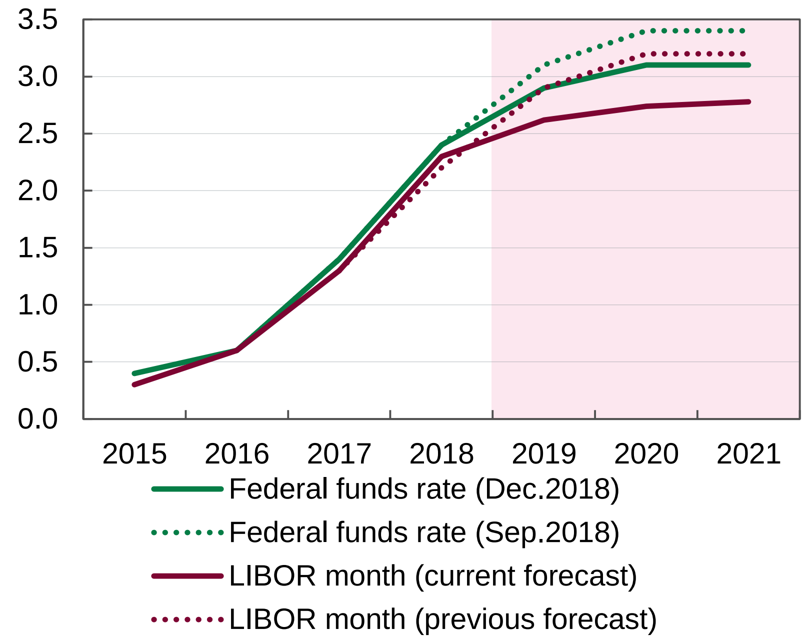
Normalization of monetary policy in advanced economies will be more restrained than previously expected

Key policy rates (eop) of major central banks, %



Source: official web-pages of central banks, Bloomberg, NBU staff estimates.

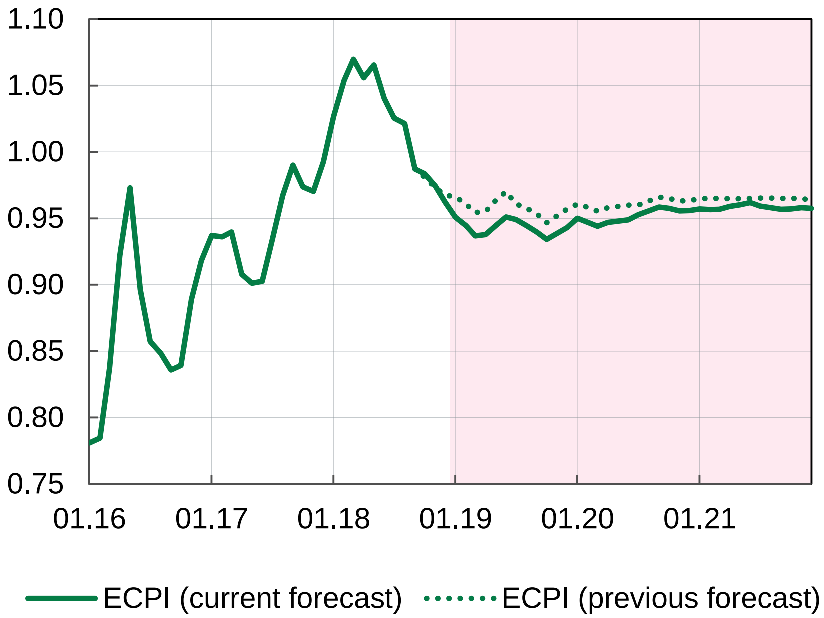
Federal funds rate (eop) and LIBOR, %



Source: Federal Reserve, NBU staff estimates.

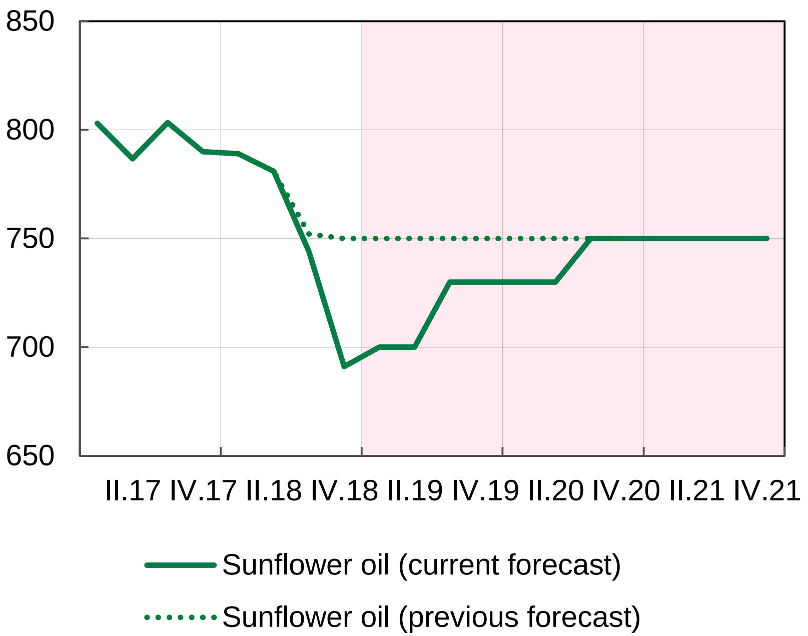
External price environment for Ukrainian exporters becomes more challenging (due to fall of sunflower oil prices)

ECPI, Dec.2014 = 1



Source: NBU estimate (preliminary data).

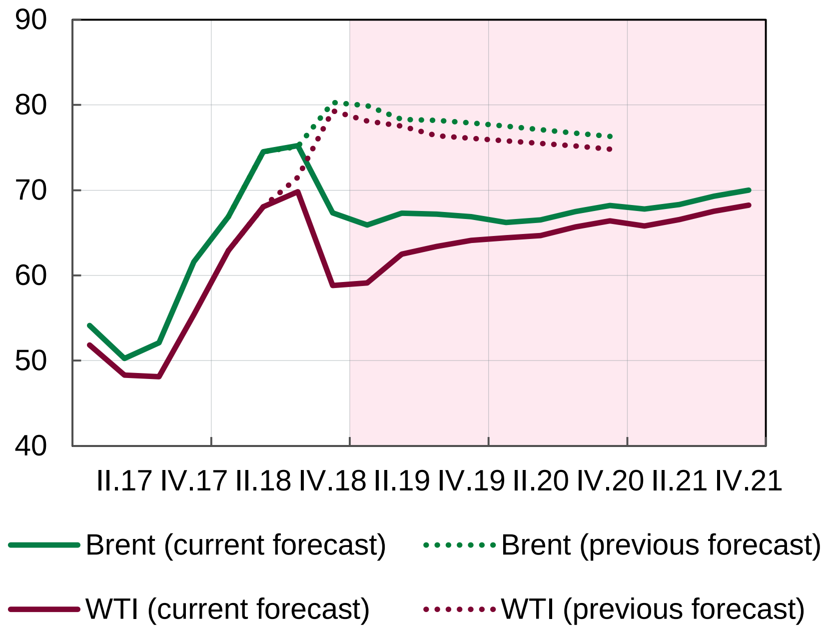
Sunflower Oil World Price, USD/MT



Source: Thomson Reuters, NBU estimate.

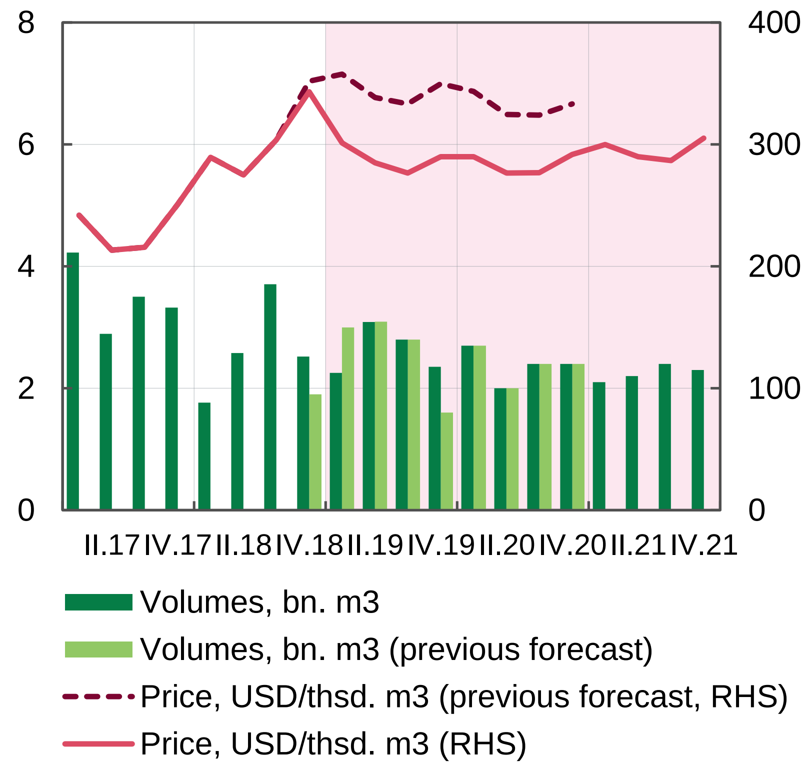
Ukraine benefits from lower energy prices – better terms of trade and lower pressure on hryvnia exchange rate

World Crude Oil Prices, USD/bbl, quarterly average

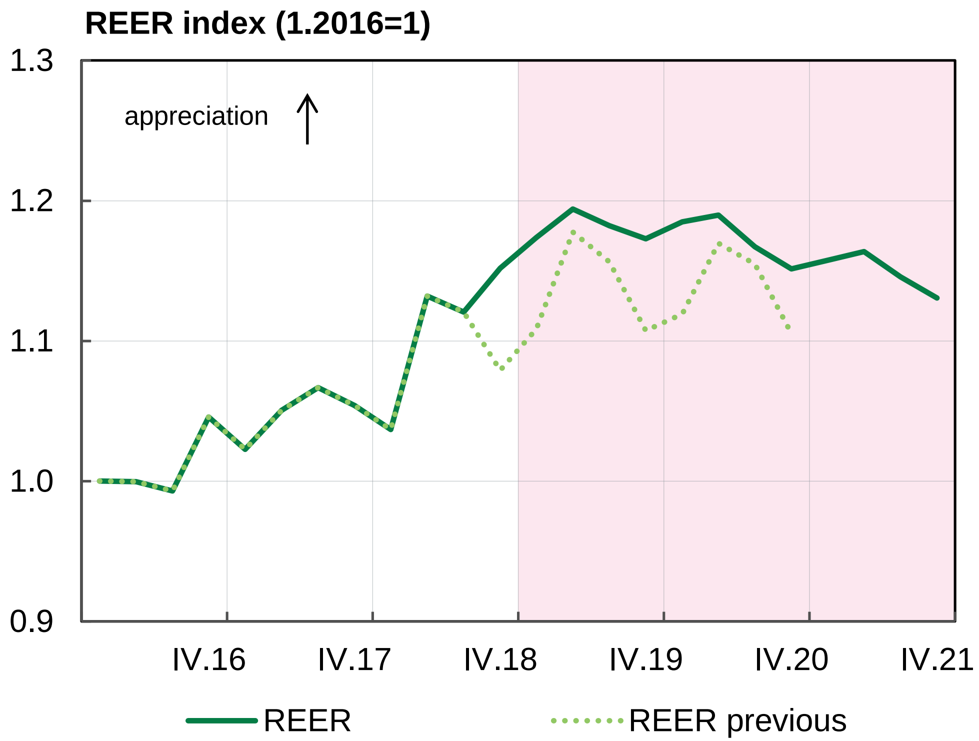


Source: Thomson Reuters, NBU estimate.

Gas imports



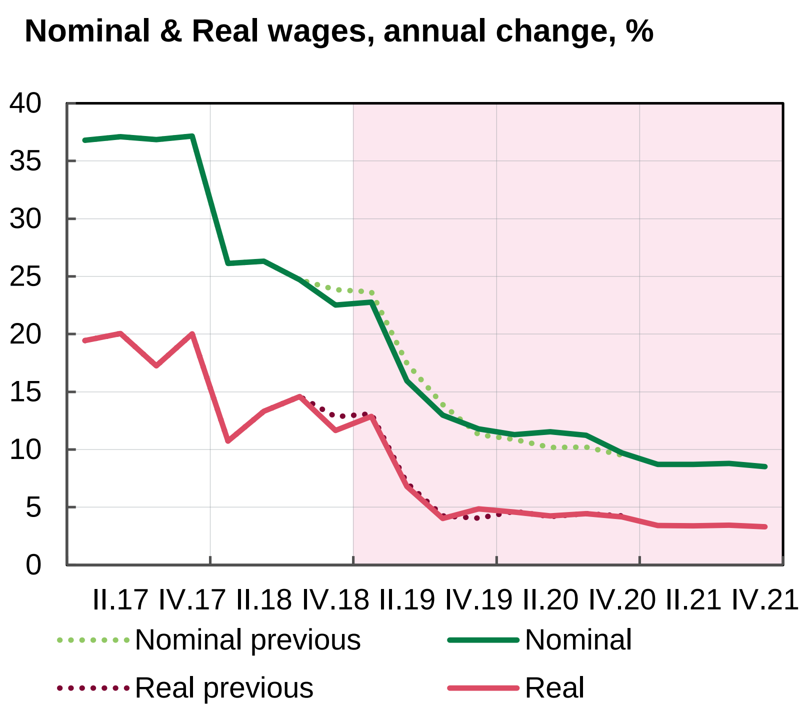
Hryvnia is stronger due to lower energy prices and richer harvest, even despite higher risk premium

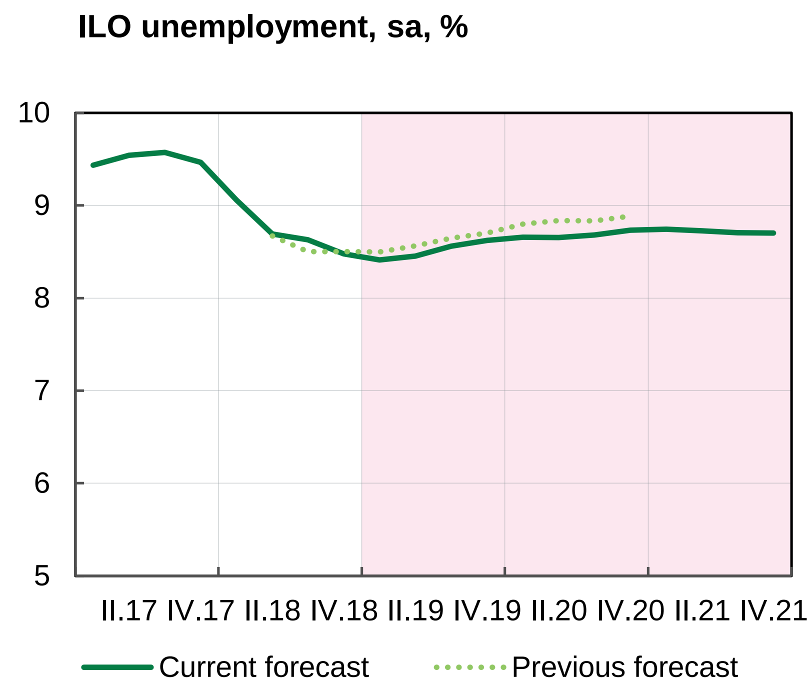


average	2017	2018	2019	2020	2021
REER, % change	+3.8	5.9 (+4.2)	6.3 (+4.2)	-0.6 (0.0)	-2.0

in ( ) – previous forecast (IR, October 2018)

High wages growth reflects labor migration effects on local labor market



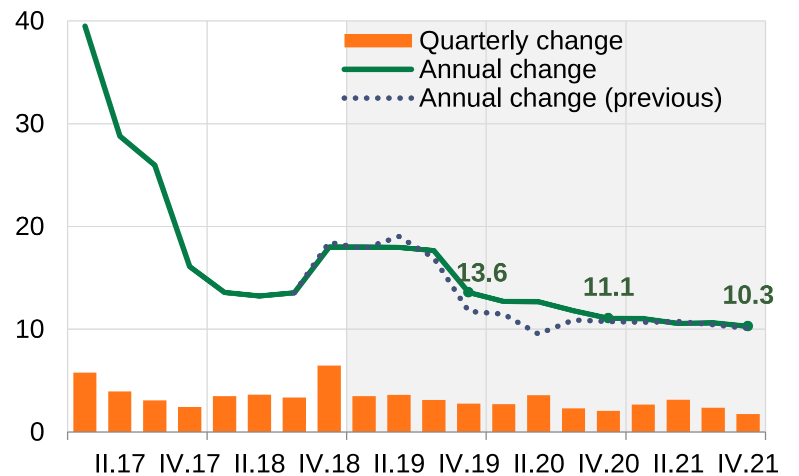


change, %	2018	2019	2020	2021
Real wages	**12.5**	**7.0**	**4.5**	**3.5**
- previous forecast	*12.9*	*7.0*	*4.5*	
Nominal wages	**24.8**	**15.6**	**10.9**	**8.7**
- previous forecast	*25.0*	*16.2*	*10.2*	

Delay of heating tariff adjustment pushes administrative inflation in 2019

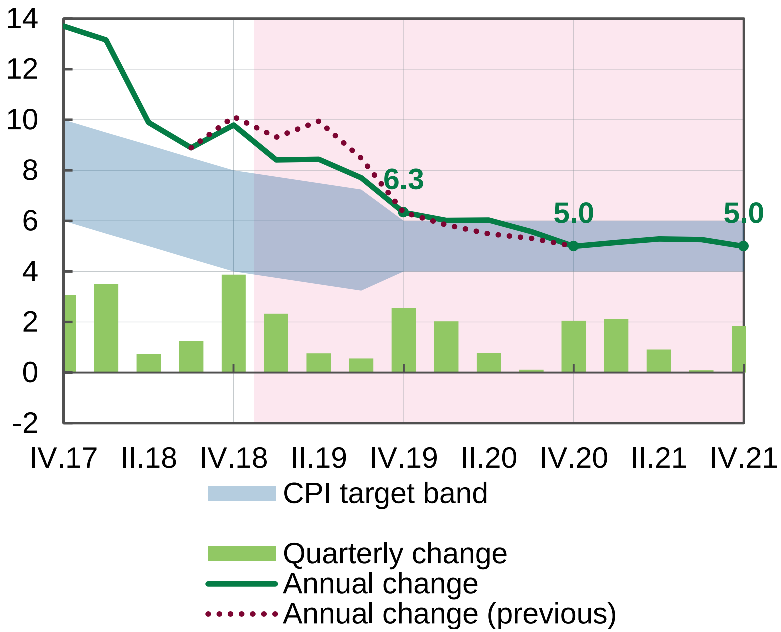
	share, %	2018		2019		2020		2021	
		act.	prev.	new	prev.	new	prev.	new	prev.
Admin CPI	*18.5*	**18.0**	*18.4*	**13.6**	*11.7*	**11.1**	*10.8*	**10.3**	*10.1*
Natural gas	*1.7*	22.9	*23.5*	15.2	*15.0*	18.0	*15.0*	13.0	*12.0*
Heating	*1.3*	5.2	*20.0*	31.0	*12.0*	15.0	*12.0*	10.0	*9.0*
Hot water	*0.4*	3.2	*20.0*	31.0	*12.0*	15.0	*12.0*	10.0	*9.0*
Cold water	*0.3*	19.9	*14.0*	9.5	*9.5*	9.0	*9.0*	9.0	*9.0*
Electricity	*0.7*	0.0	*0.0*	25.0	*25.0*	20.0	*20.0*	20.0	*20.0*
Alcohol	*4.4*	10.1	*11.0*	6.0	*10.0*	9.0	*9.0*	9.0	*9.0*
Tobacco	*3.9*	24.5	*24.0*	19.0	*13.0*	12.0	*12.0*	12.0	*12.0*
Transport	*2.8*	28.9	*24.5*	10.0	*9.0*	8.0	*8.0*	8.0	*8.0*

prev. – previous forecast (IR, Oct 2018)



Inflation in 2019 is driven by cost-push and demand-pull factors. CPI will approach the target band in Q1 2020

Headline CPI, %



change, %	*weight, %*	2018		2019		2020		2021	
CPI	***100.0***	**9.8**	*10.1*	**6.3**	*6.3*	**5.0**	*5.0*	**5.0**	*5.0*
Core CPI	*58.9*	8.7	*7.9*	5.0	*5.1*	3.6	*3.6*	3.7	*3.7*
Raw food	*18.6*	3.3	*4.9*	3.4	*4.0*	3.0	*3.1*	3.0	*3.3*
Admin	*18.5*	18.0	*18.4*	13.6	*11.7*	11.1	*10.8*	10.3	*10.1*
Fuel	*4.0*	9.1	*17.5*	3.8	*7.4*	4.3	*5.0*	5.0	*4.0*

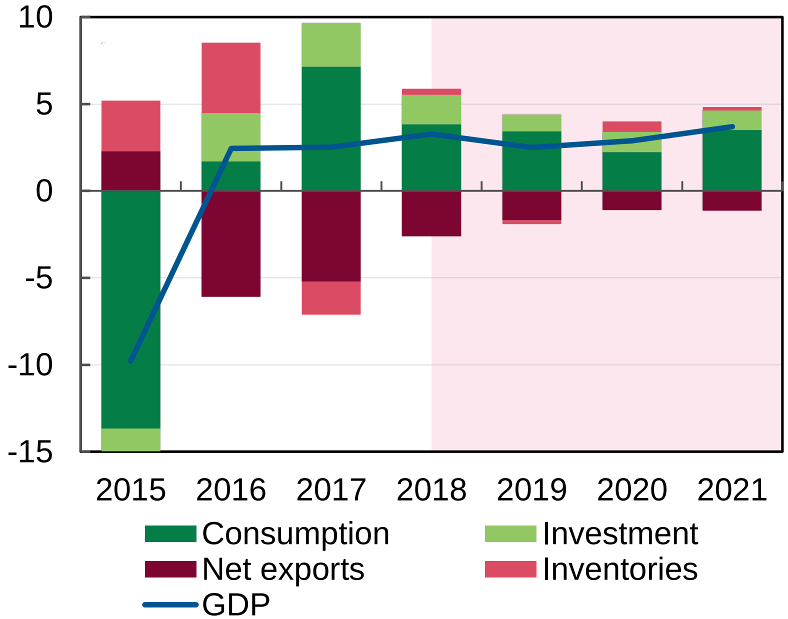
(gray color) – previous forecast (IR, Oct 2018)

IMF Inflation targets

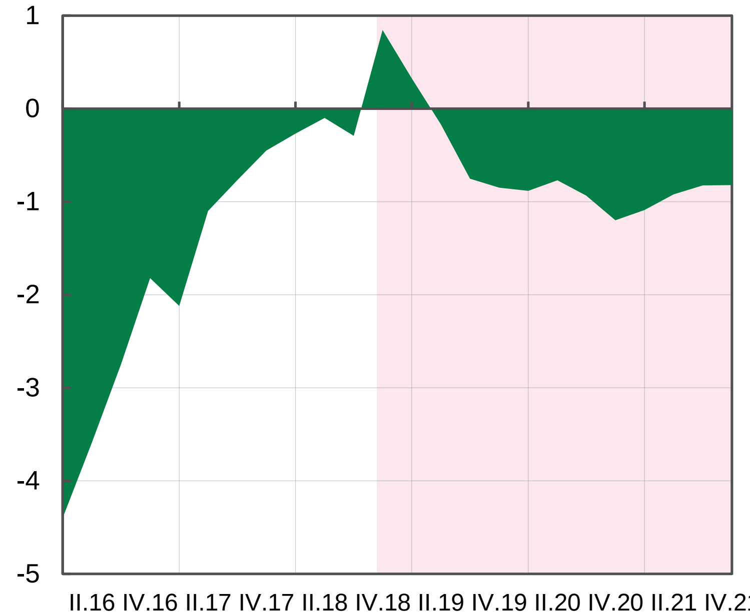
	2018 Q4	2019 Q1	2019 Q2	2019 Q3	2019 Q4
Outer consultation band, triggering consultation with the Board		2.25-10.5		1.75-10.0	
Inner consultation bands, triggering consultation with staff	4-8	3.75-7.75	3.5-7.5	3.25-7.25	4-6

GDP outlook is unchanged. Tight monetary and fiscal policy along with political uncertainty put drag on GDP in 2019

Contributions to Real GDP Growth, pp



Output gap, % of potential GDP



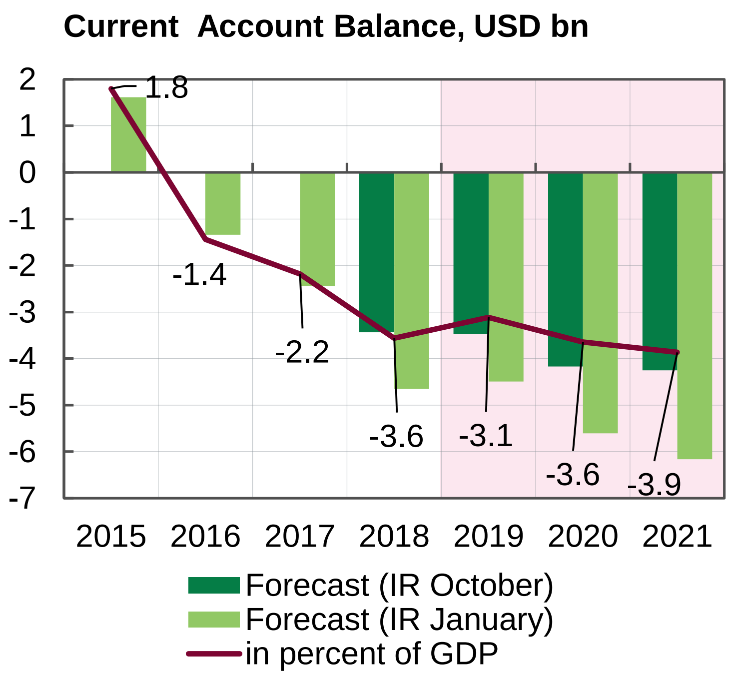
	W,%	2018	2019	2020	2021
GDP	100	**3.3** (3.4)	**2.5** (2.5)	**2.9** (2.9)	**3.7**
Consumption	87	4.4 (4.5)	3.9 (4.0)	2.5 (2.5)	3.9
Private consumption	66	5.7 (5.5)	4.9 (4.9)	3.0 (3.0)	4.7
Gross fixed capital formation	16	10.5 (10.9)	5.7 (5.7)	6.7 (6.7)	6.0
Exports of G&S	48	-2.3 (1.3)	2.1 (1.0)	1.2 (1.2)	2.0
Imports of G&S	56	2.7 (4.2)	4.9 (4.3)	3.2 (3.2)	4.0

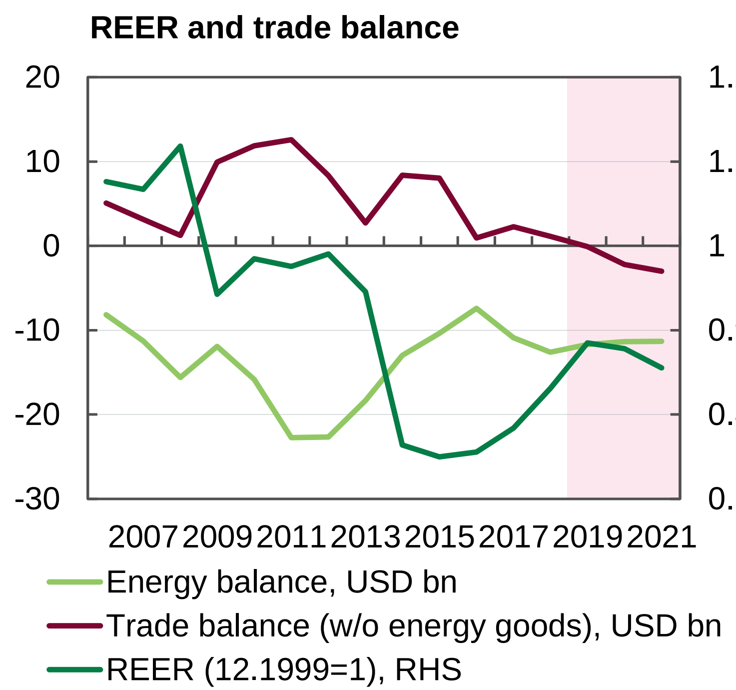
in ( ) – previous forecast (IR, October 2018)

Growth acceleration in 2020-2021:
- rise of investment activity after political situation stabilization
- monetary policy loosening

Contribution of agriculture to GDP in 2018 = **+0.7 pp**
Contribution of agriculture to GDP in 2019 = **-0.1 pp**

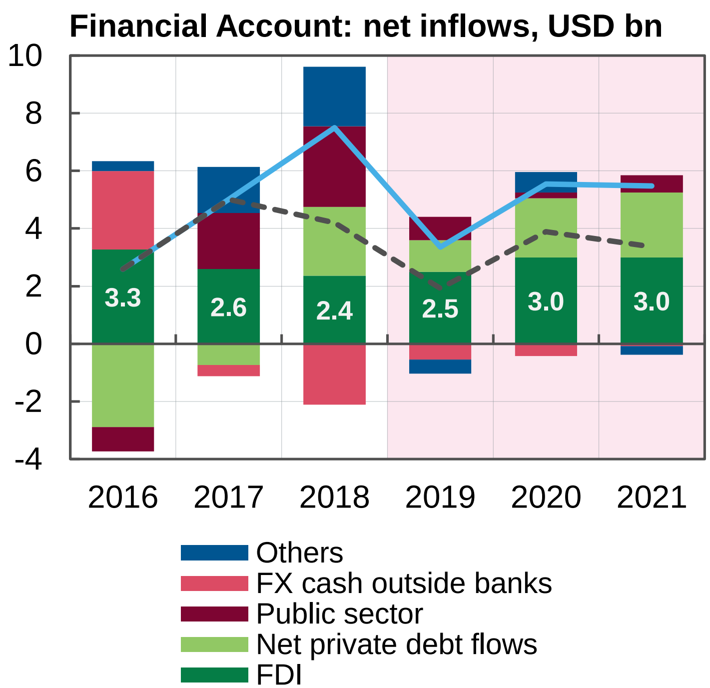
In 2019-2021, CA deficit will remain substantial due to stronger ER and decrease in pipeline transportation

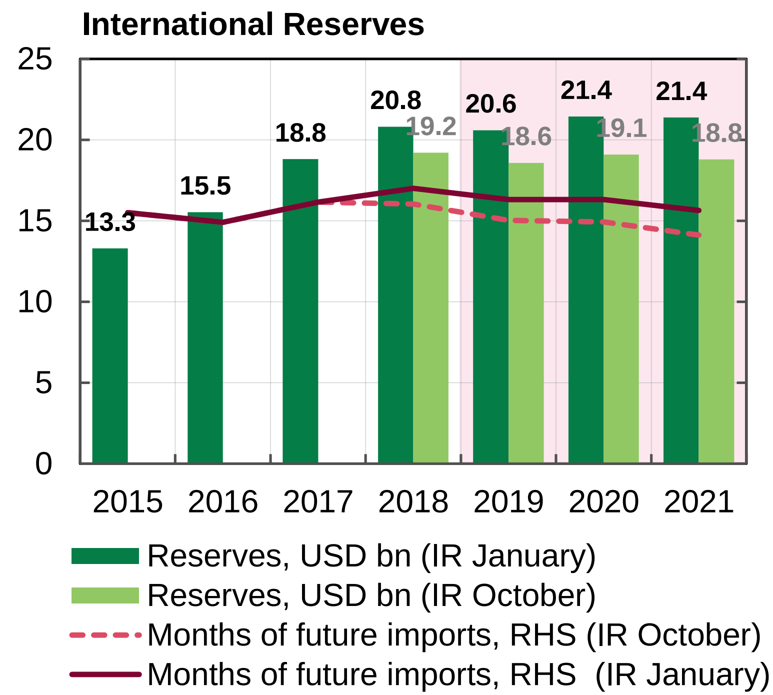




- In 2019, CA deficit shrinks owing to soaring stocks of record high corn harvest and lower energy prices
- In 2020-2021, CA deficit widens due to decrease in pipeline transportation, lower grain harvest and high investment imports after the elections

In 2019-2021, debt flows to private sector will persist financing the CA deficit, international reserves will fluctuate around current level





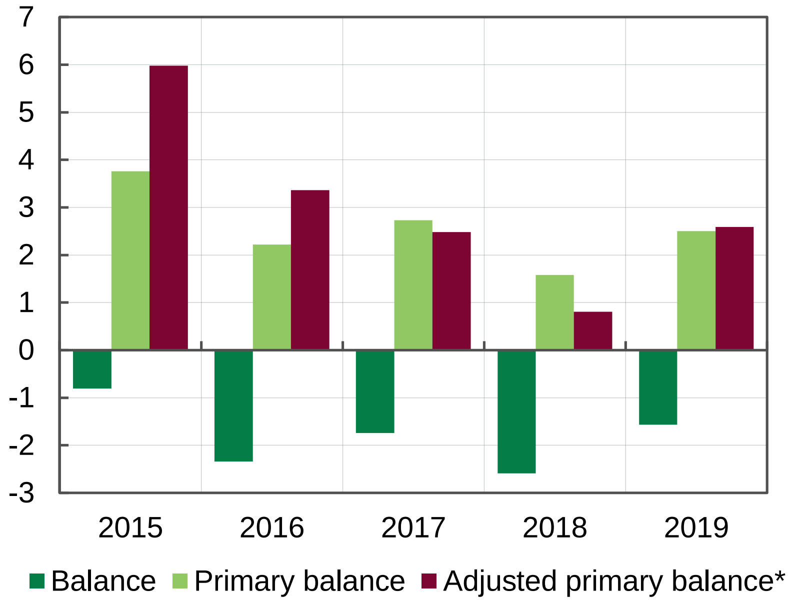
Official financing, USD bn

	2018	2019	2020	2021
IMF	1.4	2.5	2.0	2.0
Other financing	0.6 (EU) + 0.4 (WB)	0.6 (EU) + 0.6 (WB)	1.0	1.0
Eurobonds placement	2.0	2.0	3.0	3.5

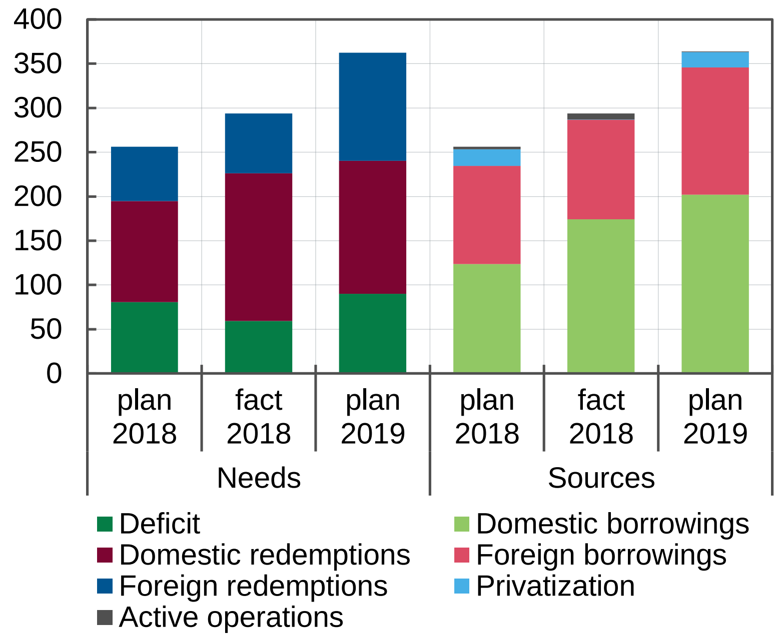
National Bank of Ukraine

Box. In 2019, fiscal policy will be tighter than in 2018 due to large debt repayments

General Government Fiscal Balance and Fiscal Stance*, % of potential GDP



Fiscal Needs of the State Budget and Sources of Financing, UAH bn



* The fiscal stance is calculated as the cyclically adjusted primary fiscal balance (CAPB) of the general government. CAPB is the difference between revenues, in the structure of which tax revenues were adjusted for cyclical changes in GDP, and primary expenditures). Additionally, one-off proceeds (such as unplanned funds from special confiscation and effects from the Stockholm Arbitration) were subtracted from revenues. Positive value means tight fiscal policy, negative – expansionary fiscal policy.

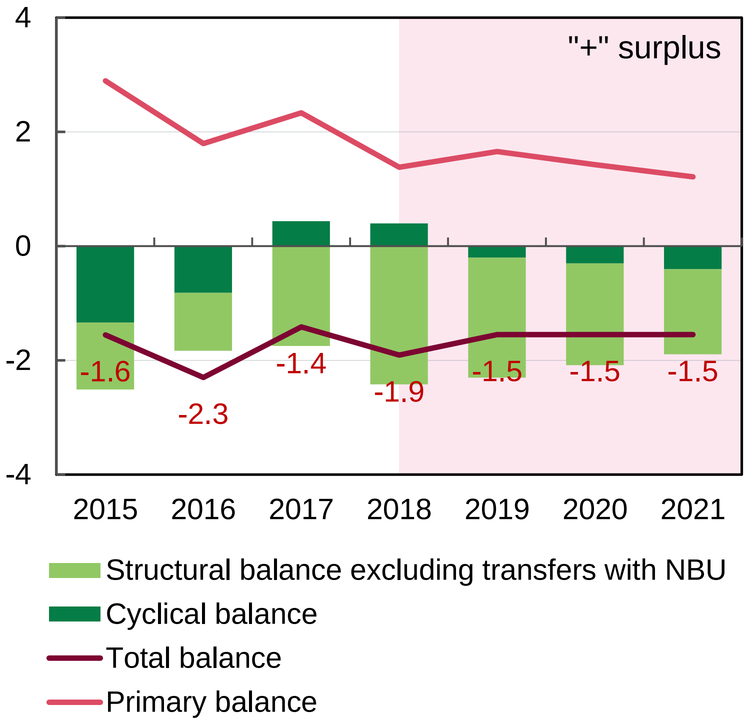
Source: Treasury, NBU staff estimates.

Source: Treasury, VRU, NBU staff estimates.

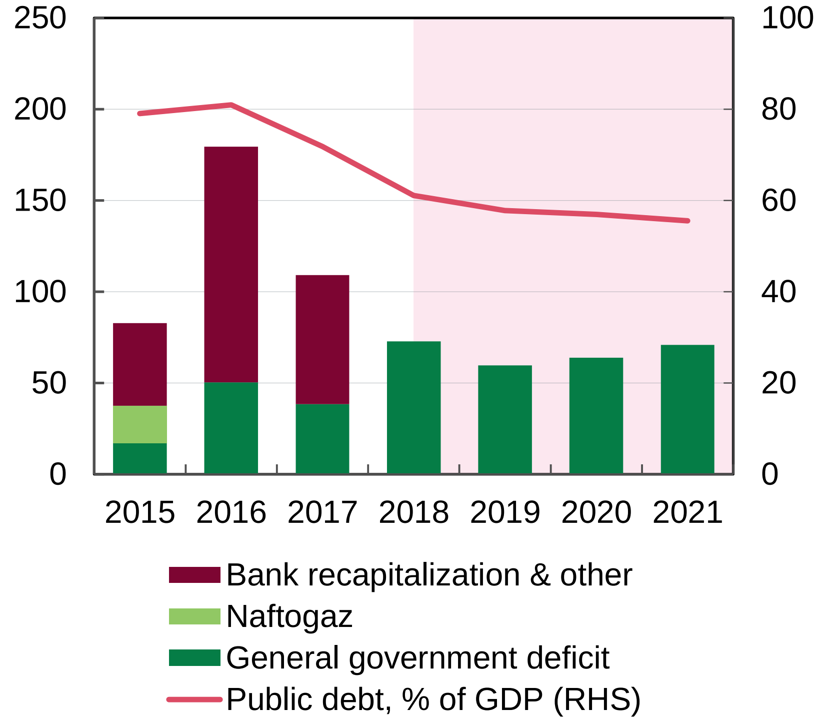
- The 2019 state budget was developed based on a rather conservative macroeconomic forecast. However, the deficit is planned higher (2.3% of GDP) than the 2018 outcome
- Main risks are concentrated on the financing side as fiscal needs of the state budget will rise noticeably, while tapping international capital markets and fulfilling privatization plans can be a challenge
- Hence, the NBU forecasts fiscal policy in 2019 will be stricter than planned by the government

Fiscal policy will be tight due to lack of financing. Public debt to GDP ratio decreases due to low official borrowings

Consolidated Budget Balance, % GDP



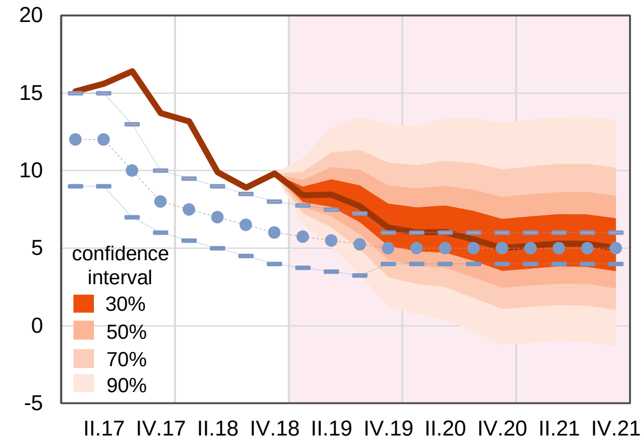
Public Sector Deficit, UAH bn, and Public Debt-to GDP Ratio, %



Main risks

- Increase in uncertainty due to presidential and parliamentary elections fueling inflation expectations
- Significant slowdown in the global economy
- A drop in the global prices of the commodities
- Persistently strong labor migration and the resulting pressures on wages
- Geopolitical risks, such as an escalation of the Azov Sea conflict
- Uncertainty over the volume of gas transit through Ukraine starting in 2020

CPI, yoy, %



Real GDP, %