National Bank of Ukraine

Inflation Report (April 2019)

Kyiv

May 7, 2019

Monetary policy decision: Summary

In April, the NBU Board has decided to cut the key policy rate to 17.5%

- Inflation declining steadily towards the target of 5% allows to start the cycle of key policy rate cuts
- Inflation forecast for year-end 2019 (6.3%) and 2020 (5.0%) is unchanged

A key assumption of the macroeconomic forecast is that Ukraine will continue to cooperate with the IMF, which will allow to attract other official financing, improve access to the international capital markets and support interest of nonresidents in UAH-denominated government bonds

Key risks:

- Increase in uncertainty due to dual elections in 2019
- External risks (global recession, fall of commodities prices)
- Uncertainty over the volume of gas transit through Ukraine from 2020
- Escalation of the military conflict and new trade restrictions by RF
- Ukraine's financial stability and the NBU's independence

As it initiates an easing cycle, the NBU Board points out that the further steps will depend on the realization of inflation risks and an improvement in inflation expectations

The start of the policy rate cuts cycle in April is in line with the evolution of forward guidance in previous statements

December 2018

Risks to inflation decreasing to its 5% target still remain high. If these risks materialize, **the NBU may raise the key policy rate** to a level required to bring inflation back to its target within a reasonable timeframe.

January 2019

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

The Board sees reasons for **launching a monetary easing cycle**, as risks of inflation decrease steadily, and inflation returns to its target, along the trajectory outlined in the central bank's new macroeconomic forecast

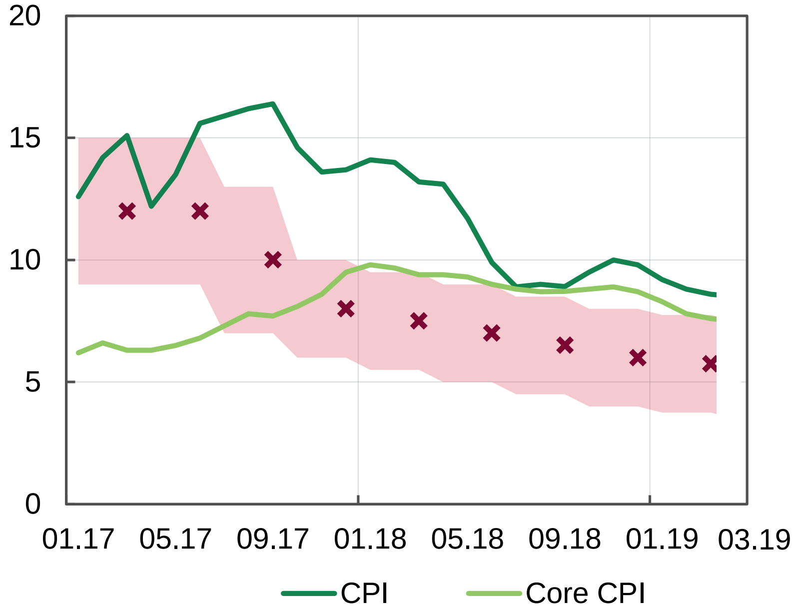
However, if underlying inflationary pressures rise and risks that inflation may not return to its target increase, **the NBU could raise the key policy rate**

March 2019

Although leaving the key policy rate unchanged, the **NBU Board said that it could cut it in the future**. How soon the NBU will adopt an easing cycle will depend on how steadily risks of inflation decrease and inflation expectations improve. Looking ahead, any changes to the key policy rate will be based on the NBU's updated macroeconomic forecast that will be published in April.

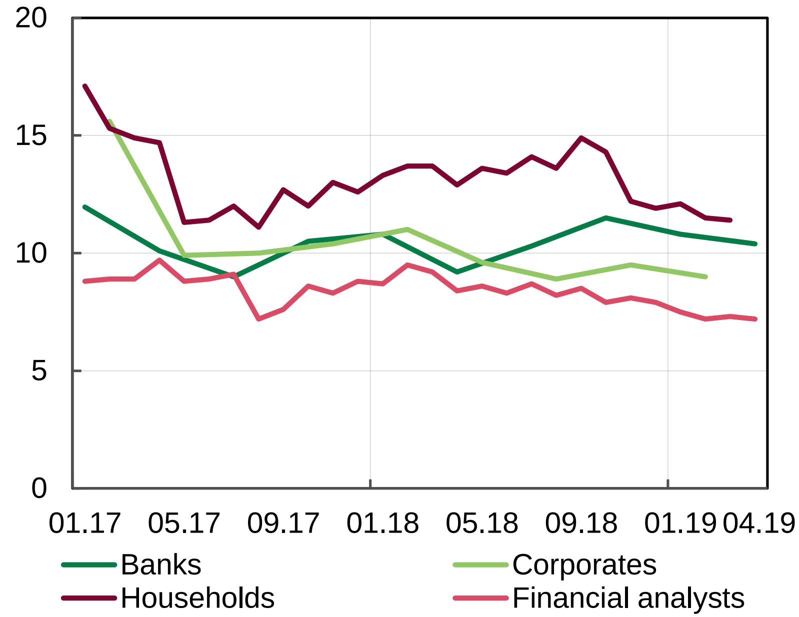
In 2019, headline and core inflation continued to decline supported by stronger hryvnia and low energy prices

Headline and Core Inflation, % yoy



Source: SSSU, NBU.

Inflation Expectations for the Next 12 Months, %

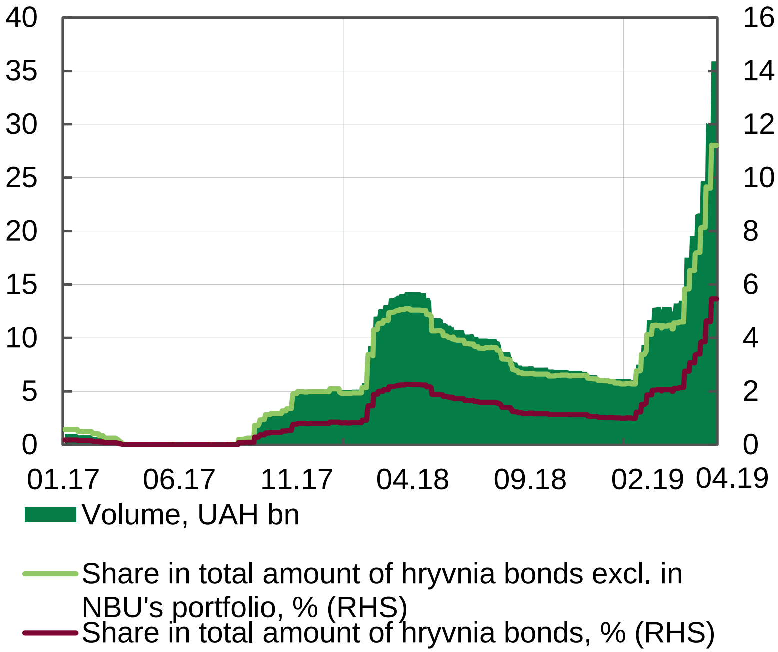


Source: NBU, GfK Ukraine surveys.

- Inflation slowed down to 8.6% yoy in March in line with Jan 2019 IR forecast. Core inflation decreased faster than expected (to 7.6% yoy vs 7.9% yoy in the Jan 2019 IR)
- Meanwhile, services inflation remained elevated, reflecting demand pressures and cost-push factors
- Stronger Hryvnia contributed to improving inflation expectations

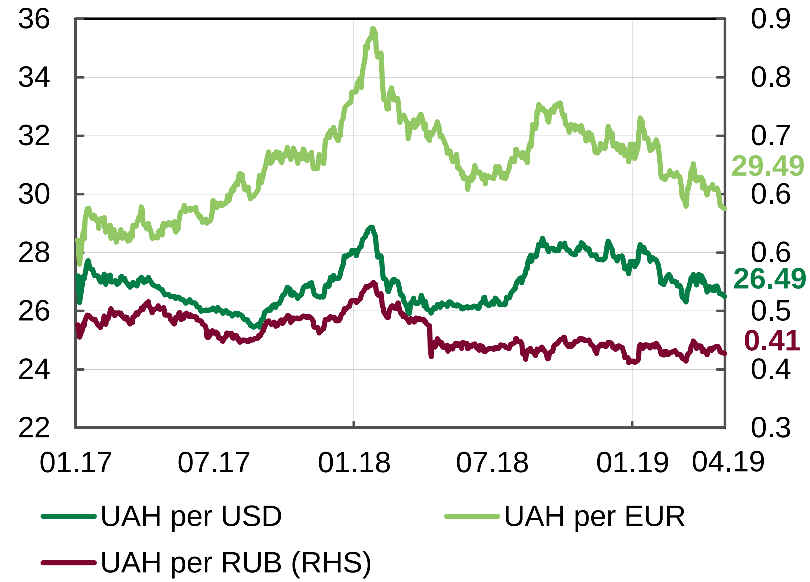
Despite the electoral events, the situation on the Ukrainian financial market remains benign

Hryvnia Domestic Government Bonds Held by Non-Residents



Source: NBU.

Official Hryvnia Exchange Rate, as of 02.05.2019

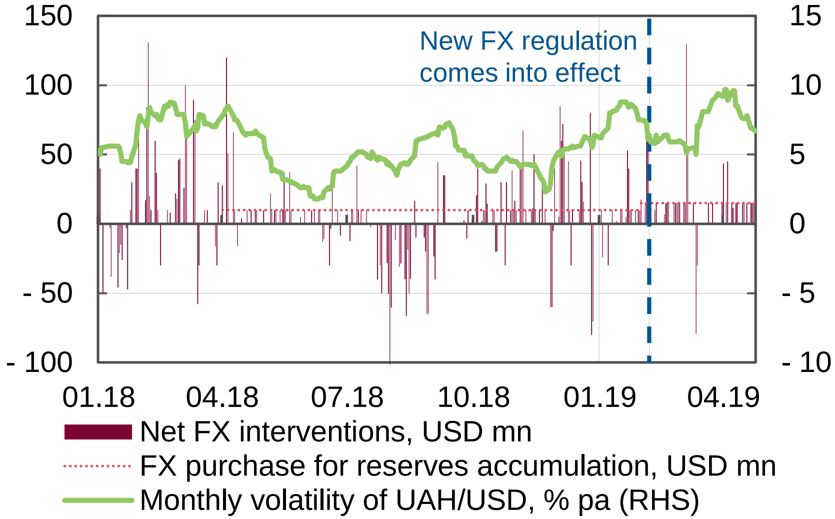


Source: NBU.

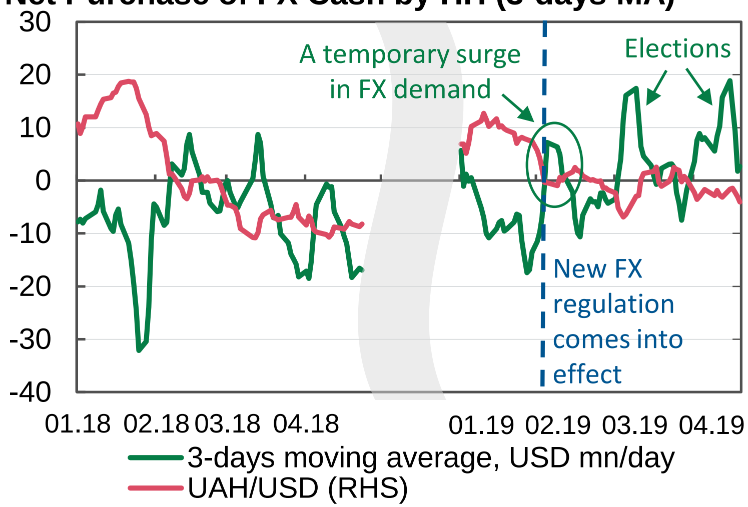
- High yields in hryvnia have attracted foreign capital in the beginning of 2018 and helped soften the foreign capital outflow from Ukraine since April 2018 due to worsening financial conditions for EMs globally
- At the beginning of 2019, non-residents' interest to Ukraine's domestic bonds has revived, contributing to appreciation pressure on the hryvnia

Box. The new FX currency regulation system (effective since 7 February 2019) had a marginal, short-lived effect on the market

NBU's FX Interventions and Volatility of UAH/USD



Net Purchase of FX Cash by HH (3-days MA)



Note: April data ends as of 25.04.
Source: NBU's estimates.

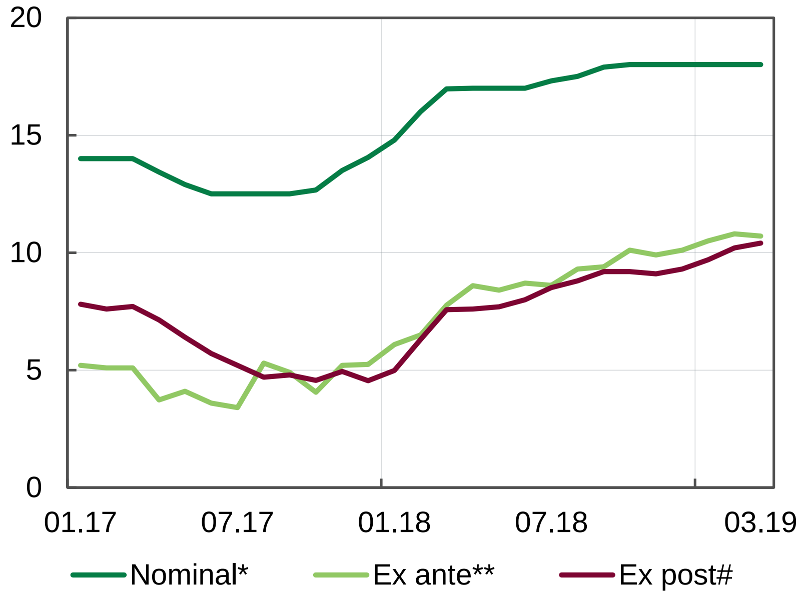
FX Liberalization in the Early 2019

Cancelled	• FX supervision for export-import operations up to UAH 150k • Individual licenses on FX operations • Sanctions in form of ceasing foreign trade activity • Limit on early repayments on foreign debt • Registration of the loans from abroad • Double control in cases when customs declaration is received by another bank
Allowed	• Free account opening abroad for corporates • Banks' FX SWAPS with residents and non-residents • Non-deliverable FWDs and FWDs for debt operations hedging • Settlements in FCY on FX-denominated government bonds • FCY accumulation by corporates on external debt repayments • Investment and giving loans to residents from non-resident banks` LORO accounts
Increased	• Max period of closing export/import contracts – up to 365 days • Limit on FCY transfer abroad by individuals without account opening up to UAH 150k per year
Easing	• Non-residents corporates' operations by accounts, opened in Ukraine • Cross-border movement of currency values – unified obligatory declaring for all types with value from EUR 10k and more

Source: NBU.

Monetary policy stance remained tight. The real key policy rate ranged from 10% to 11% in 2019 – far above the neutral level

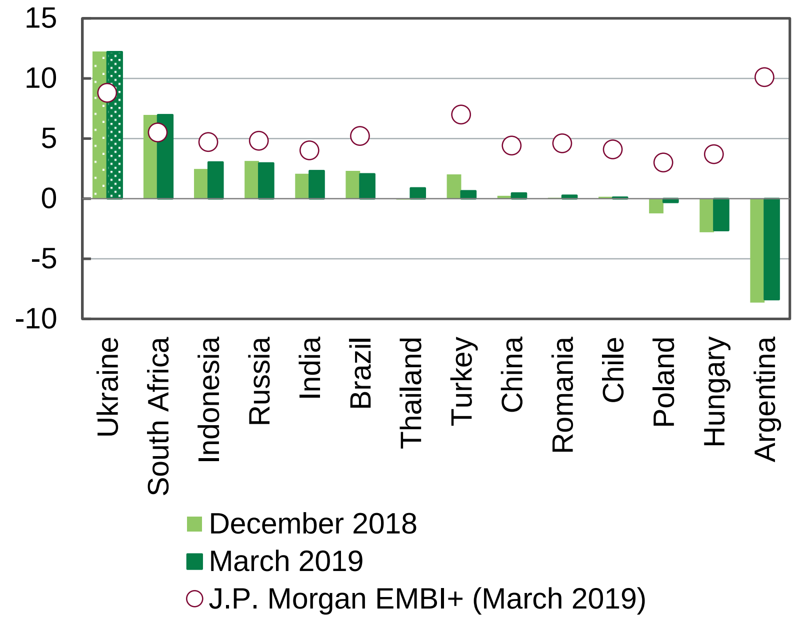
Nominal and Real NBU Key Policy Rate*, % pa



* Nominal rate is NBU's average rate on 14-days CDs.
** Real ex ante is nominal rate deflated by inflation expectations of fin. analysts.
\# Real ex post is nominal rate deflated by current core CPI.

Source: NBU.

Real Sovereign Bond Yields in Selected EM*, % pa



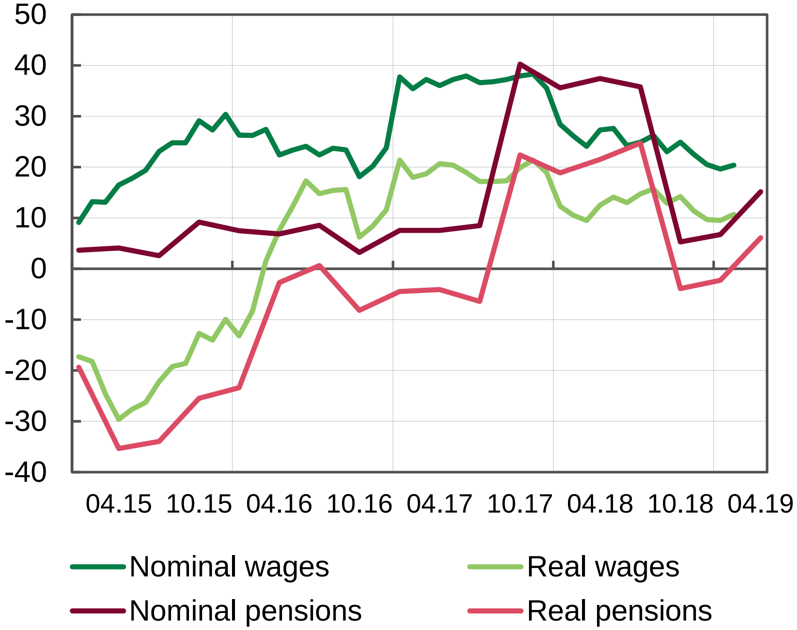
* Real interest rate is calculated as a difference of average monthly 1-year bond yield on the primary market and inflation forecasts as of end-2019. For Ukraine – based on NBU`s estimates.

Source: DekaBank, Consensus Economics, Thomson Reuters, Bloomberg, NBU`s estimates.

- Yields on hryvnia government bonds in real terms are among the highest across emerging markets

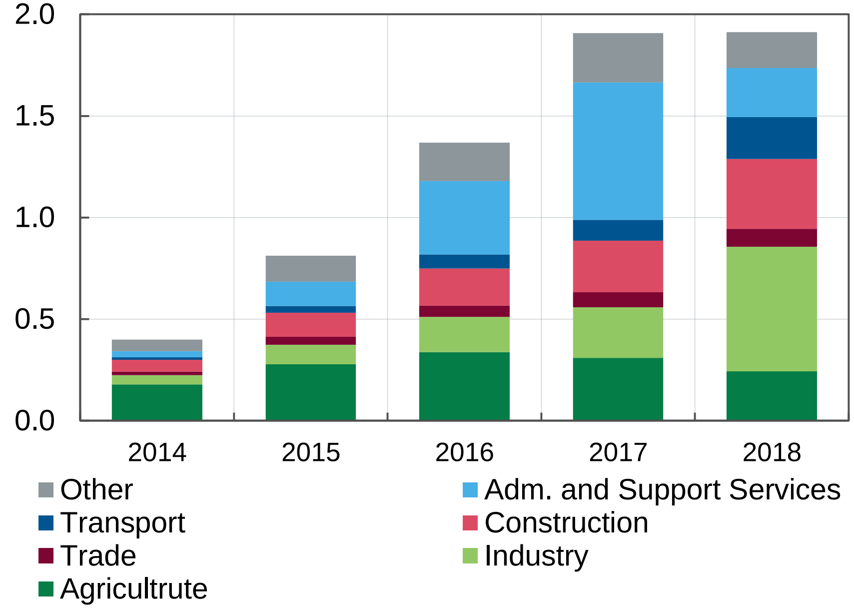
Growing employment and less intensive migration contributed to wage growth deceleration

Wages and Pensions (start of the month), nominal and real, % yoy



Source: SSSU, PFU, NBU staff estimates.

Number of Employers' Declarations and Work Permits Issued for Ukrainians in Poland by Selected Types of Activity, m

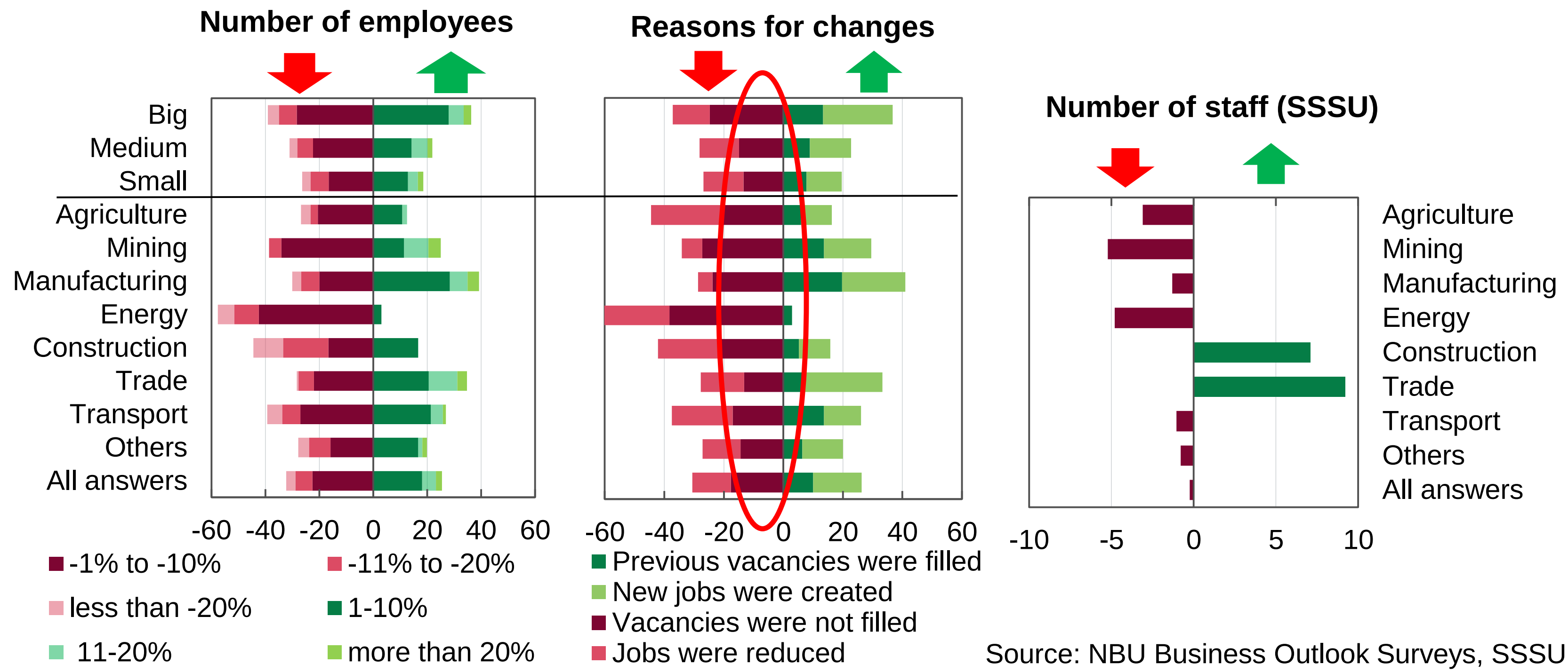


Source: Ministry of Family, Labour and Social Policy of Poland.

- Differential between wages in Ukraine and neighboring countries decreased over the last couple of years
- The growth in pension benefits caught up due the first indexation of pensions in March 2019. Extra pension payments were not included

Box. Enterprise survey results: in 2018, labor demand grew amid expanding activity, but companies felt labor shortage

Distribution of answers for changes in the number of employees and its reasons by firms' characteristics,% and the change in the number of staff in 2018,% yoy

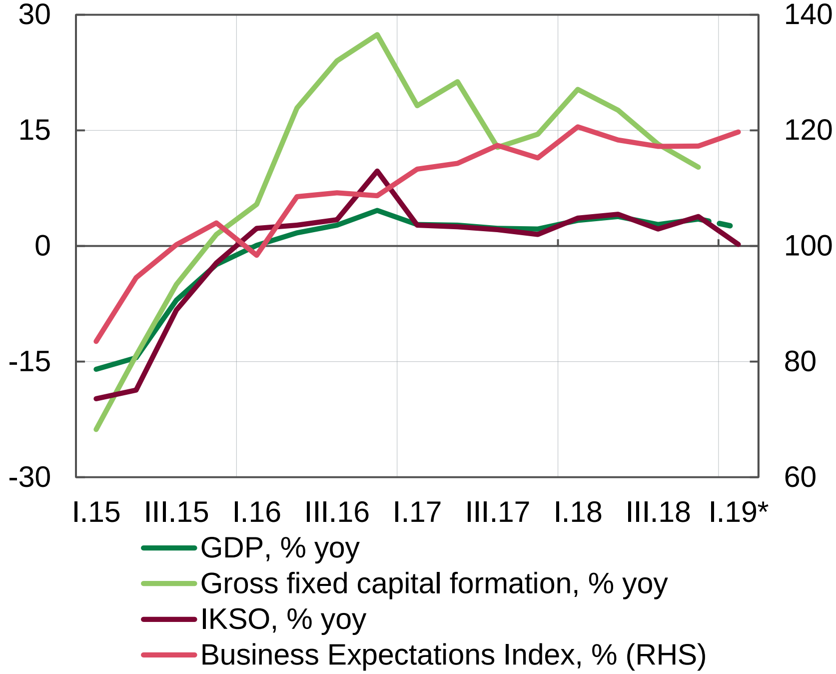


Source: NBU Business Outlook Surveys, SSSU.

- Despite strong growth in labor demand, the number of employees decreased in 2018
- Labor shortage was the key reason
- Job creation was particularly strong at large enterprises
- Strong increase in employees in construction and trade sectors according to official data may be additional evidence of labor de-shadowing
- On average, 8 from 10 vacancies were filled and firms spent 2.5 months for staff search

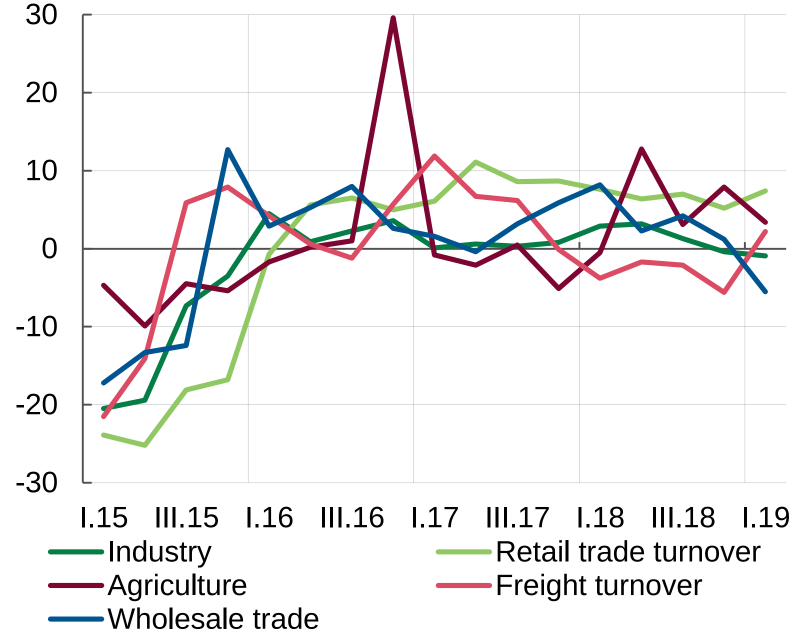
In Q1 2019, real GDP growth is expected to slow down more than anticipated in the previous forecast

Real GDP, Index of Key Sector Output, Gross Fixed Capital Formation and Business Expectations



* Q1 2019: GDP – NBU estimates.
Source: SSSU, NBU staff estimates and surveys.

Output by Selected Types of Activity, % yoy (quarterly averages)



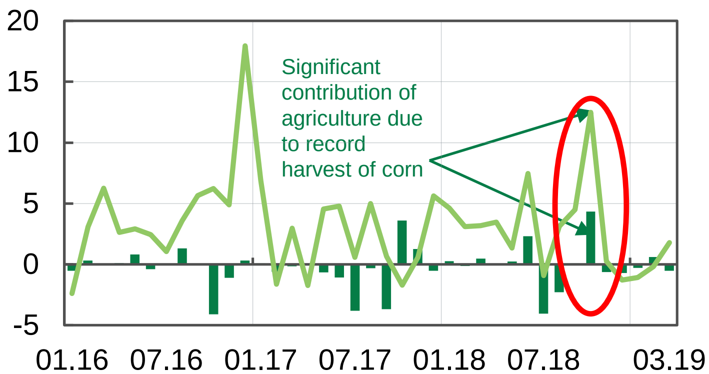
Source: SSSU, NBU staff estimates.

- Nowcast of real GDP growth in Q1 2019: 2.4% yoy (*Jan 2019 IR – 2.9% yoy*)
- Downward revision is due to weak industrial sector performance and waned effect from record harvest in agriculture
- At the same time, construction and retail trade reported solid growth, suggesting robust consumer demand and resilient investment activity

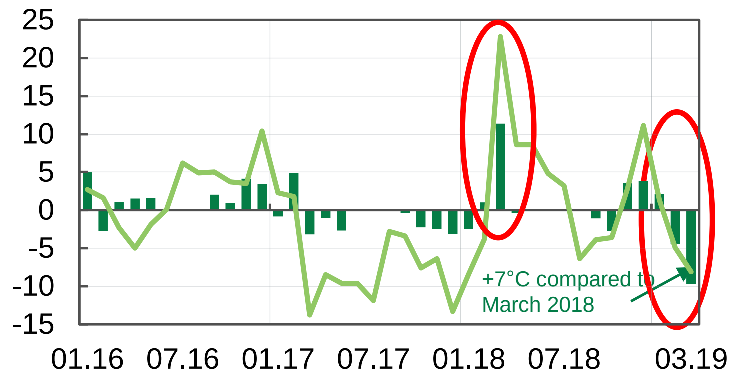
Box. Weather has a significant impact on the economic activity of some sectors in the short run

Data (line) and estimated weather effect (bar)

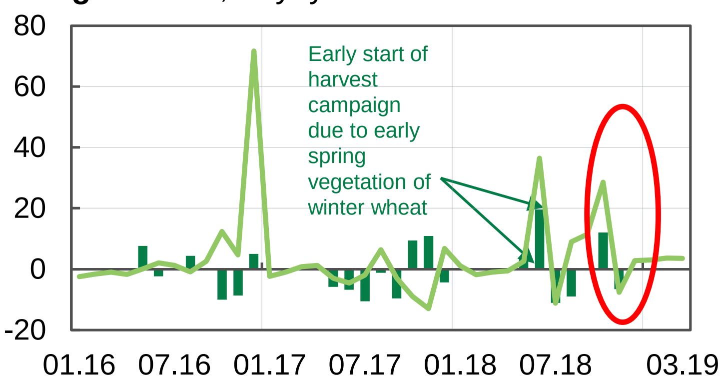
A. IKSO, % yoy



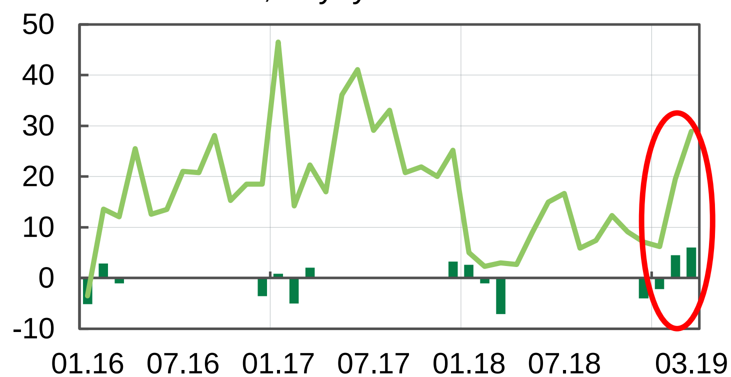
B. Energy sector, % yoy



C. Agriculture, % yoy

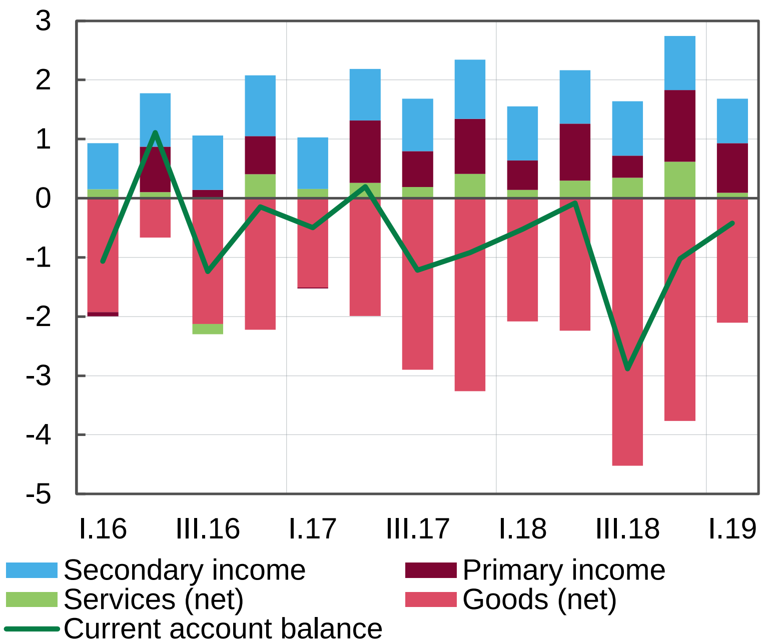


D. Construction, % yoy



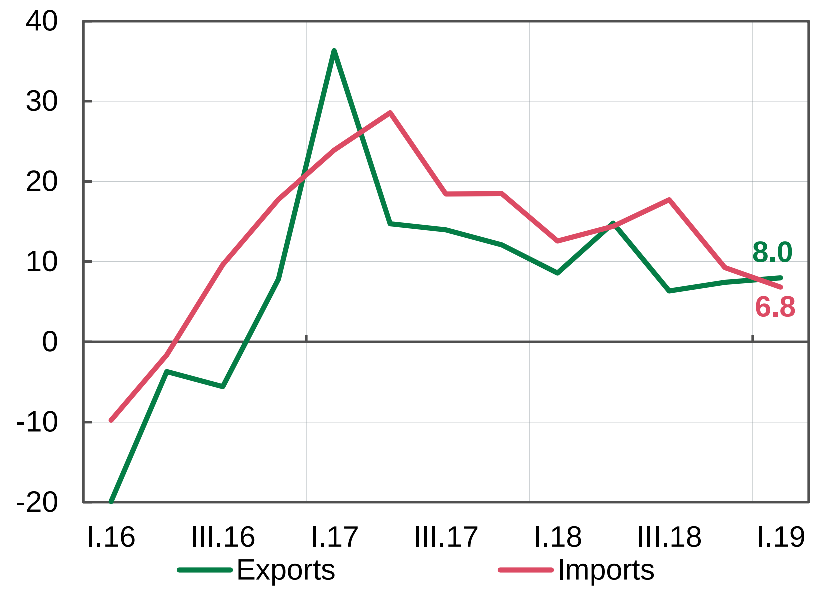
Thanks to subdued imports, the current account deficit narrowed in Q1 2019

Current Account Balance, USD billion



Source: NBU.

Merchandise Exports and Imports, % yoy

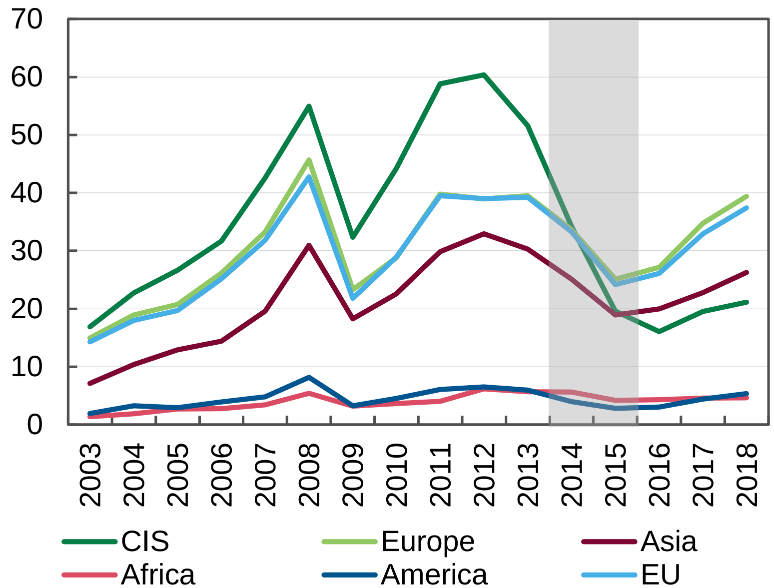


Source: NBU.

- The growth of merchandise exports was supported by higher stocks from previous year's harvest. However, weak performance of metallurgical industry and less benign external environment weighed on exports growth
- Despite strong imports of cars, overall imports grew at a relatively moderate pace due to lower energy purchases and slower growth in consumer imports

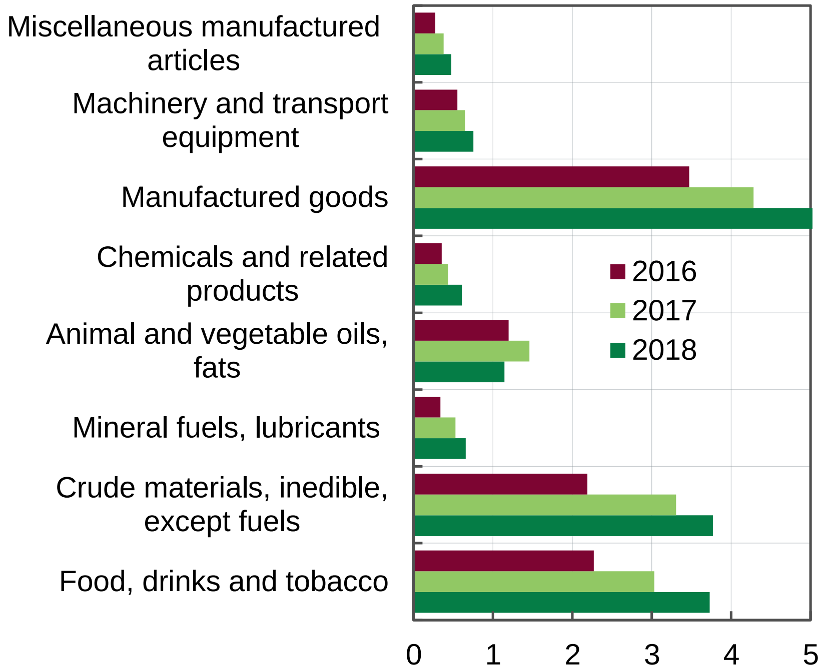
Box. The role of the EU as the main trade partner continued to strengthen, exports rose to its highest level since 2003

External Trade Turnover by Regions, USD bn



Source: NBU.

Exports to EU by SITC*, USD bn



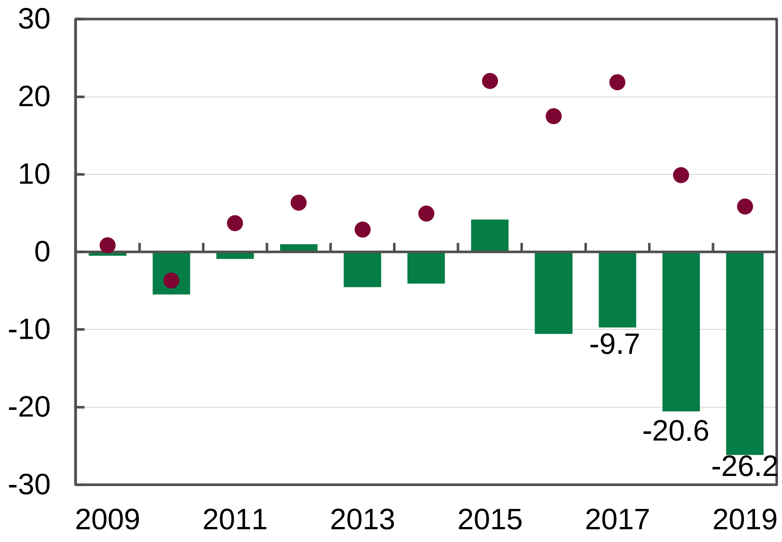
Source: NBU calculations

* SITC: Standard International Trade Classification

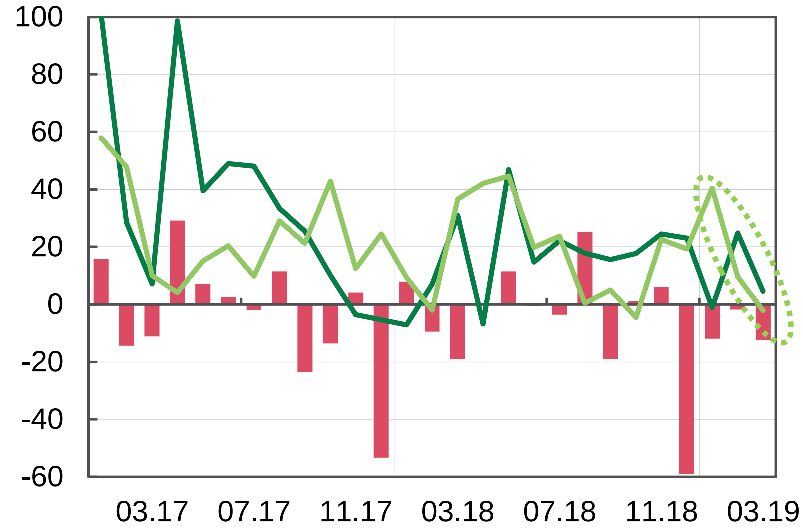
- As in previous years, exports of processed goods grew the most, especially in food products.
  The growth was both on account of the existing products and the new ones
- However, the share of Ukrainian goods in total EU imports remains relatively low.
  To maintain trade momentum Ukraine needs to speed up measures to reduce non-tariff impediments to trade, including the adjustment of goods to the EU security and quality standards

State budget ran a large deficit due to weak revenue performance

State Budget Balance Indicators in Q1, UAH bn



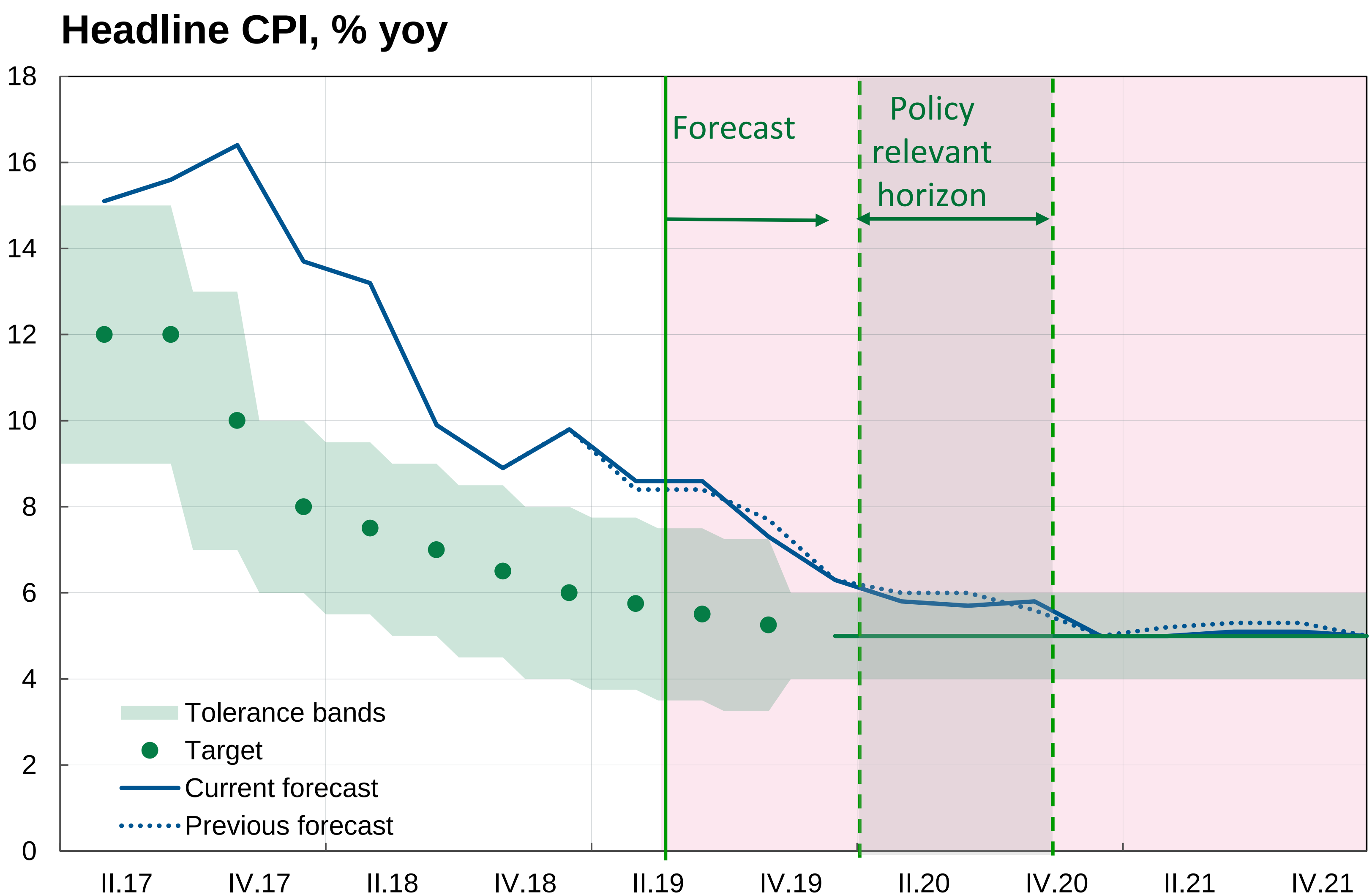
Main indicators of State Budget, UAH bn and % yoy



Source: Treasury, NBU staff estimates.

- In Q1 2019, revenues rose by less than 9% yoy due to sluggish imports and a reduction in production of excisable goods
- Following a sharp increase at the beginning of 2019, the growth in expenditures lost steam and turned negative in March, but mainly on account of base effect

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



Macroeconomic Forecast: Summary

- **Global economy decelerates rapidly in 2019 and growth recovers slowly next year** (GDP of main trading partners is revised down)
- **But the terms of trade are improving moderately** (ToT are more favorable: ↓ gas price, ↑ iron ore price)
- **After strong REER appreciation in 2017-2019 some adjustment is expected in 2020-2021** (stronger REER reflects better ToT and higher interest of non-residents in local G-bonds)
- **GDP growth slows down to 2.5% in 2019 but accelerates further** (outlook remains unchanged: lower external demand offsets better ToT)
- **Inflation declines to 6.3% this year and hits the target in 2020** (outlook is unchanged but risks of more rapid disinflation are looming)
- **In 2019, CA deficit remained unchanged at 3.3% of GDP; however, in 2020-2021, deficit widens due to low external demand and gas transit**
- **In 2019-2021, reserves will remain at the current level ($21-22 bn)**

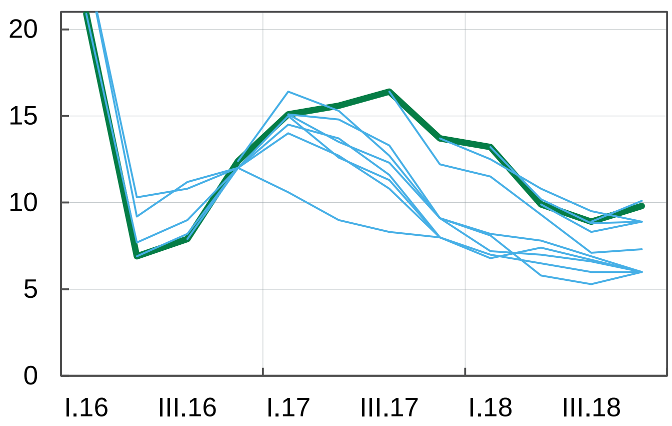
Key macroeconomic indicators

	2017	2018	2019	2020	2021
Real GDP, change, %	2.5	3.3 (3.3)	2.5 (2.5)	2.9 (2.9)	3.7 (3.7)
Nominal GDP, UAH bn	2984	3 559 (3 553)	3 970 (3 965)	4 342 (4 336)	4 750 (4 744)
CPI, y-o-y, %	13.7	9.8	6.3 (6.3)	5.0 (5.0)	5.0 (5.0)
Core CPI, y-o-y, %	9.5	8.7	5.0 (5.0)	3.7 (3.6)	3.7 (3.7)
Current account balance, USD bn	-2.4	-4.5 (-4.7)	-4.9 (-4.5)	-5.8 (-5.6)	-6.7 (-6.2)
% GDP	*-2.2*	-3.4 (*-3.6*)	-3.3 (*-3.1*)	-3.6 (*-3.6*)	-4.0 (-3.9)
BOP (overall), USD bn	2.6	2.9	-0.3 (-1.1)	-0.1 (-0.1)	-0.7 (-0.7)
Gross reserves, USD bn	18.8	20.8	21.2 (20.6)	21.9 (21.4)	21.8 (21.4)

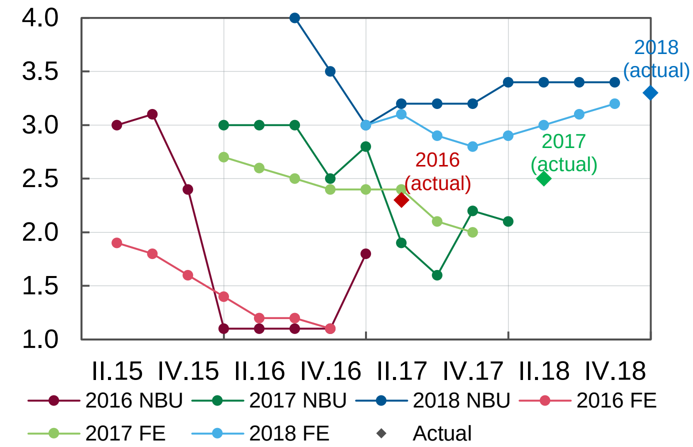
in ( ) – previous forecast (IR, January 2019)

Box. NBU forecasts are precise enough and in line with consensus forecasts (which are in general more precise than individual ones)

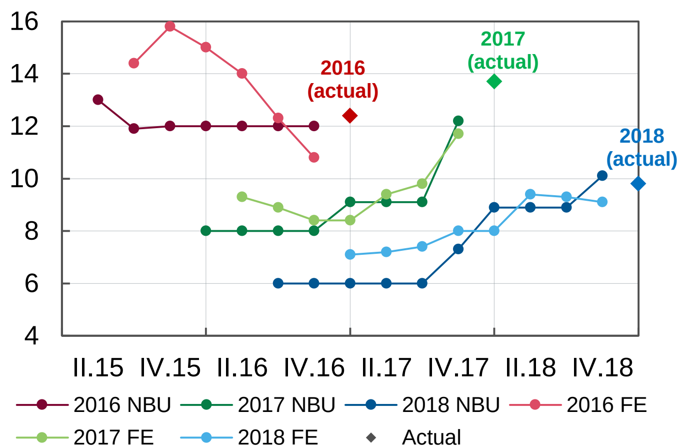
Forecast history: CPI (2016-2018), yoy, %



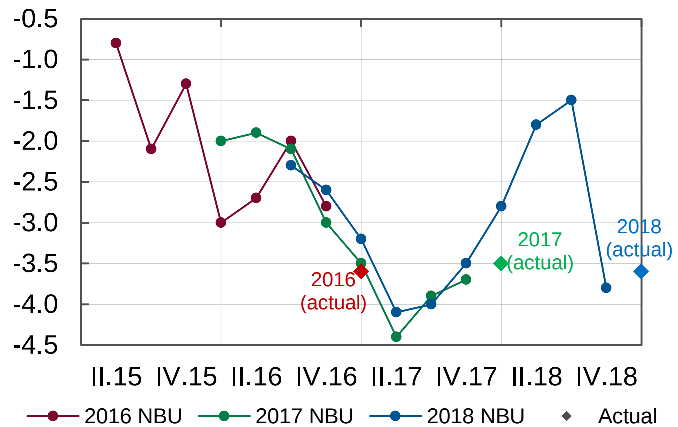
Forecast history: GDP, %*



Forecast history: CPI (2016-2018), eoy, %*



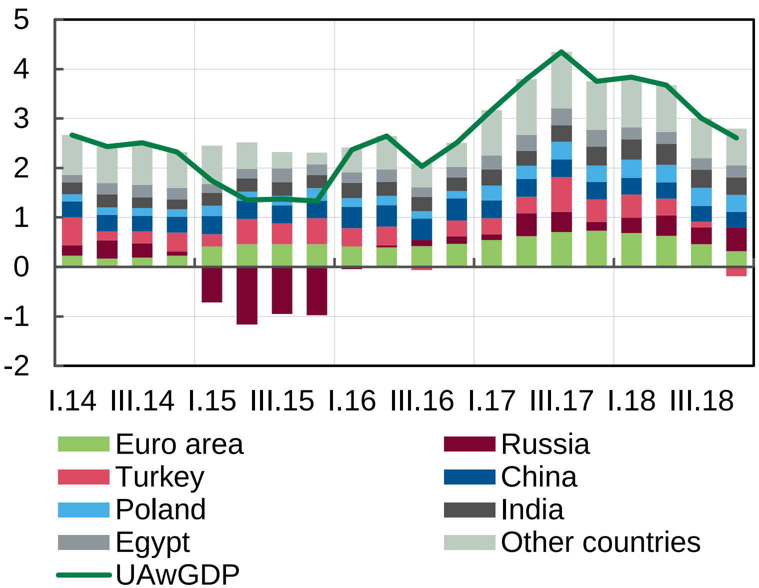
Forecast history: CAB, % GDP



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

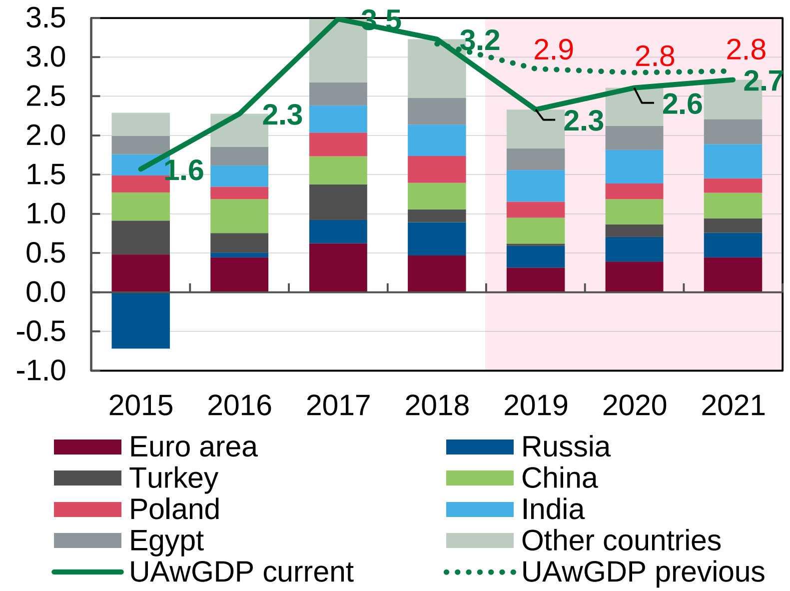
Global economy slows down rapidly in 2019 and growth recovers slowly next year (MTP' GDP growth revised from 2.9% to 2.3% in 2019)

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



Source: NBU estimates (preliminary data).

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



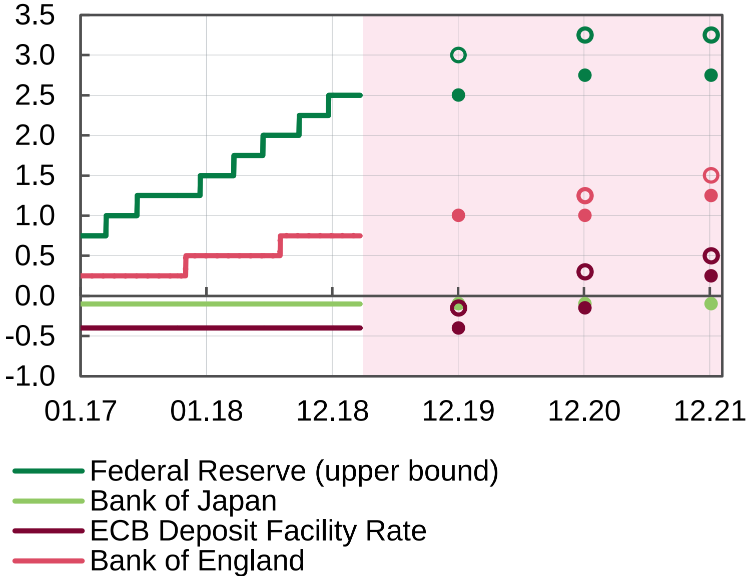
Source: NBU estimates (preliminary data).

	2018	2019	2020	2021
Belarus	3.5	1.8 (-0.7)	1.8 (-0.2)	2.0
Czech Rep	3.0	2.5 (-0.5)	2.5	2.5
China	6.6	6.4 (-0.1)	6.2 (-0.1)	6.3
Egypt	5.4	4.3 (-1.2)	4.8 (-1.1)	5.0 (-0.9)
Hungary	4.9	2.6 (-0.4)	2.6	2.4
Poland	5.1	3.0 (-0.5)	3.0	2.8
Russia	2.3	1.5 (-0.2)	1.7	1.7
Turkey	2.6	0.5 (-1.0)	2.6 (-0.2)	3.0 (-0.2)
USA	3.0	2.2	1.7 (-0.3)	2.0
Euro area	1.8	1.2 (-0.7)	1.5 (-0.2)	1.7

in ( ) – difference with previous forecast

Further normalization of AE’s monetary policy is patient
(it will be more cautious than expected earlier)

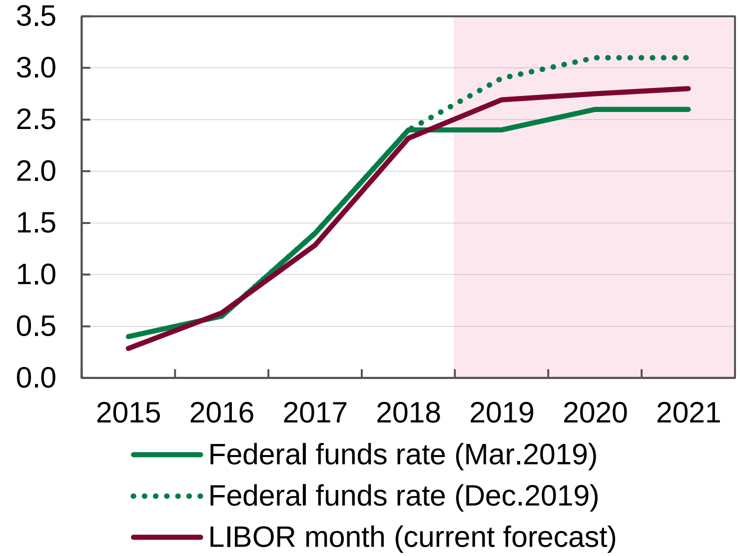
Key policy rates of major central banks, %



* Unfilled dots indicate previous forecast.

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

Federal funds rate and LIBOR, %

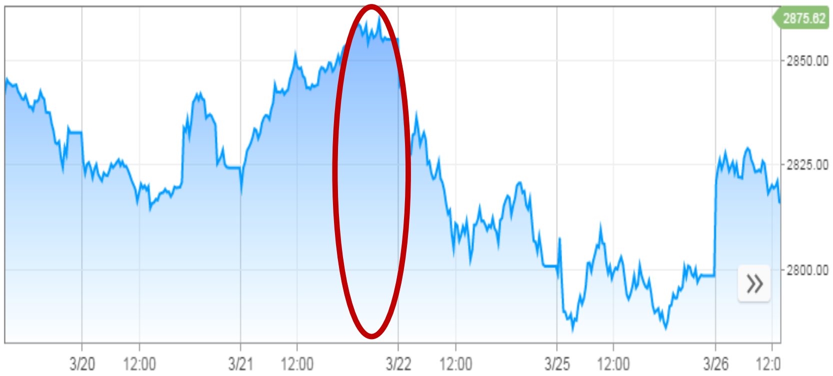


Source: Federal Reserve, NBU staff estimates.

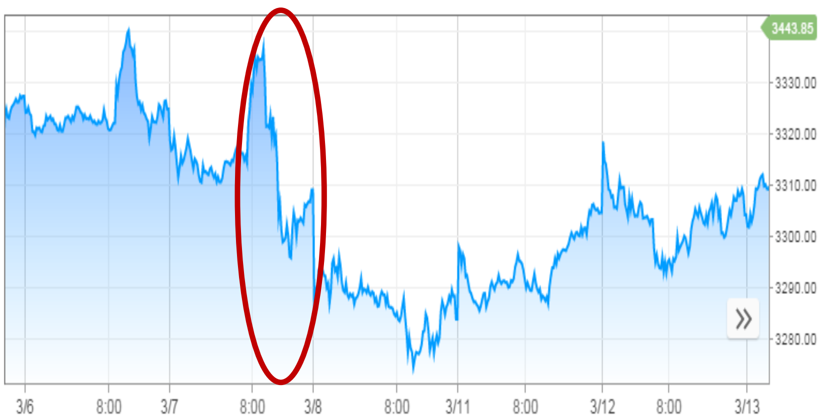
- **ECB:**
  - the key interest rates unchanged at least to the May - June of 2020
  - reinvesting, in full, the principal payments from maturing securities under the QE
  - new series of quarterly targeted longer-term refinancing operations (TLTRO-III), starting in September 2019 and ending in March 2021
- **Fed:**
  - FFR is now in the broad range of estimates of neutral;
  - Fed will slow the runoff of assets starting in May, and to cease runoff entirely in September of this year.

Box. Financial markets react to both the central bank rate decision and information contained in communications

S&P 500 hourly dynamics from 20 to 26 March and after the March Fed meeting (March 21, 2019)



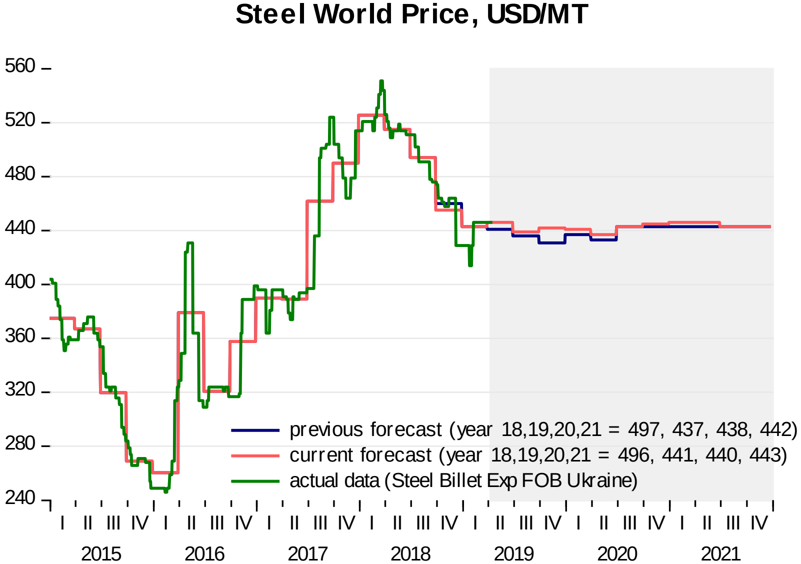
Euro Stoxx 50 hourly dynamics from 03 to 13 March and after the March ECB meeting (March 7, 2019)

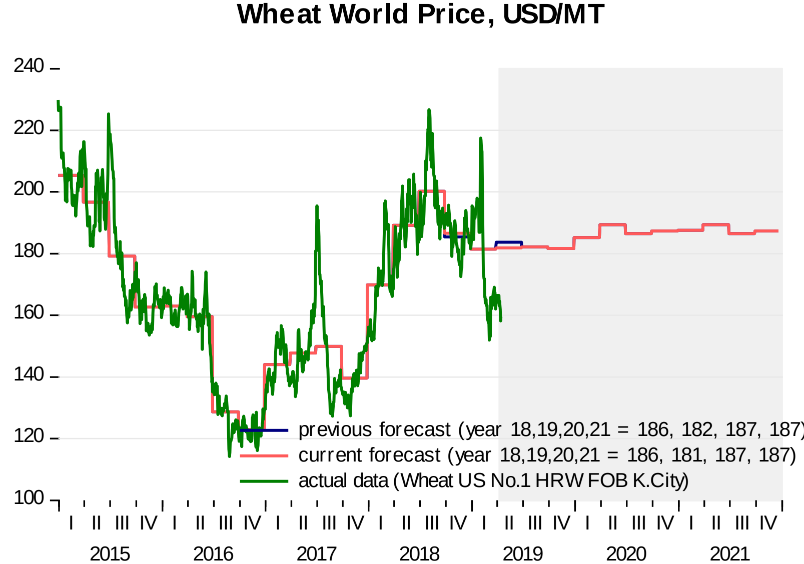


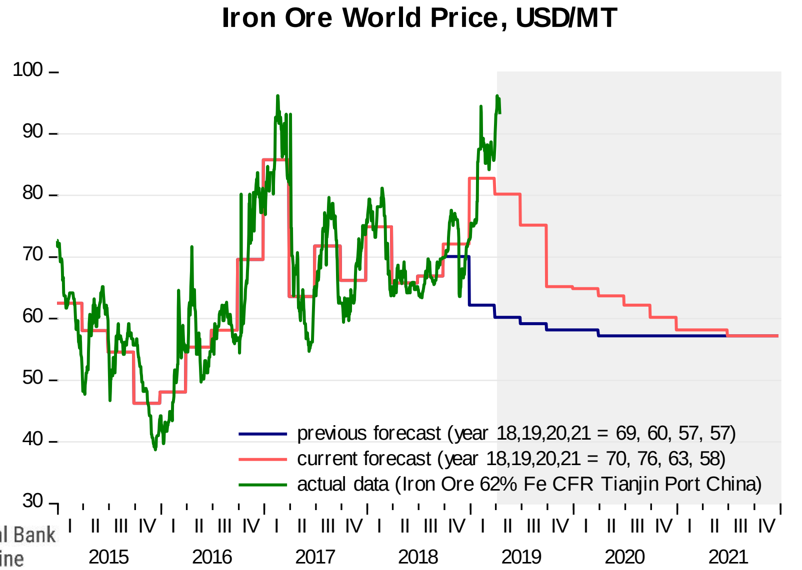
Source: https://www.cnbc.com/

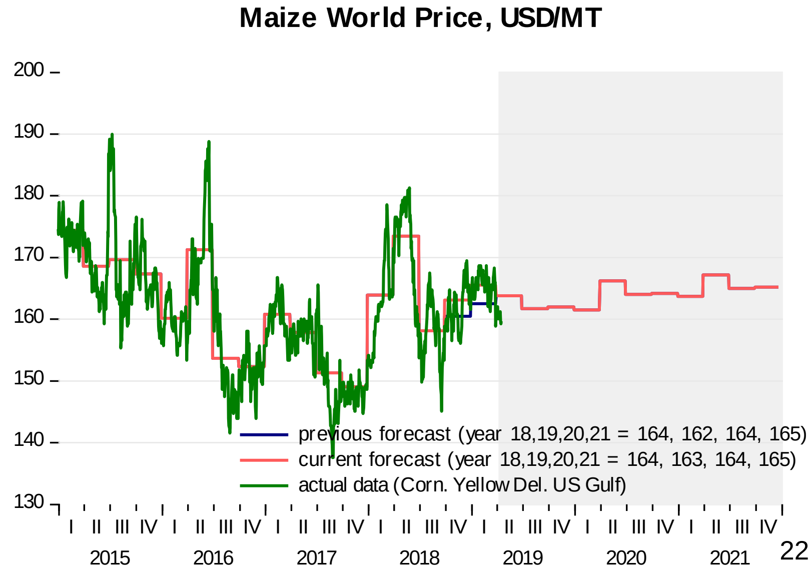
- Often, CB decision on rates comes simultaneously with another important information, such as updated macro projections and risks to the outlook
- Sometimes, financial market reaction can be opposite to monetary policy decisions per se and other information in the official communication
- At their March meetings, both the ECB and Fed were dovish
- However, the ECB's transition to a softer monetary policy was followed by communication with an emphasis on worsening macroeconomic forecasts, causing a market sell-off
- A positive assessment of the state of the US economy was perceived with optimism, and the market grew

Prices of main export commodities (except iron ore) are flat on forecast horizon (higher iron ore price reflects supply disruptions)

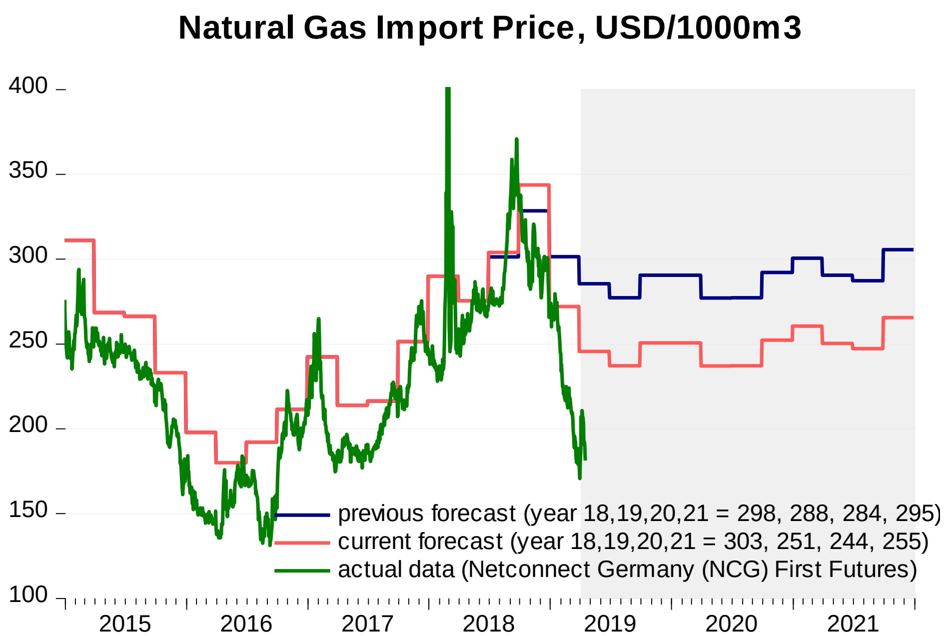


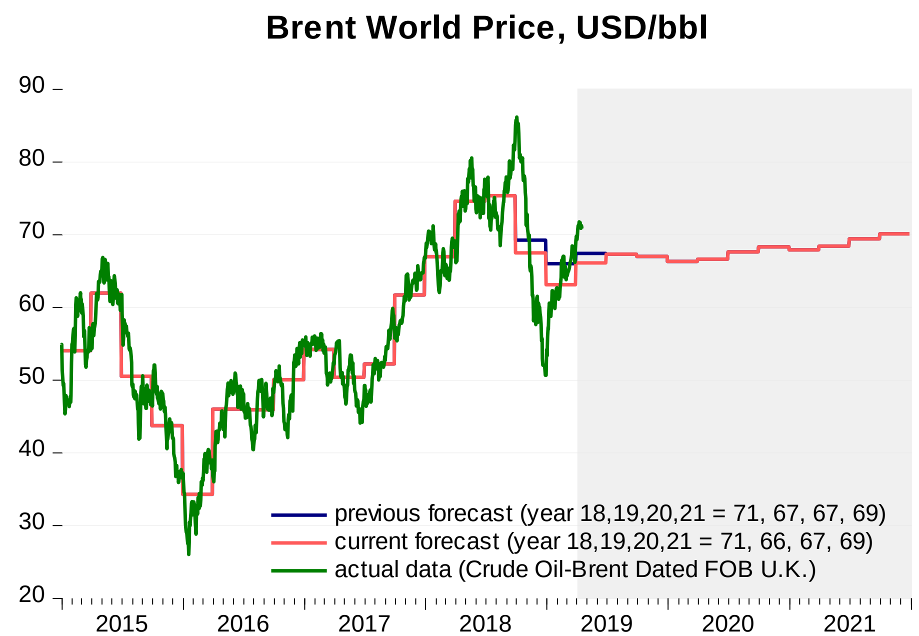






After a sharp increase in 2018, energy prices are lower by 8%yoy in 2019 and flat further (gas prices are revised downwards significantly)



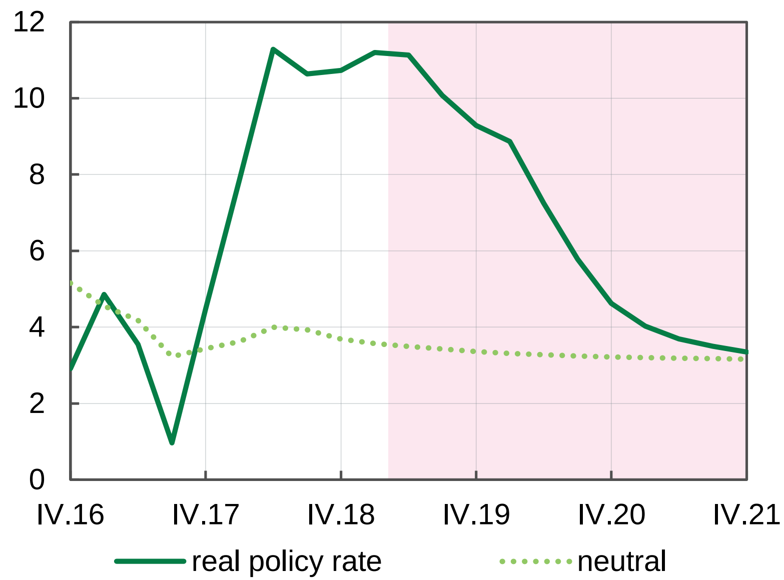


Natural gas prices revised down due to:

- global economy slowdown
- high stocks in EU (warm winter)
- increased production in Russia and US

Monetary conditions ease on forecast horizon, but ensure the hitting inflation targets in 2020-21

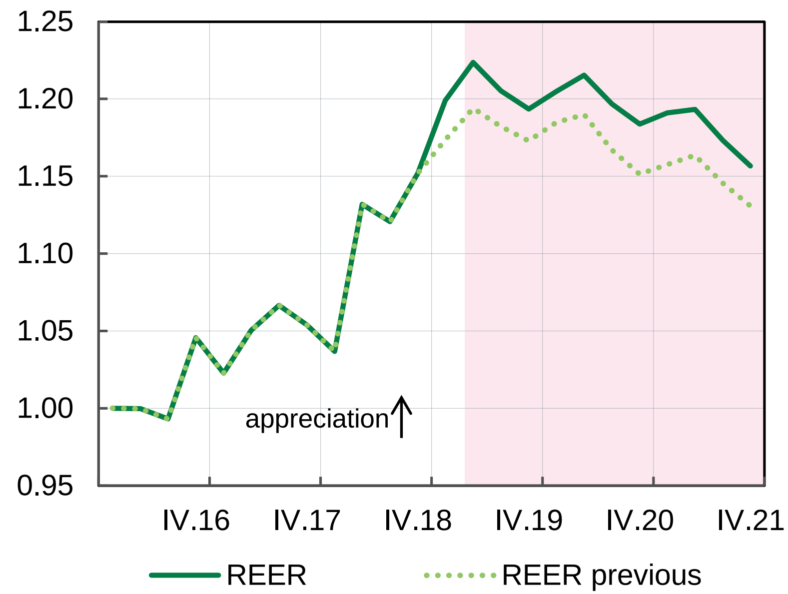
Real policy rate*, %



Source: NBU staff estimates.

* deflated by model-based inflation expectations

REER index (1.2016=1)



Source: NBU staff estimates.

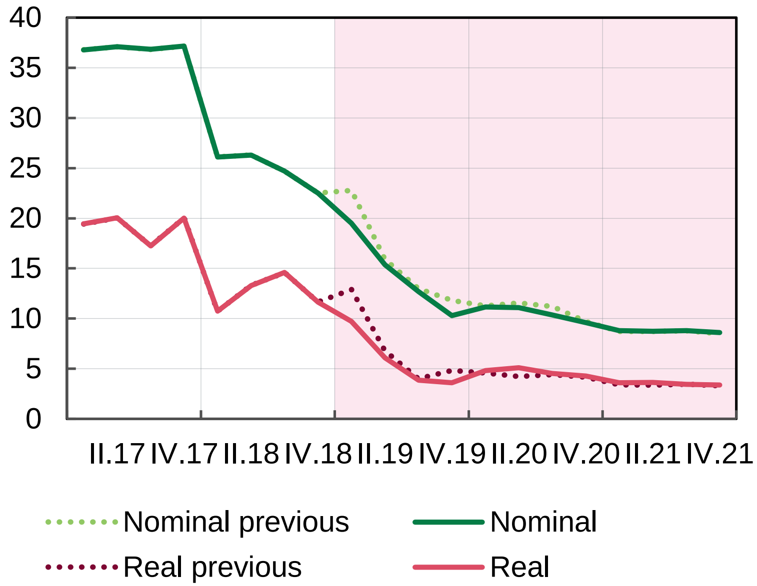
average	2018	2019	2020	2021
REER, % change	5.9	8.6 (+6.3)	-0.4 (-0.6)	-1.8 (-2.0)

in ( ) – previous forecast (IR, January 2019)

(stronger REER reflects better ToT and higher interest of non-residents in local G-bonds)

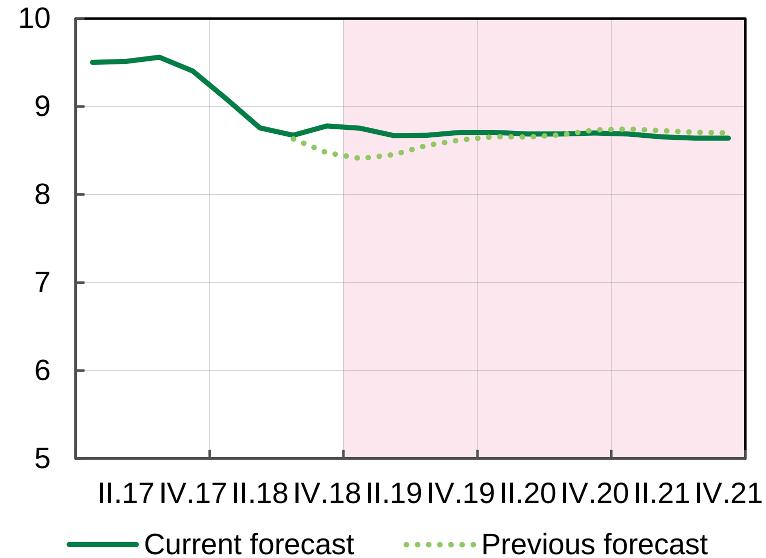
Wages growth decelerates partially due to weakening labor migration (supported by stronger EU economy slowdown)

Nominal & Real wages, annual change, %



Source: SSSU, NBU staff estimates.

ILO unemployment, sa, %



Source: SSSU, NBU staff estimates.

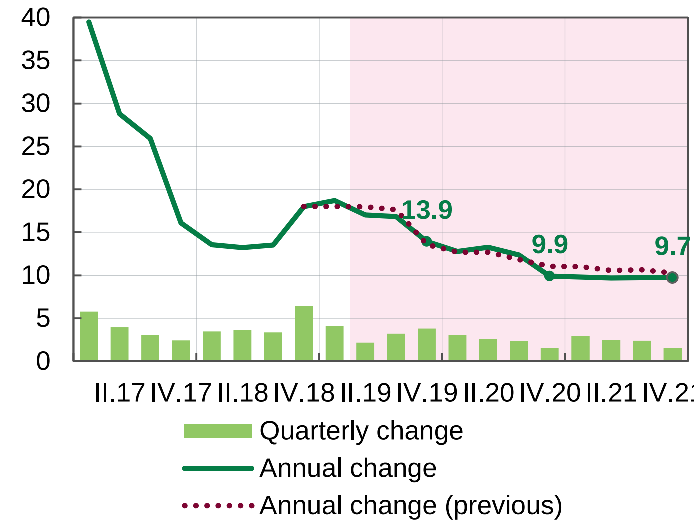
change, %	2018	2019	2020	2021
Real wages	**12.5**	**5.8**	**4.6**	**3.5**
- previous forecast	*12.6*	*7.0*	*4.5*	*3.5*
Nominal wages	**24.8**	**14.2**	**10.6**	**8.7**
- previous forecast	*24.8*	*15.6*	*10.9*	*8.7*

Assumptions	2018	2019	2020	2021
Minimum wage, UAH	**3723**	**4173**	**4407**	**4627**
- previous forecast		*4173*	*4407*	*4627*
change, %	***16.3***	***12.1***	***5.6***	***5.0***

Gas tariffs start to increase only in Q4 2019 due to slump in gas prices, which helps to reach import parity already in Q2-Q3 2019

	Weight, %	2019		2020		2021	
		new	prev.	new	prev.	new	prev.
Admin CPI	*16.8*	**13.9**	*13.6*	**9.9**	*11.1*	**9.7**	*10.3*
Natural gas	*1.2*	15.0	*15.2*	7.0	*18.0*	7.0	*13.0*
Heating	*0.8*	30.0	*31.0*	7.0	*15.0*	7.0	*10.0*
Hot water	*0.2*	30.0	*31.0*	7.0	*15.0*	7.0	*10.0*
Cold water	*0.2*	13.0	*9.5*	9.0	*9.0*	9.0	*9.0*
Electricity	*0.9*	25.0	*25.0*	20.0	*20.0*	20.0	*20.0*
Alcohol	*4.7*	6.0	*6.0*	9.0	*9.0*	9.0	*9.0*
Tobacco	*3.6*	19.0	*19.0*	12.0	*12.0*	12.0	*12.0*
Transport	*2.5*	13.0	*10.0*	9.0	*8.0*	8.0	*8.0*

Administrative prices, yoy %

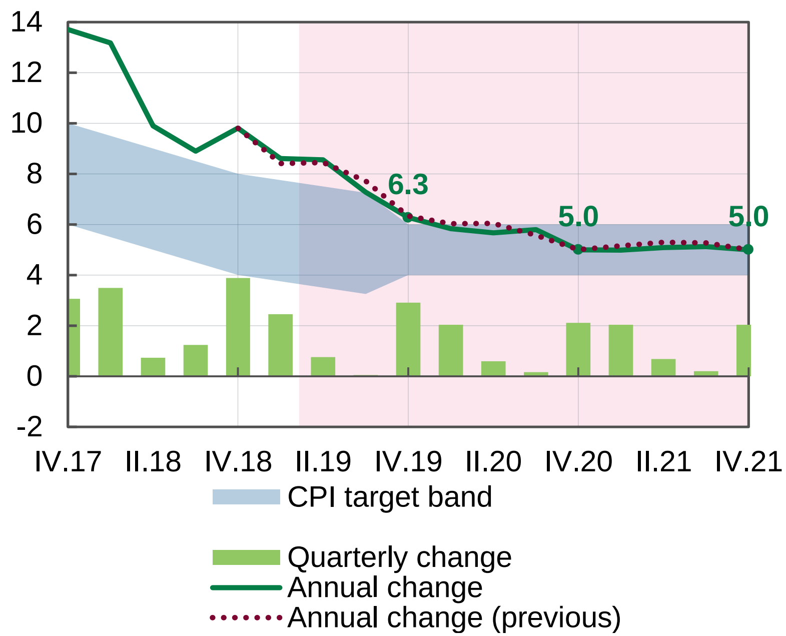


Source: SSSU, NBU staff estimates.

(in 2019 outlook for admins is unchanged, but faster deceleration further)

CPI growth declines to 6.3% this year and gets within the target band in Q1 2020

Headline CPI, %



Source: SSSU, NBU staff estimates.

change, %	*weight, %*	2019		2020		2021	
CPI	***100.0***	**6.3**	*6.3*	**5.0**	*5.0*	**5.0**	*5.0*
Core CPI	*58.9*	5.0	*5.0*	3.7	*3.6*	3.7	*3.7*
Raw food	*18.6*	3.6	*3.4*	3.1	*3.0*	3.0	*3.0*
Admin	*18.5*	13.9	*13.6*	9.9	*11.1*	9.7	*10.3*
Fuel	*4.0*	3.4	*3.8*	5.2	*4.3*	5.0	*5.0*

(gray color) – previous forecast (IR, Jan 2019)

Factors behind the further decline in inflation:

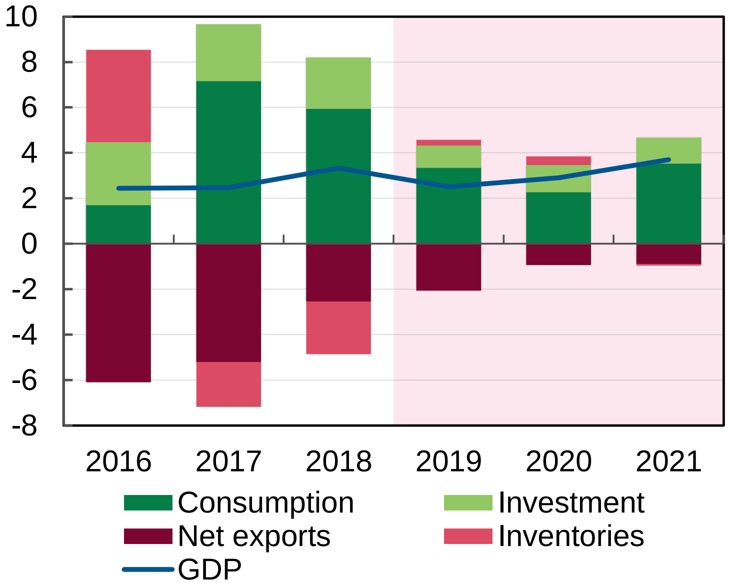
- tight monetary conditions and restrained fiscal policy.
- slower growth in wages, which are gradually converging with wages in neighboring countries
- appreciation of the hryvnia in Q1 2019, which will limit growth in prices for nonfood goods
- lower global prices for natural gas that will pass through to domestic prices
- larger supply of both domestic and imported food products.

(outlook is unchanged but risks of rapid disinflation are looming)

GDP growth slows down to 2.5% in 2019 but accelerates further

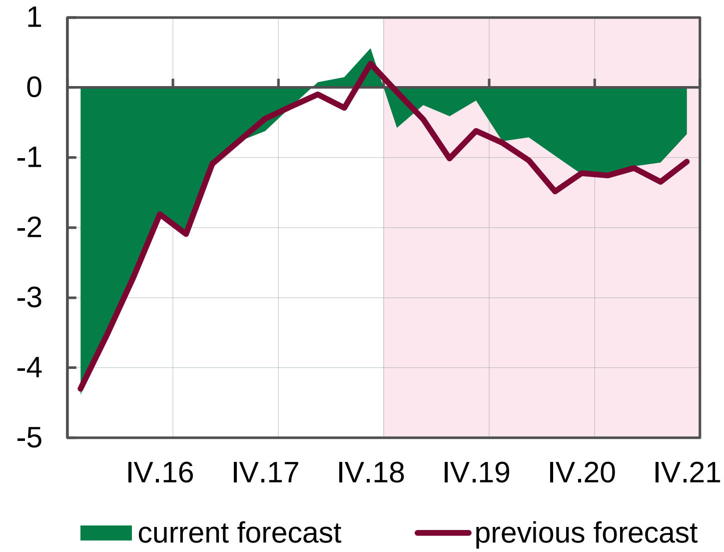
(outlook is unchanged: lower external demand offsets better ToT)

Contributions to Real GDP Growth, pp



Source: SSSU, NBU staff estimates.

GDP gap, % of potential GDP



Source: NBU staff estimates.

	W,%	2018*	2019	2020	2021
GDP	100	**3.3** (3.3)	**2.5** (2.5)	**2.9** (2.9)	**3.7** (3.7)
Consumption	87	6.8 (4.4)	3.7 (3.9)	2.5 (2.5)	3.9 (3.9)
Private consumption	66	8.7 (5.7)	4.7 (4.9)	3.0 (3.0)	4.7 (4.7)
Gross fixed capital formation	16	14.3 (10.5)	5.7 (5.7)	6.7 (6.7)	6.0 (6.0)
Exports of G&S	48	-1.6 (-2.3)	1.1 (2.1)	1.2 (1.2)	2.0 (2.0)
Imports of G&S	56	3.2 (4.4)	4.8 (4.9)	2.9 (3.2)	3.5 (4.0)

* substantial change due to data revision   in ( ) – previous forecast (IR, January 2019)

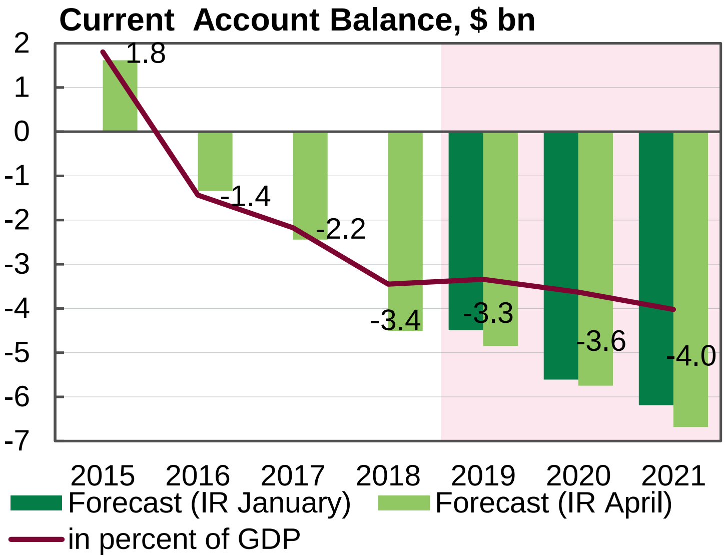
Growth slowdown in 2019:

- global economy deceleration
- tight monetary and fiscal policy
- political uncertainty
- lower harvest

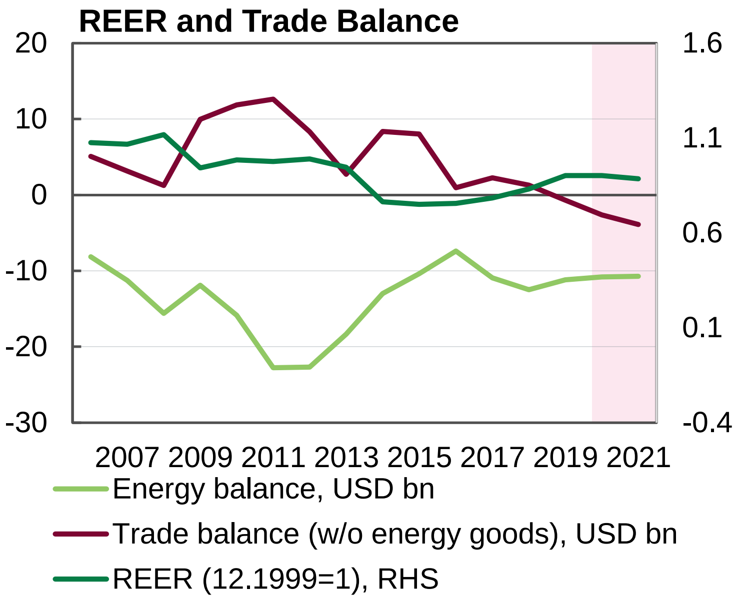
Growth acceleration in 2020-2021:

- rise of investment activity after political situation stabilization
- monetary policy loosening

In 2019, CA deficit remains unchanged at 3.3% GDP; but in 2020-2021, deficit widens due to low external demand and gas transit



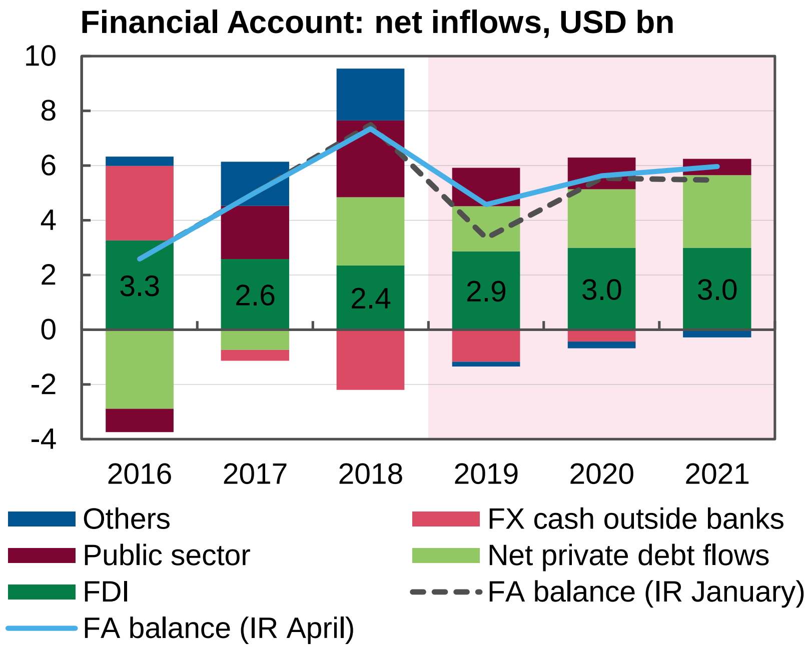
Source: NBU staff estimates.



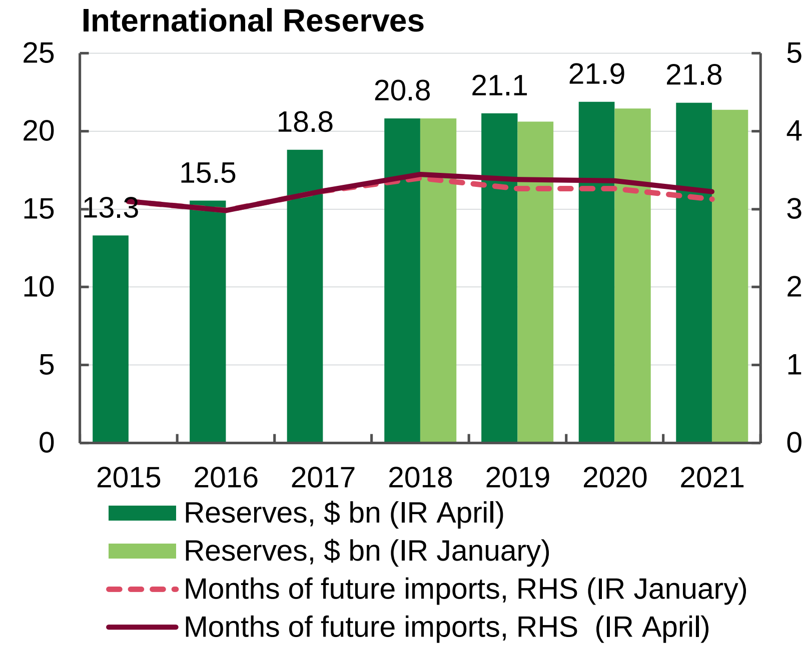
Source: NBU staff estimates.

Main changes in CAB forecast in 2019-2021 compared with IR January	
↑ Trade in goods	↑↑Terms of trade: ↓gas, ↑iron ore
	↓ Volumes of exports: ↓agro, ↓metals, ↓machinery
↓ Services	↓ Volumes and price of gas transit (2019)
↓ Remittances	↓ Slowdown in growth of MTP
↑ Dividends	↑ New survey data

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



Source: NBU staff estimates.



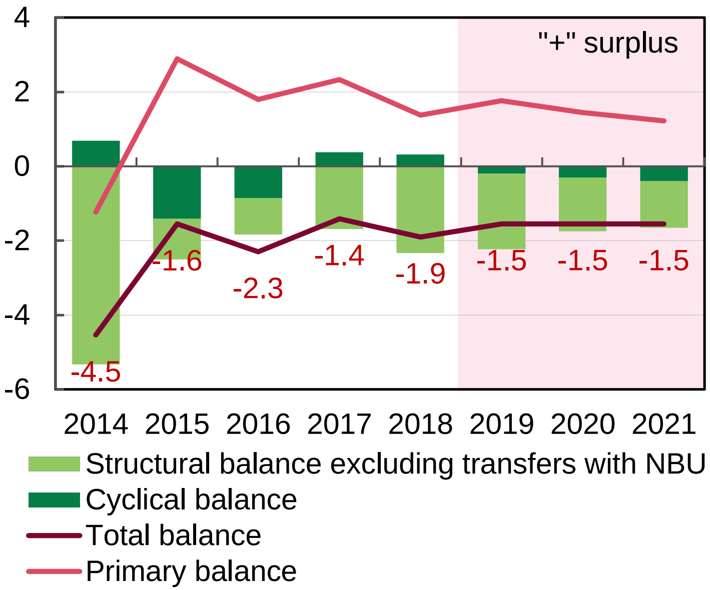
Source: NBU staff estimates.

Memo items: public disbursments, $ 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

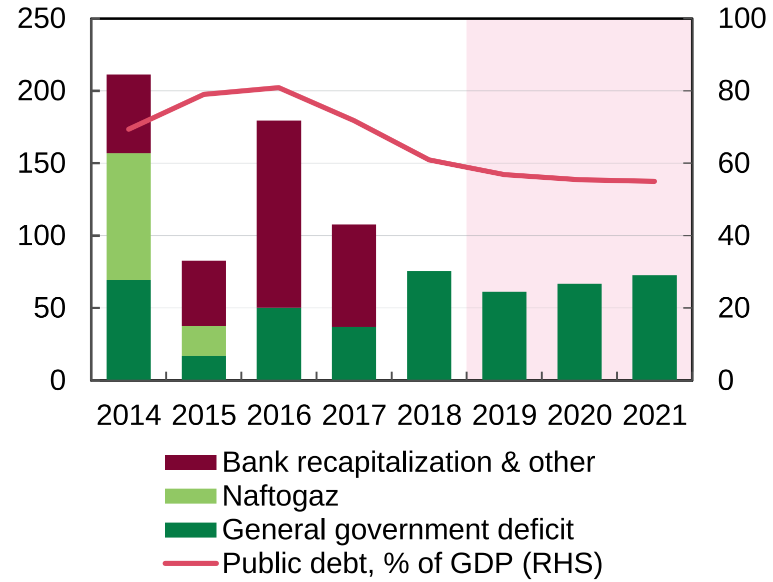
Fiscal policy will be tight, budget deficit to keep at 1.5% GDP in 2019-2021, which leads to further decrease in debt to GDP ratio

Consolidated Budget Balance, % GDP



Source: MFU, STSU, NBU staff estimates.

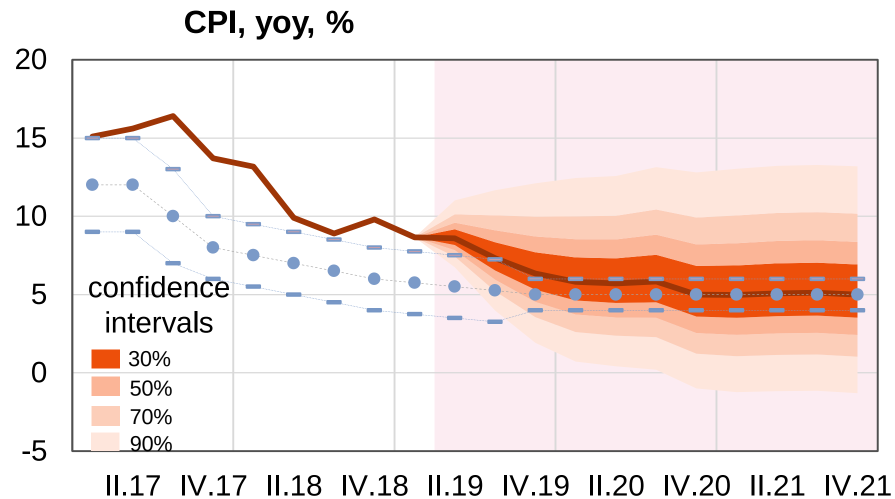
Public Sector Deficit, UAH bn, and Public Debt-to GDP Ratio, %

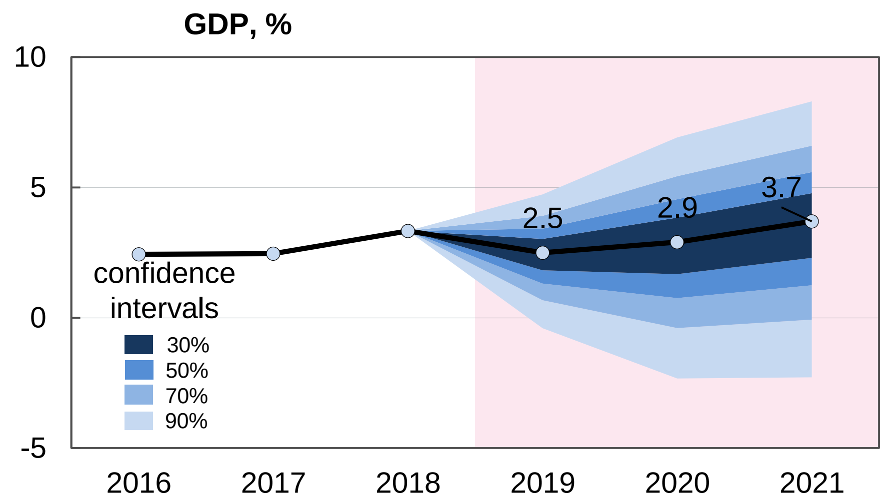


Source: MFU, NBU staff estimates.

Main risks

- **worsening of inflation expectations** due to political cycle (elections in 2019)
- **the global recession** and lower raw commodity prices
- **stronger geopolitical tensions**, particularly due to the uncertainty around Brexit
- **uncertainty over the volume of gas transit** through Ukraine starting in 2020
- **an escalation of the military conflict** and new trade restrictions introduced by RF
- **Ukraine's financial stability and the NBU's independence**





Source: SSSU, NBU.