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Inflation Report (July 2017)

National Bank of Ukraine
Kyiv, July 18, 2017

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Summary

- External environment remains favorable as global economy accelerates, while weaker USD makes financial conditions looser
- Real GDP growth forecast for 2017 is revised to 1.6% from 1.9% due to weaker than expected economic performance in H1 and lower harvest projections amid unfavorable weather
- In 2017-2019, CA deficit remains almost unchanged (USD 4 bn). The current account deficit will be fully covered by inflows to the financial account, which will enable further accumulation of international reserves – to USD 20 bn by the end of 2017 and to USD 27 bn by the end of 2018
- Fiscal policy was tight enough in H1; however more stimulus is expected in H2 and in 2018 on the back of pension hike
- CPI forecast remains unchanged at 9.1% in 2017 and 6.0% in 2018. Adverse supply shocks on food market and pension hike put pressure on consumer inflation but that is offset by lower contribution of administrated prices and improving inflation expectations amid stronger UAH/USD exchange rate
- Monetary policy should be tight enough in order to avoid second round effects on inflation expectations from food price surge and to mitigate demand-pull pressures stemming from expected increase in pension benefits in October this year

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Key macroeconomic indicators

	2016	2017	2018	2019
Real GDP, % yoy	2.3	1.6 (1.9)	3.2 (3.2)	4.0 (4.0)
Nominal GDP, UAH bn	2383	2 850 (2 755)	3 220 (3 106)	3 585 (3 460)
CPI, % yoy	12.4	9.1 (9.1)	6.0 (6.0)	5.0 (5.0)
Core CPI, % yoy	5.8	6.1 (6.5)	3.9 (4.3)	2.8 (3.7)
Current account balance, USD bn	-3.8	-4.1 (-4.3)	-4.6 (-4.3)	-3.9 (-4.3)
BOP (overall), USD bn	1.3	1.8 (0.7)	2.5 (3.2)	0.1 (0.5)
Gross reserves, USD bn	15.5	20.0 (21.1)	27.1 (26.2)	25.7 (25.1)
Base money, eop, % yoy	13.6	6.4 (6.3)	7.8 (7.8)	6.0 (6.5)
Broad money, eop, % yoy	10.8	9.0 (10.7)	13.5 (12.8)	12.6 (12.0)

in ( ) – previous forecast (IR, April 2017)

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External assumptions

GDP growth, % yoy	2016	2017	2018	2019
Euro area	1.7	1.5 (1.5)	1.4 (1.4)	1.4 (1.4)
Russia	-0.2	1.1 (1.1)	1.3 (1.3)	1.6 (1.6)
China	6.7	6.6 (6.6)	6.5 (6.5)	6.3 (6.3)
Commodity prices				
Oil (Brent), USD/bbl	43.9	55.1 (56.8)	62.1 (62.1)	64.8 (64.8)
Steel Billet Exp FOB Ukr, USD/MT	328.6	379.3 (378.1)	386.5 (386.5)	396.5 (396.5)
Wheat, USD/MT	143.1	146.0 (145.1)	158.1 (158.1)	161.7 (161.7)
Exchange rates (average)				
USD/EUR	1.11	1.09 (1.05)	1.11 (1.05)	1.11 (1.05)
RUB/USD	67.1	58.0 (60.5)	58.1 (61.3)	58.1 (61.3)

in ( ) – previous forecast (IR, April 2017)

Economic growth in trade partners accelerates due to recovery in domestic consumption and investment as well as global trade

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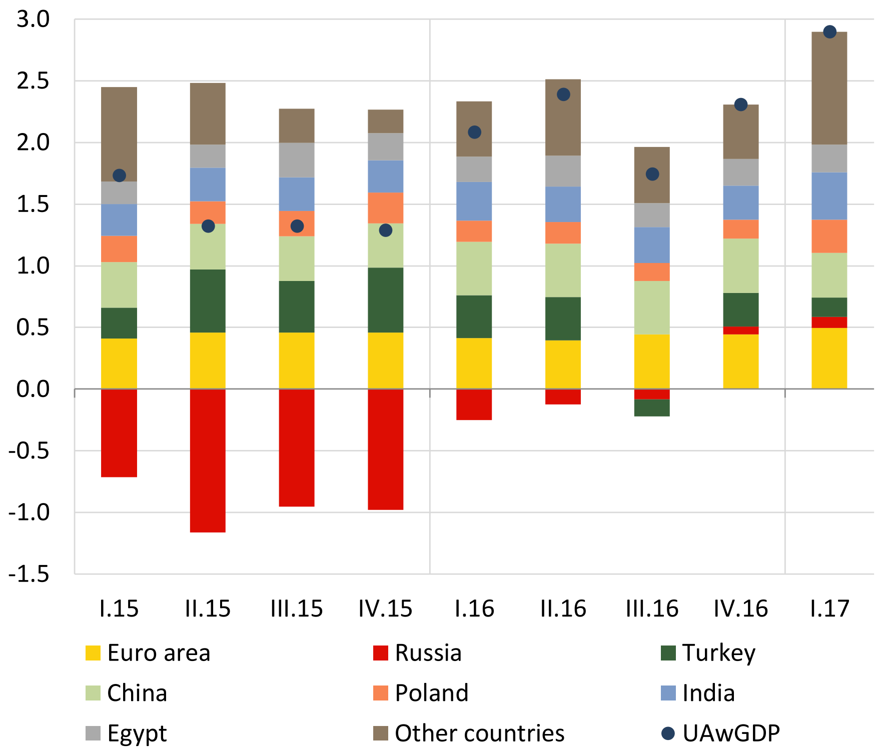
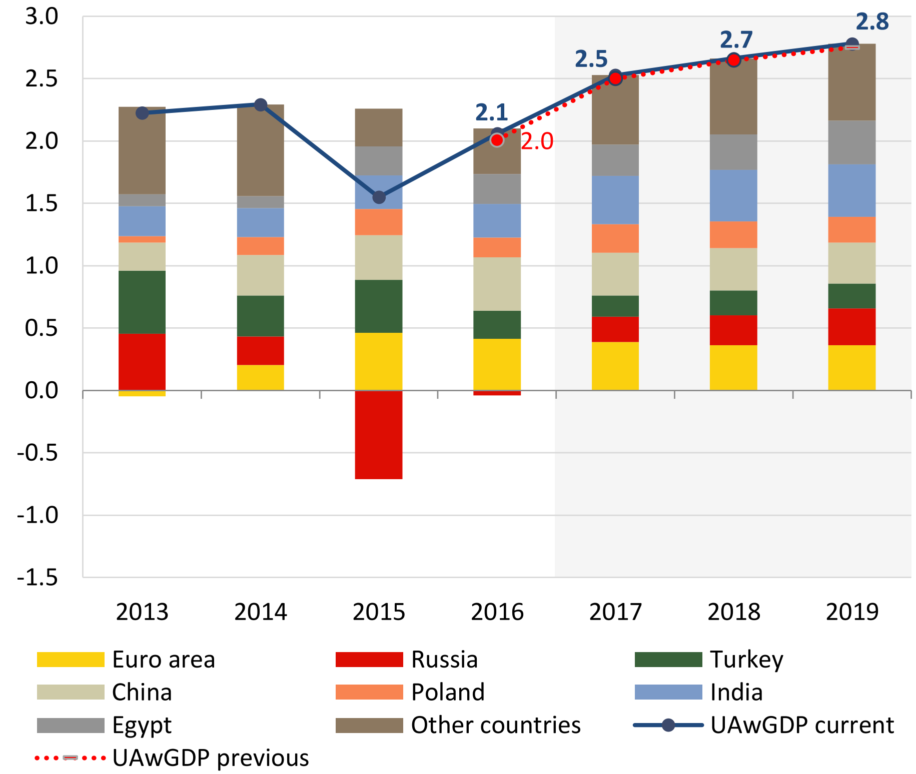
Contributions of Countries - Main Trading Partners of Ukraine to the Annual Change of UAwGDP, % yoy



Source: NBU estimate

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



Source: NBU estimate

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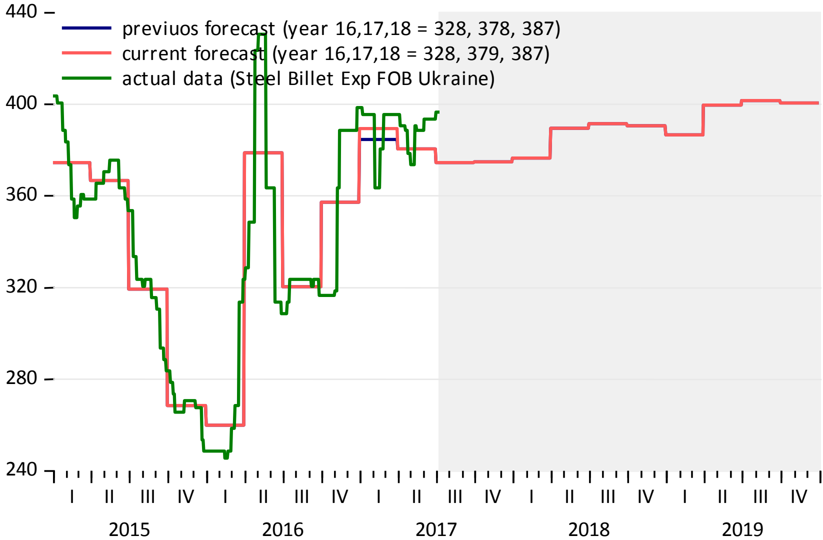
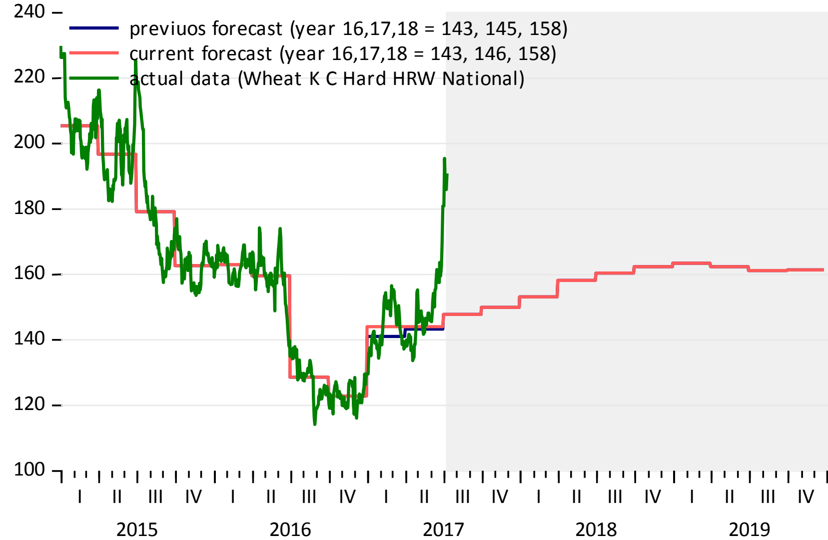
Outlook for global prices is virtually unchanged. Grain prices rise as demand rebounds, partially offsetting lower iron ore prices

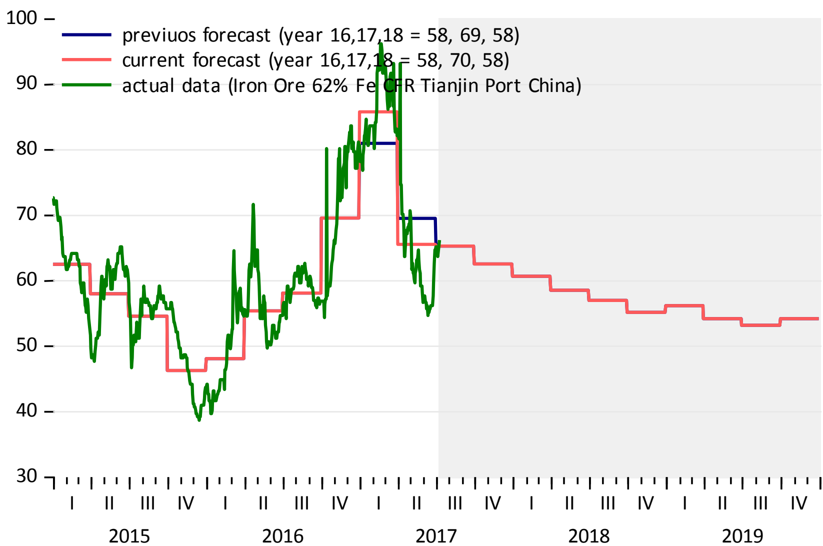
Steel World Price, USD/MT



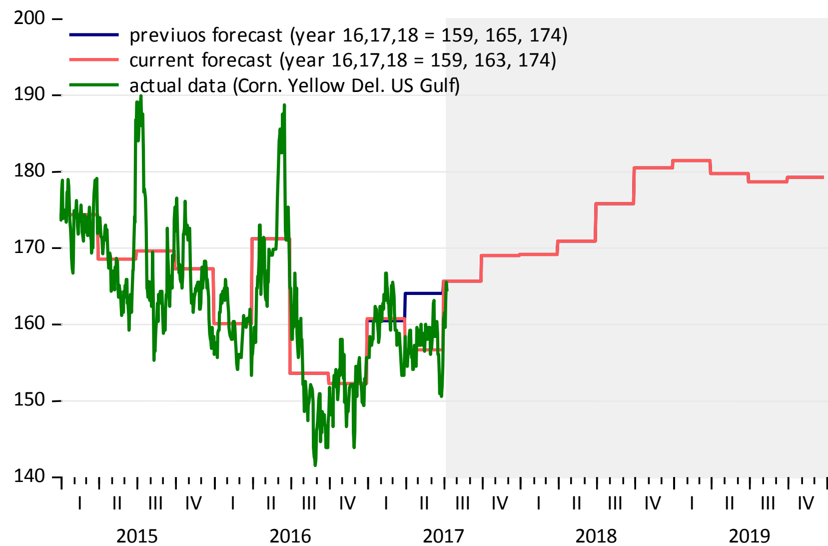
Wheat World Price, USD/MT



Iron Ore World Price, USD/MT



Maize World Price, USD/MT



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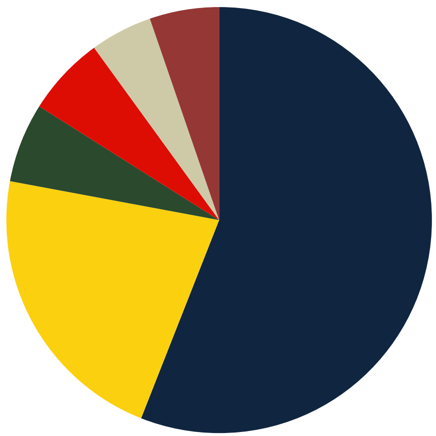
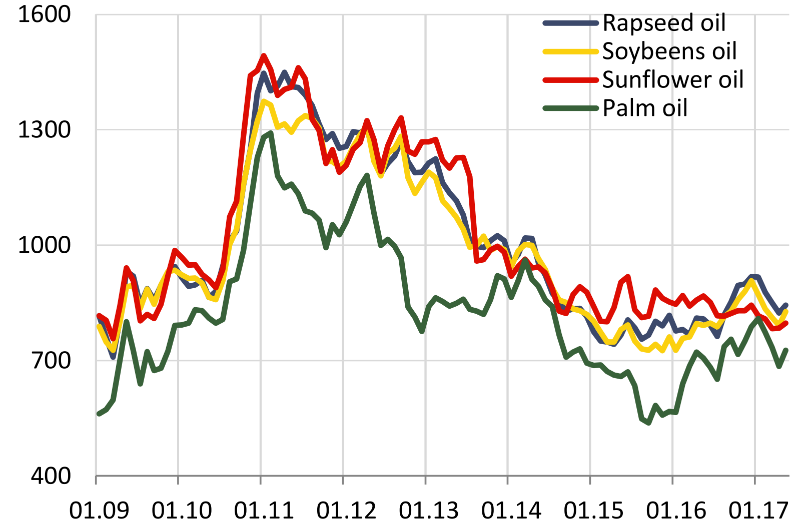
Ukraine is the world's leader in production and exports of sunflower oil

Major Exporting Countries of Sunflower Oil



Source: Foreign Agricultural Service/USDA, June 2017

Selected Vegetable Oil Prices, USD/MT



Source: World Bank, June 2017

- In 2016/2017 MY, Ukraine accounted for 56% of world sunflower oil exports
- **Main factors that affect sunflower oil prices:**
  - world sunflower oil supply (area harvested for sunflower, terms of harvest, production, stocks, etc.)
  - changes in supply and prices for substitutes (especially rapeseed, soybean, and palm oil). Sunflower oil takes the fourth highest share in world production of vegetable oils (9.3% in 2016/17MY)
  - demand by the major consumers (particularly India, China, Europe)
  - force majeure effects (e.g., severe weather conditions, El-Nino, etc.)
- **Forecast for 2017/18 MY:**
  - global sunflower oil consumption will remain robust. However, world sunflower oil production will continue to rise, as well production of palm and soybean oils
  - hence, prices for vegetable oils, including sunflower, are likely to remain subdued

Assumptions for import energy prices are quite conservative as we assume their gradual rebound

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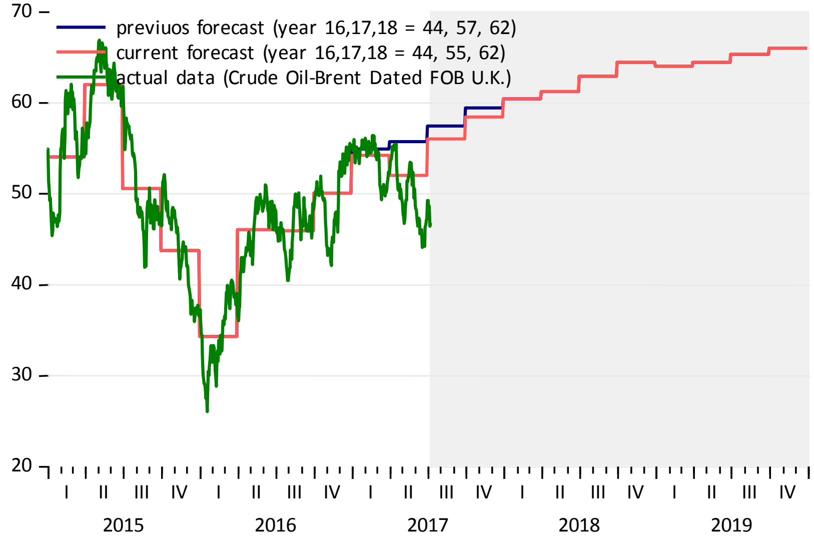
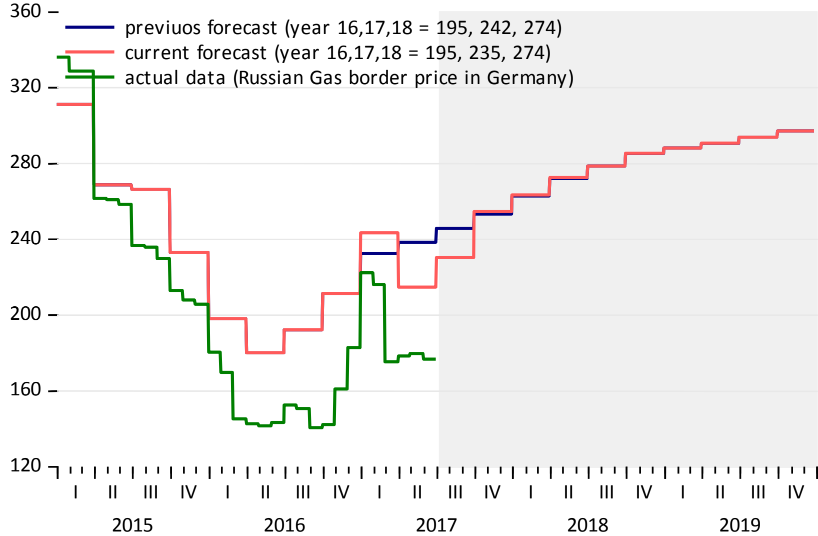
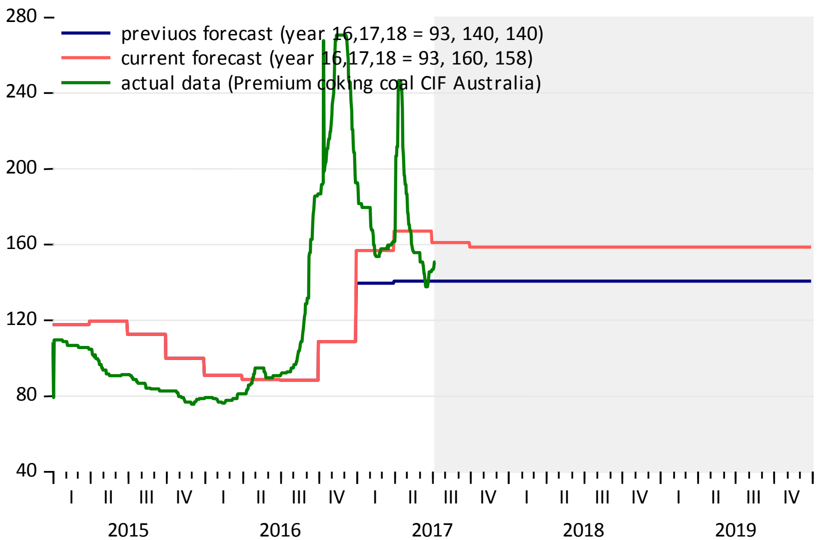
Brent World Price, USD/bbl



Natural Gas Import Price, USD/1000m3



Coal Import Price, USD/MT



	Gas imports, bln m3		Coal imports, mln t	
	Current (July)	Previous (April)	Current (July)	Previous (April)
2017	11.5	11.5	17.6	17.8
2018	11.5	11.5	17.1	17.1
2019	10.5	10.5	17.1	17.1

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A delay in gas price increase means lower contribution of admin prices in 2017 at the expense of higher growth in 2018-2019

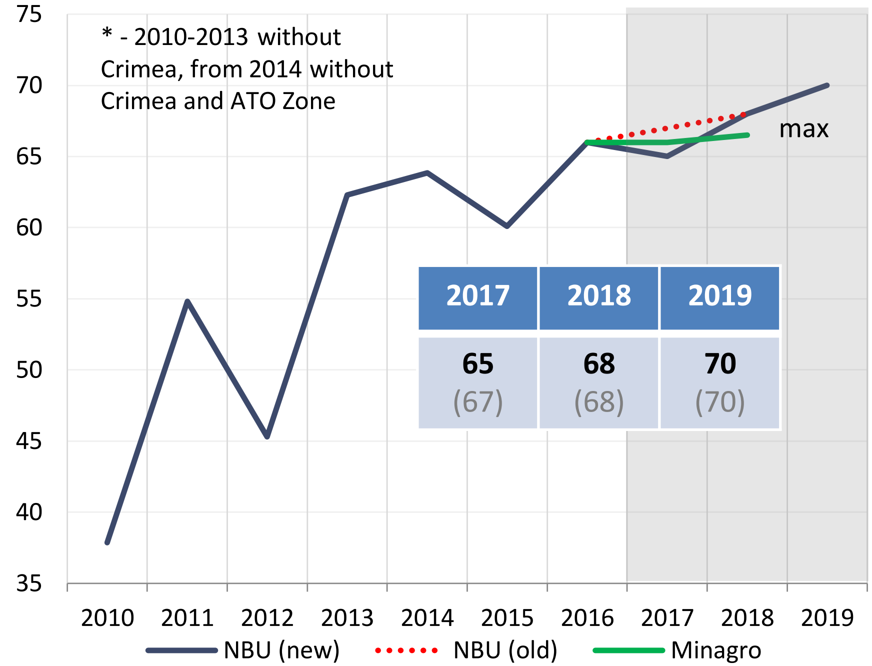
Adjustment of administered prices, yoy changes, %

	weight, %	2017	2018	2019
Admin CPI	*18.6*	**13.8** (16.0)	**12.3** (11.6)	**11.5** (9.7)
Natural gas	*2.0*	0.9 (19.3)	20.5 (17.5)	20.0 (10.9)
Heating	*1.2*	1.0 (16.8)	16.6 (14.8)	15.0 (9.3)
Hot water	*0.2*	2.1 (14.5)	15.8 (13.1)	14.0 (8.2)
Cold water	*0.3*	22.0 (10.0)	11.0 (9.0)	8.0 (9.0)
Electricity	*1.0*	28.1 (28.1)	18.0 (18.0)	20.0 (20.0)
Alcohol	*4.9*	12.0 (13.0)	10.0 (10.0)	10.0 (10.0)
Tobacco	*3.0*	22.0 (20.0)	13.0 (13.0)	12.0 (13.0)

in ( ) – previous forecast (IR, April 2017)

- Higher cold water and tobacco prices pushed administrative prices upwards
- **Energy tariffs:**
  - KMU had to announce new gas price for HH based on import parity by July 1st
  - A delay of gas prices increase also determines the pattern of heating and hot water prices adjustments

Grain harvest, mln.t.



2017	2018	2019
65 (67)	**68** (68)	**70** (70)

- Grain harvest in 2017 was revised downwards reflecting unfavorable weather conditions, despite the overall trend in productivity growth
- Unfavorable weather conditions also worsen outlook for cherries, apricots, berries, grapes, apples etc.

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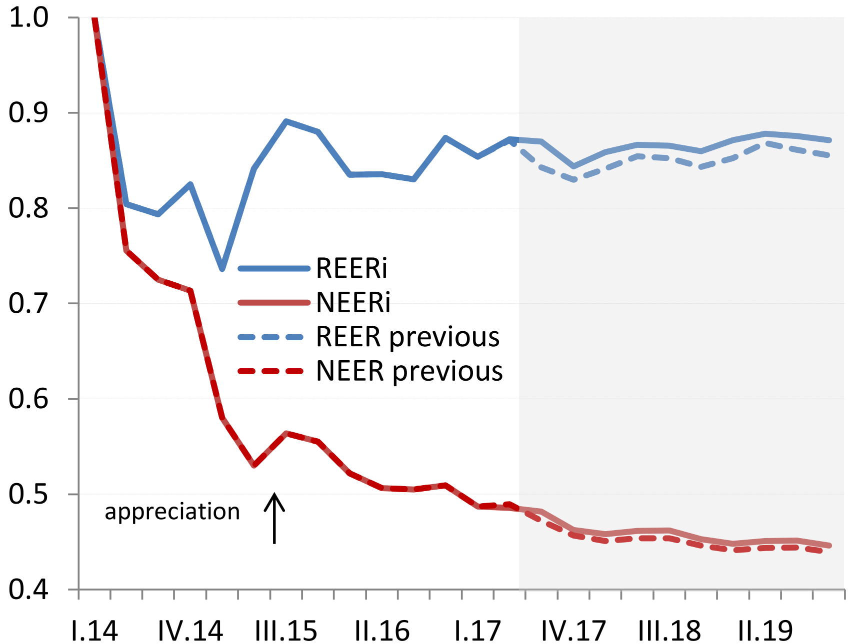
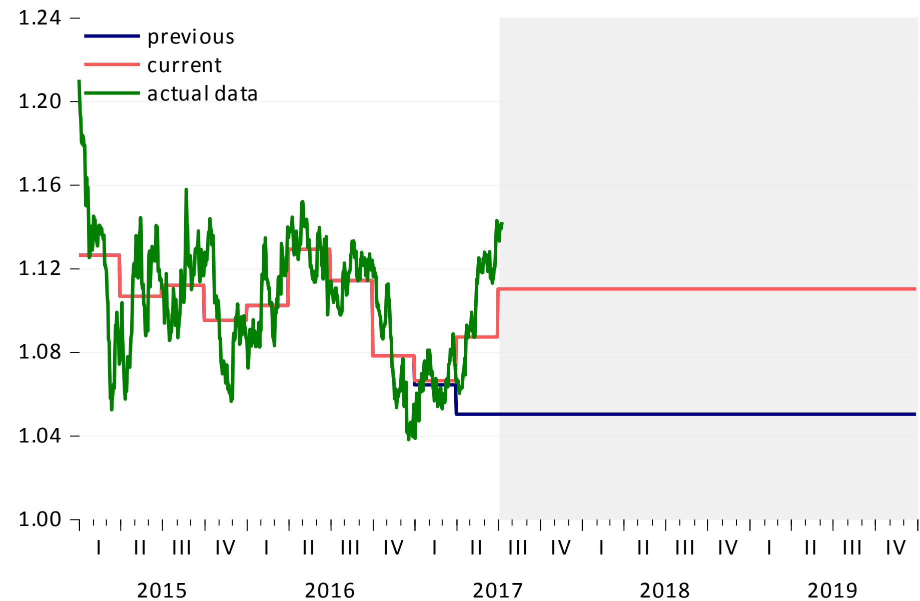
NEER and REER forecasts remain broadly the same while USD is weaker globally, and in Ukraine particularly

REER and NEER index (1.2014=1)



USD/EUR Exchange Rate



	2016	2017	2018	2019
REER, average, % change	+0.8	+1.9 (+0.7)*	+0.3 (-0.2)	+1.3 (+1.3)
NEER, average, % change	-8.4	-6.1 (-6.7)*	-4.3 (-5.3)	-2.1 (-2.0)

in ( ) – previous forecast (IR, April 2017)

* Technical error of previous forecast was corrected for 2017

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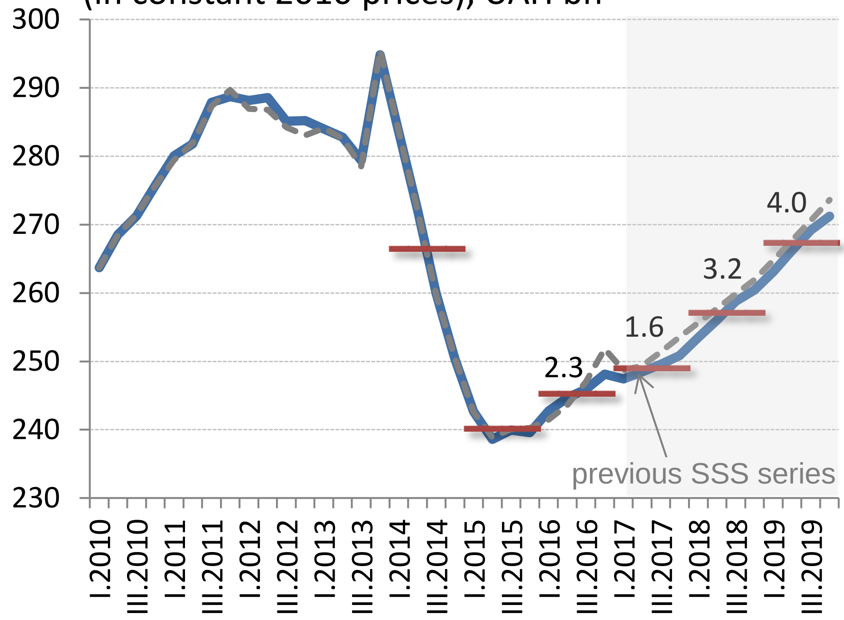
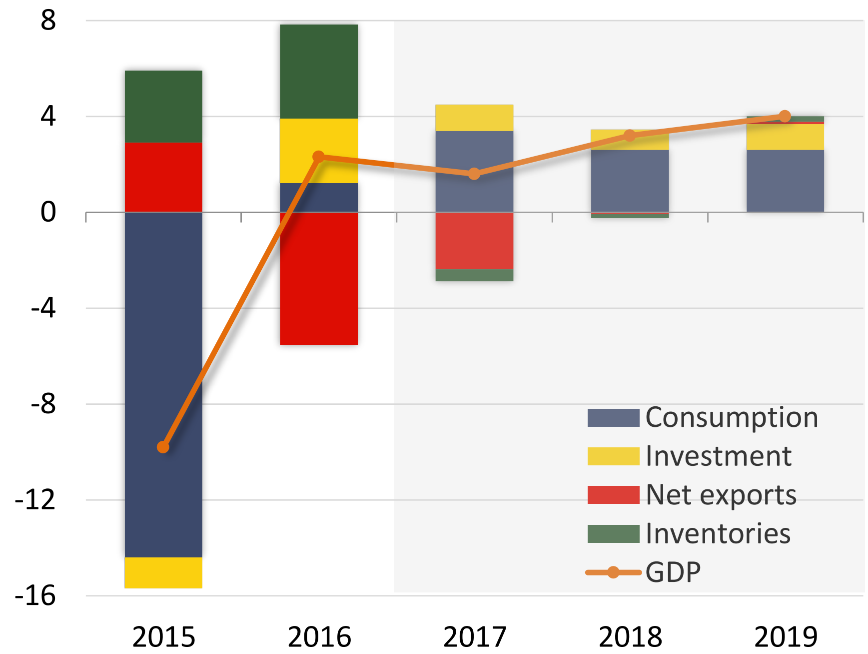
Poor performance of services, electricity industry, and lower harvest determined downward revision of GDP growth in 2017

Seasonally Adjusted GDP
(in constant 2010 prices), UAH bn



Source: NBU

Contributions to Real GDP Growth, pp



change, % (in real terms)	2016	2017	2018	2019
GDP	**2.3**	**1.6** (1.9)	**3.2** (3.2)	**4.0** (4.0)
Consumption	1.4	3.9 (3.6)	2.9 (2.9)	2.9 (2.8)
Private consumption	1.8	4.9 (4.9)	3.6 (3.4)	3.6 (3.3)
Gross capital formation	40.8	2.1 (5.7)	5.2 (6.0)	7.6 (7.5)
Gross fixed capital formation	20.1	7.4 (5.7)	5.5 (4.0)	6.7 (6.8)
Export of goods and services	-1.6	4.9 (2.9)	5.0 (5.0)	3.7 (4.0)
Import of goods and services	8.4	8.6 (8.0)	4.6 (6.0)	3.1 (3.0)

in ( ) – previous forecast (IR, April 2017)

- Private consumption will be supported by gradual easing of fiscal policy (including a rise in pension benefits planned for autumn 2017), reviving lending activity and firming consumer confidence
- Investment activity will stay robust, inter alia benefiting from improving business climate

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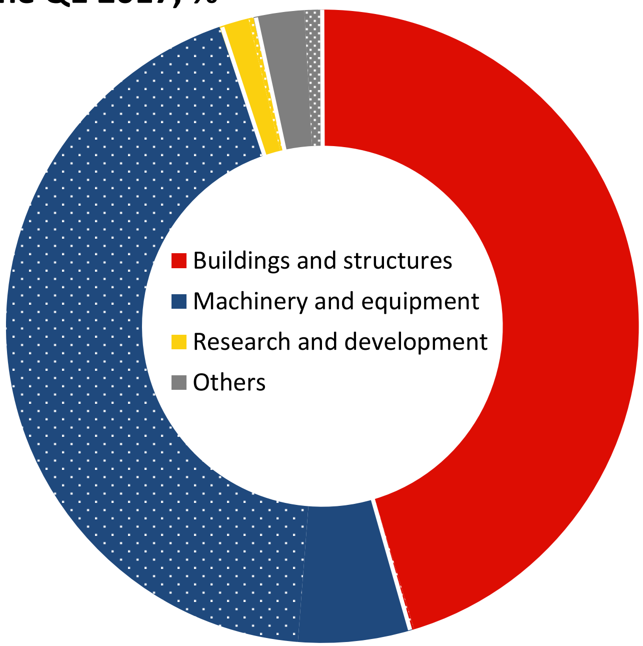
Buoyant investment demand supported a number of domestic industries, although it stimulates imports as well

Structure of Investments by Type and Origin in the Q1 2017, %*

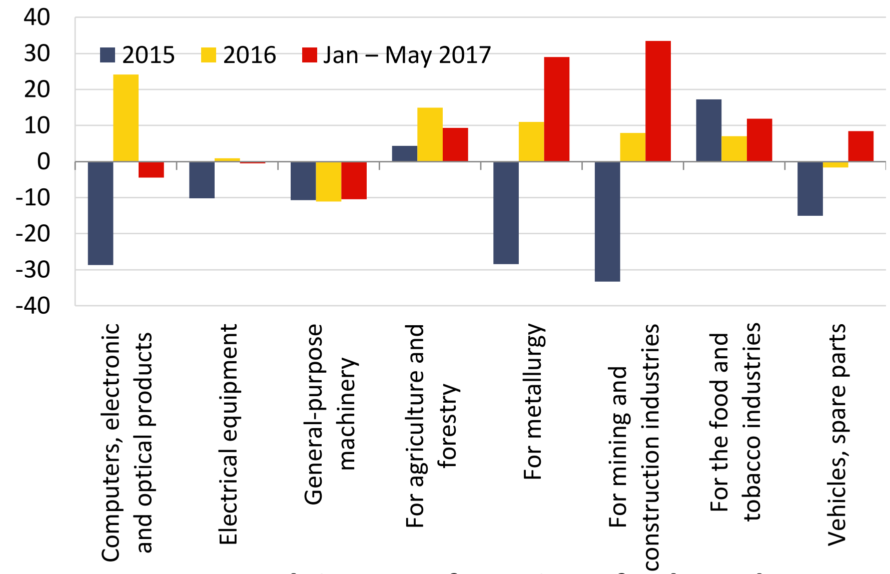


* The estimation of domestic and imported investment shares is based on the Input–Output Table for 2015. The texture fill reflects the share of imported investment.

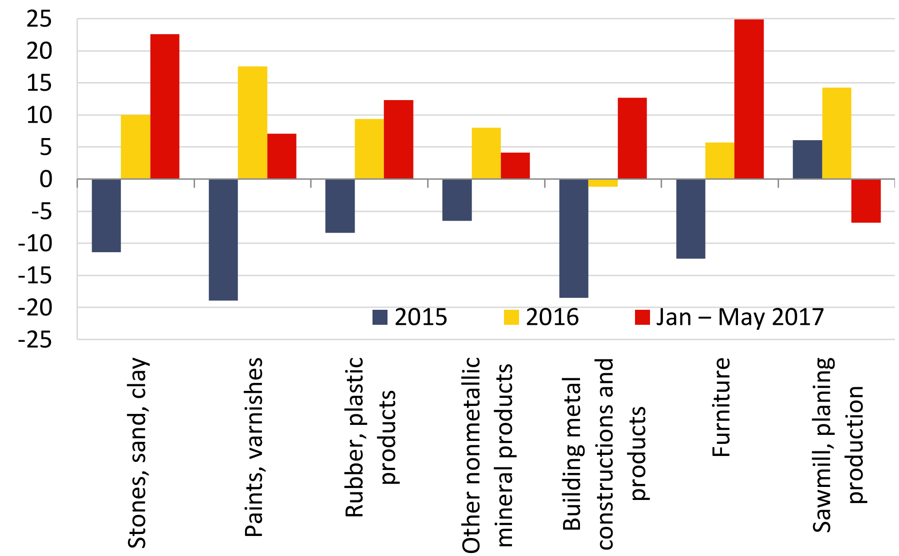
Source: State Statistics Service of Ukraine; NBU staff estimates

- Machinery and equipment accounted for almost a half of total investments (49%) in Q1 2017 and was mainly covered by import
- Strong investments in buildings and structures (45% of investments) spurred growth in construction and a number of related industries

Output Growth in Selected Machinery, % yoy



Output Growth in Manufacturing of Selected Construction Materials , % yoy



Source: State Statistics Service of Ukraine; NBU staff estimates

Faster output gap closing (which reflects pension reform impulse) generates additional inflation pressure in 2018

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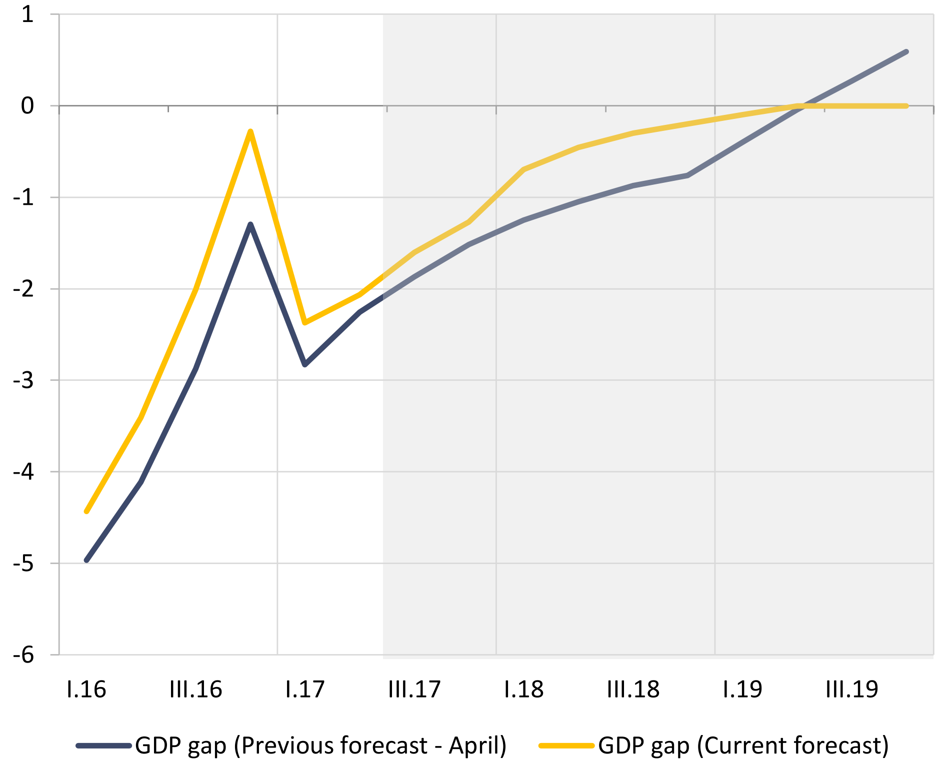
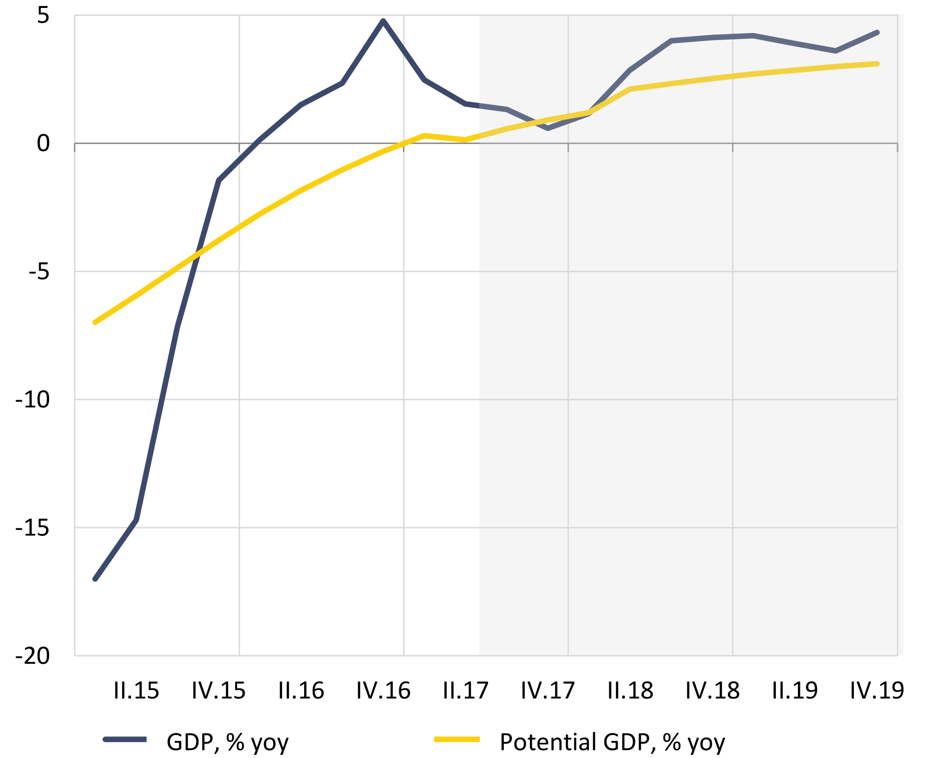
Output Gap, % of Potential GDP



GDP and Potential GDP, changes, %



Revision of Output gap in the past reflects changes in methodology

Fiscal policy remains stimulative on the forecast horizon

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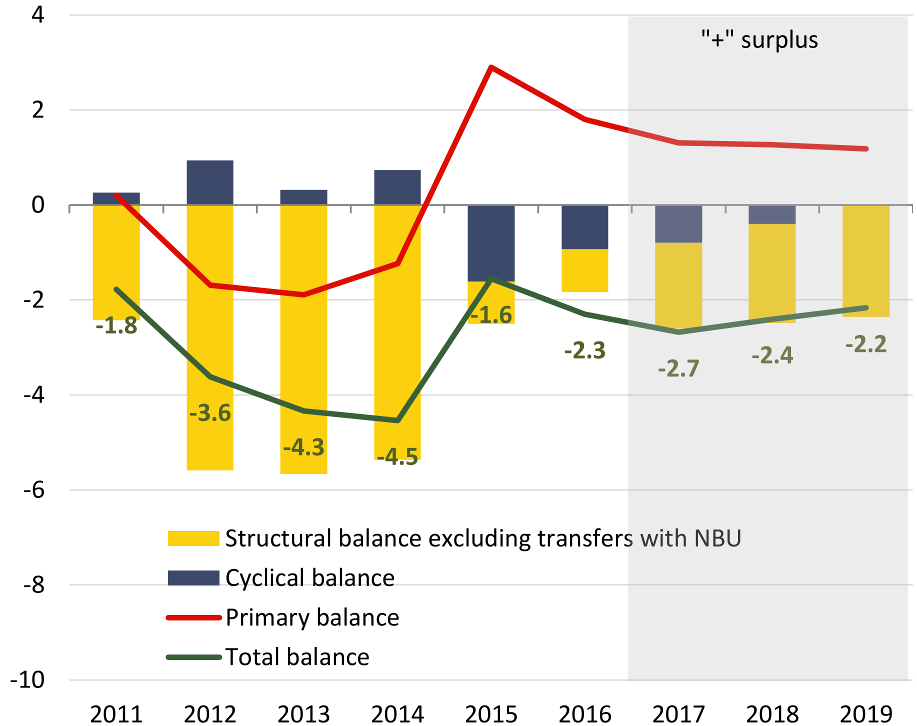
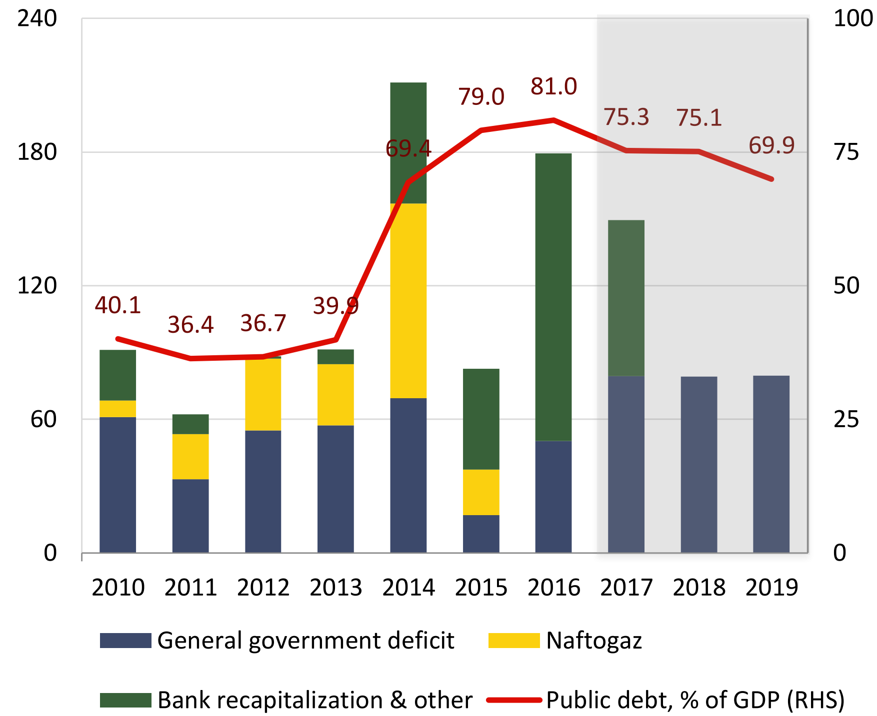
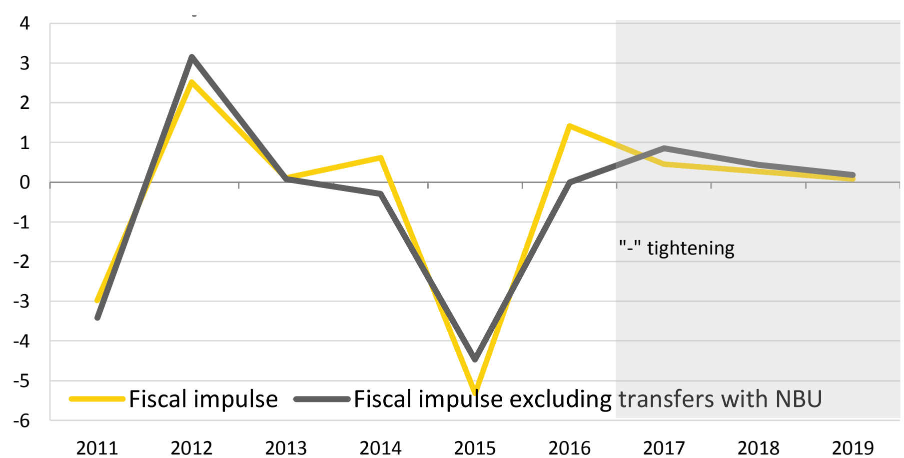
Consolidated Budget Balance, % GDP



Public Sector Deficit, UAH bn





In 2017-2019, CA deficit remains almost unchanged. International reserves grow broadly in line with previous path

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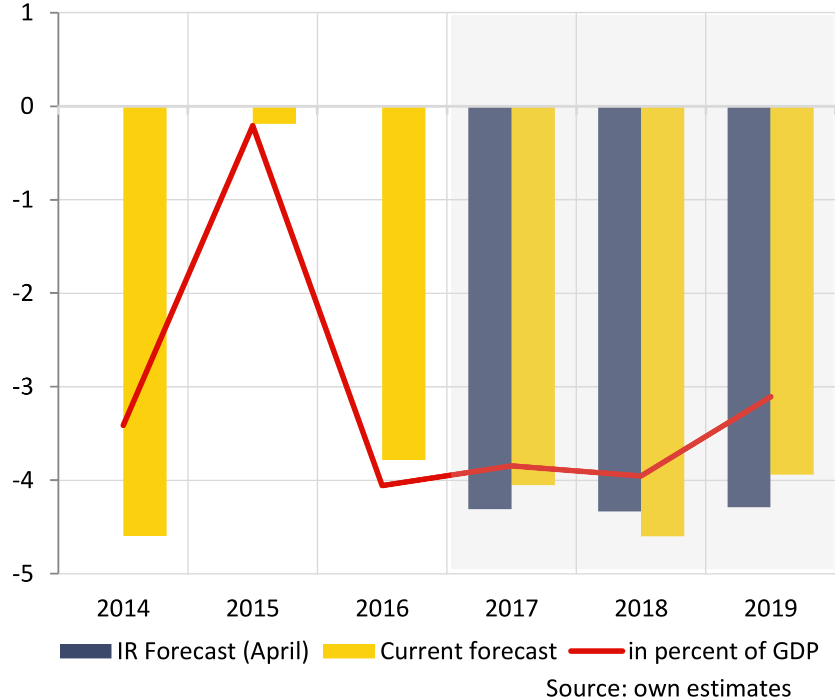
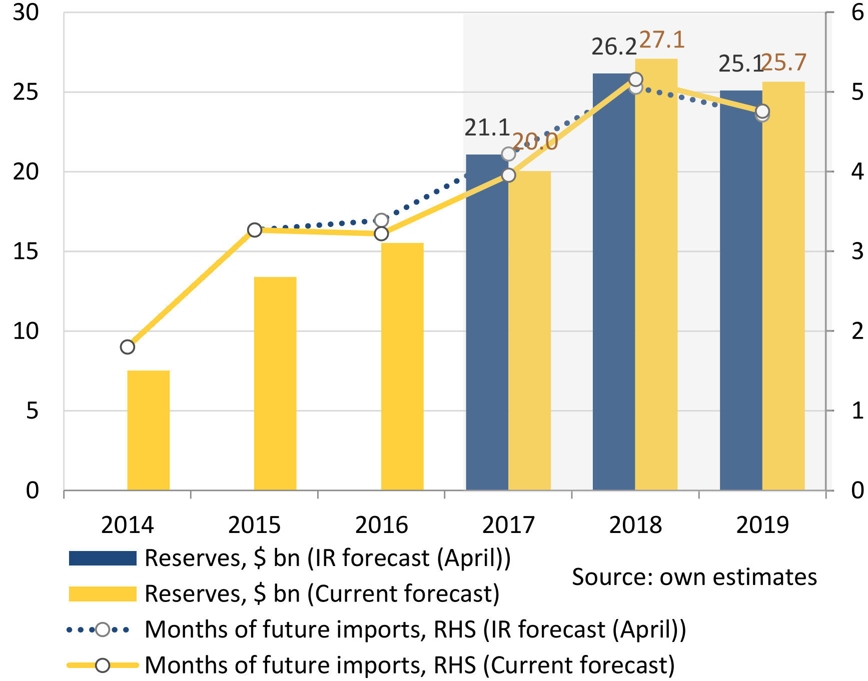
Current Account Balance, $ bn



International Reserves



Main factors of CA changes in 2017-2019	
Balance of goods (~)	↓ Exports of sunflower & grain in 2017/2018, ↑ Price of coal, ↓ Exports of chemicals, ↑ Imports of chemicals
	↑ Exports of sunflower & grain in 2016/2017, ↑ **N**ew markets for agro products (sugar, dairy, meat, etc.), ↓ Revision of informal imports
International Reserves (~)	↑ Confiscated money, ↓ Rollover of domestic FX bonds

FX cash outside banks: the tendencies of the last few years

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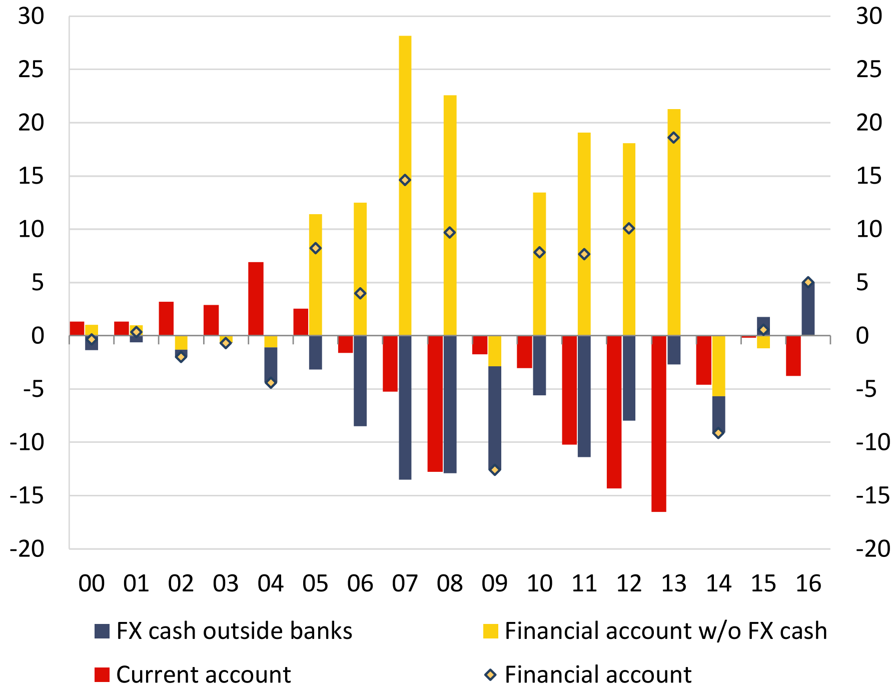
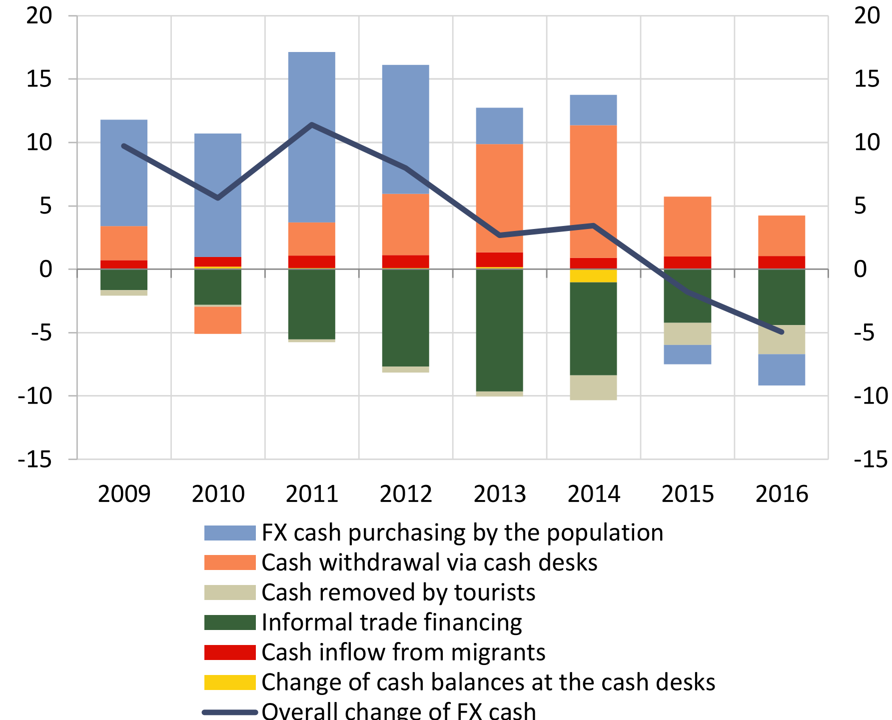
Current and Financial Account* Balances, USD billion



* A positive balance indicates net FA inflows

Source: NBU

Changes in FX Cash outside Banks by Main Components, USD billion



Source: NBU

- For almost 20 years until 2015, changes in FX cash outside banks, driven by large FX purchases by population, had affected FA balance negatively. However, since 2015 a decrease in FX cash outside banks became an important source of CA deficit financing
- A shift reflected the presence of FX restrictions, a decrease in real household income, purchases of residential property and transport vehicles as an alternative source of savings, stricter money laundering regulations, a reduction in the number of tourists coming to Ukraine and their average checks, etc. A steady inflow of remittances only partially offset those developments
- Considering potentially high FX cash stock, progress in macro stabilization and NBU efforts to stimulate non-cash transactions, one could expect this tendency to continue

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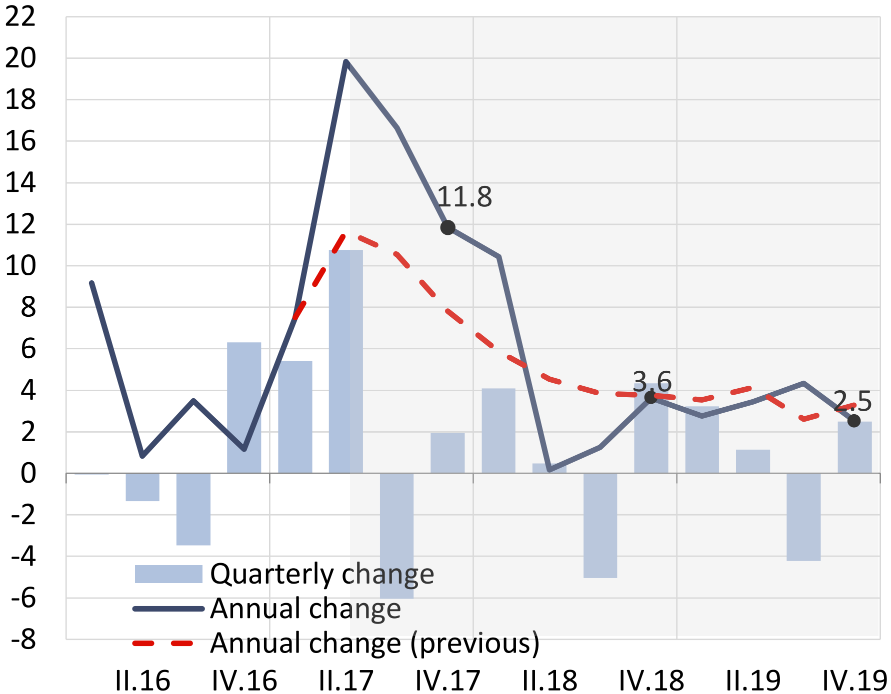
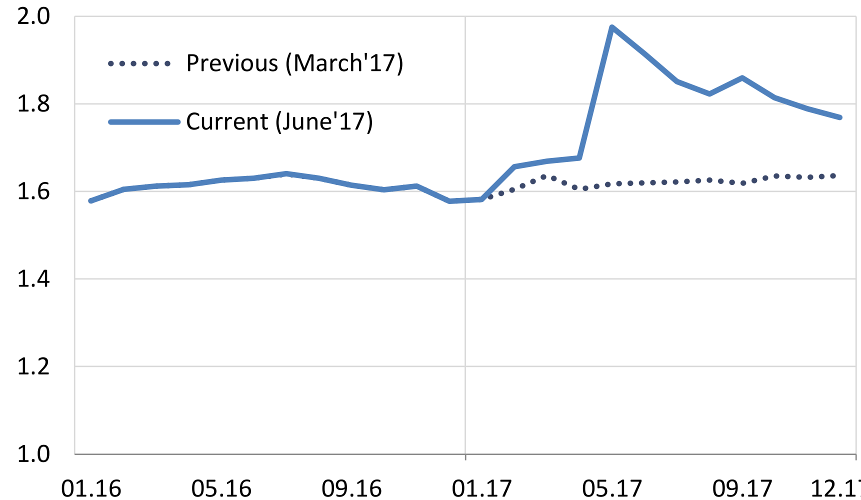
Raw food outlook worsens on the back of massive meat export (50% volumes rise in Jan-May). Diary export also accelerates

Raw food prices, %



Assumptions Used in Forecast

Meat Index (01.2004=1)



Source: Thomson Reuters, NBU calculations

Price change, %	*weight , %*	2016	2017
Cereals	*1.8*	9.5	5.2 (9.8)
Meat	*7.4*	5.1	12.1 (1.8)
Milk	*2.2*	23.3	12.0 (8.2)
Eggs	*1.2*	-9.6	4.6 (1.3)
Fruits	*2.7*	-6.6	14.2 (15.9)
Vegetables	*2.3*	-28.6	13.3 (12.4)
Sugar	*1.5*	-1.3	5.2 (5.5)

in ( ) – previous forecast (IR, April 2017)

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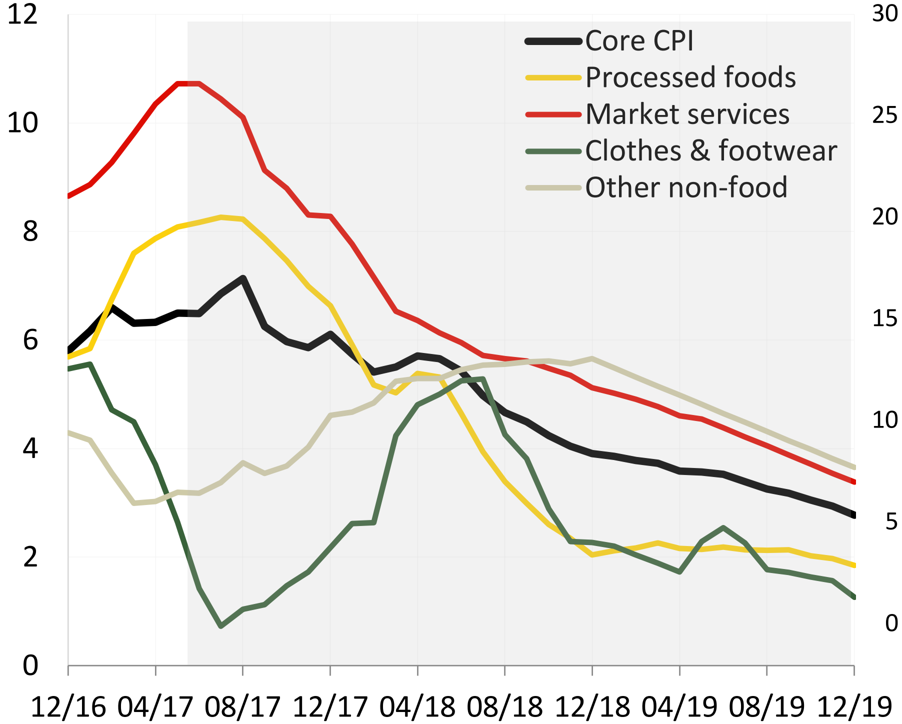
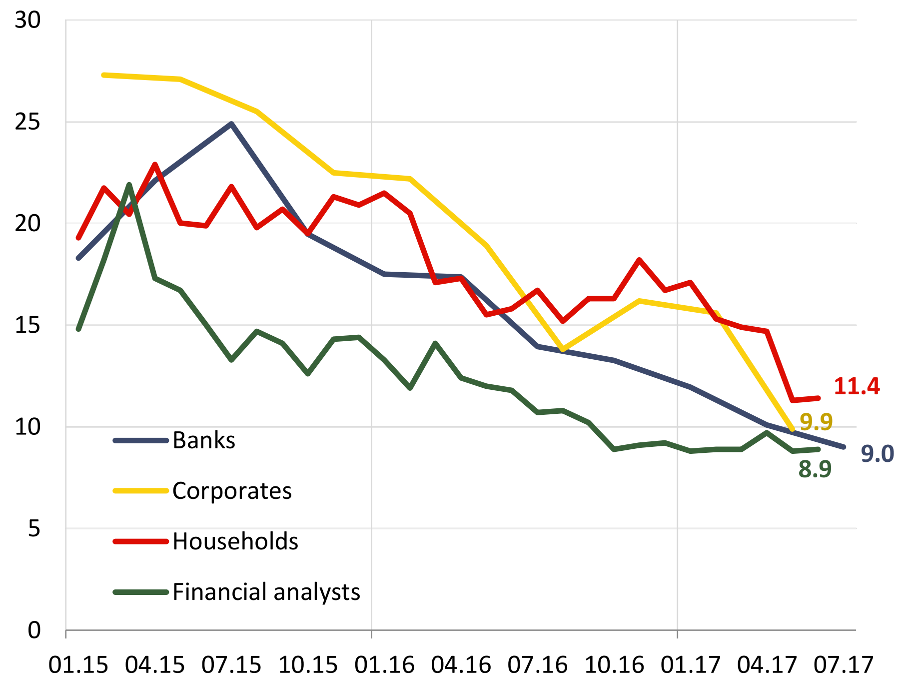
Core inflation will decelerate due to a fall in imported inflation and improved inflation expectations

Core CPI and its components, % yoy



Inflation Expectations for the Next 12 Months, %



Source: NBU; GfK Ukraine surveys; NBU staff estimates

change, %	*weight,%*	2016	2017		2018		2019
Core CPI	***57.4***	**5.8**	**6.1**	**(6.5)**	**3.9**	**(4.3)**	**2.8**
Processed foods	*20.1*	5.7	6.6	(5.9)	2.0	(2.5)	1.8
Market services	*12.4*	8.7	8.3	(8.8)	5.1	(5.4)	3.4
Clothes & footwear	*5.4*	5.4	2.2	(2.5)	2.3	(2.6)	1.3
Other non-foods	*19.5*	4.3	4.6	(6.5)	5.7	(6.0)	3.7

in ( ) – previous forecast (IR, April 2017)

Headline inflation is volatile due to utility tariff adjustments and supply factors, fundamental inflationary pressures are subdued

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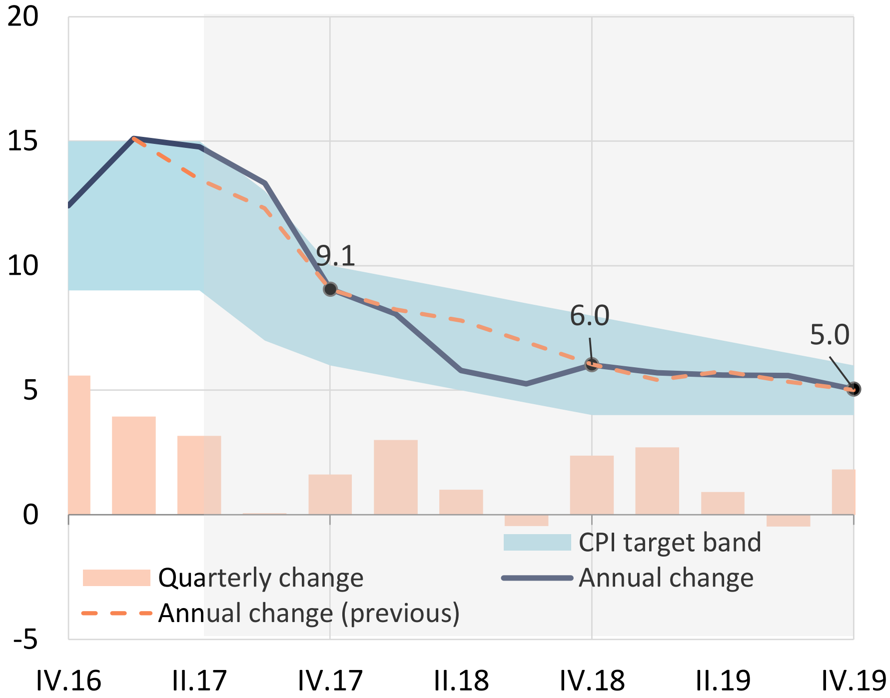
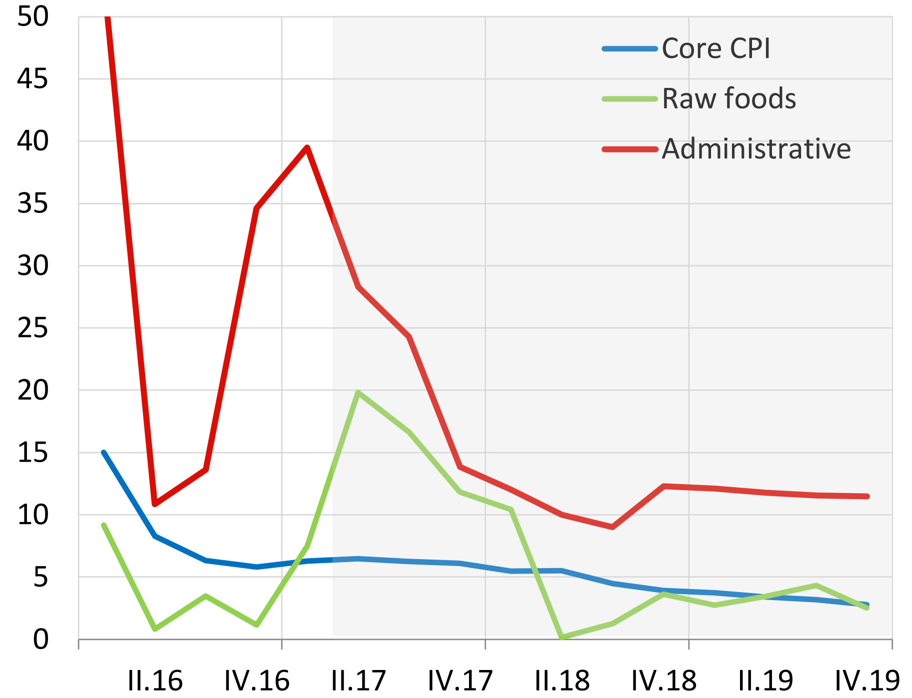
Headline CPI, %



CPI components, % yoy



change, %	*weight, %*	2017	2018	2019
CPI	*100.0*	9.1 (9.1)	6.0 (6.0)	5.0 (5.0)
Core CPI	*57.4*	6.1 (6.5)	3.9 (4.3)	2.8 (3.7)
Raw food	*19.0*	11.8 (7.8)	3.6 (3.8)	2.5 (3.3)
Admin	*18.6*	13.8 (16.0)	12.3 (11.6)	11.5 (9.7)
Fuel	*5.0*	13.0 (17.2)	8.0 (8.0)	6.0 (7.0)

in ( ) – previous forecast (IR, April 2017)

Inflation factors:

- ↑ Negative supply shocks on food market
- ↑ Pension reform impulse
- ↓ Stronger exchange rate
- ↓ Improved inflation expectations
- ↓ A delay in gas price increase in 2017

NBU policy stance is conditional upon macroeconomic developments

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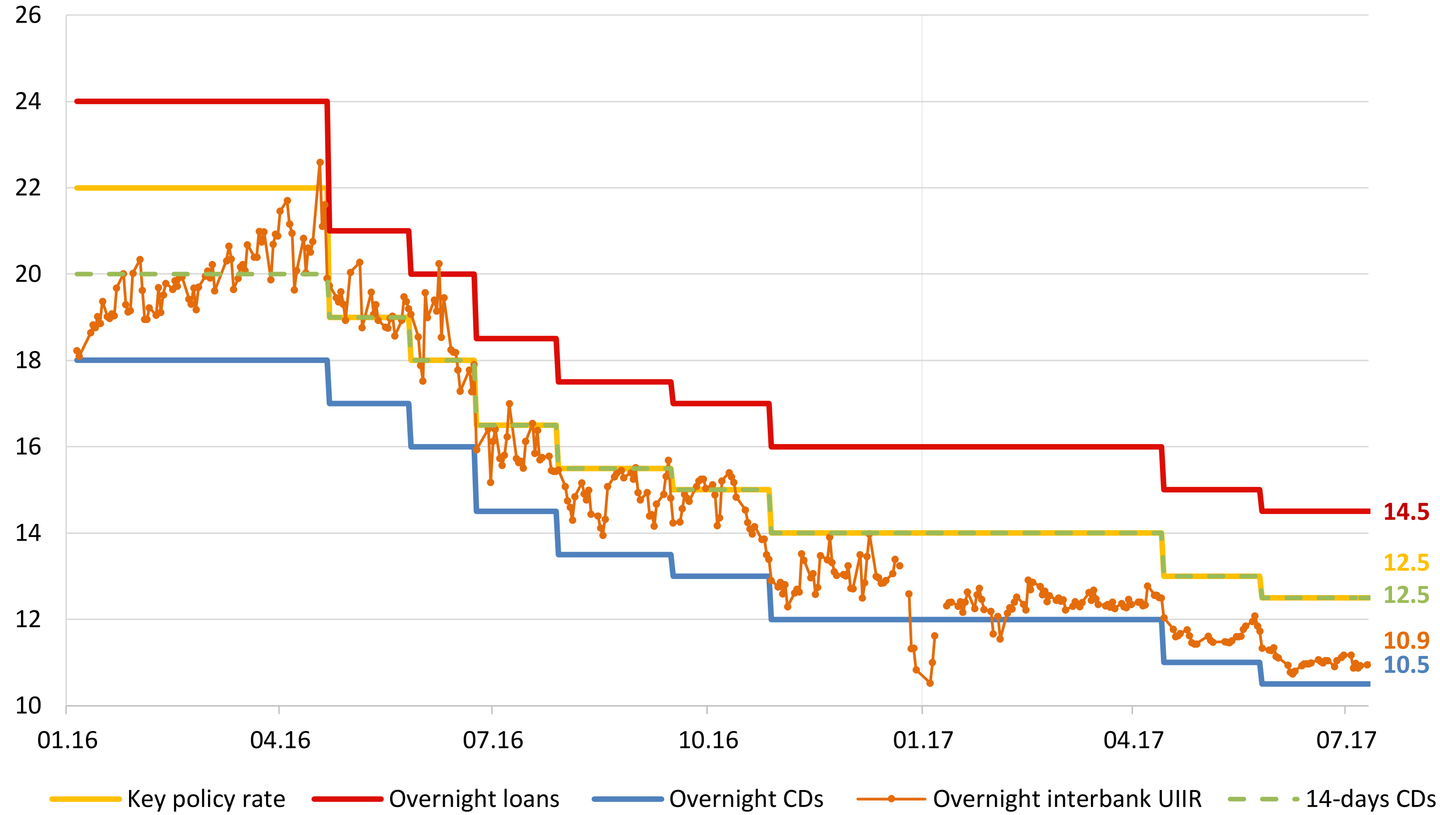
NBU Policy Rates and Ukrainian Index of Interbank Rates % pa, as of 10.07.2017



Source: NBU

- In Q2 2017, the NBU Board resumed the easing cycle of its monetary policy
- However, on its latest meeting the key rate was left unchanged to contain the likely impact of faster growth in food prices on inflation expectations and mitigating demand-pull pressures stemming from expected increase in pension benefits
- The rate decisions filtered swiftly through to market interest rates. Effect of previous cut has not yet fully translated into lower interest rates offered by banks. Hence there is the room for banks to lower rates further

Implementation of monetary policy by the NBU under structural liquidity surplus in the banking sector

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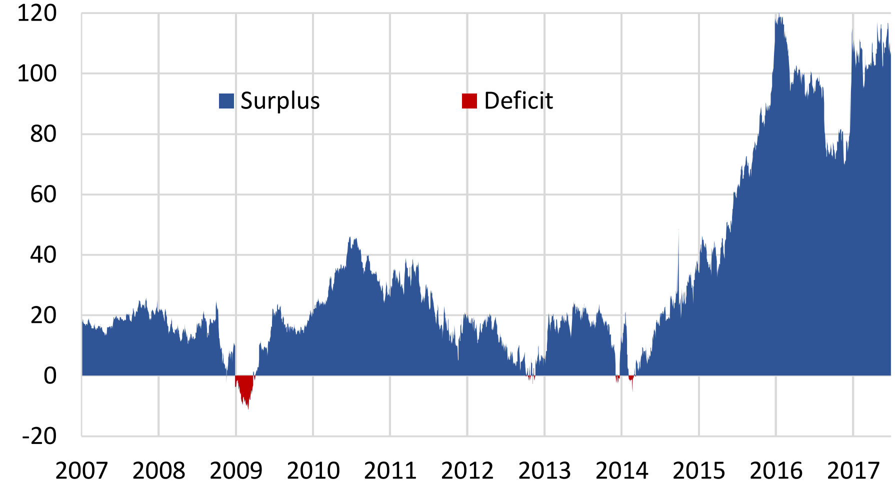
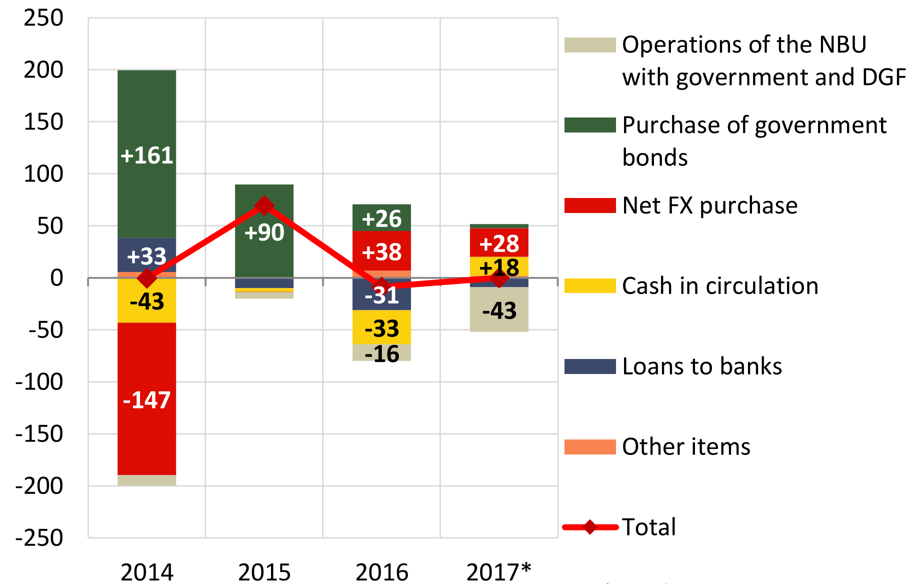
- Interest rates as operational target of monetary policy proved to outperform monetary aggregates targeting in achieving price stability
- Monetary policy toolkit under inflation targeting depends on structural liquidity position of the banking system: under structural deficit the main central bank operations are to provide liquidity, and to absorb it otherwise
- Major factors that determine liquidity position are cash demand, FX interventions by the NBU, support of the banking system, operations of the NBU with gov. securities
- Still, a monetary policy stance does not depend on structural liquidity position: in both cases monetary policy can be tight or loose, determined by key policy rate
- For instance, under structural surplus, a main NBU instrument of liquidity management are CDs with 14-day maturity. However, the primary aim of their use is to affect interbank interest rates, not to absorb liquidity per se
- Since mid-2015, interbank interest rates have been in the range of NBU operation rates and swiftly reacted to NBU changes in key policy rate. That signaled about effectiveness of the first monetary transmission chain

Structural Liquidity Position of Ukraine's Banking System, UAH billion



Factors Affecting a Change in NBU Claims on Other Deposit Corporations, UAH billion



*As of 01.06.2017

Accounting for favorable FX market conditions, the NBU continued relaxing administrative restrictions

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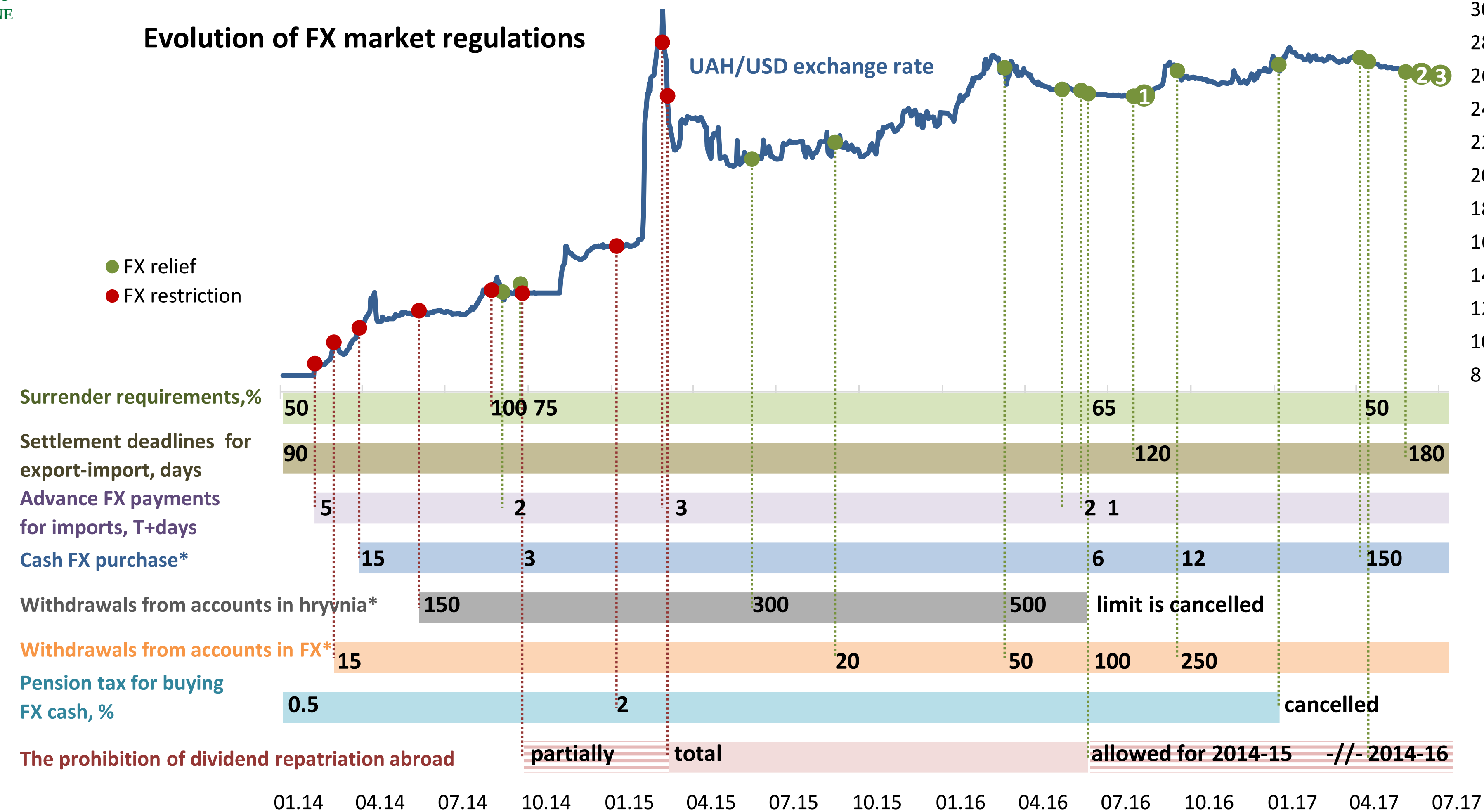
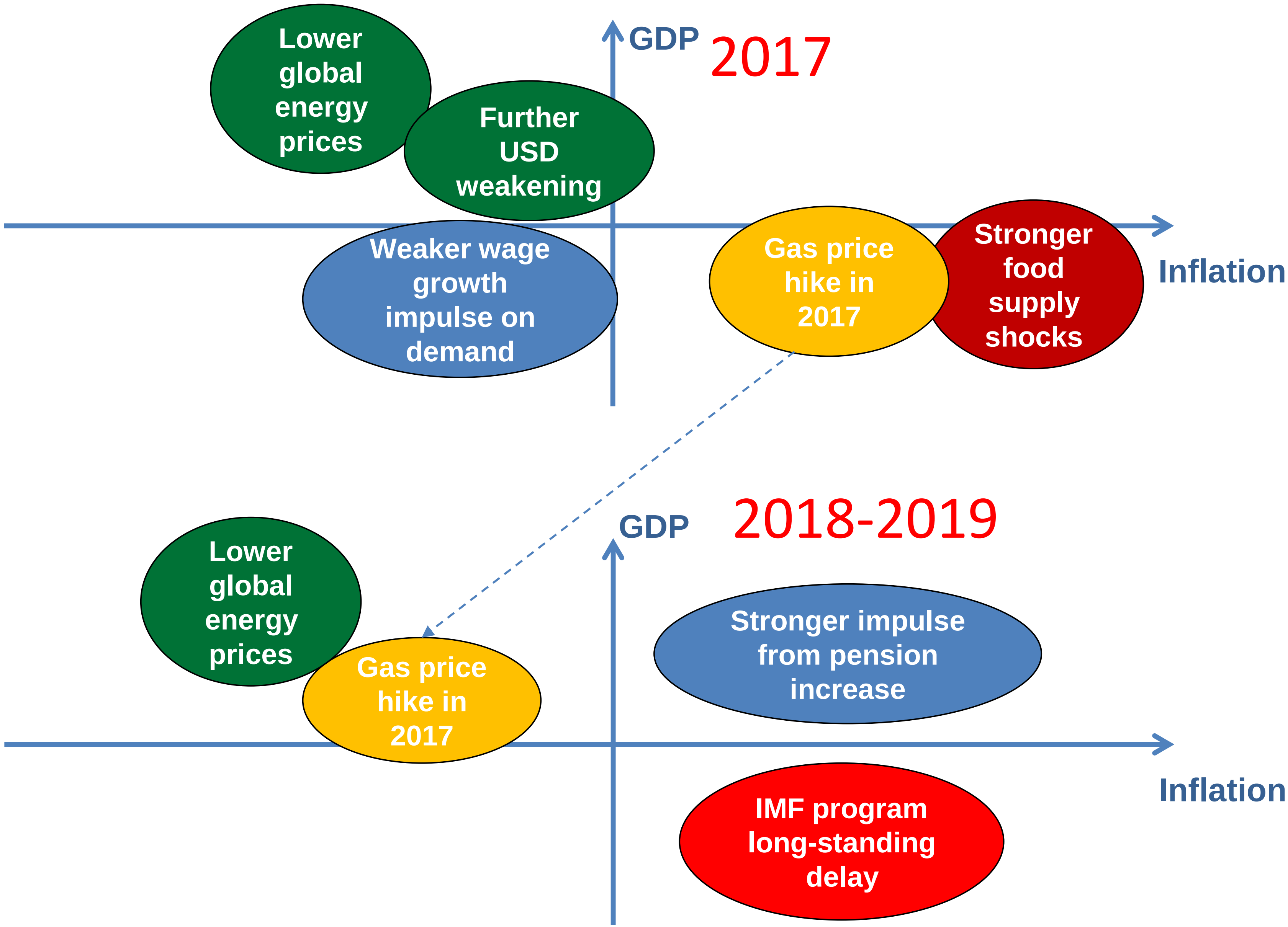


* measured in thousand UAH equivalent

1. Cancellation of ID request for FX transactions (up to 150 000 UAH)
2. Lift of select restrictions on: (I) repatriation of funds invested in Ukraine and (ii) transfers abroad by individuals related to non-commercial operations. (iii) Increase of annual limit for investing abroad from USD 0.6 to 2.0 bn
3. Launching E-licenses for FX transfers abroad by individuals

Forecast risks balance



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NBU policy under different scenarios

Scenario	Results (2017-2018)	NBU policy
Baseline - status-quo in the east - structural reforms - further cooperation with international financial organizations	GDP +1.6% +3.2% CPI 9.1% 6%	Admin. restrictions ↓ Interest rate ↓
Optimistic - lower global energy prices (oil, gas, coal) - higher export prices - foreign capital inflows	GDP ↑ UAH/USD ↓ CPI ↓	Admin. restrictions ↓↓ Interest rate ↓↓
Pessimistic - IMF program delay and more expansionary fiscal policy - stronger negative food supply shocks	GDP ↓ UAH/USD ↑ CPI ↑	Admin. restrictions = Interest rate =↑