



**NATIONAL BANK OF UKRAINE**

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**Inflation Report and Macroeconomic Forecast (October 2016)**

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**National Bank of Ukraine**  
**Kyiv, November 7, 2016**



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## Summary

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- Low actual inflation (7.9% y-o-y in September) supported by prudent fiscal and monetary policy as well as domestic and global supply factors was in line with our previous forecast for Q3
- Inflation projections remained unchanged (12% for 2016, 8% for 2017, and 6% for 2018). Administrative component drives the swings in headline inflation, meanwhile core inflation will level off at around 5-6% on forecast horizon
- The forecast for real GDP growth in 2016 remained unchanged at 1.1%. In the medium-term, the economy will grow at slightly lower rates than we predicted earlier: 2.5% in 2017 and 3.5% in 2018.
- The current account deficit will widen faster due to less favorable terms of trade and a more rapid recovery of investment demand (USD 2.5 bn in 2016, USD 2.9 bn in 2017, and USD 2.8 bn in 2018).
- Key interest rate remains on downward trend, however ensuring monetary policy stance consistent with inflation targets achievement



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# Key macroeconomic indicators

	2015	2016	2017	2018
Real GDP, change, %	-9.9	1.1 (1.1)	2.5 (3.0)	3.5 (4.0)
Nominal GDP, UAH bn	1979	2 290 (2 282)	2 627 (2 632)	2 964 (2 983)
CPI, y-o-y, %	43.3	12.0 (12.0)	8.0 (8.0)	6.0 (6.0)
Core CPI, y-o-y, %	34.7	5.6 (5.5)	5.5 (5.6)	4.9 (4.9)
Current account balance, USD bn	-0.2	-2.5 (-1.8)	-2.9 (-2.1)	-2.8 (-2.5)
BOP (overall), USD bn	0.8	1.7 (1.3)	1.2 (1.7)	3.8 (2.1)
Gross reserves, USD bn	13.3	17.5 (17.2)	23.1 (23.5)	27.8 (26.4)
Base money, e-o-p change, %	0.8	9.5 (8.2)	8.4 (8.7)	8.2 (9.0)
Broad money, e-o-p change, %	3.9	8.9 (10.8)	13.2 (16.1)	14.5 (16.8)

in ( ) – previous forecast (IR, July 2016)

## Assumptions

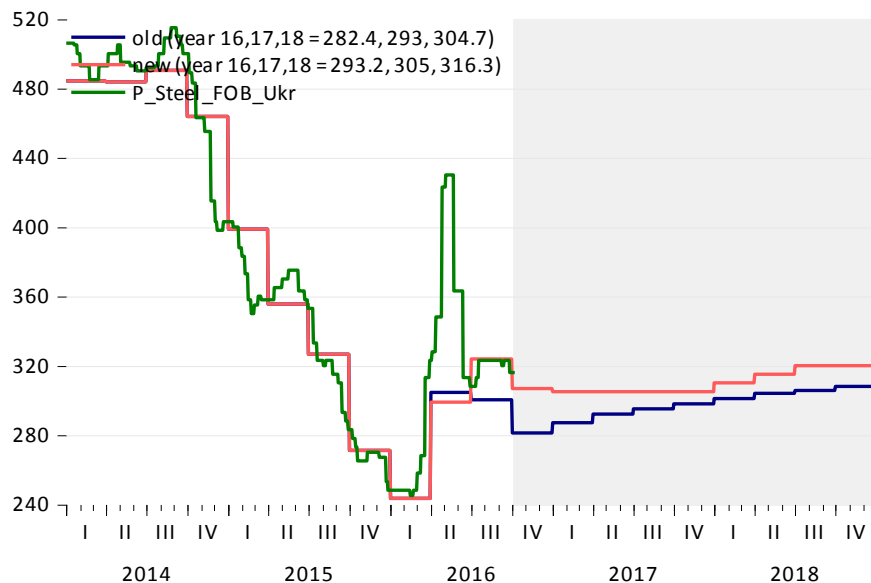
- Frozen military conflict during 2016-2017
- Grain harvest is 63 mln. tons (60 mln. tons) in 2016 and 64 mln. tons in 2017-2018
- Export steel prices are higher but grain prices are lower than projected before
- Administered prices are slightly higher on forecast horizon



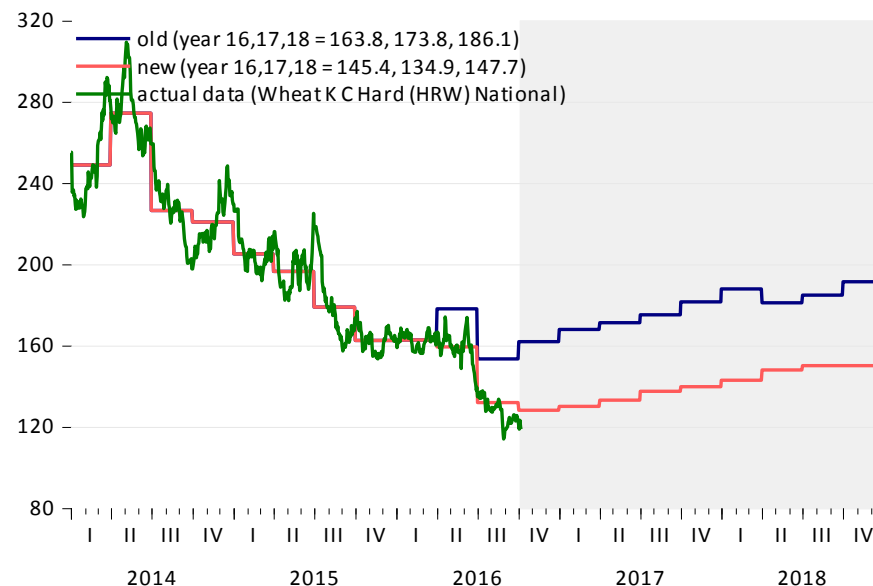
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# Higher steel prices due to China program on metallurgy and EU anti-dumping activity. Lower grain prices thanks to high harvest

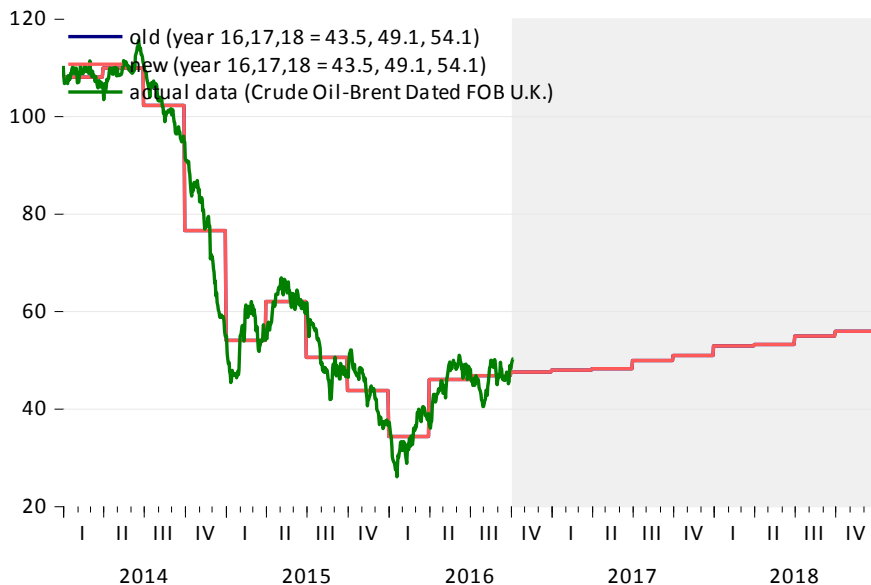
### Steel export price, \$ per t.



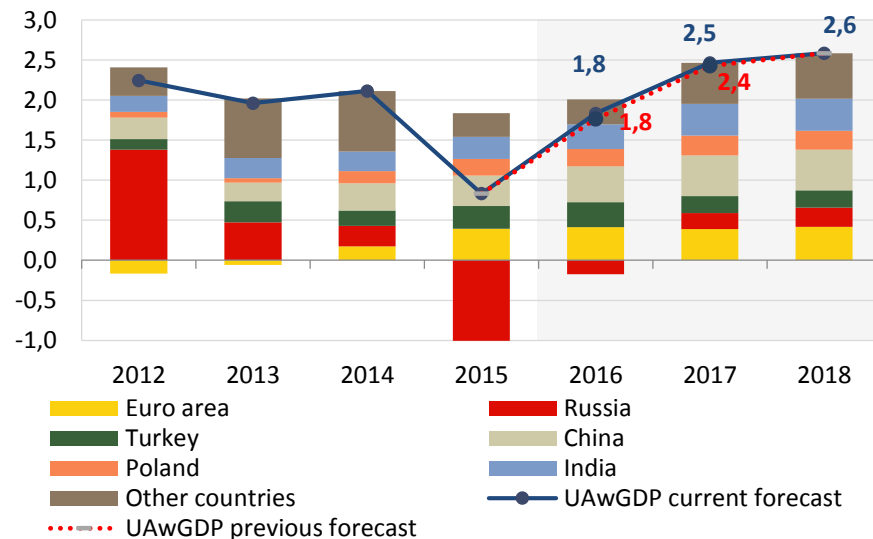
### Wheat world price, \$ per t.



### Brent world price, \$ per bar.



### Contributions of Trading Partners to UAwGDP, % y-o-y

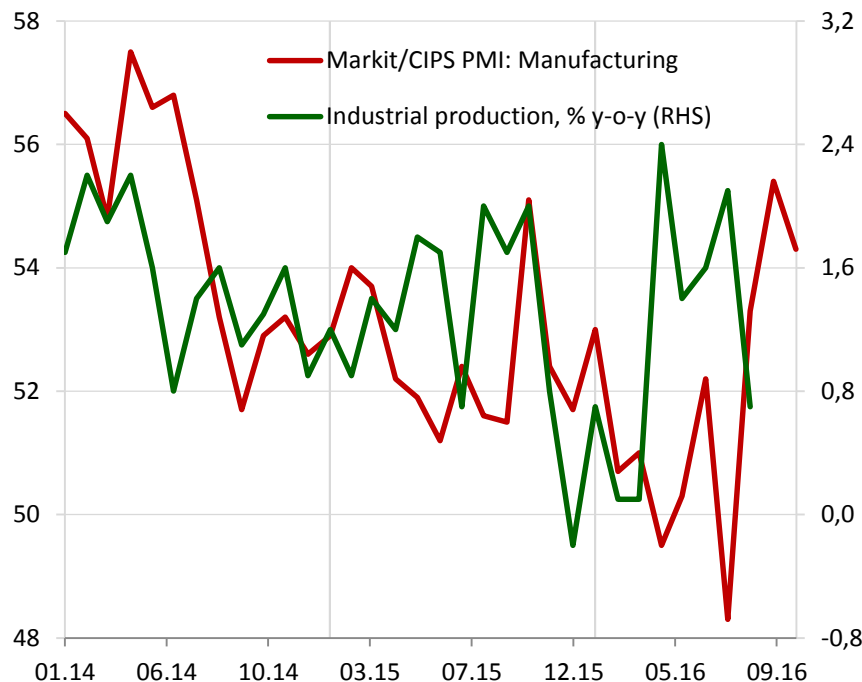




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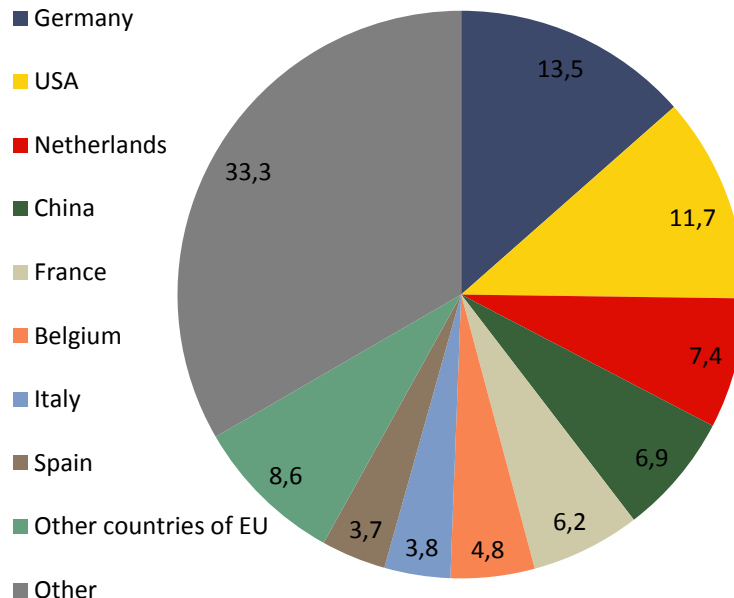
# After the first panic reaction, short-term risks of Brexit has diminished, but medium-term risks stay high

### UK Industrial Production and Manufacturing PMI



Source: ONS UK, Markit

### UK's Merchandise Trade Turnover by Countries, Jan-Jul 2016, %



Source: UK HM Revenue & Customs Trade Statistics

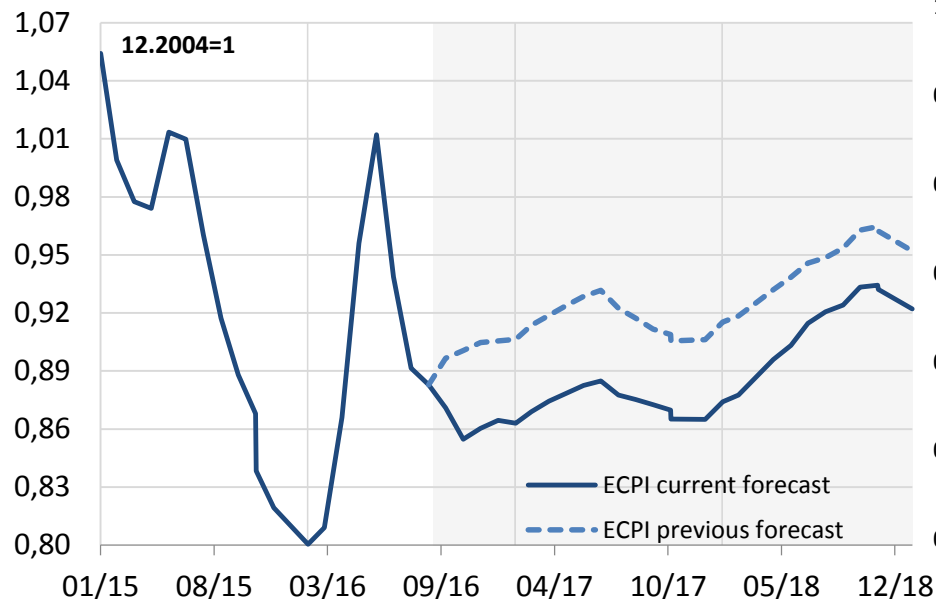
- ST risks declined despite UK confirming an exit from the EU thanks to a quick formation of the new UK government, a decision to delay triggering Article 50 till the end of Q1 2017, a publication of the House of Commons' briefing paper on policy options
- In addition, UK economy demonstrated resilience
- The ST impact on the world economy is considered to be insignificant (0.1 – 0.2 pts) with very a limited impact on EM
- Medium-term risks for both UK and EU stay high with the financial sectors and Germany's economy looking particularly vulnerable



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# Overall Terms of Trade effect for Ukraine is negative leading to weaker REER

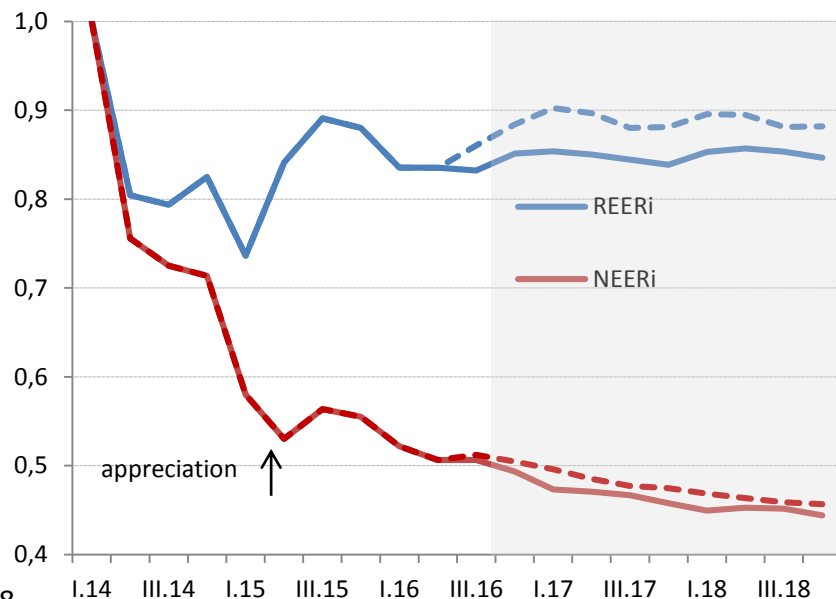
Ukrainian Exports Commodity Price Index (ECPI)\*



• ECPI is calculated basing on the basket of 14 global price indicators weighted by shares of corresponding 10 commodities groups in Ukrainian exports

Source: NBU estimate.

REER and NEER index (1.2014=1)



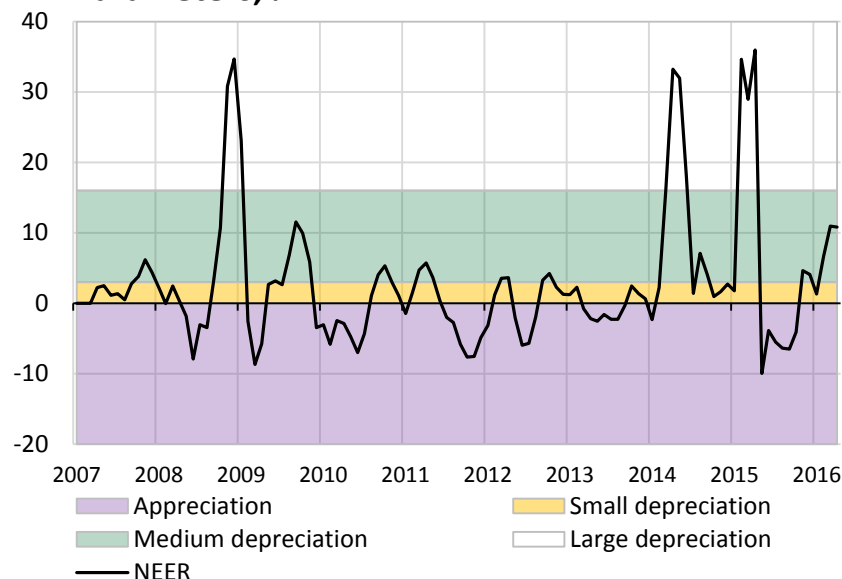
Year average, %	2015	2016	2017	2018
REER	-2.2	0.2 (2.0)	+1.0 (4.3)	+0.7 (-0.2)
NEER	-30.2	-9.0 (-8.3)	-7.9 (-5.5)	-3.8 (-4.4)



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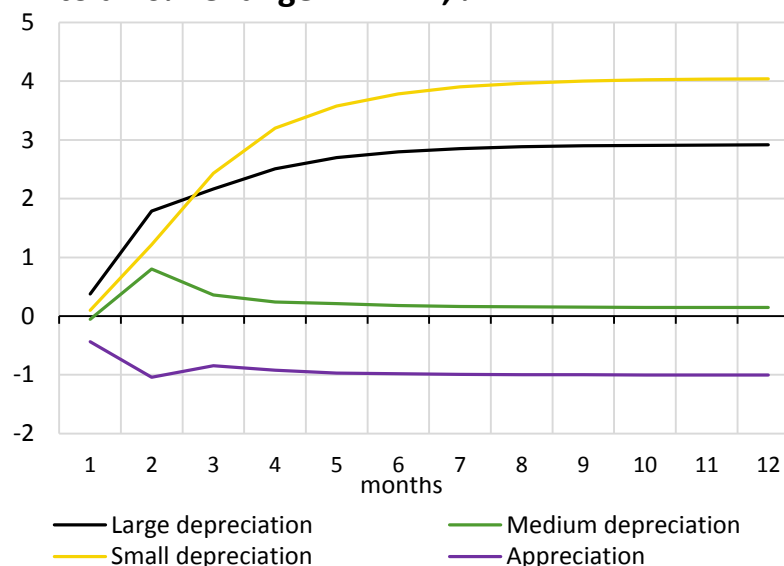
# Exchange rate pass-through (ERPT) to consumer inflation is nonlinear: Ukraine's evidence

### Quarterly Change of NEER and Threshold Parameters, %



Source: SSSU, NBU calculations

### Cumulative Response of Core Consumer Prices to a 10% Change in NEER, %



Source: SSSU, NBU calculations

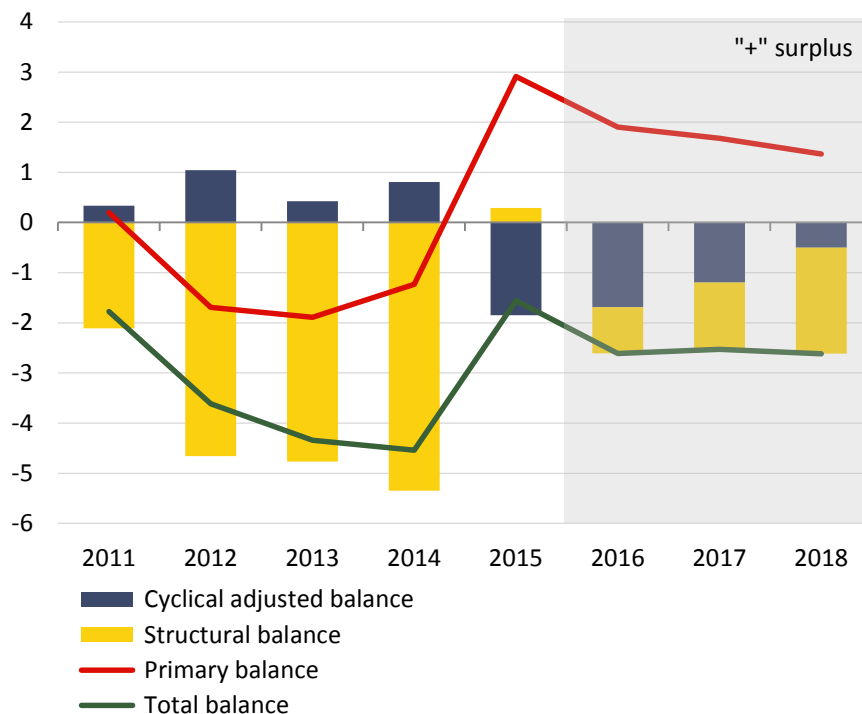
- Estimation results suggest that the pass-through effect is **nonlinear** with respect to direction (depreciation/appreciation) and the size of exchange rate changes
- Consumer prices are more sensitive to **depreciation** than to **appreciation**
- ERPT is higher in periods of **small** exchange rate changes, while **moderate** changes have statistically insignificant effect on consumer prices. The latter is explained by pricing-to-market strategies
- ERPT rises in periods of **extremely large** depreciations, which can be explained by substantial economic slumps, unfavorable inflationary environment, and confidence crisis



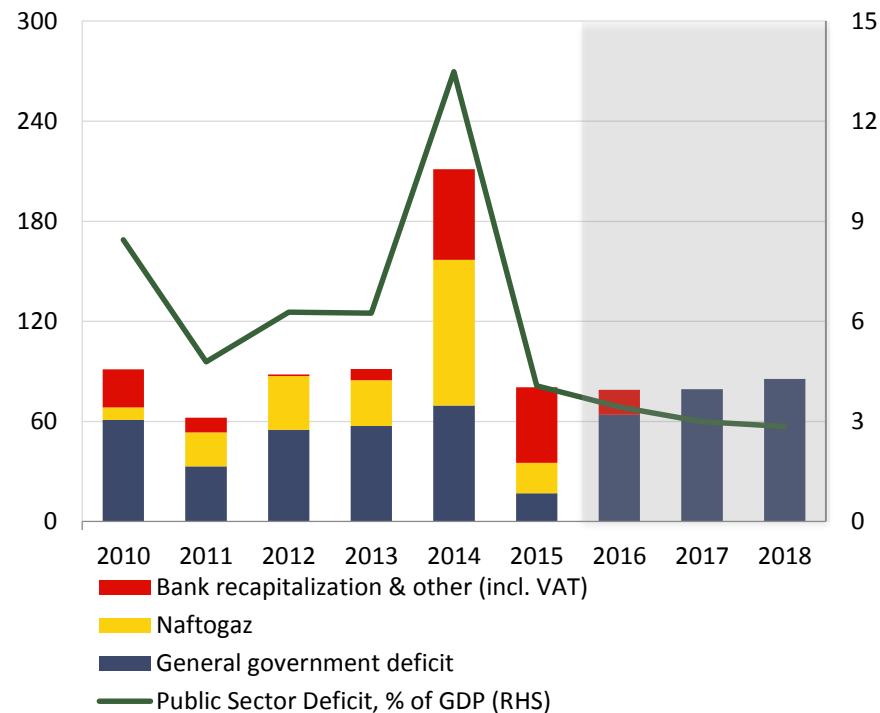
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# Fiscal policy is projected to ease over the forecast horizon despite almost unchanged GG deficit as % of GDP

### Consolidated Budget Balance, % GDP

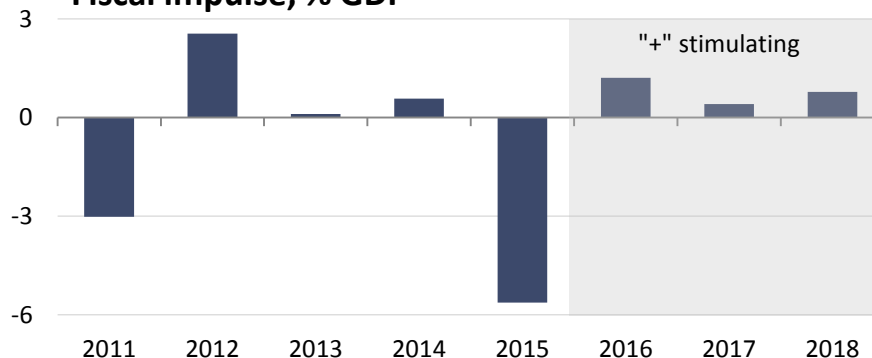


### Public Sector Deficit, UAH bn



Source: Ministry of Finance of Ukraine. own calculations

### Fiscal impulse, % GDP



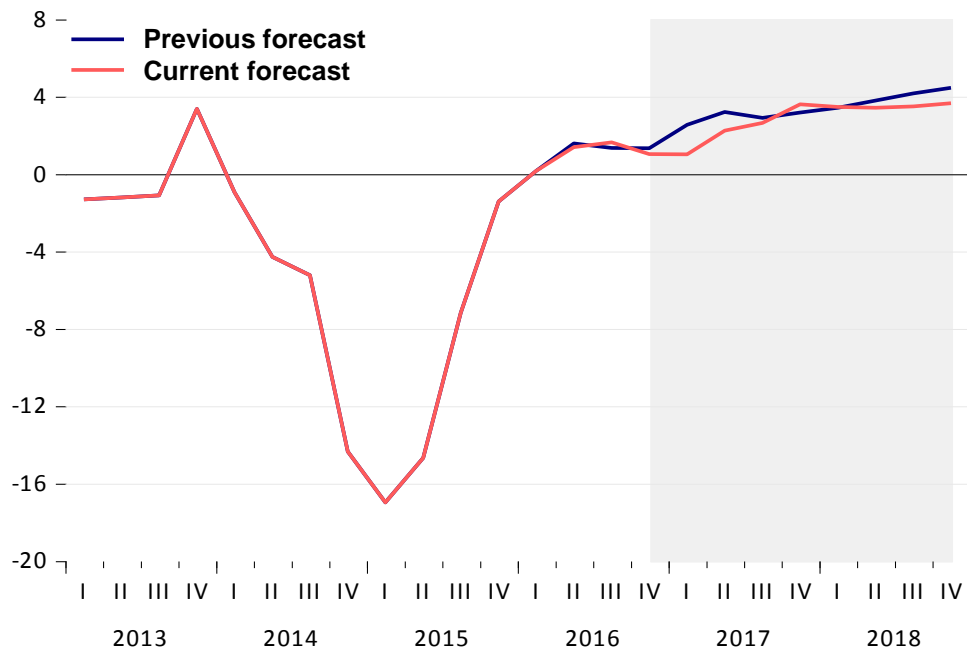




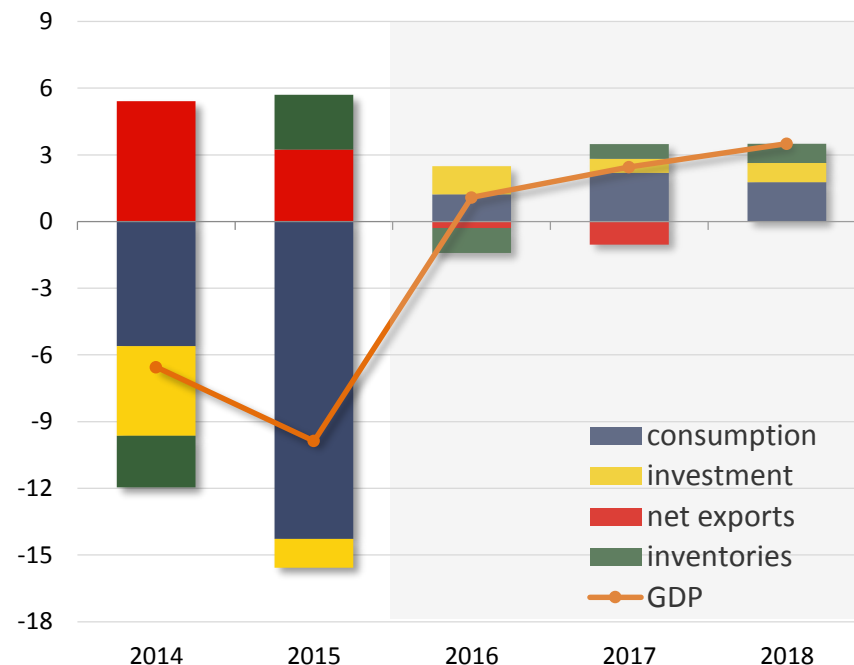
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# Ukrainian economy will continue recovering driven by domestic demand

Real GDP Growth, % y-o-y



Contributions to Real GDP Growth, p. p.

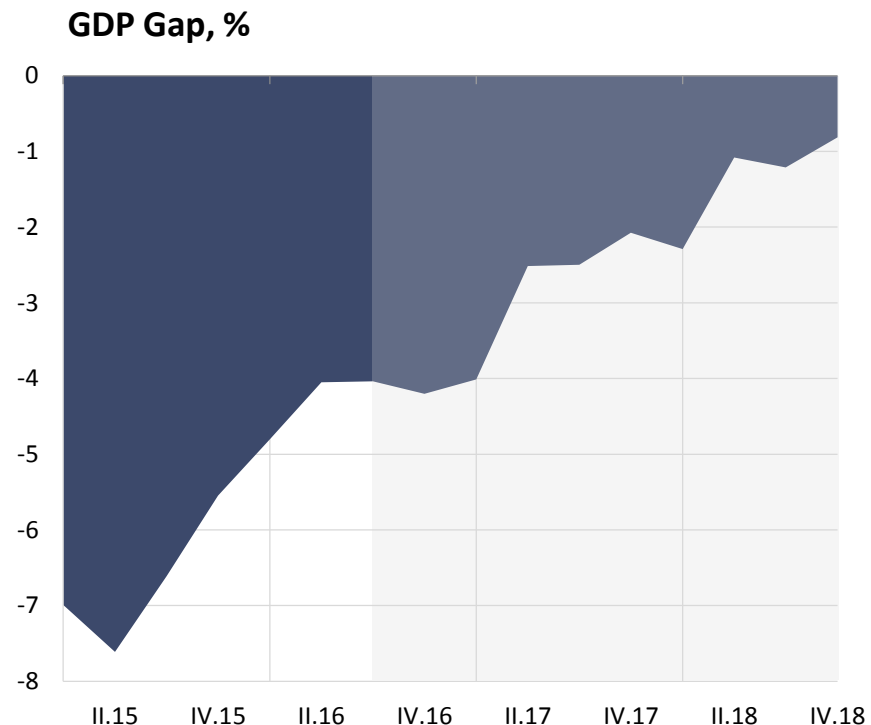
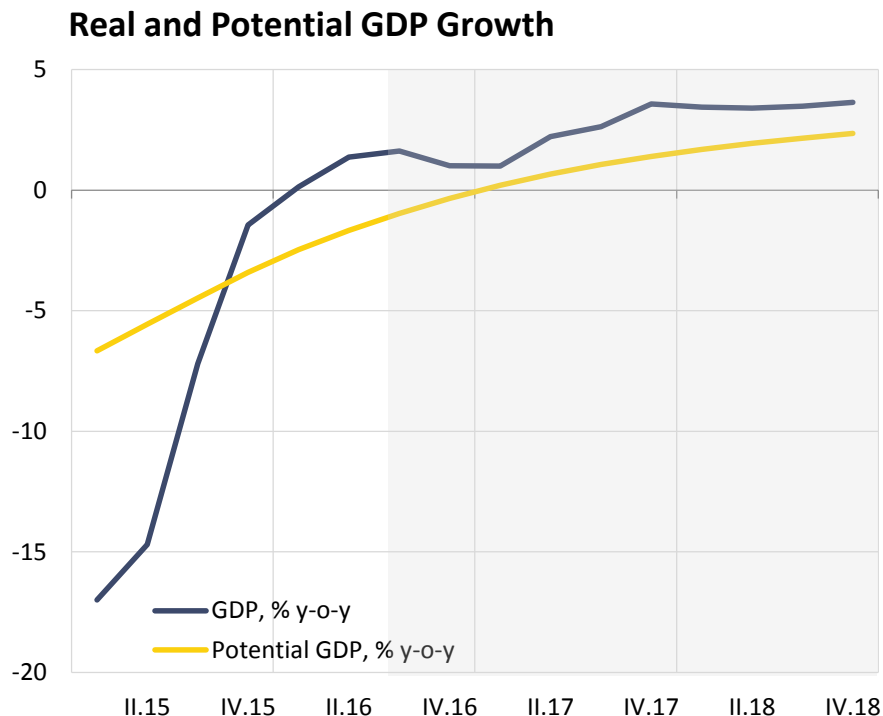


change, %	2015	2016	2017	2018
<b>GDP</b>	<b>-9.9</b>	<b>1.1 (1.1)</b>	<b>2.5 (3.0)</b>	<b>3.5 (4.0)</b>
Consumption	-15.8	1.4 (1.1)	2.5 (2.8)	2.0 (2.5)
Fixed investment	-9.3	9.8 (6.3)	4.3 (6.3)	6.0 (4.8)
Export of goods and services	-16.9	-2.0 (-2.1)	2.4 (2.3)	3.4 (2.7)
Import of goods and services	-22.0	-1.4 (-3.0)	3.9 (2.2)	3.0 (2.8)



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# Output gap remains negative over the forecast horizon but is gradually narrowing

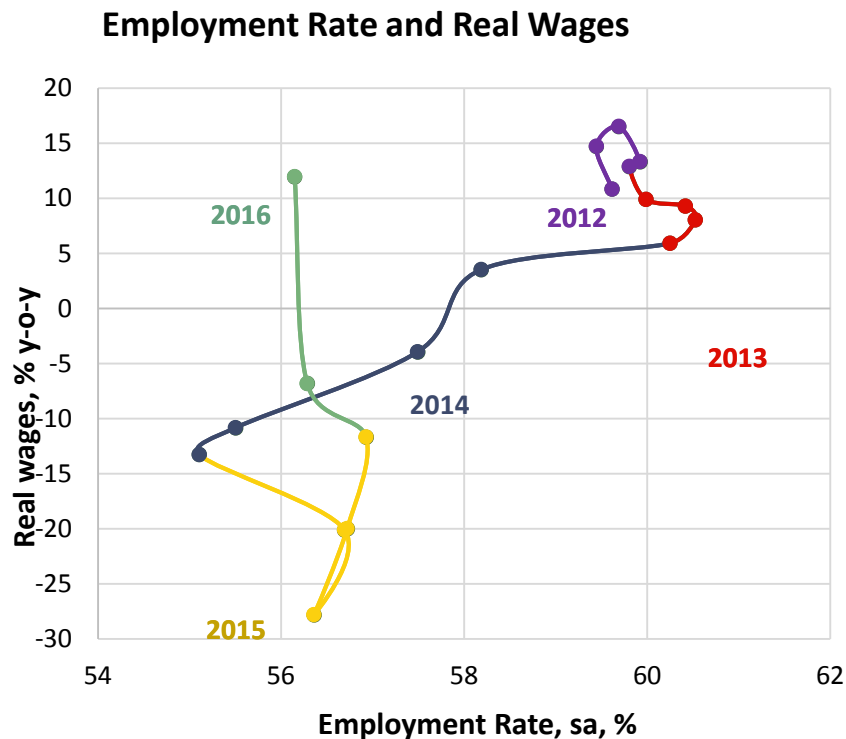


- Potential GDP is forecast to resume annual growth in 2017 and will gradually accelerate thereafter, mainly driven by Total Factor Productivity. Insufficient level of capital and unfavorable demographic trends will restrain the growth
- The narrowing of the negative output gap reflects lower risks of military conflict escalation and a corresponding increase in propensity for investments and long-term consumption
- Demand-pull inflation pressure to remain subdued

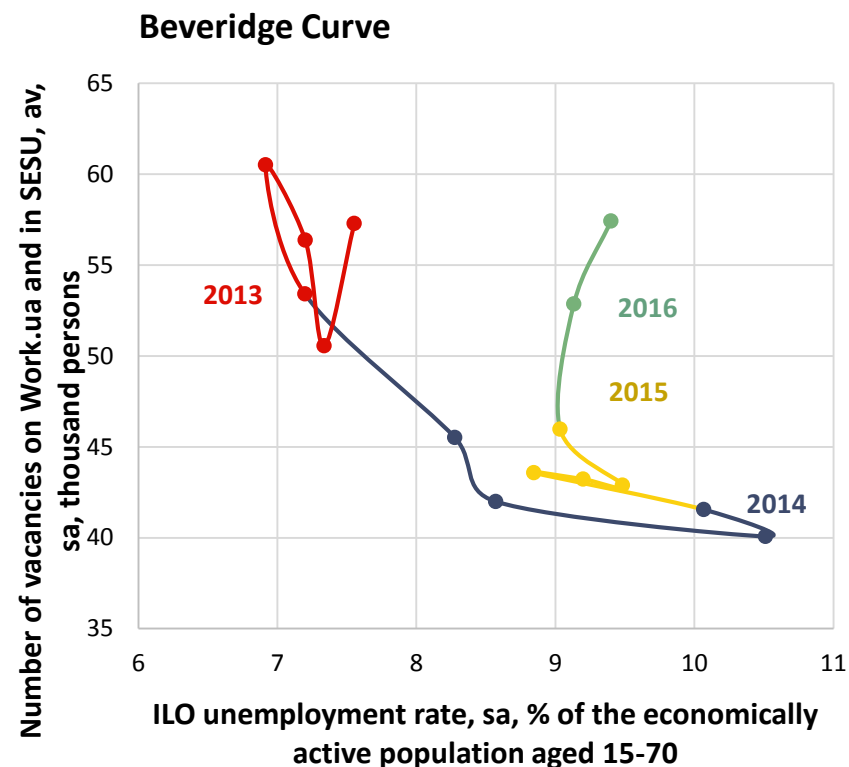


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# Despite some signs of improving labor demand, unemployment remained high



Source: SSSU; NBU calculations



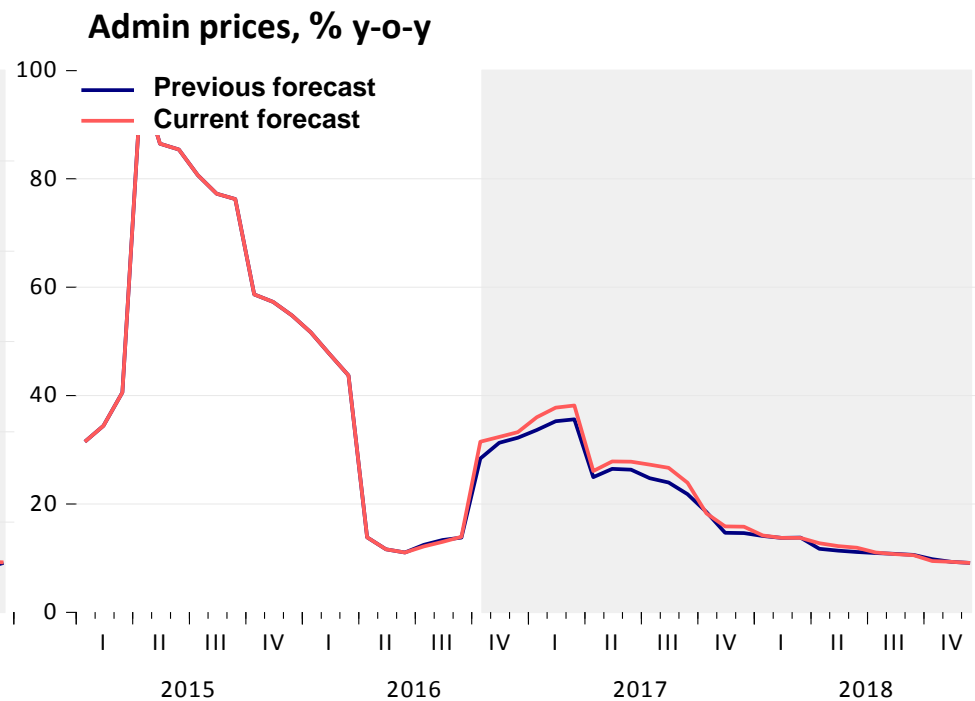
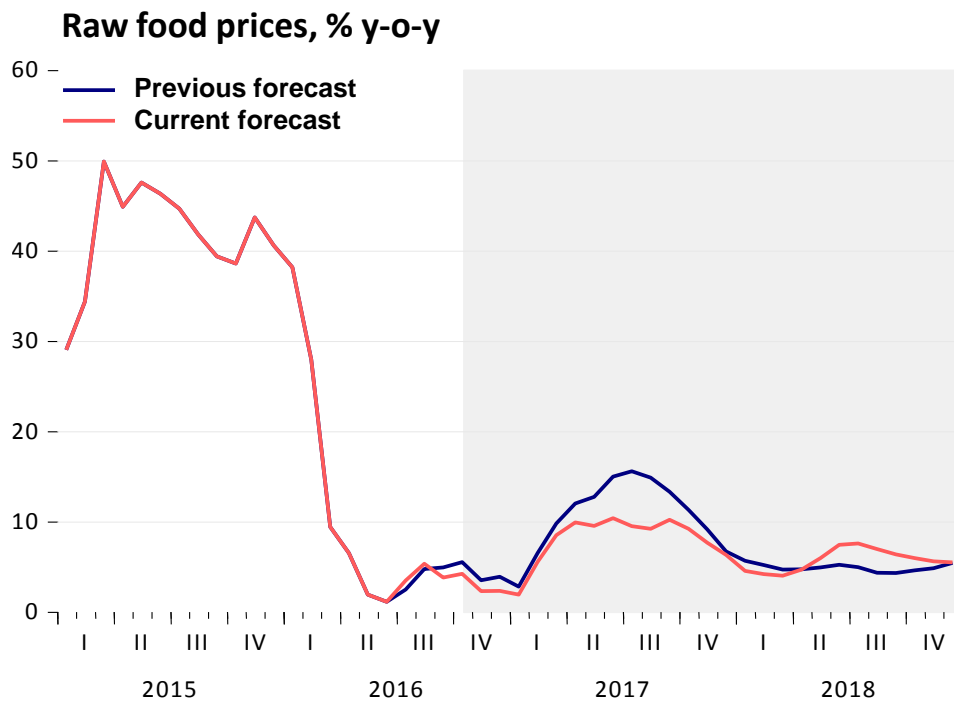
Source: SSSU; NBU calculations; work.ua

- Following a significant drop in employment in 2013-2014, the employment rate remains virtually unchanged
- Real wage growth rebounded in H1 2016 thanks to a rapid disinflation, government social policy measures and structural changes in the public sector
- Beveridge Curve confirms significant supply and demand mismatches on the labor market



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# Falling world food prices reduce current food and core inflation while accumulating risks for the future trend reversal



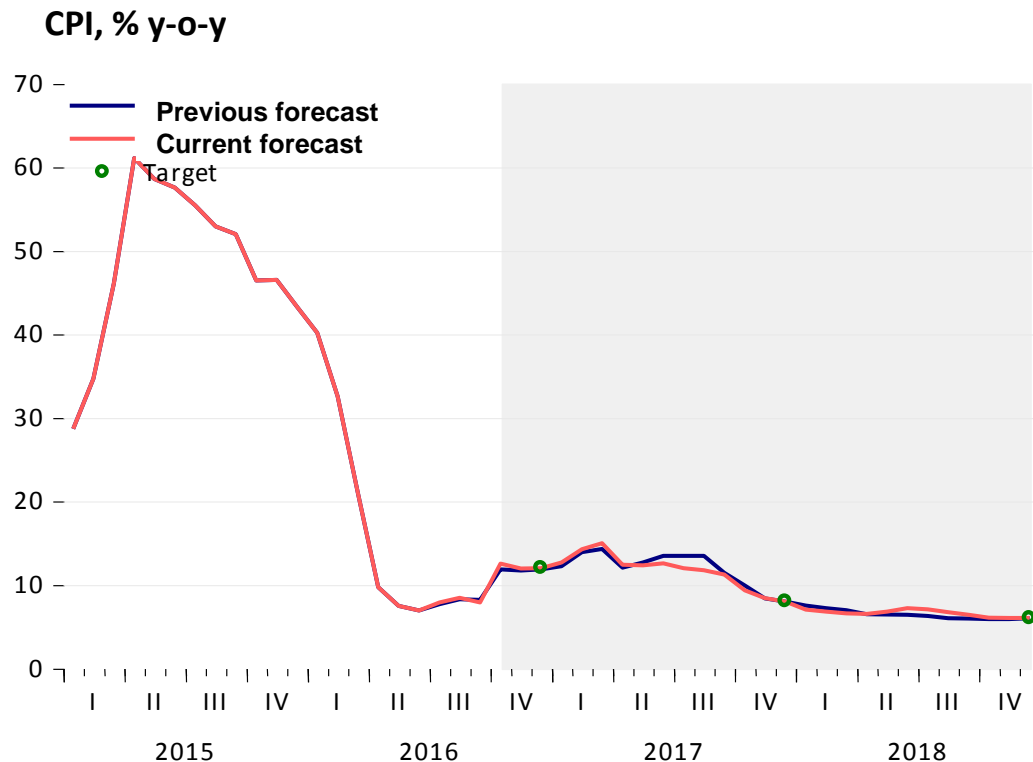
Raw foods prices, %	Q3	Q4	2016	Q1	Q2	2017
<b>Raw foods</b>	-3.4	7.2	<b>2.0 (3.8)</b>	6.3	0.3	6.2
Cereals	-8.4	-2.0	<b>8.8(21.0)</b>	3.1	2.4	11.4
Meat	3.6	0.7	<b>4.1 (4.4)</b>	0.1	1.8	1.9
Milk	3.8	13.6	<b>16.4 (11.5)</b>	1.4	-12.6	1.7
Eggs	6.6	48	<b>-13.5 (-13.7)</b>	-2.4	-27.8	14.5
Butter	2.1	9.1	<b>20.5 (15.7)</b>	1.7	-4.3	-0.5
Oil	1.5	-1.4	<b>6.4 (12.3)</b>	-0.7	-1.5	-2.0
Fruits	-5.6	-1.0	<b>3.2 (3.9)</b>	15.6	11.2	12.2
Vegetables	-29.6	24.1	<b>-24.0 (-17.5)</b>	33.3	14.6	11.9
Sugar	-1.6	2.3	<b>-5.0 (0.2)</b>	4.4	3.8	14.0

Admin prices, %	2016	2017	2018
<b>Admin</b>	<b>33 (32)</b>	<b>15.6 (14.4)</b>	<b>8.9 (8.9)</b>
Electricity	60 (56.6)	20 (20)	25.0 (25.0)
Natural gas	42 (42)	25.3 (22)	8.0 (8.0)
Heating & Hot water	83 (82)	22.1 (17.7)	6.4 (6.4)
Alcohol	20 (20)	13 (13)	9.5 (9.5)
Tobacco	22 (17)	18 (16)	12.3 (12.3)



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# Administrative component drives the swings in headline inflation, meanwhile core inflation will level off at around 5-6%



change, %	2016	2017	2018
CPI	12.0 (12.0)	8.0 (8.0)	6.0 (6.0)
Core CPI	5.6 (5.5)	5.5 (5.6)	4.9 (4.9)
Raw food	2.0 (3.8)	6.2 (6.6)	5.3 (5.3)
Admin	33.0 (32.0)	15.6 (14.4)	8.9 (8.9)
Fuel	19.0 (19.0)	9.5 (12.0)	8.0 (8.0)

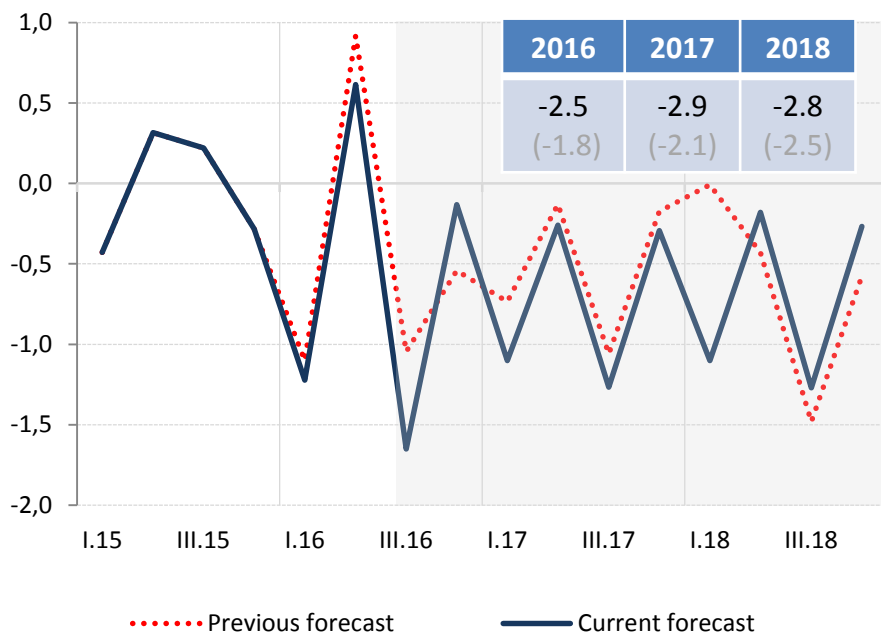
contrib. p.p	2016	2017	2018
CPI	12.0	8.0	6.0
Core CPI	2.6	2.6	2.3
Raw food	0.6	1.8	1.5
Admin	8.4	3.5	2.0
Fuel	0.4	0.2	0.2



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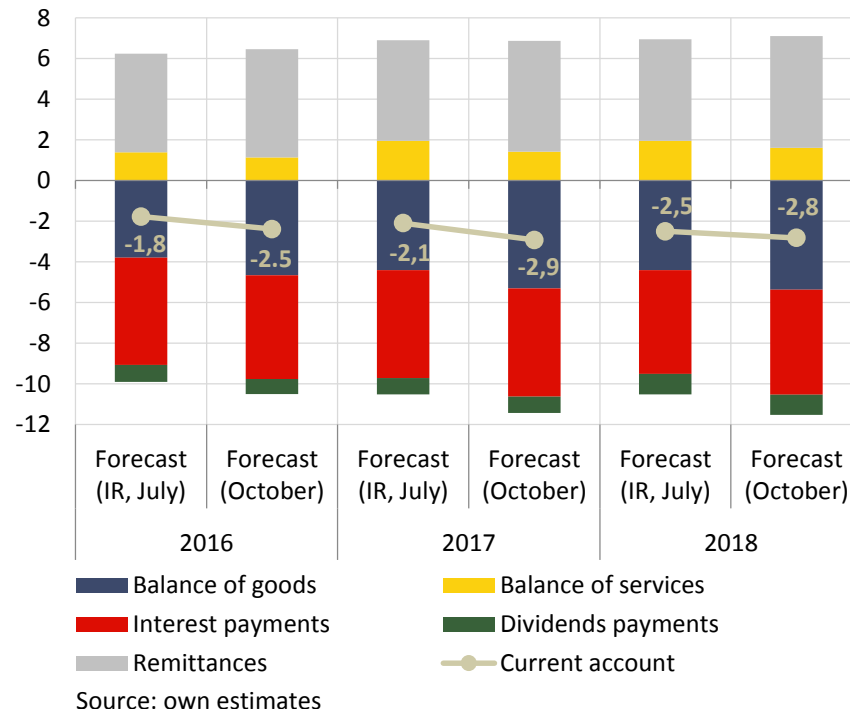
# Sharp increase in investment imports (especially, machinery) and grain prices decline are the main factors of CA deficit widening

Current Account, \$ bn



Source: own estimates

CA Balance by Components, \$ bn



Source: own estimates

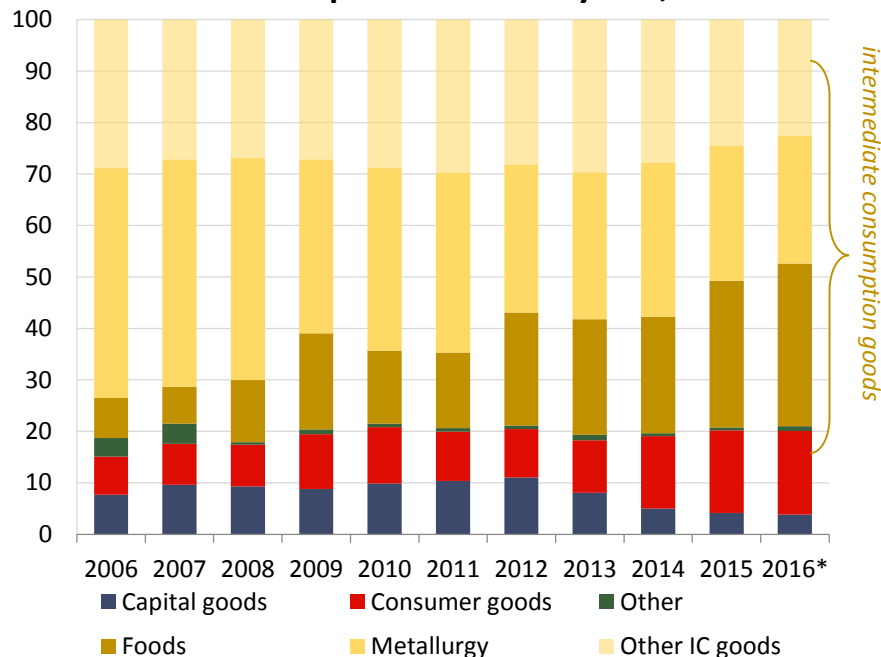
- Changes in 2016:
  - Goods ↓ : ToT ↓, machinery imports ↑, informal imports ↑, harvest (sunflower & grains) ↑
  - Services ↓: imports of travel services ↑, gas transit ↑
  - Remittances ↑: from EU and US ↑



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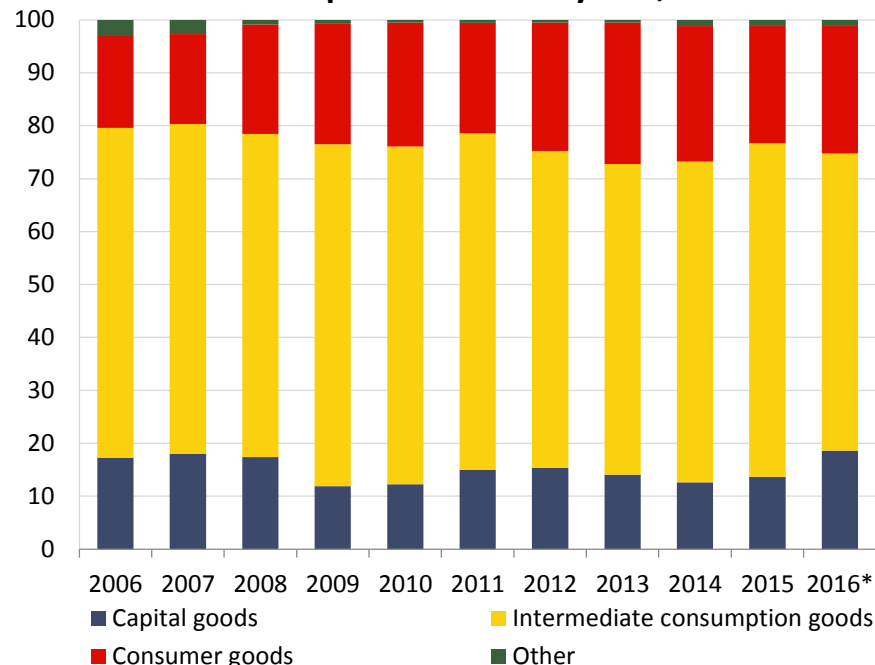
# Ukraine's external trade shows some green shoots of structural changes

### Merchandise Export Structure by BEC, %



\* H1 2016  
Source: NBU

### Merchandise Import Structure by BEC, %



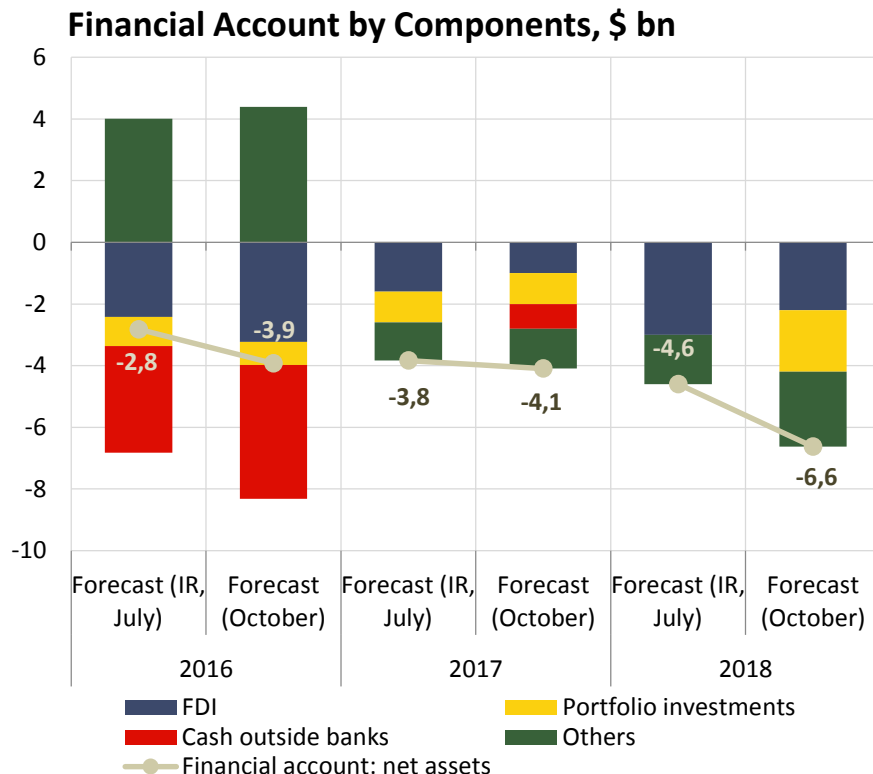
\* H1 2016  
Source: NBU

- The share of intermediate consumption goods in Ukraine's exports remains large and relatively stable. But within this category, the share of foods surged up, while the share of metallurgy declined
- Consumer goods exports have also increased, inter alia thanks to the Association Agreement with EU
- On the import side, the share of intermediate goods has been declining amid lower energy imports
- Investment imports rebounded vigorously in 2016, in particular due to agricultural machinery and equipment

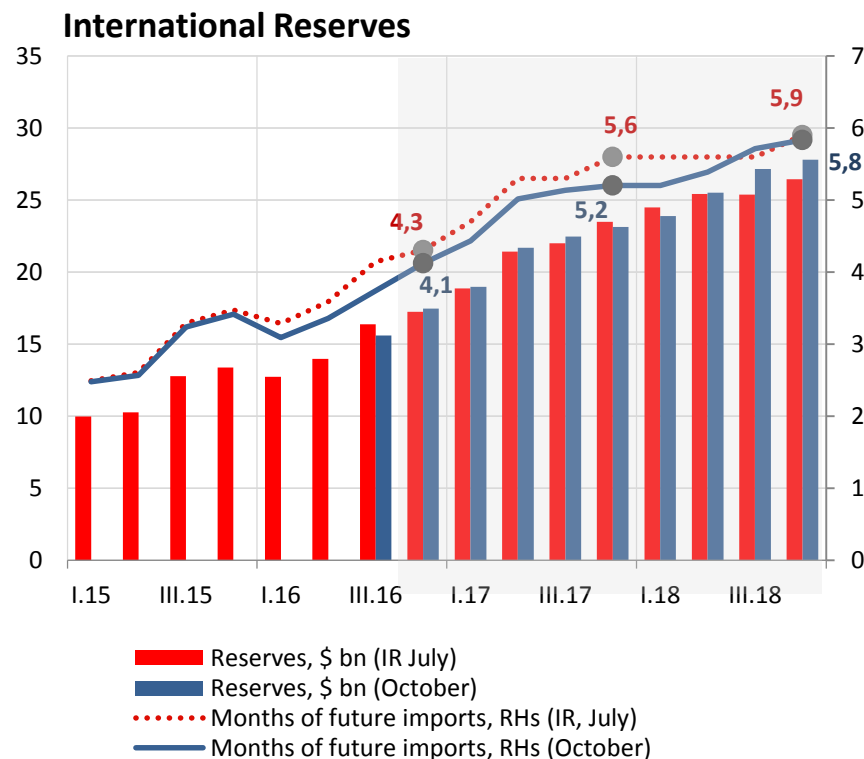


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# International reserves accumulation is driven further by NBU FX interventions and public borrowings



Source: own estimates



Source: own estimates

- In 2016, a considerable decline in FX cash outside banks is a key driver of the financial account net inflows
- In 2017 - 2018, this factor will no longer be dominant. Foreign investment and debt inflows to the private sector will take the lead
- At the same time, public sector will continue borrowing from abroad

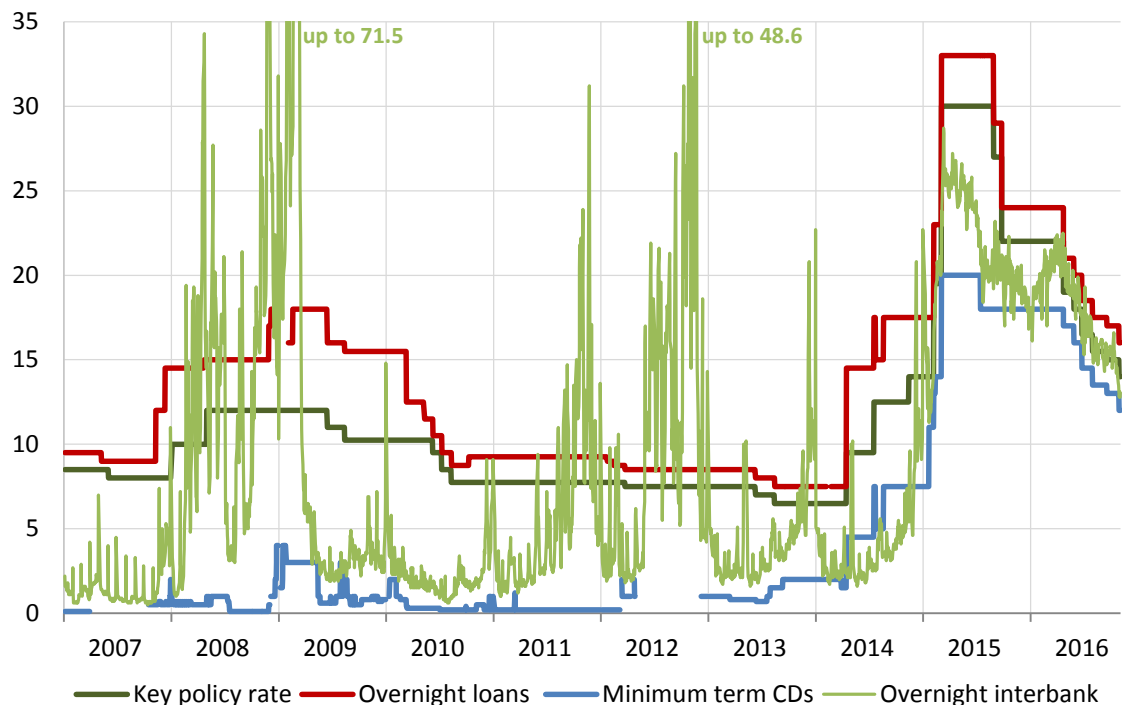




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# Interest rate pass-through (IRPT) has strengthened thanks to the NBU efforts to enhance the role of key policy rate

NBU Policy Rates (as of 03.11.2016), %



Source: NBU

## Short-run Interbank Loan IRPT to Retail Market Interest Rates

Period	loan rate	deposit rate
2013–2014	0.05	0.07
2015-10.2016	0.61	0.56

Source: NBU calculations

- Prior to 2015, interest rate channel of monetary transmission mechanism was quite weak as key policy rate played a rather symbolic role in the money market
- Since 2015, IRPT improved significantly (to 56%-62% from previous 5%-7%), particularly after the NBU switched to a new operational design of its interest rate policy
- The agenda for strengthening IPRT in Ukraine is still large, including banking sector revamp, FX liberalization, an overhaul of the Ukrainian securities market, etc.



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# NBU policy under different scenarios

Scenario	Results (2016; 2017; 2018)	NBU policy
<b>Baseline</b> <ul style="list-style-type: none"> <li>- status-quo on the east</li> <li>- structural reforms</li> <li>- further cooperation with international financial organizations</li> </ul>	<p>GDP (1.1%; 2.5%; 3.5%)</p> <p>CPI (12%; 8%; 6%)</p>	<p>Admin. restrictions ↓</p> <p>Interest rate ↓</p>
<b>Pessimistic</b> <ul style="list-style-type: none"> <li>- negative supply shocks</li> <li>- slack in reforms; lack of official financing</li> <li>- negative terms of trade shocks</li> <li>- escalation of military conflict</li> </ul>	<p>GDP ↓</p> <p>UAH/USD ↑</p> <p>CPI ↑</p>	<p>Admin. restrictions =</p> <p>Interest rate = ↑</p>
<b>Optimistic</b> <ul style="list-style-type: none"> <li>- faster rebound of world economy and positive terms of trade shocks</li> <li>- progress in reforms and attraction of foreign capital</li> </ul>	<p>GDP ↑</p> <p>UAH/USD ↓</p> <p>CPI ↓</p>	<p>Admin. restrictions ↓ ↓</p> <p>Interest rate ↓ ↓</p>