



NBP

Narodowy Bank Polski

Economic Institute

Inflation and economic growth projection of Narodowy Bank Polski based on the NECMOD model

Warsaw / 14 November 2016



Outline

Outline:

Changes between rounds

Projection 2016 – 2018

- External environment
- Consumption demand
- Investment demand
- Foreign trade
- Inflation

Uncertainty

1 Changes between projection rounds

2 Projection 2016 - 2018

3 Uncertainty

Outline:

Changes between rounds

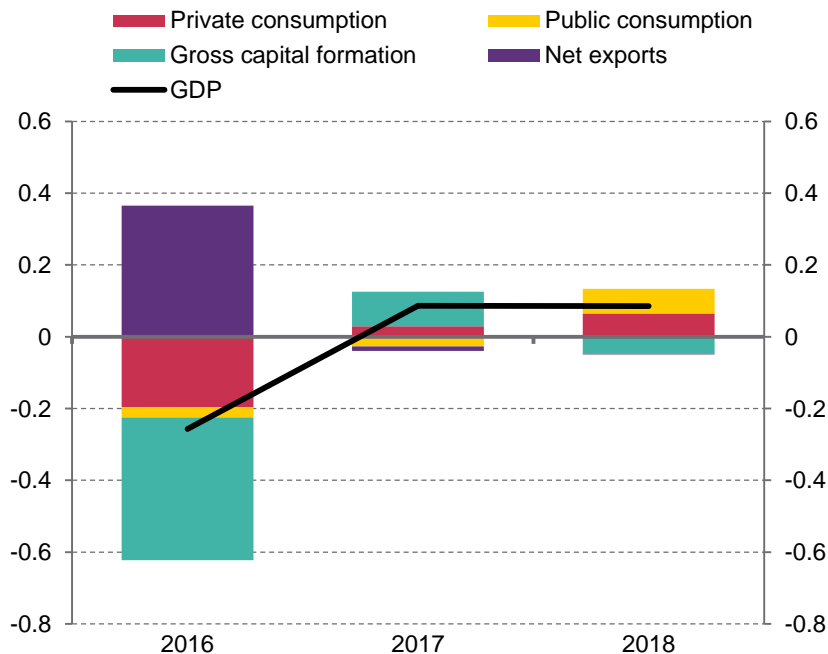
Projection 2016 – 2018

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Changes between projection rounds

November GDP projection compared to July projection



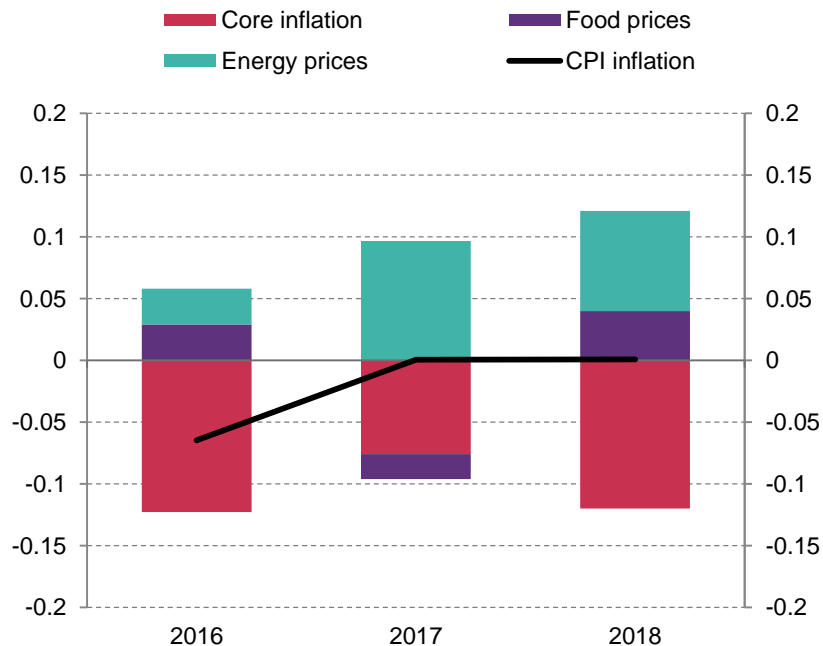
GDP in 2016:

↓ GDP in 16q2 lower than expected:

- ↓ New data on the use of funds from the 2014-2020 financial perspective, indicate a lower than expected influx of capital transfers
- ↓ Timing of payments from programme „Family 500 plus” (more than half of the payments in 16q2 completed in June this year)
- ↑ Exports – higher car consumption

GDP y/y, %	2016	2017	2018
July 2016	3.2	3.5	3.3
November 2016	3.0	3.6	3.3

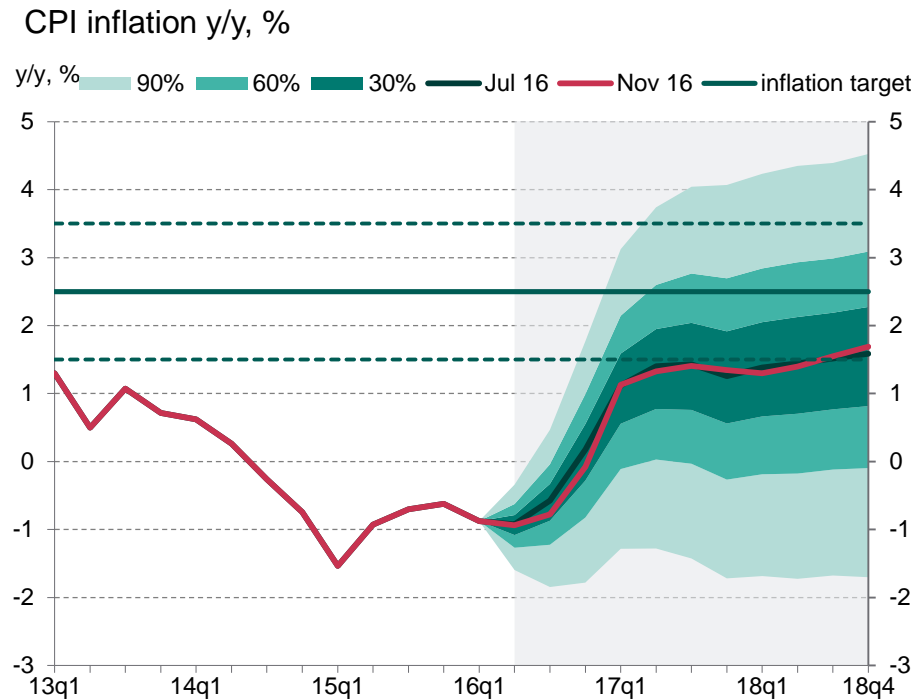
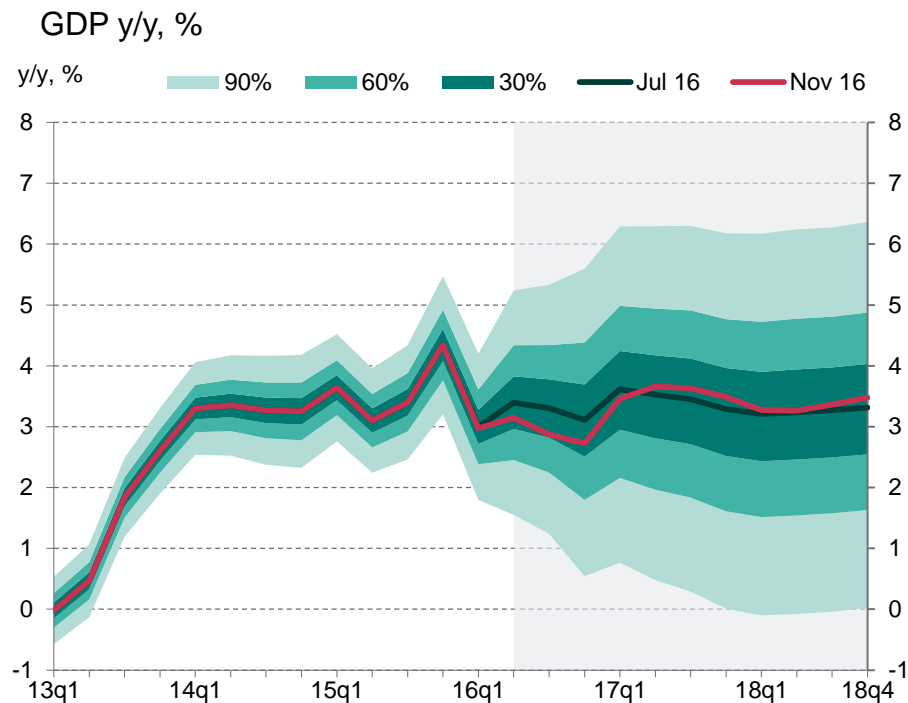
November CPI projection compared to July projection



- ⇩ Lower demand pressure
- ⇩ The slower growth in import prices and stronger exchange rate
- ⇧ Unchanged VAT rates in 2017
- ⇧ Higher energy prices on global markets

CPI y/y, %	2016	2017	2018
July 2016	-0.5	1.3	1.5
November 2016	-0.6	1.3	1.5

Changes between projections



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Projection 2016-2018

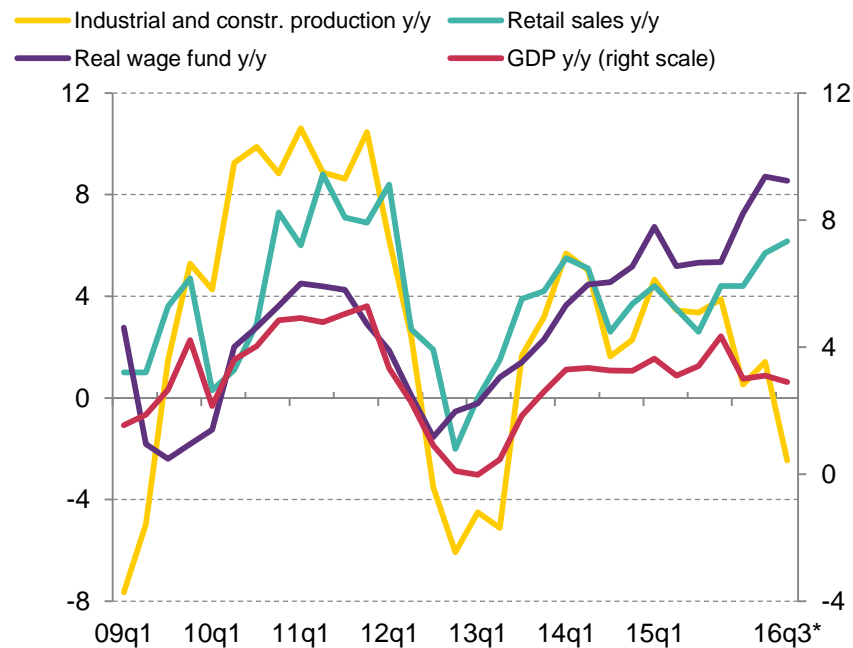
- Economic conditions abroad
- Consumption demand
- Investment
- International trade
- Inflation

GDP growth in the second half of 2016 remains at a relatively low level

	16q2		16q3	
GDP (y/y) (%)	3.1	(3.4)	2.9	(3.3)
Domestic demand (y/y) (%)	2.4	(4.0)	2.8	(3.2)
Private consumption (y/y) (%)	3.3	(3.8)	4.0	(4.2)
Public consumption (y/y) (%)	4.4	(3.8)	4.3	(4.8)
Gross fixed capital form. (y/y) (%)	-4.9	(0.9)	-4.9	(0.9)
Exports (y/y) (%)	10.9	(7.2)	7.3	(7.4)
Imports (y/y) (%)	9.9	(8.6)	7.3	(7.3)
Net exports contribution (pp.)	0.8	(-0.5)	0.1	(0.1)

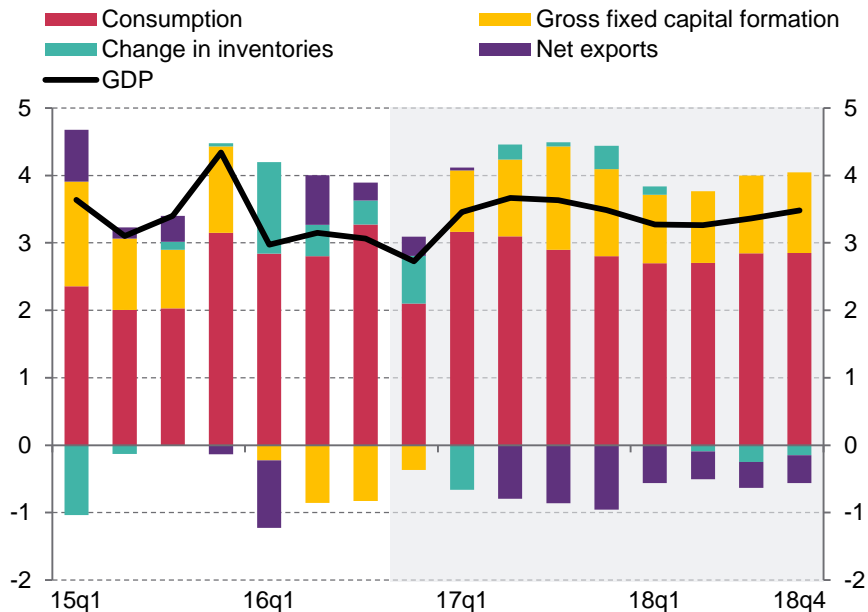
Values from the July projection are given in brackets (seasonally adjusted). Indicators with values higher than in the July projection are marked green, whereas indicators with lower values are marked red.

Source: GUS data, NBP calculations



* Estimates of NBP IE based on monthly indicators for VII-VIII/16

In 2017-2018 GDP growth will accelerate



- ↓ The slight downturn in the global economy
- ↑ Private consumption the main driver of GDP growth supported by a rise in family benefits and good labour market conditions
- ↑ From 2017 r. positive gross fixed capital formation dynamics – gradual acceleration of the absorption of funds under the 2014-2020 financial framework
- ↓ Negative net exports – unfavourable outlook for world trade and the appreciation trend of the zloty

y/y, %	2015	2016	2017	2018
GDP	3.6	3.0	3.6	3.3

Outline:

Changes between rounds

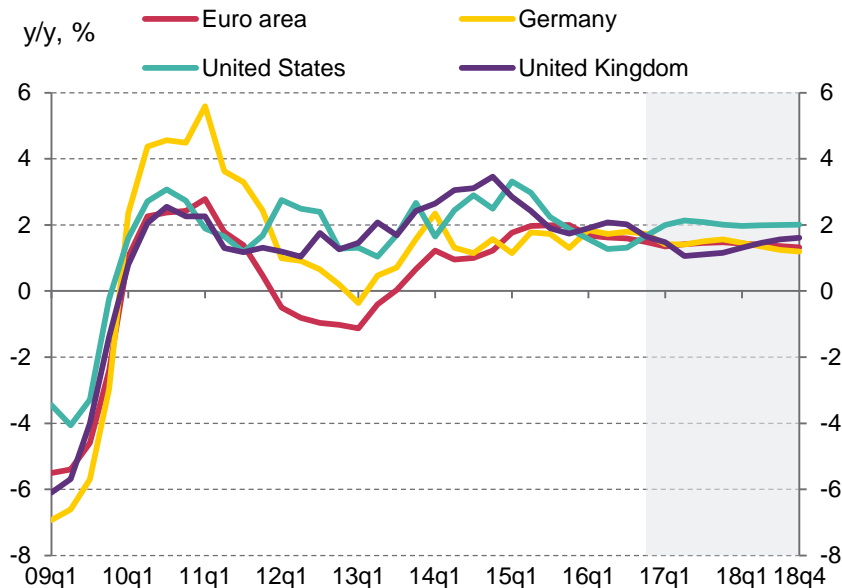
Projection 2016 – 2018

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Uncertainty

Economic conditions abroad

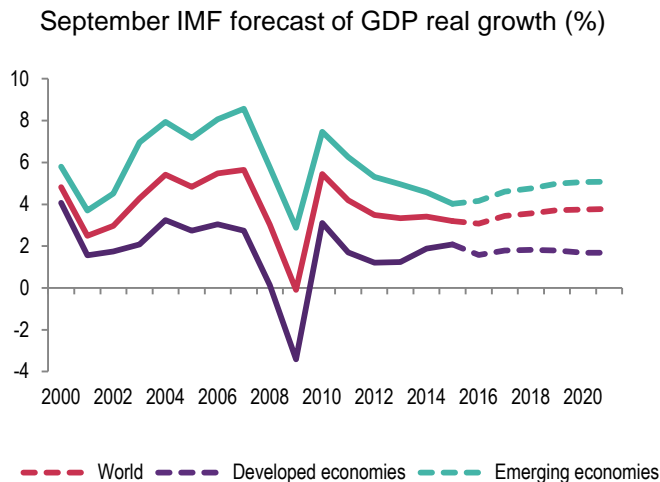
Slightly negative influence of economic conditions abroad on the Polish economy



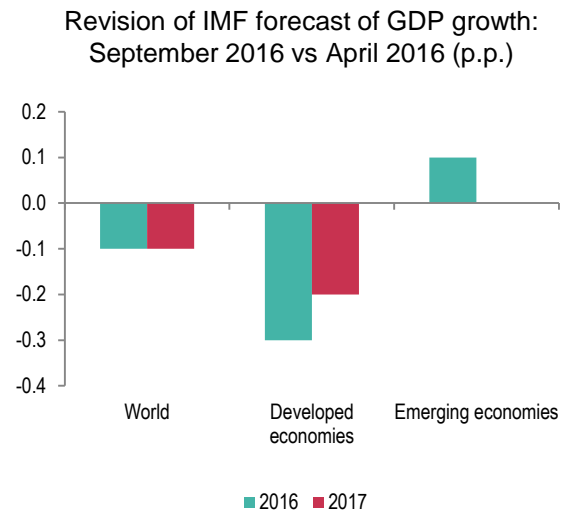
- ⇩ Unfavourable outlook for global trade
- ⇩ Slight slowdown of European economies due to, among others, outcome of the referendum in the UK
- ⇧ Favourable consumption conditions in the Eurozone and United States
- ↔ The normalization of the economic situation in the BRIC countries.

GDP y/y, %	2015	2016	2017	2018
Euro area	1.9 (1.6)	1.6 (1.5)	1.4 (1.2)	1.4 (1.3)
Germany	1.5 (1.4)	1.8 (1.5)	1.5 (1.3)	1.3 (1.3)
United States	2.6 (2.4)	1.5 (1.7)	2.1 (2.1)	2.0 (2.2)
United Kingdom	2.2 (2.3)	1.9 (1.7)	1.2 (1.7)	1.5 (1.8)

Revision of world economic growth forecasts



Source: IMF, World Economic Outlook, September 2016

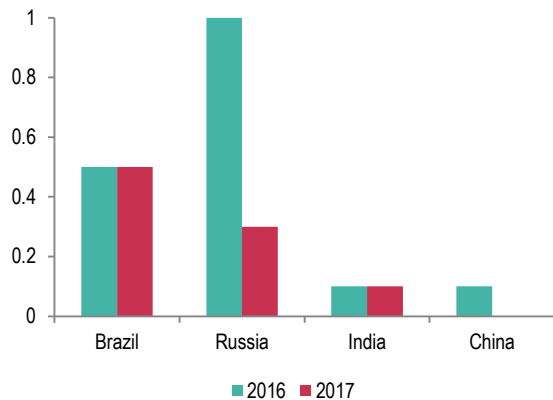


Source: IMF, IE.

In comparison with forecast from April 2016, in WEO from September 2016 IMF expected slightly lower global economic growth in 2016 and 2017, which was affected by lower forecasts of growth in developed economies.

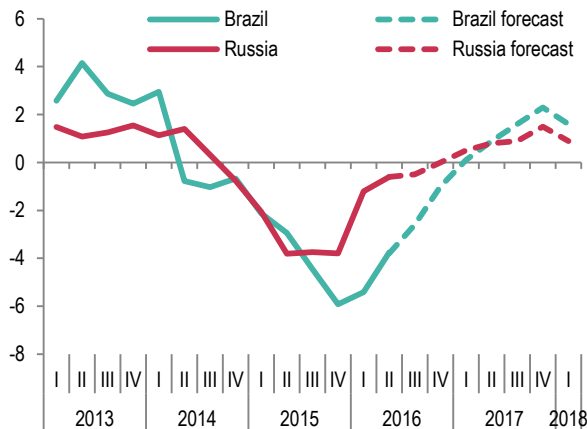
The normalization of the economic situation in the BRIC countries

Revision of IMF forecasts for GDP growth in BRIC countries : September 2016 vs April 2016 (p.p.)

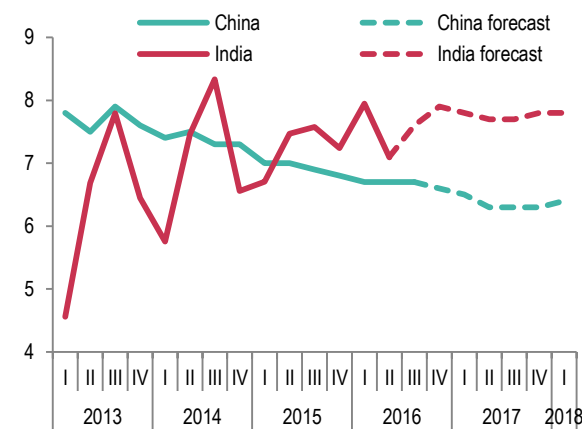


Source: IMF, IE.

Forecasts of GDP growth (% y/y) in BRIC countries



Source: Bloomberg.

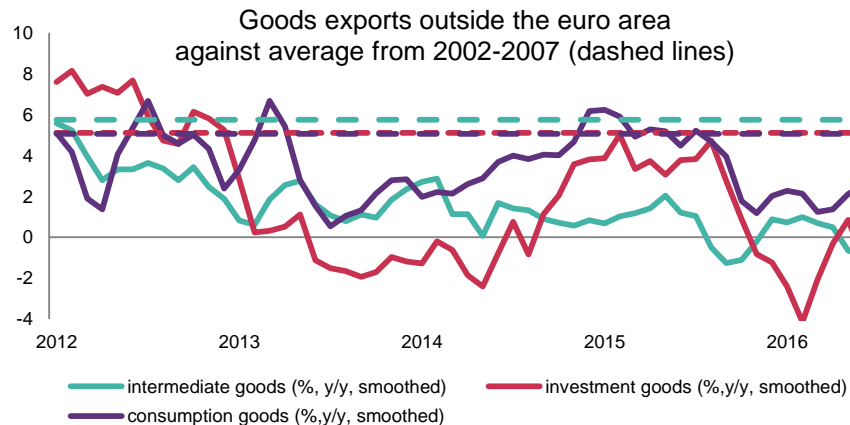
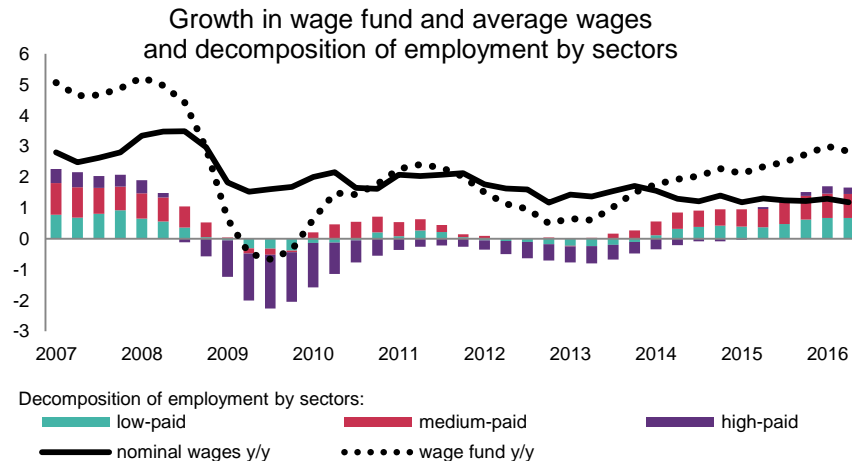


Economic outlook for Brazil and Russia improved, however in both countries economic recovery will be probably weak.

In India continuation of recovery is expected, in China – further, moderate slowdown in GDP growth.

In the euro area the expected continuation of moderate recovery based on consumption

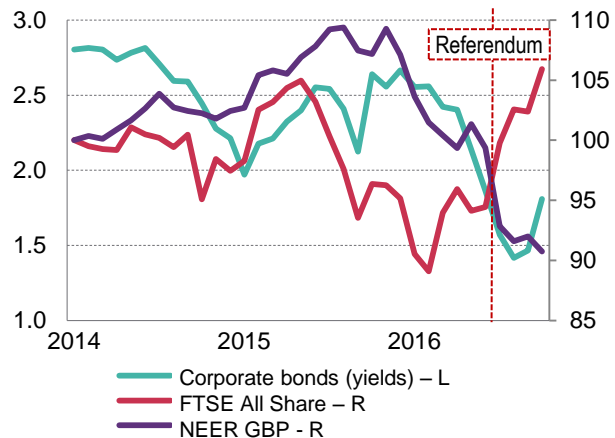
- Recovery in the euro area based mainly on consumption, along with moderate and variable impact of private investment
- The increase in households income results rather from higher probability of finding job than from wage hikes.
- New jobs are created mainly in low-paid sectors, which decrease wage pressure.
- Regulatory uncertainty, slowdown in global trade and low global investment demand are reflected in Eurozone export dynamics.



Short-term impact of *Brexit* on the British economy weaker than expected

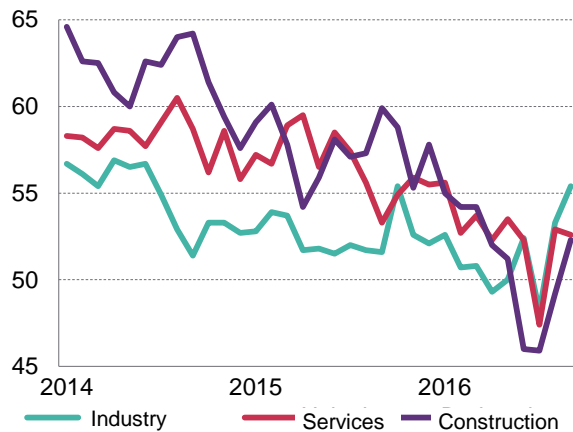
- Situation on financial markets after referendum remains stable, except for exchange rate, which strongly depreciated.
- PMI indicators signalled downturn in July this year, however in August they mounted back to their pre-referendum level.
- Increased uncertainty might contribute to a fall in investments in 2016q3.

Effective exchange rate of pound and the situation on stock and corporate bonds markets*



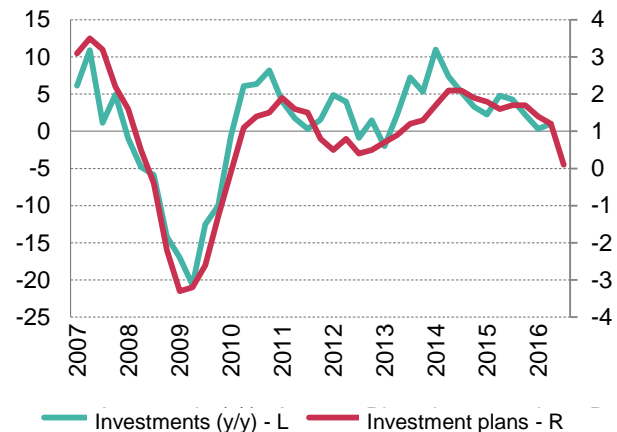
Source: Datastream
* FTSE index transformed (January 2014=100)

PMI indicator by sectors



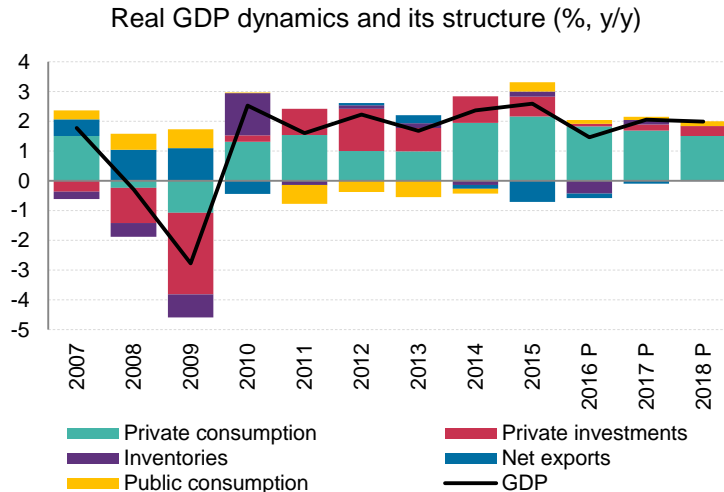
Source: Markit Economics

Investment plans of enterprises versus investments

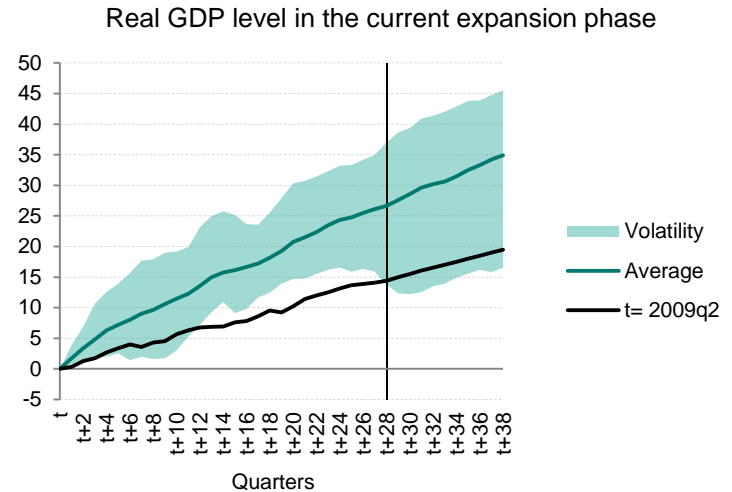


Source: Bank of England, ONS

The main factor supporting economic growth in the United States is private consumption



Source: BEA, IE.



Level on the graph is cumulated percentage change; own calculations based on quarterly chronology of business cycle according to NBER; quarter t is a bottom of economic activity; volatility (given by range) and average come from paths of real GDP level in period of 50 after-war expansion and recession phases; vertical line is 2016q2, which is last available data in the current forecasting round

Source: BEA, IE.

- Outlook for economic growth in the United States deteriorated comparing to the previous projection in line with prolonged adjustments of private investments and inventories, downturn in the industry, but also weak demand in the external environment of the US economy.
- The main factor supporting economic growth in forecast horizon is private consumption, which, so far, is driven by very good labour market conditions.

Outline:

Changes between rounds

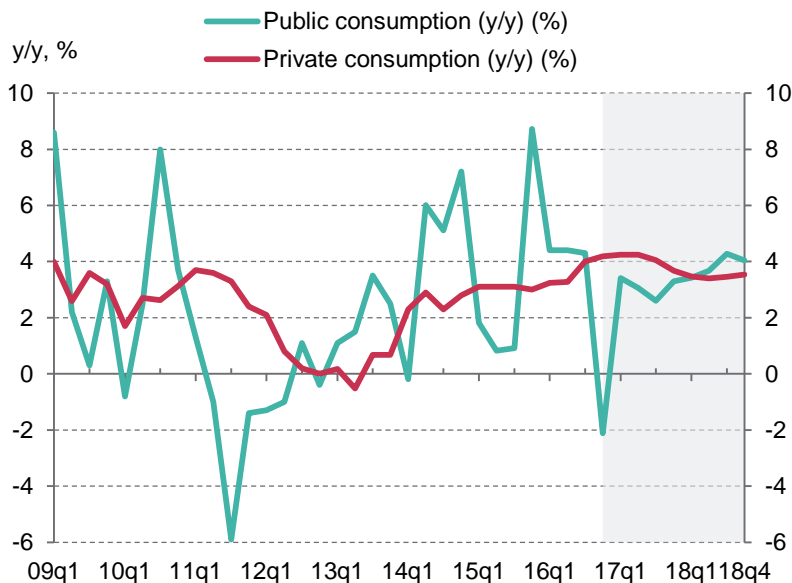
Projection 2016 – 2018

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Consumption demand

Consumption demand as the main driver of GDP growth in projection



Private consumption:

- ↑ Progress in households' financial situation – programme „Family 500 plus”
- ↑ Very good labour market conditions
- ↑ Improvement in consumer sentiment
- ↑ Low interest rates facilitate financing consumption through borrowing

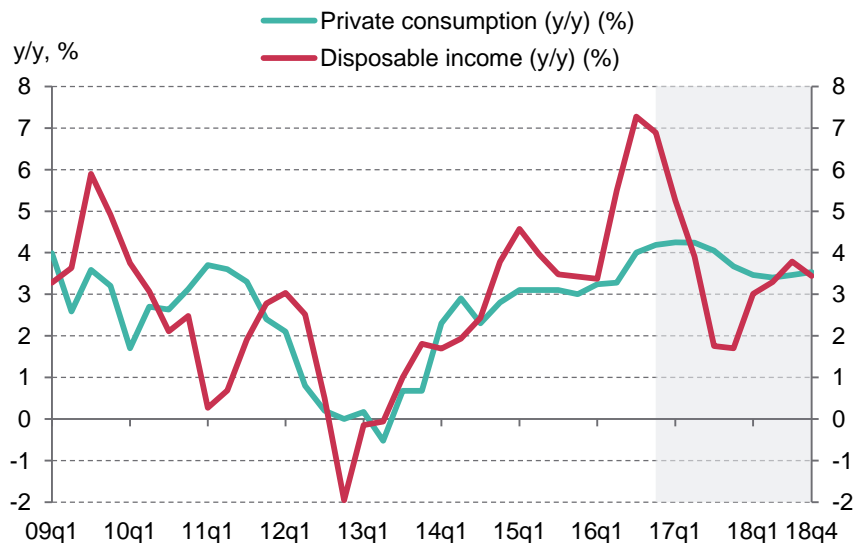
Public consumption:

- ↓ 2017 Budget Act – low growth rate of current expenditure and spending on targeted subsidies
- ↑ 2018 - lack of detailed information on the continuation of cutting public expenditure

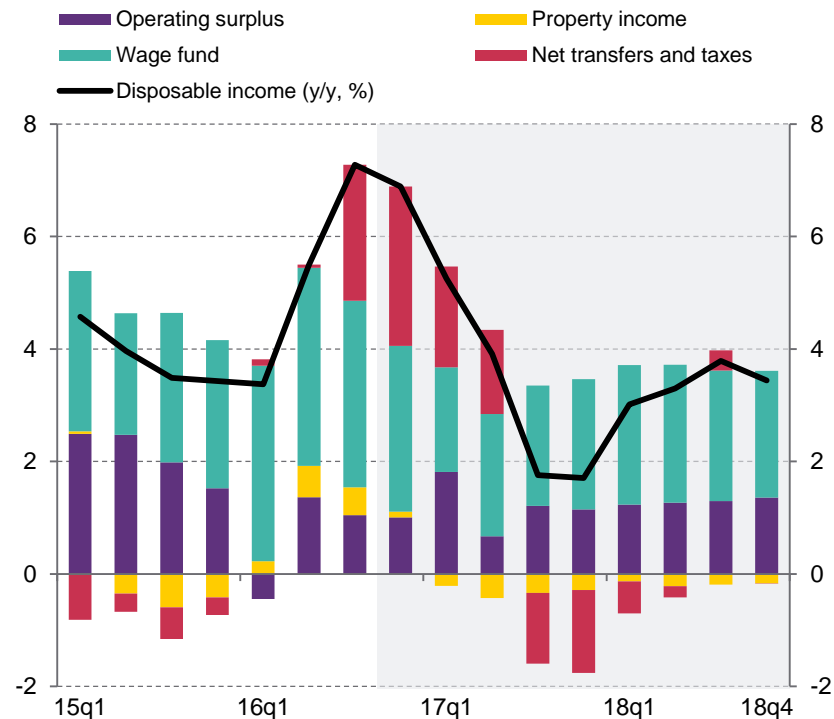
y/y, %	2015	2016	2017	2018
Private consumption	3.1	3.7	4.1	3.5
Public consumption	3.4	2.5	3.1	3.9

An increase in family benefits leads to an improvement in households' financial situation

- Since April 2016, family benefits increased with implementation of the „Family 500 plus” programme.
- Due to the intertemporal consumption smoothing mechanism, additional means will affect household expenditure growth with a lag.



Decomposition of disposable incomes (constant prices) (y/y, %)

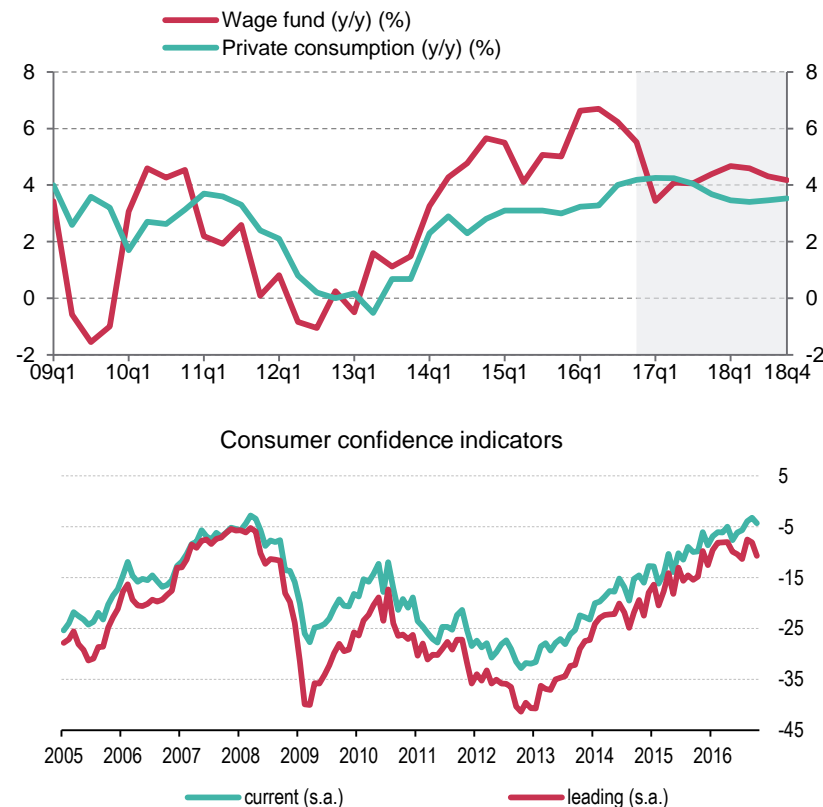


Consumption is driven by very good labour market conditions and favourable consumer sentiment

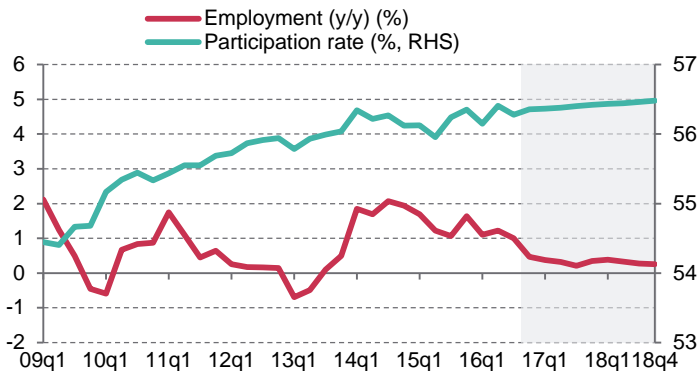
	16q2		16q3	
ULC (y/y) (%)	2.2	(1.8)	2.4	(1.9)
Labour productivity (y/y) (%)	1.9	(2.2)	1.9	(2.4)
Gross wages (y/y) (%)	4.3	(4.0)	4.4	(4.3)
Employment LFS (y/y) (%)	1.2	(1.3)	1.0	(0.9)
Unemployment rate LFS (%)	6.3	(6.2)	5.7	(6.0)
Participation rate (%)	56.4	(56.3)	56.3	(56.3)

Values from the July projection are given in brackets (seasonally adjusted). Indicators with values higher than in the July projection are marked green, whereas indicators with lower values are marked red.

Source: GUS data, NBP calculations



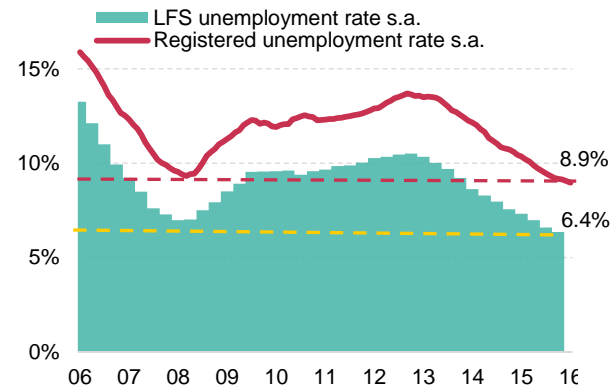
Further gradual slowdown in employment growth in the projection horizon ...



Vacancies and difficulties with hiring employees

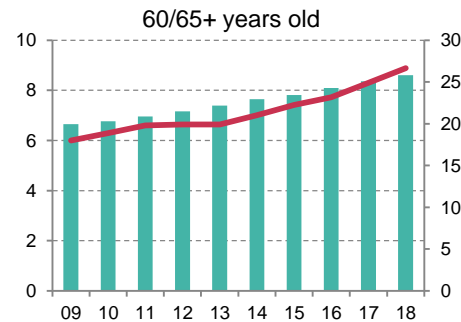
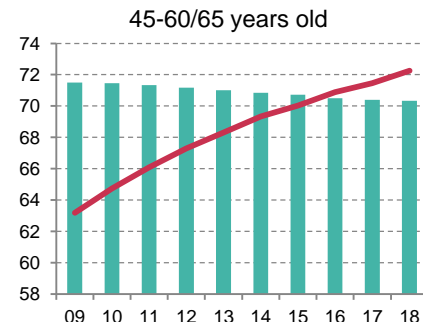
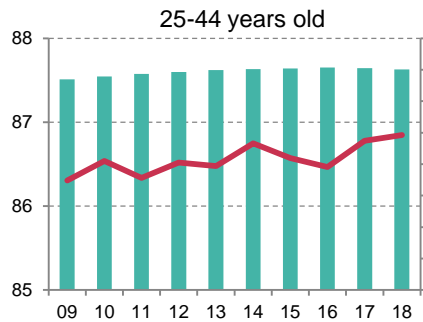
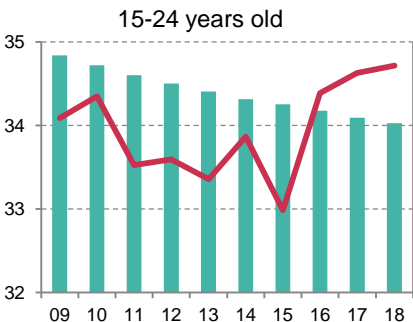


Unemployment rate

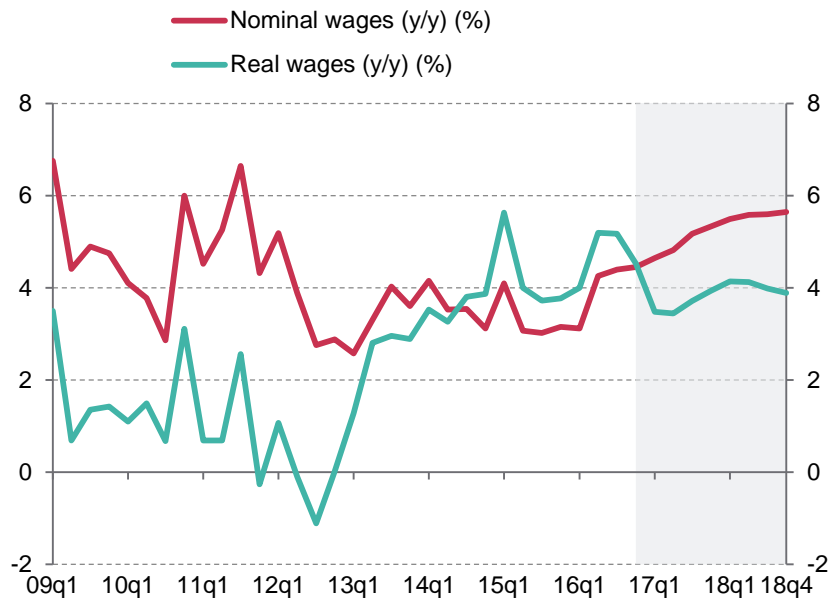


— Participation rate in the given age group (% on LHS)

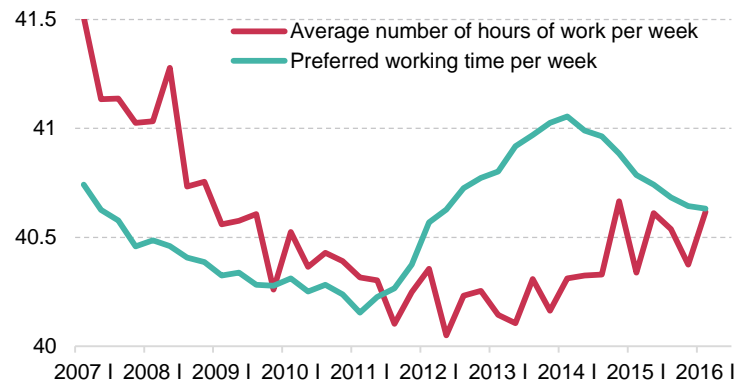
■ Share of age group in the population (% on RHS)



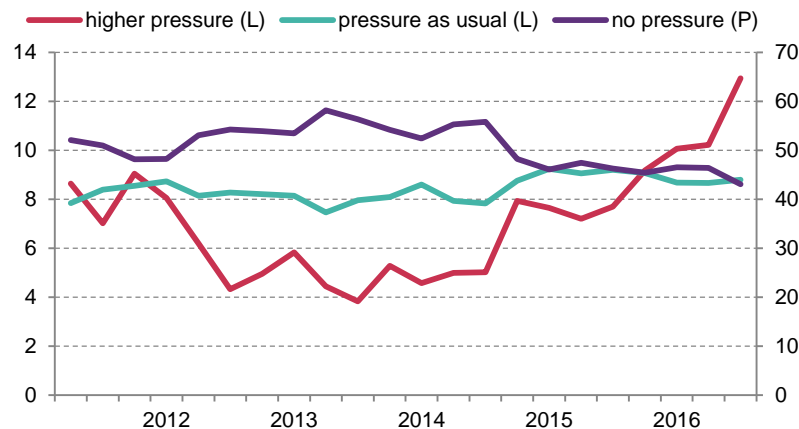
... with accelerating wage dynamics ...



Preferred vs actual number of hours worked per week (s.a.)

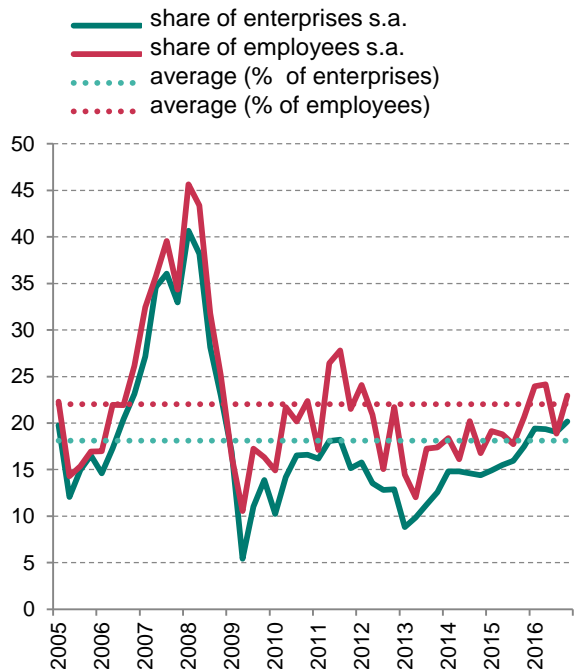


Wage pressure



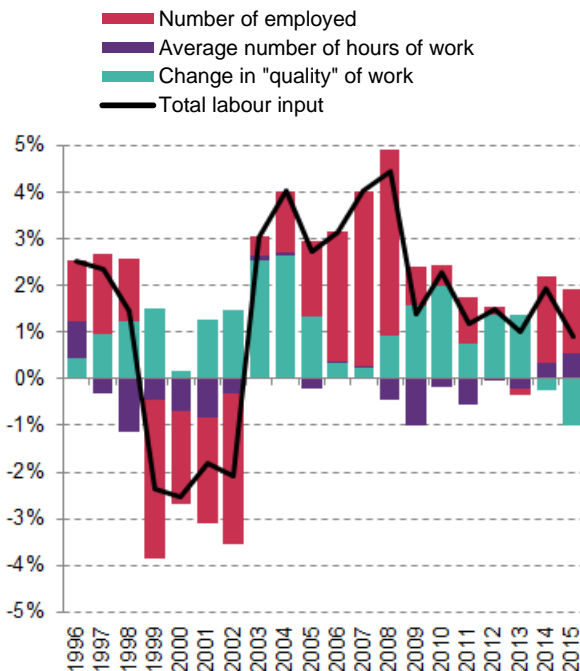
... although still remaining at a moderate level

Percentage of firms planning to raise wages and percentage of employees having received a rise



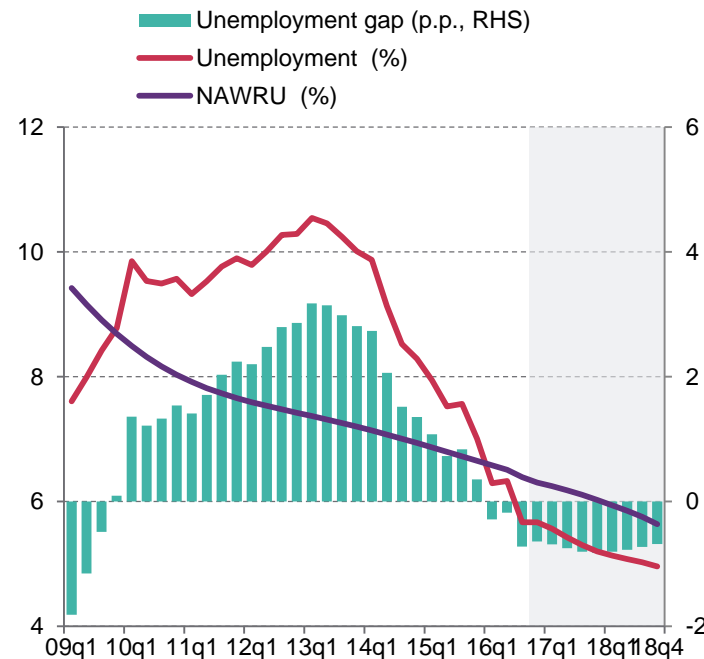
Source: Quick Monitoring NBP

The impact of changes in the number of employees and the "quality" of employment (qualifications) to the labour input



Source: BARP NBP

Unemployment gap



Source: GUS data, NBP calculations

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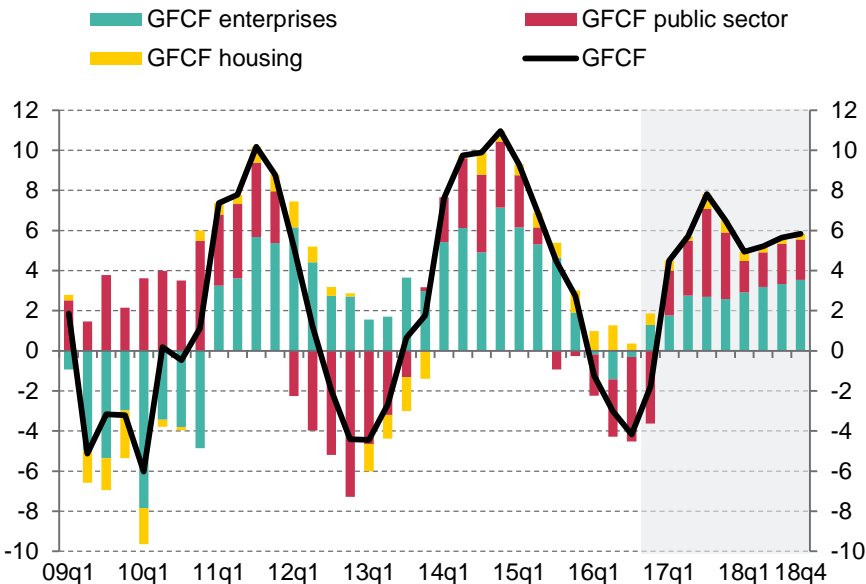
Projection 2016 – 2018

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Uncertainty

Investment demand

After fall in 2016 positive investment growth rate, but lower than in the years 2014-2015



Private investment:

- ↓ Low use of funds from 2014-2020 financial perspective
- ↓ High uncertainty including that about legal environment
- ↑ High investment plans and capacity utilization
- ↑ Good financial situation of firms and low energy prices

Public investment:

- ↓ 2016: the utilisation of 2014-2020 funds developing gradually
- ↑ 2017: increase in the amount of contracts for the future use of EU funds

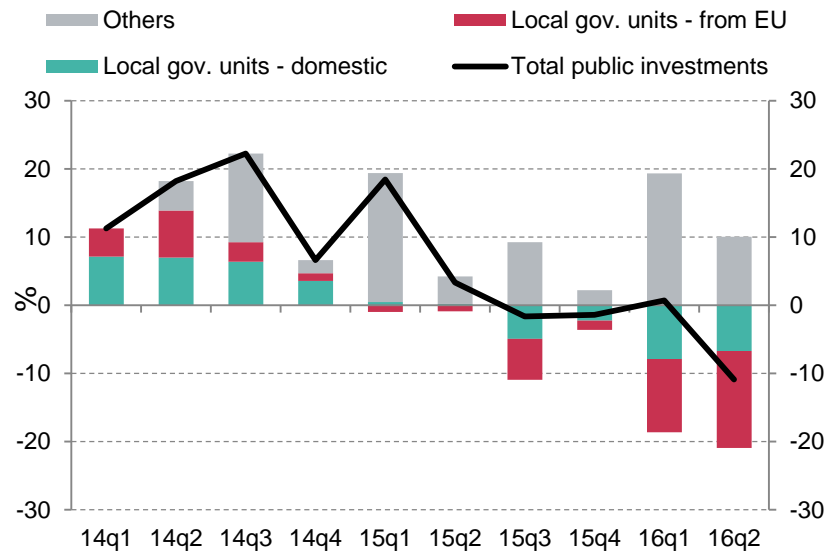
Housing investment:

- ↑ Good labour market conditions
- ↓ Tighter credit conditions (Recommendation S)
- ↑ The high profitability of housing investment

y/y, %	2015	2016	2017	2018
Gross fixed capital formation	5.8	-2.6	6.1	5.4

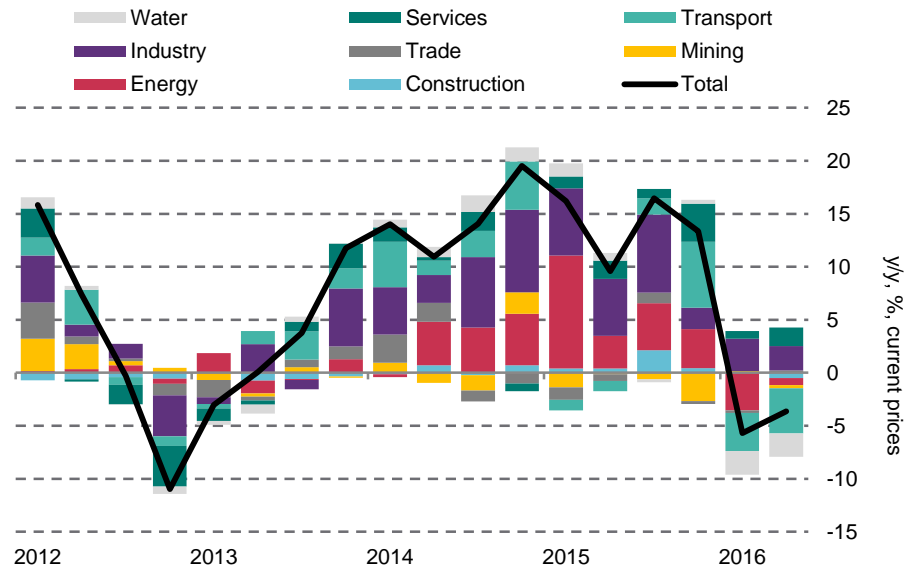
A drop in investment in 2016 – mainly public, but also lower corporate investment dynamics

Public investments dynamics by expenditure type



Source: Eurostat, MF, BGK

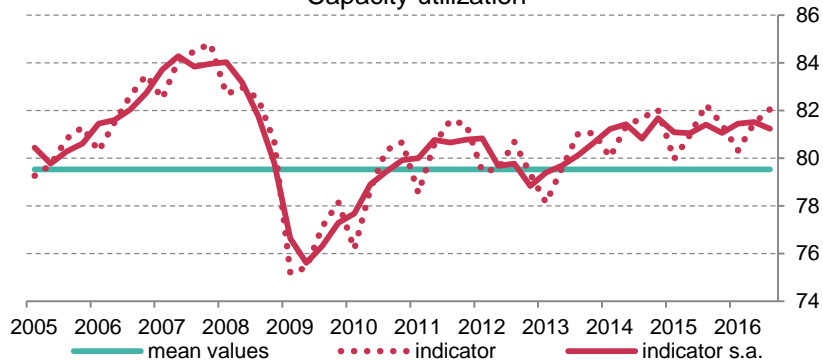
The contribution of sectors in the growth rate of investment



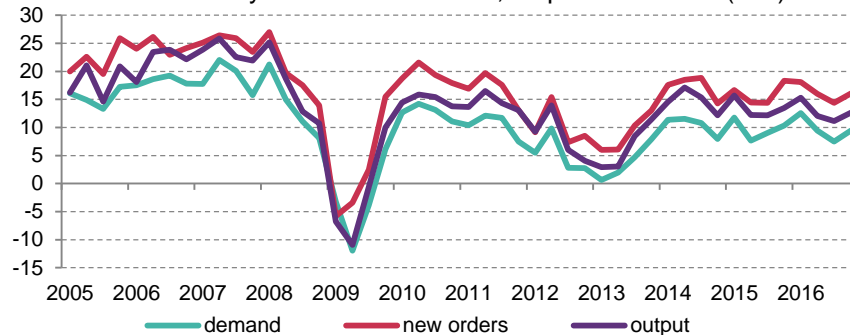
Source: F01, NBP calculations

Enterprises surveys confirm the growth in investment in long run, although the growth rate might be lower than in 2014-2015

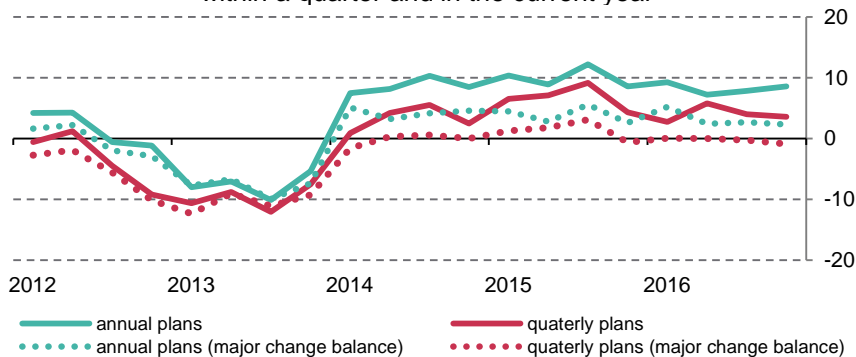
Capacity utilization



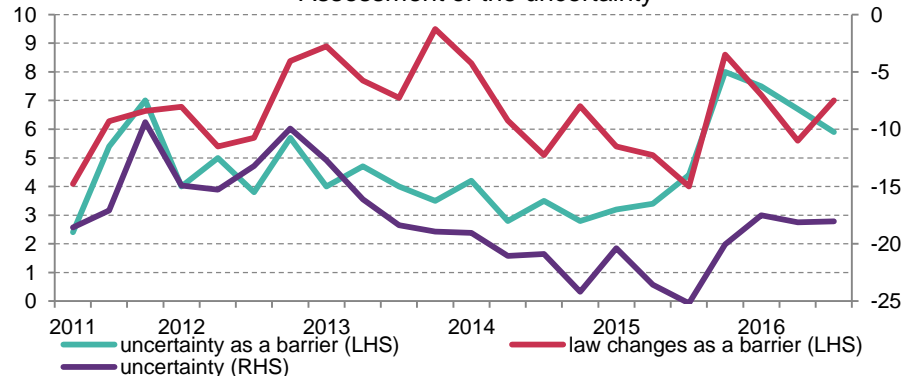
Quarterly forecast of demand, output and orders (s.a.)



Planned changes in investment outlays within a quarter and in the current year

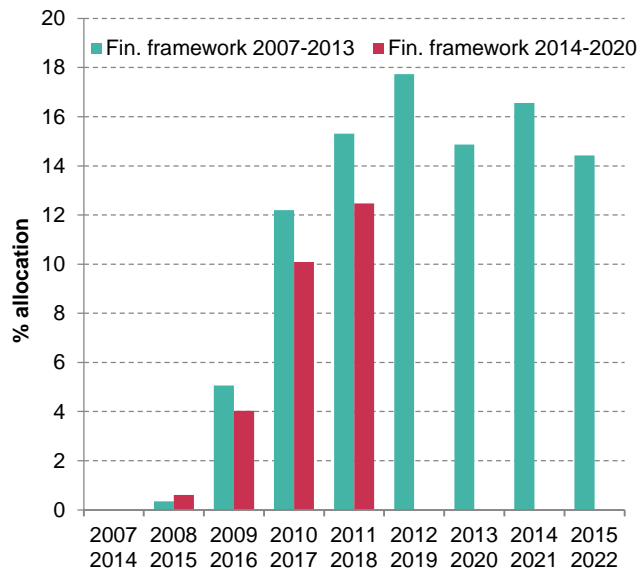


Assessment of the uncertainty



A fall in public investment in 2016 as a natural consequence of overlapping financial frameworks

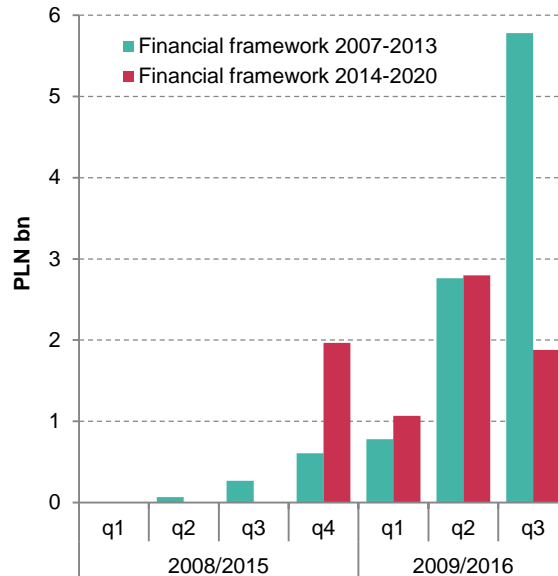
The use of EU funds (without CAP and RDP) in the same periods prospects



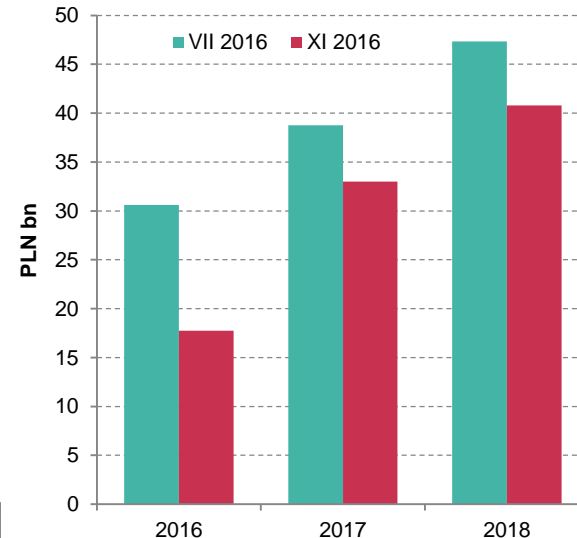
Source: GUS data, NBP calculations. 2016-2018 data – NBP projection

Low utilisation of EU funds in 2016 gives grounds for lowering the pace of EU funds utilisation compared to the previous projection...

Forecasts of the EU funds utilisation (without CAP and RDP)



Source: MR, GUS data, NBP calculations



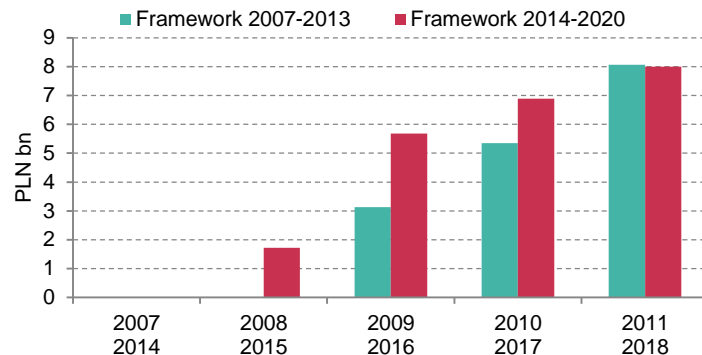
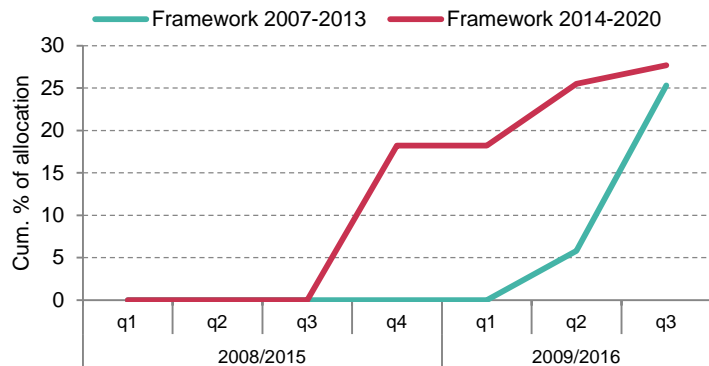
Source: GUS data, NBP calculations. 2016-2018 data – NBP projection

... at the same time growing number of contracts signed for the use of EU funds justifies the expected improvement in the absorption rate from 2017

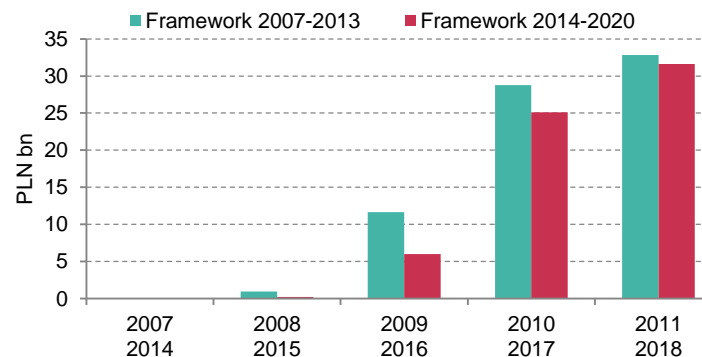
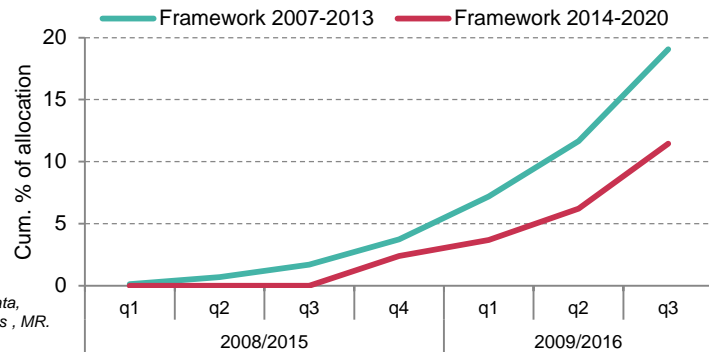
The stage of signing contracts

The stage of the use of funds

Funds for road projects



EU funds for other purposes (without CAP and RDP)



Source: GUS data, NBP calculations, MR, 2016-2018 data - NBP projection

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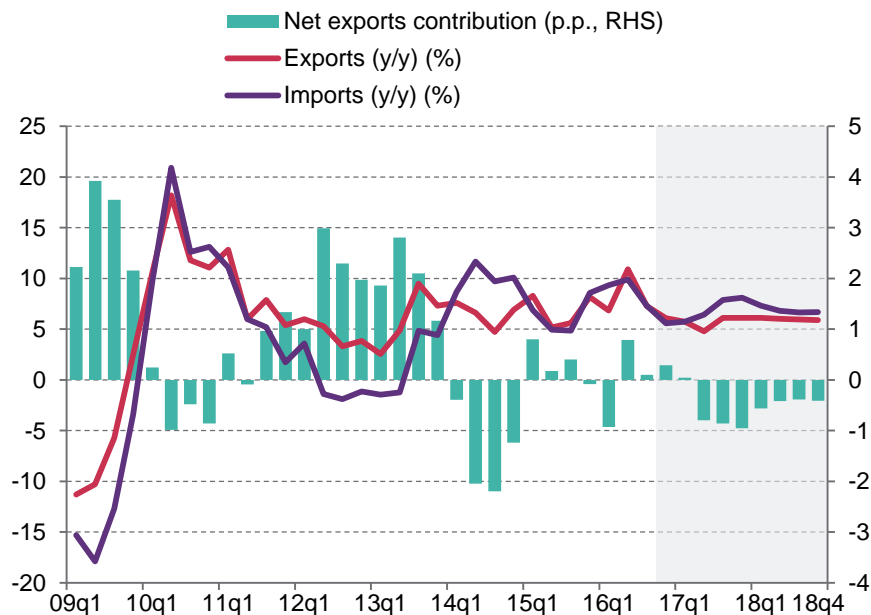
Projection 2016 – 2018

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Uncertainty

Foreign trade

Net exports contribution to growth will continue to limit GDP dynamics



Exports:

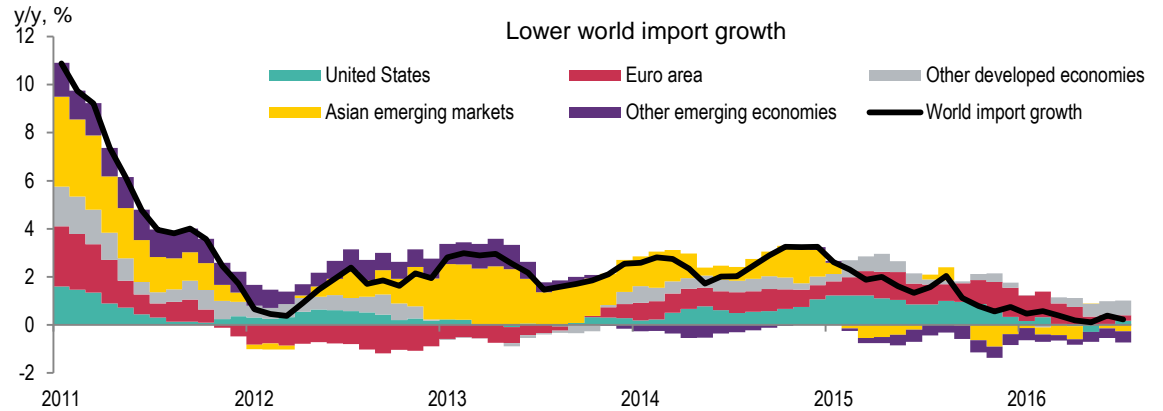
- ⇓ Unfavourable outlook for global trade
- ⇓ Appreciation of the zloty exchange rate

Imports:

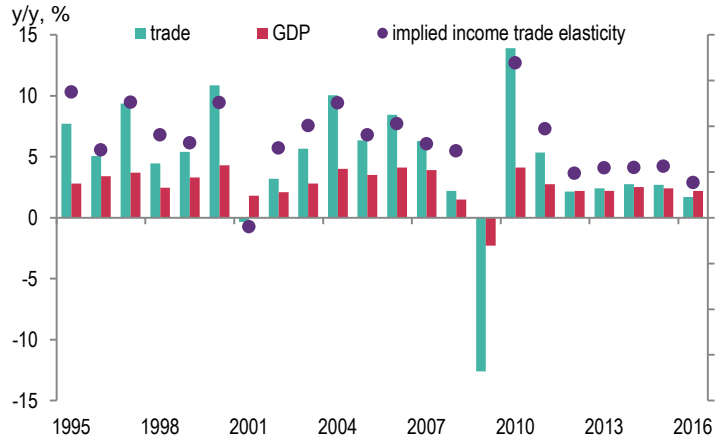
- ↔ Acceleration of consumption and investment, while a decline in exports growth

y/y p.p.	2015	2016	2017	2018
Net exports contribution	0.3	0.0	-0.6	-0.4

Maintaining high growth of exports in the coming years will be difficult to achieve

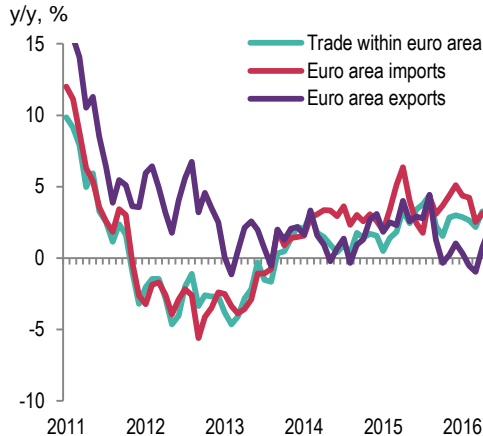


Changes in world trade, GDP and income trade elasticity



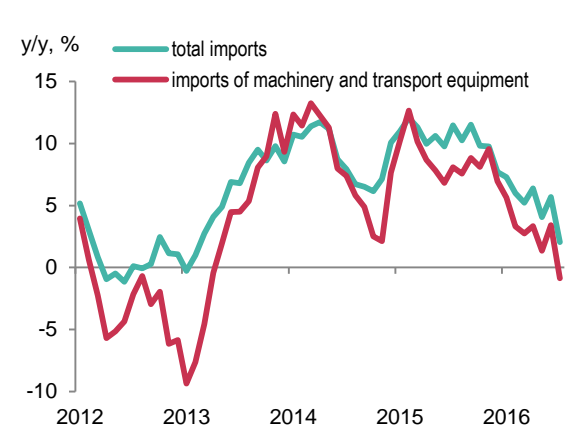
Source: WTO

The slowdown in the euro area trade



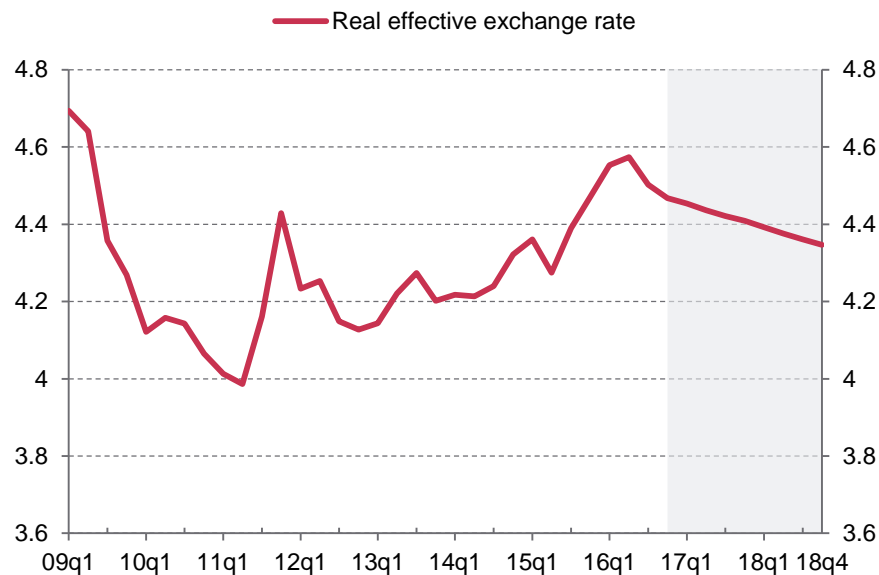
Source: Eurostat

Euro area imports from Poland

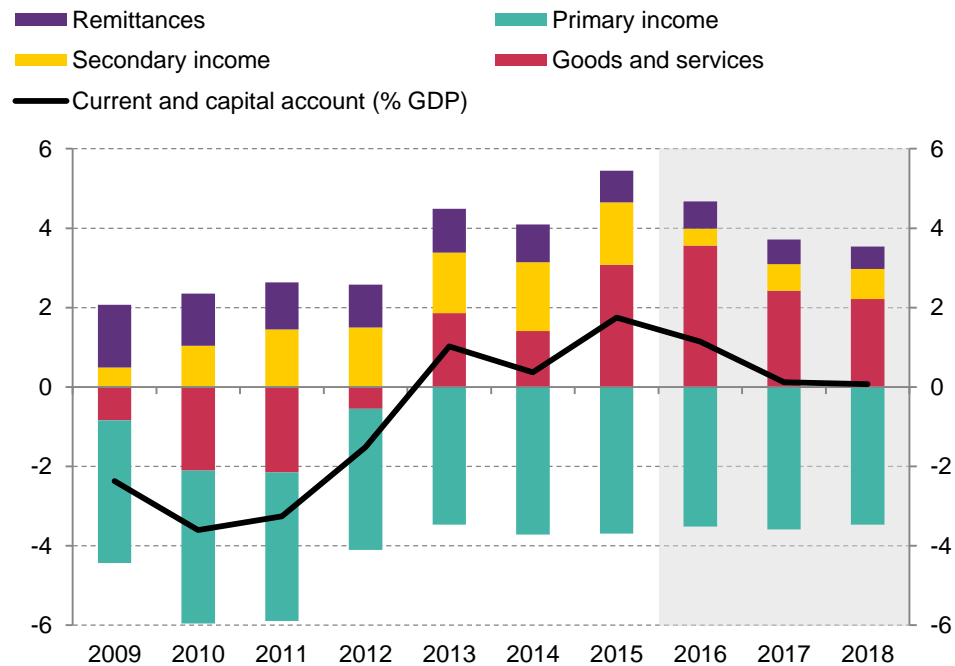


Source: Eurostat

The gradual appreciation of the zloty, bringing the effective exchange rate to the equilibrium exchange rate



Decrease of current and capital account from record high level in the previous year



Outline:

Changes between rounds

Projection 2016 – 2018

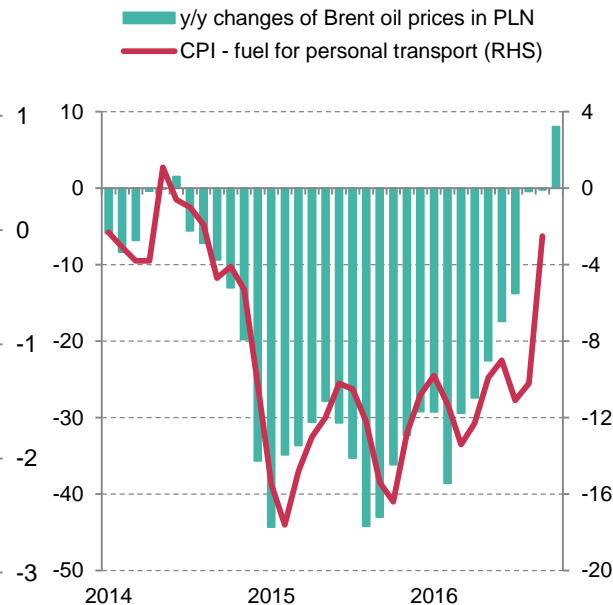
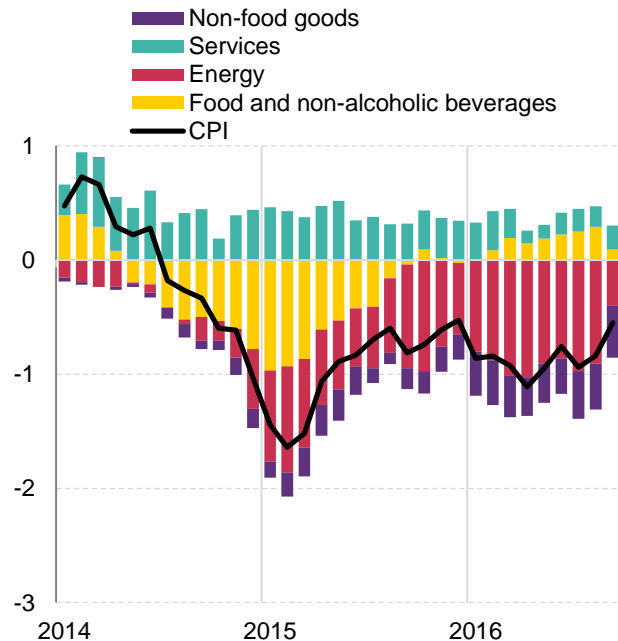
- External environment
- Consumption demand
- Investment demand
- Foreign trade
- Inflation

Uncertainty

Inflation

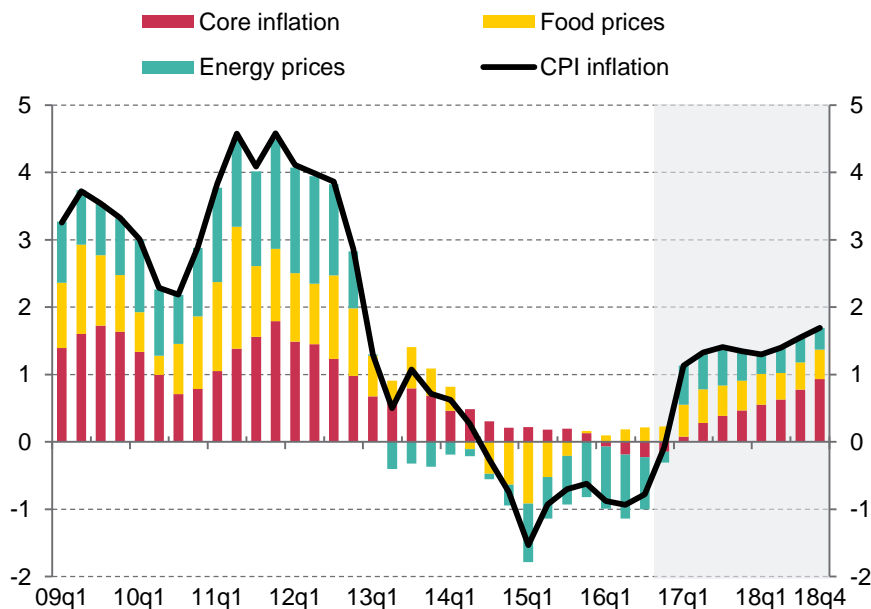
Continuation of deflation - still highly influenced by energy prices, but the impact of supply oil shock fades away

y/y, %	16q2		16q3	
CPI inflation	-0.9	(-0.9)	-0.8	(-0.6)
Core inflation	-0.3	(-0.3)	-0.4	(0.0)
Food prices inflation	0.8	(0.6)	0.9	(0.5)
Energy prices inflation	-5.4	(-5.3)	-4.4	(-4.0)



Values from the July projection are given in brackets (seasonally adjusted). Indicators with values higher than in the July projection are marked green, whereas indicators with lower values are marked red.

Positive consumer price dynamics from 2016q4 although still below the NBP inflation target



Lack of demand pressure:

↓ Negative output gap

Limited cost pressure:

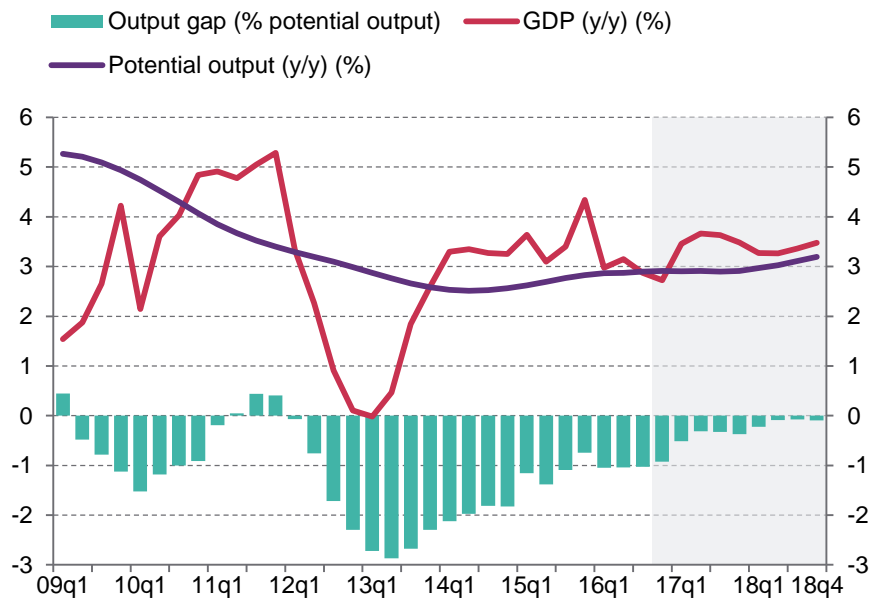
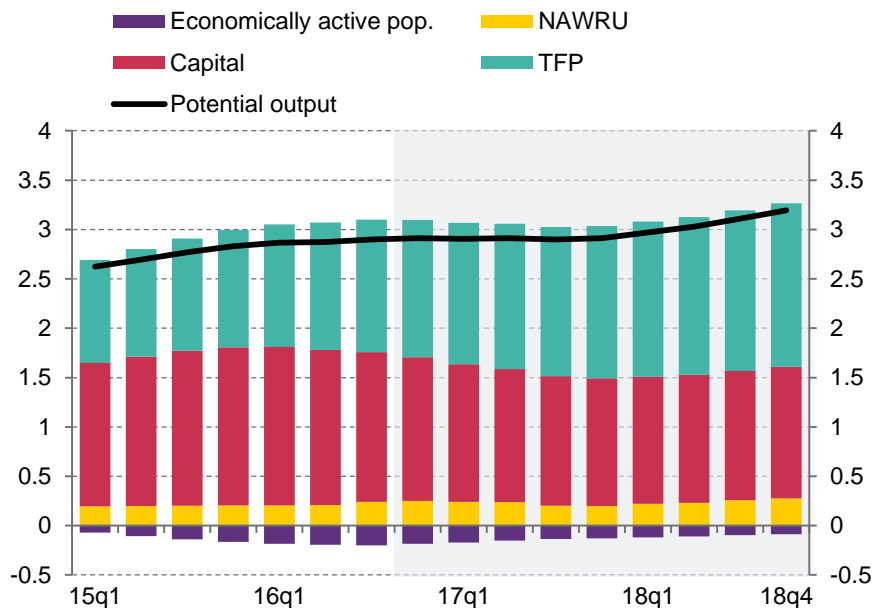
↓ Low import price dynamics

↓ Low levels of commodity prices

↓ Moderate unit labour cost growth

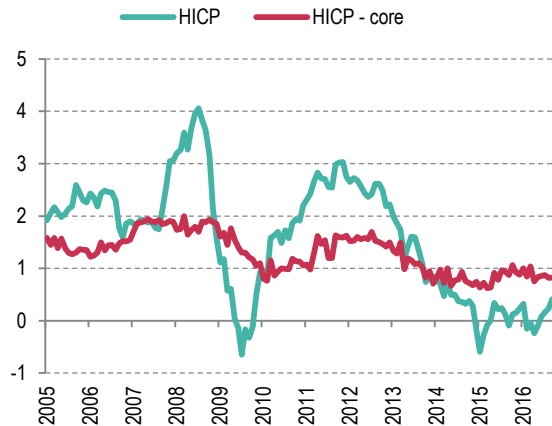
y/y, %	2015	2016	2017	2018
CPI inflation	-0.9	-0.6	1.3	1.5

Lack of demand pressure reflected in the negative output gap



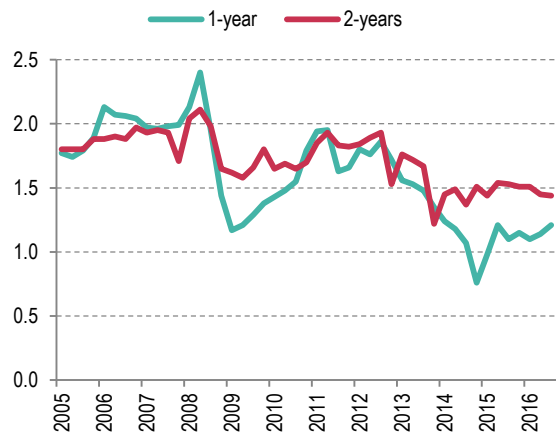
Inflation pressure in the immediate environment of the Polish economy remains low

Euro area inflation (% , y/y)



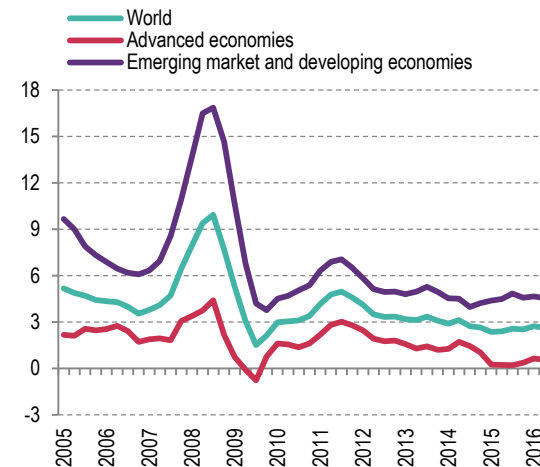
Source: Reuters, IE.

Inflation expectations* in Eurozone (% , y/y)



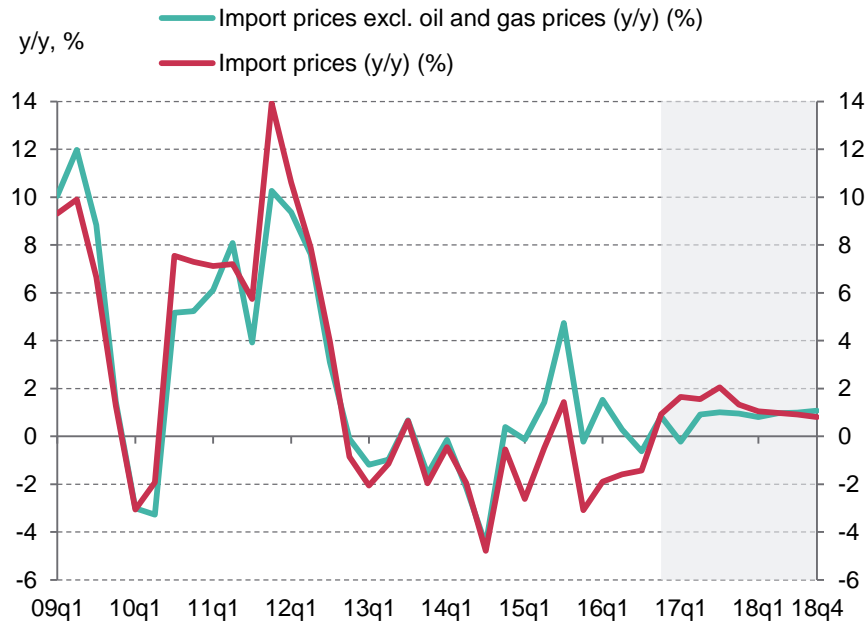
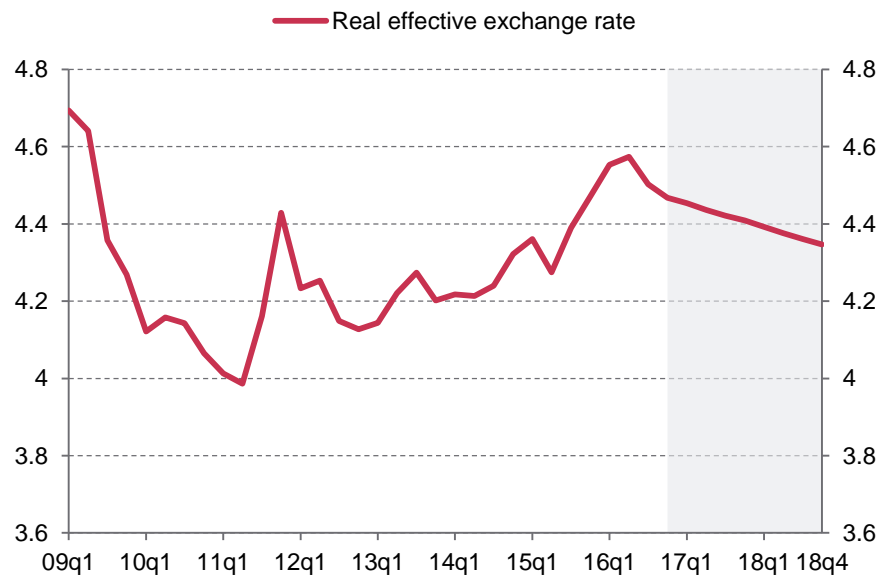
* Survey of Professional Forecasters
Source: ECB.

World inflation (% , y/y)

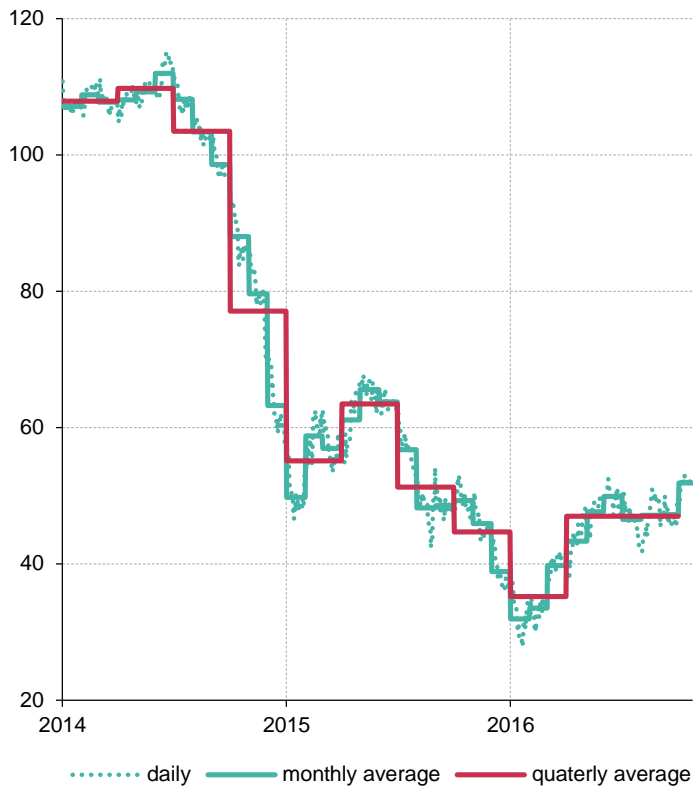


Source: IMF.

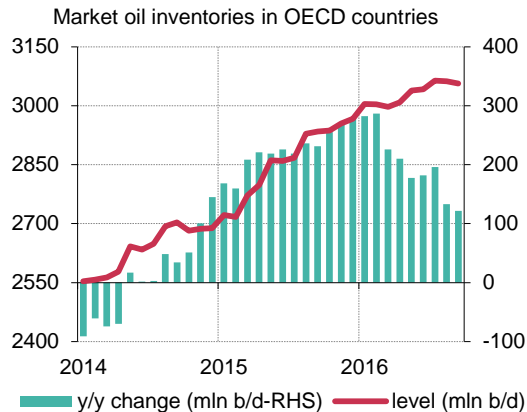
Low inflation in the euro area and appreciating exchange rate influence domestic import prices



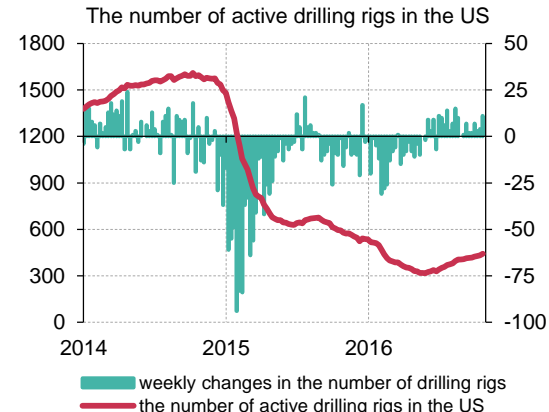
Lower downward pressure on oil prices



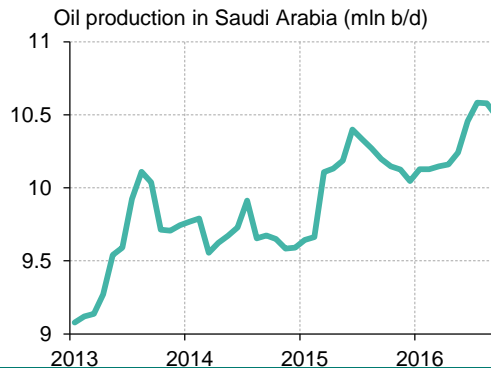
↓ Higher inventories



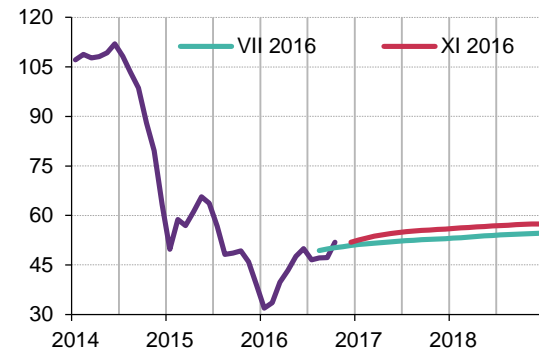
↓ Increasing drilling activity



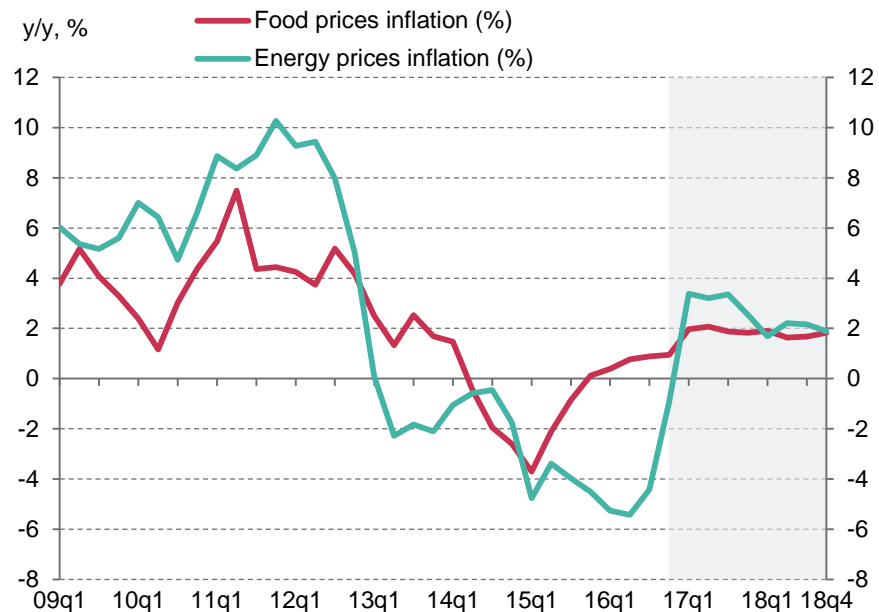
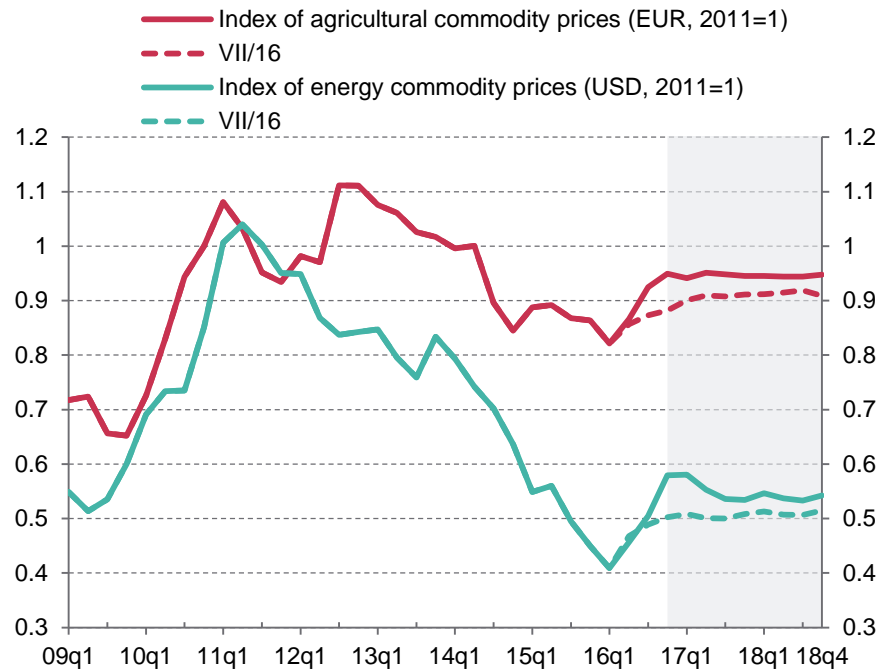
↑ Uncertain future actions of OPEC



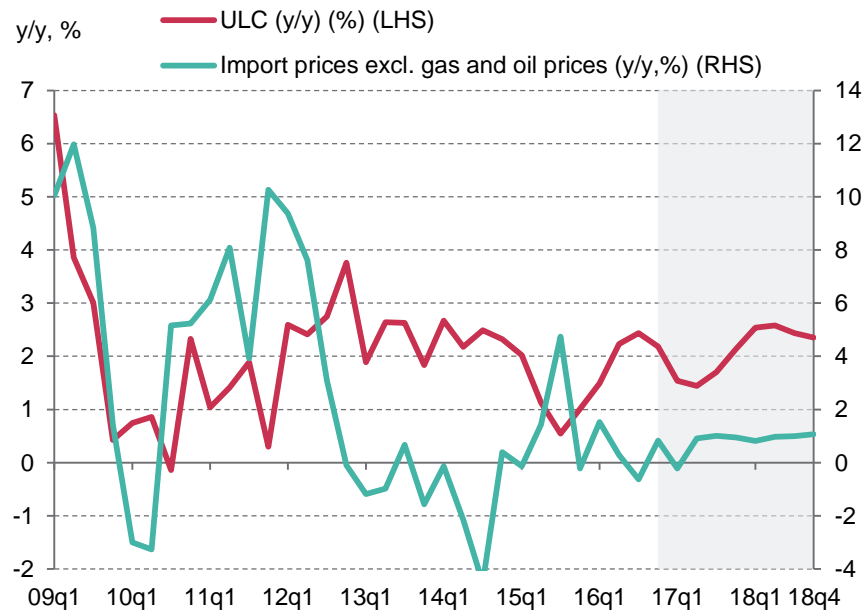
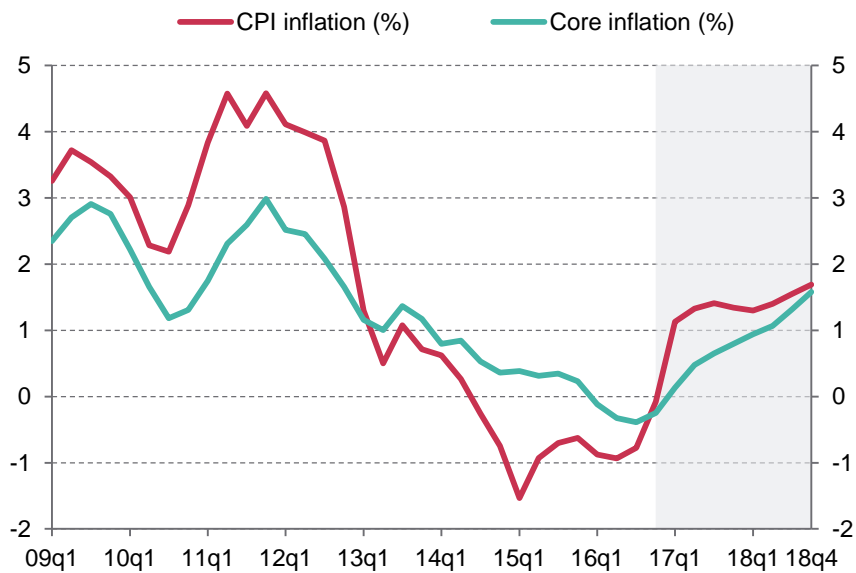
Current vs previous forecast



Other commodity prices – similarly to oil – expected to remain at low level



Moderate unit labour costs growth supports slow return of inflation to the target



Outline:

Changes between rounds

Projection 2016 – 2018

- External environment
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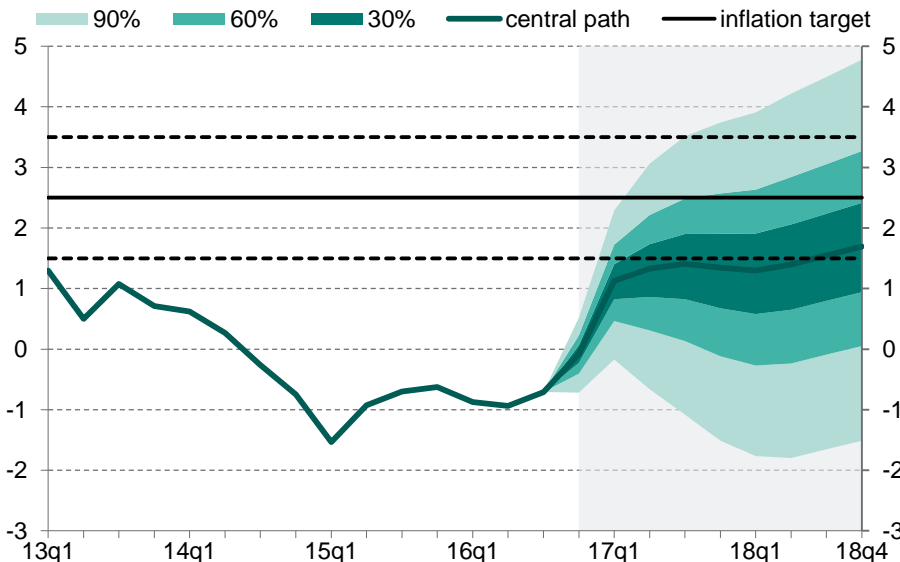
Uncertainty

Uncertainty

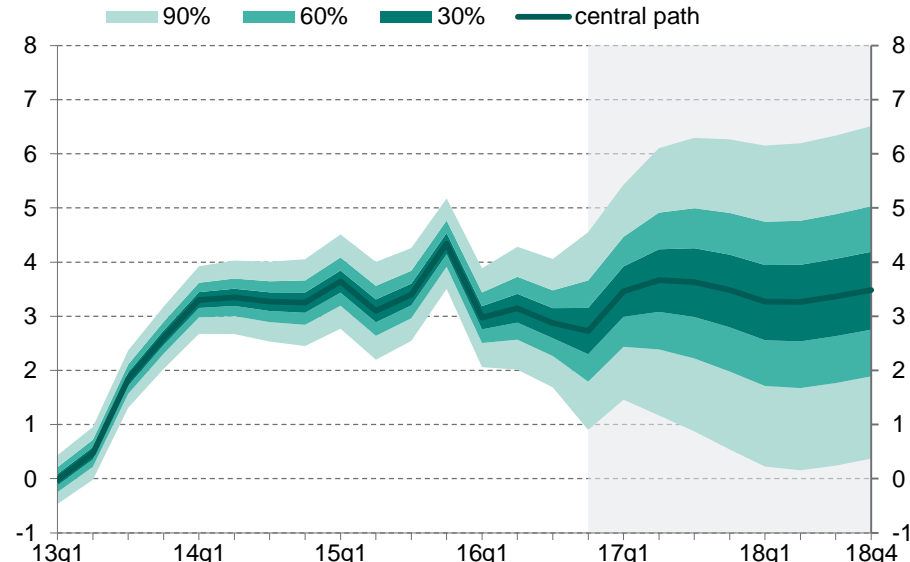
- Risk factors
- Fan charts

Risk area	Description	Impact	Scale of impact
The deterioration of growth prospects in a global economy	<ul style="list-style-type: none"> ▪ Weaker growth outlook in China (banking system stability, weaker than expected effect of government's stimulating measures, mounting imbalance in the housing market). ▪ Uncertainty about the shape of UK exit from EU agreement. ▪ Political uncertainty: elections in Germany, France, constitutional referendum in Italy and presidential elections in the United States. 	Inflation ↓ GDP ↓	**
The increase in domestic demand due to improved economic situation in the euro zone	<ul style="list-style-type: none"> ▪ Faster economic growth in the Eurozone: <ul style="list-style-type: none"> - stronger effect of the ECB bond purchase program, - deeper depreciation of the euro against the dollar, - higher scale of fiscal policy loosening, - positive impact of the European Commission's Investment Plan. 	Inflation ↑ GDP ↑	**
Crude oil prices in the global markets	<ul style="list-style-type: none"> ▪ Supply disruptions in the global oil markets: <ul style="list-style-type: none"> - possible agreement of OPEC countries on oil production in the coming years, - resumption of production at the bottom of the Caspian Sea, - increase in the number of drilling rigs in the United States as a result of higher oil prices, ▪ Growth prospects in the global economy (especially in emerging countries). 	Inflation ↔ GDP ↔	*
Conclusions		Inflation ↔ GDP ↔	

CPI inflation y/y, %



GDP y/y, %



CPI y/y, %	below 1.5%	below 2.5%	below 3.5%	below centr.path	in the range 1.5-3.5%
2016	100%	100%	100%	52%	0%
2017	61%	89%	99%	54%	37%
2018	53%	75%	90%	53%	37%

CPI y/y, %	central path	50% probability interval	
2016	-0.6	-0.7	-0.6
2017	1.3	0.5	2.0
2018	1.5	0.3	2.6

GDP y/y, %	central path	50% probability interval	
2016	3.0	2.5	3.4
2017	3.6	2.6	4.5
2018	3.3	2.2	4.4

We protect the value of money