



**NBP**

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Narodowy Bank Polski

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Economic Analysis Department

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

Warsaw / 10 July 2017



# Outline

Outline:

Changes between rounds

Projection 2017 – 2019

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

Uncertainty

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1 Changes between projection rounds

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2 Projection 2017 - 2019

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3 Uncertainty

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Outline:

Changes between rounds

Projection 2017 – 2019

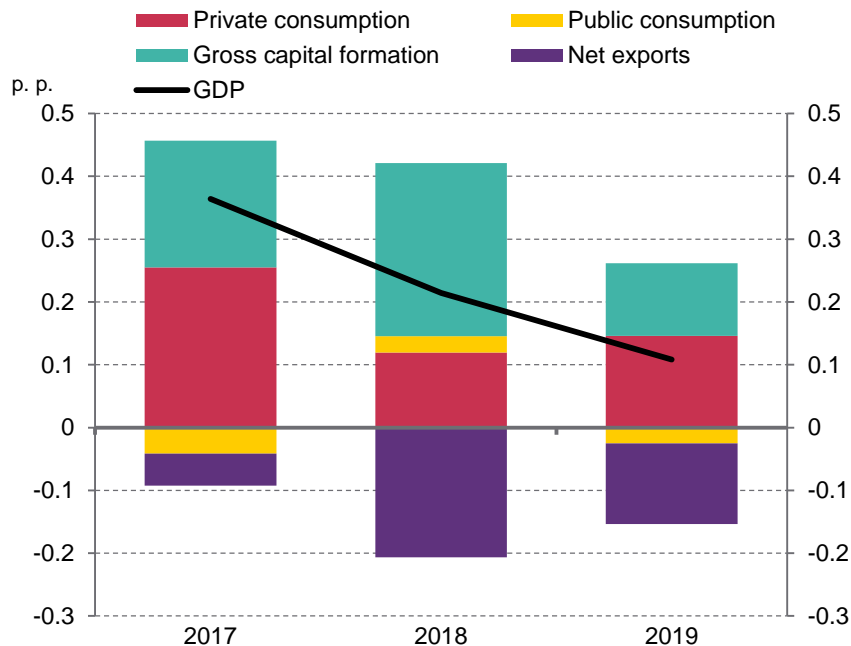
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# Changes between projection rounds

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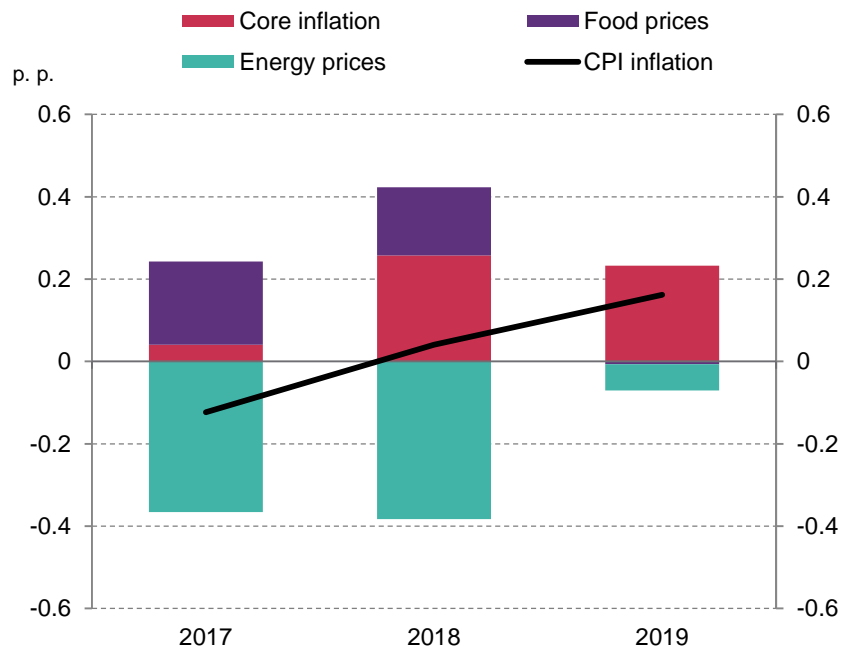
## July GDP projection compared to March projection



- ↑ Higher economic growth forecasts in Poland’s main trading partners
- ↑ Lower prices of energy commodities in the global markets
- ↑ Cyclical adjustment in inventories due to higher demand
- ↑ Upward revision of the expected GDP growth in 2017 – significantly higher individual consumption in 2017Q1
- ↓ Higher domestic demand and anticipated appreciation of the zloty exchange rate – lower contribution of net exports to GDP growth

GDP y/y, %	2017	2018	2019
March 2017	3.7	3.3	3.2
July 2017	4.0	3.5	3.3

## July CPI projection compared to March projection



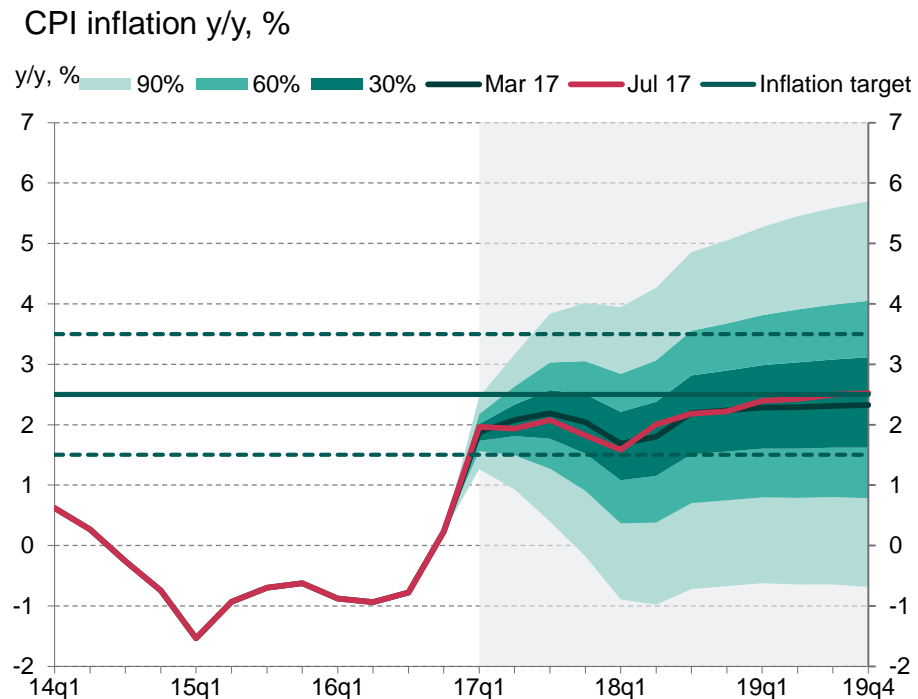
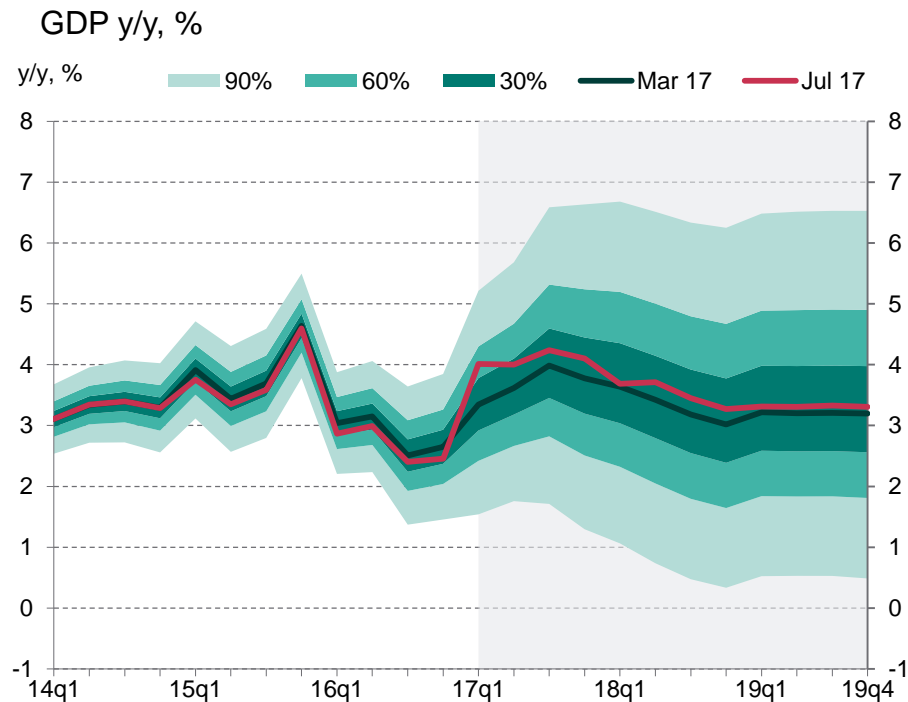
↑ Increase in demand and cost pressure

↑ In the first quarters of the projection faster increase in food prices due to unfavourable weather conditions

↓ Lower prices of energy commodities in the global markets

CPI y/y, %	2017	2018	2019
March 2017	2.0	2.0	2.3
July 2017	1.9	2.0	2.5

## Changes between projections



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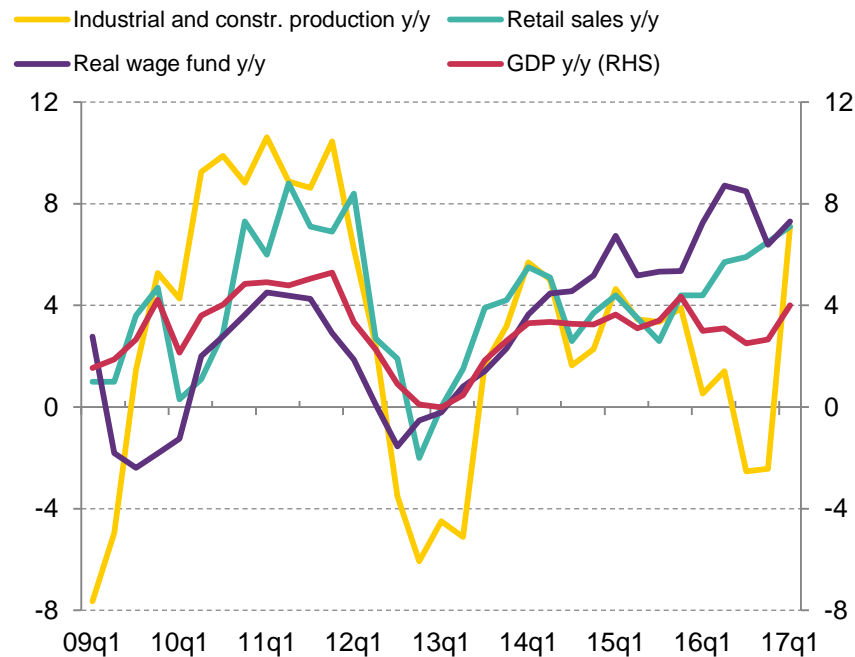
Uncertainty

## Projection 2017-2019

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

## GDP growth accelerated in 2017Q1

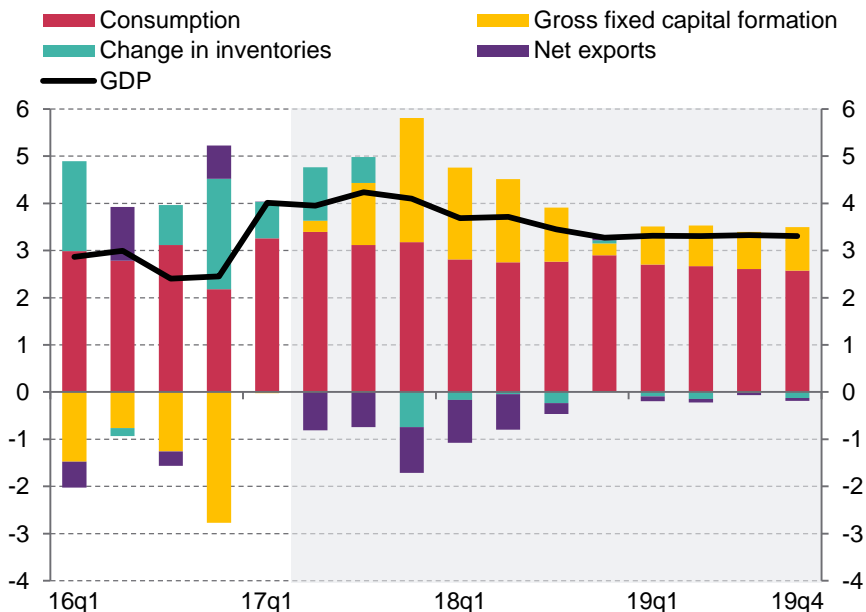
	16q4		17q1	
GDP (y/y) (%)	<b>2.5</b>	(2.7)	<b>4.0</b>	(3.3)
Domestic demand (y/y) (%)	<b>1.7</b>	(2.5)	<b>4.1</b>	(3.3)
Private consumption (y/y) (%)	<b>4.5</b>	(4.2)	<b>4.7</b>	(3.9)
Public consumption (y/y) (%)	<b>-0.2</b>	(2.9)	<b>1.0</b>	(4.3)
Gross fixed capital form. (y/y) (%)	<b>-9.8</b>	(-5.7)	<b>-0.4</b>	(0.4)
Exports (y/y) (%)	<b>9.3</b>	(6.6)	<b>8.3</b>	(6.5)
Imports (y/y) (%)	<b>8.2</b>	(6.6)	<b>8.7</b>	(6.4)
Net exports contribution (p.p.)	<b>0.8</b>	(0.2)	<b>0.1</b>	(0.1)



Values from the March projection are given in brackets (17q1 seasonally adjusted). Indicators with values higher than in the March projection are marked green, whereas indicators with lower values are marked red.



## GDP growth will reach 4% in 2017, and in 2018-2019 it will gradually slow down to the level close to the potential output growth



- ↑ GDP growth will be mainly driven by individual consumption – a result of the improved situation in the labour market and the increase in family benefits
- ↑ Economic growth driven also by positive gross fixed capital formation dynamics – supported by the inflow of EU funds under the new 2014-2020 financial framework
- ↓ Negative but increasing net exports contribution in the forecast horizon – gradual weakening of domestic demand in the long term; recovery in the euro area, anticipated weak appreciation trend of the zloty exchange rate

y/y, %	2016	2017	2018	2019
GDP	2.7	4.0	3.5	3.3

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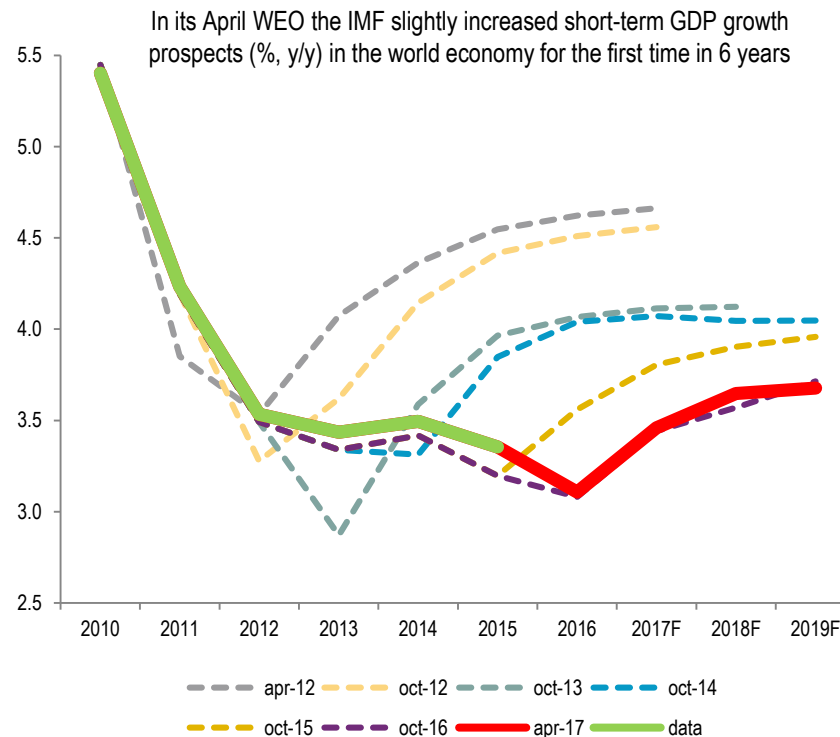
## Economic conditions abroad

## July projection assumes improvement in economic outlook in the external environment of the Polish economy

- ↑ Stronger GDP growth in the euro area
- ↑ US tax reforms
- ↑ Higher growth path in China and further improvement in economic outlook in BRIC countries
- ↓ Weak long-term global economic outlook due to low productivity growth and unfavourable demographic trends
- ↓ Weak medium-term outlook for global trade's growth

GDP y/y, %	2017	2018	2019
Euro area	1.9 (1.6)	1.7 (1.5)	1.6 (1.4)
Germany	1.9 (1.6)	1.7 (1.5)	1.5 (1.4)
United States	2.2 (2.2)	2.5 (2.1)	2.1 (1.9)
United Kingdom	1.4 (1.5)	1.5 (1.4)	1.7 (1.7)

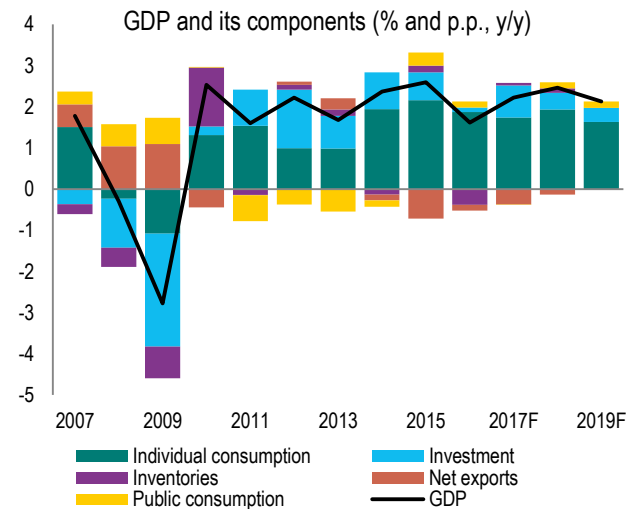
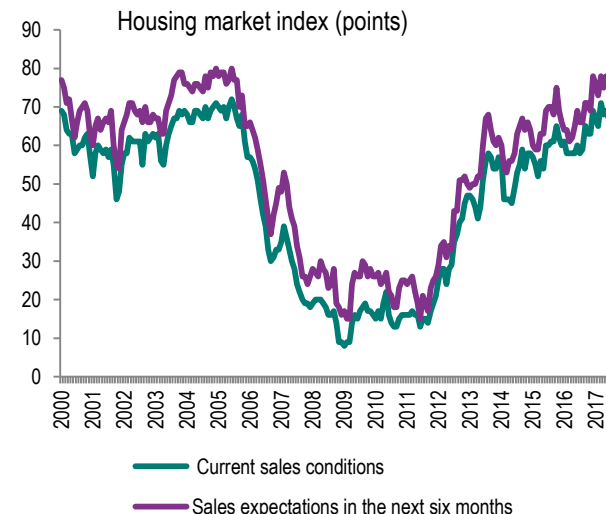
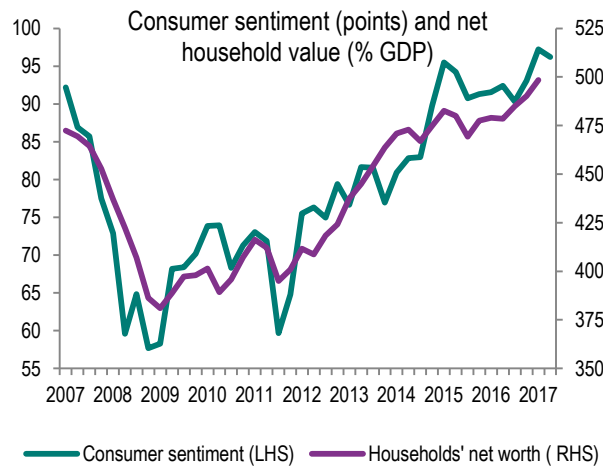
March 2017 projection data are given in brackets



Source: IMF, World Economic Outlook Database

## Tax reforms will support GDP growth in the United States

- After a weak 2017Q1, GDP will accelerate due to fading factors which temporarily weakened households' consumption (delays in tax returns, residual seasonality).
- In the longer term, the growth in consumption and residential investment will be driven by favourable labour market conditions, high value of household's wealth and consumer optimism.
- Corporate investment in the short term will be stimulated by improvement in the activity of the mining industry.
- From 2018 GDP growth will be supported by tax changes, with their impact on investment limited by the expected rise in public debt hampering a permanent reduction in corporate taxes.



Source: University of Michigan, FRB

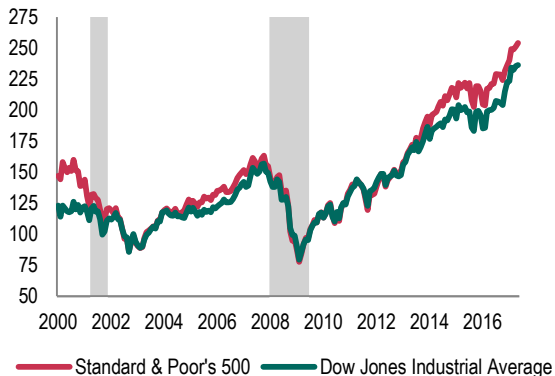
Source: NAHB/Wells Fargo

Source: BEA, NBP calculations

## Growing risk of an economic slowdown in the US in case of a reversal of the upward stock market trend

- The main reason for the increase in the value of total assets of consumers and companies in 2017Q1 was a hike in the financial assets' value as a result of the bull market in US stocks.
- Relatively high share of financial assets in total assets of economic entities (on average 60% in the current recovery) means that a reversal of the current upward stock market trend can lead to a reduction in household consumption expenditure (wealth effect) and business investment.
- Simulation analysis shows that in the scenario of the S&P 500 dropping by 15% in the period from July to December this year, the probability of the US economy entering a recession will increase from 0% in 2017Q1 to about 26% in 2017Q4.

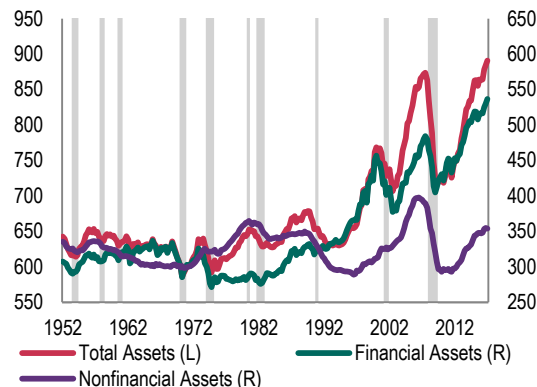
Stock market indexes listed on New York Stock Exchange (2009 y. = 100)



Attention: the shaded areas correspond to recession periods based upon the NBER turning points.

Source: Thomson Reuters

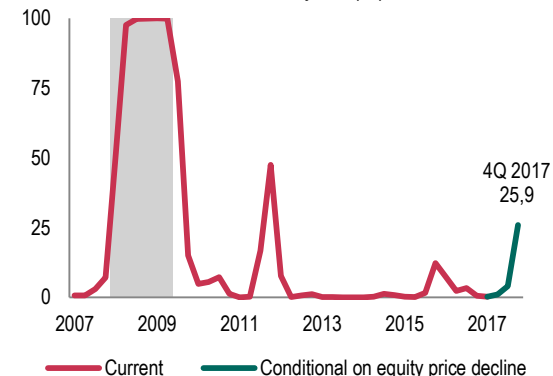
Value of household and business assets (% of potential GDP)



Attention: the shaded areas correspond to recession periods based upon the NBER turning points.

Source: FRB, CBO

Probability of the economy entering the recession upon the S&P 500 dropping by 15% scenario in the horizon until the end of this year (%)

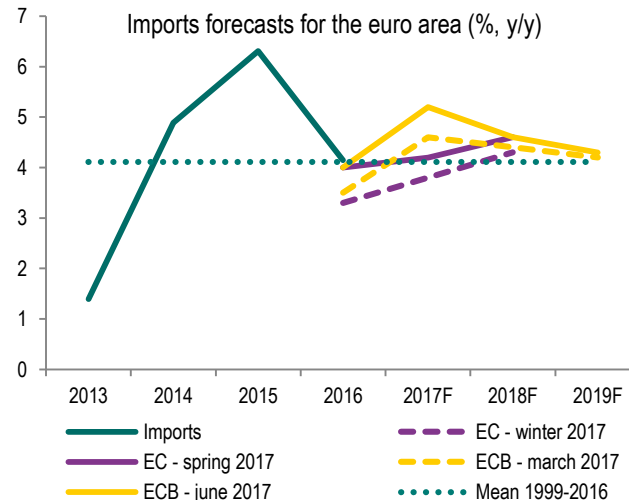
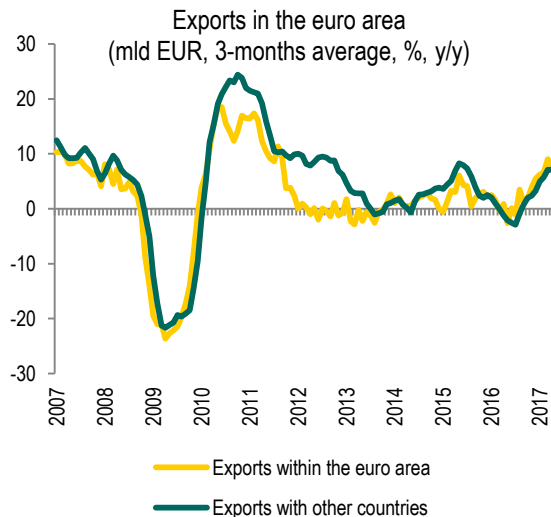
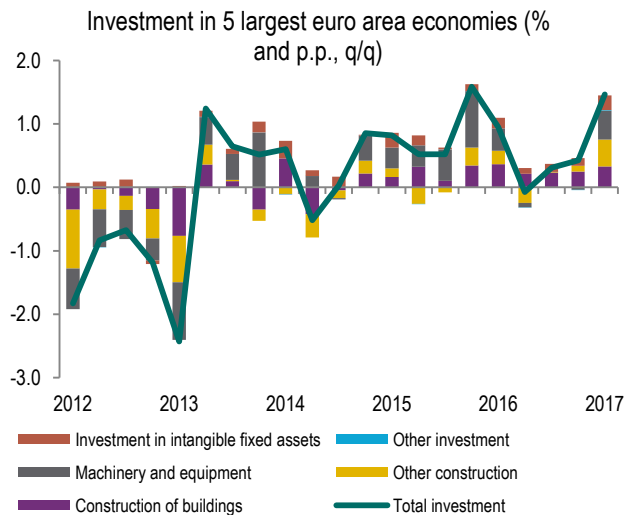


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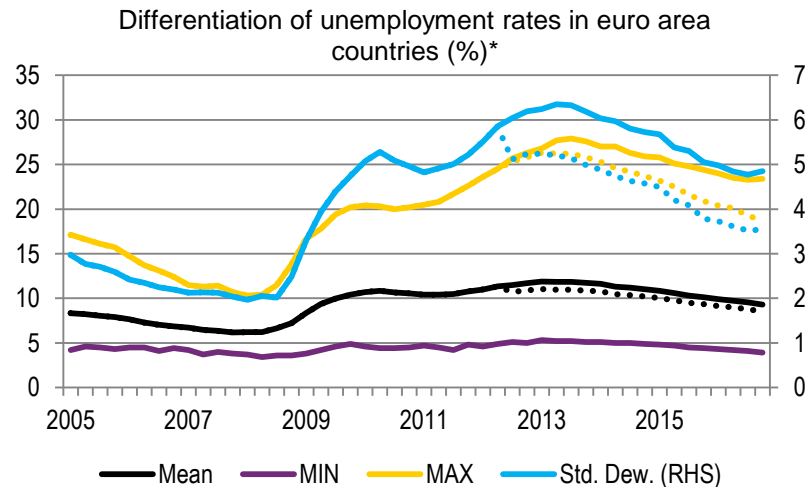
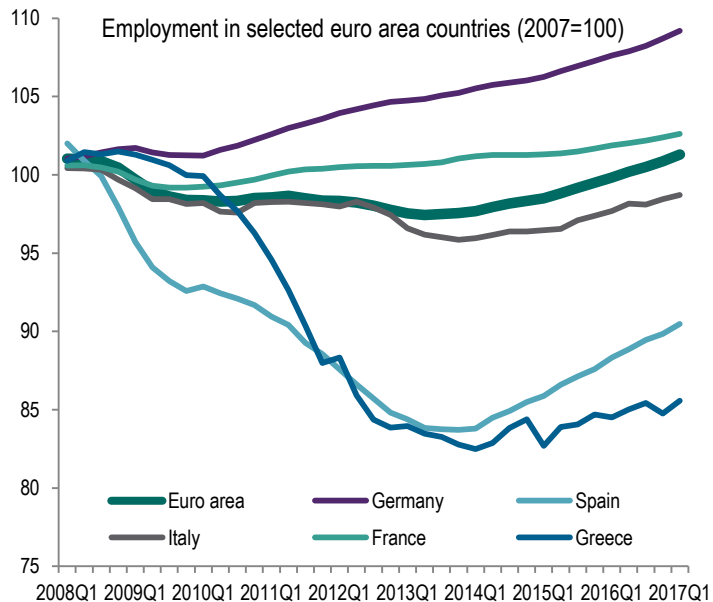
Source: FRB, CBO, S&P, NBP calculations

## Stronger recovery in the euro area

- Better GDP data from recent quarters (related to the improvement in the external environment of the euro area and the increase in investment demand) combined with the fiscal policy changes in the US make us expect on average 0.2 p.p. annually higher GDP growth in the euro area.
- Consumption will remain an important growth factor, but its dynamics will be limited by the weakening purchasing power of income. End of adjustments in the construction sector in some countries, high consumer optimism and low borrowing costs will support the acceleration of construction investment. With the growing need to rebuild production assets, investment in machinery and equipment will also increase.
- Expected higher euro area export growth is reflected in higher forecasts of import demand.



## Employment in selected euro area countries

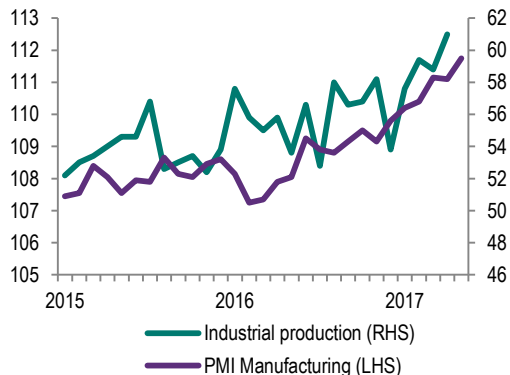


Source: Eurostat, European Commission, NBP calculations \*) Dotted line – calculations excluding Greece

## Slightly better growth prospects in Germany

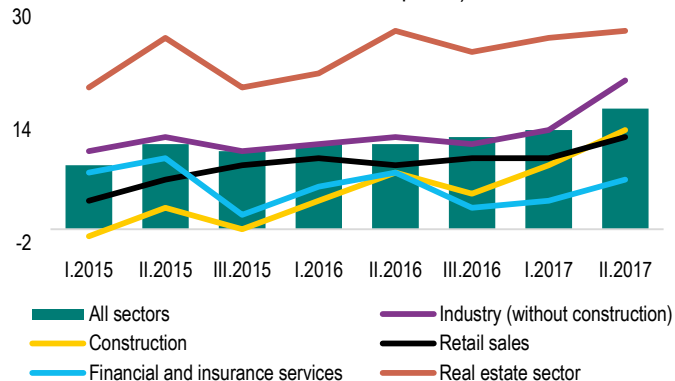
- Better economic outlook for German economy is due to positive current cyclical situation which is related to the improvement in the world trade at the beginning of the year.
- In addition to consumption supported by a very good labour market situation, GDP growth will be underpinned by a rise in investment in machinery and equipment as a result of increased demand for German processing goods and a planned increase in public investment in infrastructure and defense.
- GDP growth will be supported by fiscal loosening (including a relatively strong increase in health spending, an increase in child care expenses and education).

Sentiment in processing industry (points) and industrial production (index)



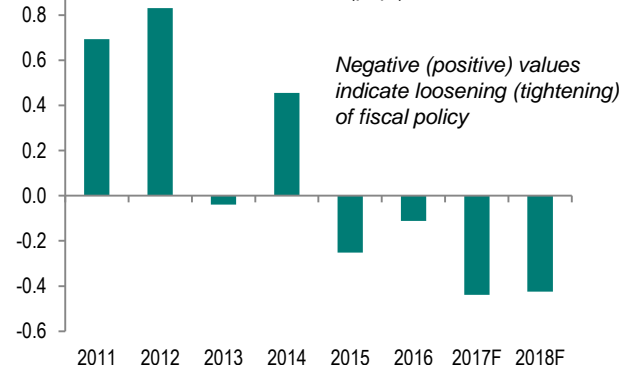
Source: Markit Economics, Eurostat

Planned investment within the next 12 months (balance of answers, points)



Source:DIHK

Changes in structural primary balance (p. p.)

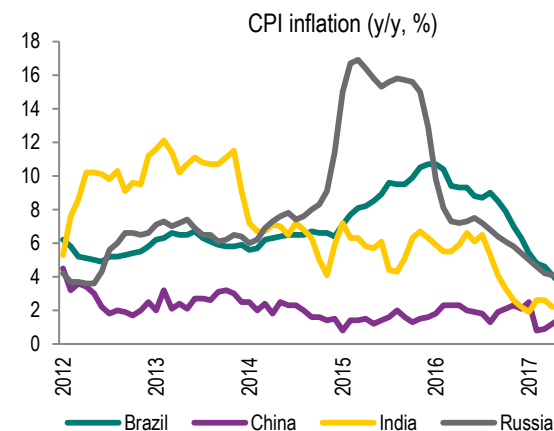
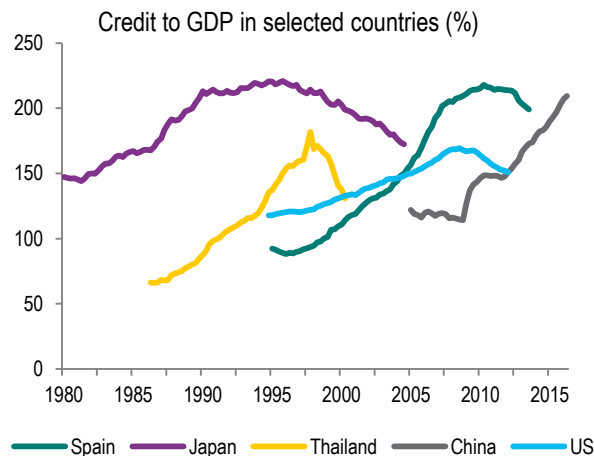
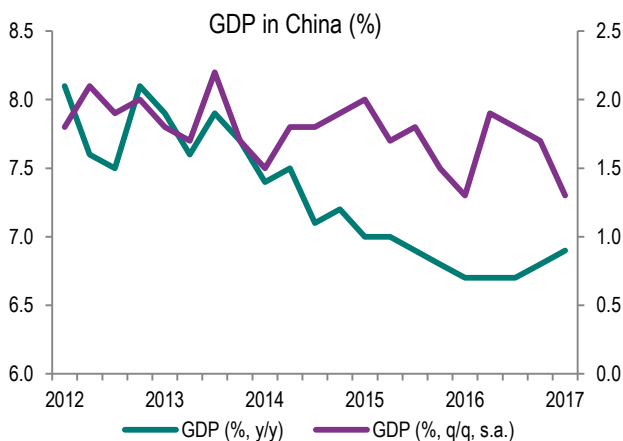


Source: European Commission, AMECO



## Better short-term prospects for China's growth and slow normalization of economic situation in other BRIC countries

- **China:** higher growth in 2017 thanks to recovery in external demand and government's expansionary measures. In the subsequent years, gradual economic slowdown is expected as a result of the tightening in housing policy, as well as actions aimed at limiting the debt growth in the economy.
- **Russia:** slight acceleration of economic growth is expected due to recovery in the external environment, already introduced and expected further interest rate cuts and low inflation.
- **Brazil:** the economy is slowly coming out of the recession, but the increased political risk reduces the likelihood of a strong recovery.
- **India:** revised GDP data shows that demonetization deepened the slowdown lasting since 2016Q2. Thanks to reforms, medium-term growth prospects remain favourable.



Outline:

Changes between rounds

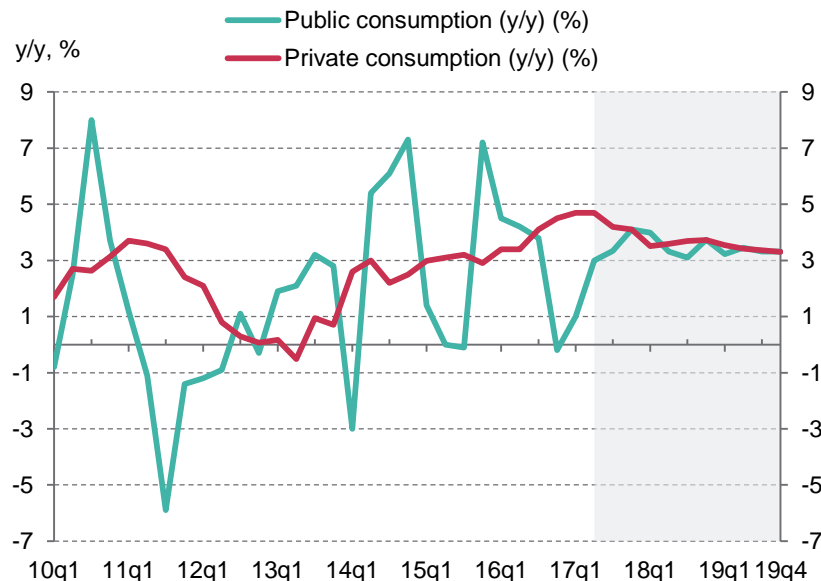
Projection 2017 – 2019

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Uncertainty

## Consumption demand

## Consumption demand as the main driver of GDP growth in the projection



### Individual consumption:

- ↑ Good labour market conditions
- ↑ In 2017 GDP growth supported by the impact of the “Family 500 Plus” programme
- ↑ Improvement in consumer sentiment
- ↑ Low interest rates facilitate financing consumption through borrowing

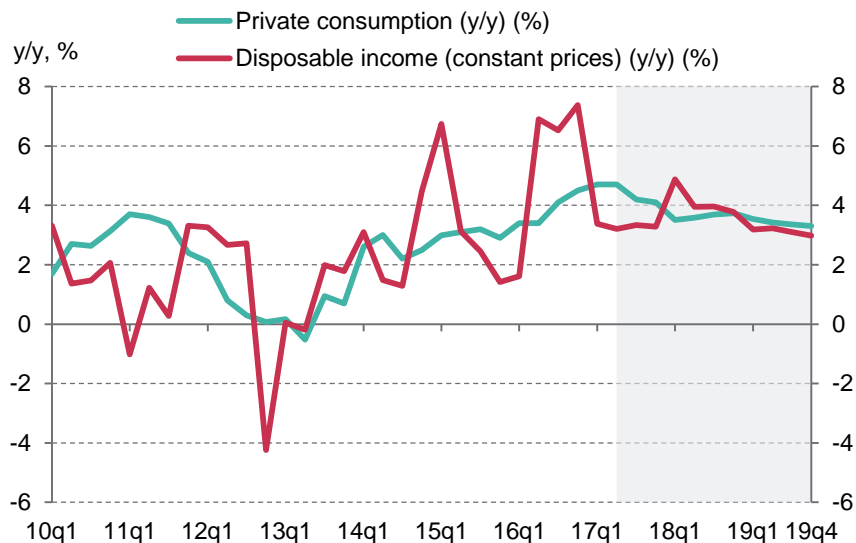
### Public consumption:

- ↓ 2017 Budget Act – relatively low growth rate of current expenditures and spending on targeted subsidies
- ↑ Years 2018 - 2019 – lack of detailed information on the continuation of cutting public expenditure

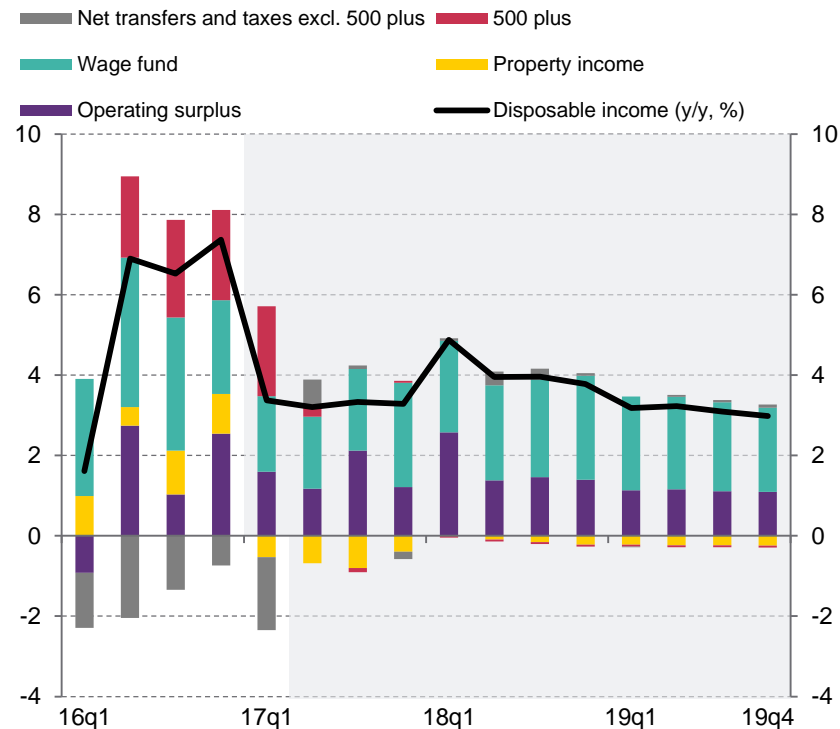
y/y, %	2016	2017	2018	2019
Private consumption	3.8	4.4	3.6	3.4
Public consumption	2.8	2.8	3.5	3.3

## Good households' financial situation

- Further decline in unemployment rate and acceleration of wage growth are expected, although the purchasing power of households will be reduced by rising inflation.
- In 2016-2017 dynamics of households' disposable income will be elevated by the growth in family benefits, due to the programme „Family 500 plus”, which was implemented in April 2016 (it will affect individual consumption with a lag due to the intertemporal consumption smoothing mechanism).



Disposable income decomposition (constant prices) (y/y, %)



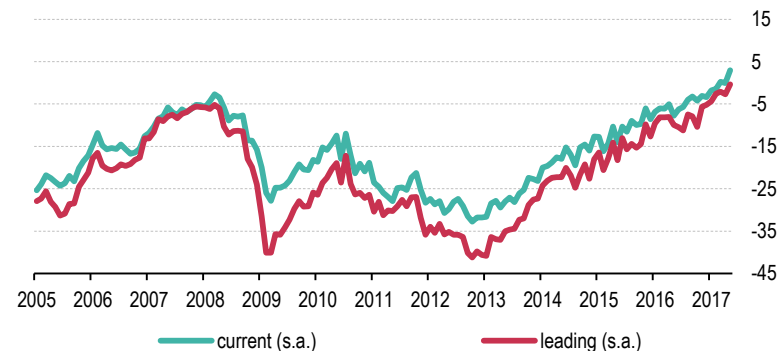
## Consumption is driven by very good labour market conditions and favourable consumer sentiment

	16q4		17q1	
ULC (y/y, %)	1.6	(1.8)	1.8	(1.3)
Labour productivity (y/y, %)	2.2	(2.3)	2.3	(2.9)
Gross wages (y/y, %)	3.7	(3.7)	4.1	(4.1)
Employment LFS (y/y, %)	0.3	(0.4)	1.7	(0.5)
Unemployment rate LFS (%)	5.6	(5.6)	5.1	(5.5)
Participation rate (%)	56.2	(56.3)	56.4	(56.3)

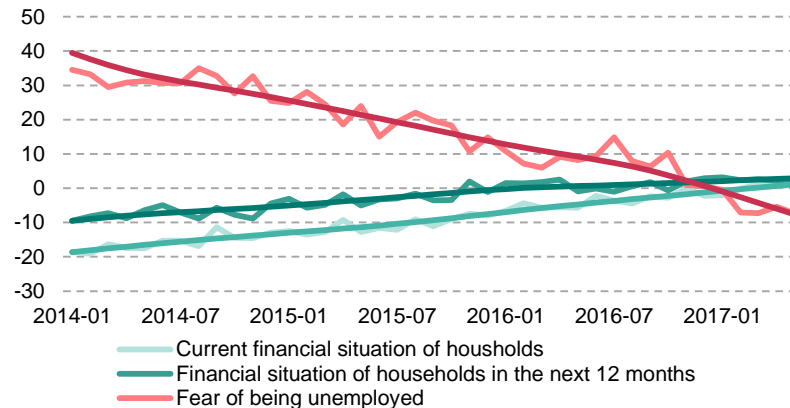
Values from the March projection are given in brackets (seasonally adjusted). Indicators with values higher than in the March projection are marked green, whereas indicators with lower values are marked red.

Source: GUS data, NBP calculations

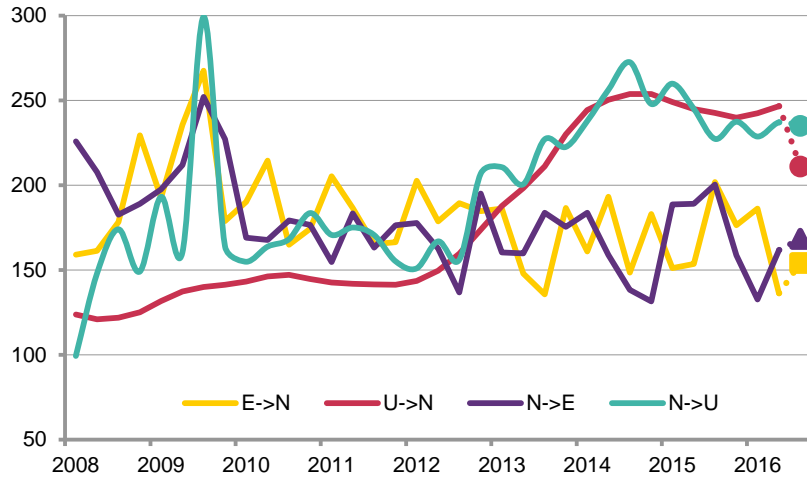
Consumer confidence indicators



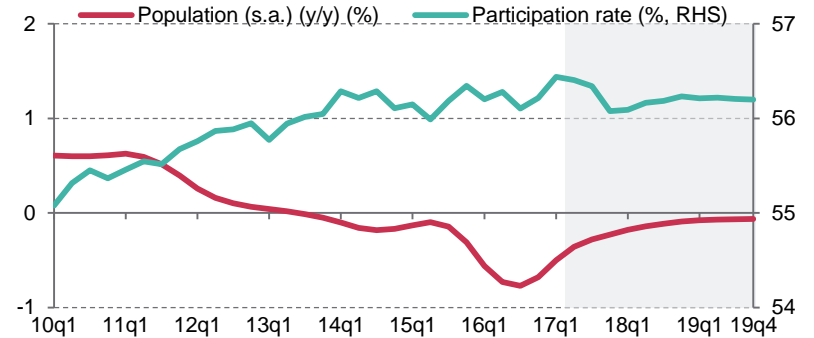
Financial situation of households and risk of unemployment



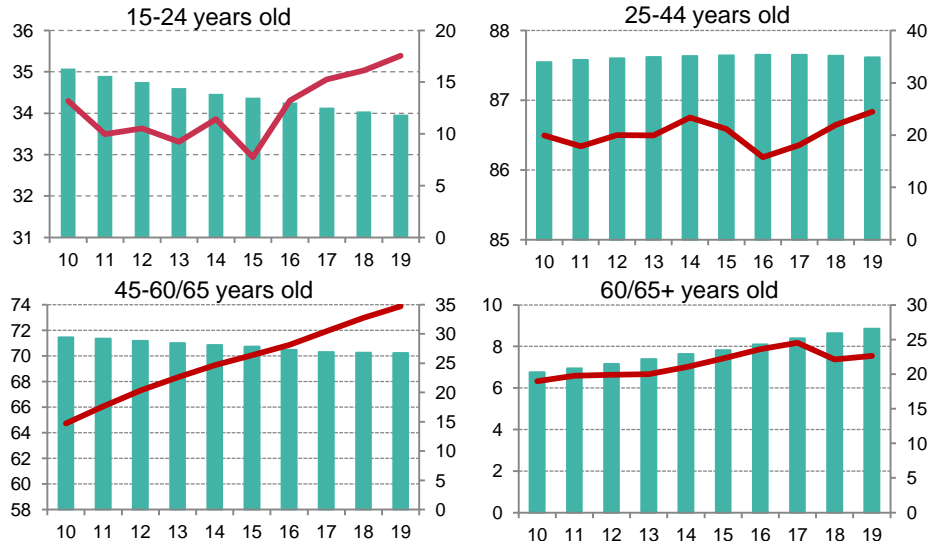
## Increase in participation rates



- In periods of low unemployment people so far non-participating in the labour market become active and deactivation of people discouraged with the job search is ceased
- Improvement on the labour market has contributed to growing bidirectional flows between non-participation and unemployment, indicating an increasing activity of people more loosely linked to the labour market. The recent increase in activity is probably related to halted outflow of people from the labour market who are the most likely to be discouraged from seeking work.



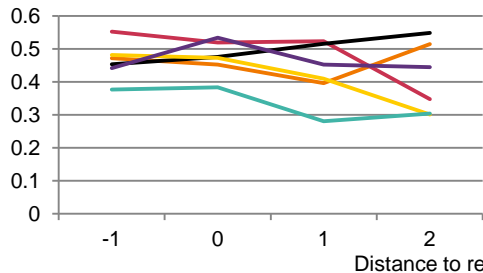
Participation rate in the given age group (% , LHS )  
Share of age group in the population (% , RHS)



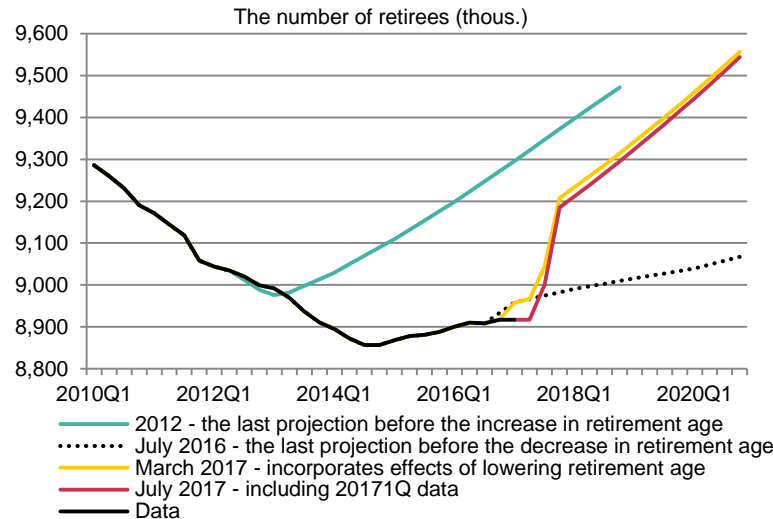
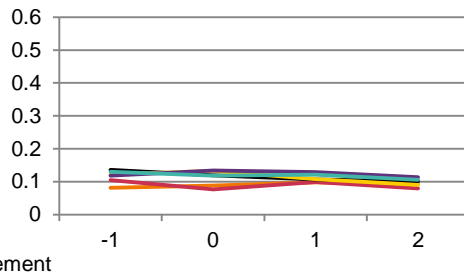
## Pension reform in the projection

### Labour force participation

Without pension benefits

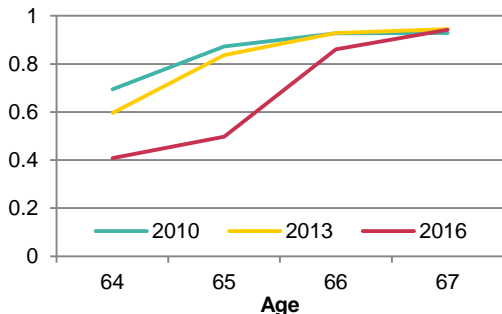


With pension benefits

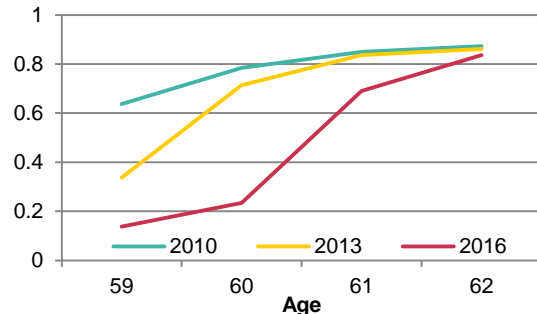


### Raising the retirement age shifted the frequency of collecting benefits

Males



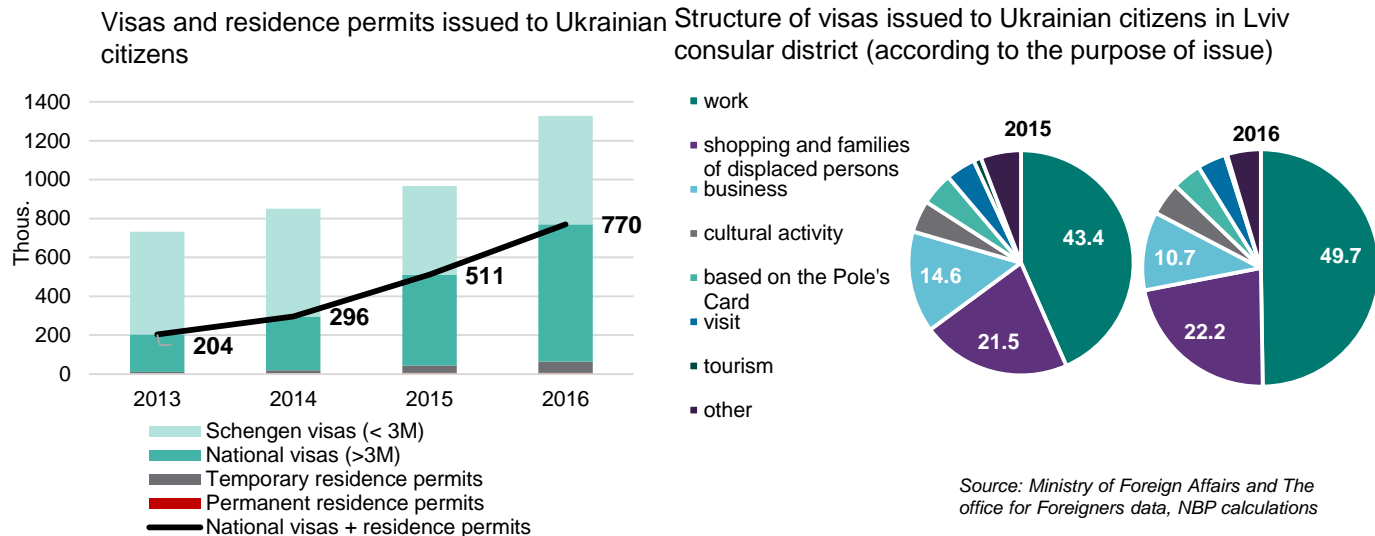
Females



- Lowering of retirement age may result in the surge in the number of retirees and consequently lead to a decline in labour supply.
- In the past, rising the retirement age caused a decrease in the frequency of collecting benefits, the marginal phenomenon was the increased number of pensioners.
- Labour participation for people with benefits did not exceed 20% and these results were stable in previous years.
- Decline in labour participation rate can be limited or delayed due to a very good situation on the labour market.

## Immigration from Ukraine - available estimates

- Available sources of data on economic immigrants:
  - Residence data of the Ministry of Foreign Affairs (number of visas and permits issued by consulates),
  - Number of work permits and employer's declarations of intent to employ a foreigner (Ministry of Family, Labour and Social Policy),
  - Border traffic (data from Border Guard and integrated GUS survey of travel).
- LFS largely does not include short-term immigration - it takes into account only residents (i.e. staying over 12 months).

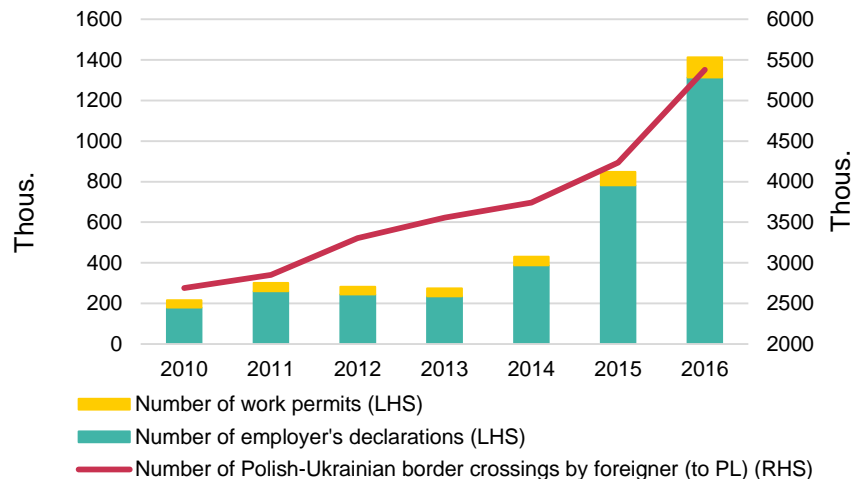


- In 2016 consulates in Ukraine issued about **1 264 thous. visas**, of which national visas (type D entitling to stay >3M) **accounted for 56%**.
- According to data from Lviv consular district (covering 46% of all visas), approximately **50% of visas were issued for working purpose**.
- Ukrainian citizens also received about 58 thous. temporary residence permits and 6 thous. permanent residence permits.
- Estimated **scale of legal employment of Ukrainian citizens** in Poland corresponds to the number of national visas and residence permits and **amounted to around 770 thous. in 2016**.



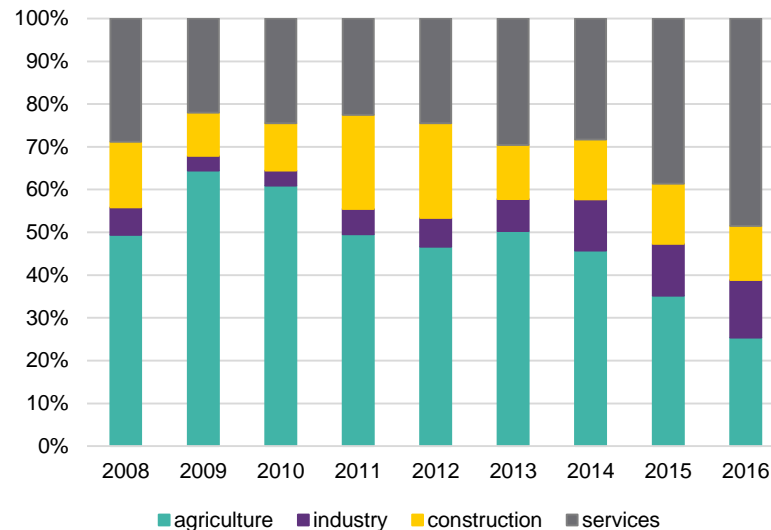
## Immigration from Ukraine - available estimates (cont.)

Border crossings between Poland and Ukraine vs. number of work permits and employer's declarations of intent to employ a foreigner



- In 2016 Poland issued over 127 thous. work permits for foreigners and registered 1314 thous. employer's declarations that form the basis for applying for a visa.
- At the same time, the number of border crossings between Poland and Ukraine has increased significantly in recent years, particularly one-day tourism (shopping, local border traffic)

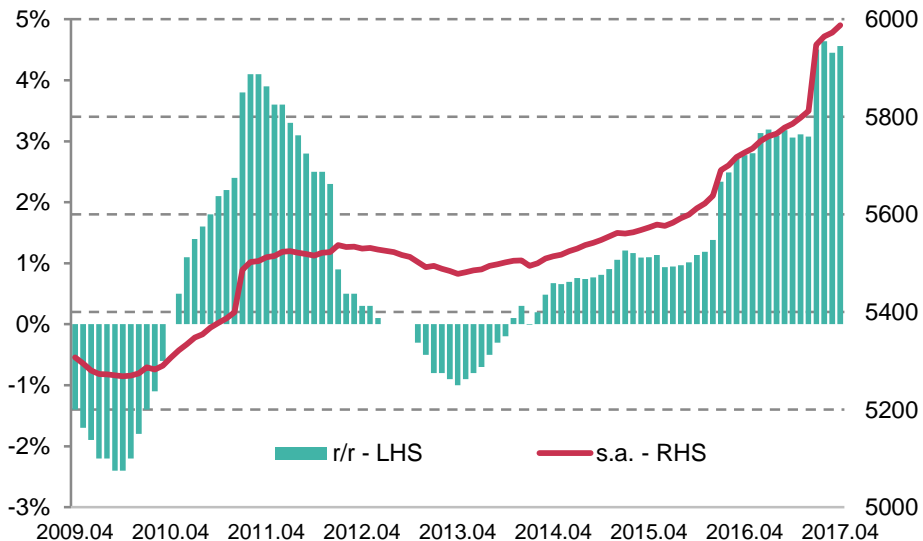
Structure of employer's declarations by sector



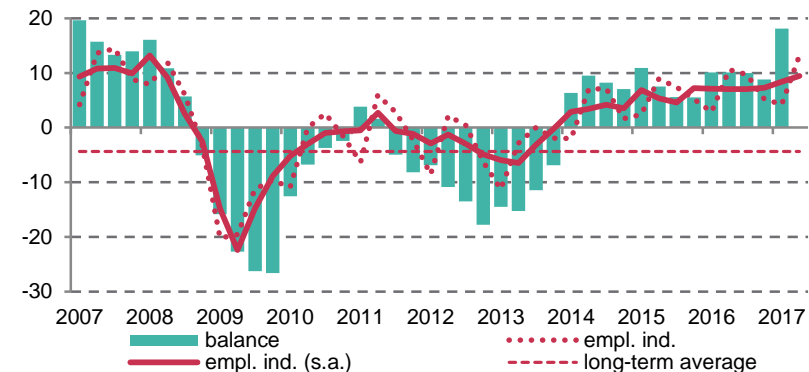
- Agriculture still absorbs a significant part of short-term immigration, but over the past 3 years **the importance of services has increased**.
- Services already accounts for about 50% of all claims.

## Despite favourable labour demand conditions ...

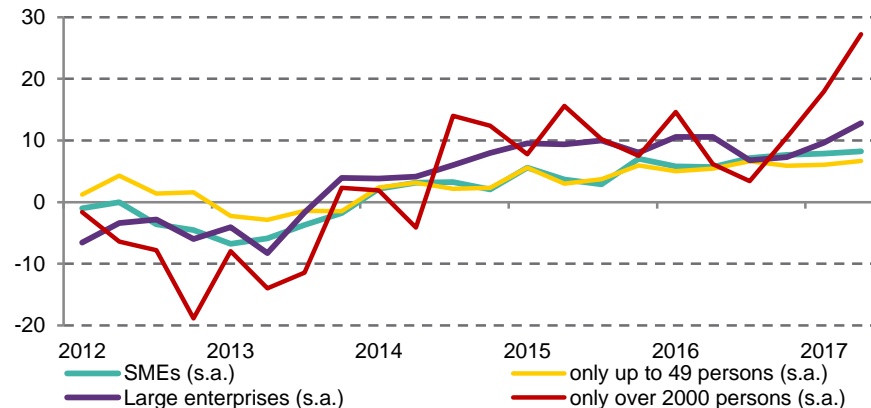
Employment in the corporate sector



Employment forecasts

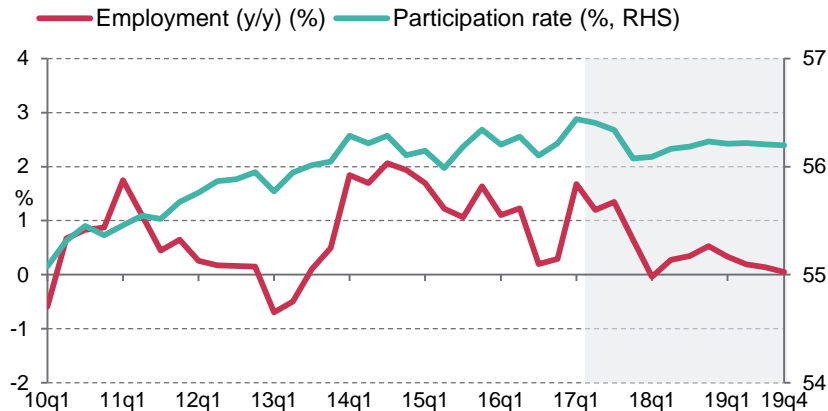


Employment forecasts by company size

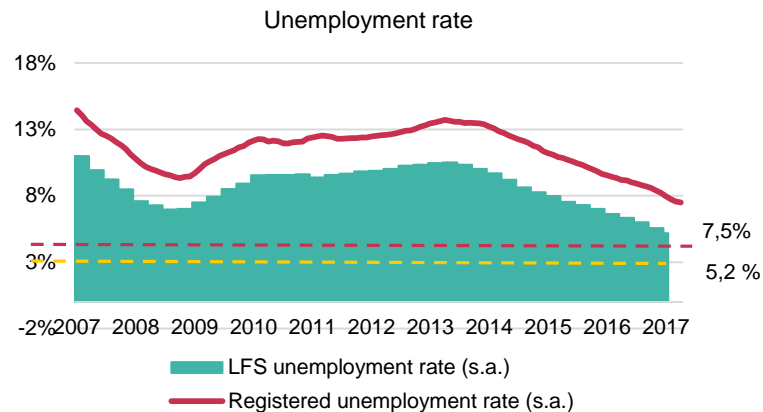
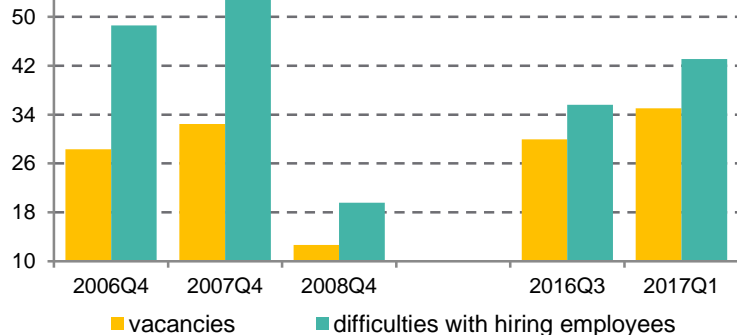


Source: GUS data, NBP calculations, Quick Monitoring NBP, F-01/I-01 GUS

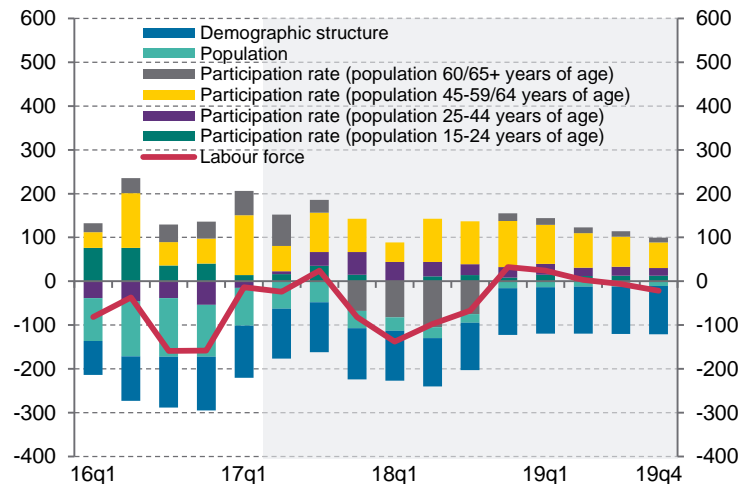
## ... in the projection horizon, limited supply of labour will lead to a slowdown in employment growth



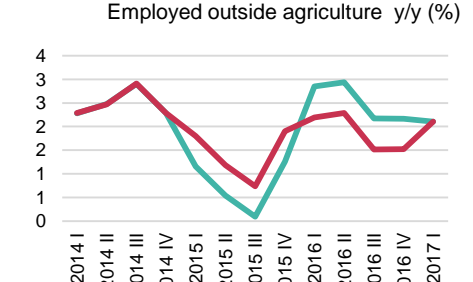
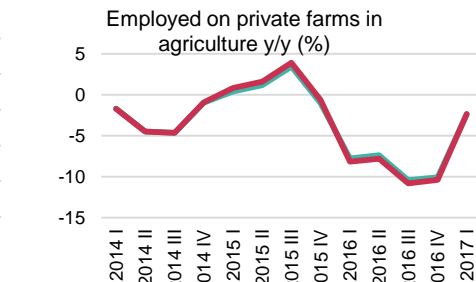
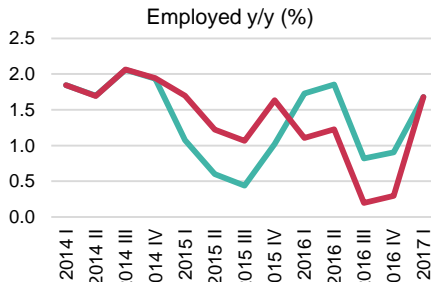
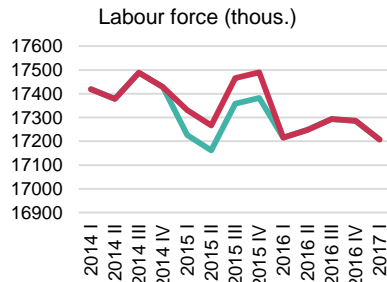
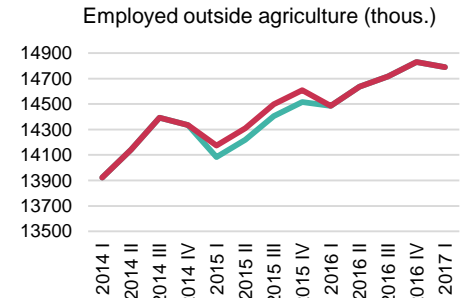
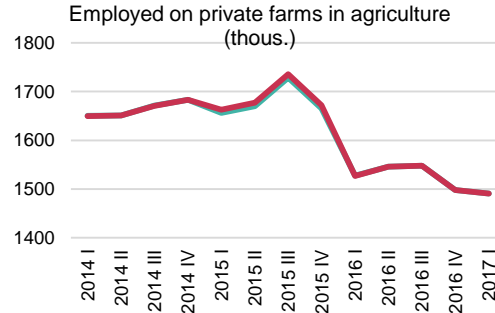
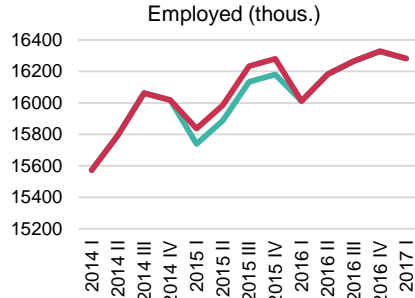
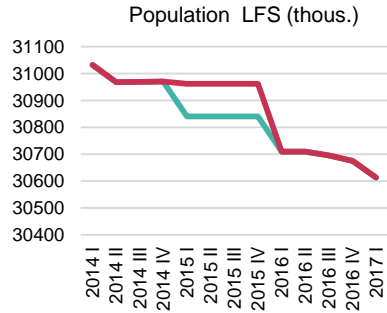
Vacancies and difficulties with hiring employees (percentage of enterprises)



Change of labour force, thous. y/y



## Statistical effects of changes in population LFS



— simulation — published data

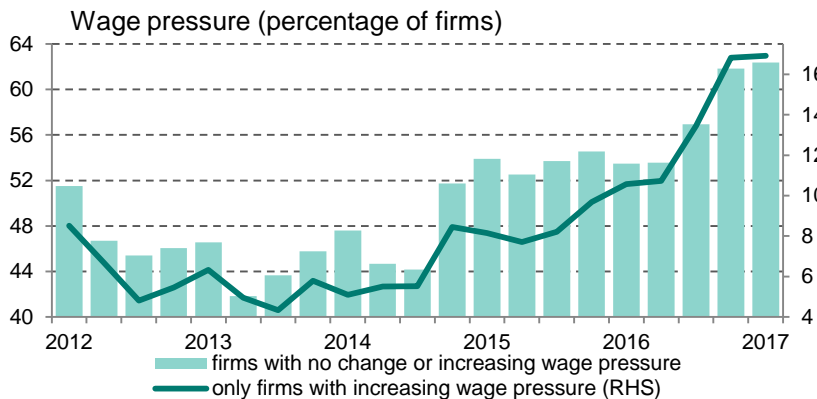
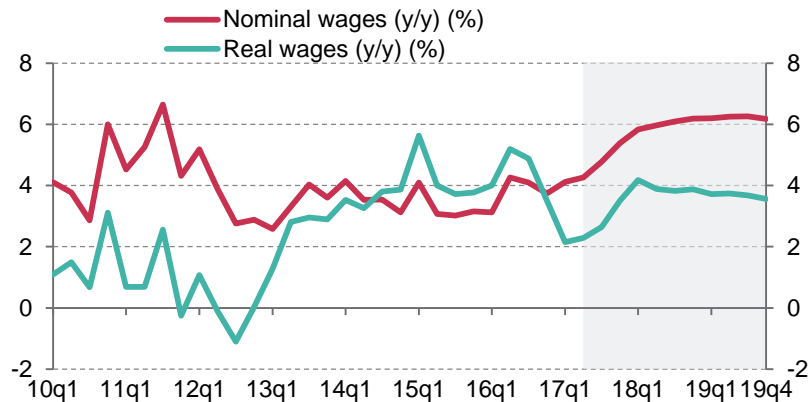
- Irregularity of population revisions in LFS impedes assessment of labour market indicators
- The graphs show the simulation (green lines) of labour market measures if revisions were made on a regular basis

- If revisions were regular, changes in 2017Q1 would not be as abrupt compared to 2016

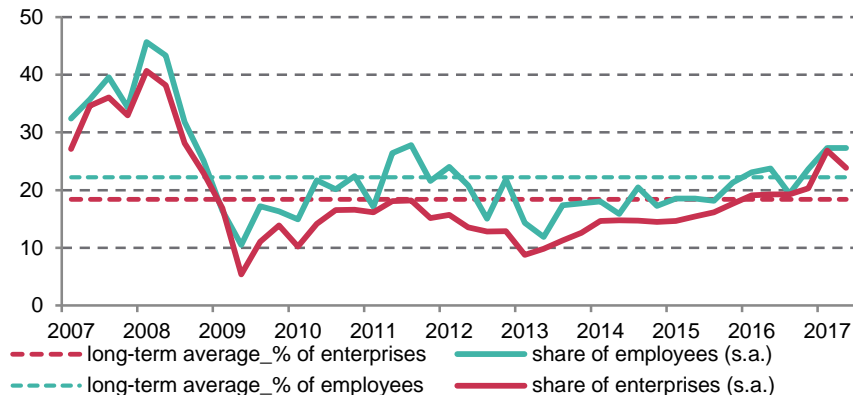
- Population revisions only slightly changed the number of people working in agriculture

- If revisions were regular, the dynamics of non-agricultural workers in 2017Q1 would be slightly lower than in 2016Q4

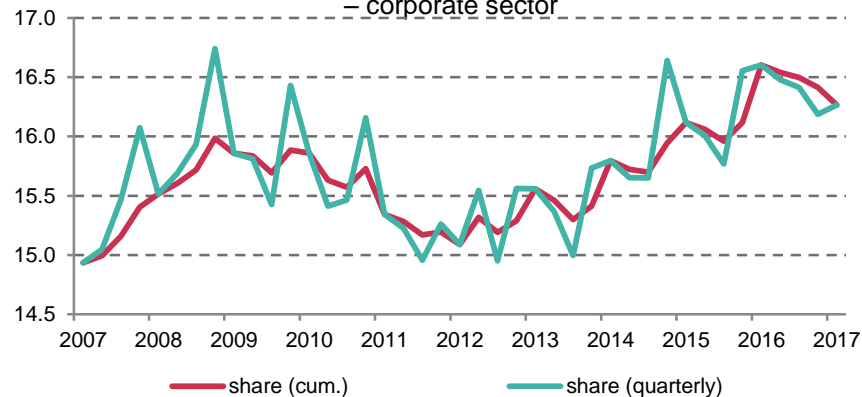
# Higher wage dynamics



Forecasts of wage growth



Labour income share in gross value added – corporate sector



Source: GUS data, NBP calculations, Quick Monitoring NBP, F-01/I-01 GUS

Outline:

Changes between rounds

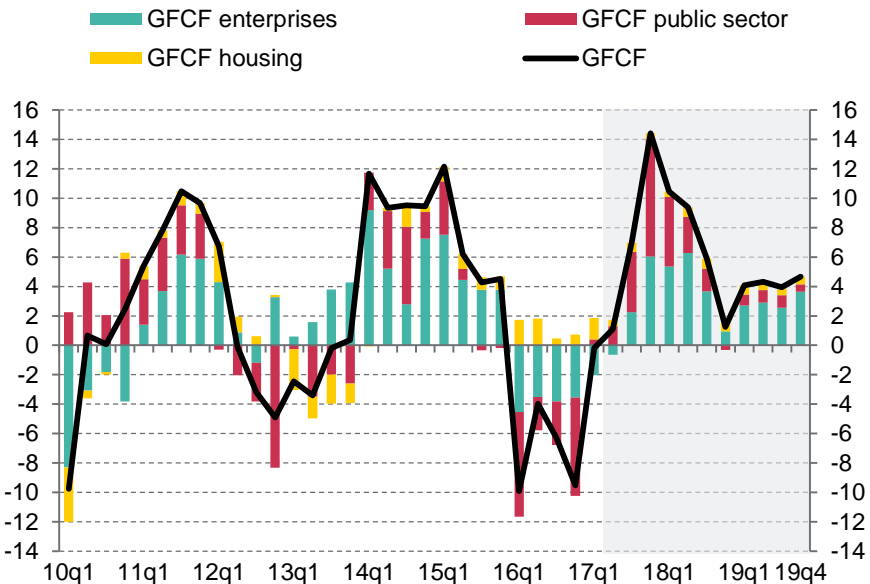
Projection 2017 – 2019

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

Uncertainty

## Investment demand

## Increase in investment since 2017



### Private investment:

- ↑ Increasing use of funds from 2014-2020 EU financial perspective
- ↑ Improvement in investment financed with own funds
- ↑ Good financial condition of enterprises
- ↑ Improving investor sentiments
- ↑ Low interest rates
- ↑ Capacity utilisation in the economy highest since 2008

### Public investment:

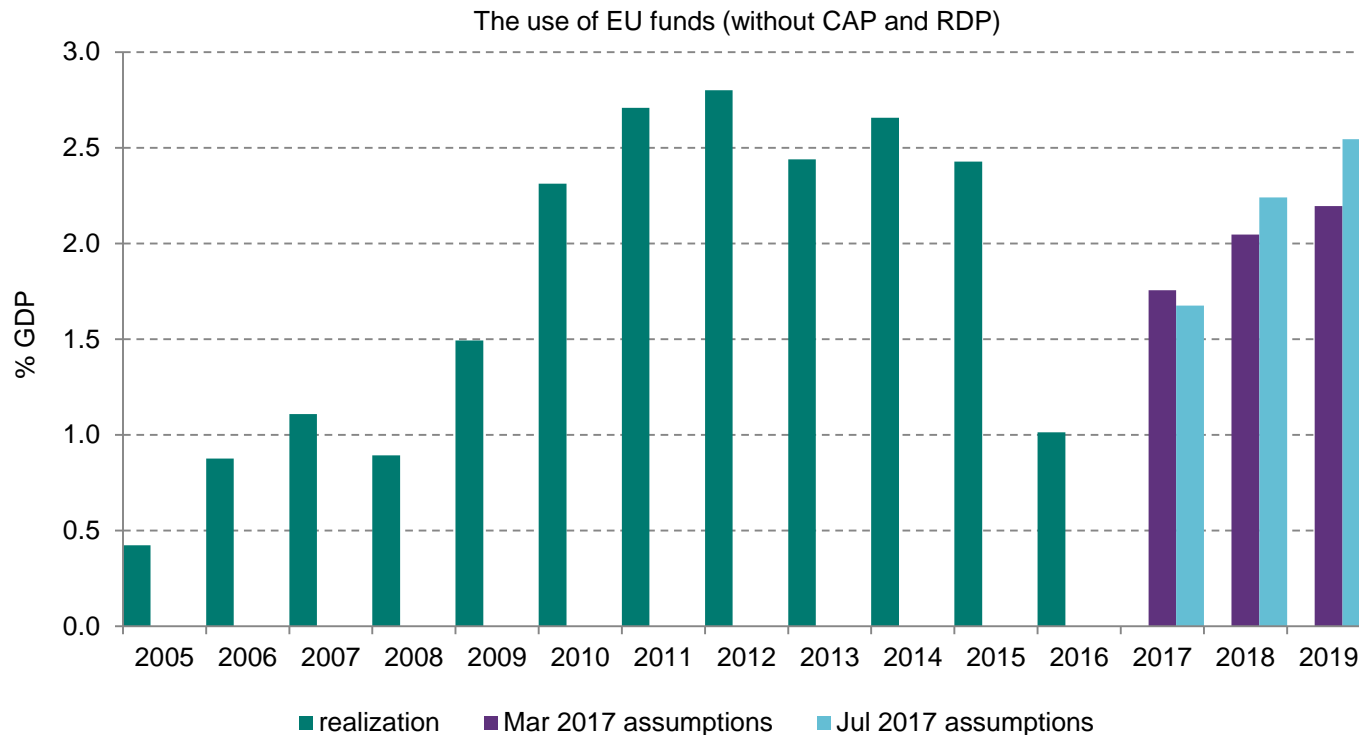
- ↑ Increasing use of funds from 2014-2020 EU financial perspective

### Housing investment:

- ↑ Good labour market conditions
- ↑ Low interest rates
- ↓ Expiration of the “Housing for the Young” government scheme after 2018

y/y, %	2016	2017	2018	2019
Gross fixed capital formation	-7.9	5.7	6.6	4.3

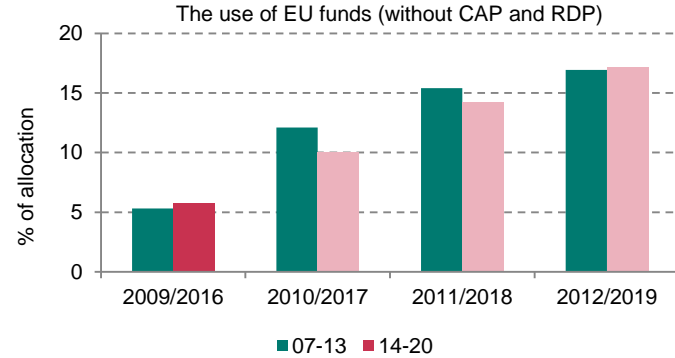
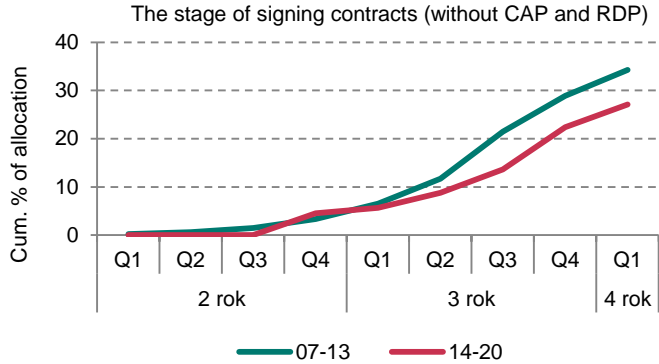
## Temporary decline in the use of EU funds in 2016 – a significant increase in the absorption of EU funds is expected in the coming years



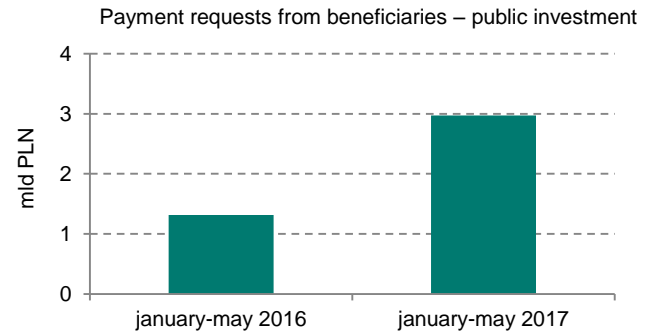
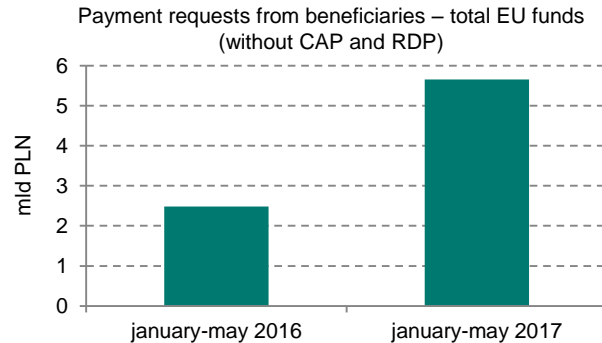


## Current data support the expected improvement in the absorption rate in the forecast horizon

Despite slower EU funds absorption from 2014-2020 perspective compared to the previous one, the use of EU funds is expected to accelerate in the coming years

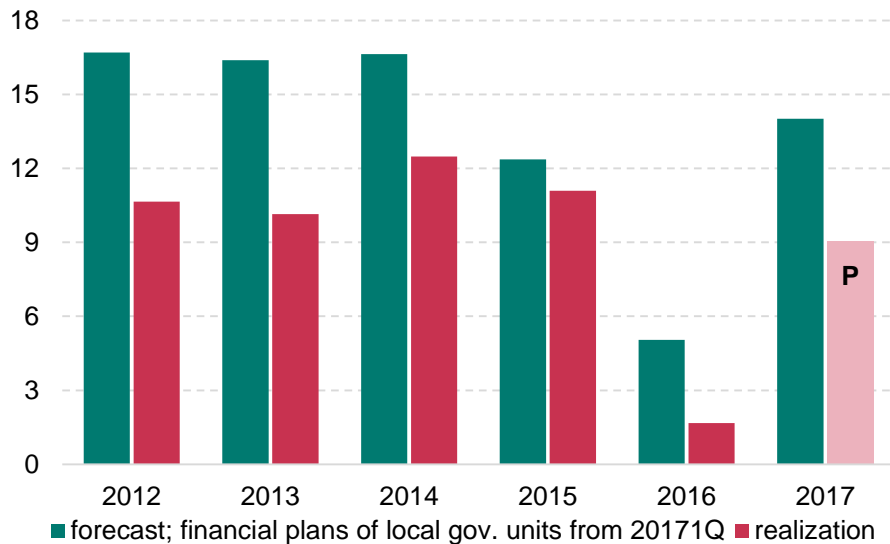


Data since may 2017 point to an acceleration in the absorption rate of EU funds, especially in public sector investment expenditure

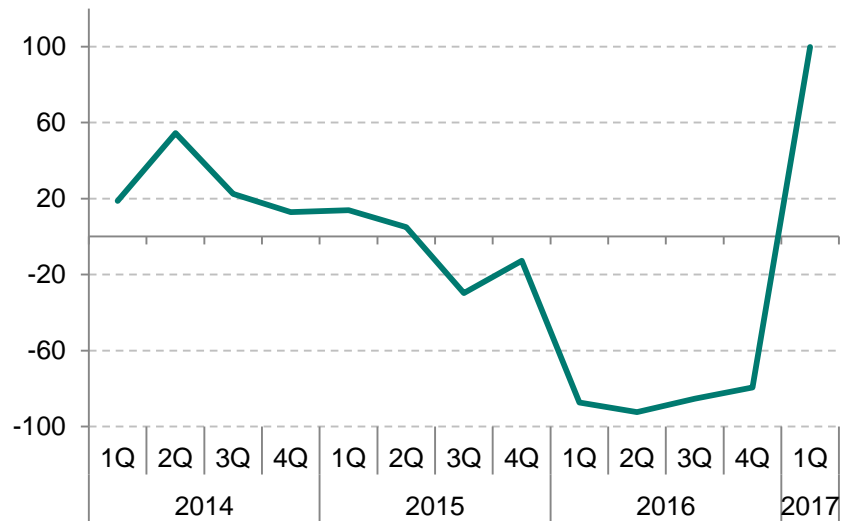


## In particular, higher investment growth co-financed with the EU funds in local government units

Forecast of capital expenditure of local government units financed with the use of EU funds (mld pln)

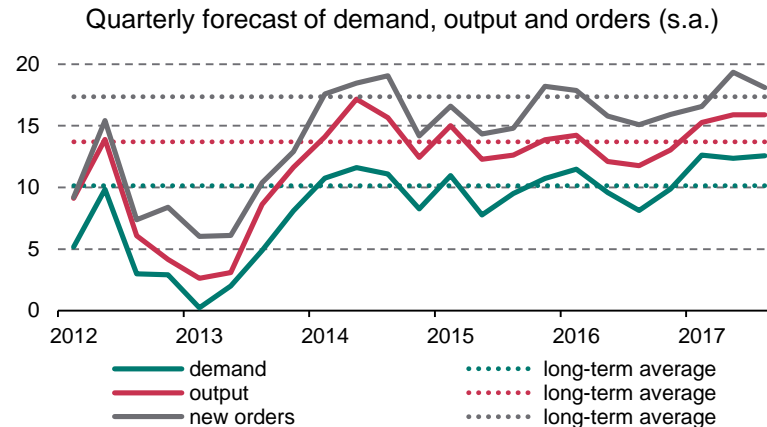
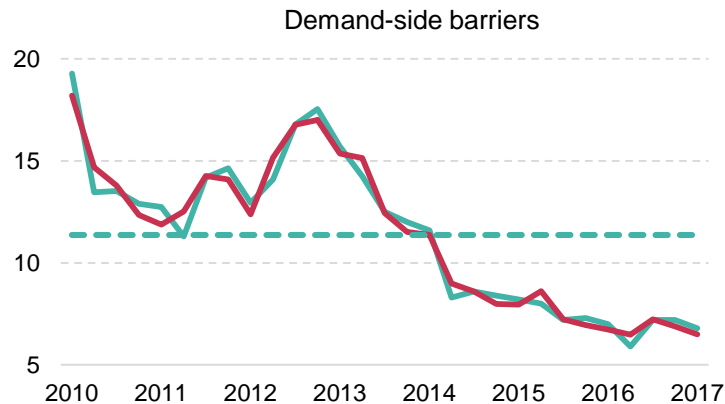


Capital expenditure of local government units financed with the use of EU funds (change y/y, %)

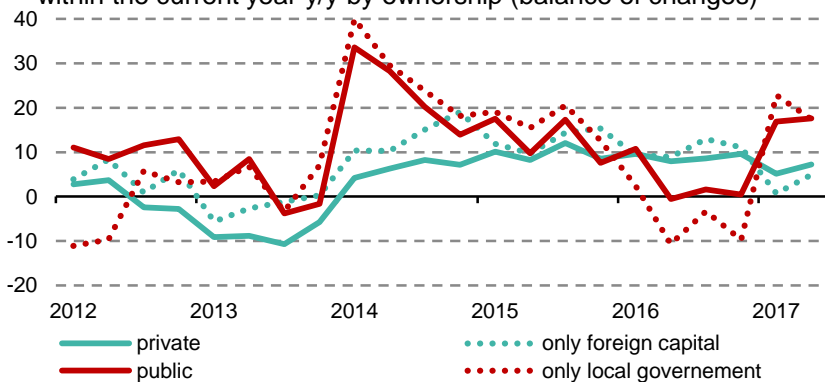


P - estimation based on the assumption that the 2017 plan will be implemented equally to an average plan's realization from the last 5 years

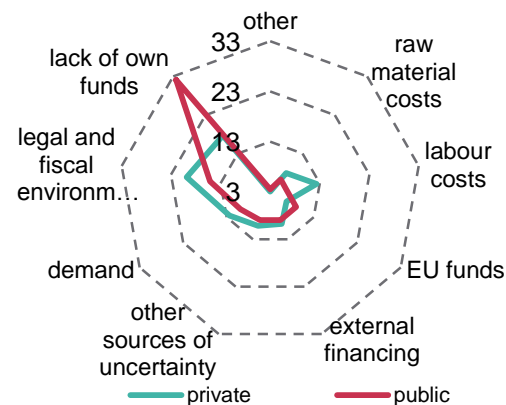
## Survey among enterprises point to low demand barriers



Planned changes in investment outlays within the current year y/y by ownership (balance of changes)



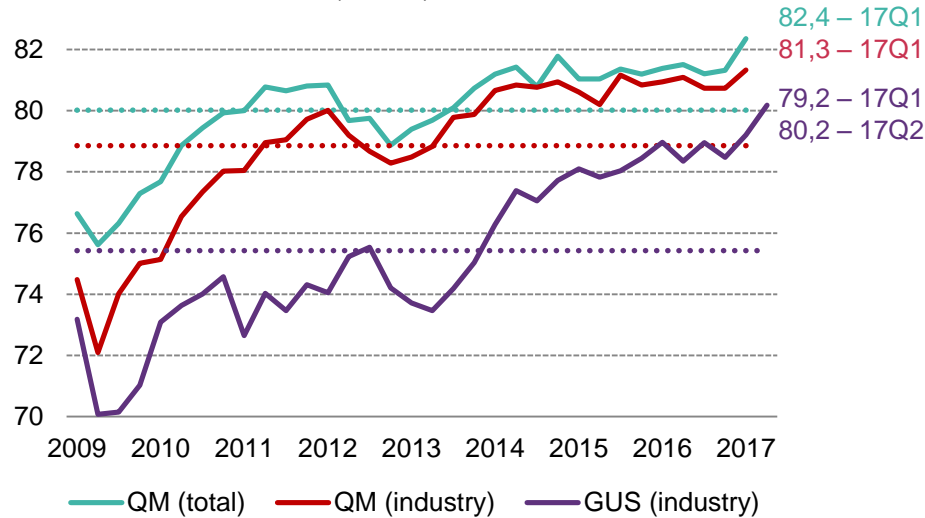
Barriers to investment



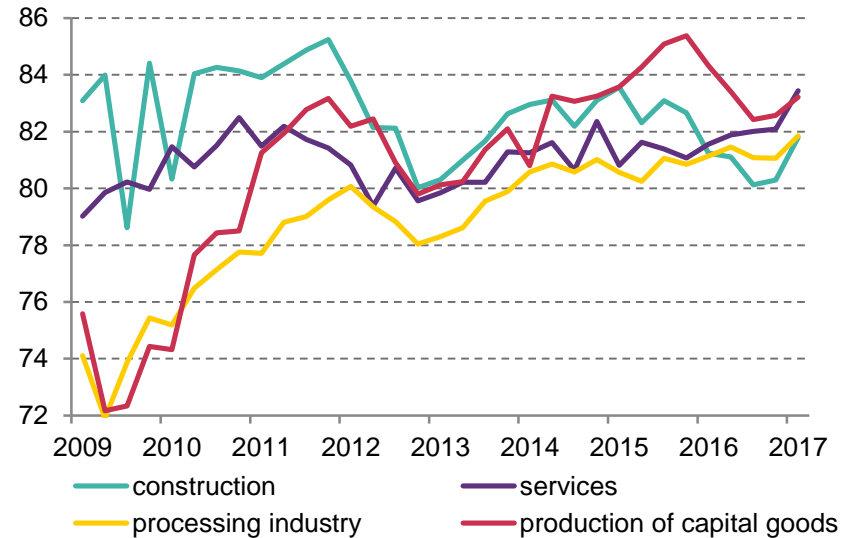
Source: Quick Monitoring NBP

## High capacity utilisation in the economy

Capacity utilisation according to Quick Monitoring NBP and GUS data (% , s.a.)



Capacity utilisation according to Quick Monitoring NBP data (% , s.a.)



Outline:

Changes between rounds

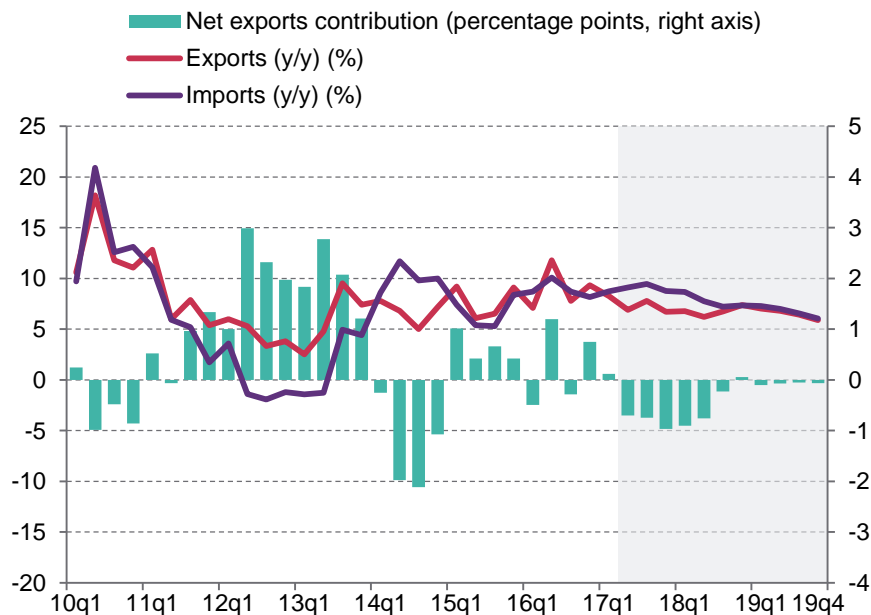
Projection 2017 – 2019

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

Uncertainty

## Foreign trade

## Net exports contribution to growth will limit GDP dynamics



### Exports:

- ↑ Moderate recovery in the euro area
- ↑ High profitability of exporters (high price profitability)
- ↓ Anticipated appreciation of the zloty exchange rate

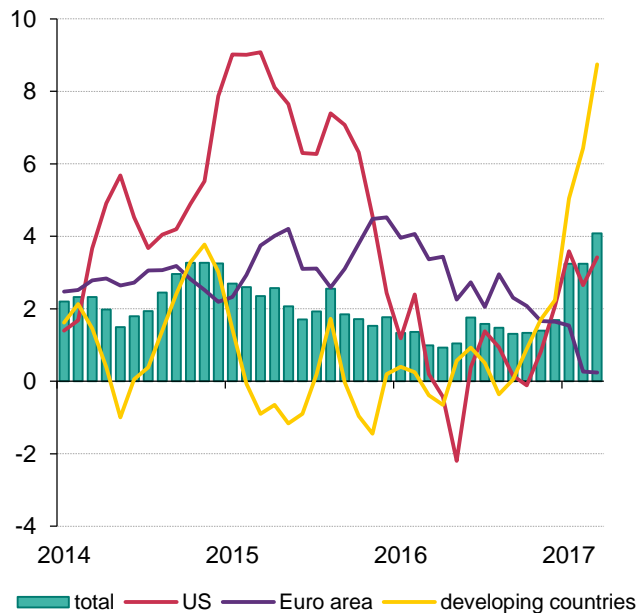
### Imports:

- ↑ In 2017 acceleration of consumption and investment dynamics
- ↓ From 2018 slower domestic demand growth

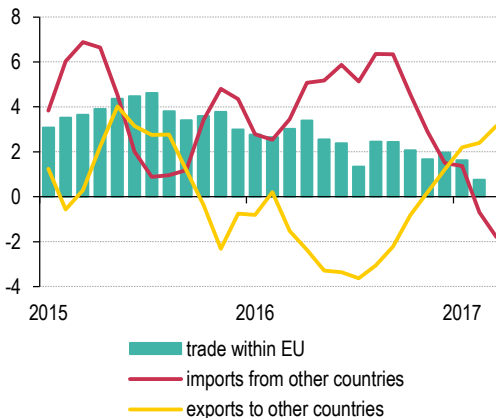
y/y p.p.	2016	2017	2018	2019
Net exports contribution	0.3	-0.6	-0.5	-0.1

# Changes in the world trade and margins of tolerance for exchange rate fluctuations

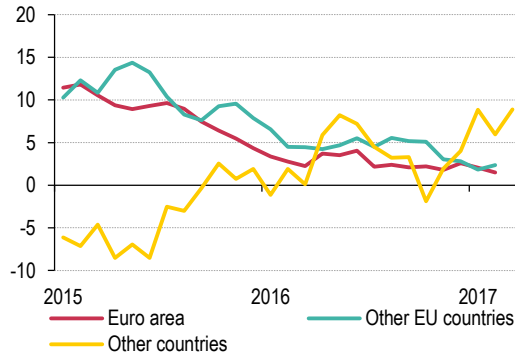
Changes in world trade and imports (% y/y, constant prices, s.a.)



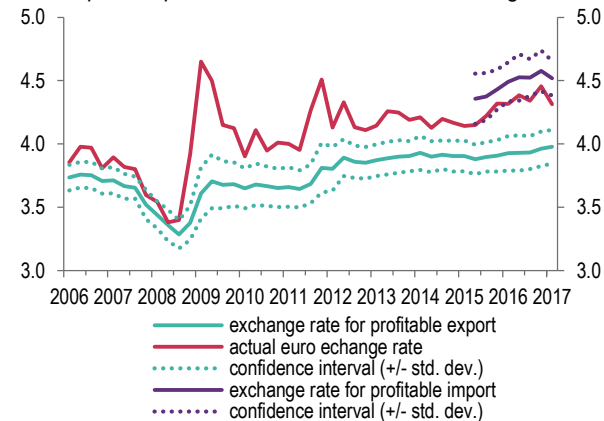
Changes in EU trade by main directions (% y/y, constant prices, s.a.)



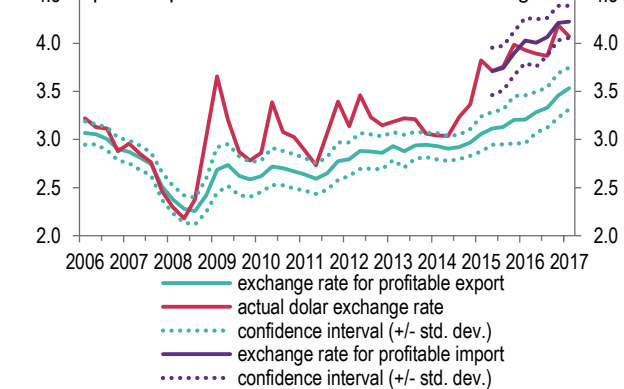
Changes in Polish exports by main groups of countries (% y/y, constant prices, s.a.)



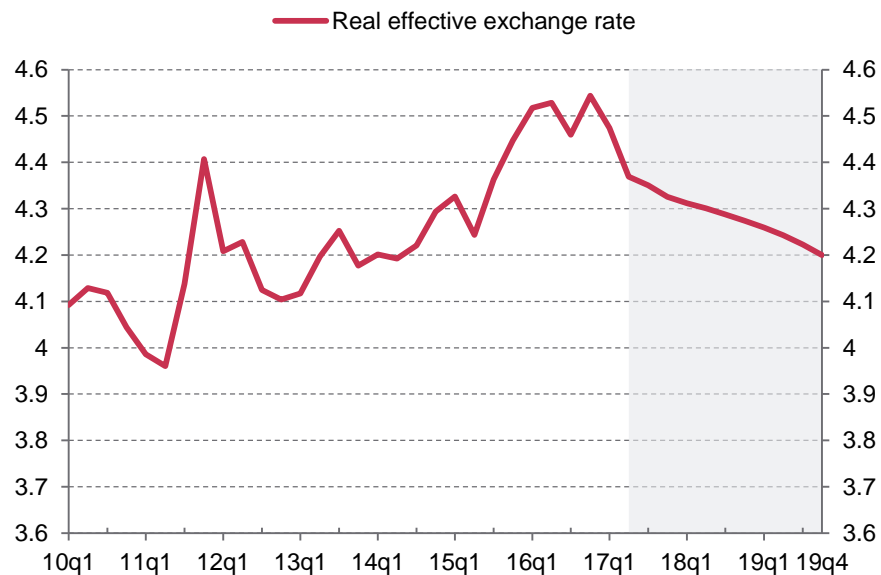
The value of euro exchange rate which makes exports and imports unprofitable and the actual euro exchange rate



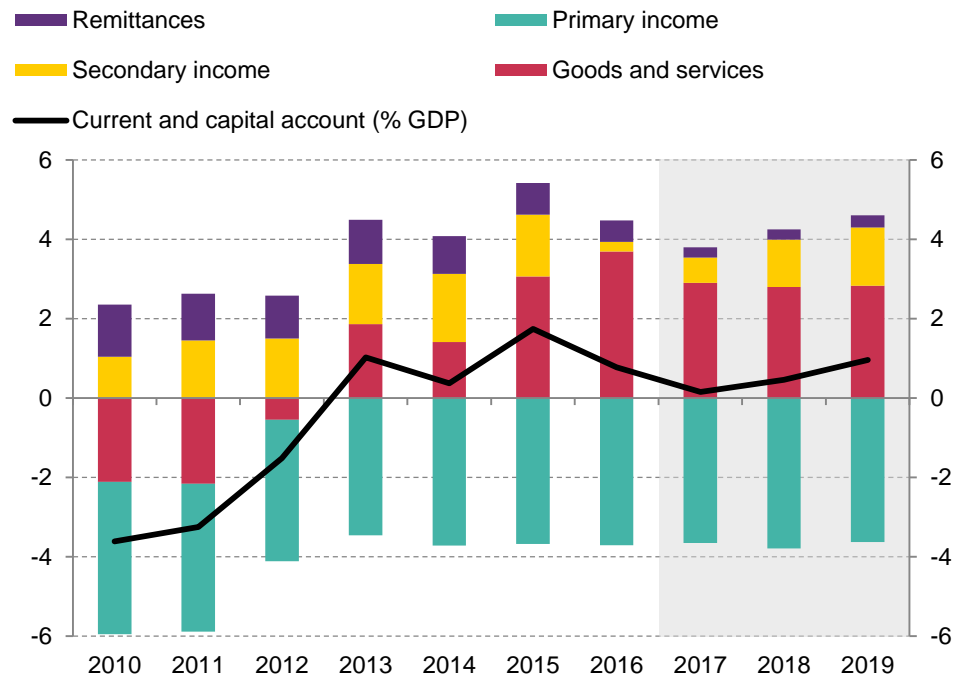
The value of dollar exchange rate which makes exports and imports unprofitable and the actual dollar exchange rate



### The anticipated gradual appreciation of the zloty bringing the effective exchange rate close to the equilibrium exchange rate



### Positive current and capital account balance in forecast horizon (temporary decrease in 2017)





Outline:

Changes between rounds

Projection 2017 – 2019

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

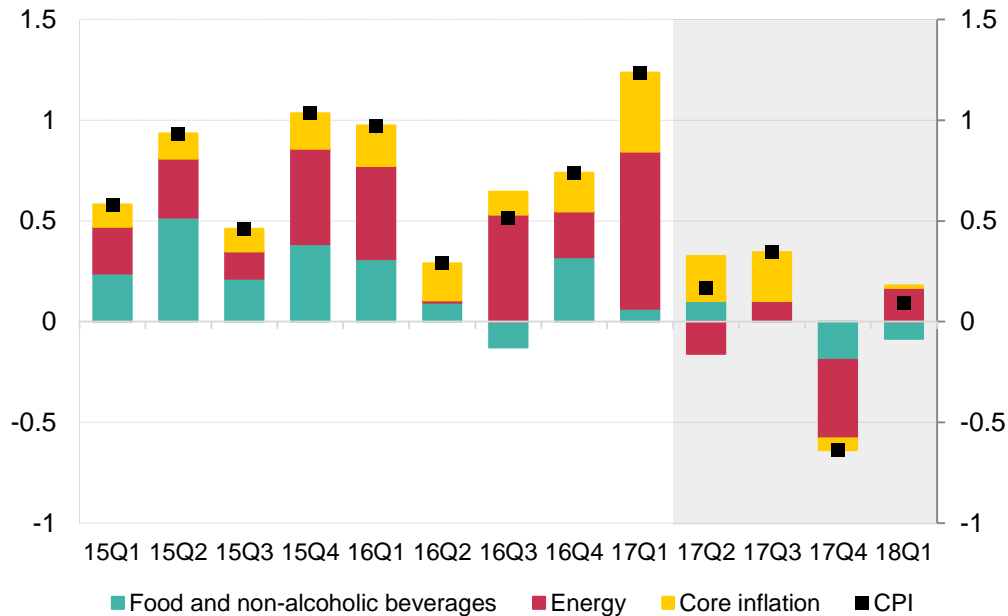
Uncertainty

## Inflation

## Inflation growth rate at the turn of 2016/2017 under the base effect

Base effect – the influence on CPI

y/y, %	17q1	
CPI inflation	2.0	(1.9)
Core inflation	0.3	(0.4)
Food prices inflation	3.4	(3.2)
Energy prices inflation	5.8	(5.2)

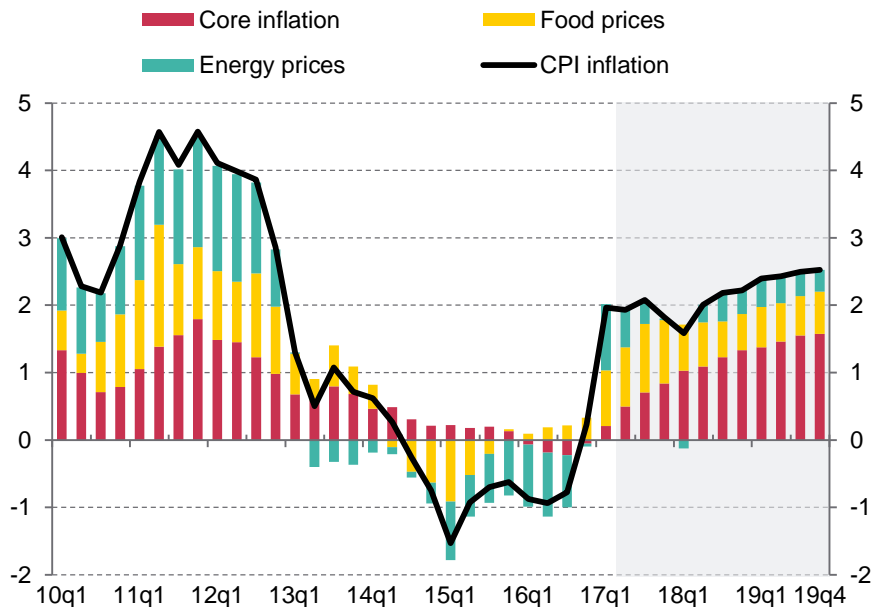


Values from the March projection are given in brackets (seasonally adjusted).

Indicators with values higher than in the March projection are marked green, whereas indicators with lower values are marked red.

Source: GUS data, NBP calculations

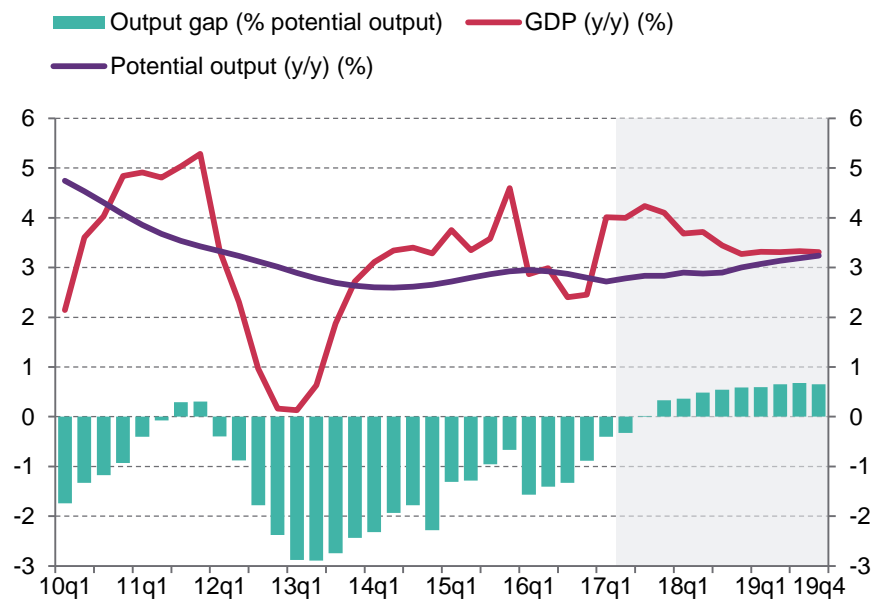
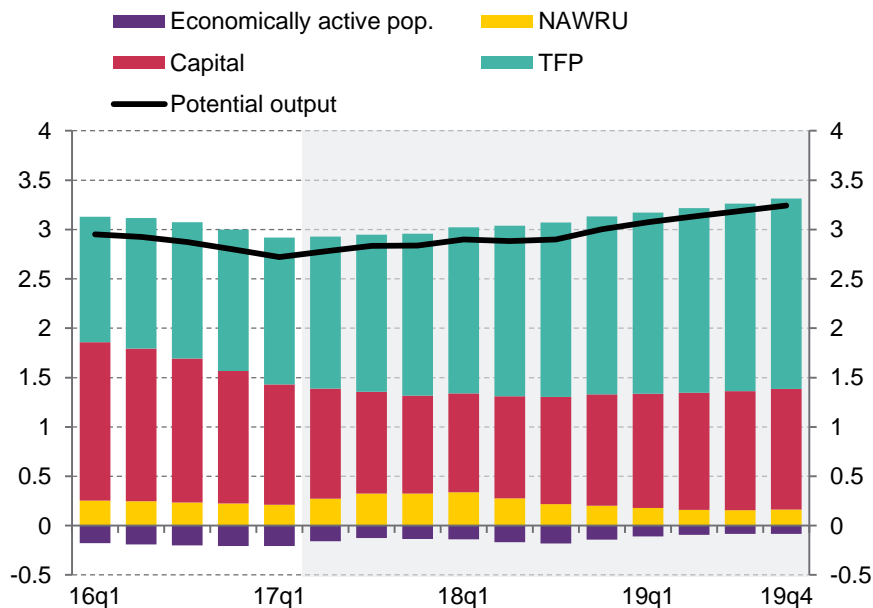
## Consumer prices dynamics gradually reaching inflation target



- ↑ In 2017 - growth in food and energy prices supported by temporary factors
- ↑ Increase in cost pressure:
  - ↑ Dynamics of unit labour costs will accelerate
  - ↓ Low inflation in the euro area
  - ↓ In the projection horizon, stabilization of global energy commodity prices combined with the forecasted depreciation of the US dollar, the currency in which commodities are quoted.
- ↑ Increase in demand pressure – positive output gap (limited impact on inflation as the sensitivity of price growth to changes in the domestic economic conditions has decreased in the recent years)

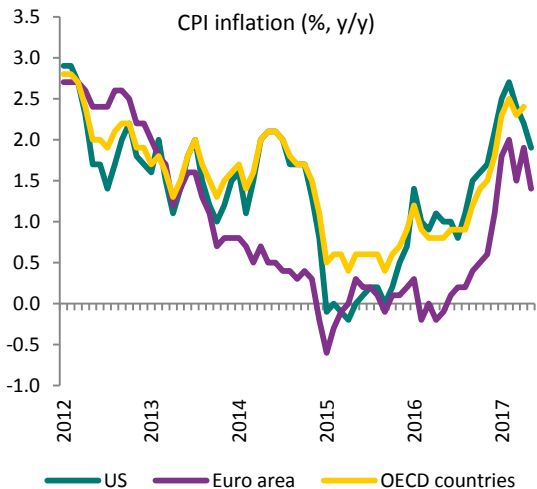
y/y, %	2016	2017	2018	2019
CPI inflation	-0.6	1.9	2.0	2.5

## In 2018-2019 – output gap close to 0,5% of potential output

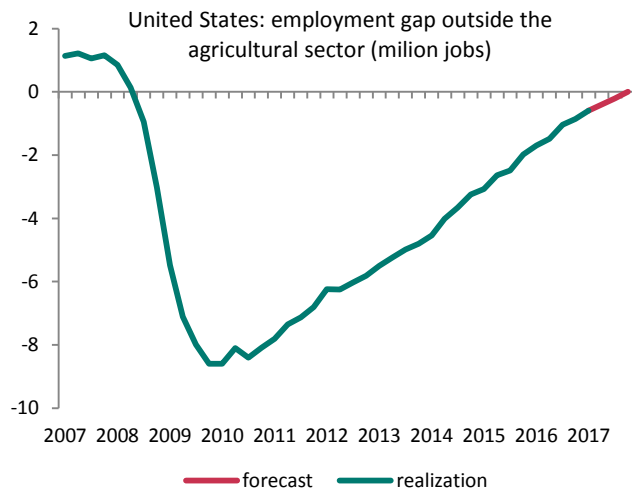


## Inflation in the environment of the Polish economy

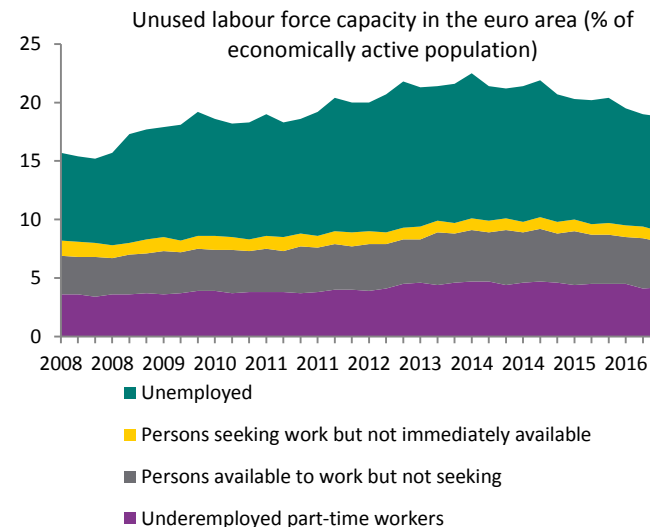
- Fluctuations in current inflation indicators in recent months reflect the base effect in energy prices and seasonal changes.
- Prospects of accelerating inflation in the US is supported by: planned fiscal stimulus, the labour market close to full employment and low productivity growth.
- In the euro area, the end of negative impact of recent oil price hikes and strengthening economic growth will support the recovery of unit margins, however, the return of inflation to the ECB's target will be slow due to still relatively high unemployment rate and a negative output gap that limit wage and margins growth.



Source: OECD

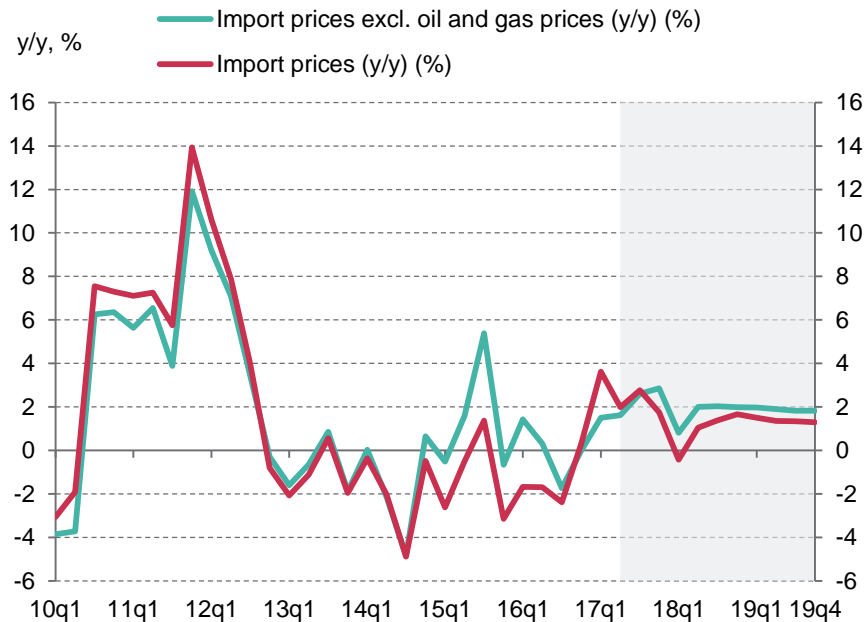


Source: BLS, CBO, NBP calculations

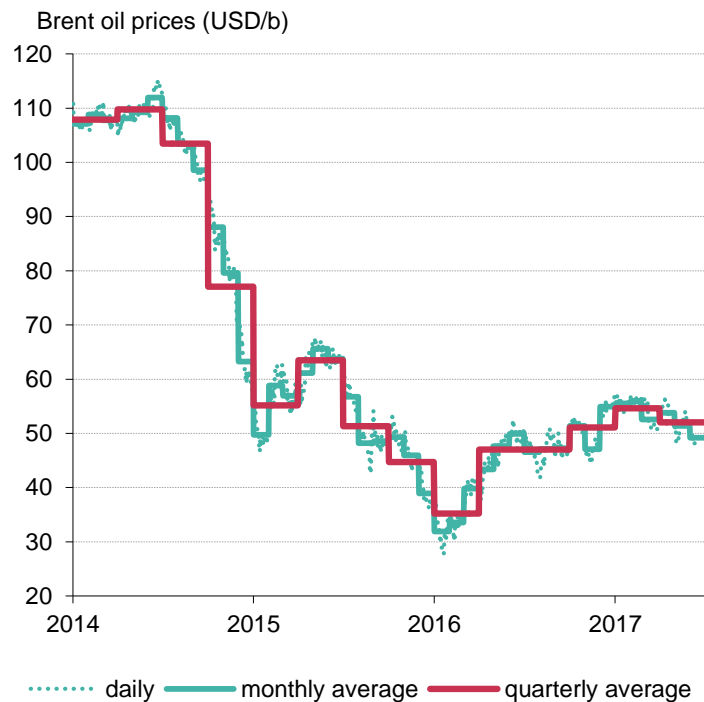


Source: Eurostat

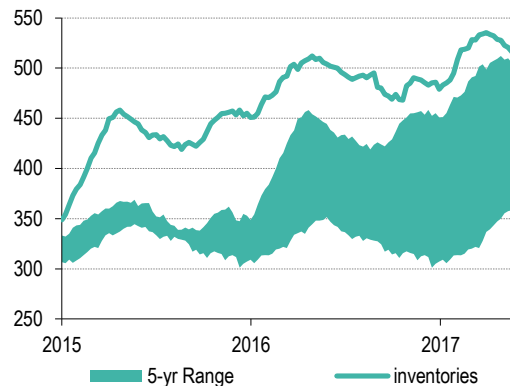
## The impact of rising cost pressure in domestic market limited by the moderate dynamics of import prices



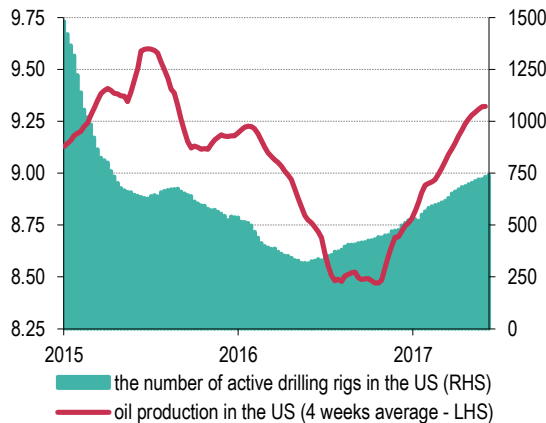
## Expected stabilization of oil prices



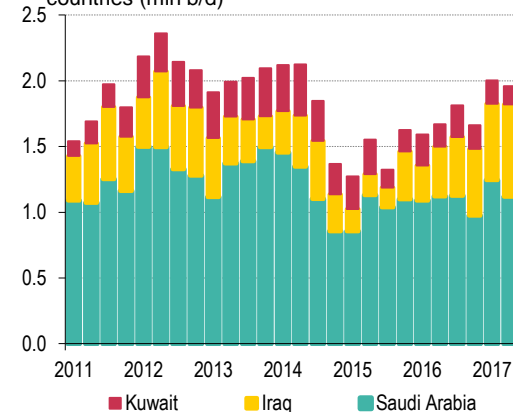
Market oil inventories in the US (mln b)



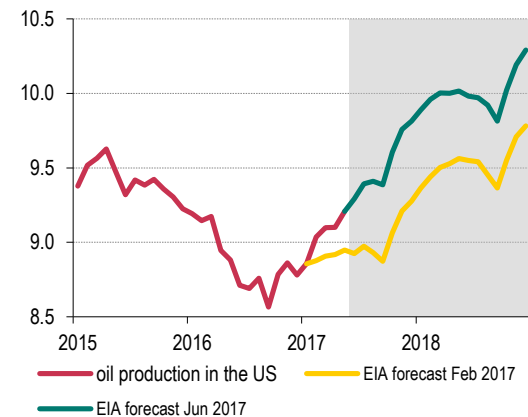
Oil production in the US (mln b/d) and the number of active drilling rigs in the US



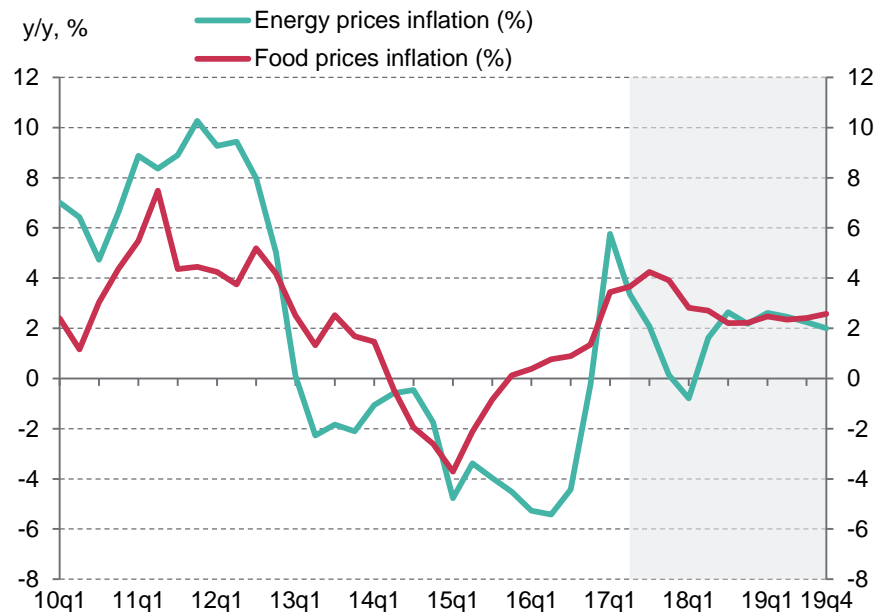
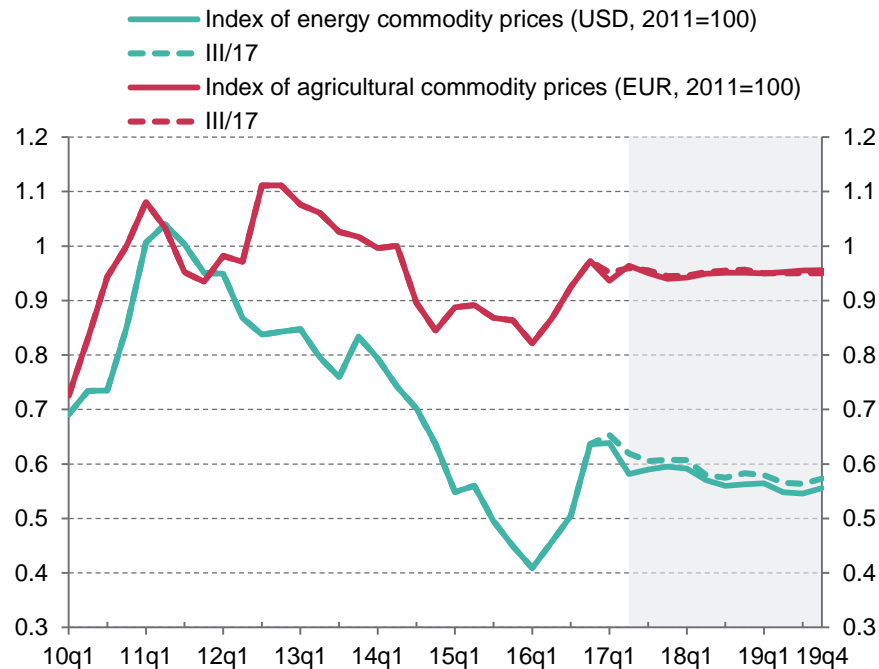
US crude oil imports from selected Middle Eastern countries (mln b/d)



Forecast of oil production in the United States (mln b/d)



## Energy commodity prices after a hike in the short term will stabilize at a lower level





Outline:

Changes between rounds

Projection 2017 – 2019

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

Uncertainty

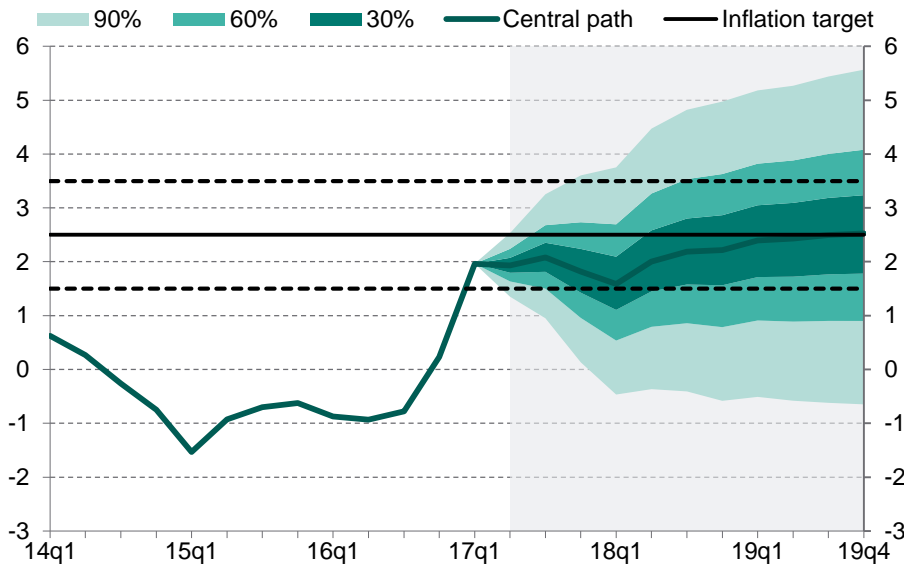
## Uncertainty

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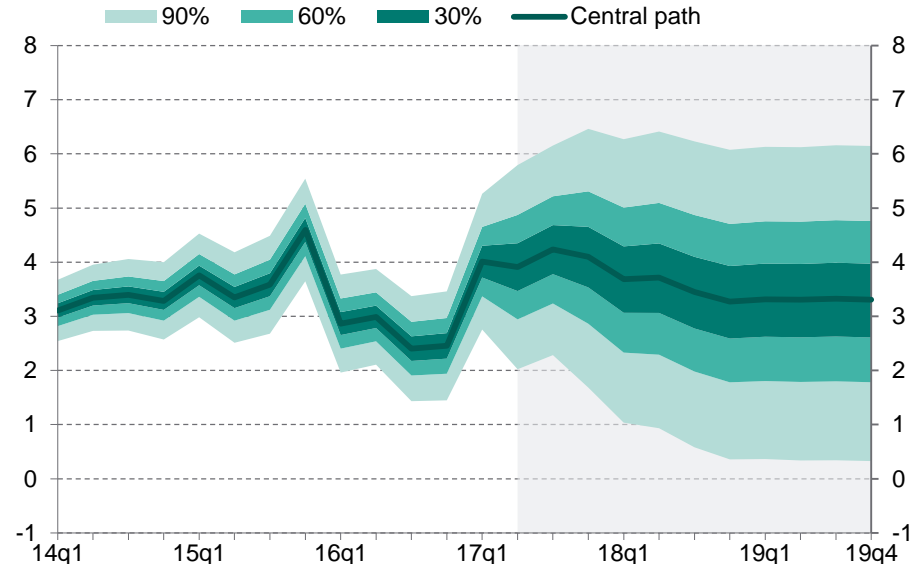
- Risk factors
- Fan charts

Risk area	Description	Impact	Scale of impact
Deterioration of global growth outlook	<ul style="list-style-type: none"> <li>Decline in the US economy (increase in uncertainty, stock market correction against its current high level, decline in consumption, more pronounced slowdown in China, diminishing mining sector activity).</li> <li>Economic slowdown in China (stability of the financial system, deeper-than-expected fall in housing investment as a result of restrictions imposed by local authorities).</li> <li>Persistent low-productivity growth in many economies.</li> </ul>	Inflation ↓ GDP ↓	**
Improvement in global economic conditions	<ul style="list-style-type: none"> <li>Higher economic growth in US (positive effect of fiscal stimulus, higher consumption dynamics due to households deleveraging process coming almost to the end).</li> <li>Higher economic growth in the euro area (higher dynamics of investment in machinery and equipment, deeper weakening of the euro against the dollar, continuation of the quantitative easing policy).</li> </ul>	Inflation ↑ GDP ↑	**
Changes in labour supply	<ul style="list-style-type: none"> <li>The impact of lowering of retirement age on the labour participation rate – uncertain number of people retiring, depending on the labour market situation.</li> <li>Return migration of Poles.</li> <li>Scale of migration of Ukrainian citizens to Poland (impact of the introduction of a visa-free regime or an exacerbation of conflict in Ukraine).</li> </ul>	Inflation ↔ GDP ↔	*
Crude oil prices in the global markets	<ul style="list-style-type: none"> <li>Fluctuations in the oil supply in the global markets:               <ul style="list-style-type: none"> <li>- unknown shape of future OPEC's supply policy,</li> <li>- the scale of the future growth of oil production in the US related to the oil prices.</li> </ul> </li> <li>Global growth outlook, especially in the emerging Asian countries.</li> </ul>	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%
2017	18%	88%	100%	49%	82%
2018	35%	64%	86%	49%	51%
2019	29%	52%	75%	51%	45%

CPI y/y, %	central path	50% probability interval	
2017	1.9	1.6	2.3
2018	2.0	1.1	2.9
2019	2.5	1.3	3.6

GDP y/y, %	central path	50% probability interval	
2017	4.0	3.4	4.7
2018	3.5	2.5	4.5
2019	3.3	2.3	4.3

*We protect the value of money*