

NBP

Narodowy Bank Polski

Economic Analysis Department

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

Warsaw / 13 November 2018



Outline

Outline:

Changes between rounds

Projection 2018 – 2020

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

Uncertainty

1 Changes between projection rounds

2 Projection 2018 - 2020

3 Uncertainty

Outline:

Changes between rounds

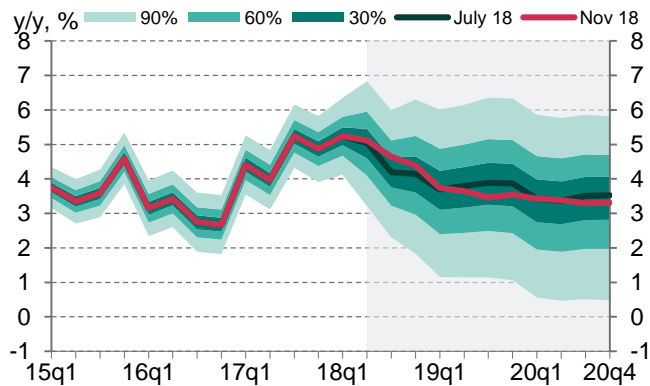
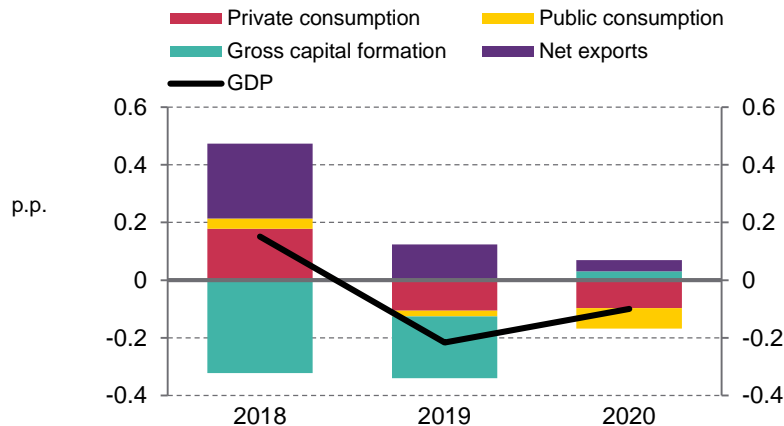
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Changes between projection rounds

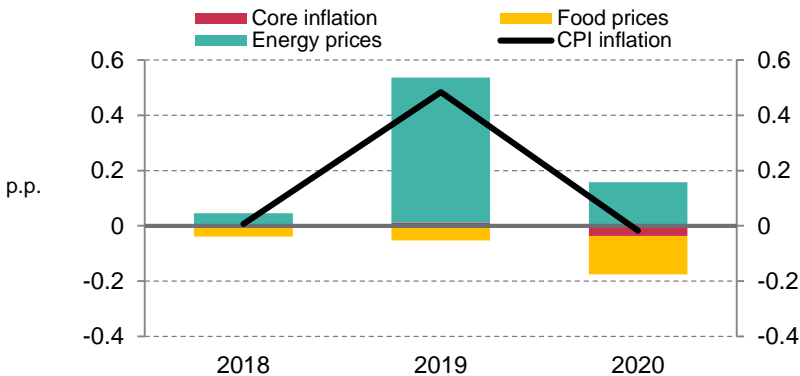
November GDP projection compared to July projection



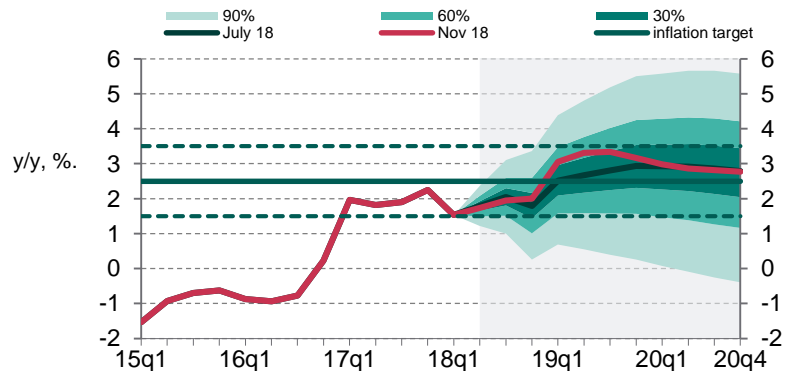
- ↑ Upward correction of GDP forecast due to higher than expected reading for 2018Q2 (in particular higher exports and household consumption with lower investments)
- ↑ Still optimistic consumer sentiment reported in GUS survey in 2018Q3
- ↓ In 2019-2020 expiration of factors increasing the forecast for this year.
- ↓ Higher energy prices inflation.

GDP y/y, %	2018	2019	2020
July 2018	4.6	3.8	3.5
November 2018	4.8	3.6	3.4

November CPI projection compared to July projection



- ⬆ Higher commodity prices on global markets.
- ⬆ Weaker zloty exchange rate against US dollar
- ⬆ Higher prices of CO₂ emission allowances and green certificates



CPI y/y, %	2018	2019	2020
July 2018	1.8	2.7	2.9
November 2018	1.8	3.2	2.9

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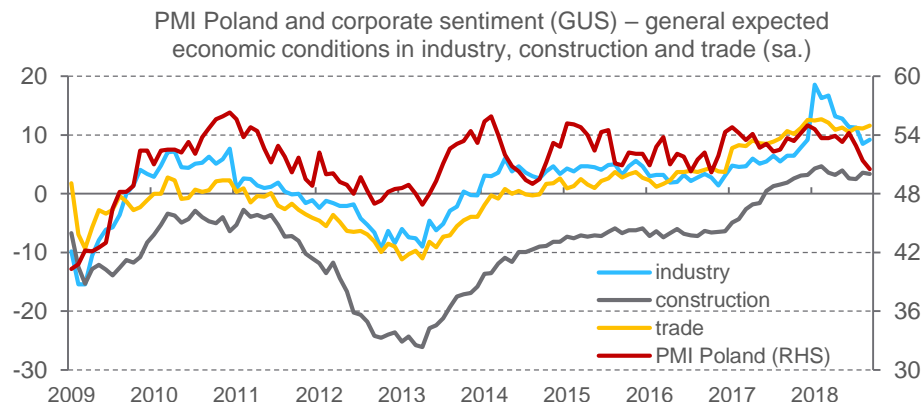
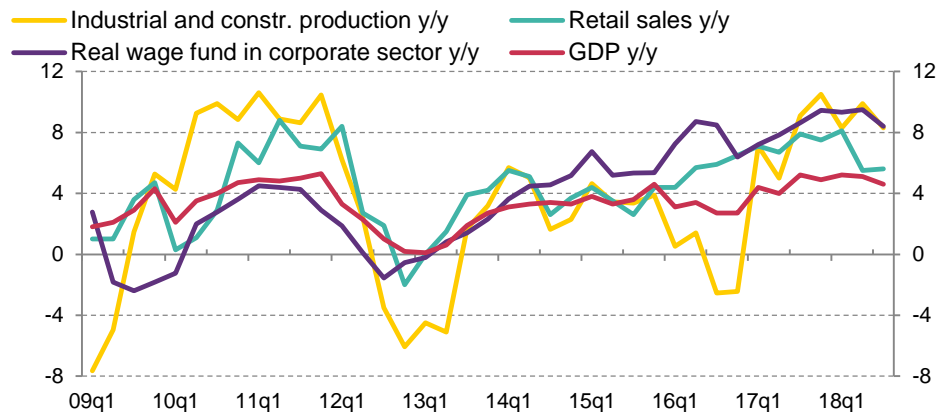
Projection 2018-2020

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

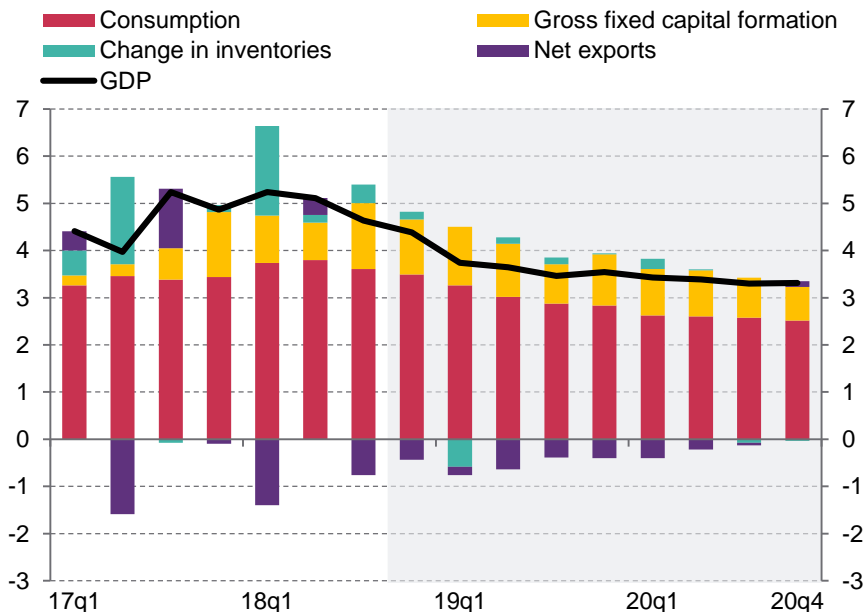
GDP dynamics in 2018H1 exceeded 5% y/y...

	18q2		18q3	
GDP (y/y) (%)	5.1	(5.0)	4.6	(4.2)
Domestic demand (y/y) (%)	4.8	(5.8)	5.6	(5.4)
Household consumption (y/y) (%)	4.9	(4.6)	4.6	(4.3)
Public consumption (y/y) (%)	4.4	(4.4)	4.7	(4.1)
Gross fixed capital form. (y/y) (%)	4.5	(9.6)	8.0	(8.4)
Exports (y/y) (%)	6.9	(4.0)	5.5	(4.1)
Imports (y/y) (%)	6.5	(5.3)	7.4	(6.4)
Net exports contribution (p.p.)	0.5	(-0.5)	-0.7	(-1.1)

Values from the July 2018 projection are given in brackets (18q2 seasonally adjusted). Indicators with values higher than in the July projection are marked green, whereas indicators with lower values are marked red.



... in the quarters to come it will gradually slow down together with weakening of economic growth in the euro area and due to higher energy prices



- ↑ Private consumption is the main factor behind GDP growth over the projection horizon due to further improvement in the labour market and positive consumer sentiment.
- ↑ In 2019-2020 gross fixed capital formation will start to play bigger role in the GDP growth, which is related to the need of rebuilding productive potential and to the inflow of EU funds under the 2014-2020 financial framework.
- ↓ Gradual slowdown in the euro area will have a negative impact on the GDP growth at home.
- ↓ Another factor limiting GDP dynamics will be an increase in energy prices.

y/y, %	2017	2018	2019	2020
GDP	4.6	4.8	3.6	3.4

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Projection 2018 – 2020

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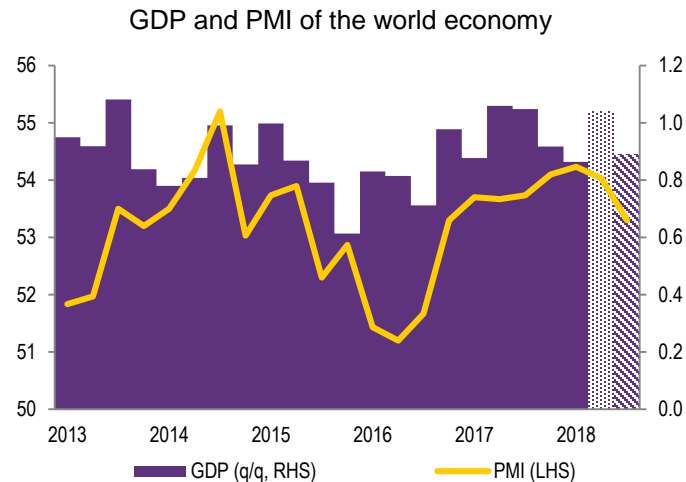
Uncertainty

Economic conditions abroad

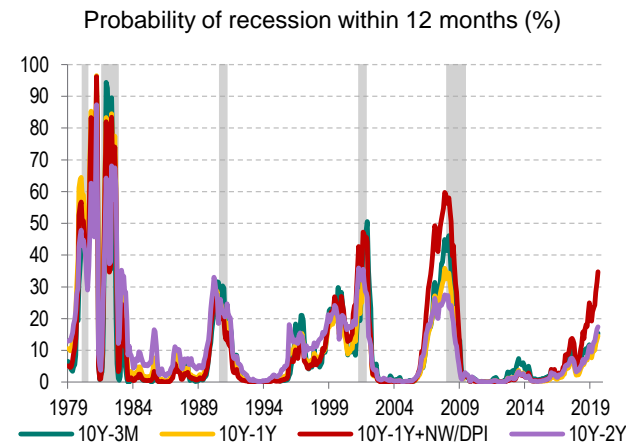
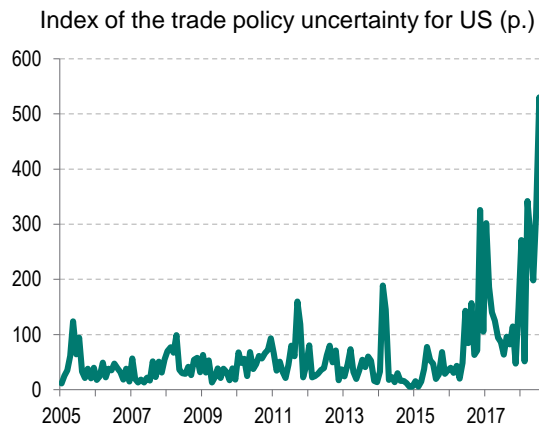
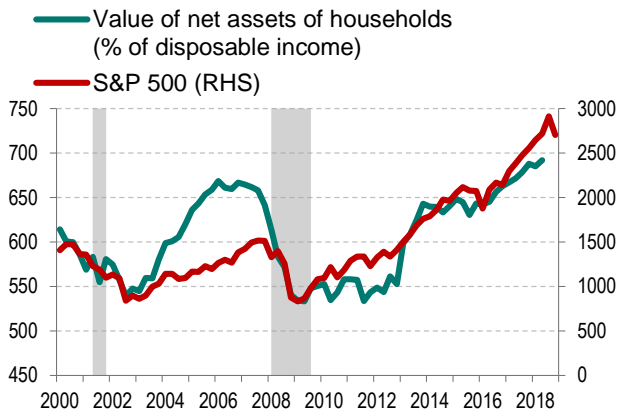
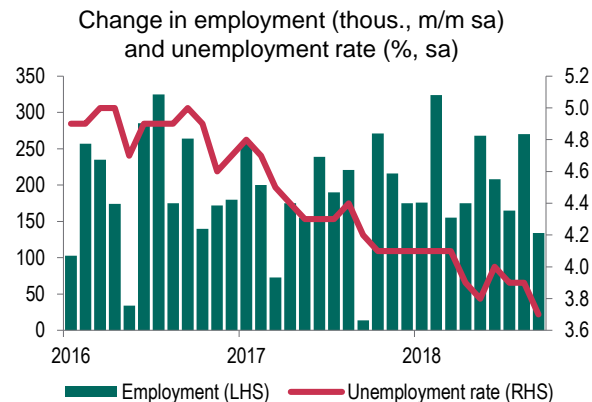
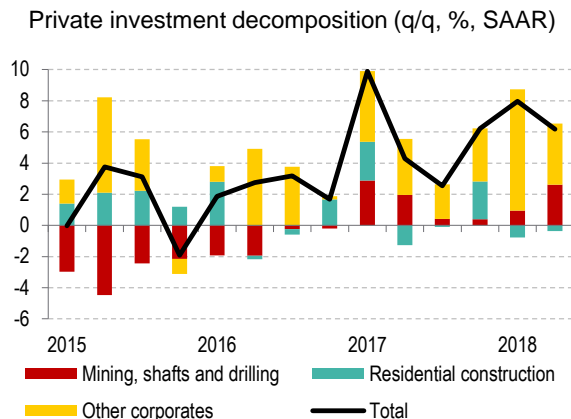
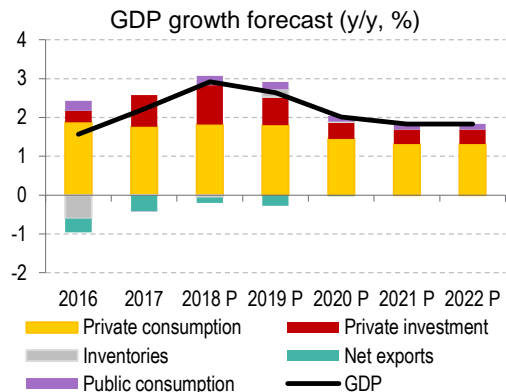
Despite the good global economic situation, expectations for growth abroad have decreased due to the deterioration of world trade prospects

- ⇔ Despite maintaining relatively high global GDP growth rate, business climate indicators point to its gradual slowing.
- ↓ Stronger than expected slowdown in 2018q1 in euro area, particularly in Germany.
- ↓ The introduction of customs duties by the United States and retaliatory duties may translate into slightly lower GDP growth in the world.

GDY y/y, %	2018	2019	2020
Euro area	2.1 (2.2)	1.8 (1.8)	1.6 (1.6)
Germany	1.8 (2.0)	1.8 (1.9)	1.6 (1.6)
United States	2.9 (2.9)	2.6 (2.7)	2.0 (2.0)
United Kingdom	1.3 (1.3)	1.6 (1.6)	1.5 (1.6)



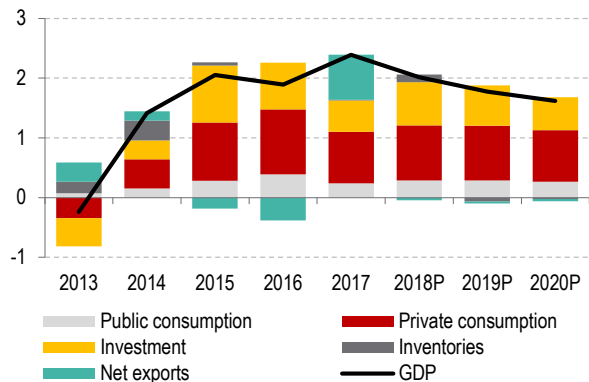
Favorable economic conditions in the United States, although the risk of a slowdown is growing



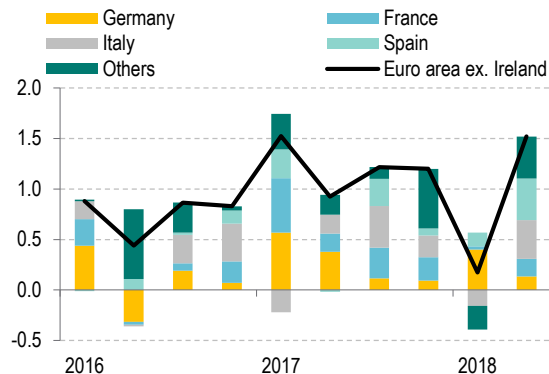
Source: BEA, BLS, Economic Policy Uncertainty, FRB, NBP calculations.

Deterioration in the outlook for global trade fosters slowdown in euro area

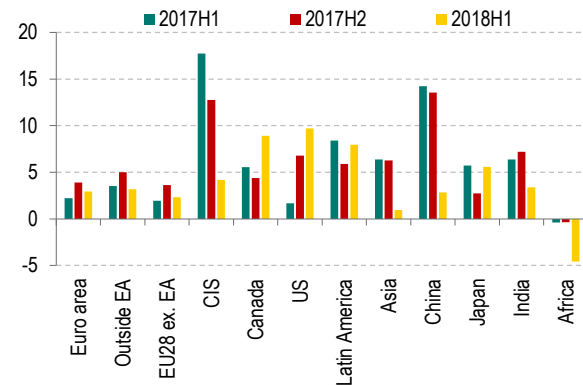
GDP growth in euro area (y/y, %)



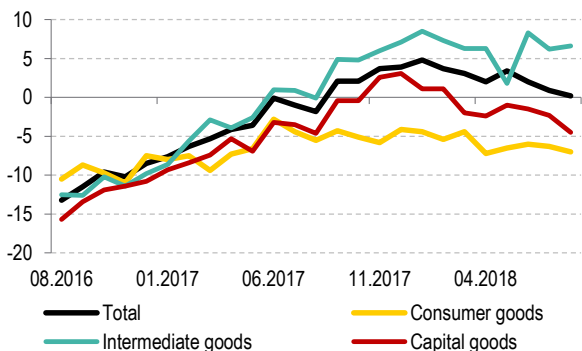
Investment (q/q, %)



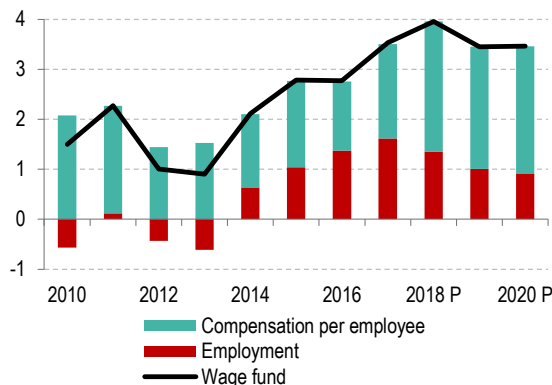
Goods exports from euro area by destination (y/y, %)



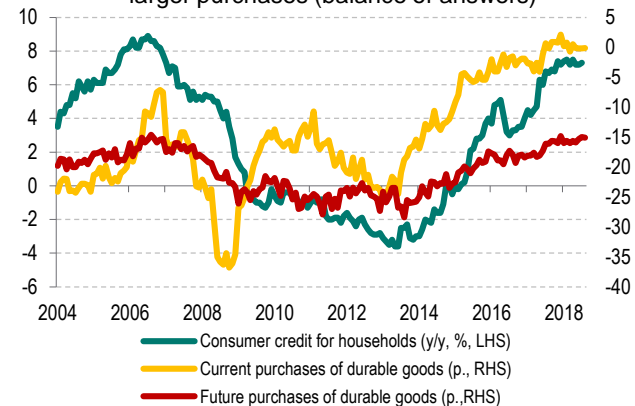
Assessment of export orders in industry (p.p.)



Wage fund (y/y, %)



Consumer credit growth (y/y, %) and propensity to make larger purchases (balance of answers)



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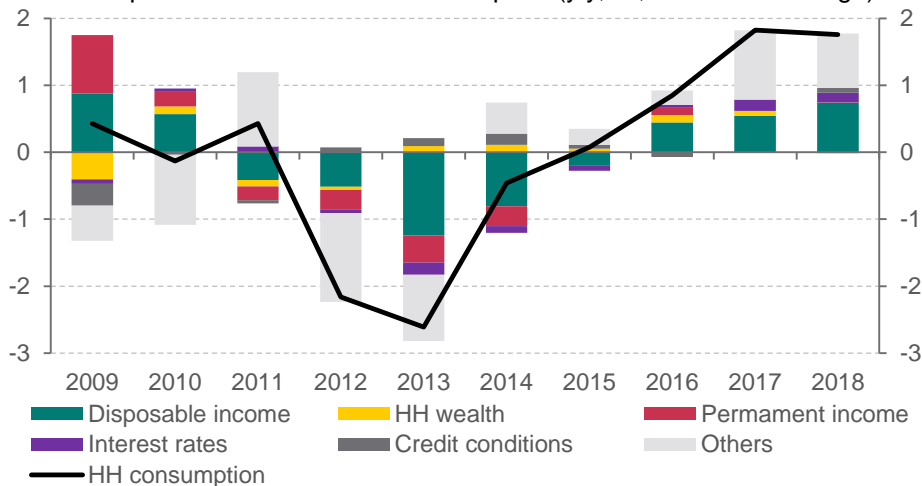
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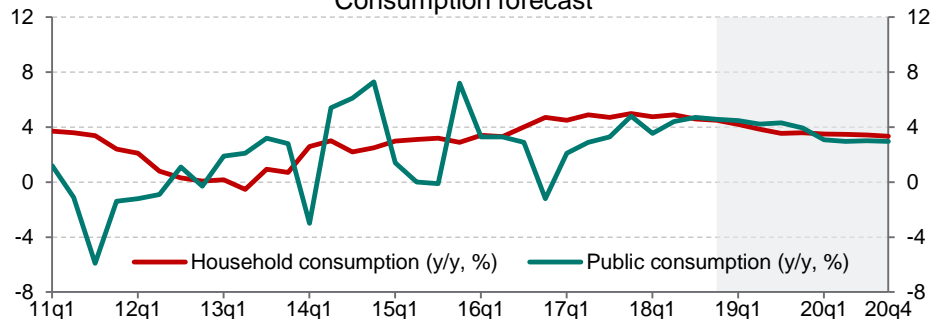
Consumption demand

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

Decomposition of households consumption (y/y, %, dev. from average)



Consumption forecast



Private consumption:

- ⬆ Favourable labour market conditions.
- ⬆ Optimistic sentiment among households.
- ⬆ Low interest rates facilitate financing consumption through borrowing.
- ⬇ Purchasing power of households reduced by rising energy inflation.

Public consumption:

- ⬆ In 2018 relatively high growth of current expenditures of local government units.
- ⬆ Draft Budget Act for 2019 – increase in wages in budget sector and selected professional groups (among others teachers, academic teachers and employees of uniformed services)

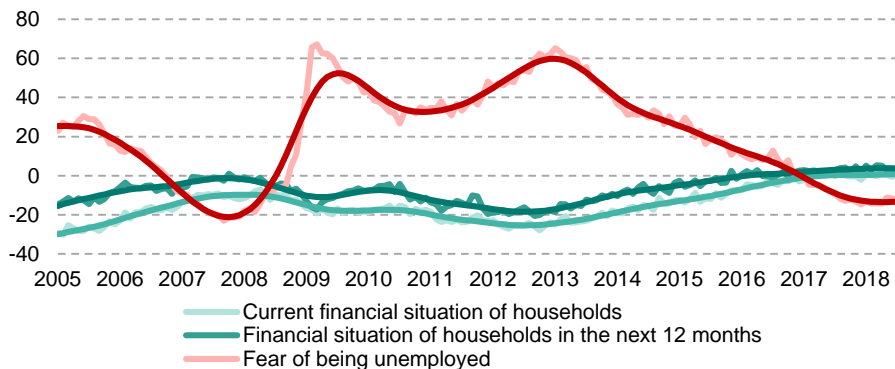
y/y, %	2017	2018	2019	2020
Households consumption	4.8	4.7	3.8	3.4
Public consumption	3.4	4.1	4.2	3.0

Still good financial situation of households

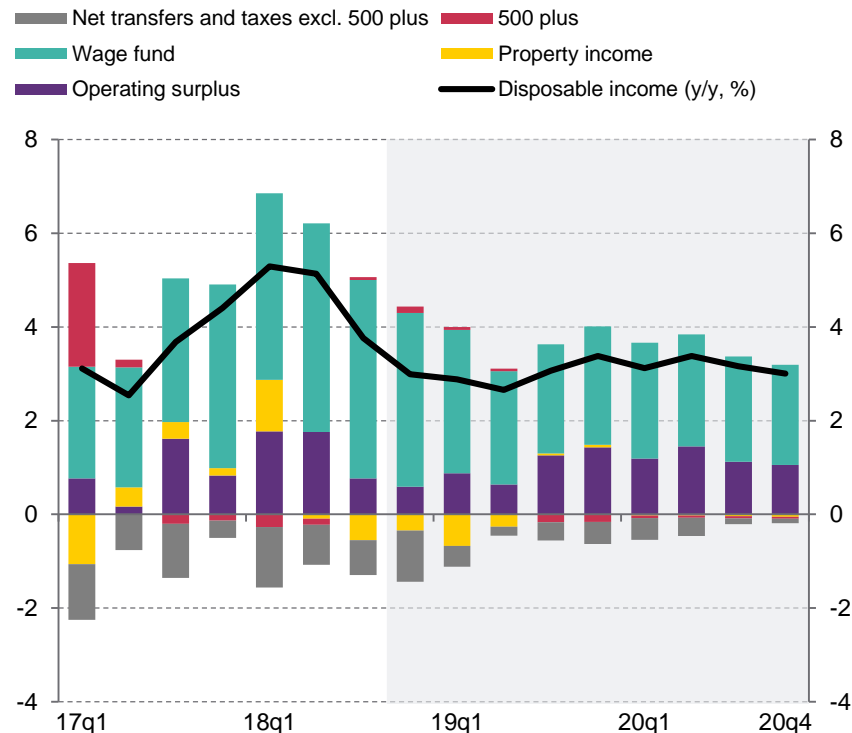
	18q2		18q3	
ULC (y/y, %)	2.3	(2.2)	3.3	(3.8)
Labour productivity (y/y,%)	4.7	(4.8)	3.9	(3.3)
Gross wages (y/y, %)	7.1	(7.0)	6.9	(7.2)
Employment LFS (y/y, %)	0.4	(0.3)	0.7	(0.9)
Unemployment rate LFS (%)	3.6	(3.6)	3.3	(3.5)
Participation rate (%)	56.3	(56.3)	56.2	(56.4)

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.

Financial situation of households and fear of being unemployed

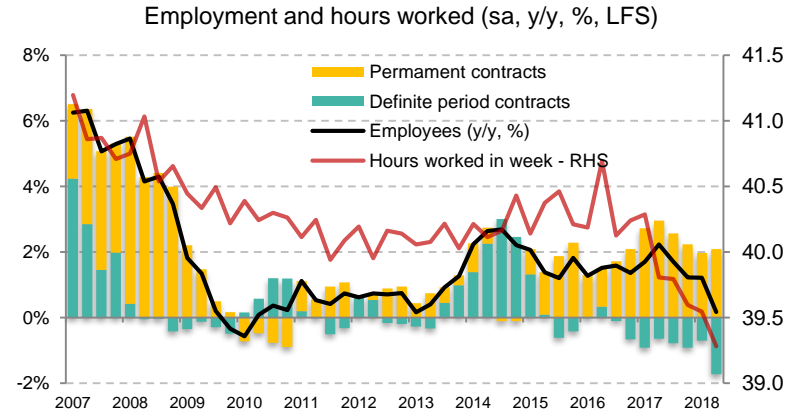
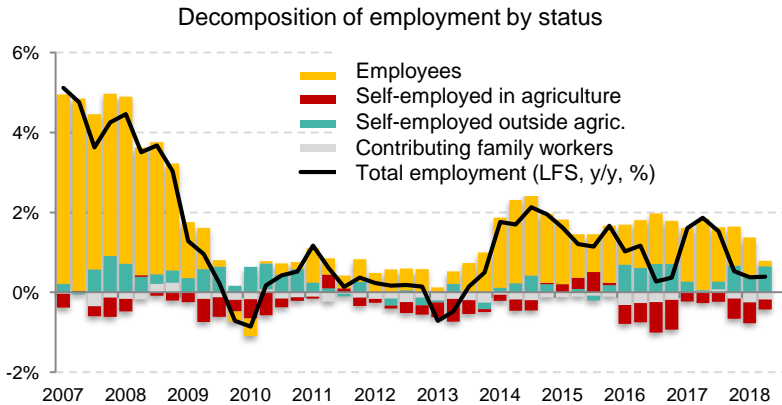
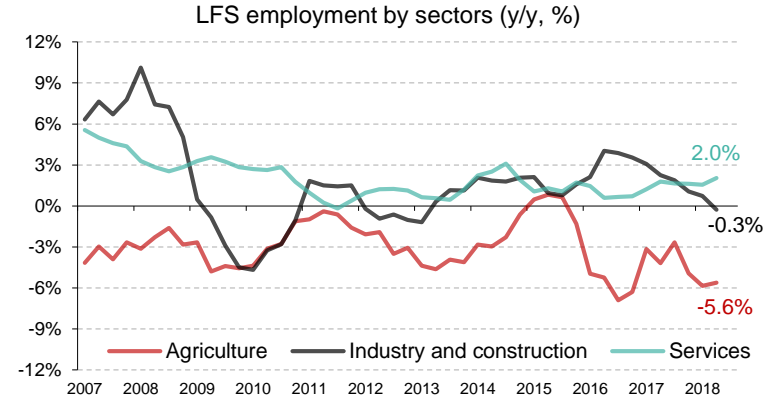
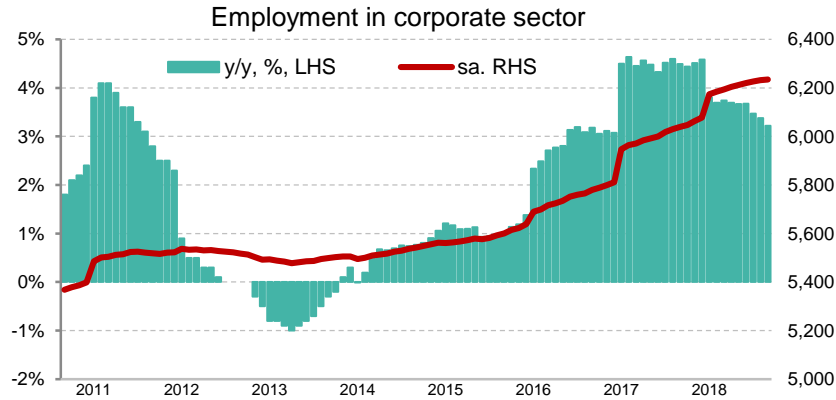


Disposable income decomposition (constant prices) (y/y, %)

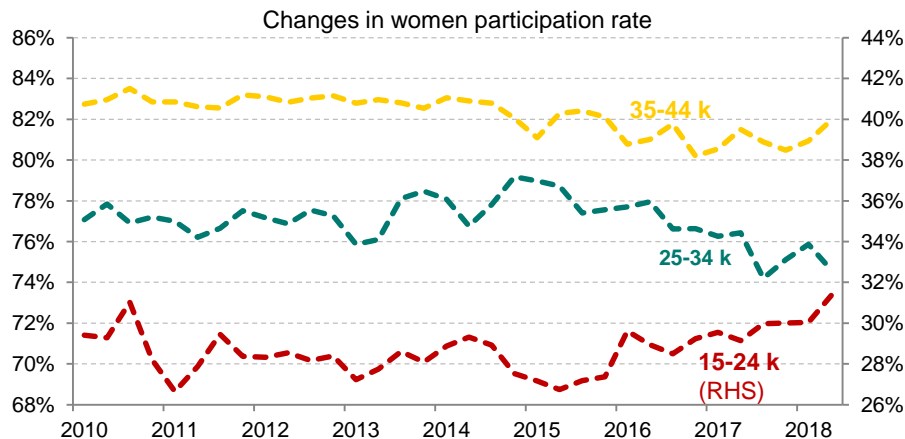
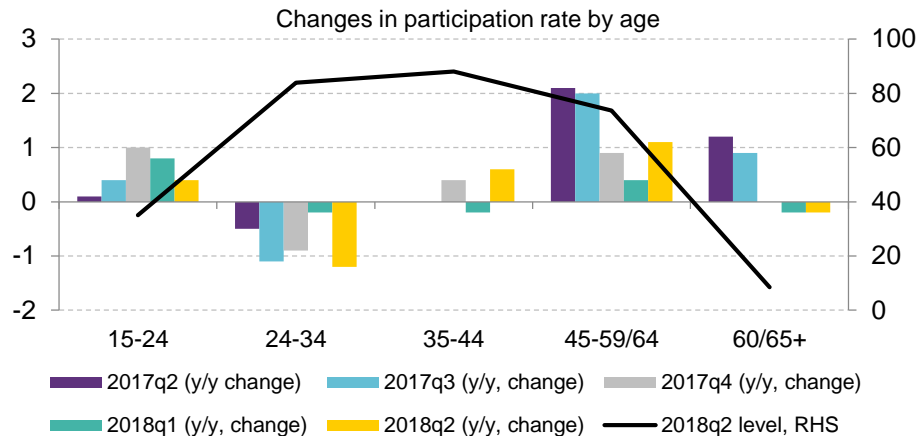
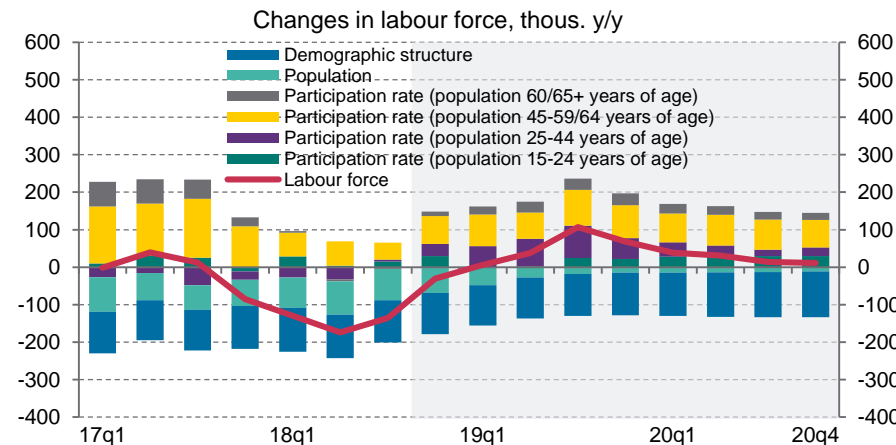
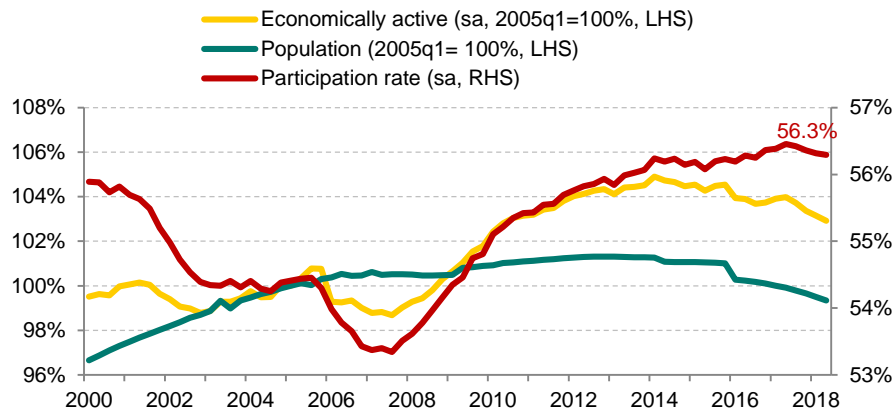


Source: GUS data, NBP calculations

Employment stabilization

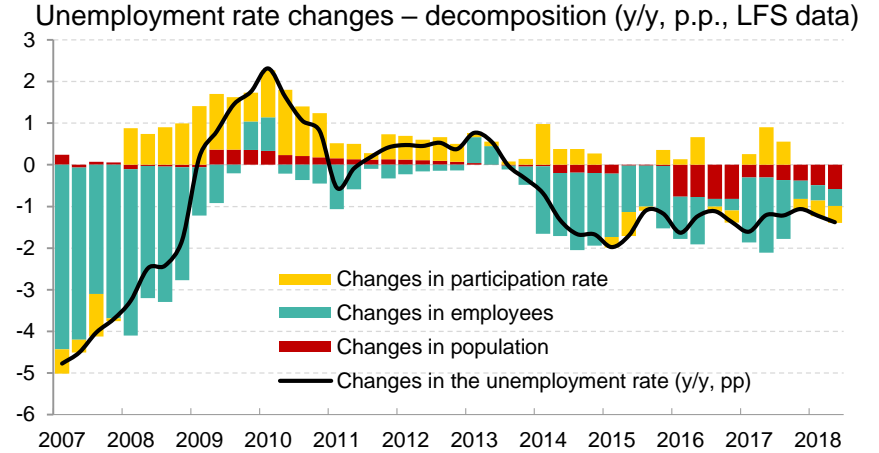
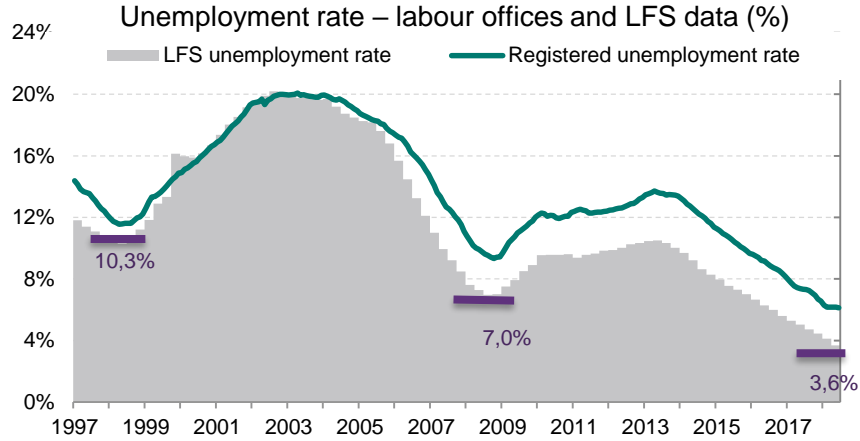


Labour shortages

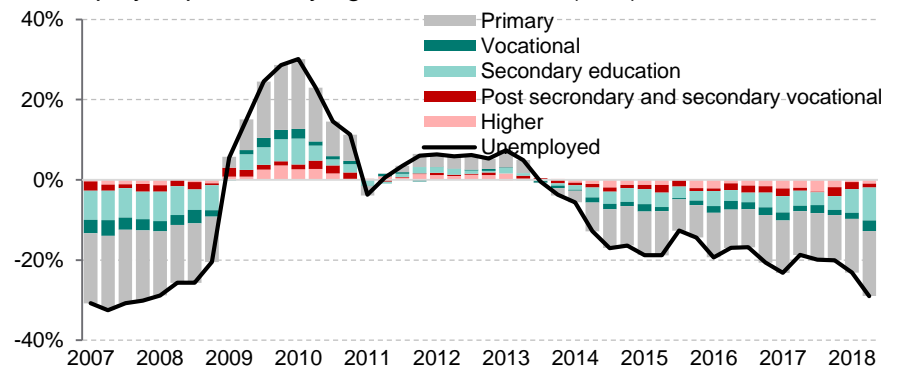
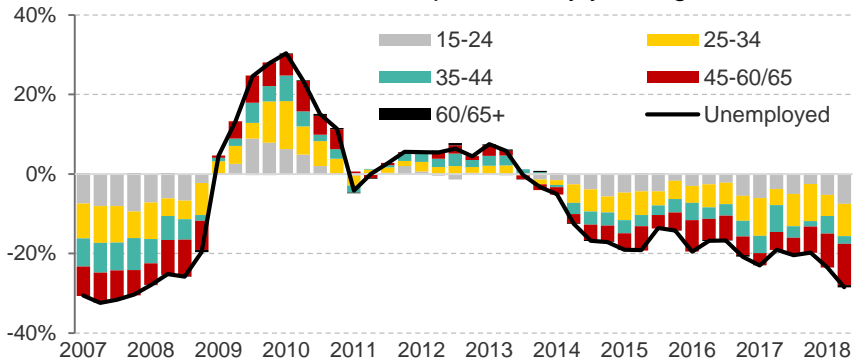


Source: GUS data, NBP calculations.

Bigger impact of demographic factors on unemployment rate

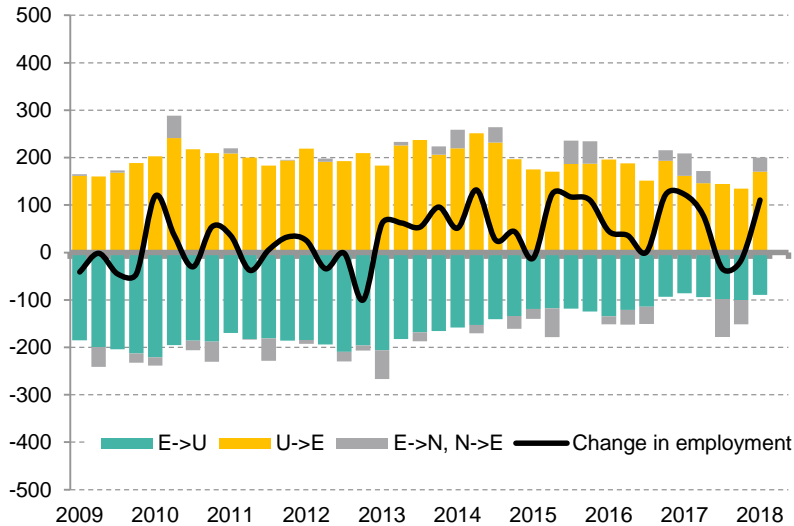


Decomposition of y/y changes in the number of unemployed persons by age and education (LFS)

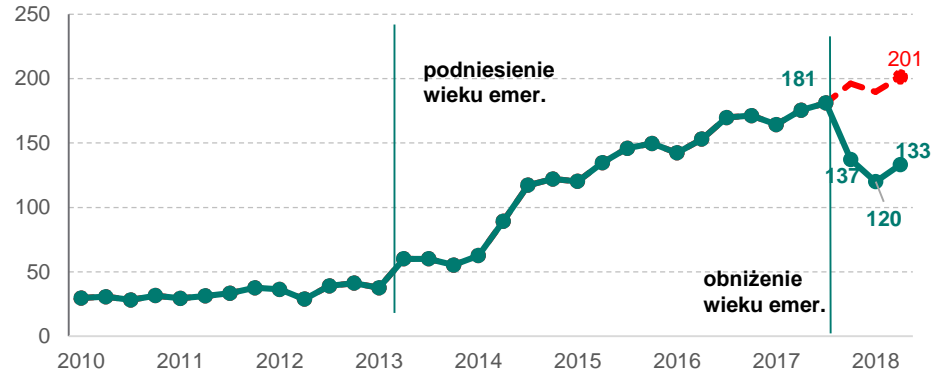


Effect of retirement age change mainly in 17q4 and 18q1 – drop in the number of economically active people by ca. 70 thous.

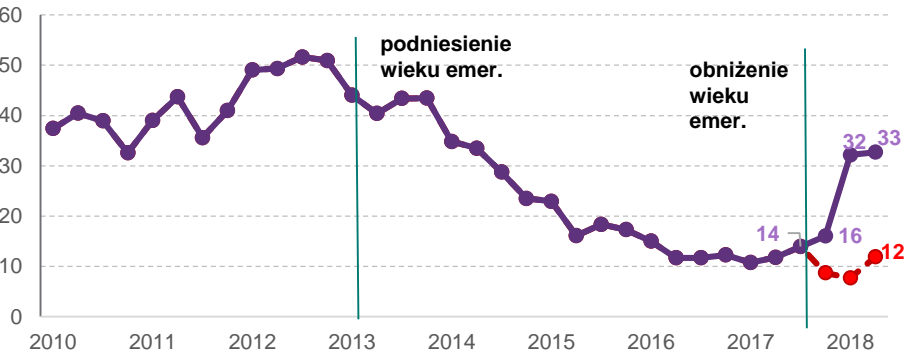
Change in employment – flows (q/q, thous., sa., LFS data)



Economically active aged 60 (women) and 65 (men), no pension benefits

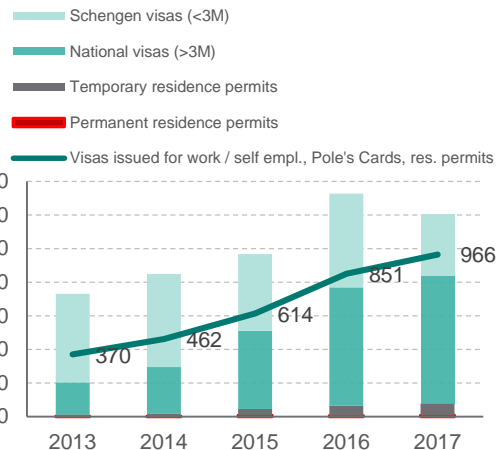


Economically active aged 60 (women) and 65 (men), with pension benefits

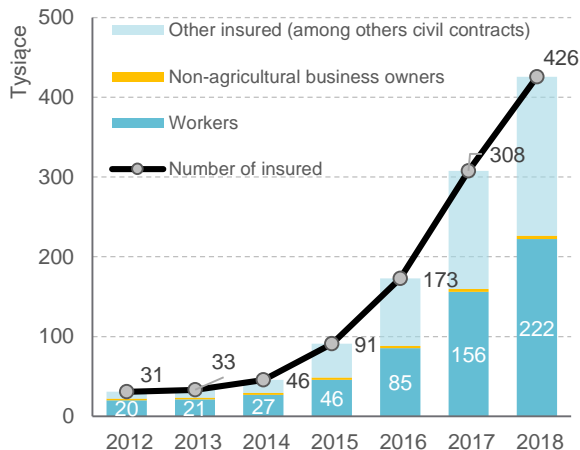


Inflow of workers from Ukraine mitigates labor shortages, but the risk factor is the possible moves of other EU countries to facilitate their work

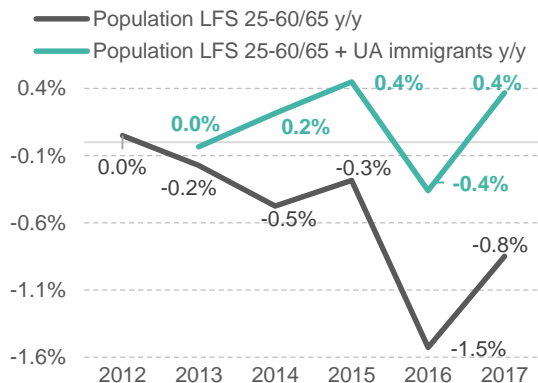
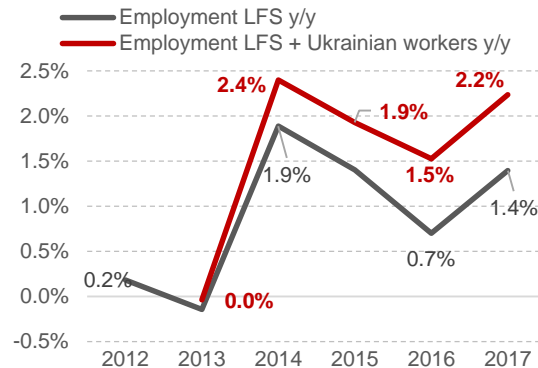
Ukrainians in the Polish labour market by residence permits



Ukrainians insured in ZUS (18Q3)



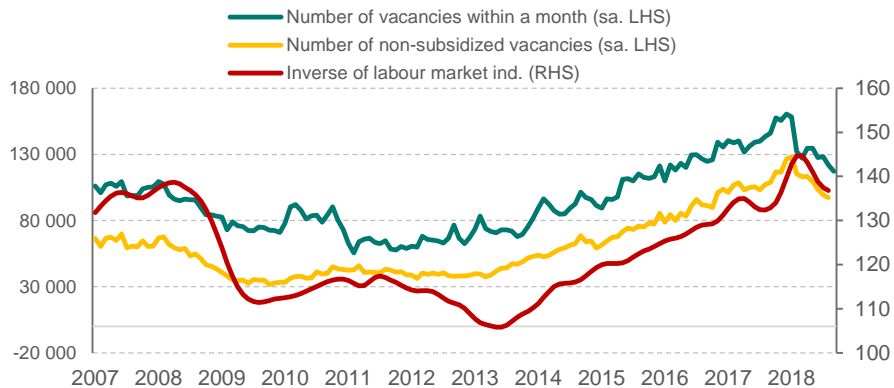
2018Q3	Total	Ukraine	Belarus	Vietnam	Moldova	Russia	India
Foreigners	569 116	425 670	32 632	8 101	7 337	7 255	5 513
%	100%	75%	6%	1%	1%	1%	1%



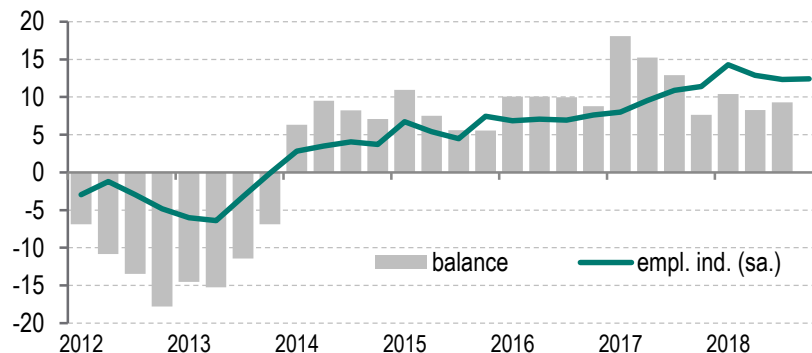
Source: data of Border Guard, Ministry of Family, Labour and Social Policy, GUS, NBP calculations.

At the same time slower growth in labor demand

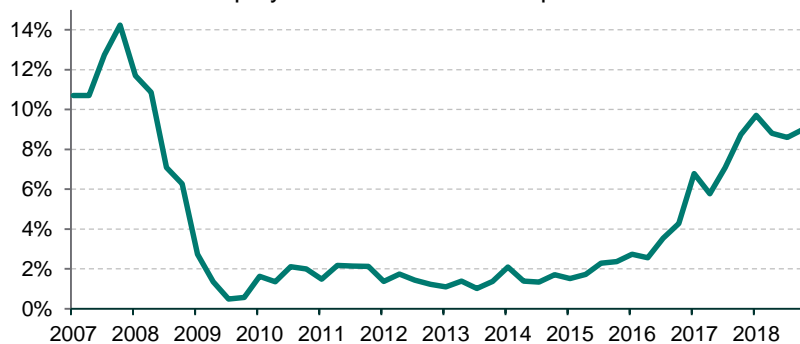
Vacancies



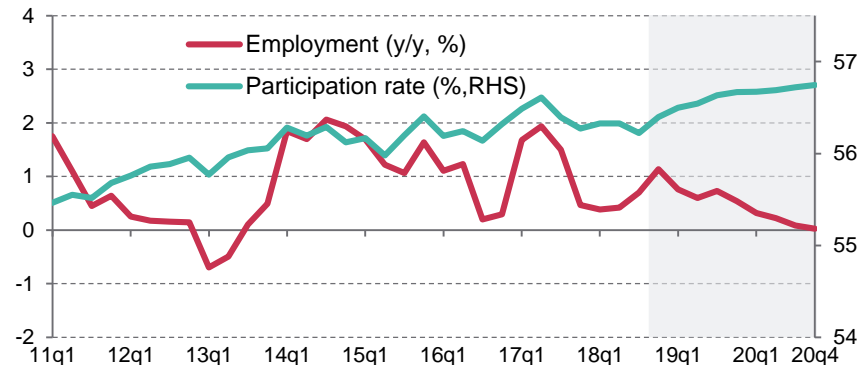
Employment forecast (in %)



Share of companies reporting difficulties with finding new employees as a barrier for expansion

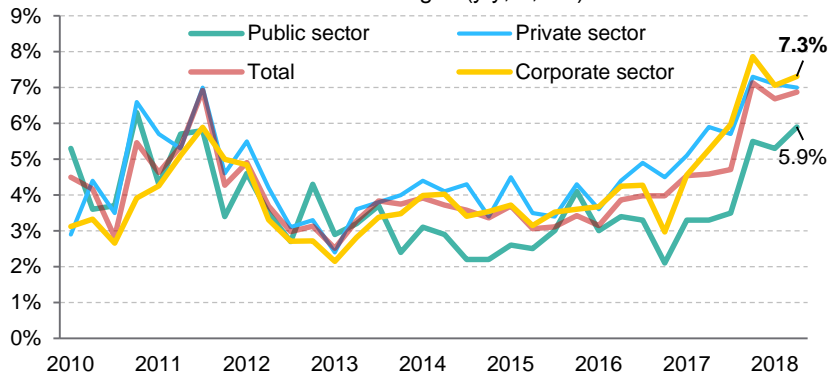


Employment and participation rate forecast

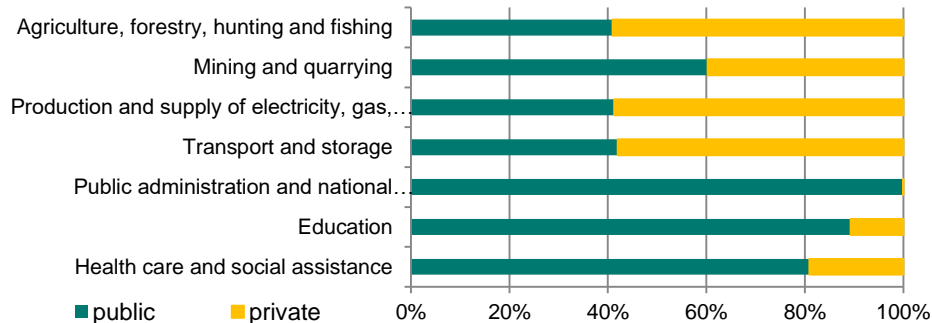


Stabilization, and then slightly slower wage growth in the projection horizon – expected hikes in public sector in 2019 together with gradual decrease of wage pressure in corporate sector

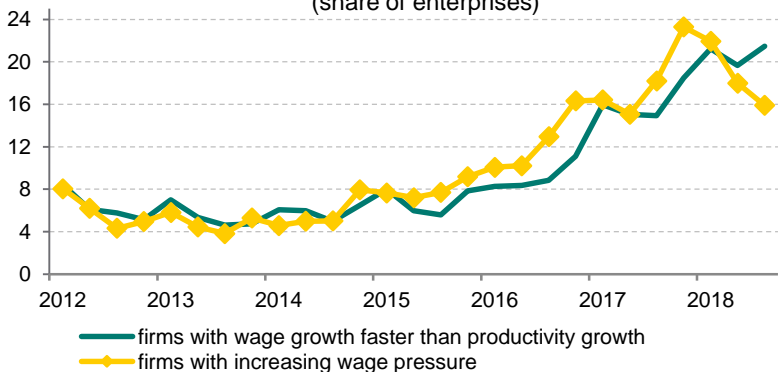
Nominal wages (y/y,%, sa.)



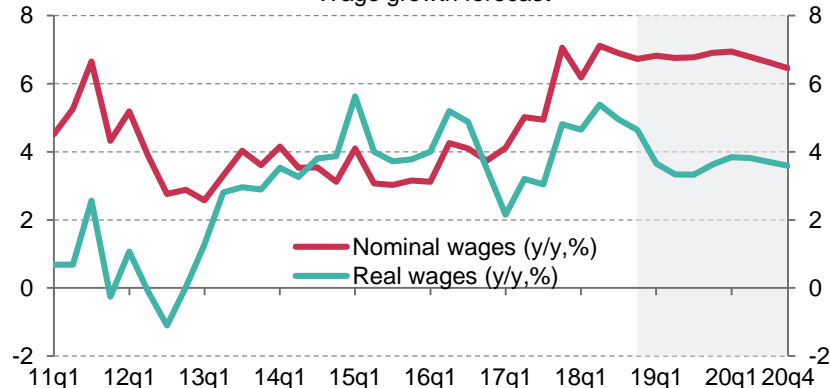
Sections with high share of employed in public sector



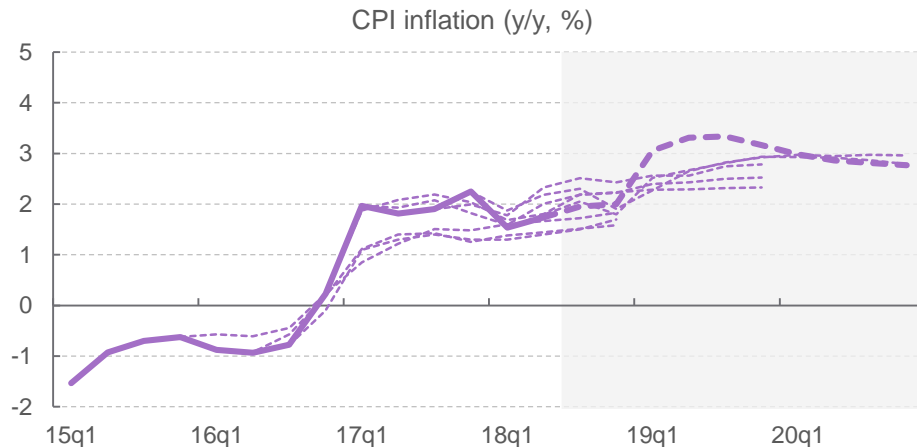
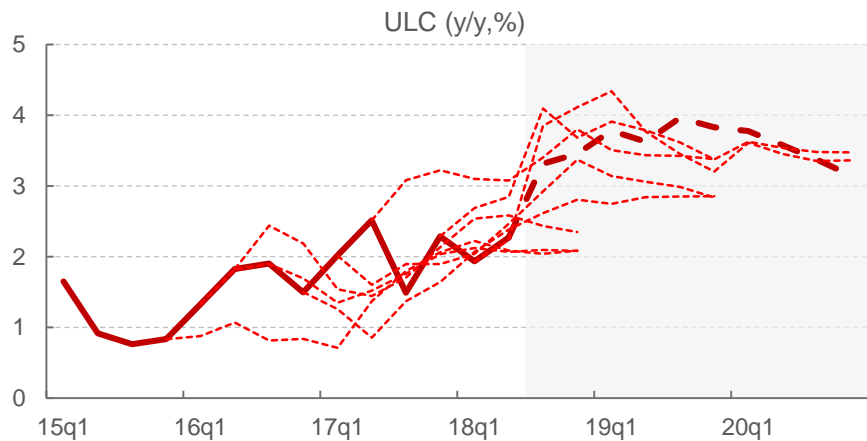
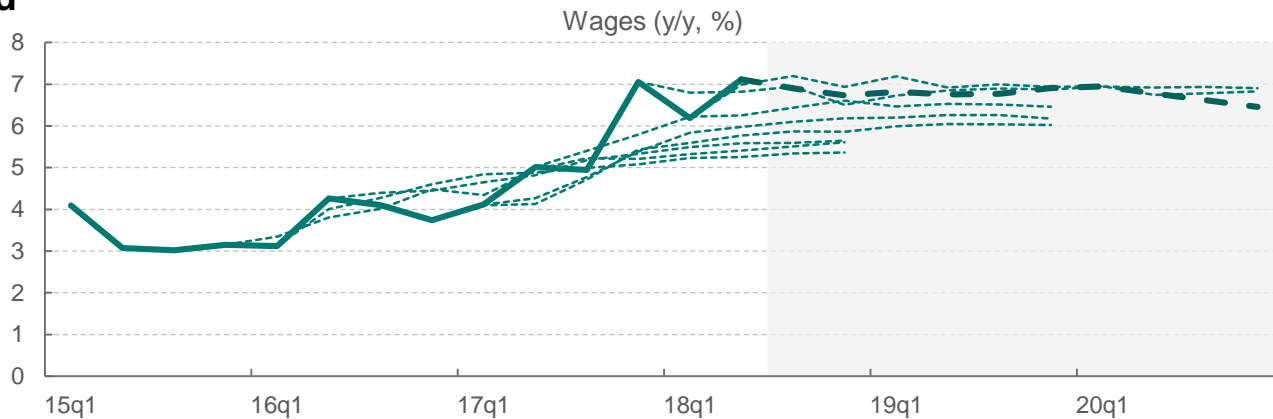
Increase in wage pressure and wage growth exceeding labour productivity (share of enterprises)



Wage growth forecast



Projection scenarios of only moderate increase in wage pressure and a slight impact on inflation are confirmed



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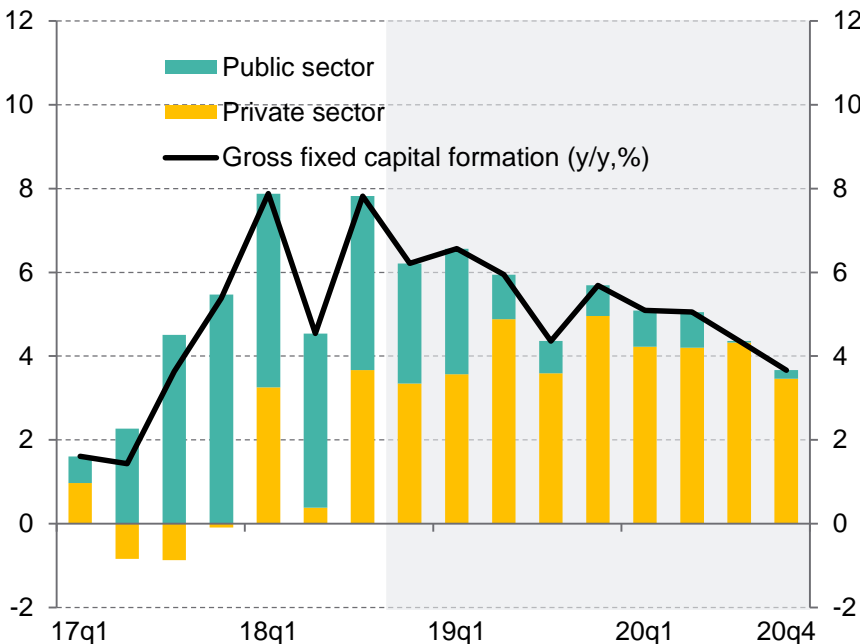
Projection 2018 – 2020

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Investment demand

In 2018 acceleration of investments – mainly due to local government spendings



Public sector investments:

- ↑ Significant increase in the use of EU funds in 2018
- ↑ Local government elections in 2018
- ↓ Signif. lower dynamics of EU absorption in 2019-2020

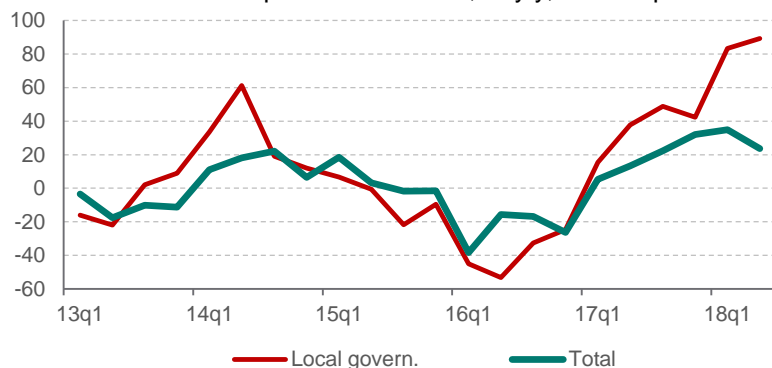
Private sector investments:

- ↑ Currently favorable demand conditions
- ↑ Very high level of capacity utilization in corporates
- ↑ Low interest rates
- ↑ Good households' position
- ↓ Problems with finding employees
- ↓ Growing energy prices and construction materials.
- ↓ In 2019-2020 lower dynamics of internal and external demand, slower increase of UE funds absorption

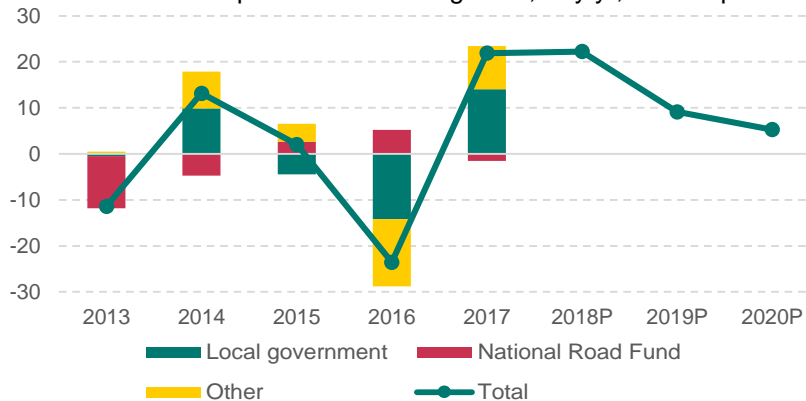
y/y, %	2017	2018	2019	2020
Gross fixed capital formation	3.4	6.3	5.6	4.5

Slower growth of public investment in the projection horizon

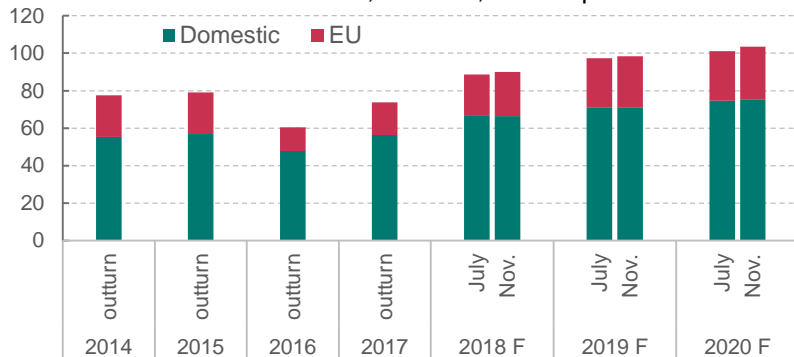
Growth of public investment, % y/y, current prices



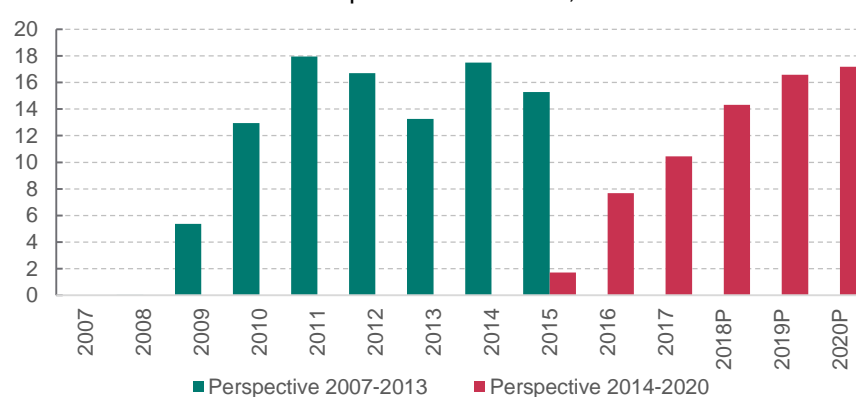
Contributions to public investment growth, % y/y, current prices



Public investment, bn PLN, current prices

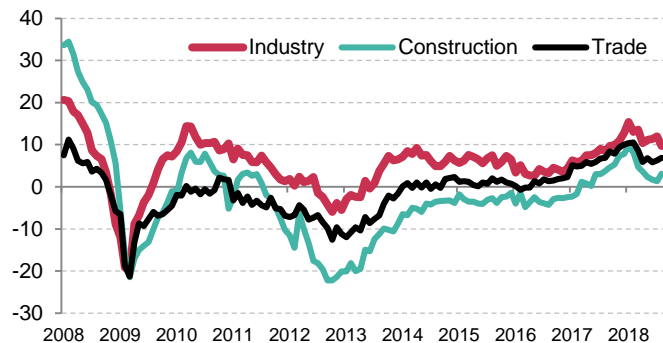


EU funds for public investments, % of allocation

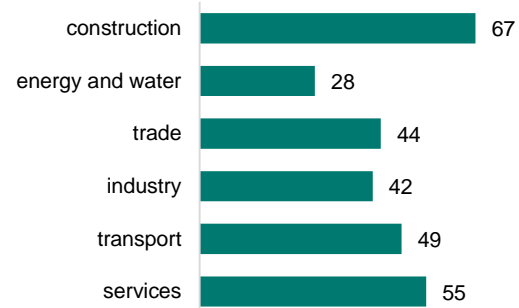


Expected increase in corporate investment in the forecast horizon, however, lower dynamics than in previous business cycles

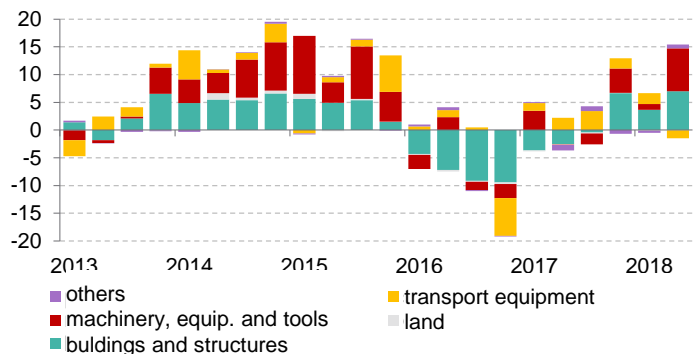
Corporate sentiment (GUS) – general expected economic conditions



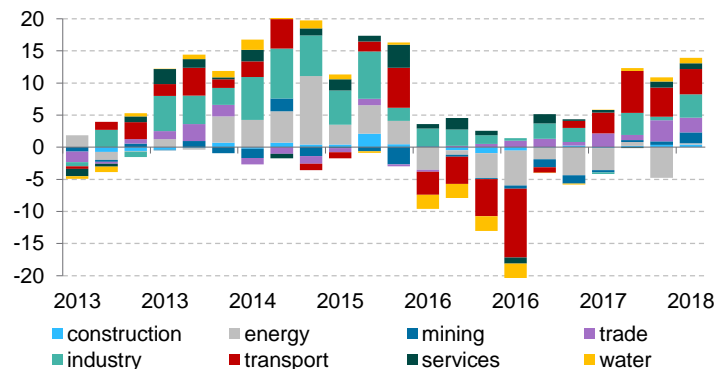
Share of enterprises declaring that their capacity utilization is close to maximum (%)



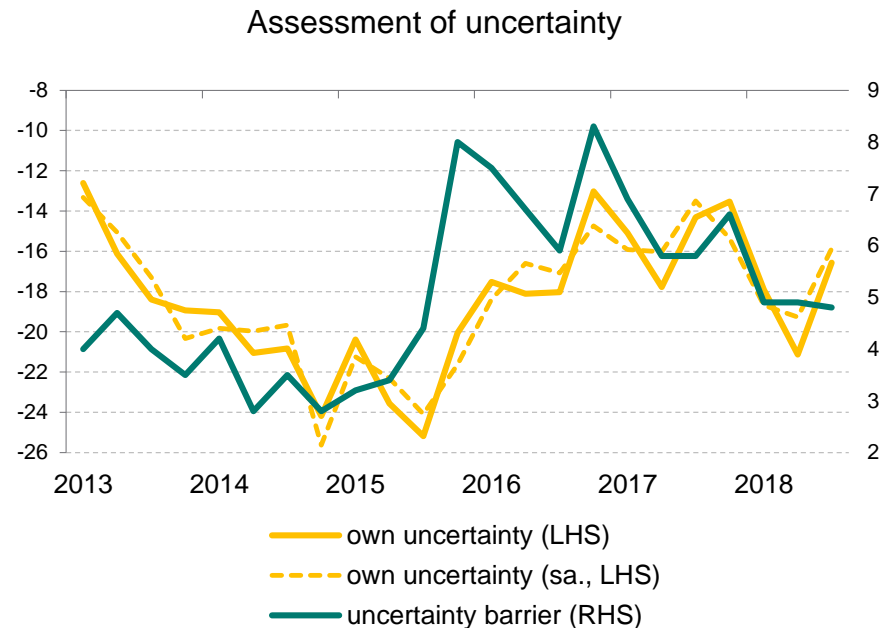
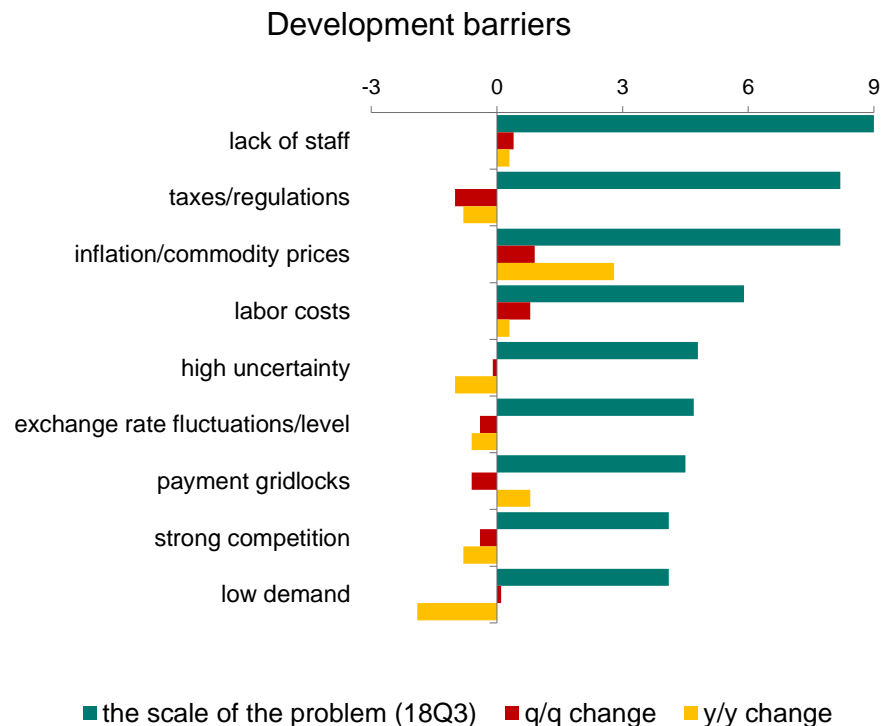
Contribution to the investment growth by type (in %, y/y, current prices)



Contribution to the investment growth by section (in %, y/y, current prices)



Barriers for the enterprises development



Outline:

Changes between rounds

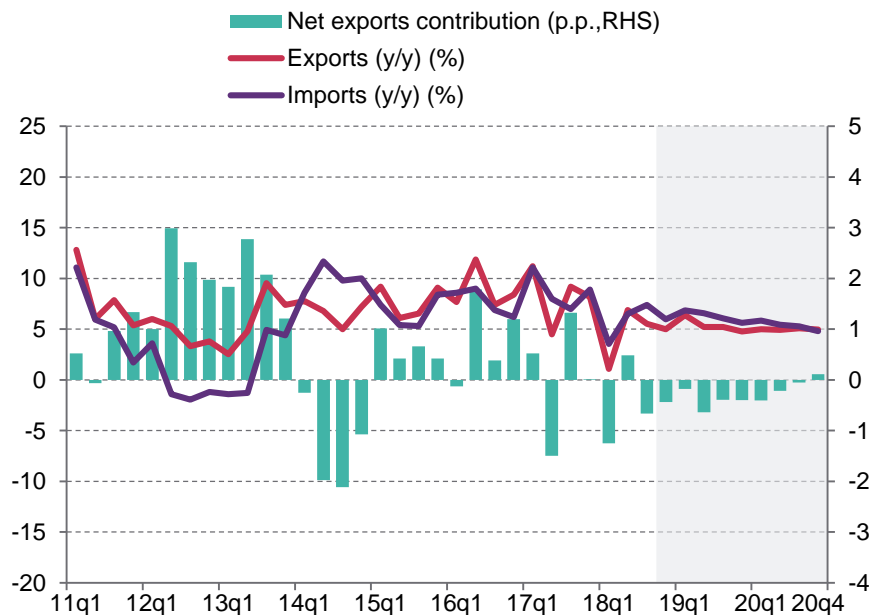
Projection 2018 – 2020

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

Uncertainty

Foreign trade

Net exports will limit GDP growth



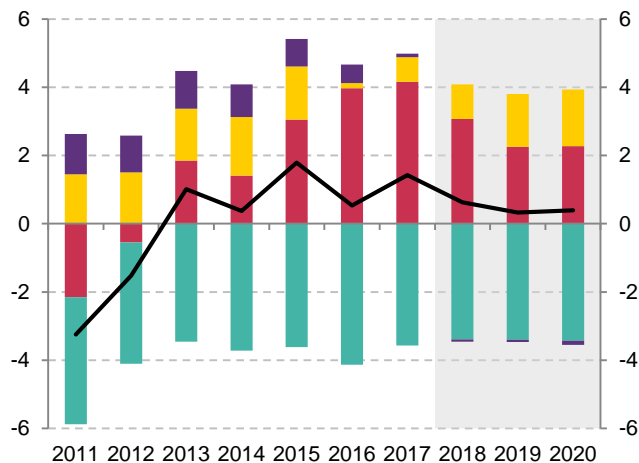
Net exports:

- ↓ Expected slowdown in the euro area growth, therein German economy.
- ↓ Less favorable relation of prices in foreign trade, due to increase in energy commodities on global markets, lowers trade account balance expressed in current prices.
- ↓ In 2018 acceleration of investment dynamics, supported by persisting high consumption demand.

y/y p.p.	2017	2018	2019	2020
Net exports contribution to growth	0.1	-0.5	-0.4	-0.1

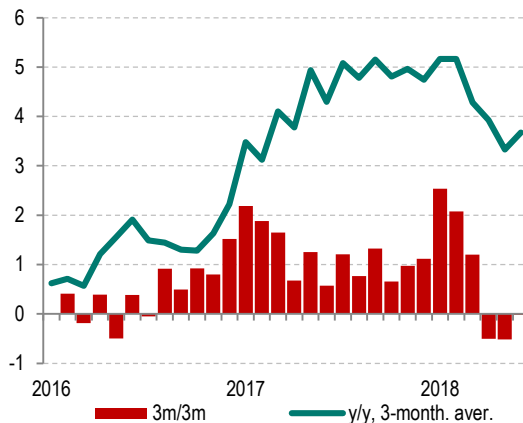
Expected slump in the current and capital account balance to the level close to zero in 2019-2020

Current and capital account balance (% GDP)

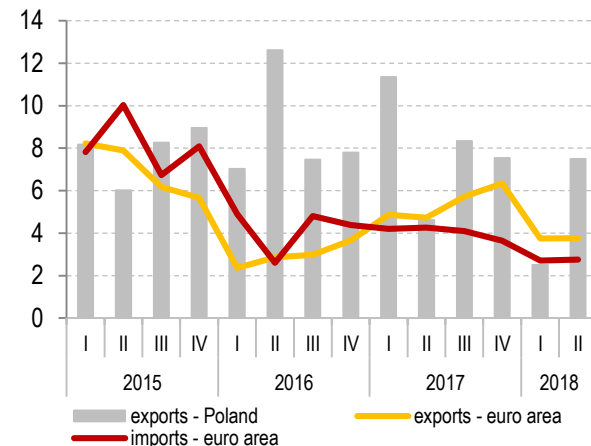


- Remittances
- Primary income
- Secondary income
- Goods and services
- Current and capital account (% GDP)

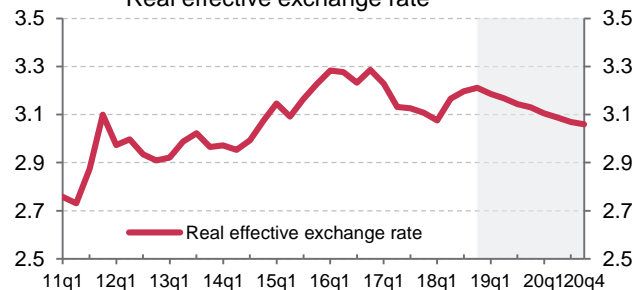
Goods import in global economy (% y/y, 3-month. aver., and 3m/3m)



Goods and services exports dynamics from Poland against euro area exports and imports (% y/y)



Real effective exchange rate



Outline:

Changes between rounds

Projection 2018 – 2020

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

Uncertainty

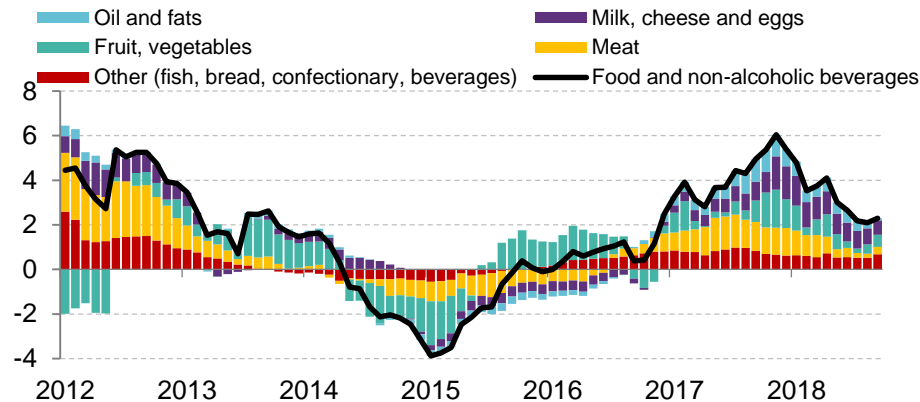
Inflation

Slightly lower than expected CPI inflation in 2018Q2-2018Q3 mainly due to slump in food prices

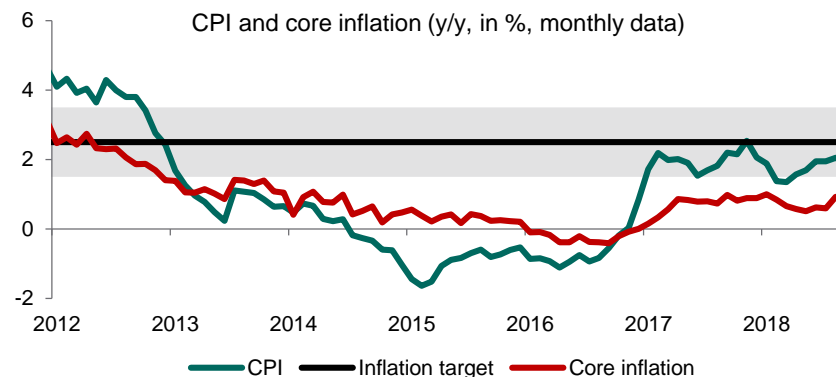
y/y, %	18q2		18q3	
CPI inflation	1.7	(1.8)	2.0	(2.1)
Core inflation	0.6	(0.6)	0.8	(0.8)
Food prices inflation	3.2	(3.4)	2.2	(2.6)
Energy prices inflation	3.8	(3.7)	5.9	(5.6)

Values from the July 2018 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

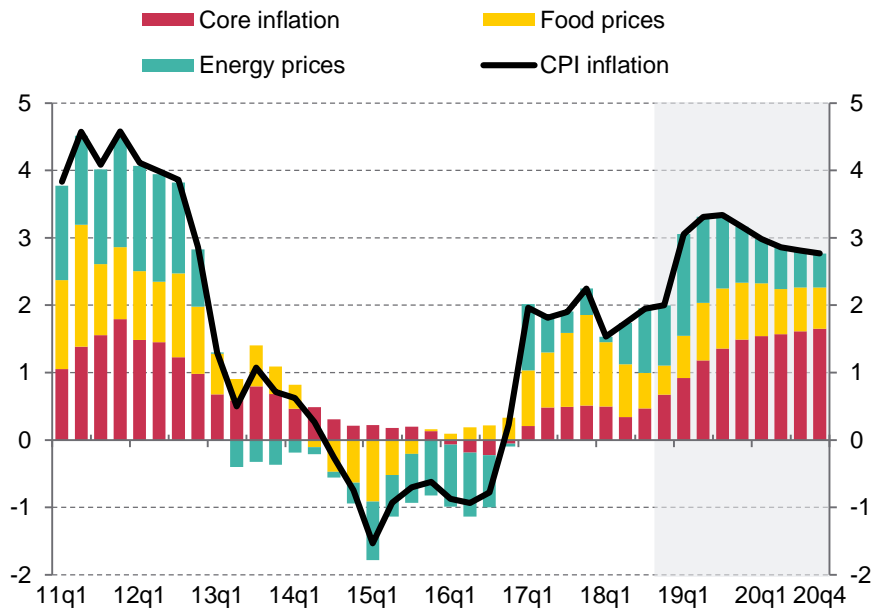
Decomposition of food and non-alcoholic beverages prices (p.p.)



CPI and core inflation (y/y, in %, monthly data)



CPI inflation will increase and exceed 2.5% in 2019-2020

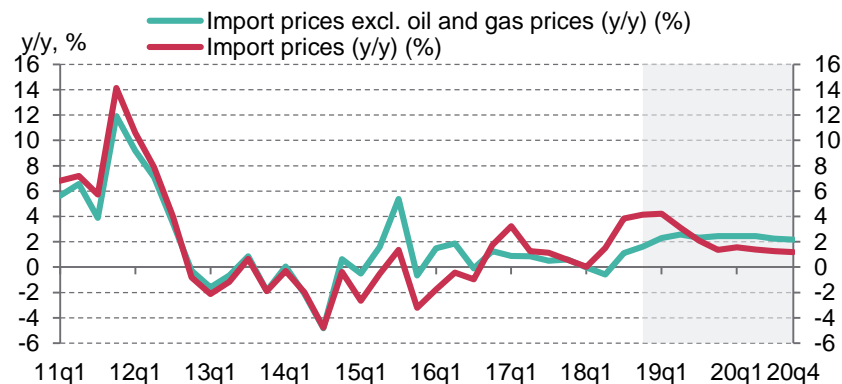
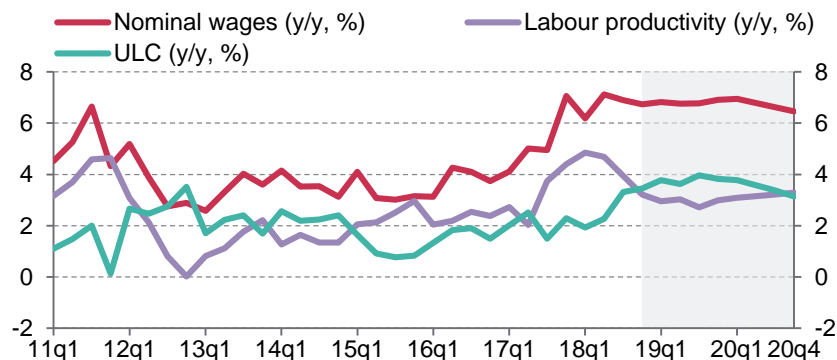
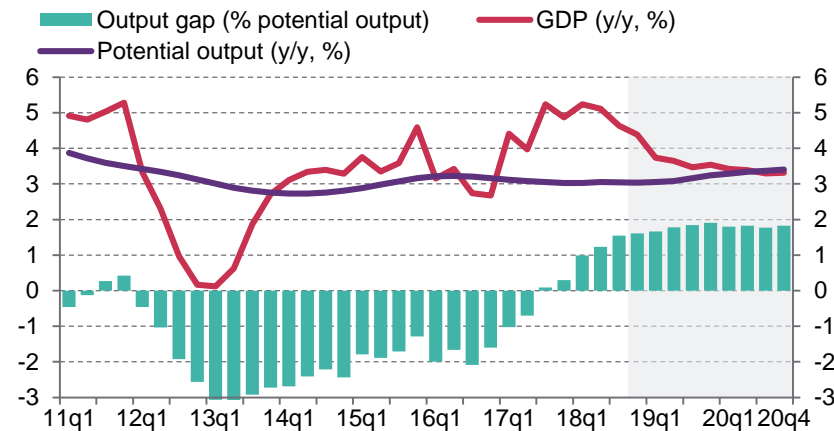
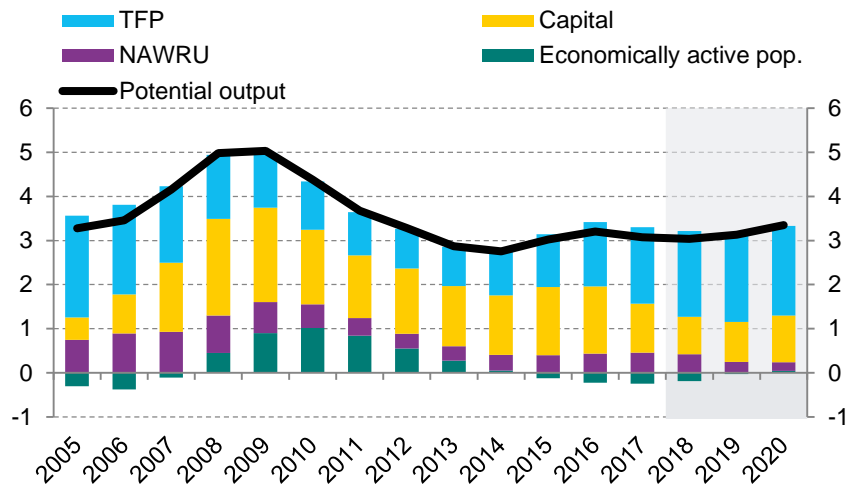


Source: GUS data, NBP calculations

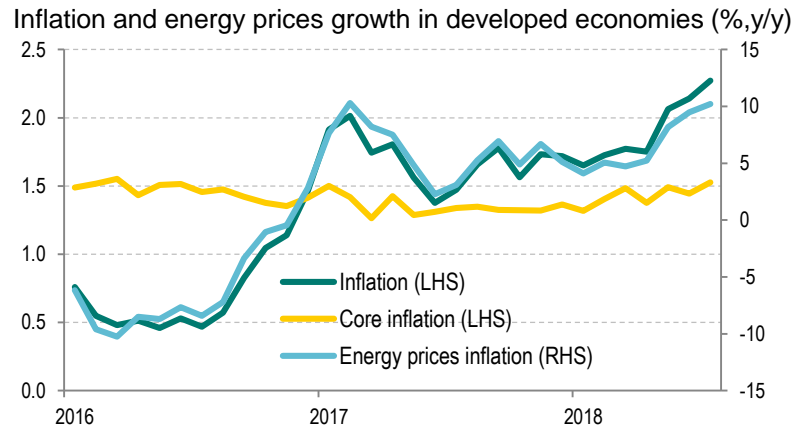
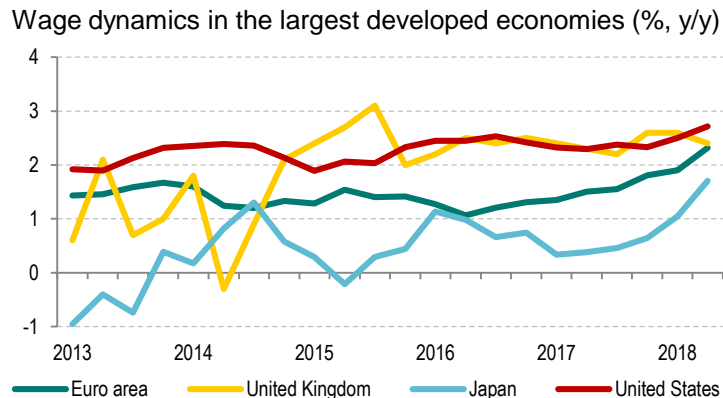
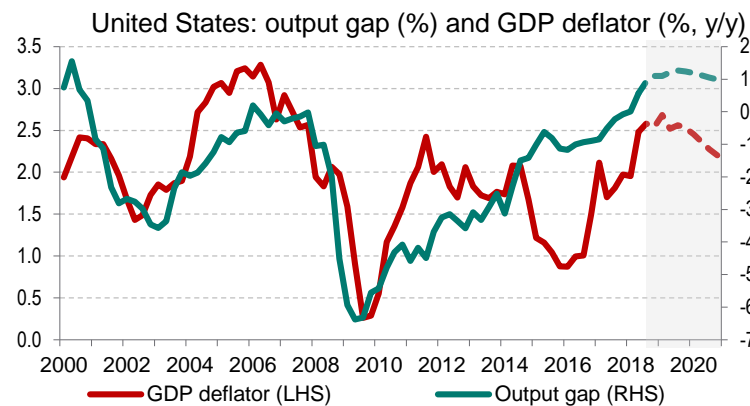
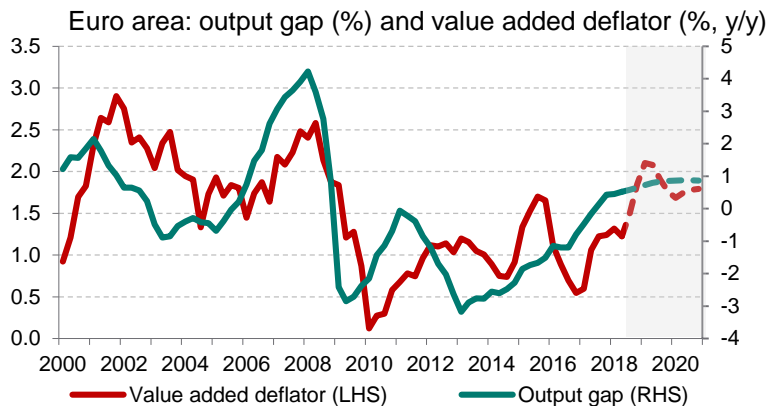
- ⬆ Delayed effect of increase in cost pressure:
 - ⬆ Elevated wage growth exceeding in real terms the increase in labour productivity
- ⬆ Delayed effect of increase in demand pressure – positive output gap (however, the sensitivity of price growth to changes in the domestic economic conditions has decreased in the recent years).
- ⬆ Situation in energy sector translating into higher prices of energy for households and enterprises, in particular in 2019
- ⬇ Impact of factors contributing to increase of prices of fruits, vegetables, meat and dairy products in the last year will expire
- ⬇ Globalization 2.0.

y/y, %	2017	2018	2019	2020
CPI inflation	2.0	1.8	3.2	2.9

Core inflation will gradually increase to around 2.8% at the end of the projection horizon

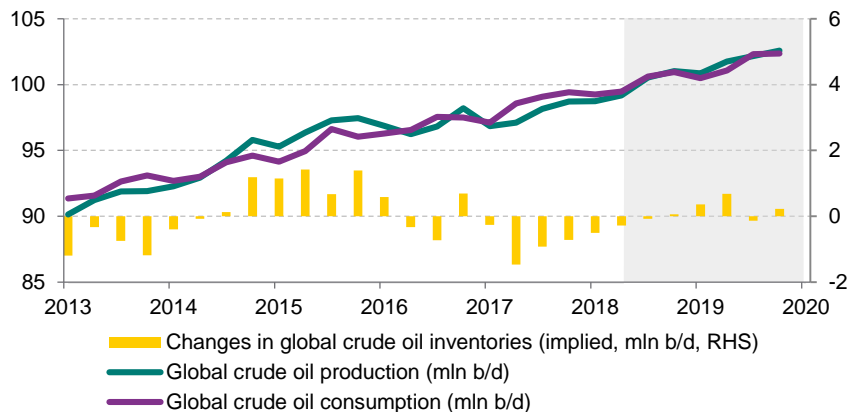


The upward inflation trend in the global economy is also maintained

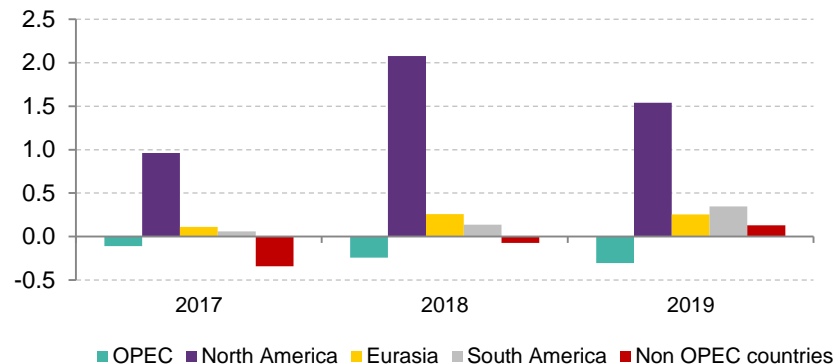


Declining oil reserves in the world and higher vulnerability of oil prices to shocks

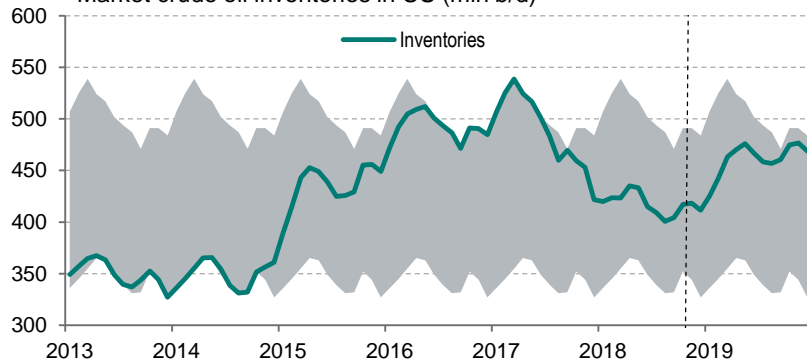
Global production, consumption and changes in crude oil inventories (mln b/d)



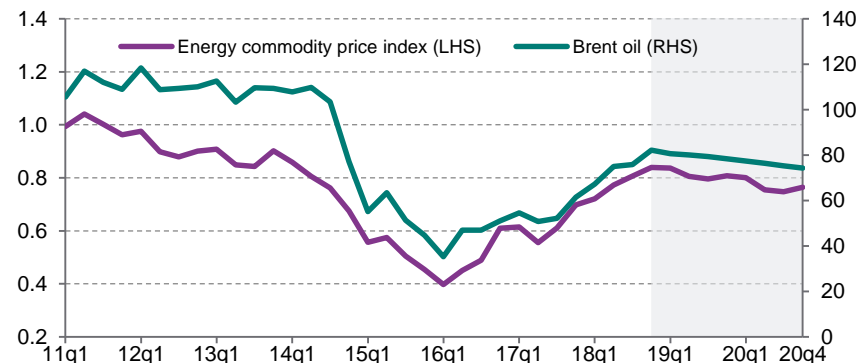
Changes in production of crude oil and liquid fuels in the world (mln b/d)



Market crude oil inventories in US (mln b/d)



Energy commodity prices index (USD, 2011=1) and crude oil prices (USD/b)



Outline:

Changes between rounds

Projection 2018 – 2020

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

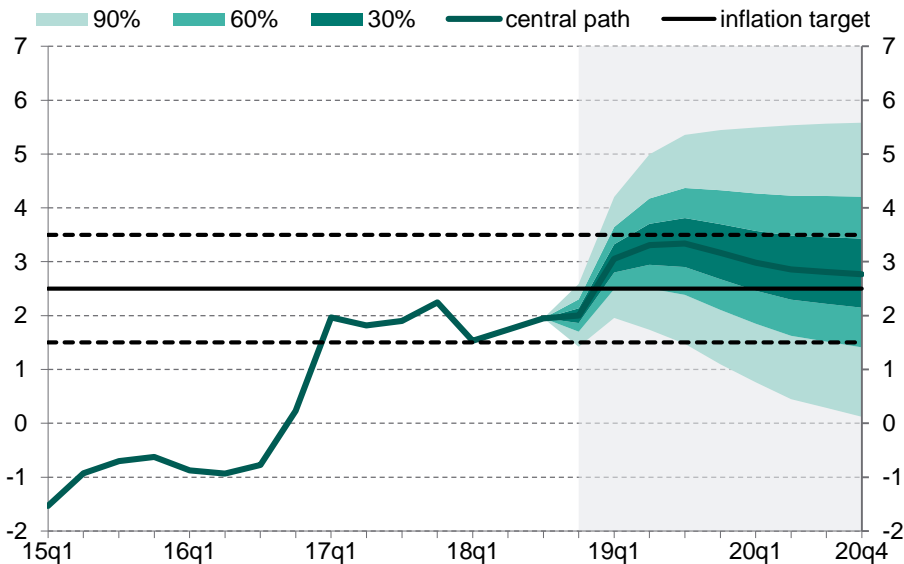
Uncertainty

Uncertainty

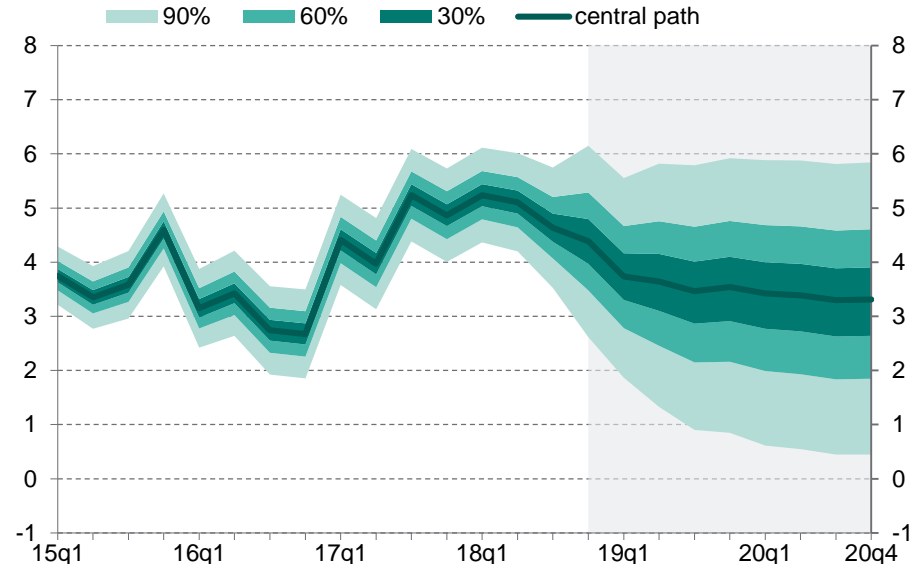
- Risk factors
- Fan charts

Risk area	Description	Impact	Scale of impact
Global economic outlook	<ul style="list-style-type: none"> Escalation of current trade disputes and further protectionism in the global trade, leading to disturbances in the global trade, elevated uncertainty and tensions in the financial markets. Possible consequences for emerging economies, especially those with significant macroeconomic imbalances (increase in risk premium, deterioration of debt servicing conditions, outflow of capital and decrease in asset prices) 	Inflation ↓ GDP ↓↓	**
Influence of the energy sector on inflation in Poland	<ul style="list-style-type: none"> Disruptions in global crude oil markets and increase in commodities prices Possible higher than assumed in projection increase in CO₂ emission allowances prices Uncertain scale of future increases of energy for households (Energy Regulatory Office) Impact of higher costs of electricity prices on business operations and final prices of goods and services. 	Inflation ↑↑ GDP ↓	**
Labour supply in Poland	<ul style="list-style-type: none"> Legal changes in other EU countries facilitating employment for citizens from outside the European Union (eg proposed by the German government in October this year, liberalization of provisions on the immigration of professional workforce from outside the EU) - a risk factor for the assumed in projection increasing number of migrant workers in Poland, most of all from Ukraine 	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%
2018	0%	100%	100%	50%	100%
2019	3%	21%	59%	48%	57%
2020	16%	38%	65%	48%	49%

CPI y/y, %	central path	50% probability interval	
2018	1.8	1.7	1.9
2019	3.2	2.6	3.9
2020	2.9	1.9	3.9

GDP y/y, %	central path	50% probability interval	
2018	4.8	4.4	5.2
2019	3.6	2.7	4.4
2020	3.4	2.3	4.2

We protect the value of money