

NBP

Narodowy Bank Polski

Economic Analysis Department

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

Warsaw / 8 July 2019



Outline

Outline:

Changes between rounds

Projection 2019 – 2021

- Economic conditions abroad
- Polish economy
 - GDP
 - Consumption demand
 - Investment demand
 - Foreign trade
 - Inflation

Uncertainty

1 Changes between projection rounds

2 Projection 2019 – 2021

3 Uncertainty

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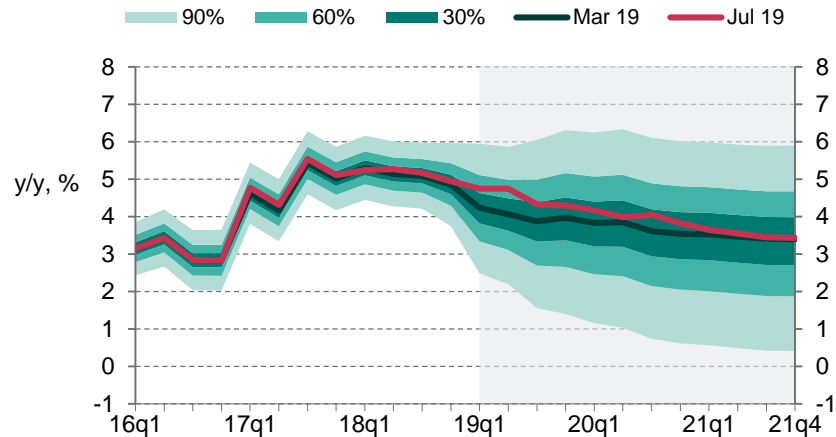
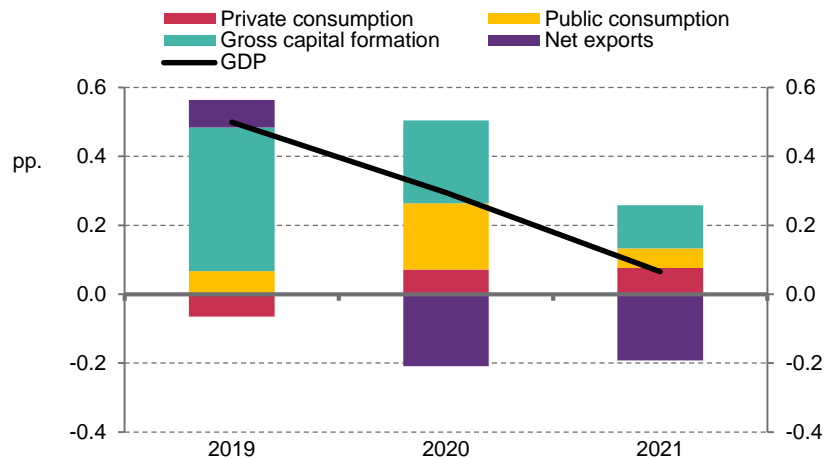
Uncertainty

Changes between projection rounds

July projection compared to March projection – main changes

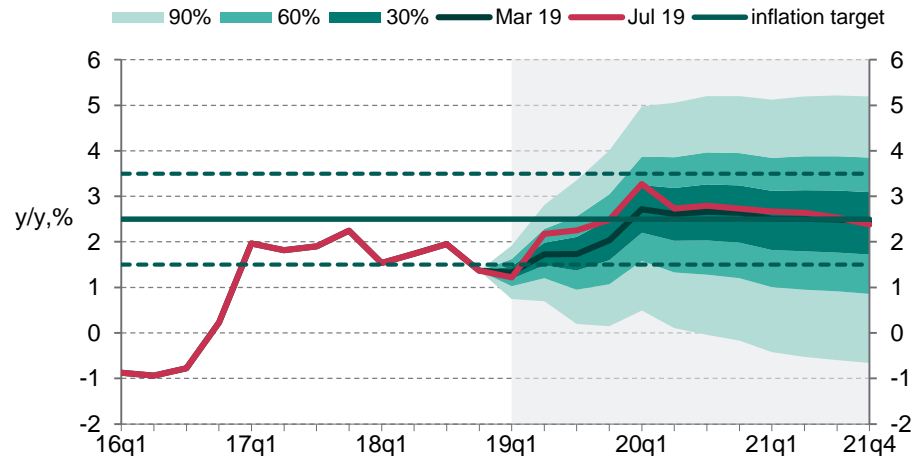
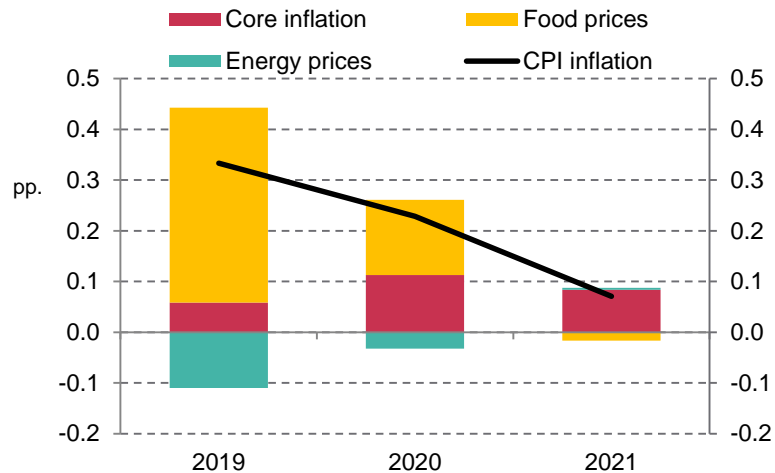
	Impact on GDP	Impact on CPI
Weaker outlook for global growth and trade	↓	↓
Higher resilience of the Polish economy to a slowdown abroad	↑	↑
Higher private investment growth	↑	↑
Stronger złoty appreciation	↓	↓
Higher prices of meat and cold meats in 2019-2020 as a result of the ASF epidemic in China	↓	↑
Higher vegetables prices due to underestimation of the effects of last year's drought and losses in storage	↓	↑
Higher wage growth in the public sector in 2020	↑	↑

July GDP projection compared to March projection



GDP y/y, %	2019	2020	2021
March 2019	4.0	3.7	3.5
July 2019	4.5	4.0	3.5

July CPI projection compared to March projection



CPI y/y, %	2019	2020	2021
March 2019	1.7	2.7	2.5
July 2019	2.0	2.9	2.6

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Projection 2019-2021

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- Polish economy

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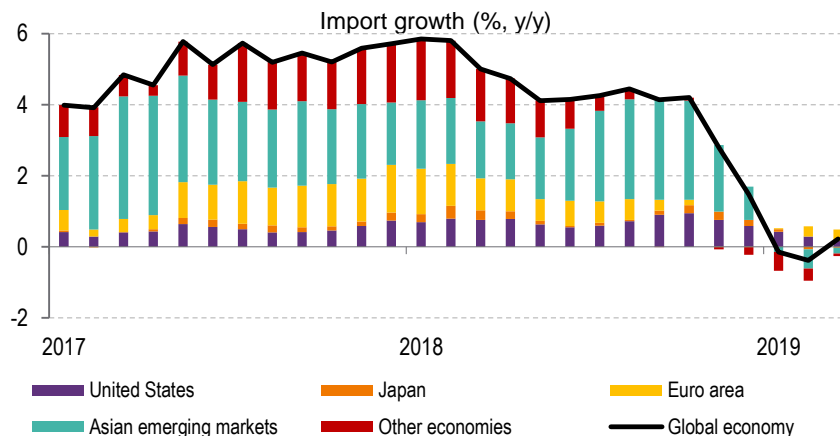
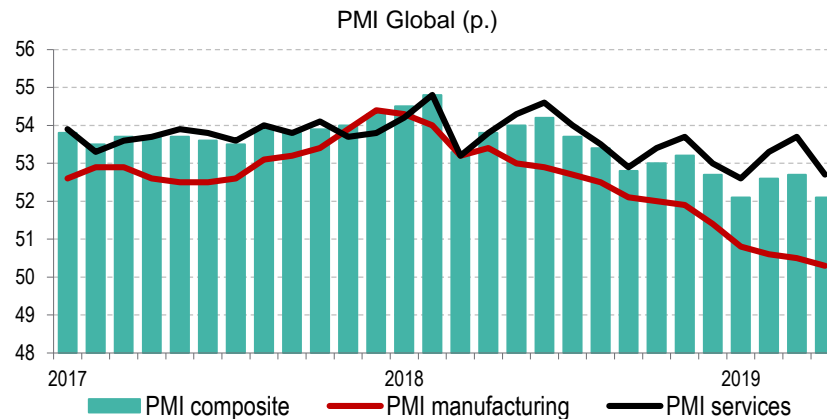
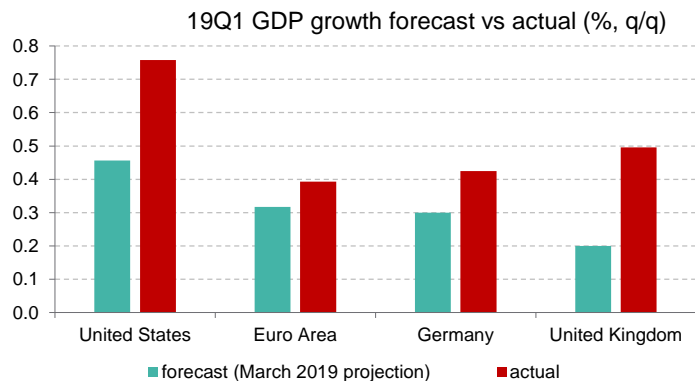
Uncertainty

Economic conditions abroad

Despite stronger 19Q1, forecast for GDP growth outside Poland was revised downward

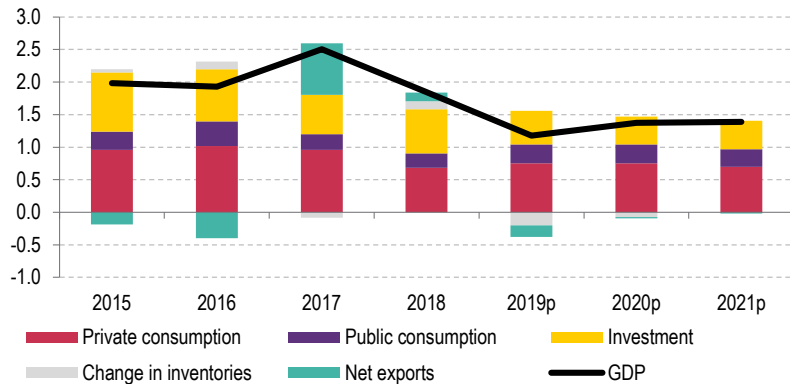
NBP forecasts
(March 2019 projection in brackets)

GDP y/y, %	2019	2020	2021
Euro area	1.2 (1.2)	1.4 (1.5)	1.4 (1.4)
Germany	0.7 (0.9)	1.2 (1.4)	1.4 (1.4)
US	2.5 (2.5)	1.8 (2.0)	1.8 (1.8)
China	6.3 (6.1)	6.0 (6.0)	5.9 (-)

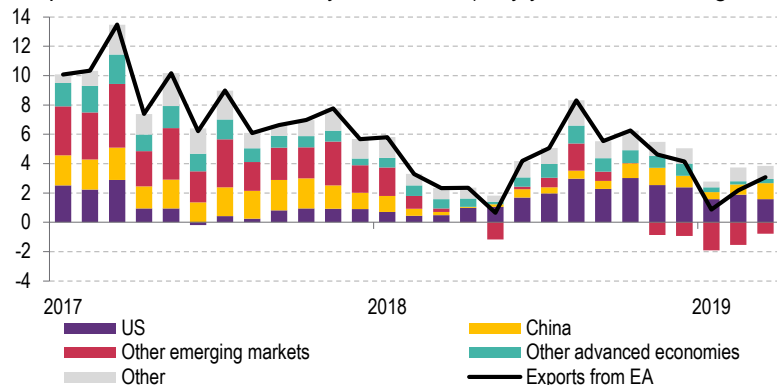


Unfavourable signals from foreign demand contributed to a lower GDP growth forecast for the euro area

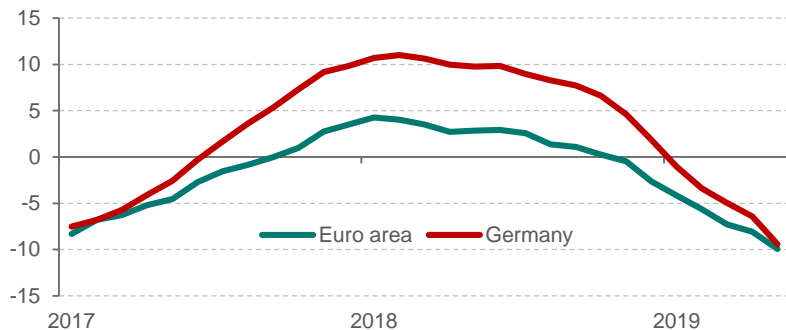
Forecast for GDP growth in the euro area (% , pp., y/y)



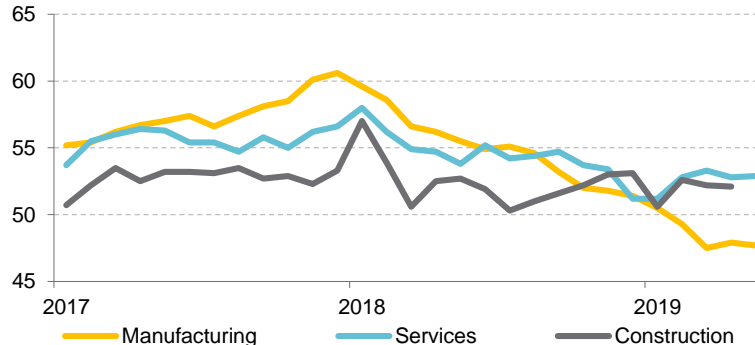
Exports from the euro area by destination (% , y/y, 3-month moving average)



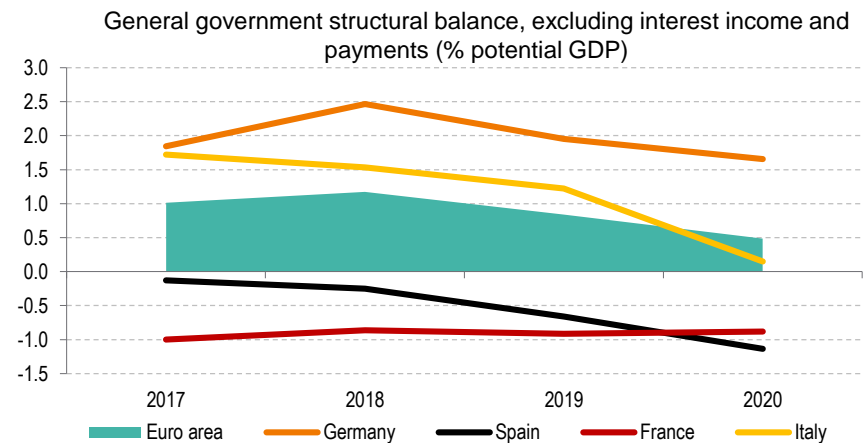
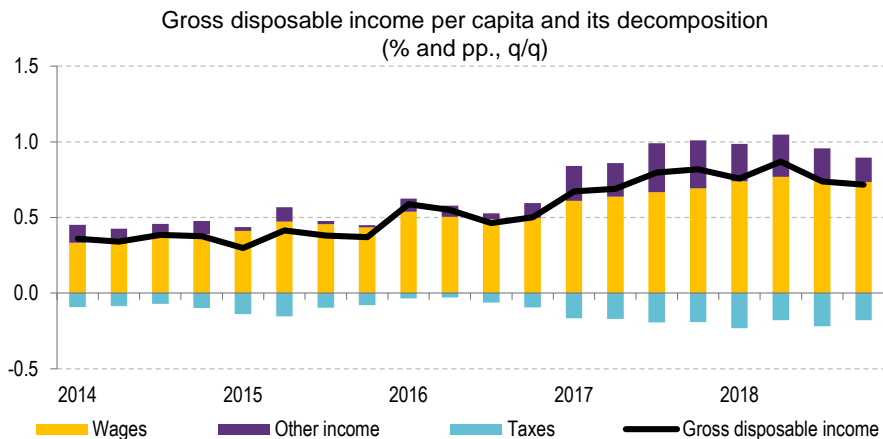
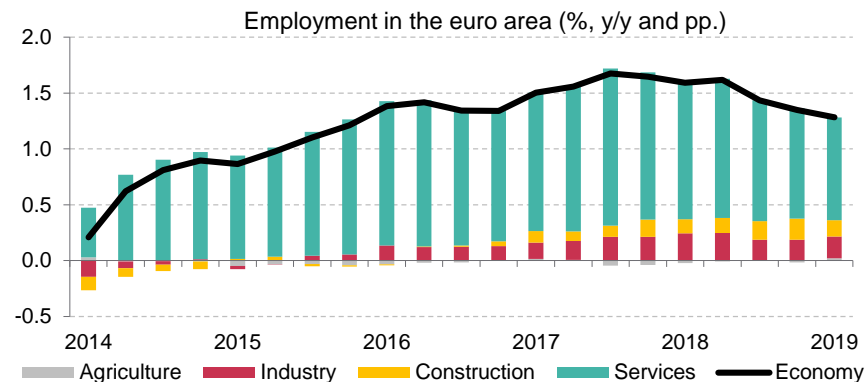
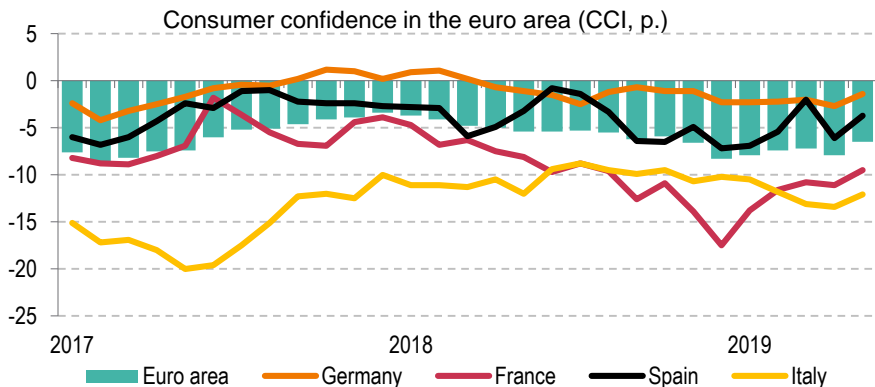
Assessment of export orders (3-month moving average)



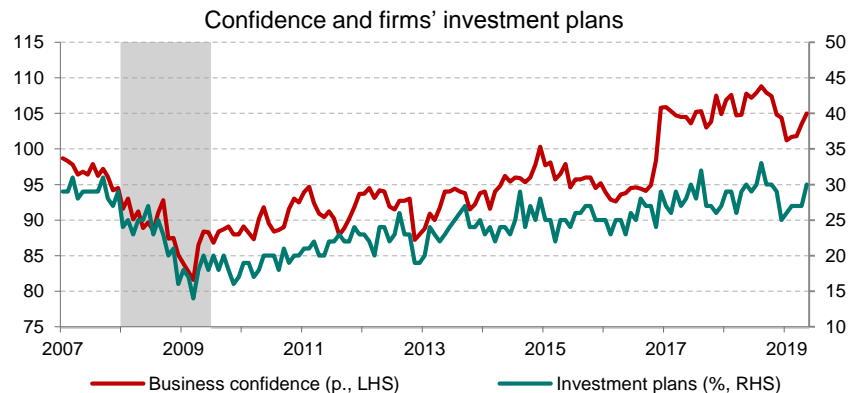
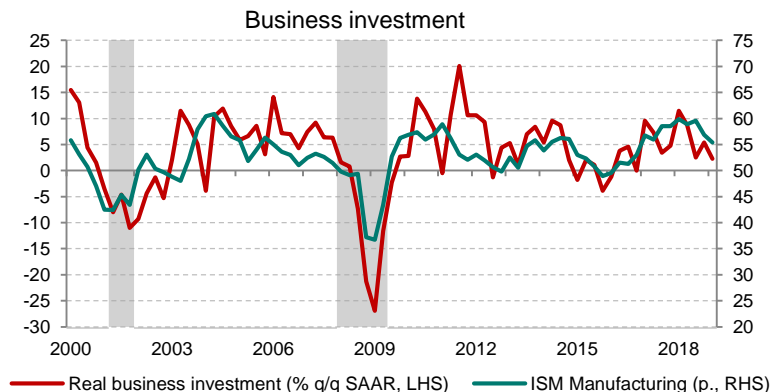
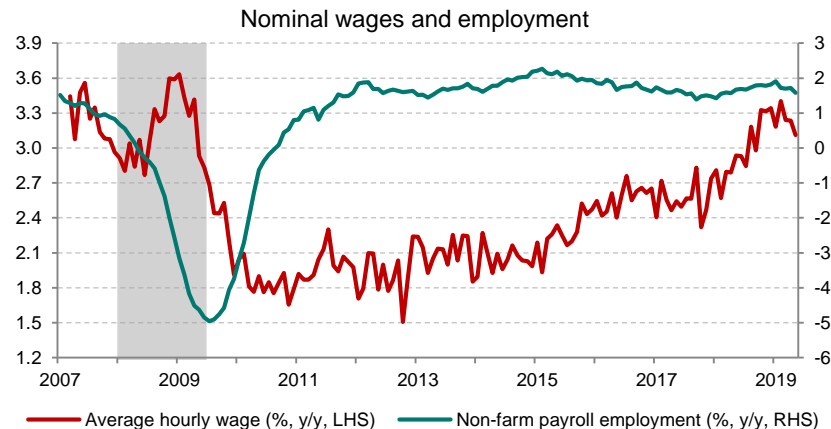
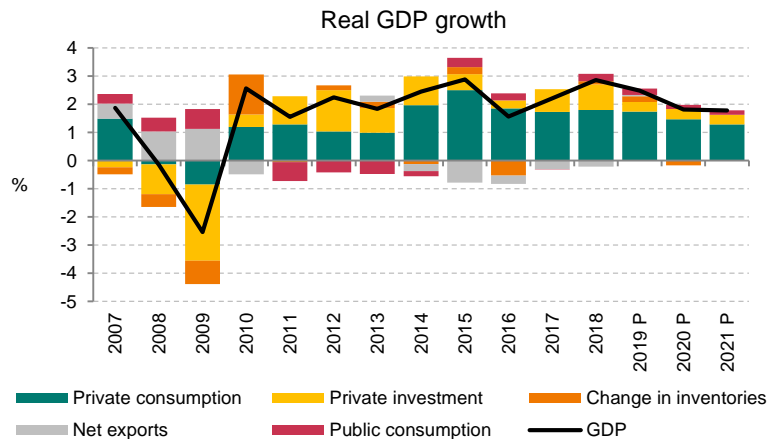
Business confidence (PMI, p.)



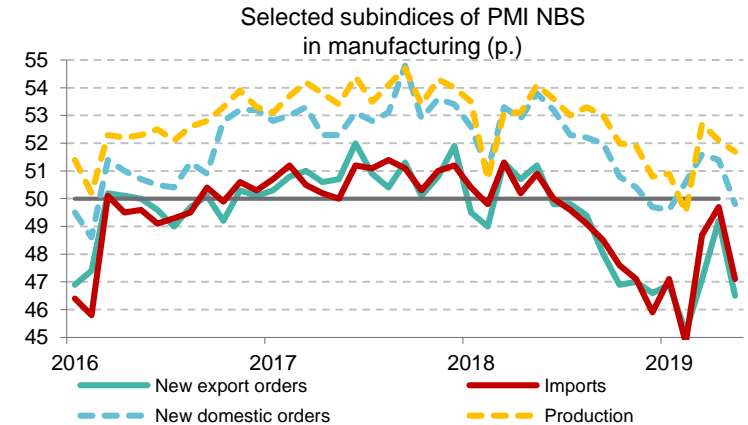
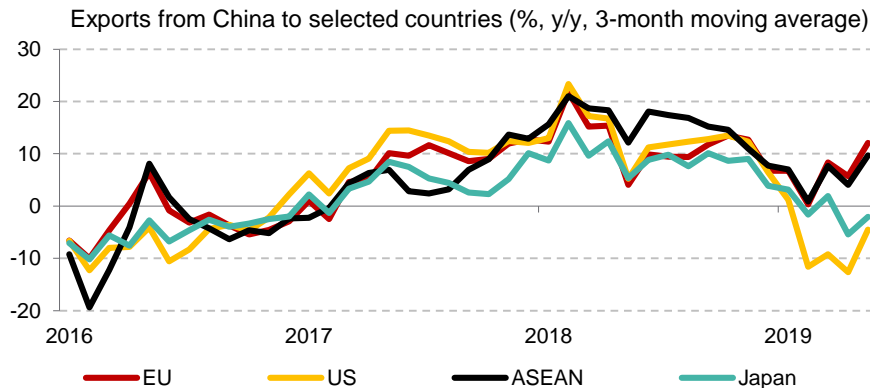
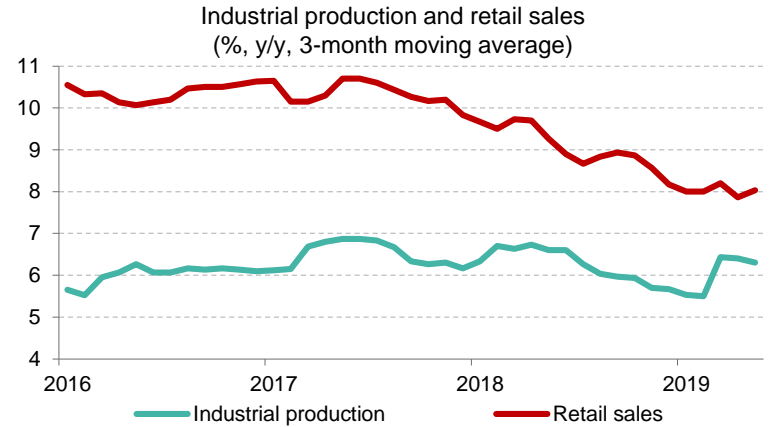
Growth in the euro area is supported by domestic demand



Growth in the United States will gradually slow down



Downside risk to gentle downward trajectory of GDP growth in China due to trade dispute with the US



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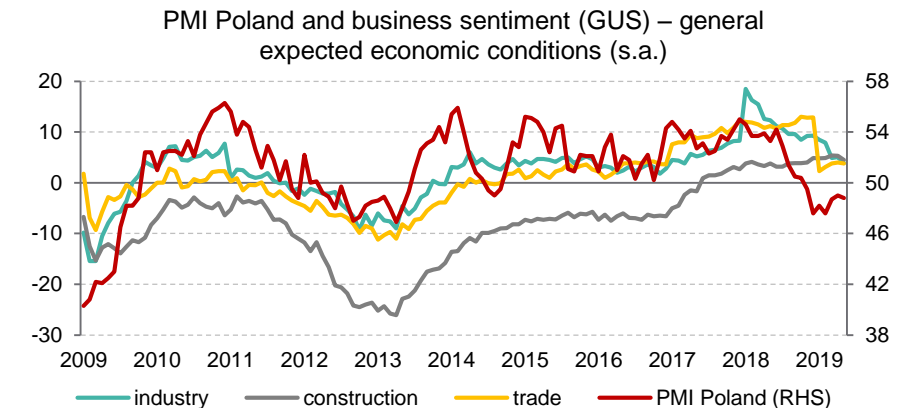
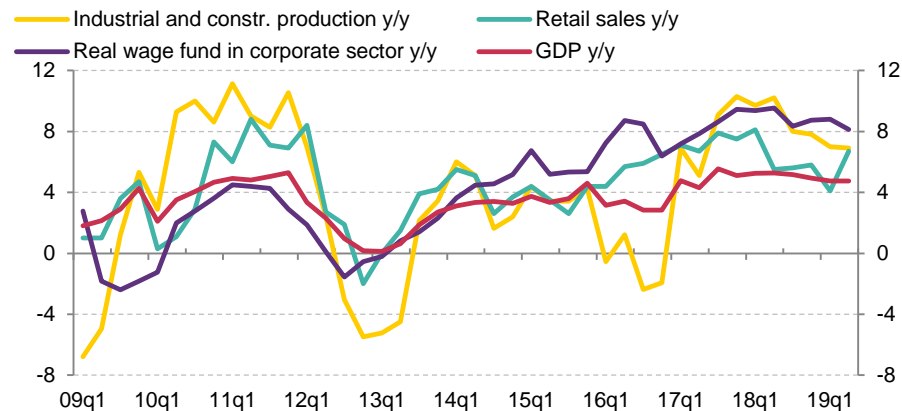
Uncertainty

Polish economy

Gross domestic product

Still high economic growth in 19Q1

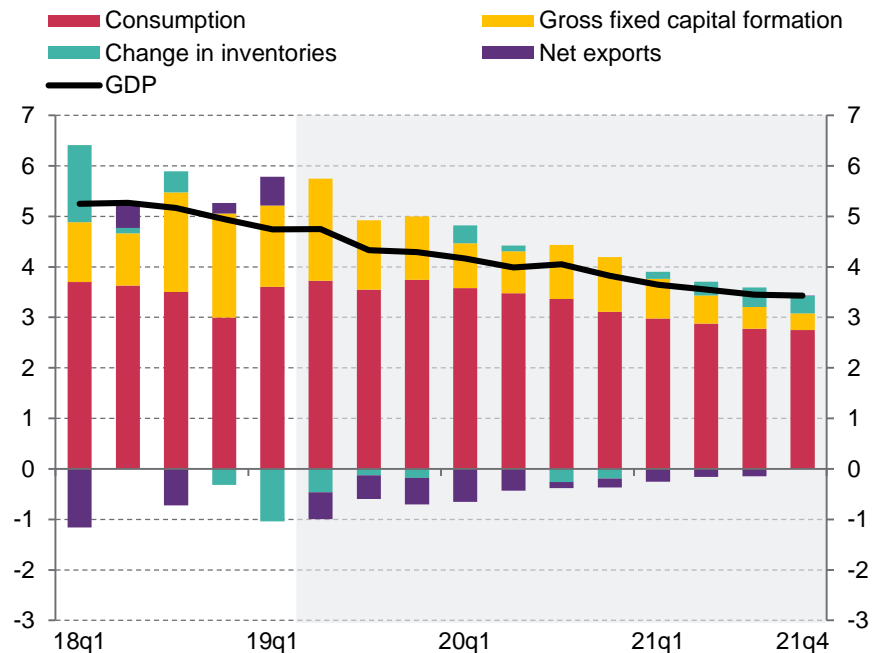
	18q4		19q1	
GDP (y/y) (%)	4.9	(4.9)	4.7	(4.2)
Domestic demand (y/y) (%)	4.8	(4.3)	4.2	(4.0)
Household consumption (y/y) (%)	4.2	(4.2)	3.9	(4.1)
Public consumption (y/y) (%)	4.7	(4.6)	6.4	(4.4)
Gross fixed capital form. (y/y) (%)	8.2	(6.9)	12.6	(5.9)
Exports (y/y) (%)	7.9	(7.2)	5.9	(5.3)
Imports (y/y) (%)	7.8	(6.1)	5.0	(4.9)
Net exports contribution (pp.)	0.3	(0.7)	0.7	(0.3)



Values from the March projection are given in brackets (19q1 seasonally adjusted). Indicators with values higher than in the March projection are marked green, and indicators with lower values are marked red.

Source: GUS data, NBP calculations.

... GDP growth will gradually moderate due to an ongoing lower economic activity in the euro area and a slowdown in EU funds absorption growth.



- ↑ **Private consumption** as the main driver of GDP growth in projection horizon.
- ↑ Significant acceleration of **private investment** in 2019 – high growth rate of business investment, accompanied by still relatively strong demand for housing.
- ↓ Weakening of **gross fixed capital formation** growth in 2020-2021.
- ↓ Slightly negative **net exports' contribution** over the projection horizon.

y/y, %	2018	2019	2020	2021
GDP	5.1	4.5	4.0	3.5

Outline:

Changes between rounds

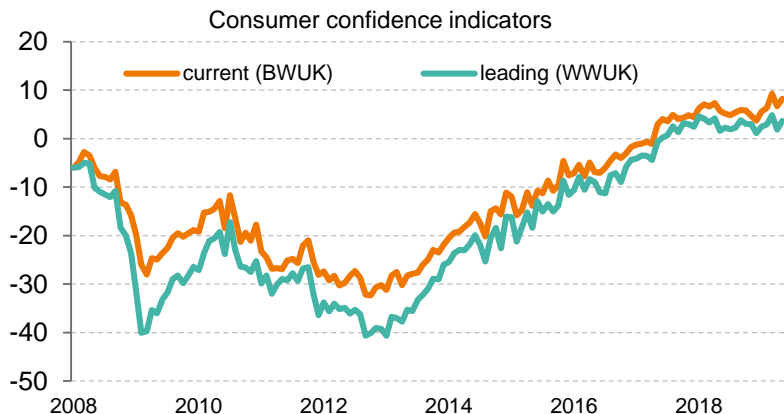
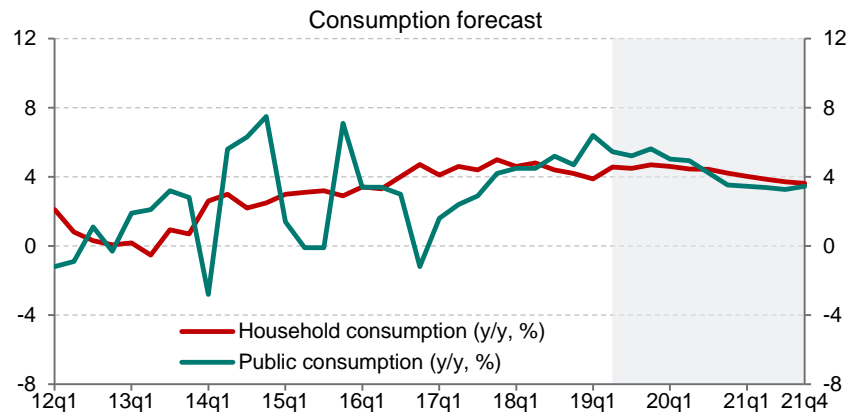
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Consumption demand

Consumption demand remains the main driver of GDP growth over the projection horizon



Private consumption:

- ↑ Spread-out impact of already introduced or planned fiscal changes significantly increasing expenditures on social benefits and lowering tax burden.
- ↑ Favourable, from the point of view of employees, labour market conditions.
- ↑ Low interest rates facilitate financing consumption through borrowing.

In the longer term:

- ↓ Weakening of wage growth in 2020-2021.
- ↓ Gradual fading-out of the fiscal stimulus in 2021.

Public consumption:

- ↑ 2019 Budget Act – increase in wages in the budget sector and selected professional groups (i.a. teachers, academic teachers and employees of uniformed services).
- ↑ Approved by the government, an average annual increase in wages in the budget sector of 6% in 2020.
- ↓ Lack of detailed information on the public consumption expenditure in 2021.

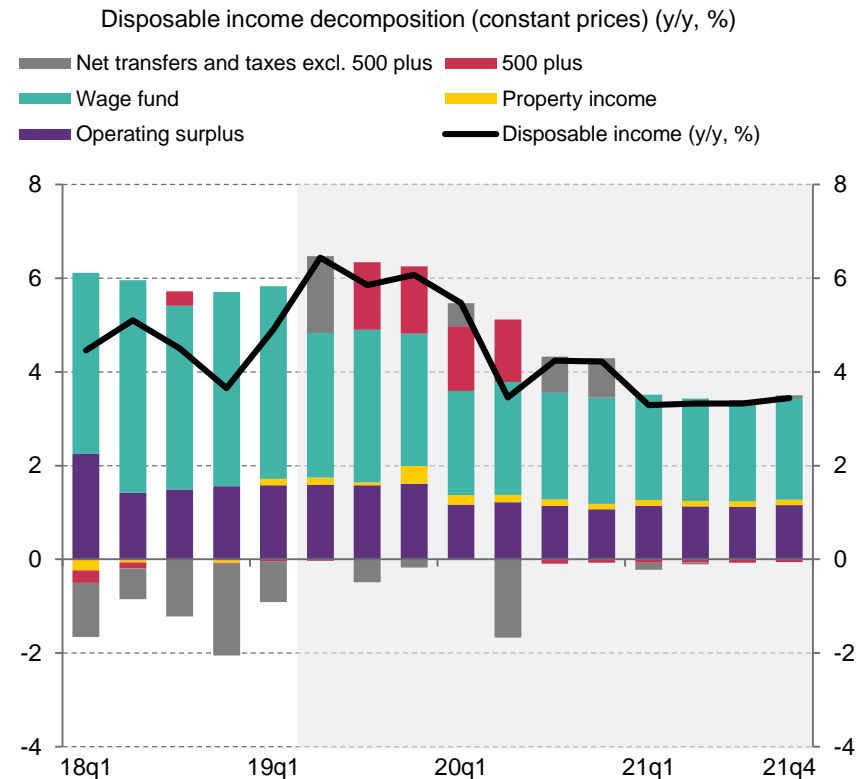
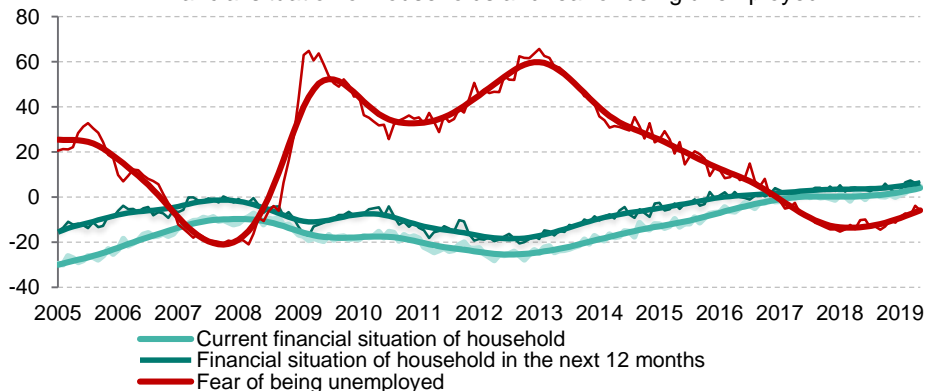
y/y, %	2018	2019	2020	2021
Household consumption	4.5	4.4	4.4	3.8
Public consumption	4.7	5.4	4.4	3.4

Very good financial situation of households. Gradual decline in disposable income growth in 2020-2021.

	18q4		19q1	
ULC (y/y, %)	2.8	(3.3)	1.9	(3.5)
Labour productivity (y/y,%)	4.9	(3.9)	5.2	(3.6)
Gross wages (y/y, %)	7.7	(7.3)	7.1	(7.3)
Employment LFS (y/y, %)	0.0	(0.9)	-0.4	(0.6)
Unemployment rate LFS (%)	3.8	(3.6)	3.8	(3.5)
Participation rate (%)	56.2	(56.4)	56.3	(56.6)

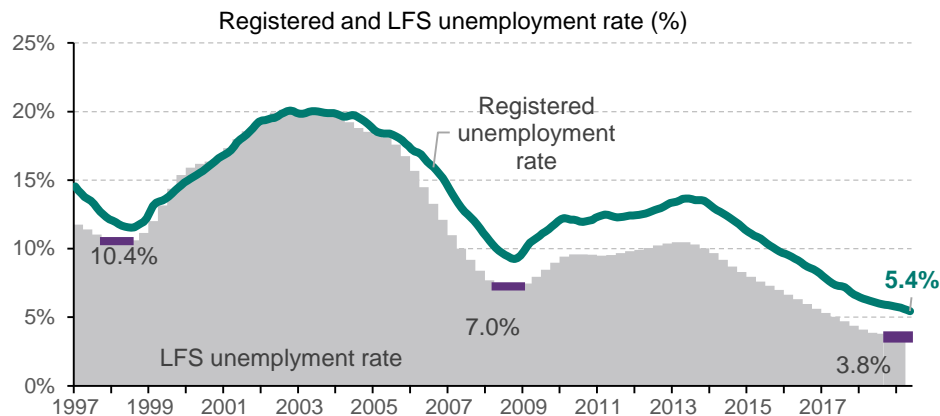
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Financial situation of households and fear of being unemployed

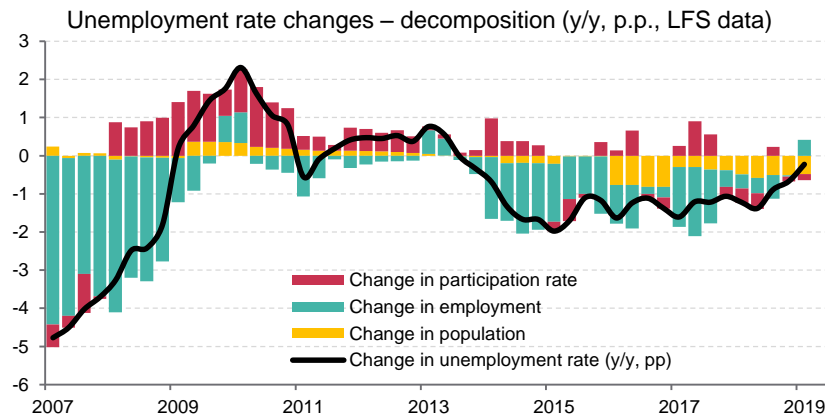
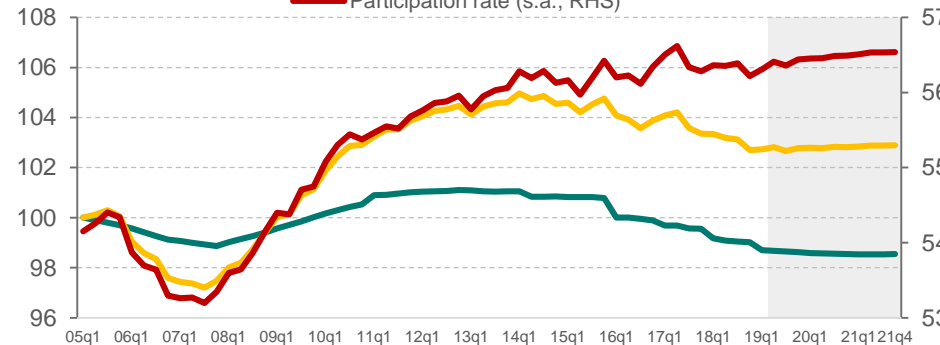


Source: GUS data, NBP calculations.

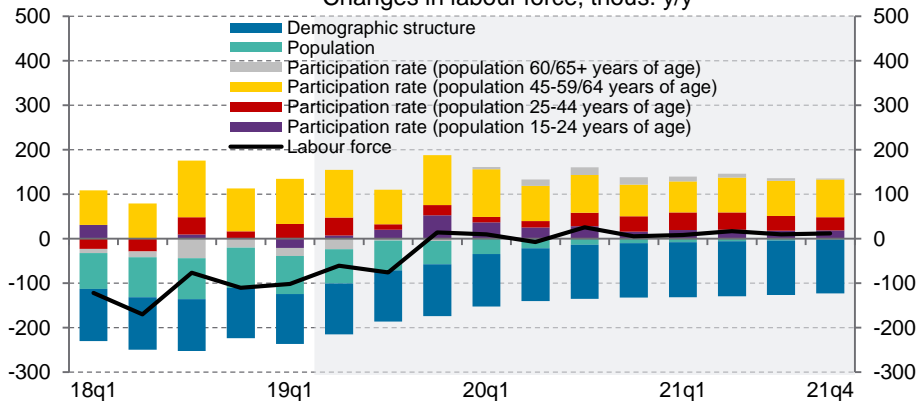
Unemployment rate remains low – currently also due to negative demographic factors



- LFS population (2005q1=100%)
- Economically active (s.a., 2005q1=100%)
- Participation rate (s.a., RHS)

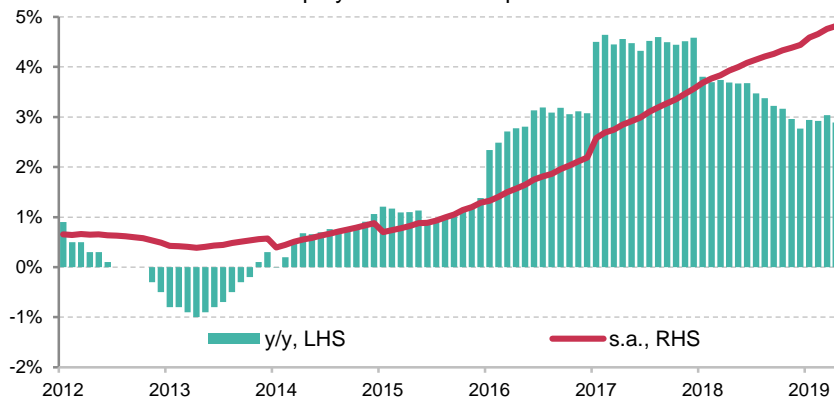


Changes in labour force, thous. y/y

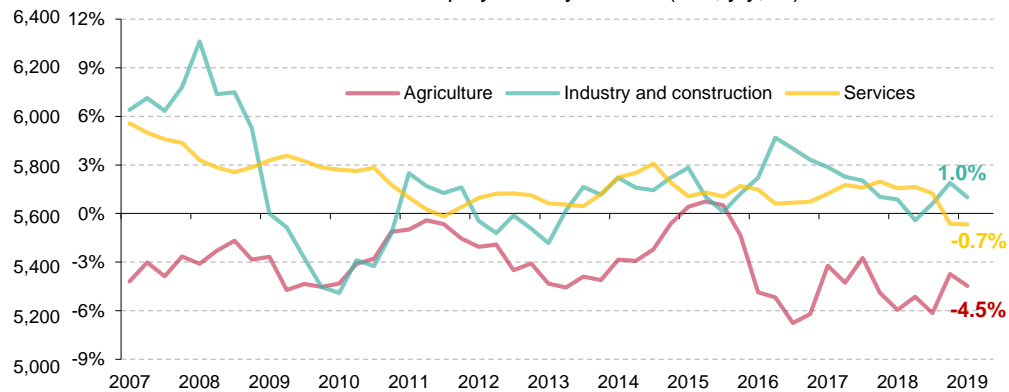


Supply constraints translate into lower employment growth

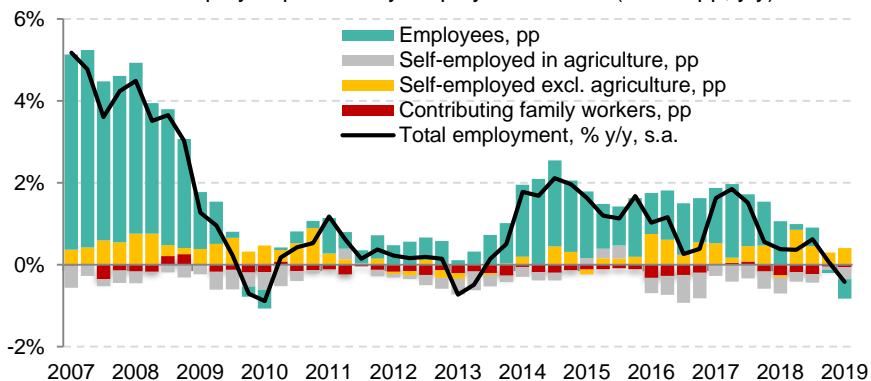
Employment in the corporate sector



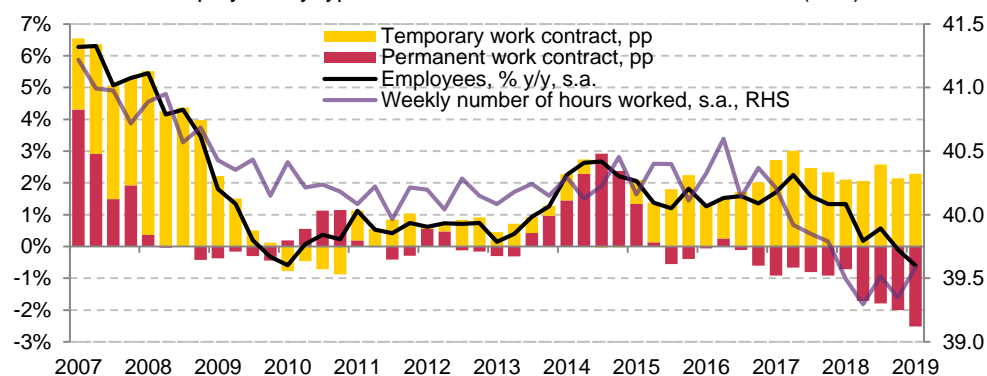
LFS employment by sectors (s.a., y/y, %)



Employed persons by employment status (% and pp, y/y)



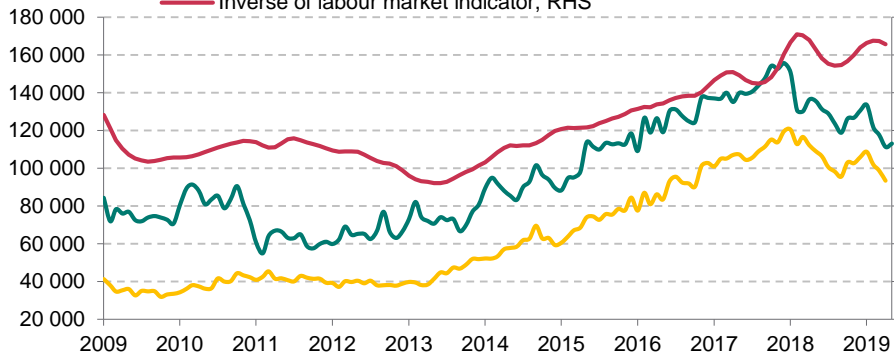
Employees by type of contract and number of hours worked (LFS)



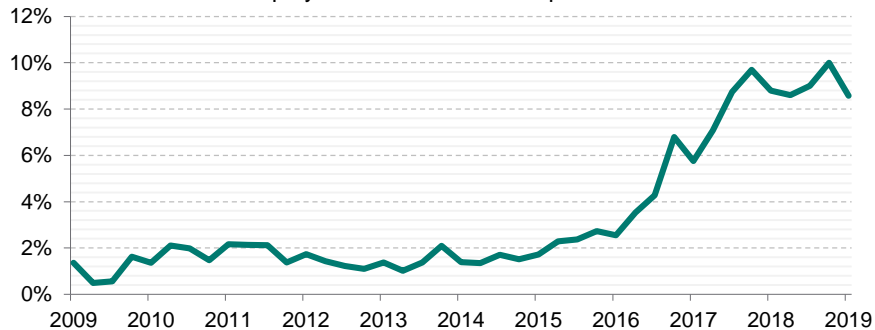
Labour demand stabilised at a high level

Vacancies

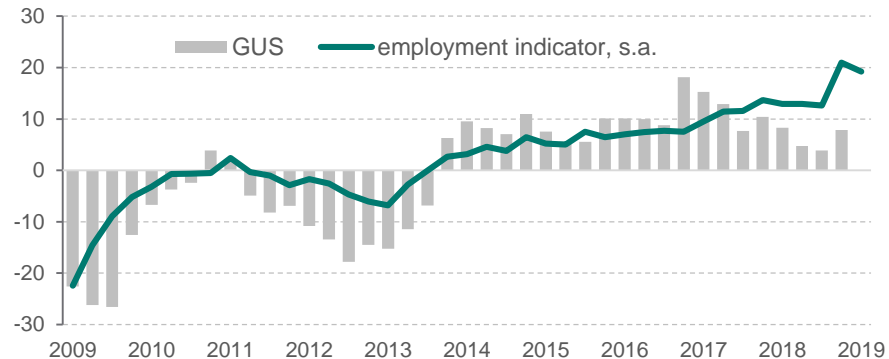
- Number of vacancies within a month, s.a., LHS
- Number of non-subsidized vacancies within a month, s.a., LHS
- Inverse of labour market indicator, RHS



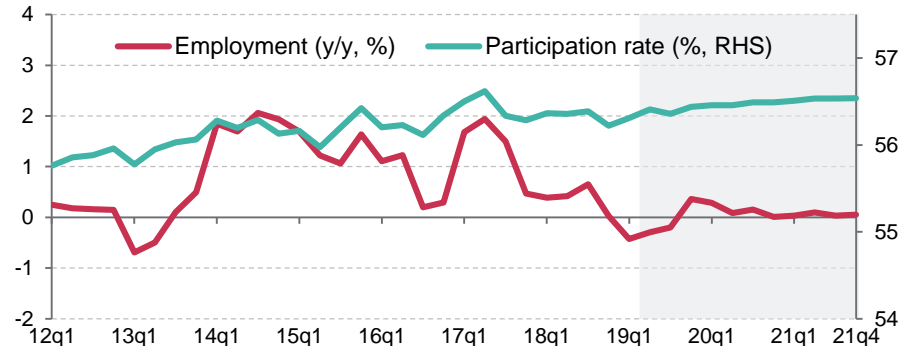
Share of companies reporting difficulties with finding new employees as a barrier for expansion



Employment forecast indicator (NBP Annual Survey) and net balance of companies increasing and decreasing employment (GUS) [in pp.]

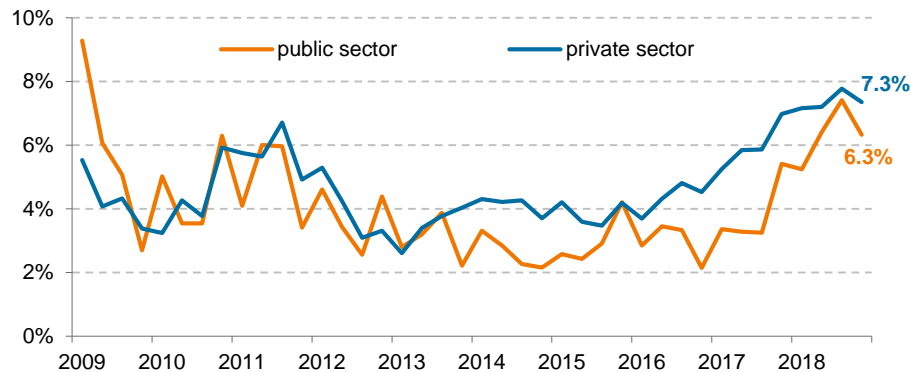


Employment and participation rate forecast

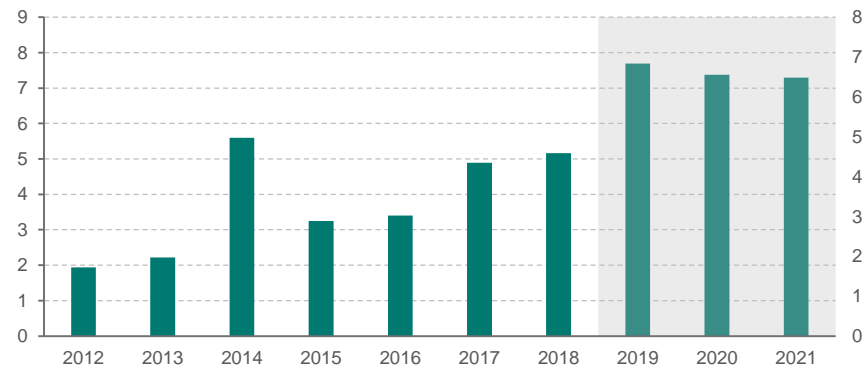


Wage growth will decline over the projection horizon

Nominal wages
(% y/y, s.a., last data point 18Q4)



Wage fund* in the public sector (current prices, y/y, w %)

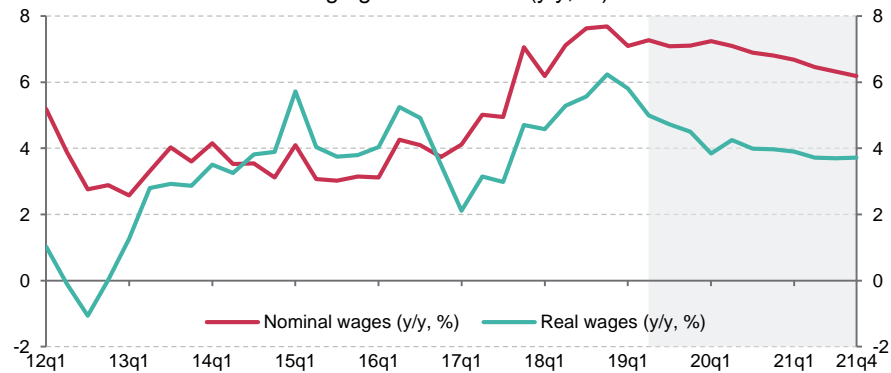


* Wage fund including social insurance contributions paid by employer

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



Wage growth forecast (y/y, %)



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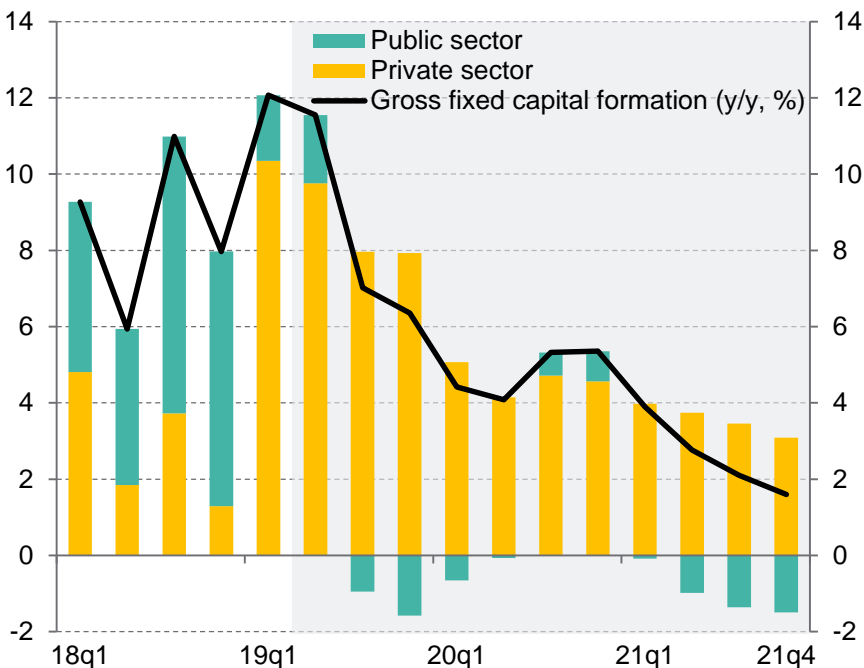
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Investment demand

Marked acceleration of private investment in 2019, accompanied by lower public investment growth



Public investment:

- ↑ Still positive, but lower than last year, growth in EU funds absorption in 2019.
- ↓ Decrease in EU funds absorption in 2020-2021.

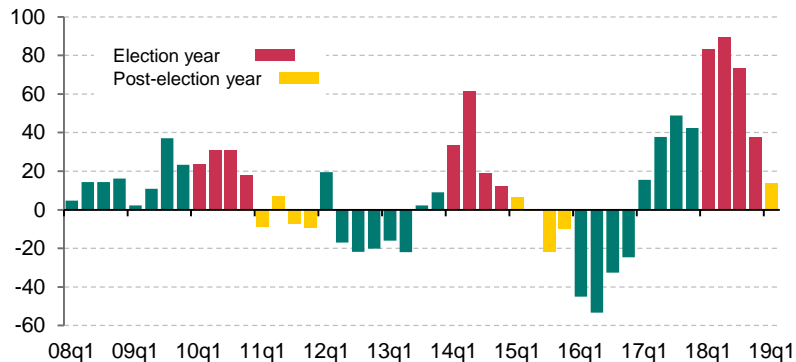
Private investment:

- ↑ Currently favorable demand conditions.
- ↑ High level of capacity utilisation, accompanied by a low investment rate.
- ↑ Low interest rates.
- ↑ Good financial situation of households.
- ↑ Difficulties with finding employees.
- ↓ Delayed effects of a slowdown in foreign demand growth.
- ↓ Decreasing contribution of EU funds absorption for the private sector.
- ↓ Gradual reduction in housing expenditure growth.

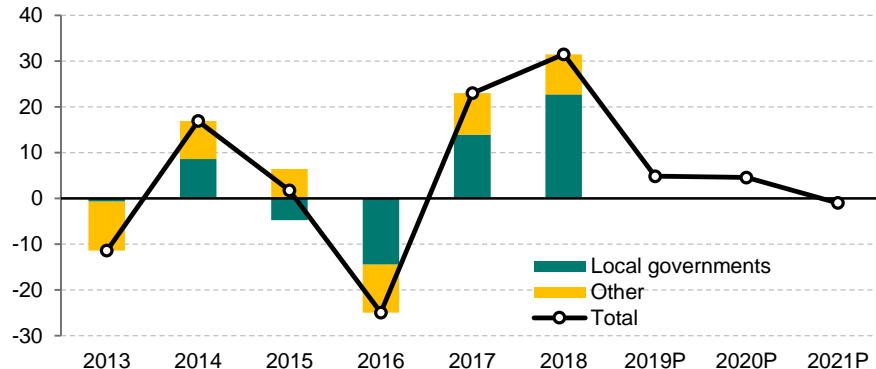
y/y, %	2018	2019	2020	2021
Gross fixed capital formation	8.7	8.6	4.8	2.6

Public investments growth, including those financed with EU funds, will decline, mainly due to local governments

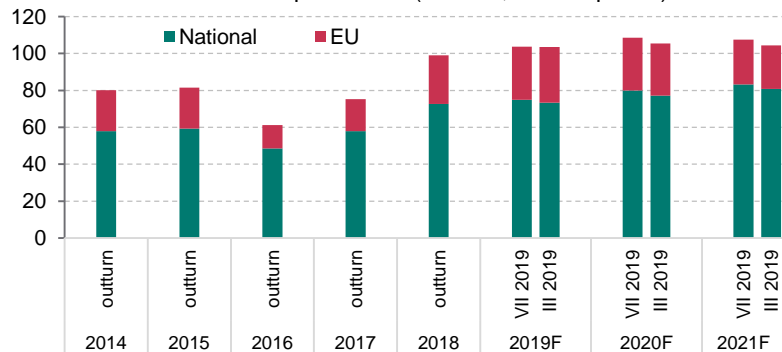
Investment expenditures of local governments (y/y, %, current prices)



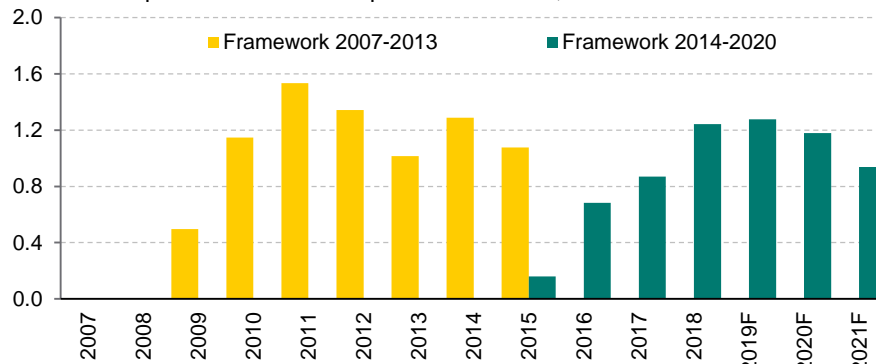
Contributions to public investment growth (% y/y, current prices)



Public investment expenditures (bn PLN, current prices)

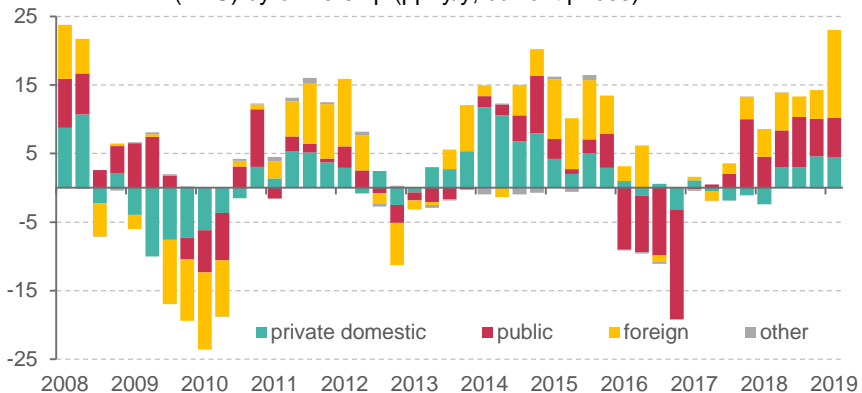


Absorption of EU funds for public investment, % GDP

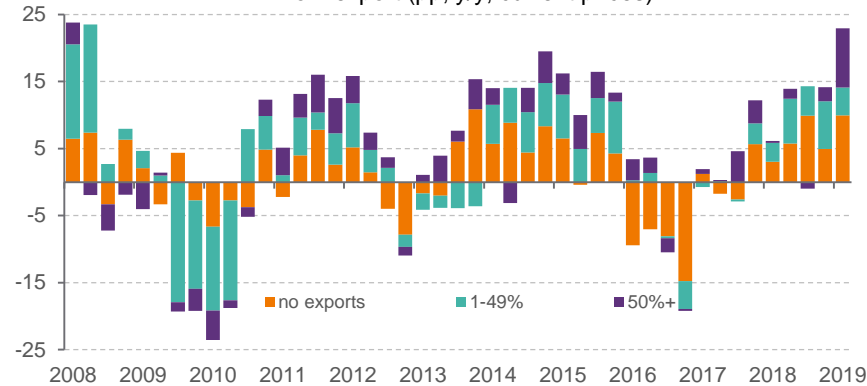


Expected increase in business investment growth in 2019, and then its gradual decline

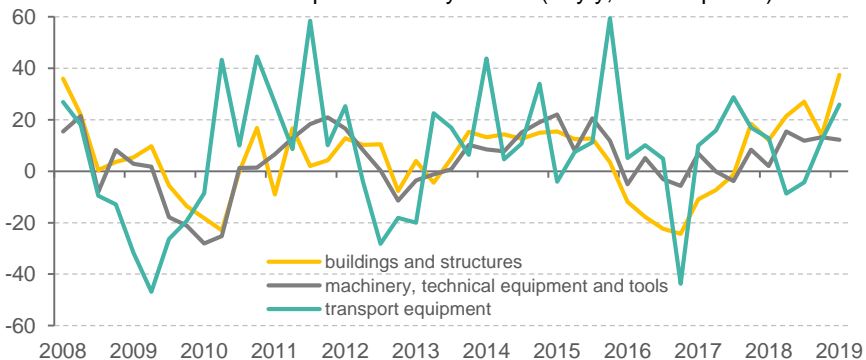
Investment expenditure of medium and large non-financial corporations (NFC) by ownership (pp. y/y, current prices)



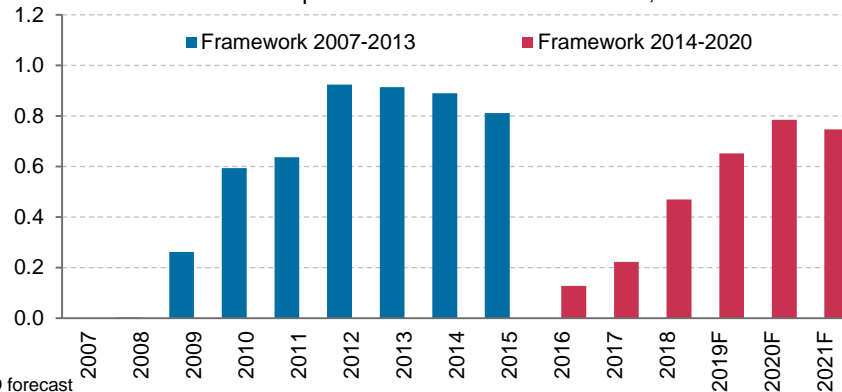
Decomposition of NFC's investment growth by firms' share of revenues from export (pp. y/y, current prices)



NFC's investments expenditures by assets (% y/y, current prices)



Absorption of EU funds for businesses, % GDP



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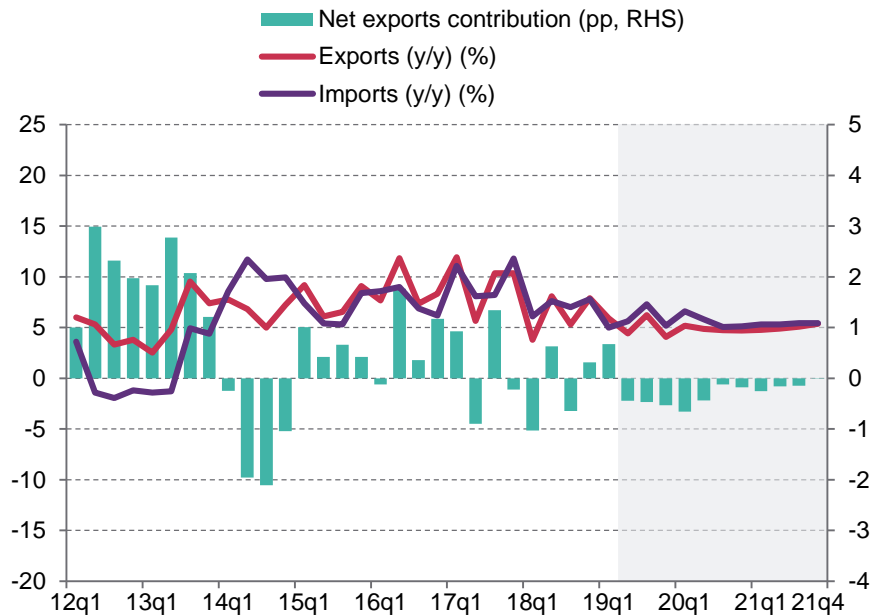
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Foreign trade

Relatively high net exports' contribution to growth in 19Q1 despite an ongoing slowdown in the euro area



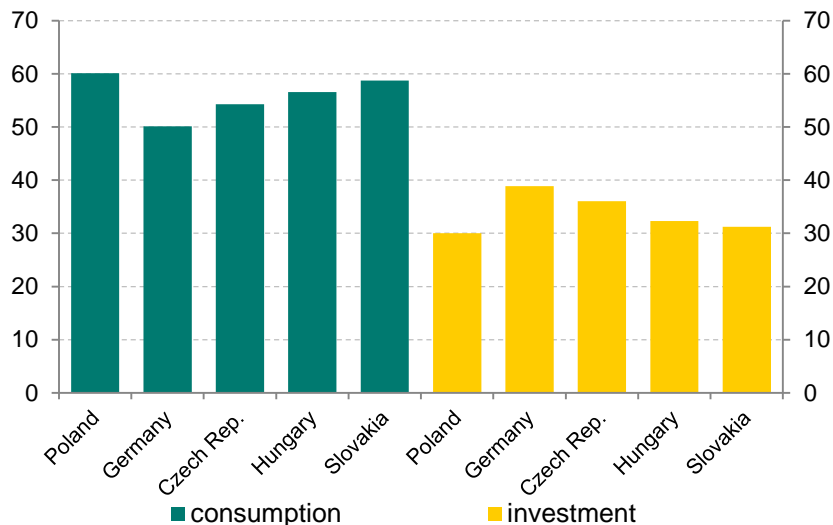
Net exports:

- ↑ Still relatively high competitiveness of the Polish economy.
- ↑ High share of consumption goods in Polish exports, compared to other countries in the region.
- ↓ Slowdown in global trade and weaker economic growth in the euro area in 2019-2021.
- ↓ Continued high domestic demand growth.

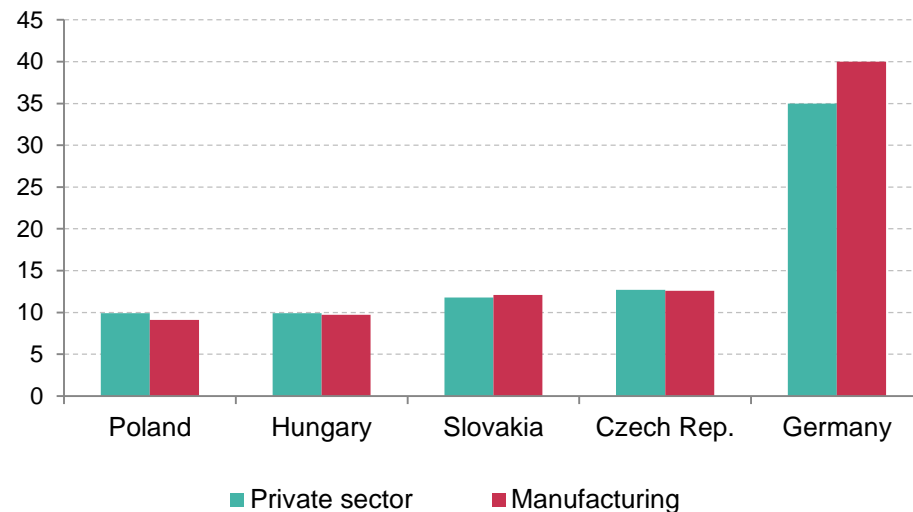
y/y pp	2018	2019	2020	2021
Net exports contribution to growth	-0.2	-0.2	-0.3	-0.1

Structural conditions of the Polish exports cushioned a slowdown in global trade

Share of consumption and investment final demand in the exported value added in 2014 (%)



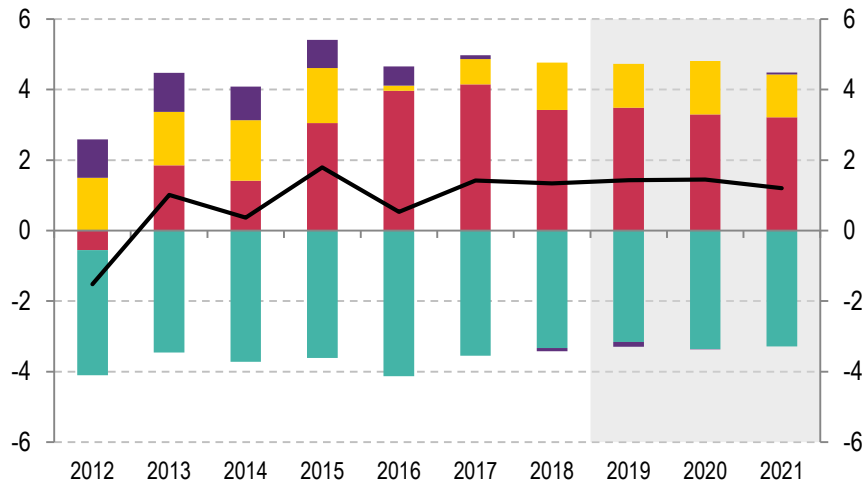
Hourly labour costs in the private sector and manufacturing in 2018 (EUR)



- Consumption demand exhibits lower sensitivity to business cycle than investment demand – higher share of consumption in exports may be considered a structural condition, partly mitigating weakening in global trade.
- Price and cost competitiveness of the Polish economy remains high.

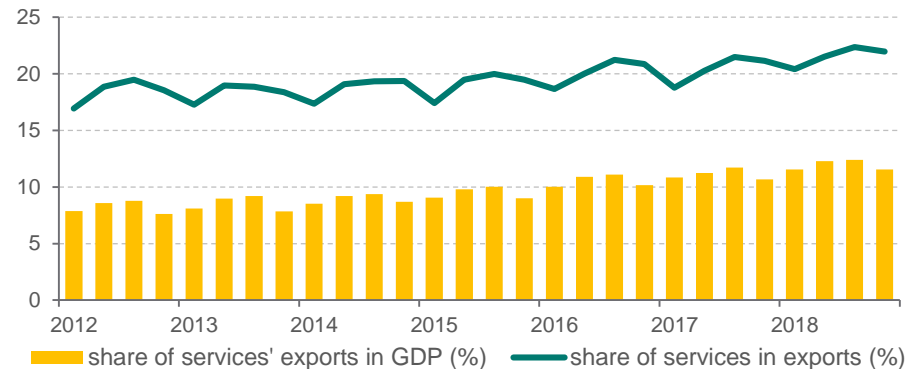
Still high positive current and capital account balance in 2019 and its small decrease afterwards

Current and capital account balance (% GDP)



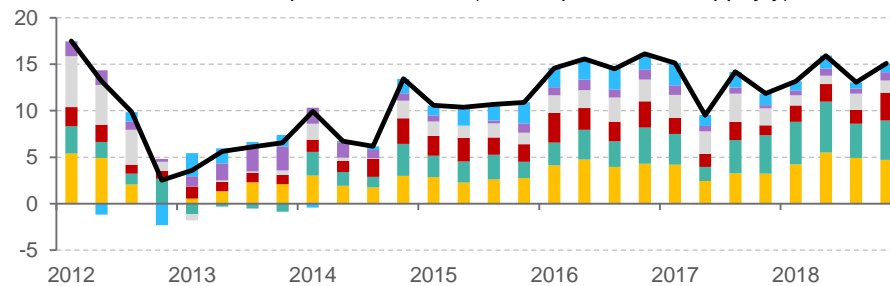
- Remittances
- Primary income
- Secondary income
- Goods and services
- Current and capital account (% GDP)

Share of services in exports and GDP (current prices, %)



- share of services' exports in GDP (%)
- share of services in exports (%)

Polish exports of services (current prices, % and pp, y/y)



- Transport
- Foreign travel
- Other business services
- Processing
- IT services
- Other
- Total

Outline:

Changes between rounds

Projection 2019 – 2021

- Economic conditions abroad
- Polish economy
 - GDP
 - Consumption demand
 - Investment demand
 - Foreign trade
 - Inflation

Uncertainty

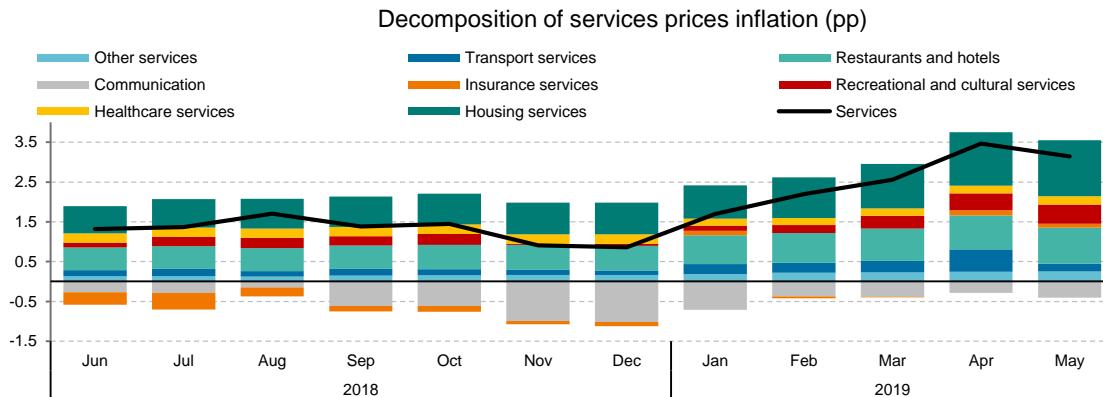
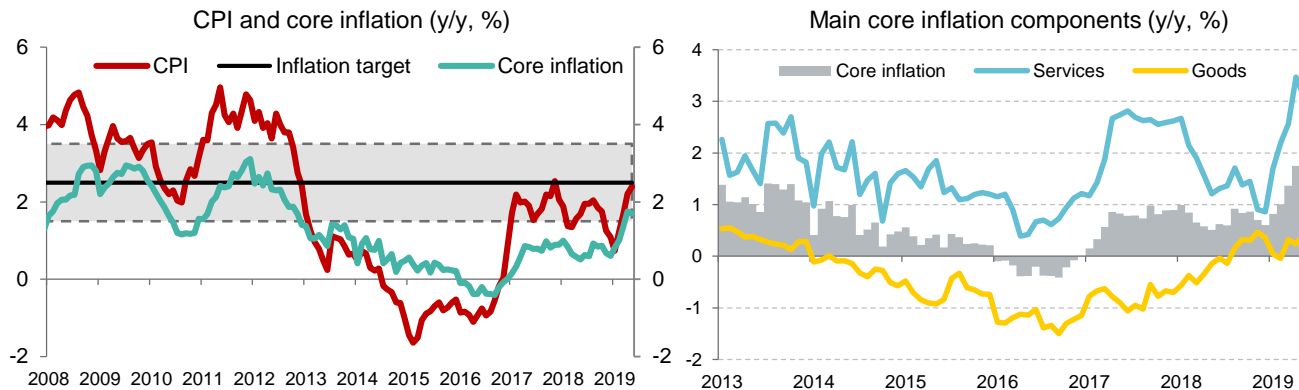
Polish economy

Inflation

**Slight decrease in CPI inflation in 19Q1 due to lower energy prices inflation.
Increase in core inflation, caused mainly by higher prices of services.**

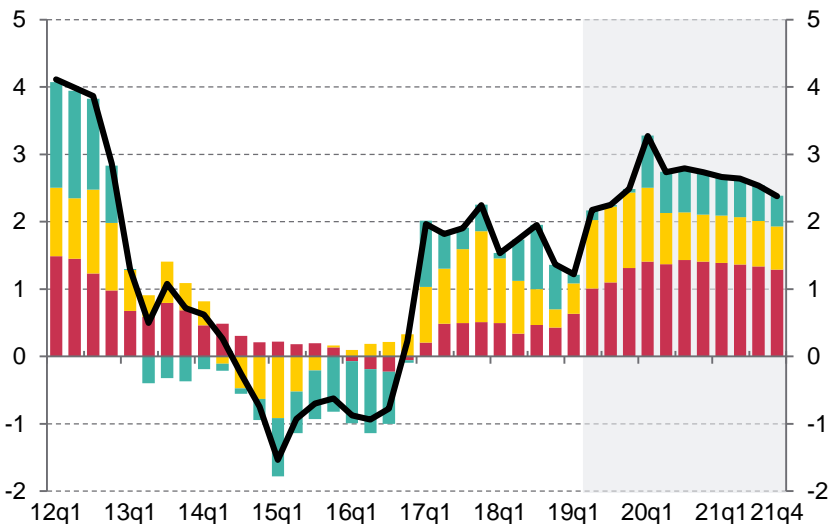
y/y, %	18q4	19q1	(1.3)
CPI inflation	1.4	1.2	(1.3)
Core inflation	0.7	1.1	(1.2)
Food prices	1.1	1.8	(1.5)
Energy prices	4.1	0.8	(1.4)

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



CPI inflation will accelerate from last year's low level (of 1.6%), staying within a permissible fluctuation band of the inflation target over the projection horizon

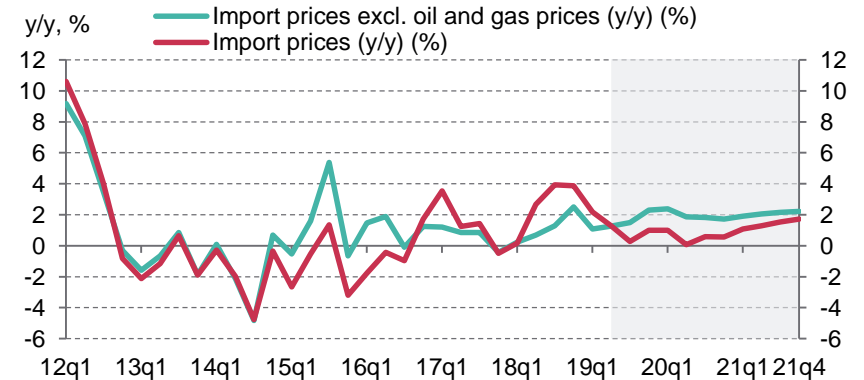
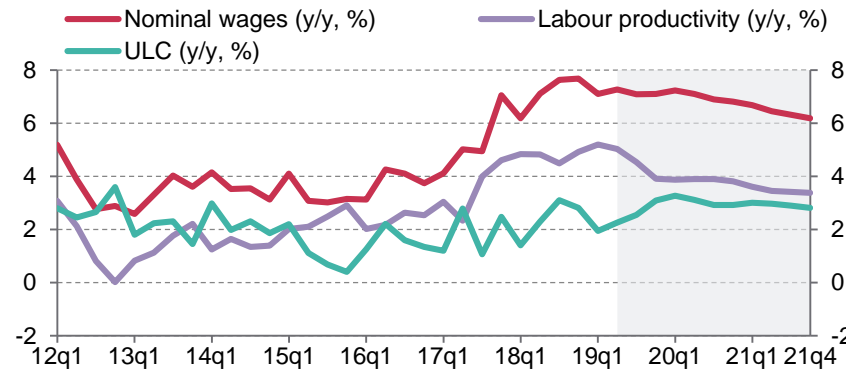
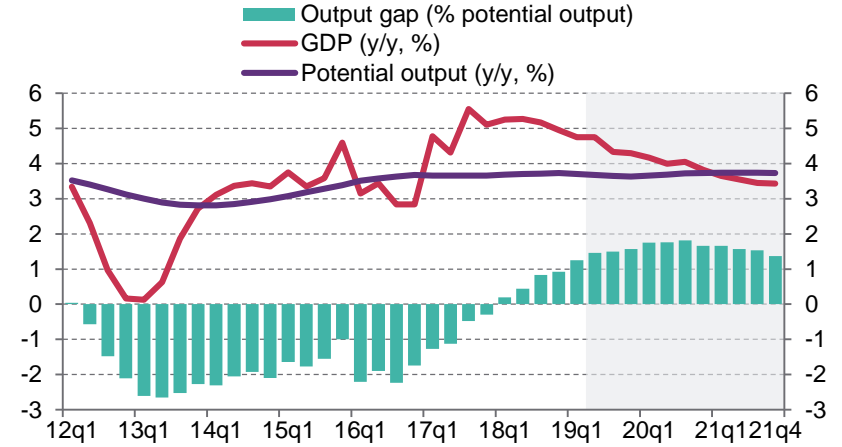
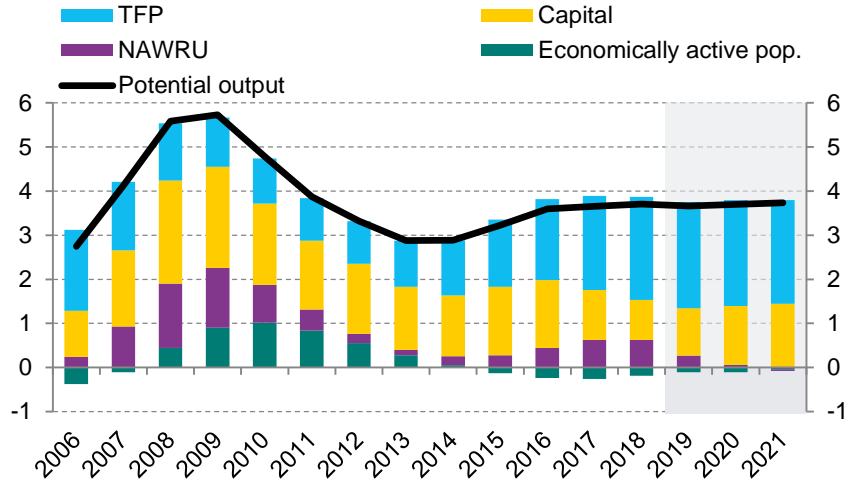
■ Core inflation ■ Food prices
■ Energy prices — CPI inflation



y/y, %	2018	2019	2020	2021
CPI inflation	1.6	2.0	2.9	2.6

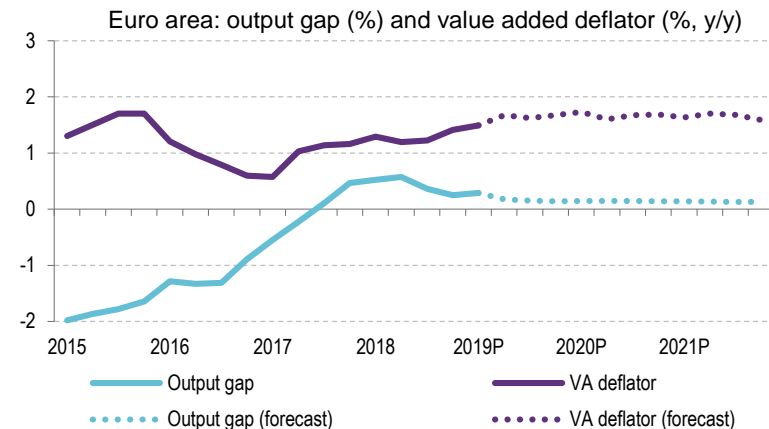
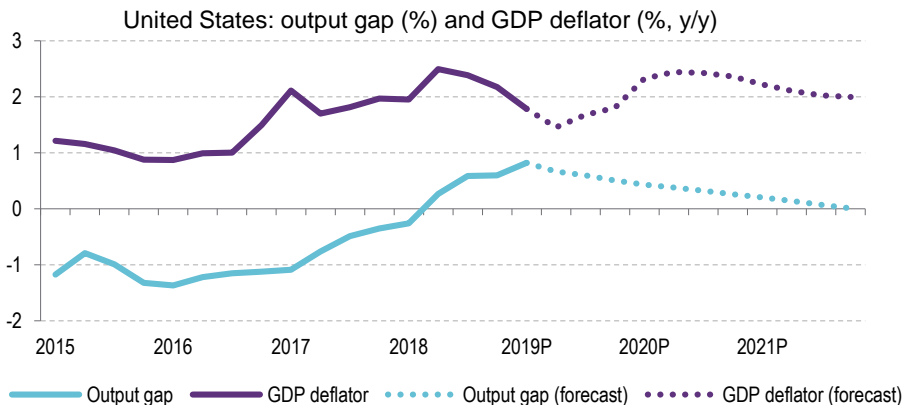
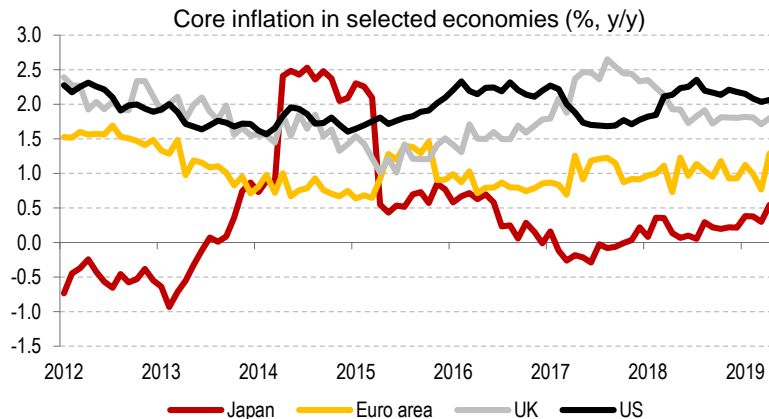
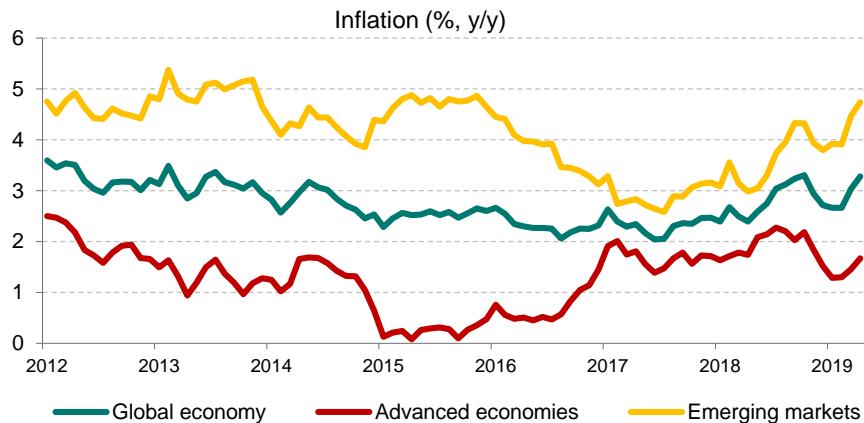
- ↑ Delayed effect of a current increase in cost pressure, stemming from the labour market, and in demand pressure.
- ↔ Stabilisation and decrease in cost and demand pressure over the longer projection horizon.
- ↓ Low inflation outside the Polish economy.
- ↓ Złoty appreciation.
- ↑ Increase in meat and cold meats prices due to the ASF epidemic in China.
- ↓ Low energy commodity prices.
- ↓ Freezing of electricity prices for end-users in 2019 at the 2018 level, permanent reduction in excise duty and interim fee, and compensations paid to power companies in 2019.
- ↑ Increase in electricity prices in 2020-2021 (phased effect of higher production costs due to an increase in coal and CO₂ emission allowances prices).

Further increase in core inflation in the coming quarters due to rising labour costs and high demand

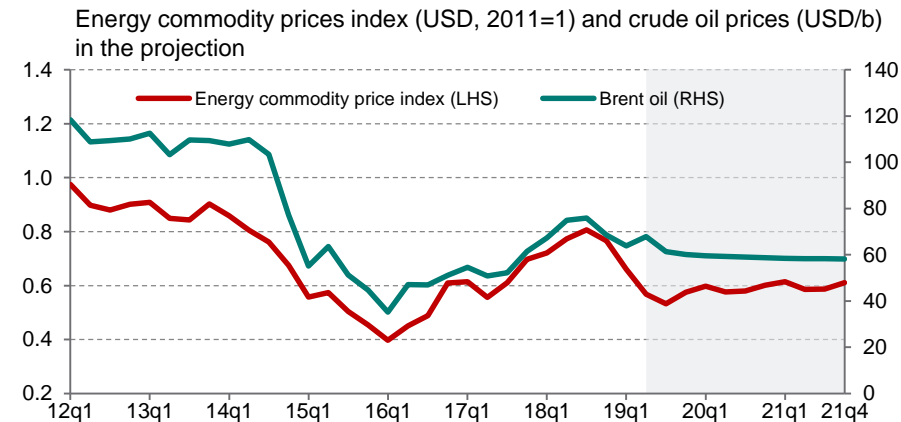
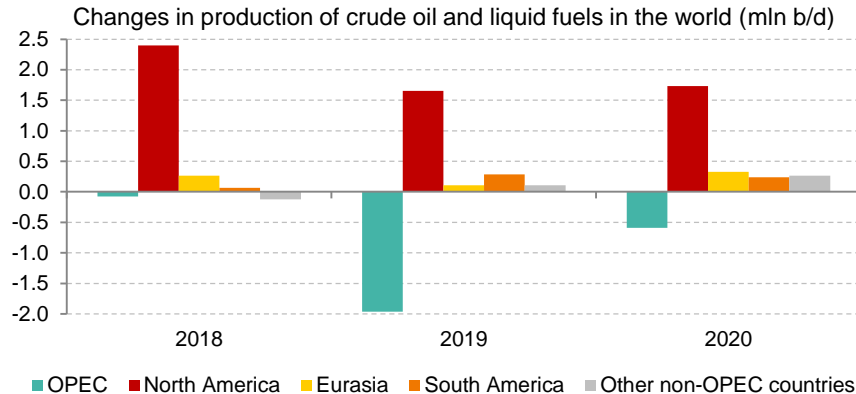
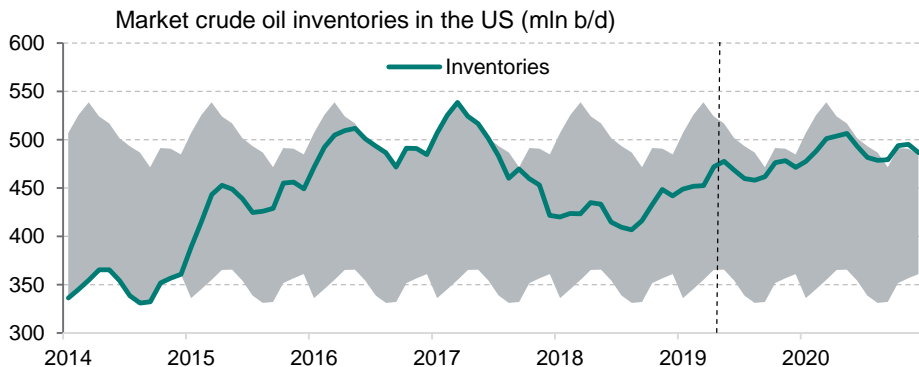
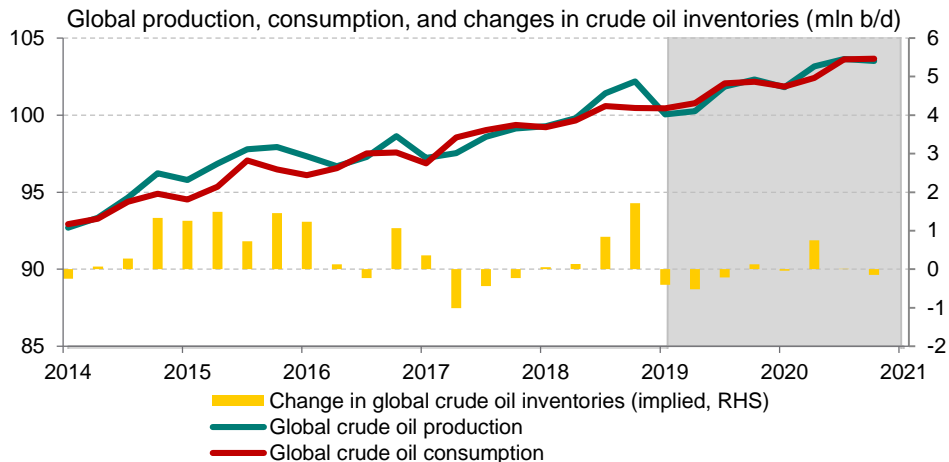


Source: GUS data, NBP calculations.

Inflation outside the Polish economy will remain moderate

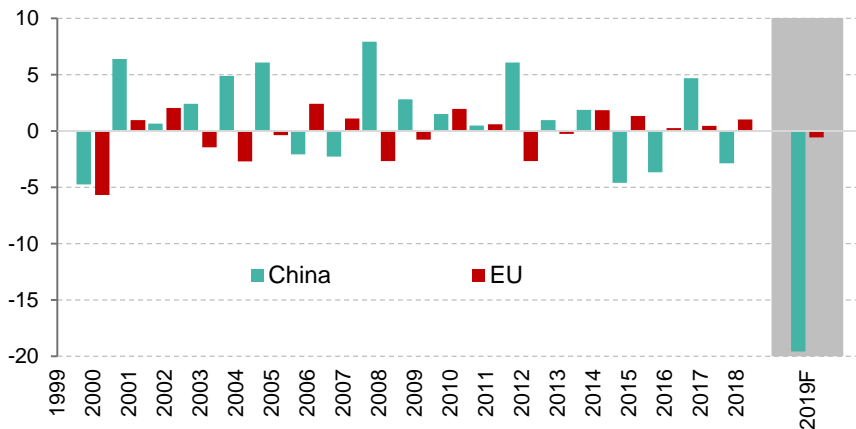


After temporary increase in 19H1, oil price is expected to gradually decline due to increasing production in the US and weakening demand

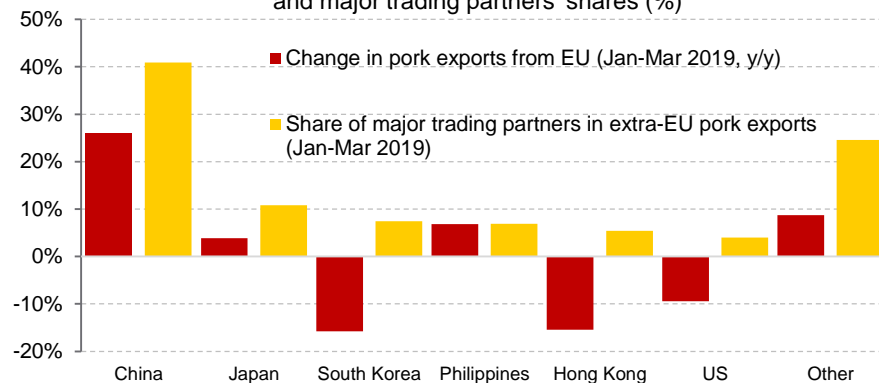


Expected increase in meat and cold meats prices due to the ASF epidemic in China

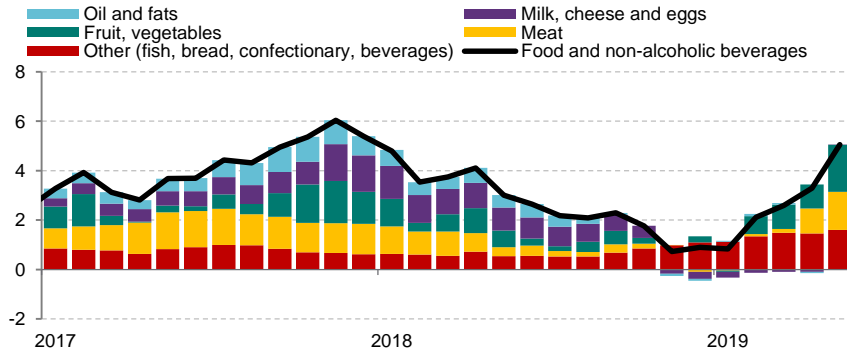
Change in pig population in China and European Union (% y/y)



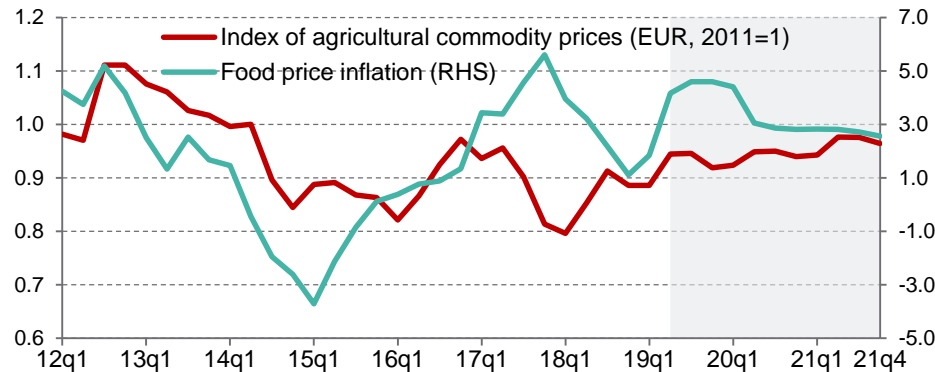
Pork exports from the EU in 19Q1 (% y/y) and major trading partners' shares (%)



Decomposition of food prices inflation (pp y/y)



Food prices inflation (% y/y) and index of agricultural commodity prices



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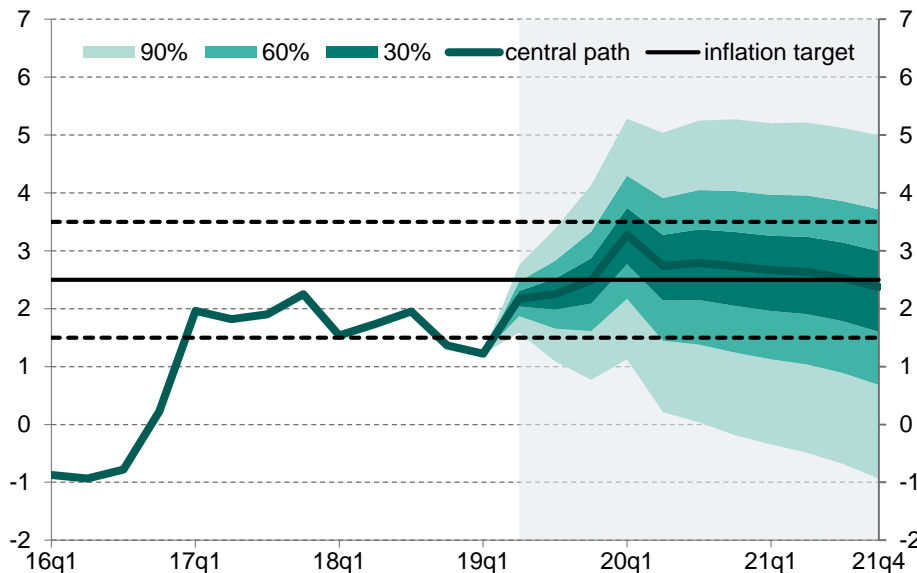
Uncertainty

Uncertainty

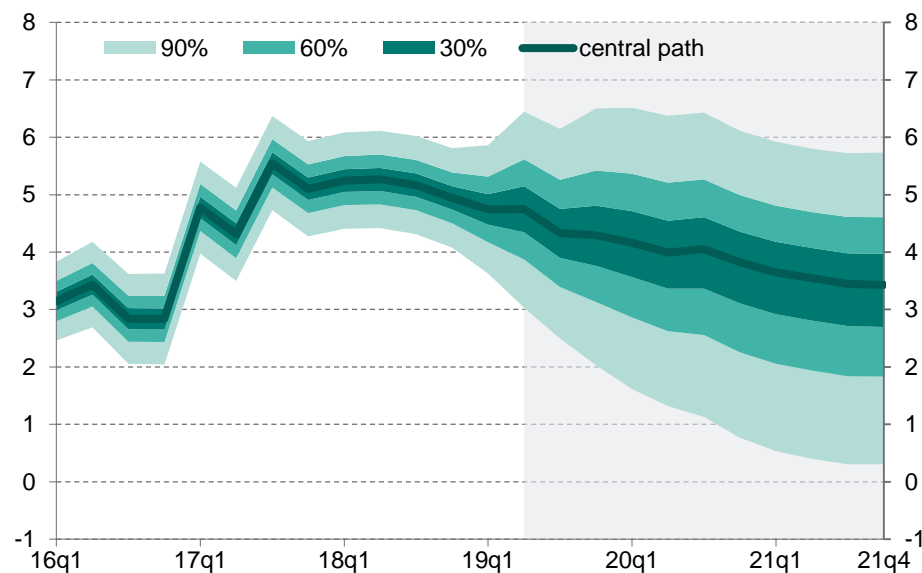
- Risk factors
- Fan charts

Risk area	Description	Impact	Scale of impact
Deterioration in the global economic outlook	<ul style="list-style-type: none"> Escalation of current trade disputes and further spreading of protectionism, leading to larger disturbances in the global trade, deterioration of economic conditions, elevated uncertainty and tensions in the financial markets. Lower economic growth in the United States due to trade disputes and bigger drop in equity prices on American stock exchange. Significant decline in economic growth in the euro area as a consequence of the imposition by the US of duties on cars produced in the EU (crisis in the automotive industry and deterioration of economic activity in other export-oriented industries). The United Kingdom's withdrawal from the European Union without prior agreement on the terms of future cooperation – so called <i>no-deal brexit</i> (increase in uncertainty and lower economic growth both in the UK and the EU) 	Inflation ↓↓ GDP ↓↓	**
Impact of the energy sector on inflation in Poland	<ul style="list-style-type: none"> Demand and supply shocks on global markets of oil and other energy commodities. Regulatory changes on the domestic electricity market. Scale and timing of the impact of the increase in wholesale electricity prices on the tariffs for end users. 	Inflation ⇕ GDP ⇕	*
Labour supply in Poland	<ul style="list-style-type: none"> Uncertainty related to the scale of reemigration of Ukrainian workers from Poland due to changes in law in other EU countries, which will make it easier to employ the citizens of non-EU countries. 	Inflation ↑ GDP ↓	*
Better economic conditions abroad and fiscal policy	<ul style="list-style-type: none"> Higher economic growth abroad translating into higher domestic activity and into an increase in fiscal revenues which results in more fiscal space and more expansionary fiscal policy than assumed in the baseline scenario (which is based on the estimates contained in the April's Convergence Programme). 	Inflation ↑ GDP ↑	*
Summary		Inflation ↓	GDP ↓

CPI inflation y/y, %



GDP y/y, %



CPI y/y, %	below 1.5%	below 2.5%	below 3.5%	below centr. path	within 1.5-3.5% range
2019	14%	85%	100%	51%	86%
2020	18%	42%	70%	53%	53%
2021	31%	54%	77%	55%	46%

CPI y/y, %	central path	50% probability interval
2019	2.0	1.7 - 2.3
2020	2.9	1.9 - 3.7
2021	2.6	1.3 - 3.5

GDP y/y, %	central path	50% probability interval
2019	4.5	3.9 - 5.1
2020	4.0	3.0 - 4.8
2021	3.5	2.4 - 4.3

Source: GUS data, NBP calculations.

We protect the value of money