



NBP

Narodowy Bank Polski

Economic Analysis Department

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

Warsaw / 17th July 2020



Outline:

Epidemic vs economy

Projection 2020 – 2022

- Economic conditions abroad
- Foreign trade
- Labour market
- Consumption demand
- Investment demand
- GDP
- Inflation

Uncertainty

Outline

- 1 Epidemic vs economy
- 2 Projection 2020 - 2022
- 3 Uncertainty

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Epidemic vs economy

Projection 2020 – 2022

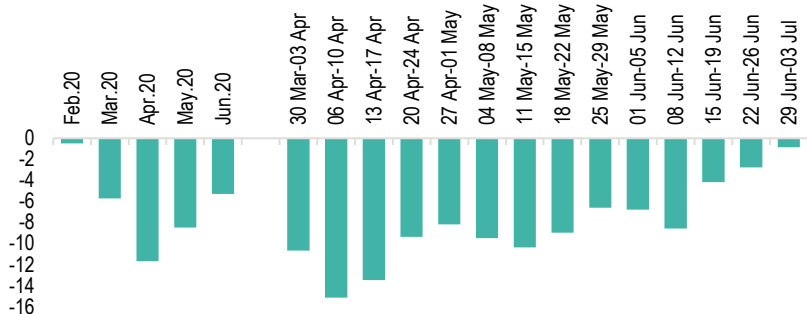
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Epidemic vs economy

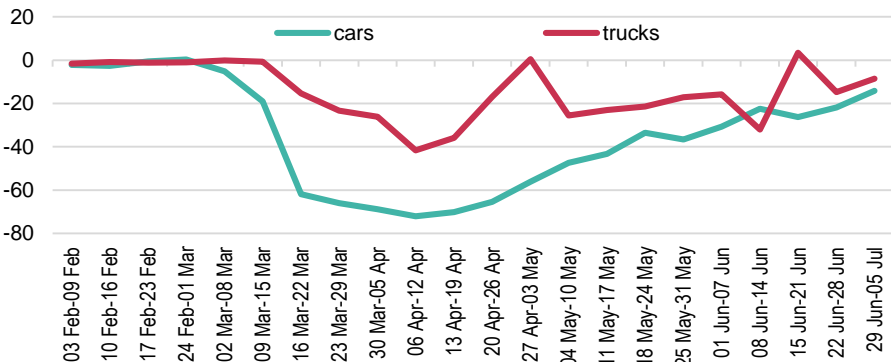
Epidemic results in the profound slowdown in economic activity.

Change in annual electric energy consumption* (Monday – Friday, 8-16 o'clock, %)

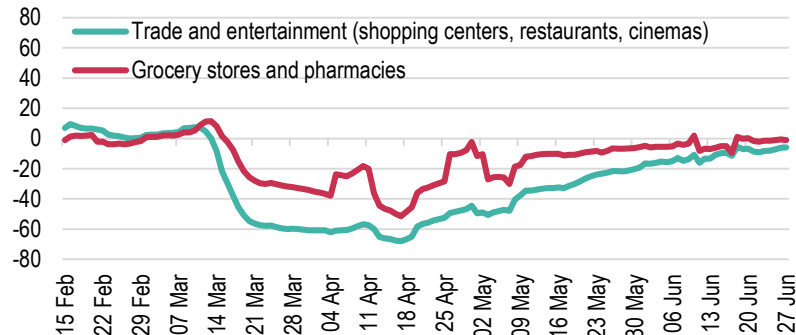


* Data corrected for meteorological and calendar effects

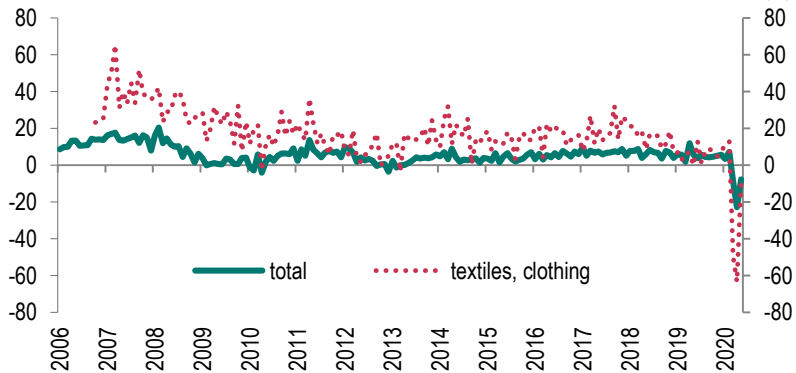
Change in vehicle traffic on A4 highway Katowice – Kraków (% , y/y)



Change in population traffic relative to typical values in selected locations (moving average)

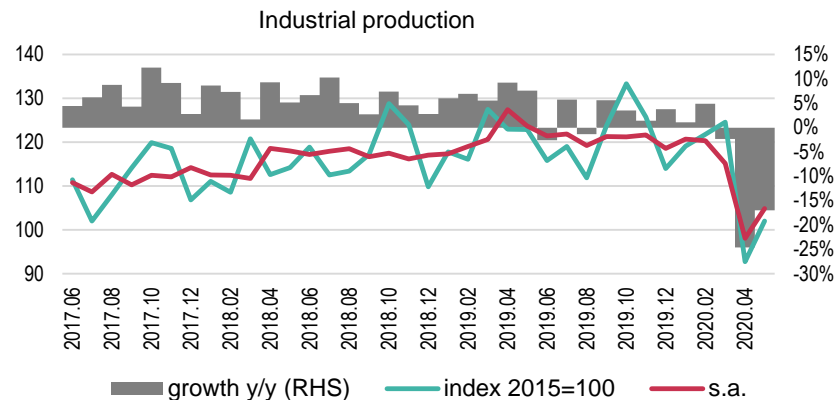


Total retail sale and a sector with the deepest fall (constant prices, y/y)

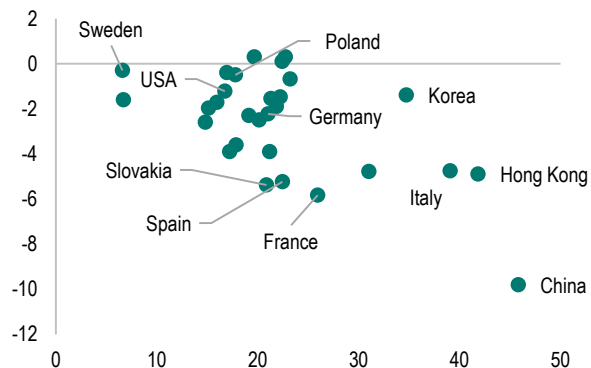


Source: GUS, Polskie Sieci Elektroenergetyczne data, Instytut Meteorologii i Gospodarki Wodnej, meteomodel.pl, Google LLC, StalExport Autostrady S.A, NBP calculations.

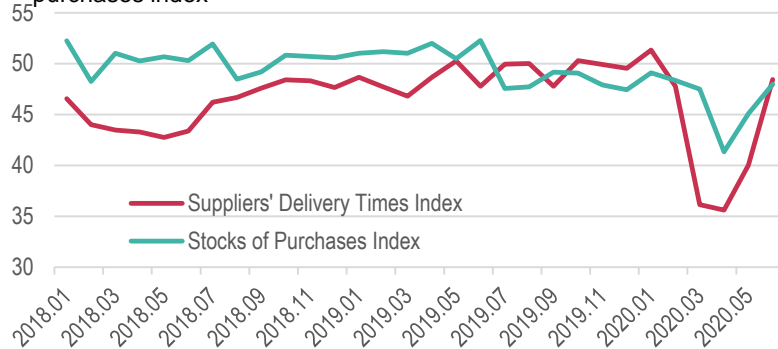
Substantial fall in foreign demand and supply network disruptions.



GDP growth in 2020Q1 (% , q/q, Y axis) vs average OSI level



PMI components for Poland – suppliers' delivery times index and stocks of purchases index



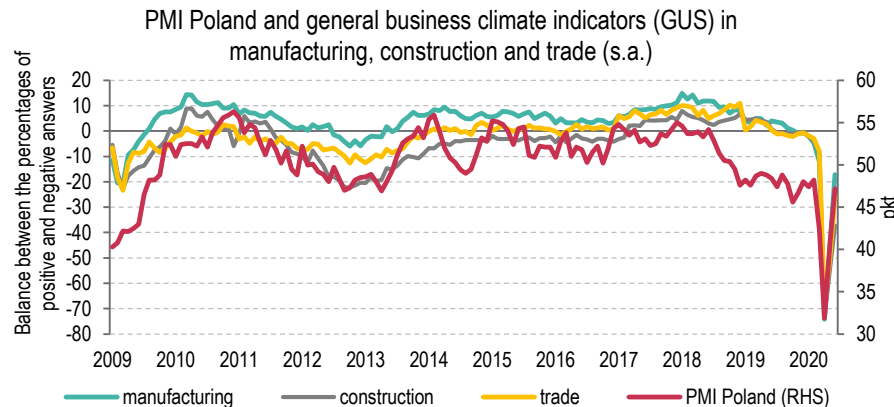
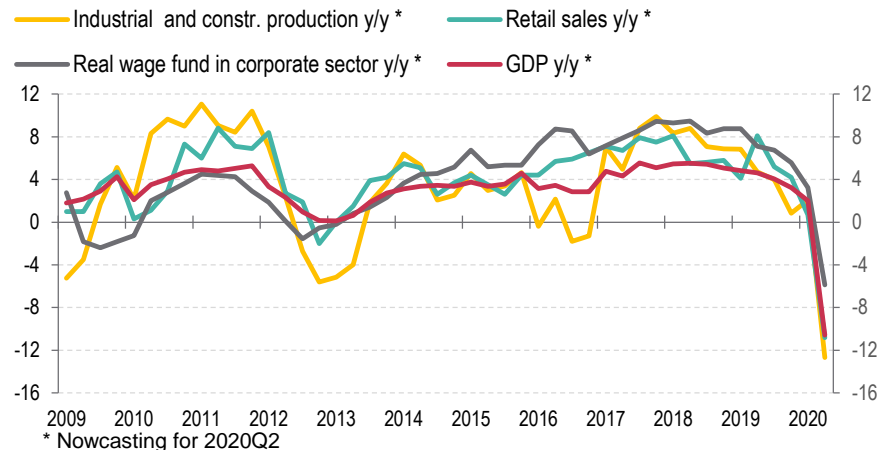
Economic growth in Poland plummeted in 2020Q2

	20q1		20q2*	
GDP (y/y) (%)	2.0	(2.9)	-10.6	(3.0)
Domestic demand (y/y) (%)	1.7	(2.9)	-11.1	(3.0)
Household consumption (y/y) (%)	1.2	(3.7)	-12.0	(3.8)
Public consumption (y/y) (%)	4.3	(3.5)	7.0	(5.0)
Gross fixed capital form. (y/y) (%)	0.9	(4.2)	-18.5	(4.3)
Exports (y/y) (%)	0.6	(2.9)	-22.3	(4.4)
Imports (y/y) (%)	-0.2	(2.8)	-24.5	(4.4)
Net exports contribution (pp.)	0.4	(0.1)	0.0	(0.1)

* Forecast for 2020Q2

Values from the March projection are given in brackets (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.



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Projection 2020-2022

Assumptions

- Lack of explicit second wave of epidemic in Europe, although possible temporary increases in the number of newly infected.
- Gradual lifting of restrictions – however part of them will be maintained until the widespread use of vaccine / effective medical treatment.
- Sustained uncertainty and an increase in marginal propensity to save due to precautionary motive.
- Gradual phasing out of fiscal programs in 2020Q3.

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Projection 2020-2022

Economic conditions abroad

After marked slowdown in 1st half of 2020, slow rebound in the global economic activity.

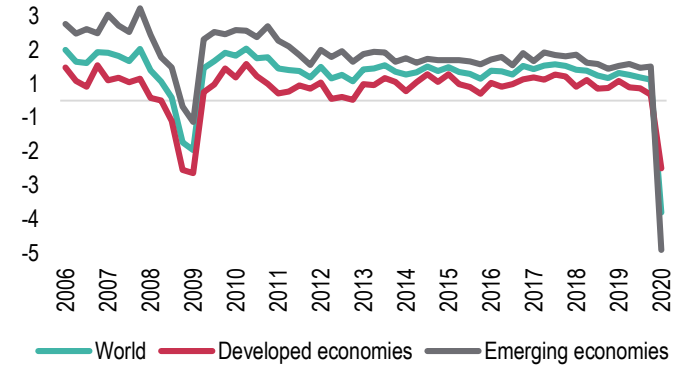
Factors affecting the forecast:

- ↑ Stabilisation of epidemic situation in Europe and gradual lifting of restrictions.
- ↑ Monetary and fiscal loosening worldwide.
- ↓ High uncertainty related to the future pandemic development and economic outlook
- ↓ Weak outlook for emerging markets.
- ↓ *Brexit*

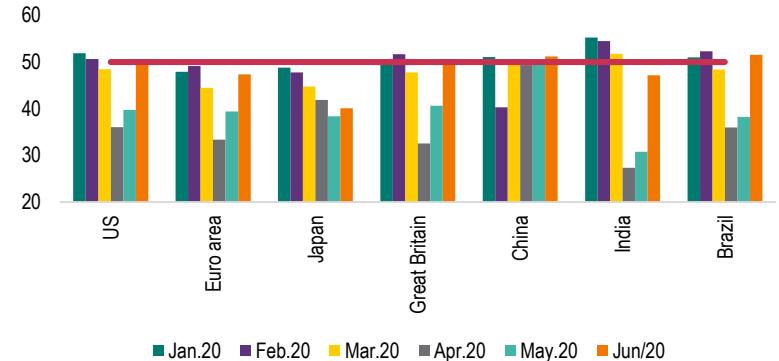
GDP forecast in selected economies

GDP y/y, %	2020	2021	2022
Euro area	-9.1	5.2	3.2
Germany	-6.7	5.4	3.0
Great Britain	-9.6	5.1	3.3
USA	-5.7	3.4	2.7
China	1.1	7.0	5.0

GDP in the global economy (% , q/q, sa)

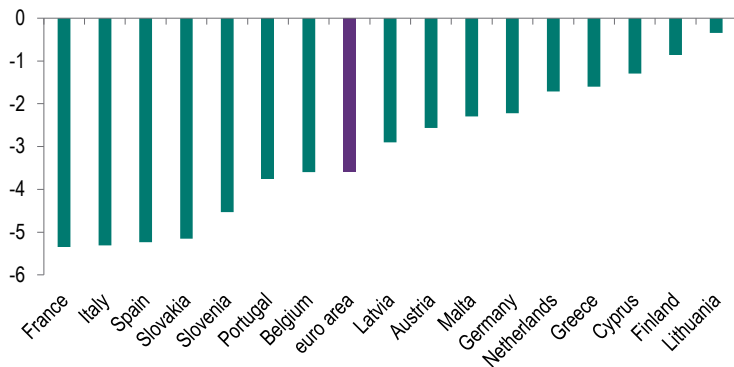


PMI Manufacturing in selected economies

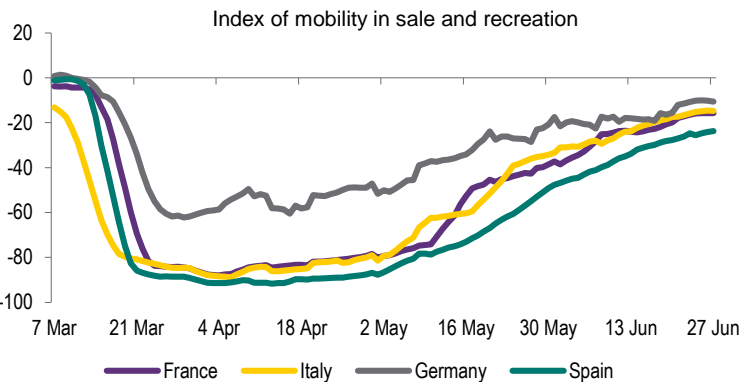
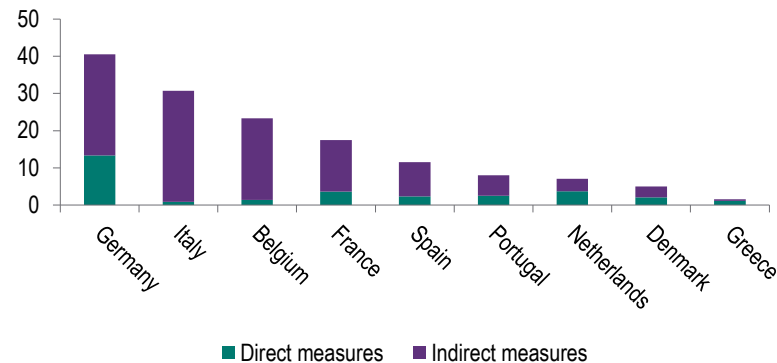


Euro area: high disparity in economic consequences of pandemic in EA countries.

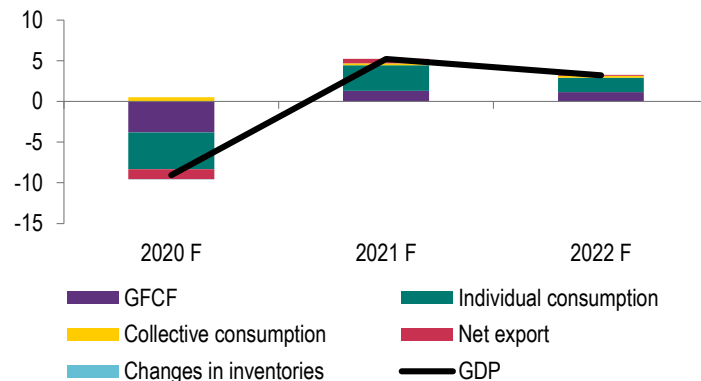
GDP dynamics in EA countries in 2020Q1 (% q/q)



Anti-crisis measures in euro area countries (% of GDP)

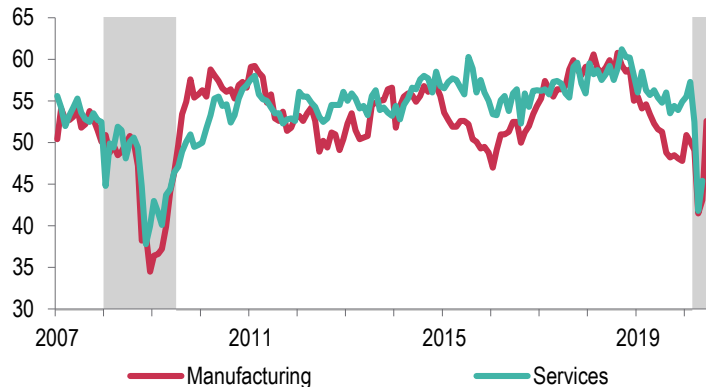


Decomposition of changes in GDP in euro area (% and p.p.)

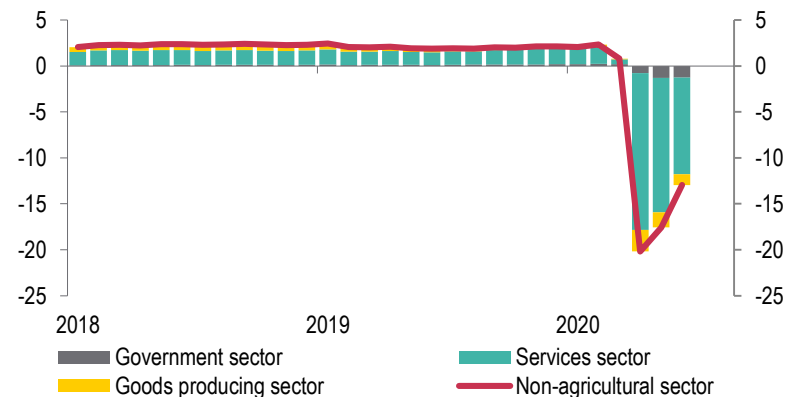


United States: gradual rebound in economic growth and marked support from fiscal and monetary policy.

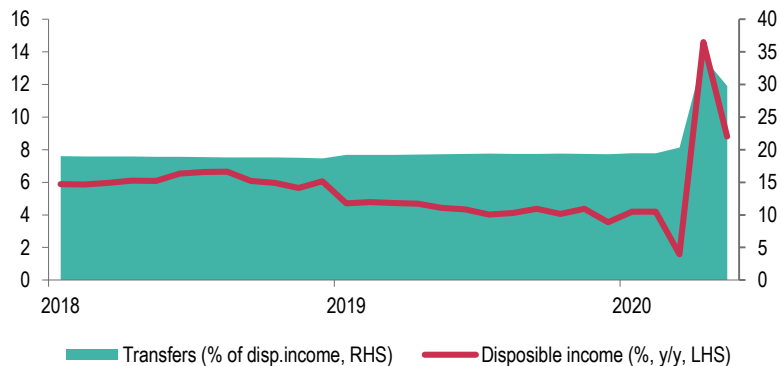
Indexes of economic conditions for US economy (points, sa)



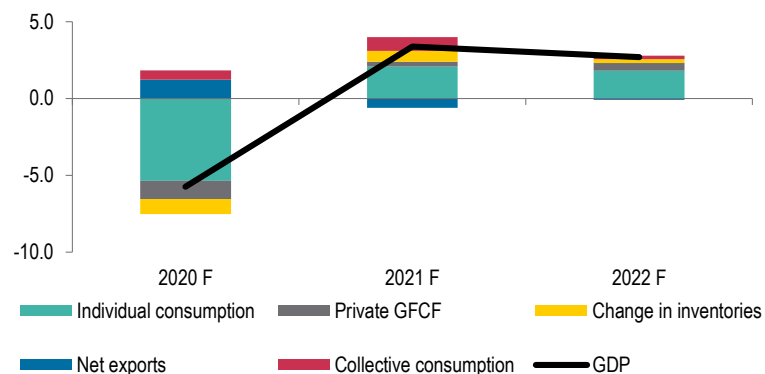
Changes in non-agricultural employment (mln of workplaces, y/y sa)



Disposable income in US (USD, per capita)



Decomposition of average annual real GDP growth (%)



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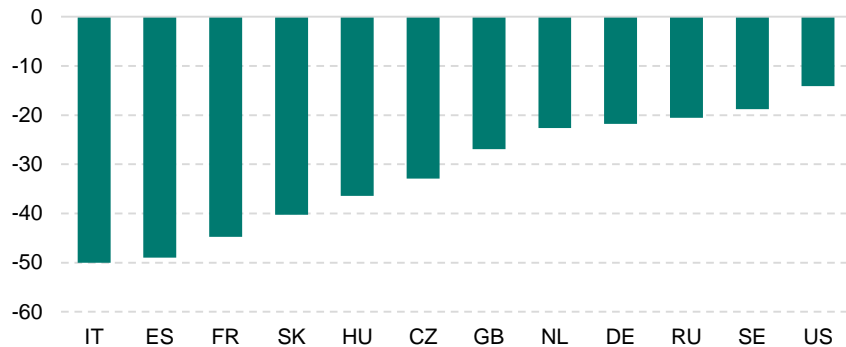
Uncertainty

Polish economy

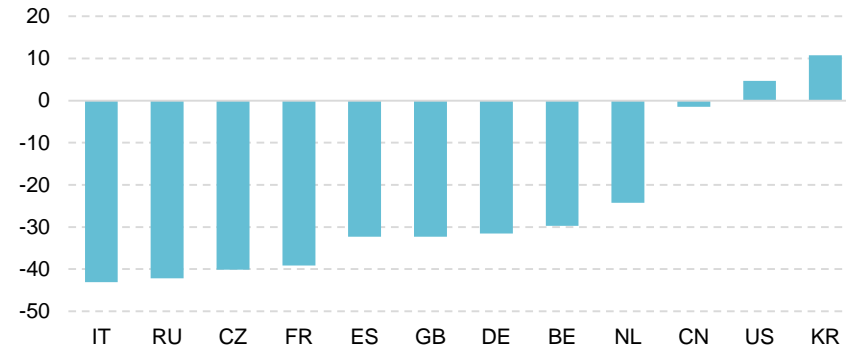
Foreign trade

Slump in foreign trade turnover due to COVID-19

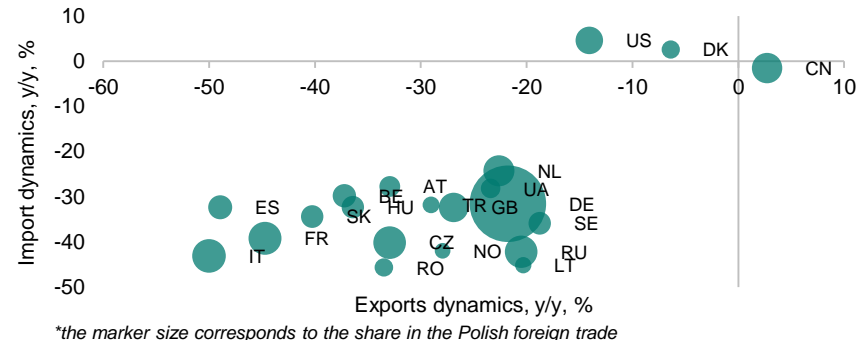
Dynamics of exports of goods (y/y, %, April 2020)



Dynamics of imports of goods (y/y, %, April 2020)

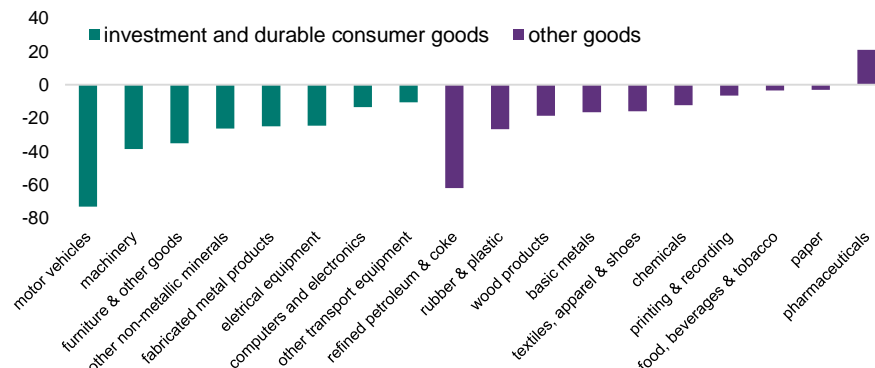


Dynamics of imports and exports to main trading partners, April 2020



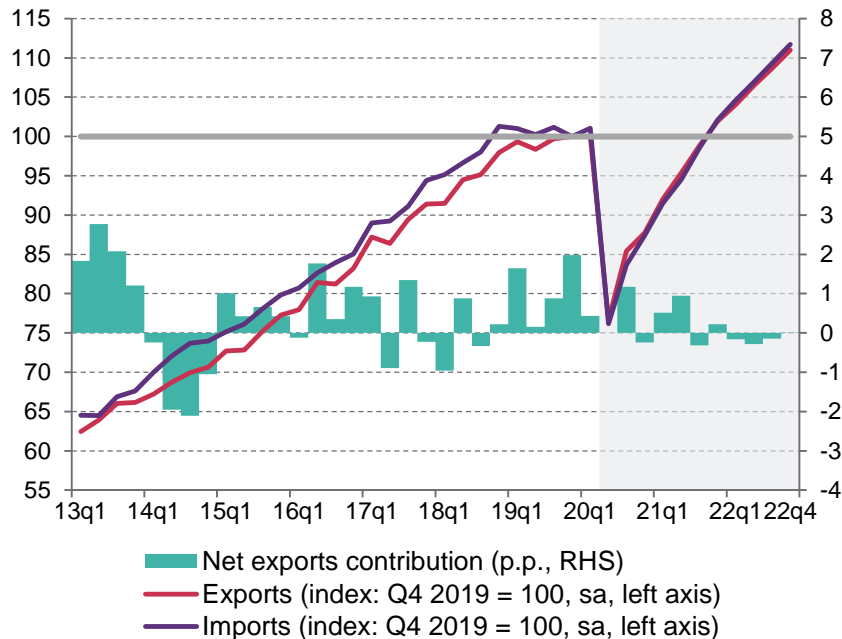
*the marker size corresponds to the share in the Polish foreign trade

Exports' dynamics by manufacturing sectors, April 2020

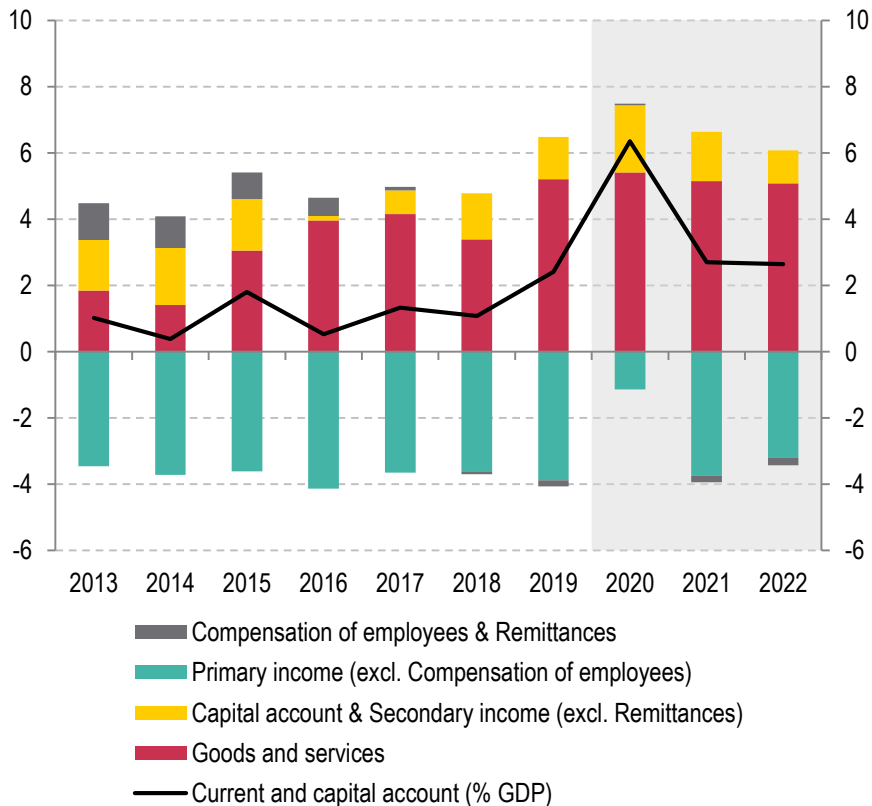


Downturn in exports and imports, sustained decrease in trade dynamics.

Net exports' contribution to GDP growth



Current and capital account (% GDP)



y/y pp.	2019	2020	2021	2022
Net exports contribution to growth	1.2	0.4	0.3	-0.1

Source: GUS data, WIOD, NBP calculations.

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Labour market

The government has undertaken extensive anti-crisis measures financed with domestic funds and EU funds

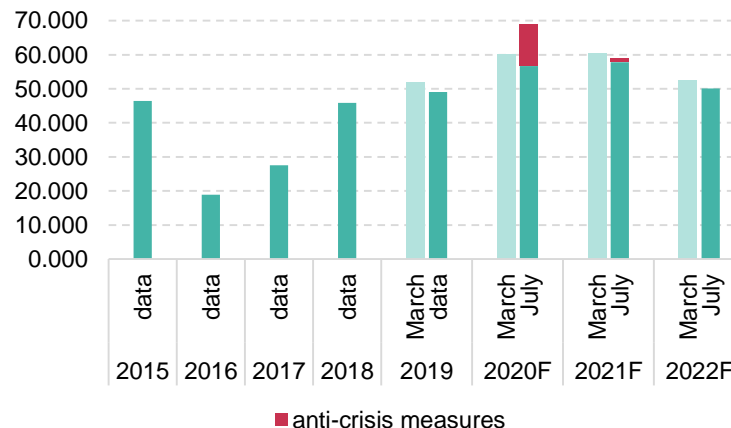
We assumed total cost of direct support which bear an impact on GG balance in 2020 to equal 115 bn PLN

Impact of anti-crises measures on the GG balance (ESA 2010) in 2020 (bn PLN)



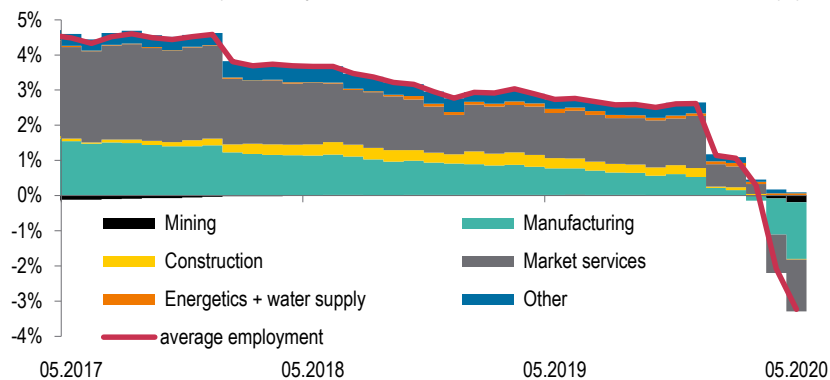
Additional 12,1 bn zł financed with EU funds (thus not changing GG balance in ESA 2010 terms)

EU funds absorption under cohesion policy, highlighting amounts allocated for anti-crisis measures (bn PLN)

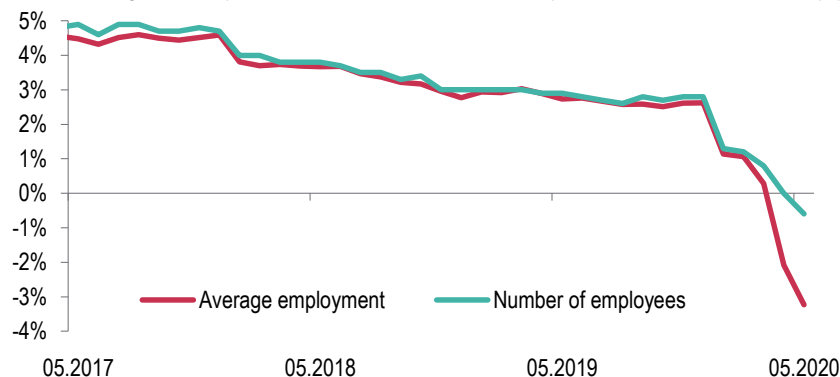


Negative impact of epidemic on the labour market, partly adjusted by reducing working time.

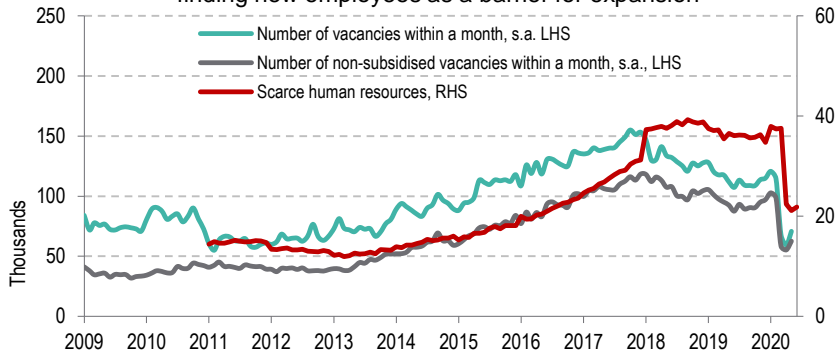
Employment dynamics' decomposition in enterprise sector y/y



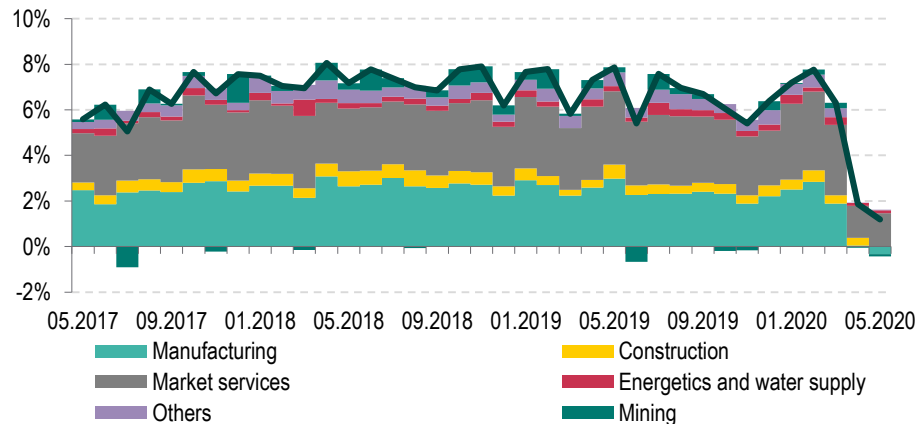
Average employment and the number of employees in enterprise sector y/y



Vacancies and a share of surveyed companies reporting difficulties in finding new employees as a barrier for expansion



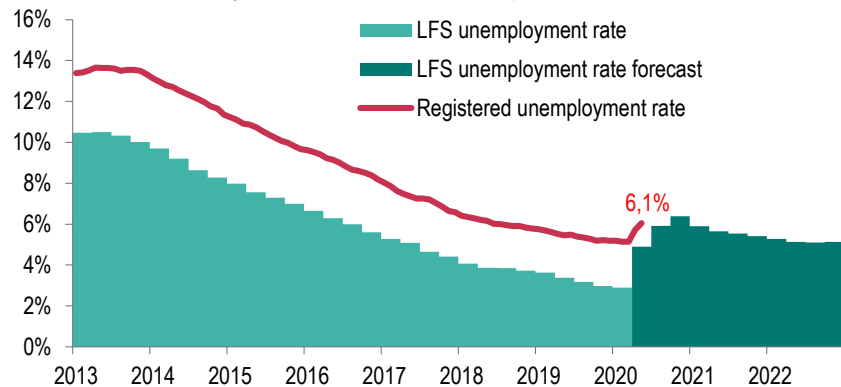
Wages growth contribution by enterprise sectors (y/y, p.p.)



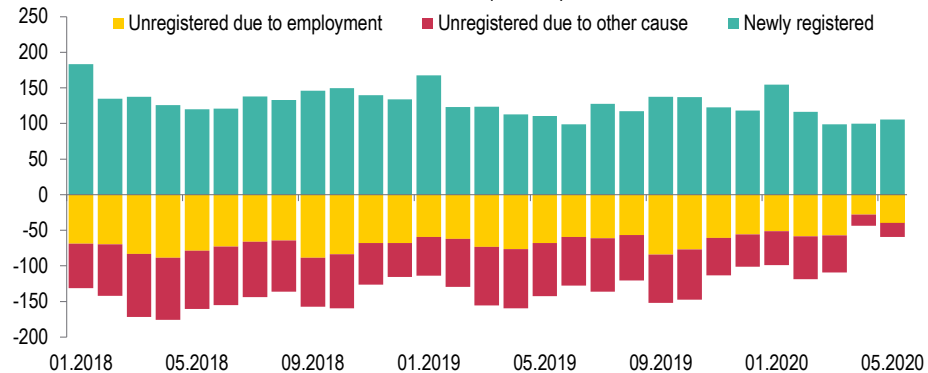
Source: GUS data, NBP calculations.

Only a limited increase in unemployment rate.

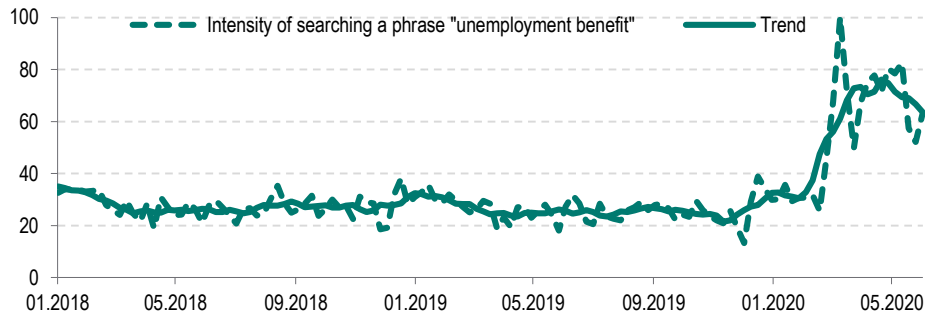
Registered and LFS unemployment rate (s.a.)



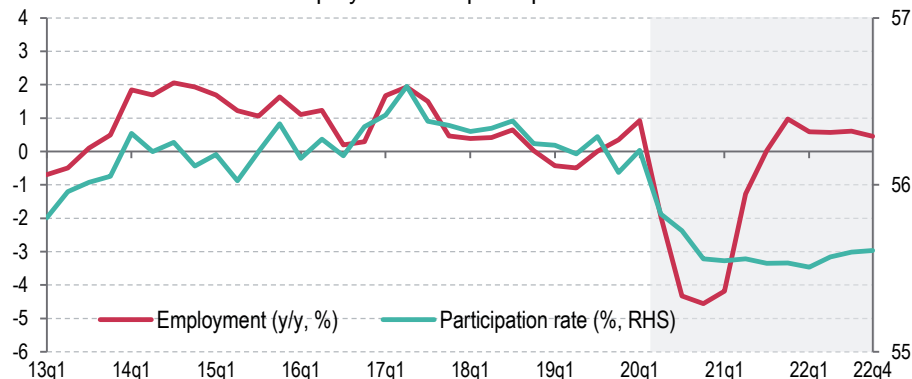
Decomposition of changes in number of unemployed people registered in labour offices (thous.)



Interest in unemployment benefit based on internet data (index, max = 100)

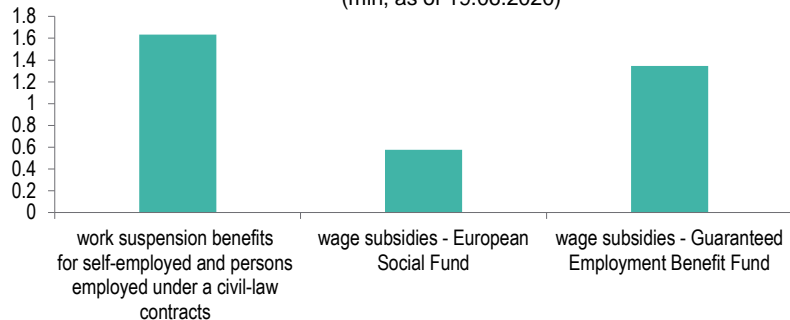


Employment and participation rate forecast



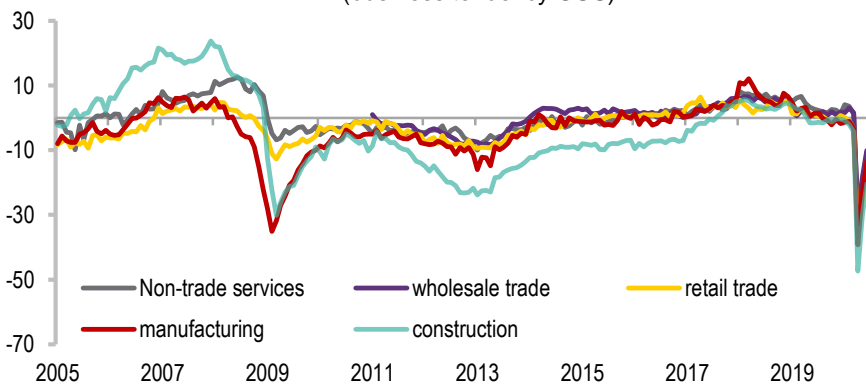
Labour market adjustments curbed by Anti-crises Shield.

Number of employees supported by work suspension benefits, wage subsidies related to reduced working time and economic lockdown (mln, as of 19.06.2020)



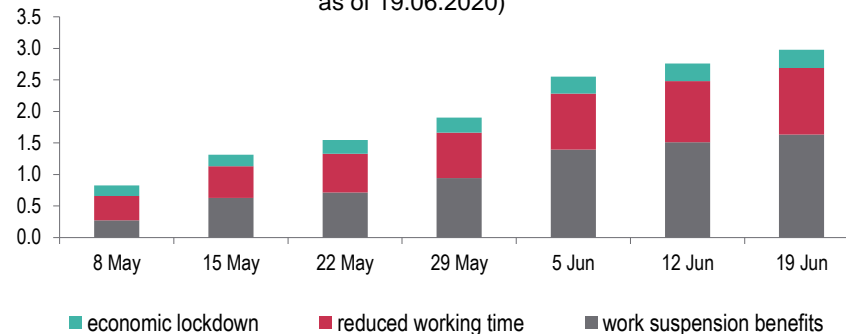
* As of 10.06.2020

Share of enterprises anticipating employment reduction in the coming 3 months (business tendency GUS)

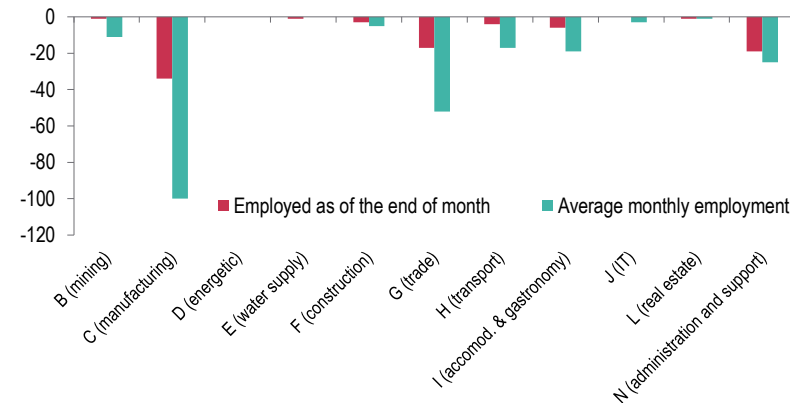


Source: Ministry of Development, GUS

Number of employees supported by Anti-crises Shield (cumulative, mln; as of 19.06.2020)

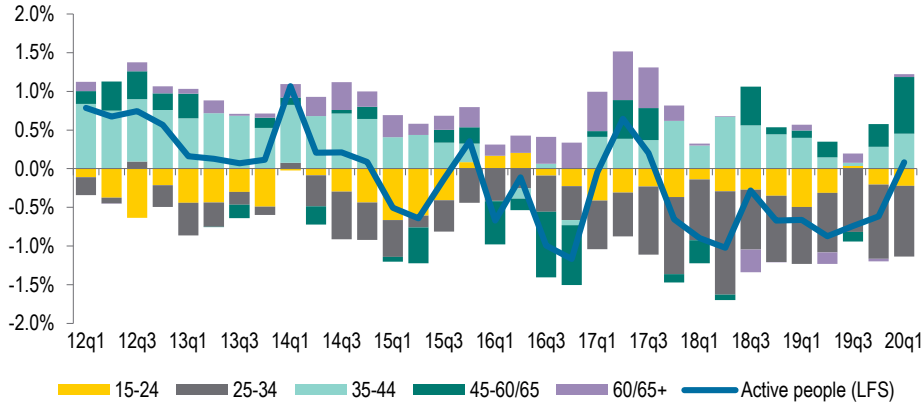


Changes in average employment and number of employees in the enterprise sector by sections (Mar-May 2020, thous.)



Coronavirus pandemic contributes to lower effective labour supply, including decreasing number of immigrants.

LFS participation rate (y/y)

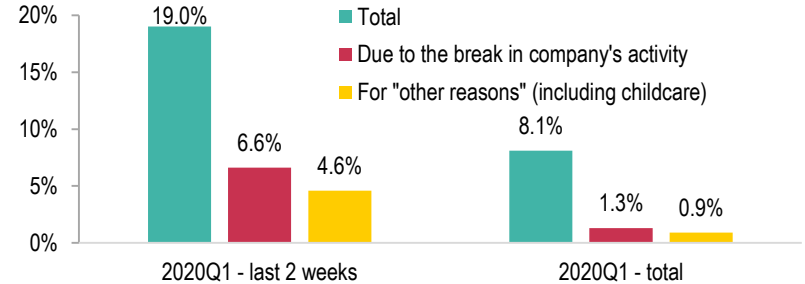


Passenger border traffic of foreigners on Polish borders (thous.)

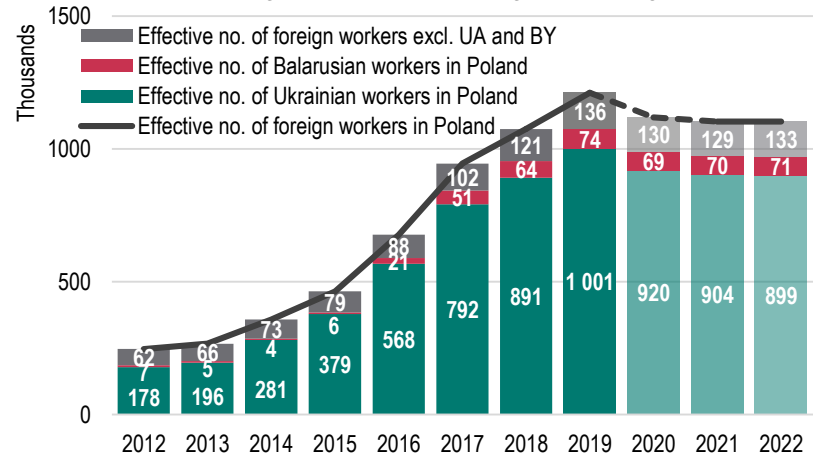
	Crossing the border, thousands.:		Balance of border traffic, thous.
	to Poland	from Poland	
Foreigners (total)	714.8	938.0	-223.2
including citizens from:			
Ukraine	407.8	567.8	-160.0
Belarus	162.7	196.7	-34.0
Russia	41.8	51.3	-9.5
Moldavia	2.6	5.2	-2.5

Source: GUS, ZUS.

People employed but not working in the week in question as the share of the total number of employed (%)

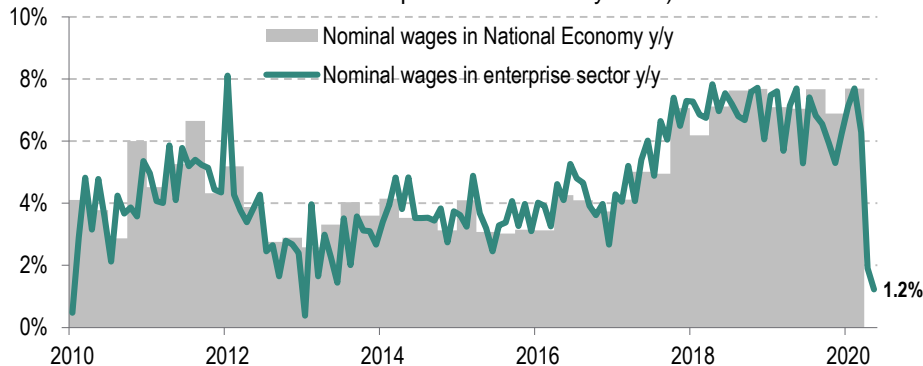


Estimated change in the number of foreigners working in Poland (thous.)

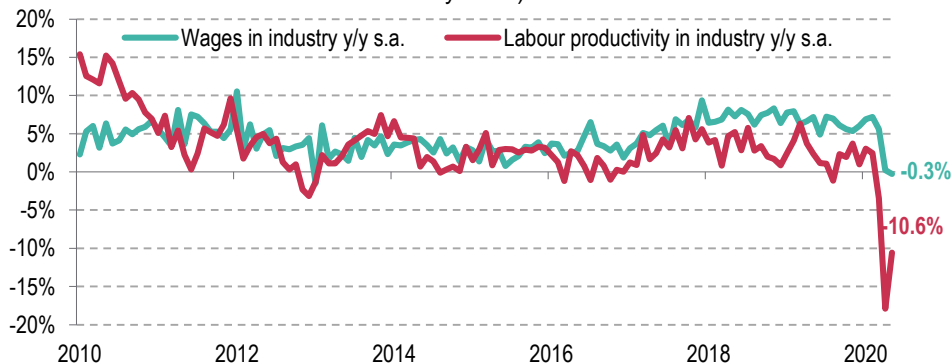


Falling employment in the enterprise sector in April 2020 along with a slump in wages dynamics.

Annual wage growth (% , raw monthly data, data for National Economy till 2020Q1 and for enterprise sector till May 2020)



Dynamics of wages and labour productivity in industry (y/y, %, monthly data till May 2020)

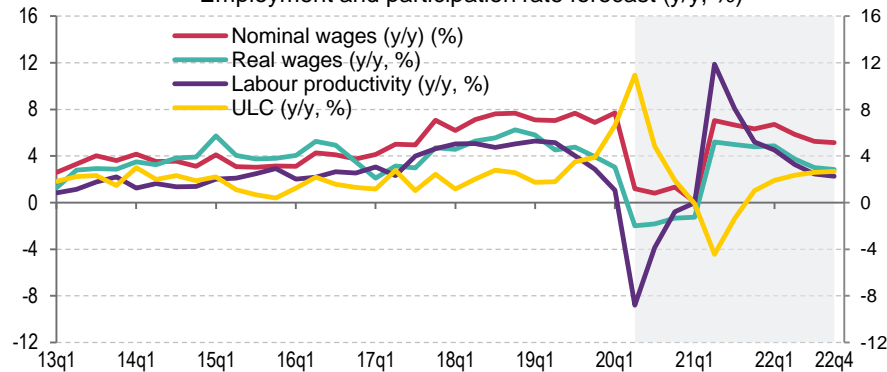


	20q1		20q2*	
Gross wages (y/y, %)	7.7	(7.3)	1.2	(7.0)
Real wages (y/y, %)	3.0	(2.8)	-2.0	(3.3)
Employment LFS (y/y, %)	0.9	(0.1)	-1.9	(0.1)
ULC (y/y, %)	6.6	(4.5)	10.9	(4.1)
Labour productivity (y/y, %)	1.1	(2.8)	-8.8	(2.9)
Unemployment rate LFS (%)	3.0	(3.0)	4.9	(3.0)
Participation rate (%)	56.2	(56.1)	55.8	(56.1)

* Forecast for 2020Q2

Values from the March projection are given in brackets. Indicators with values higher than in the March projection are marked green, and indicators with lower values are marked red.

Employment and participation rate forecast (y/y, %)



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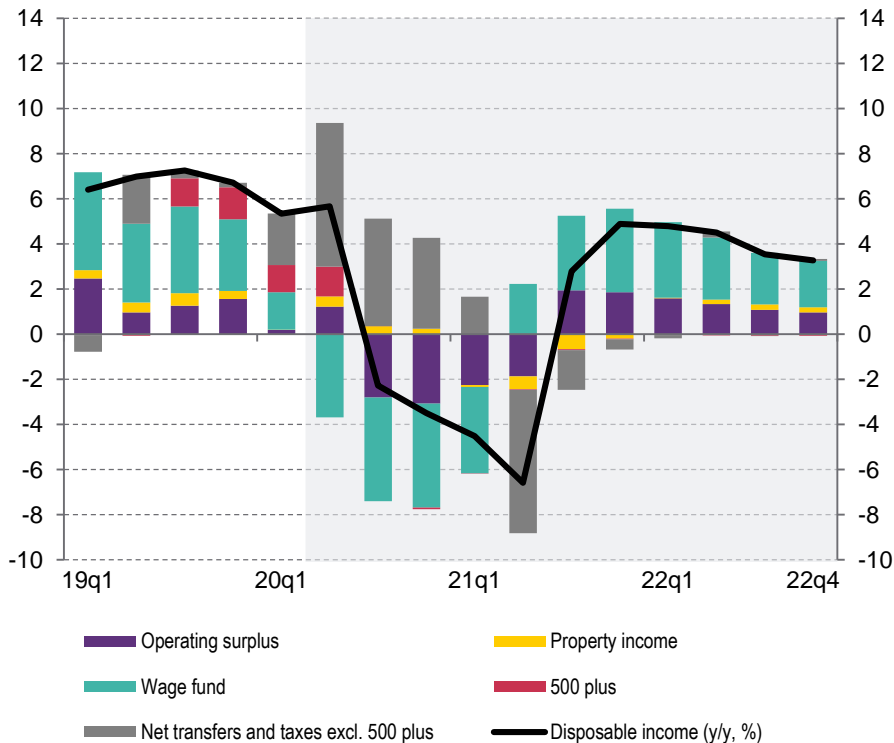
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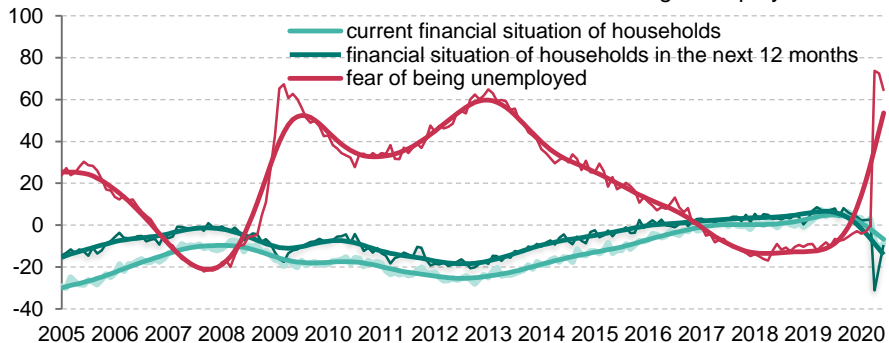
Consumption demand

Deterioration of financial situation of households. Increased fear of being unemployed.

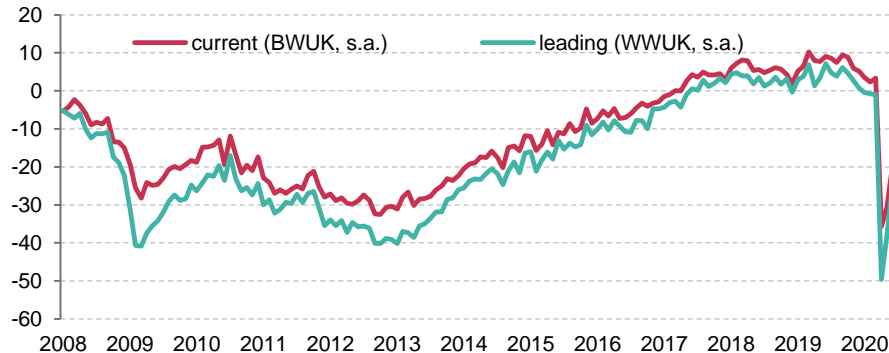
Decomposition of disposable income (constant prices) (y/y, %)



Financial situation of households and fear of being unemployed

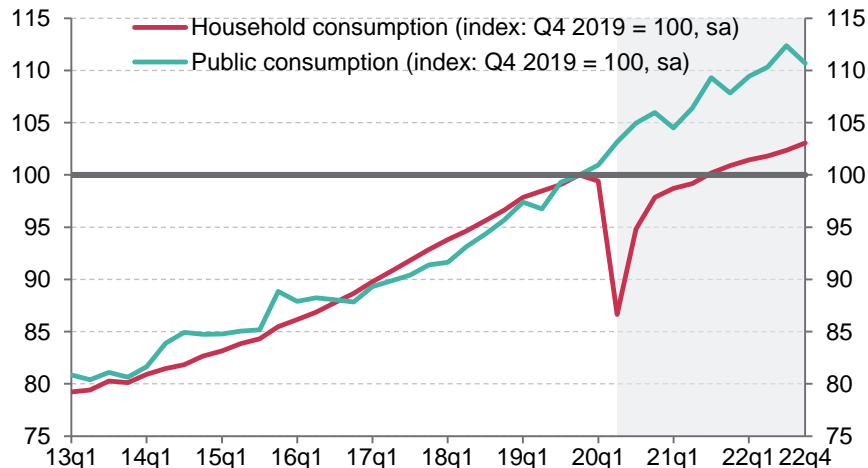


Consumer confidence indicators



Consumption demand will gradually increase, however it will reach the level of 2019Q4 only in the 2nd half of 2021.

Consumption forecast



y/y, %	2019	2020	2021	2022
Household consumption	3.9	-4.2	5.3	2.4
Public consumption	4.9	5.5	3.1	3.4

Household consumption :

- ↓ Heightened uncertainty – rising savings rate.
- ↓↑ After initial slump in employment and wages, in the longer projection horizon only a limited improvement in labour market situation is foreseen.
- ↓ Change in the behaviour of the population due to fear of being infected by COVID-19.
- ↑ Anti-crisis Shield.
- ↑ Expansive monetary policy – reducing reference rate to 0.1 p.p. and asset purchase programme run by NBP.

Public consumption :

- ↑ In 2020 increase in expenditure for health care.
- ↓ Neutral fiscal policy assumed in the longer projection horizon.

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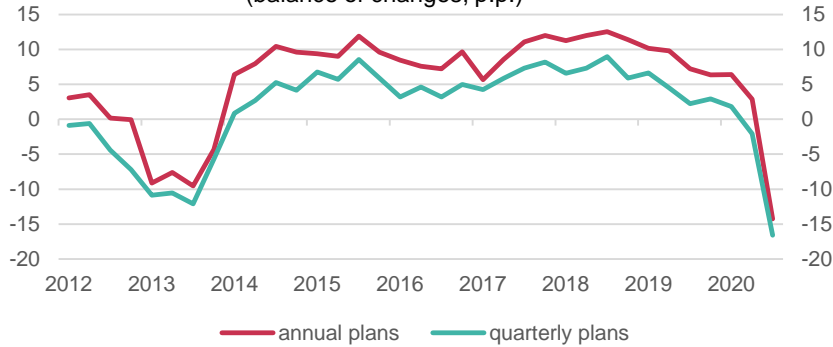
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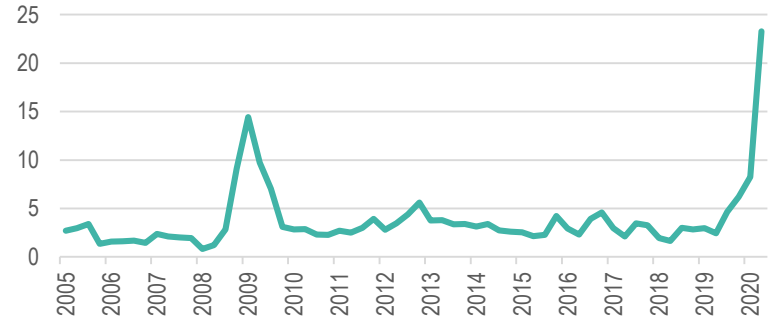
Investment demand

The scale of cutting planned investment higher than in 2009.

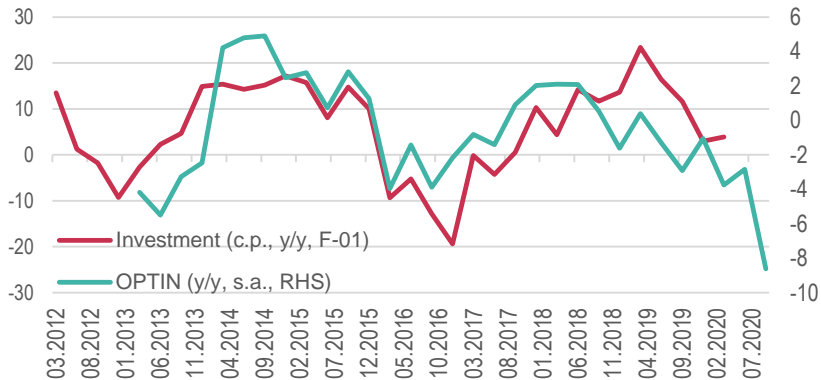
Expected change in investment spending
(balance of changes, p.p.)



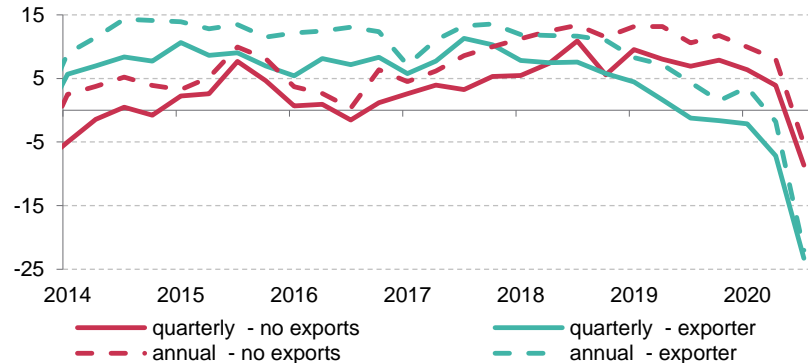
Cutting current investment (companies cutting investment as the share of investors, %)



Investment optimism index OPTIN and investment dynamics (F01)

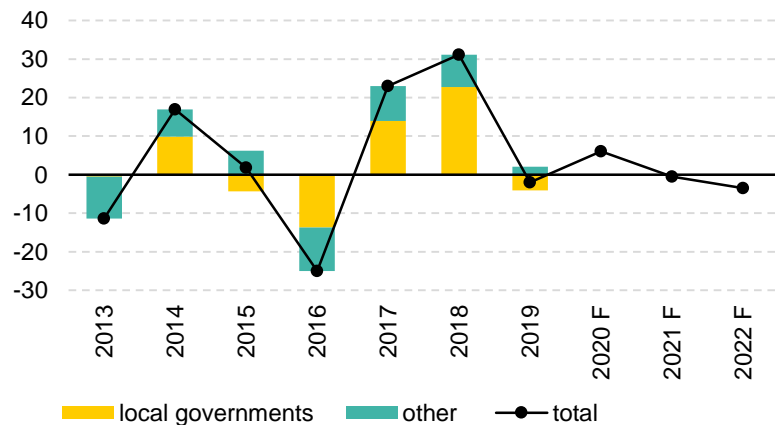


Expected change in investment spending and export activity
(balance of changes, p.p., s.a.)



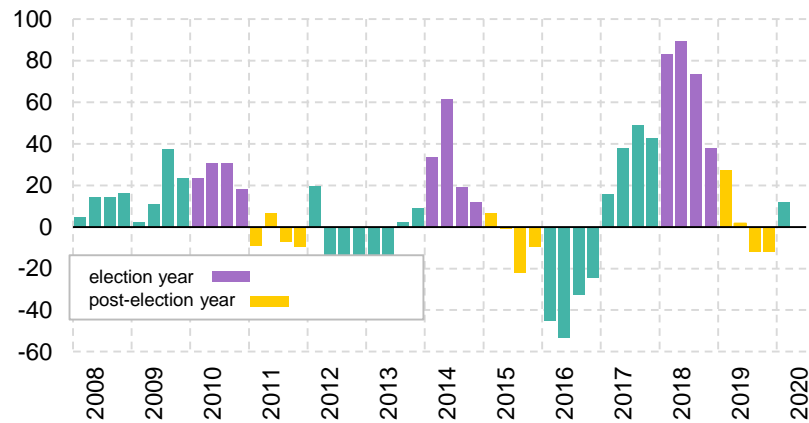
In 2020 expected increase in public investment dynamics after its slowdown in 2019.

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

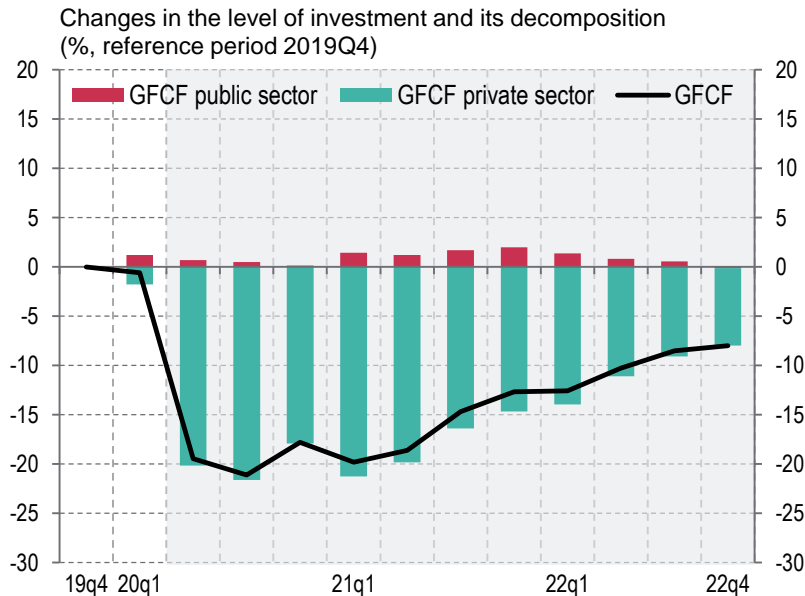


F – NBP forecast

Investment spending of local government units (y/y, %)



Sustained drop in investment rate due to heightened uncertainty and only a slight rebound in demand.



Private investment :

- ⇓ High uncertainty lowering economic agents' propensity for long-term commitment.
- ⇓ Unfavourable financial situation of large share of agents.
- ⇓ Low domestic and foreign demand.
- ⇑ Expansive monetary policy – reducing reference rate to 0.1 p.p. and asset purchase programme run by NBP.

Public investment :

- ⇑ In 2020 increase in public investment related in particular to planned construction of highways and railway, as well as government anti-crisis measures.
- ⇓ Marked decrease in EU funds absorption in 2022.

y/y, %	2019	2020	2021	2022
Gross fixed capital formation	7.2	-13.5	-2.0	7.9

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Epidemic vs economy

Projection 2020 – 2022

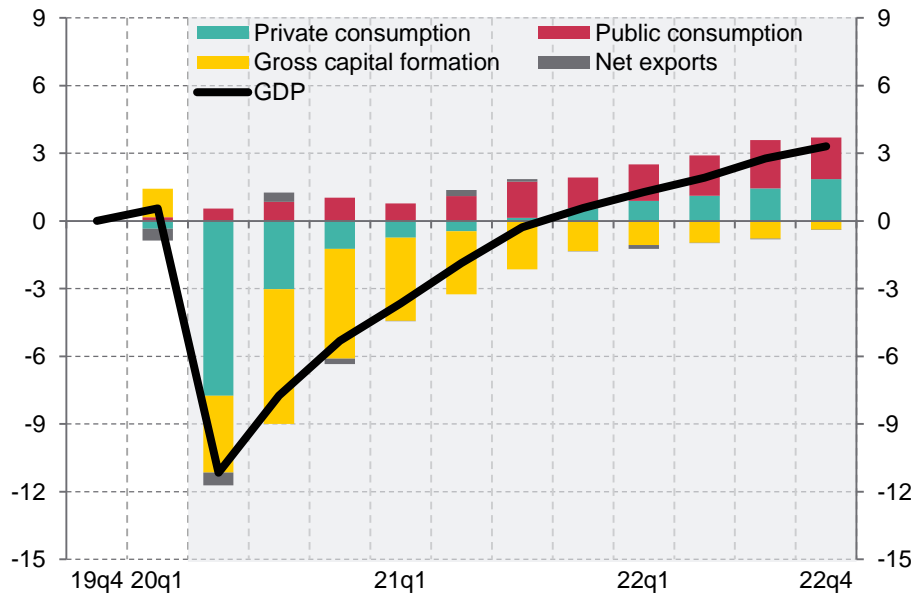
- Economic conditions abroad
- Foreign trade
- Labour market
- Consumption demand
- Investment demand
- GDP
- Inflation

Uncertainty

Gross Domestic Product

Only a limited rebound in economic activity in the quarters to come.

Changes in GDP level and its decomposition
(%, reference period 2019Q4)



- ↑ **Private consumption** will grow gradually, however due to the increase in uncertainty, worse labour market situation and changes in the consumers' preferences, the level of 2019Q4 will be reached only in the 2nd half of 2021.
- ↓ Sustained drop in **investment** rate due to heightened uncertainty, unfavourable financial situation of companies and decrease in EU funds absorption in 2022 to the level close to that of 2019 (in 2020-21 increase in capital transfers).
- ↓ Sustained lowering of **exports'** dynamics (disruptions in global value chains, slowdown or reversal of the globalisation process).
- ↑ Anti-crisis measures run by government and Narodowy Bank Polski.

y/y, %	2019	2020	2021	2022
GDP	4.1	-5.4	4.9	3.7

Outline:

Epidemic vs economy

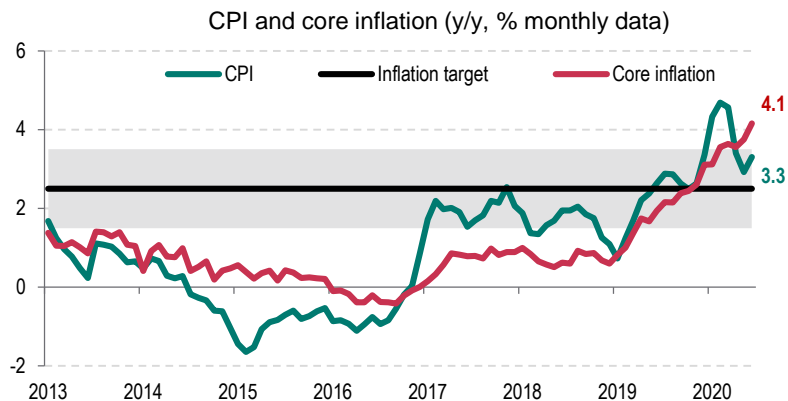
Projection 2020 – 2022

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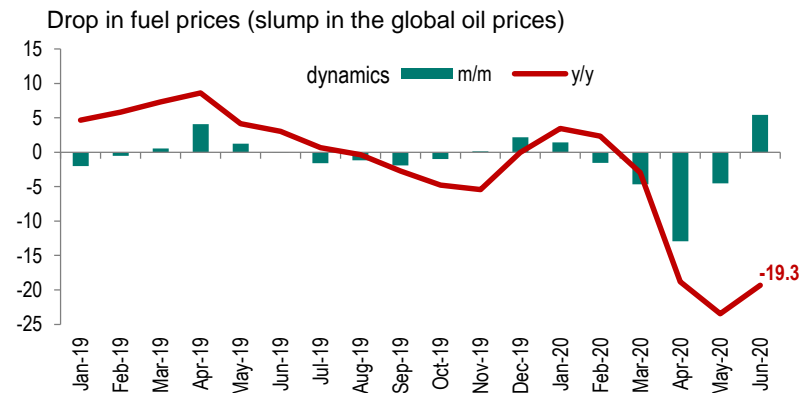
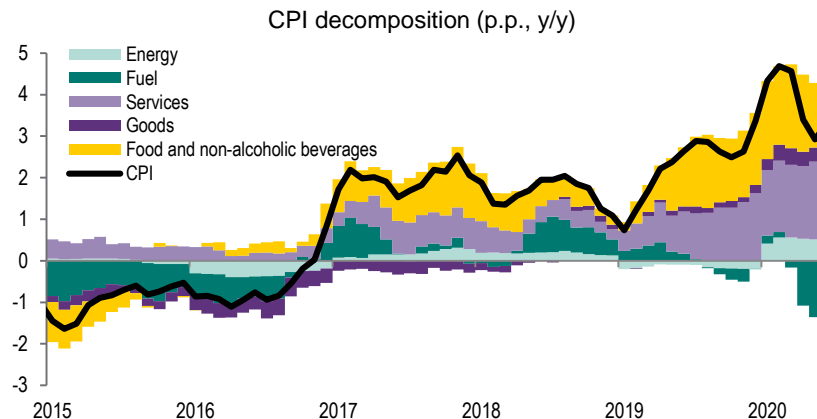
Inflation

In 2020Q2 a drop in inflation due to lower food and energy prices dynamics while core inflation is rising.

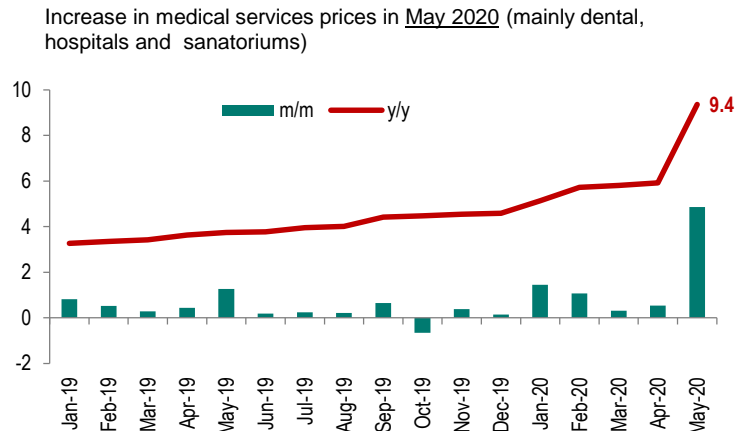
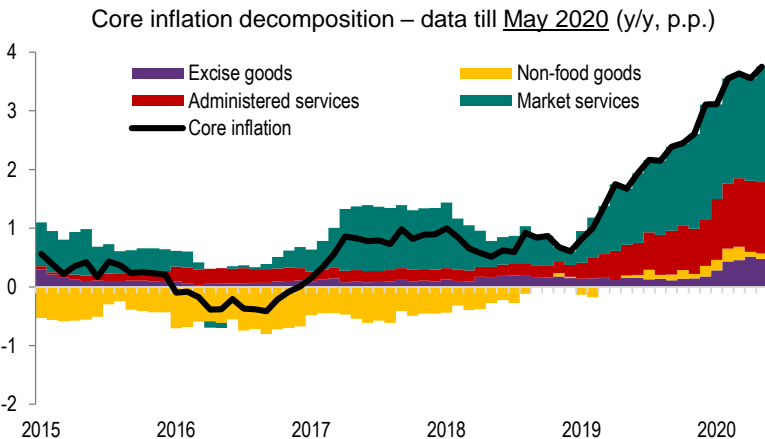
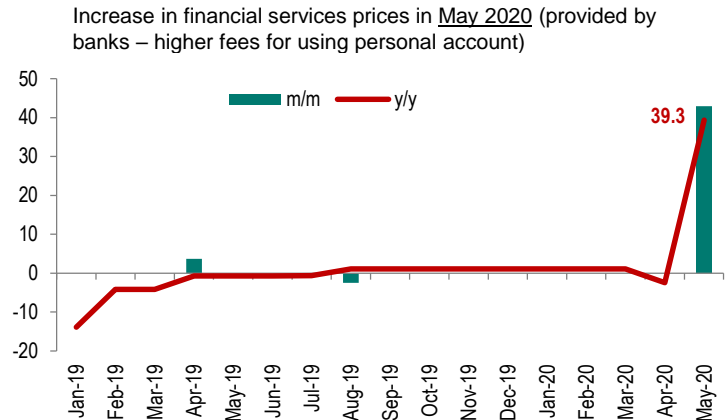
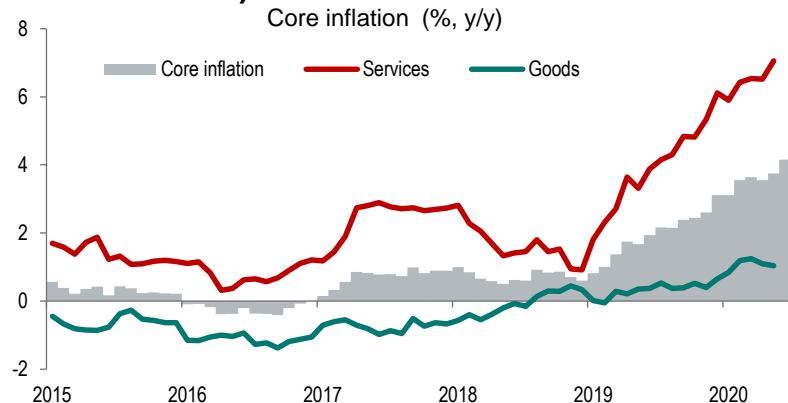


y/y, %	20q1		20q2*	
CPI inflation	4.5	(4.3)	3.2	(3.6)
Core inflation	3.4	(3.3)	3.7	(3.4)
Food prices	7.7	(7.1)	6.4	(5.2)
Energy prices	3.6	(3.6)	-4.3	(2.0)

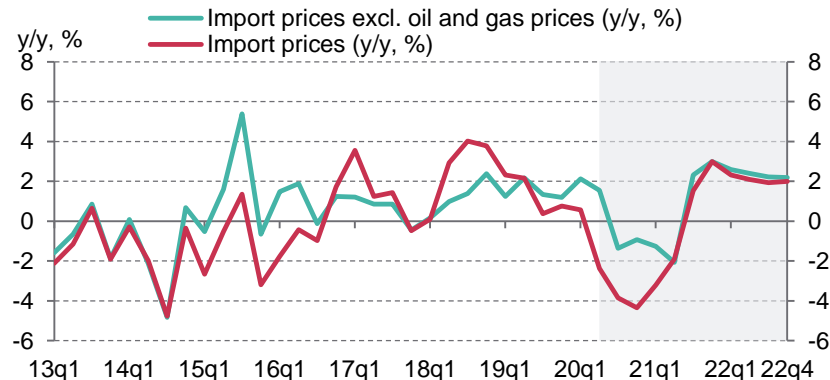
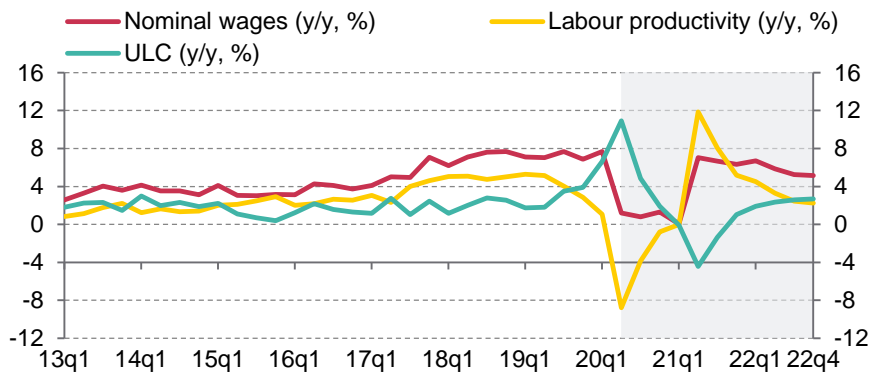
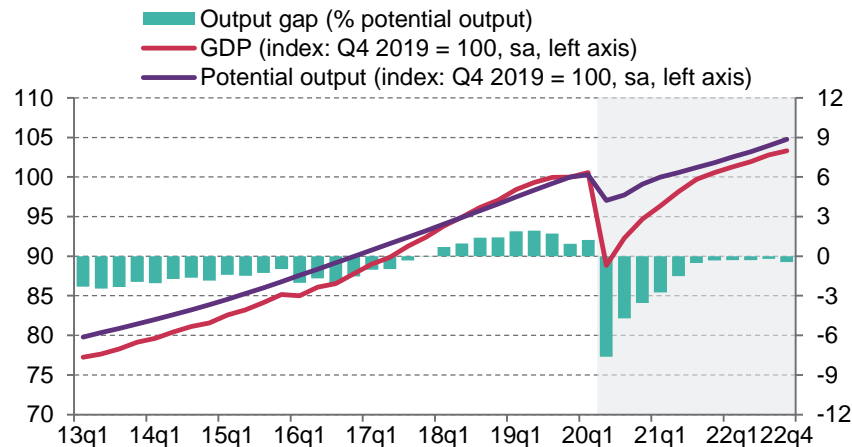
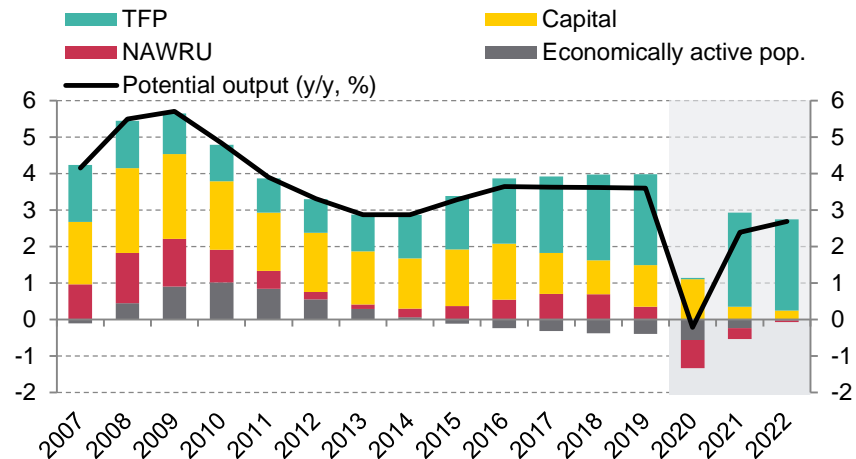
* NBP calculations based on GUS flash estimate for June 2020. Values from the March projection are given in brackets (seasonally adjusted). Indicators with values higher than in the March projection are marked green, whereas indicators with lower values are marked red.



In 2020Q2, the increase in core inflation driven by rising prices of services, mainly market services (including so-called COVID fee)



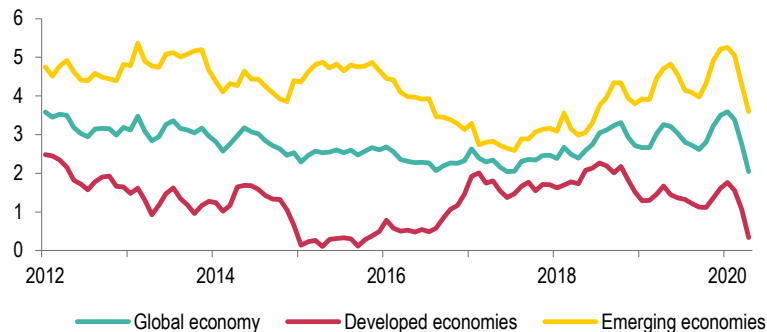
Low demand pressure and moderate cost pressure in the projection horizon.



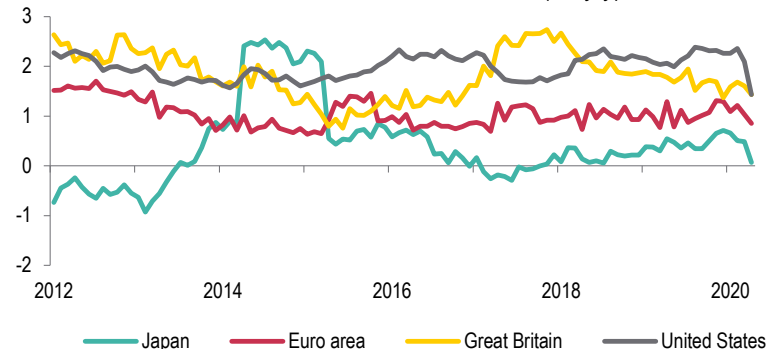
Source: GUS data, NBP calculations.

Demand shock related to COVID-19 pandemics markedly curb global inflation

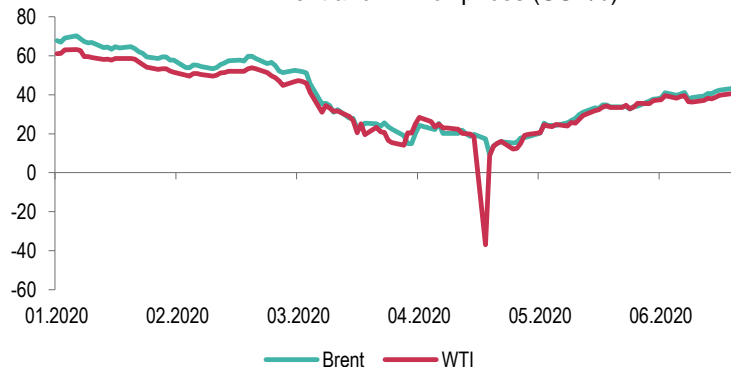
Inflation worldwide (% , y/y)



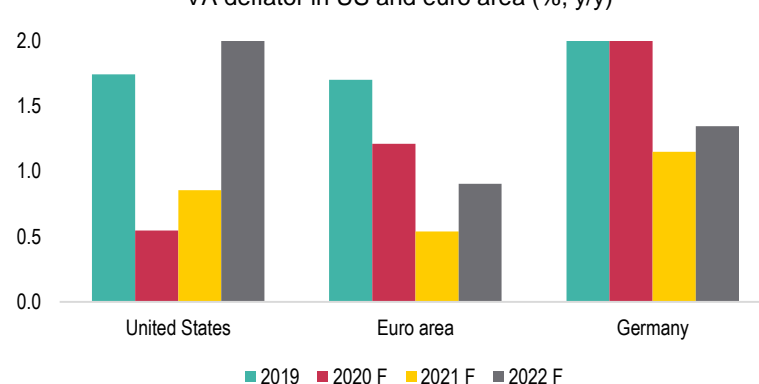
Core inflation in selected economies (% , y/y)



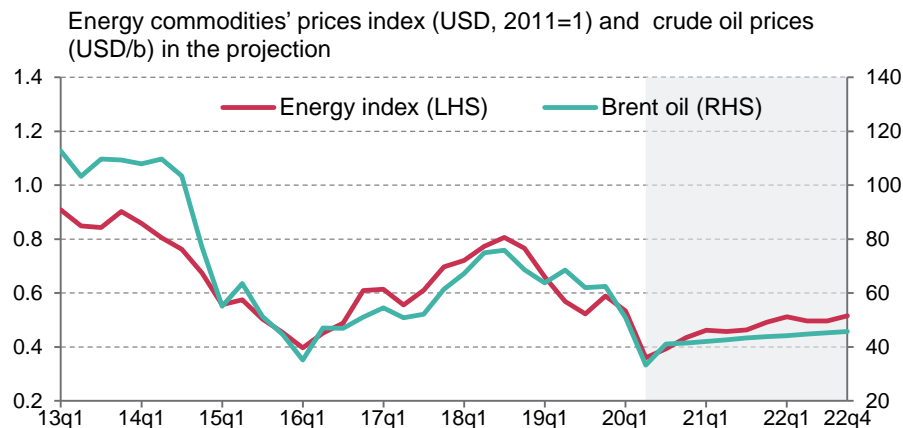
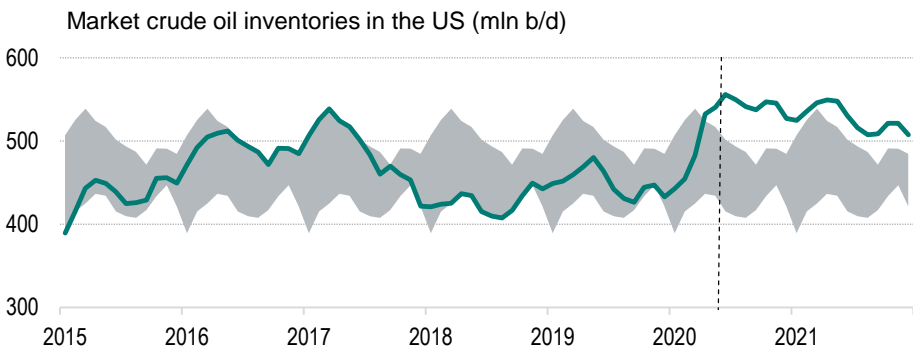
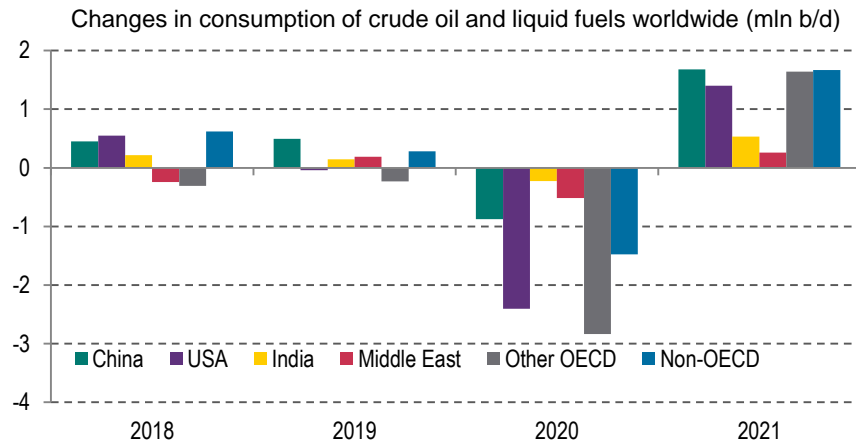
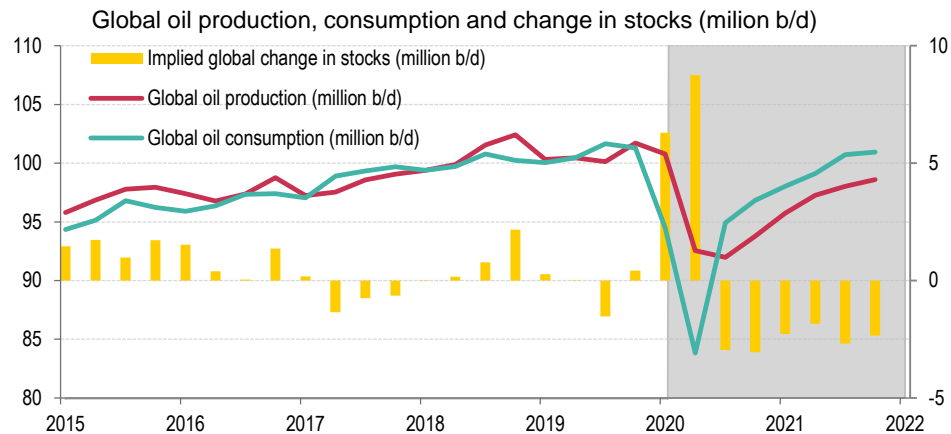
Brent and WTI oil prices (USD/b)



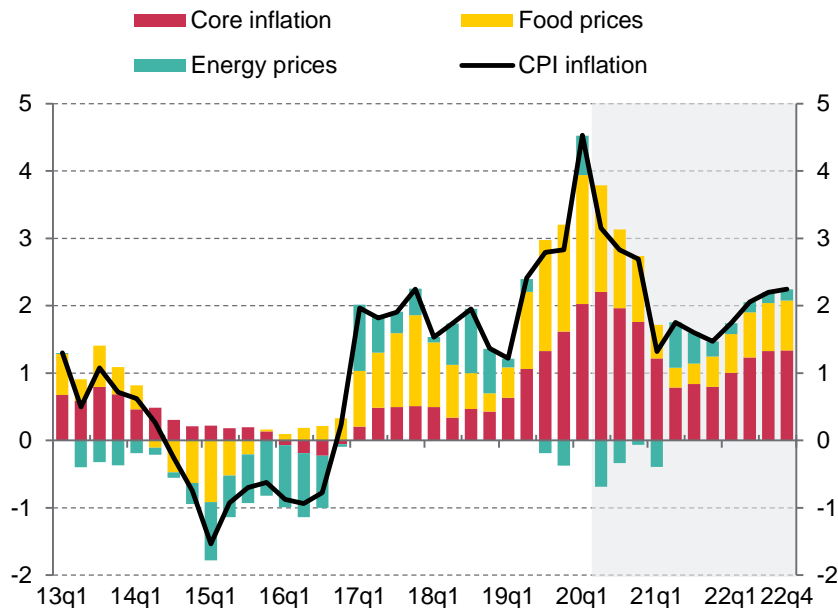
VA deflator in US and euro area (% , y/y)



Low prices of energy commodities due to weak global demand.



Lowest CPI dynamics in 2021, in 2022 gradual growth of inflation, however lower than 2.5%.



- ↑ Increase in excise duty in January 2020.
- ↑↓ Temporary upturn in food prices inflation in the short projection horizon due to supply constraints.
- ↓ Low level of energy commodities' prices on the global markets.
- ↑ In the short-term horizon increase in costs of enterprises related to economic restrictions.
- ↑ Disruptions in global supply chains.
- ↓↑ Dwindling demand in the middle-term horizon and its gradual rebound in the subsequent years.
- ↓↑ Low inflation in our main trading partners' economies, limited increase in 2022.
- ↓↑ In 2021 drop in unit labour costs, moderate increase afterwards.

y/y, %	2019	2020	2021	2022
CPI inflation	2.3	3.3	1.5	2.1

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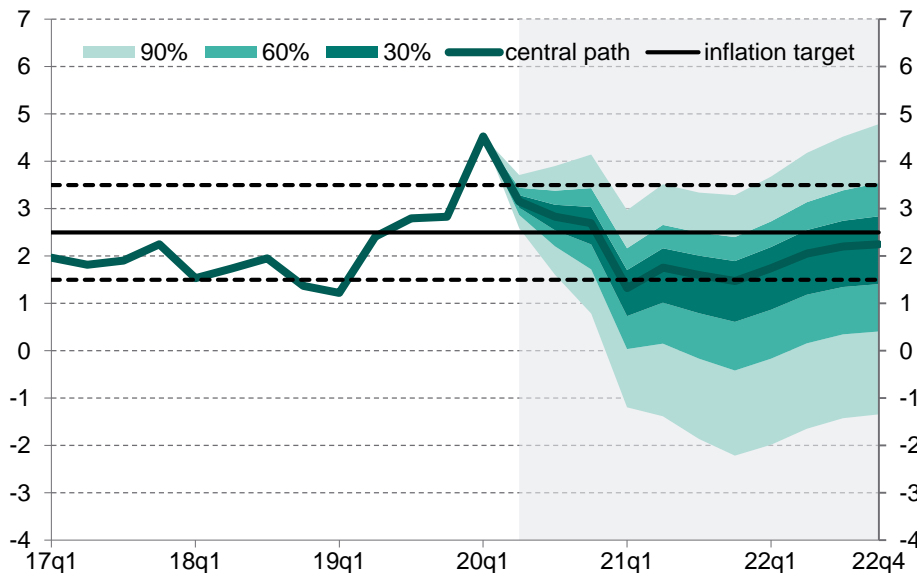
Uncertainty

Uncertainty

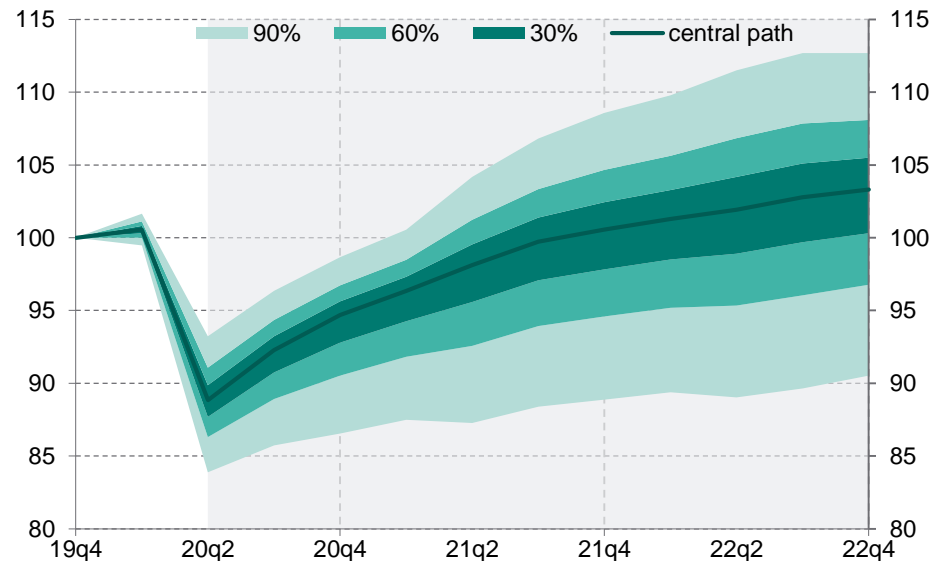
- Risk factors
- Fan charts

Risk area	Description	Impact	Scale of impact
More severe course of the pandemic	<ul style="list-style-type: none"> ▪ Poland and other countries easing restrictions run the risk of the second wave of infections and the return of some of the administrative restrictions, in other parts of the world where the number of active cases is still increasing (e.g. India, South America) further strong growth in the number of newly infected. ▪ Disruptions in the global value chains. ▪ Permanent change in economic behaviour of the population (the principle of increased social distancing) – drop in demand for some services. ▪ High uncertainty and pessimistic business sentiment – increased financial market tensions and investment reduction. ▪ Slowdown or reversal of the globalisation process, intensification of trade disputes between the United States, the European Union and China. ▪ Intensification of fiscal problems in the euro area countries most affected by the crisis. ▪ In consequence sustained loss of potential output (reduction in corporate investment, increase in equilibrium unemployment rate, lower participation rate, slower growth of total factor productivity). 	Inflation ↓ GDP ↓↓	**
Milder course of the pandemic	<ul style="list-style-type: none"> ▪ In Poland and abroad no second wave of infections, discovery of effective medical treatment, faster lifting of restrictions. ▪ Increase in optimism of economic agents, the behaviour of households and enterprises would return to a state similar to that before the pandemic. ▪ Improvement of the global sentiment (gradual easing of tensions in world trade and an increase in international trade volume). ▪ Possible introduction of the EU new stimulus package, the so-called Next Generation EU. ▪ Only temporary fall of potential output. 	Inflation ↑ GDP ↑	*
Prices of energy and agricultural commodities	<ul style="list-style-type: none"> ▪ Volatility of the global prices of energy commodities due to changes in demand and actions taken by the major producers. ▪ Risk of a significant deviation of meteorological conditions compared to the long-term average in countries that are important food producers and in Poland. 	Inflation ⇕ GDP ⇕	*
Summary		Inflation ↓	GDP ↓↓

CPI inflation (y/y, %)



GDP level (2019Q4 = 100)



CPI y/y, %	below 1.5%	below 2.5%	below 3.5%	below centr. path	within 1.5-3.5% range
2020	0%	7%	71%	55%	71%
2021	65%	90%	99%	66%	34%
2022	50%	73%	91%	63%	41%

CPI y/y, %	central path	50% probability interval	
2020	3.3	2.9	3.6
2021	1.5	0.3	2.2
2022	2.1	0.6	2.9

GDP y/y, %	central path	50% probability interval	
2020	-5.4	-7.2	-4.2
2021	4.9	2.1	6.6
2022	3.7	1.9	6.0

Source: GUS data, NBP calculations.

We protect the value of money