NBP Narodowy Bank Polski

Monetary Policy Council

November 2019

Inflation Report

The Inflation Report presents the Monetary Policy Council's assessment of the macroeconomic developments influencing inflation. The projection of inflation and GDP presented in Chapter 4 was prepared at the Economic Analysis Department of Narodowy Bank Polski (NBP). In terms of the contents, works on the projection were supervised by Piotr Szpunar, Director of the Economic Analysis Department. The projection was prepared with the use of the NECMOD macroeconomic model. The NBP Management Board approved the submission of the projection to the Monetary Policy Council. The projection of inflation and GDP is one of the inputs to the Monetary Policy Council's decision-making process.

The time frame of the analysis presented in the *Report* is conditioned by the availability of macroeconomic data. In turn, the periodisation of the analysis (breakdown into sub-periods) is conditioned by the development of particular variables. The cut-off date for the data in this *Report* was 21 October 2019.

This *Inflation Report* is a translation of NBP *Raport o inflacji* in Polish. In case of discrepancies, the original prevails.

Contents

Summary

GDP growth remains relatively low in many economies worldwide, and the global outlook has deteriorated in the recent months. Weaker global demand, in particular investment demand, is reflected in a slowdown in global trade. This, together with heightened uncertainty about the global outlook, contributes to a downturn in industrial sector. At the same time, business conditions in the services sector remain relatively strong, even though recently received data point to a likely deterioration in the months to come.

Inflation in the global economy continued to be moderate. Following a slight increase in the first half of 2019, mainly related to the supply-side factors which boosted food price growth, inflation softened in 2019 Q3, as energy prices had declined. At the same time, price growth remains strongly diversified between economies, running significantly higher in emerging market economies than in advanced ones.

As GDP growth remains relatively weak in a number of economies and the global outlook continues to deteriorate, the major central banks have loosened their monetary policies in the past few months. In September 2019, the European Central Bank (ECB) cut the deposit rate to -0.50%. In addition, the ECB changed its forward guidance by indicating that interest rates would be kept at their present or lower levels until inflation outlook robustly converges to the targeted level. At its meetings in July and September 2019, the Federal Reserve of the United States cut its interest rates, each time by 0.25 bp (the range for the fed funds rate stands currently at 1.75-2.00%).

Since the sentiment in the financial markets deteriorated and major central banks eased their monetary policies, the recent months have seen a decline in bond yields in advanced economies and some rise in emerging market economies.

In Poland, consumer price growth decelerated slightly in September (to 2.6% y/y), following an increase in the previous months. The increase in inflation was mainly driven by an earlier significant pickup in the prices of unprocessed food related to the fall in supply of some agricultural products and meat. This is accompanied by an increase in service price growth amid rising consumer demand, which translates into a gradual pickup in core inflation. Alongside that, lower energy prices than a year ago have a dampening effect on CPI growth.

In the wake of the slowdown in the global economy, the annual growth rate in Poland has declined in recent quarters. Despite this, GDP growth remains relatively high (in 2019 Q2, it ran at 4.5% y/y). Consumption demand continues to be the main driver of growth, as it is still supported by a favourable situation of employees in the labour market, including systematic employment and wage growth, as well as high consumer confidence and rising consumer credit. Increasing investment, particularly corporate investment, is also an important driver of GDP growth. Growth in corporate investment is fuelled by high domestic demand and high capacity utilisation. In turn, the contribution of net exports to GDP growth in 2019 Q2 was close to zero. Growth in foreign trade decelerated, with export growth slowing down more

sharply than import growth. This was related to further deterioration in global economic conditions, including in the close environment of the Polish economy.

The current financial performance of the general government sector remains very good. In the first half of 2019, the general government sector recorded a higher surplus than in the corresponding period in 2018 (0.6% against 0.4% of full year GDP in ESA2010 terms).

Favourable conditions in the economy are supportive of a further rise in employment. However, its growth decelerates, which is due to somewhat weaker demand for labour on the one hand, and labour supply-side constraints on the other. At the same time, unemployment rate continues to decline. As a result, the position of employees in wage negotiations remains strong and nominal wages in the economy continue to grow at a stable and relatively fast pace. Alongside that, as labour productivity rises significantly, unit labour cost growth is still moderate.

Against the background of the monetary policy easing by the world’s major central banks and a fall in bond yields of the advanced economies, yields on 10-year Polish government bonds have decreased to their lowest level on record. On the Polish stock exchange, the volatility of equity prices has remained elevated in recent months. In the first half of October 2019, equity prices were running at a slightly lower level than in June. The exchange rate of the złoty against the major currencies – after a slight weakening in August and September 2019 – in October returned to the levels seen in the first half of the year.

In 2019 Q3, broad money growth in the economy slowed, which was the result of weaker increase in household deposits. A rise in credit for the non-financial sector remained the main driver of growth in broad money in 2019 Q3. For the past few quarters, lending growth has been close to the nominal GDP growth. At the same time, household loan growth picked up slightly again due to both stronger housing loan growth and continued high consumer loan growth.

External imbalance indicators evidence that the Polish economy is well balanced. In 2019 Q2, the current account balance as well as capital account balance were positive and higher than in the previous year. In recent quarters, Poland's external debt to GDP ratio has declined and net international investment position has improved.

Taking into account the above developments, the Monetary Policy Council keeps the NBP interest rates unchanged, including the reference rate at 1.50%. Market interest rate expectations suggest that the NBP interest rates will remain stable in the coming quarters.

The Report is structured as follows: Chapter 1 presents the analysis of economic conditions in the external environment of the Polish economy in terms of their impact on inflation developments in Poland. These developments and the domestic factors that might affect them have been described in Chapter 2. Chapter 3 includes Minutes of the Monetary Policy Council decision-making meetings held between July and October 2019, together with the Information from the meeting of the Monetary Policy Council in November 2019. Minutes of the MPC meeting held in November will be published on 21 November 2019 and so will be included in the next Report. Chapter 5 presents the Monetary Policy Council voting records from the meetings held between mid-May and September 2019. Furthermore, the Report includes a box: *Slowdown in global trade*.

Chapter 4 of the *Report* presents the projection for inflation and GDP based on the NECMOD model, which is one of the inputs into the Council's decision-making process on the NBP interest rates. In line with the projection – prepared under the assumption of unchanged NBP interest rates and taking into account data published up to 18 October 2019 – there is a 50-percent probability that the annual price growth will be in the range of 2.2-2.4% in 2019 (against 1.7-2.3% in the July 2019 projection), 2.1-3.6% in 2020 (compared to 1.9-3.7%) and 1.6-3.6% in 2021 (compared to 1.3–3.5%). At the same time, the annual GDP growth – according to this projection – will be with a 50-percent probability in the range of 3.9-4.7% in 2019 (against 3.9-5.1% in the July 2019 projection), 2.7-4.4% in 2020 (compared to 3.0-4.8%) and 2.3-4.2% in 2021 (compared to 2.4-4.3%).

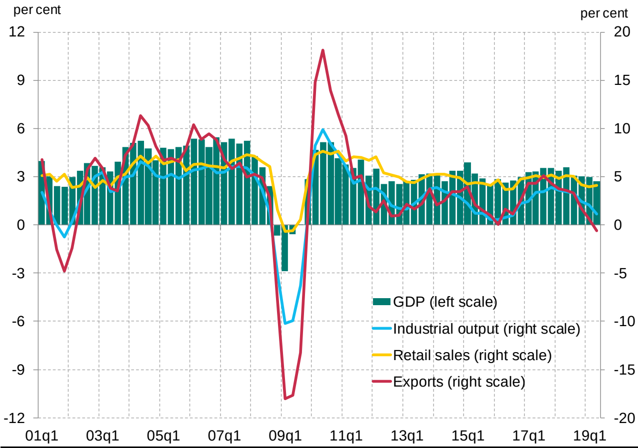
1. External developments

1.1 Economic activity abroad

GDP growth remains relatively low in many economies worldwide, and the global economic outlook has deteriorated in the recent few months (Figure 1.1). Weaker global demand, in particular investment demand, is reflected in a slowdown in global trade (see also *Box: Slowdown in global trade*). This, together with heightened uncertainty about the global outlook, contributes to a downturn in industrial sector. At the same time, business conditions in the services sector remain relatively strong, even though recently received data point to a likely deterioration in the months to come.

GDP growth in the euro area continued at a relatively slow pace of 1.2% y/y in 2019 Q2 (Figure 1.2). Economic growth was adversely affected by the slowdown in external demand, resulting in weaker growth in the euro area exports. Lower external demand growth was reflected in softer industrial activity, and, coupled with elevated uncertainty about the economic outlook, contributed to a deterioration in business confidence in the sector. The flagging industry sentiment had a hampering effect on investment activity, which, together with a slowdown in construction investment, resulted in lower investment outlays growth in most economies of the euro area. That notwithstanding, the contribution of investment to GDP growth in the euro area was firmly positive, to a large degree owing to one-off transactions carried out by entities registered in Ireland.[1] In turn, private

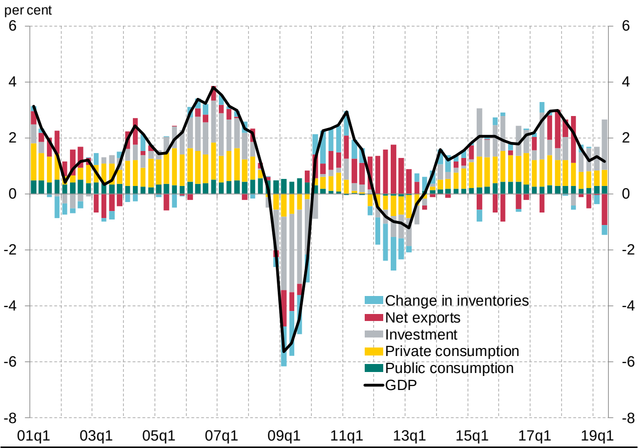
Figure 1.1 GDP growth and global economic activity indicators (y/y)



Source: Bloomberg, Centraal Planbureau, Eurostat, IMF data, NBP calculations.

GDP, industrial output and retail sales – average annual growth in economies comprising 80% of global GDP in 2017, weighted by GDP. Exports – global export growth rate estimated by Centraal Planbureau.

Figure 1.2 GDP growth in the euro area and its components (y/y)



Source: Eurostat data, NBP calculations.

[1] These transactions also generated downward pressure on the contribution of net exports to GDP growth in the euro area in 2019 Q2.

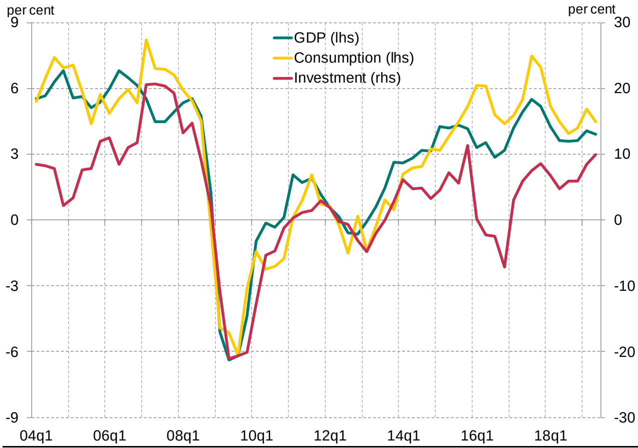
consumption – supported by rising real disposable income of households – increased at a steady rate and remained the main source of GDP growth in 2019 Q2. Households' favourable financial situation was, in particular, conducive to maintaining the strong performance of the services sector. Yet business confidence in this sector softened in September 2019.

The slowing in global trade and reduced industrial confidence had a particularly strong impact on the German economy, leading to a stagnation in its exports and weaker investment growth in 2019 Q2. Consequently, despite further stable consumption growth, the annual GDP growth decreased to 0.4% y/y in 2019 Q2, i.e. the lowest point in 6 years (and was negative in quarterly terms).

Lower GDP growth in the euro area dragged on export growth in the economies of Central and Eastern Europe, where net exports made a negative contribution to GDP growth in 2019 Q2. This was accompanied by weaker private consumption growth, resulting from flattened employment growth, which translated into slower increase in households' disposable income (Figure 1.3). In contrast, investment growth remained relatively strong, yet highly diversified across Central and Eastern Europe. In effect, in 2019 Q2, economic growth in Central and Eastern Europe weakened only marginally – to 3.8% y/y, compared with 4.0% in 2019 Q1.

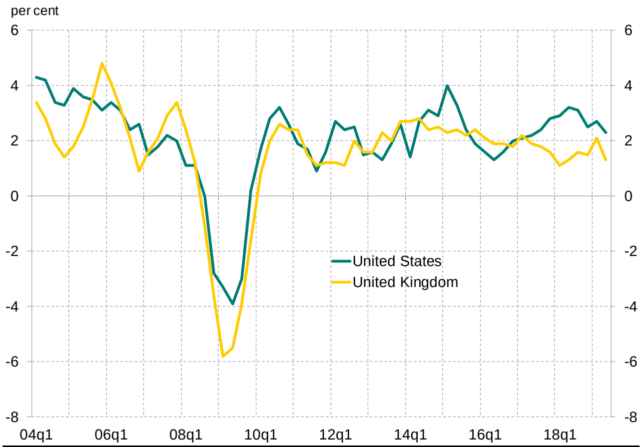
Similarly, annual GDP growth weakened in the United States in 2019 Q2 (to 2.3% y/y from 2.7% y/y in 2019 Q1[2]; Figure 1.4) as a result of a decline in exports and flatter private investment growth. In turn, private consumption growth picked up in 2019 Q2. Amid continuously favourable labour market conditions and stable households' financial situation, acceleration in consumption spending reflected the fading of factors which dampened

Figure 1.3 Economic growth and its selected components in countries of Central and Eastern Europe (y/y)



Source: Eurostat data, NBP calculations.
GDP-weighted annual growth rate of the total GDP, private consumption and gross fixed capital formation in non-euro area Central and Eastern European EU member states (excluding Poland): Bulgaria, Czech Republic, Croatia, Hungary and Romania.

Figure 1.4 Economic growth in selected advanced economies (y/y)



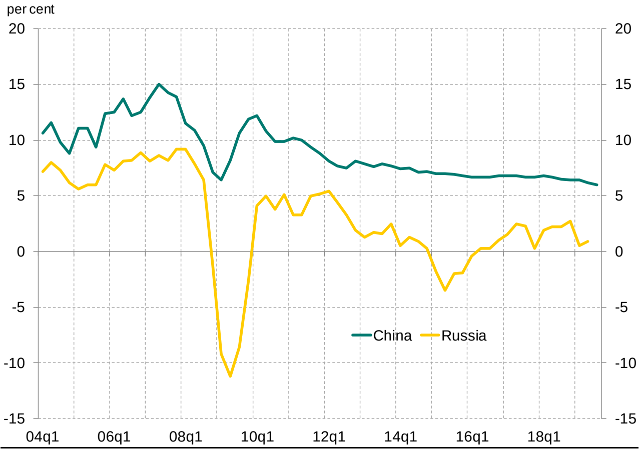
Source: Bloomberg and Office for National Statistics data.

[2] In quarter-on-quarter terms, GDP growth in the United States declined to 2.0% in 2019 Q2 from 3.1% in 2019 Q1 (annualised data).

growth in 2019 Q1, including the partial shutdown of the United States federal government.

In the United Kingdom, GDP growth fell to 1.3% y/y in 2019 Q2 from 2.1% y/y in Q1.[3] Fluctuations in GDP growth in the first half of 2019 were to a large degree related to firms' decisions about production planning and inventory accumulation in expectation of Brexit, originally scheduled for 29 March 2019, and to its subsequent postponement.[4] At the same time, the persistent uncertainty arising from the domestic political situation was having a negative impact on corporate investment plans and investment outlays. In contrast, private consumption continued to rise at a steady pace, supported by stronger wage growth in recent months.

Figure 1.5 Economic growth in selected emerging market economies (y/y)



Source: Bloomberg data.

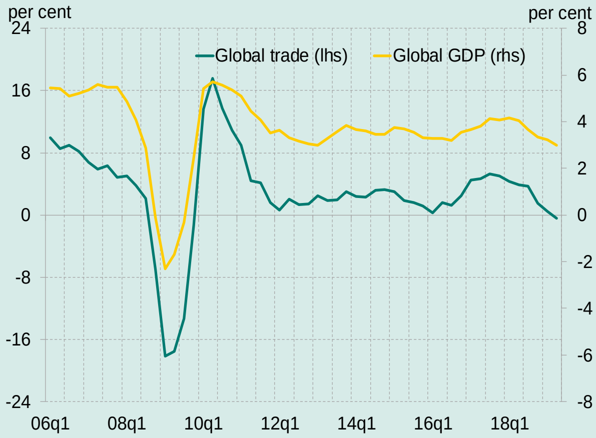
Economic activity in emerging market economies has been relatively subdued in the recent few months (Figure 1.5). In China, GDP growth in 2019 Q3 decelerated to 6% y/y (compared with 6.2% in 2019 Q2 and 6.4% y/y/ in 2019 Q1), which was the combined result of slower household consumption growth and weak external demand. In 2019 Q2, also growth in the Indian economy slowed down markedly. In Brazil and South Africa, in turn, GDP growth picked up. Activity growth in Russia remained sluggish, while in Turkey and Mexico GDP fell in year-on-year terms.

[3] In quarter-on-quarter terms, GDP declined by 0.2% in 2019 Q2 in the United Kingdom, following a rise by 0.3% and 0.6% in 2018 Q4 and 2019 Q1, respectively (seasonally adjusted data).
[4] Given the risk of a no-deal exit of the United Kingdom from the EU on 29 March 2019, in the first quarter of the year firms stepped up accumulation of inventories, significantly reducing inventory levels in 2019 Q2, after the date of Brexit had been moved to 31 October. In the automotive industry, a significant group of manufacturers, in fear of a no-deal Brexit scenario, in Q1, decided to bring forward the seasonal closures of production facilities, moving them from holiday time to April 2019, thus rendering a sharp decline in the industry's output at the beginning of 2019 Q2.

Box: Slowdown in global trade

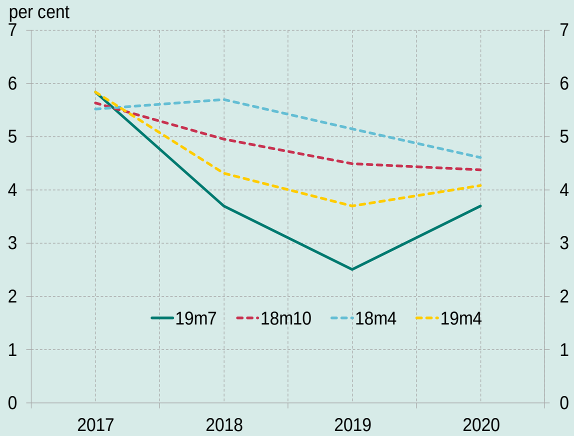
In the past few years, world trade growth has been markedly weaker than before the global financial crisis.[5,6] From 2011 to the first half of 2019, it posted 2.7% on average, compared with 5.8% in 2001-2007. As in late 2016 and in 2017 world trade gradually picked up (Figure B.1), forecasts suggested that in 2018-2020 its growth would run at 4.5%-6%, thus exceeding global GDP growth (Figure B.2). Yet at the end of 2017, global trade growth embarked on a distinct downward trend. The decline in global trade momentum has deepened in recent quarters, and in the second half of 2019 Q2 its volume fell in year-on-year terms for the first time since the financial crisis.

Figure B.1 Global trade in goods (y/y, 3-month moving average) and global GDP (y/y)



Source: CPB Netherlands, OECD, Bloomberg data, NBP calculations.
Arithmetic mean of global exports and imports.

Figure B.2 IMF forecasts of global goods imports



Source: IMF data.

The slowdown in world trade resulted from weaker import demand and slower export sales in many economies, both advanced and emerging. Weaker global exports growth was in a large measure driven by a fall in sales of machinery and mechanical appliances (of 2% y/y in 2019 Q1), vehicles (of 6% y/y) as well as electrical machinery and equipment (of 4% y/y). The decline in export sales in the first two categories has had a substantial negative effect on exports from the German economy – Poland's main trading partner – which fell by 2% y/y in the first half of 2019.

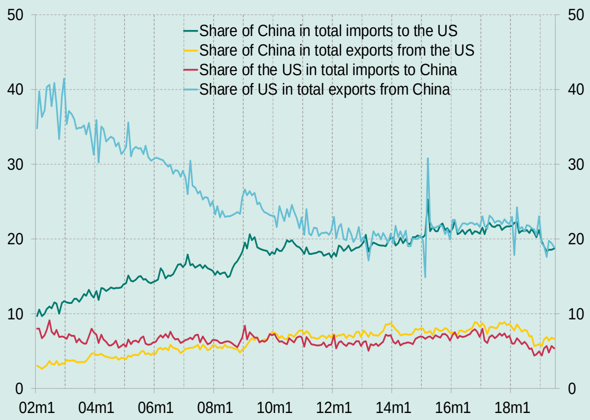
The global trade slowing seen over the past two years probably stems from several interacting factors. A geographical and sectoral decomposition of fluctuations in world trade combined with an analysis of macroeconomic processes and changes in economic policy suggests that the flagging of global trade is rooted in the following processes:

- ***Changes in the trade policy of the largest economies***. Throughout 2018 and 2019, the United States gradually imposed and increased trade tariffs, especially on Chinese imports. This was met with China's

[5] In this Box, changes in the growth of global trade, imports and exports are based on volume series, whereas changes in the growth rate in the respective product groups relate to their value.
[6] Alongside the causes of the weakening of global trade observed since the end of 2017, which are discussed in the box, global growth of trade in goods is additionally contained by structural factors. Their impact was already visible before the global financial crisis (see Constantinescu et al., 2015 and ECB, 2016). These factors include among others: i) lower intensity of processes of global fragmentation of production, along with the fading effects of the revolution in telecommunication and IT technology of the 1990s as well as the sharp fall in international transport costs seen over the last several decades, ii) changes in the structure of aggregated demand in some economies (including in China), consisting in a growing share of less import intensive categories (private consumption and expenditure on services), iii) the absence of significant progress in the liberalisation of trade compared to the 1990s and the beginning of the 2000s.

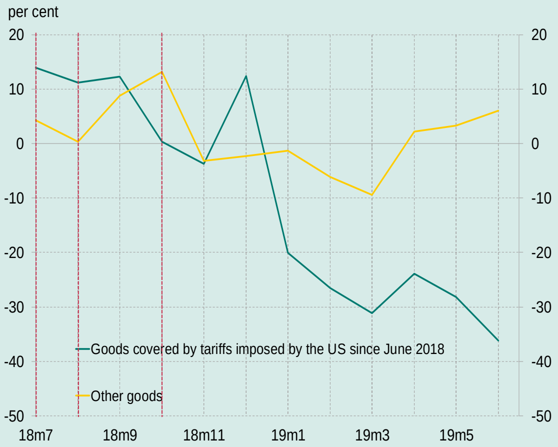
retaliatory tariffs on exports from the United States. According to current policy announcements, in December 2019 the tariffs will cover almost all trade in goods between the two countries. Tighter trade policy has led to a decline in bilateral trade between the United States and China (Figure B.3, Table B.1). The direct impact of this decline on the global trade aggregates was partially offset by higher imports from third countries, including through a gradual relocation of trade.[7] However, trade policy tensions between the world's two largest economies and the US administration's hints about a possible increase in tariffs on trade with other large countries most likely influenced global trade also indirectly, additionally depressing demand in China and contributing to a deterioration in business confidence across the world (see below).

Figure B.3 Share of China and the United States in bilateral trade



Source: The U.S. Census Bureau, NBP calculations.

Figure B.4 US imports from China (y/y)



Source: The U.S. Census Bureau, NBP calculations.

The graph is based on the tariffs which were effective until the end of August 2019. The vertical lines mark the points in time when subsequent rounds of tariff rises were introduced by the United States.

Table B.1 US imports from China by main product categories (data for 2019 Q2)

	Growth in total imports to the US from China (y/y)	Growth in total imports to the US (y/y)	Share of China in total imports to the US (per cent)	Change in share of China in total imports to the US (p.p., y/y)
All comodities	-11.7	0.9	18.6	-2.6
Organic chemicals	-17.0	0.6	15.0	-3.2
Plastics	-5.9	-1.8	30.1	-1.3
Leather goods	-25.7	-2.9	41.1	-12.7
Clothing and accessories (knitted)	3.7	4.8	31.2	-0.3
Clothing and accessories (not knitted)	-0.8	4.9	32.0	-1.9
Textiles	10.1	6.6	55.8	1.8
Footwear and accessories	-0.2	4.2	50.0	-2.2
Iron and steel articles	-9.5	-2.7	28.2	-2.1
Machinery and mechanical appliances	-16.4	0.2	26.2	-5.2
Electrical equipment	-12.0	-4.7	38.4	-3.2
Vehicles	-18.2	8.1	4.5	-1.4
Optical and photographic equipment	-15.5	3.8	11.6	-2.7
Furniture	-15.8	-5.1	45.5	-5.8
Toys, games and sport equipment	1.2	2.3	78.9	-0.8

Source: The U.S. Census Bureau, UN Comtrade, NBP calculations.

- ***Weaker business investment across the world***. As the production of many capital goods occurs within global and regional value chains, business investment demand, which is relatively import-intensive, is of high significance to developments in the global trade in both capital and intermediate goods. Global investment growth

[7] The gradual relocation of some production processes from the Chinese economy to other Asian economies is indicated by the fact that substantial increases in the shares in imports to the United States and in exports from China in product groups affected by higher tariffs are recorded by, among others Vietnam, Taiwan, the Philippines (footwear and leather goods), Thailand (iron and steel products) and Indonesia (leather goods).

has declined in the past few quarters. Data from G20 countries point to its drop from 5% y/y at the turn of 2017 to 1% in the first half of 2019. In the case of a few large economies,[8] the slowdown in investment was caused chiefly by country-specific factors. On the global scale, investment demand was also dampened by the elevated uncertainty related to changes in the trade policy of the largest economies combined with the Brexit process and mounting concerns about the global economic outlook. This is corroborated by business surveys[9] and empirical research.[10]

- ***Weaker consumption growth in large emerging market economies***. Although private consumption remained relatively resilient to global downturn in manufacturing, its average growth in the OECD countries decreased from 3% at the turn of 2017 to 1.4% in 2019 Q1. Consumption lost pace markedly in a number of large emerging market economies[11] which had experienced strong exchange rate depreciations and capital outflows in 2018. Also in a range of advanced economies[12], consumer expenditures decelerated substantially, which was driven by country-specific factors.

- ***Lower demand for cars and electronic goods***. Apart from the general slowdown in consumer and investment demand, global trade was also affected adversely by factors specific for two sectors of major importance to global trade, i.e. the automotive sector and the computer and electronic product manufacturing sector:
    - *In 2018 global car sales decreased*. The slump became even deeper in the first half of 2019 due to a sharp drop in demand from China and India, which in 2017 jointly accounted for over a third of total global car sales. In China, regulatory changes relating to vehicle emission standards added to depressed car sales.
    - *The tech cycle has reached a matured phase*. Besides the cyclical factors mentioned above, lower demand for computers and other electronic devices (such as smartphones, whose production has been the main driver of electronics production growth since 2012, Carton et al., 2018; Figure B.5) is most probably related to high market saturation and the absence of significant innovations in newly launched models, which results in less frequent product upgrading by consumers. Less demand for electrical goods has hit trade of some Asian countries which operate within regional value chains accounting for the bulk of the global supply of these products (Figure B.6).[13]

[8] Investment fell the most in Argentina and Turkey, i.e. in economies characterised by significant structural weaknesses, where activity collapsed when conditions in the global financial markets were gradually tightened. A marked decline in investment growth was also recorded in India, where firms' access to external financing deteriorated substantially due to problems of players from the shadow banking sector. Out of the advanced economies, the sharpest falls were experienced by Australia (slowing residential investment), Canada (decline in capital expenditure in the extractive sector) and Korea (decrease in corporate investment resulting from a fall in the global demand for electronic goods).

[9] For example, in January 2019, 20% of firms surveyed by the Federal Reserve in Atlanta pointed to the enacted tariffs and trade tensions as factors inclining them to change their investment plans, of which 67% were in the process of reviewing their investment plans, 36% had postponed investment projects and 16% had discontinued them.

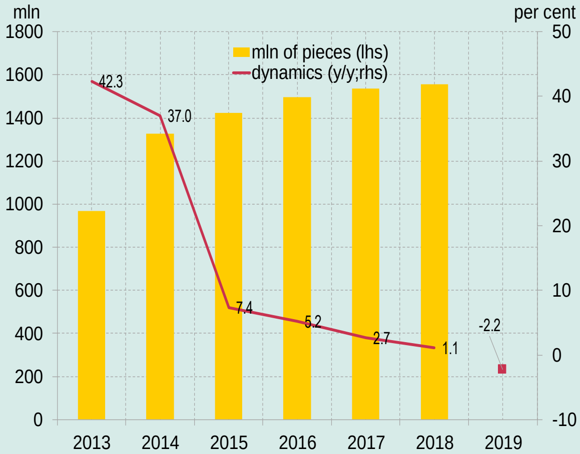
[10] Caldara et al., 2019, estimated that the rise in trade policy uncertainty between 2017 and 2018 could have reduced capital business expenditure in the United States by 1-2%.

[11] Above all, in Turkey, Mexico, Russia, Brazil and South Africa.

[12] Including Canada, Sweden, Italy and Spain.

[13] In 2015, Asian economies accounted jointly for half of the global value added generated in the sector of computers, electronics and electrical equipment production and almost two-thirds of the global trade in these goods, which accounted for 8% of the total global trade.

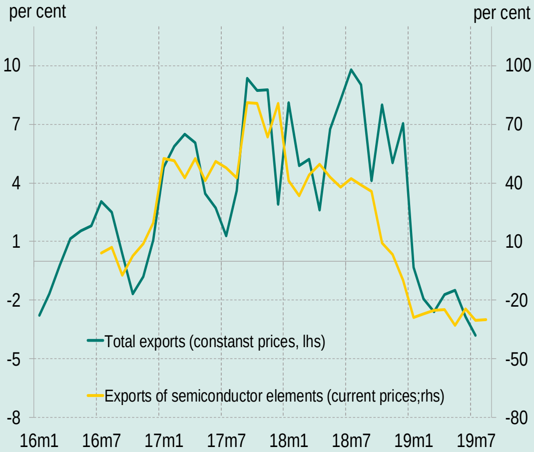
Figure B.5 Global sales of smartphones



Source: Gartner data.

Note: the square denotes sales growth (y/y) in the first half of 2019.

Figure B.6 Total exports and exports of semiconductors from South Korea.[14]



Source: Bloomberg.

To sum up, the poor performance of global trade reflects a range of processes which contributed to a more pronounced slowdown in global investment and consumer demand than forecast. To a lesser extent, it also reflects supply-side factors. Global trade growth is particularly undermined by the demand slowdown in China related to the actions of authorities aimed at curbing the risk of financial and macroeconomic stability, and exacerbated by the trade war with the United States as well as the weaker performance of a number of large emerging market economies amid tighter global financial conditions. The rise in the uncertainty about the global economic outlook also drags down trade growth, while influencing adversely activity in advanced economies and dampening trade in the euro area.

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1.2 Inflationary developments abroad

Inflation in the global economy continues to be moderate (Figure 1.6). Following a slight increase in the first half of 2019, mainly related to the supply-side factors which boosted food price growth, inflation softened in 2019 Q3, as energy prices had declined. At the same time, price growth remains strongly diversified between

[14] South Korea holds a major share of the world's production of semiconductor chips, used, among others, as memory components of computers and smartphones. As a result of this, data on semiconductors exports from South Korea are considered to be a leading indicator of activity in the global electronics sector. Due to the lag in publication of specific product groups trade volume data, the relevant figure shows data on semiconductor exports in current prices.

economies, running visibly higher in emerging market economies than in advanced ones.

HICP inflation in the euro area is still running significantly below the level consistent with the definition of price stability by the European Central Bank (ECB; inflation below, but close to 2%), even though the levels of inflation in individual euro area economies continue to vary. In September 2019, HICP inflation stood at 0.8% y/y. The continuously low core inflation, which in September 2019 rose to 1.0% y/y (Figure 1.7), remains the main factor curbing overall price growth. Inflation was also decelerated by a fall in oil prices in the global markets, which has been translating into weaker price growth since May.

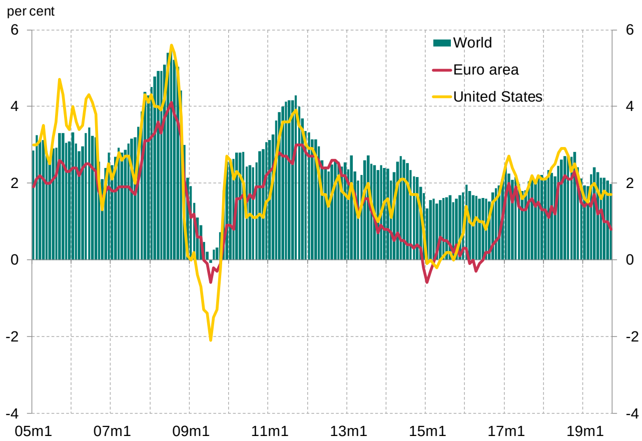
In the United States, consumer price growth, in particular core inflation, remains higher than in many other advanced economies (in September 2019, CPI inflation stood at 1.7% y/y, while core inflation was 2.4% y/y). The persistence of core inflation at a level higher than in comparable economies is supported by a decade-long economic recovery, which is reflected in a low unemployment rate and relatively high wage growth.

Inflation in the economies of the region of Central and Eastern Europe has decreased significantly in recent months (Figure 1.8), following a marked increase at the beginning of the year. A decline in energy prices, in particular in the prices of fuel for private means of transport, has had a curbing effect on inflation. In turn, a significant rise in food prices, especially unprocessed food, has pushed up the overall price growth. In addition, further increase in core inflation was supported by persistently strong wage growth.

1.3 Global commodity markets

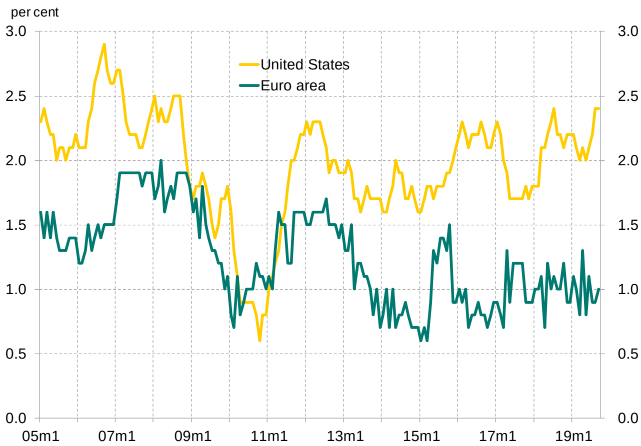
The decline in energy commodity prices seen in global markets over the recent few months has come to a halt of late, while prices of natural gas have shown seasonal growth. Yet energy

Figure 1.6 CPI inflation globally and in selected economies (y/y)



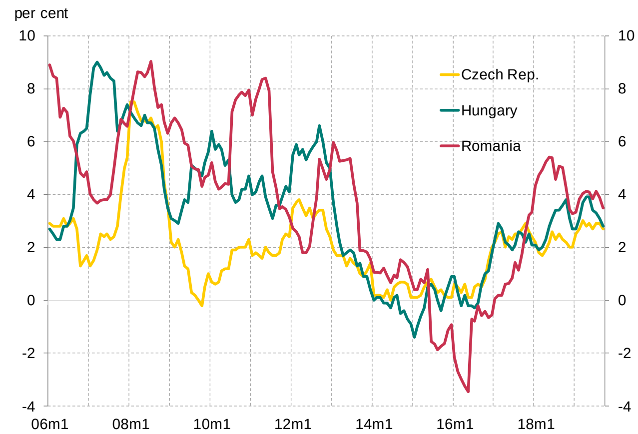
Source: Bloomberg data, NBP calculations.
World – average consumer price inflation in economies comprising over 80% of global GDP, weighted by GDP (2017). United States – annual CPI inflation. Euro area – annual HICP inflation.

Figure 1.7 Core inflation in United States and the euro area (y/y)



Source: Bloomberg and Eurostat data.
United States – annual CPI inflation less food and energy. Euro area – HICP inflation excluding energy, food, alcohol and tobacco.

Figure 1.8 Inflation rate in the Czech Republic, Romania and Hungary (y/y)



Source: Bloomberg data.
Annual CPI inflation.

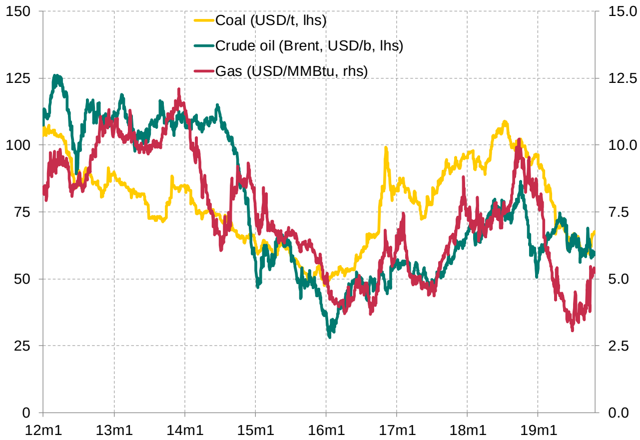
commodity prices are currently at a level markedly lower than a year earlier (Figure 1.9). At the same time, average agricultural commodity prices, following solid growth at the beginning of the year, have fallen close to the levels seen a year ago (Figure 1.10).

A marked decline in oil prices, which had continued since April 2019, halted in August, supported by mounting geopolitical tensions in the Middle East. Since then, the prices of Brent crude oil, despite temporarily heightened volatility,[15] have hovered around USD 55-65 per barrel. Both supply-side factors (increased oil production in the United States) and demand-side factors (a deterioration in global growth outlook; see Chapter 1.1 *Economic activity abroad*) have pushed down oil prices to lower levels than in the preceding months.

Similarly, prices of natural gas, after a strong fall seen since end-2018, flattened in August 2019. Recently, they have gone up as a result of seasonal factors additionally strengthened by reduced production of natural gas in Norway. Yet prices of natural gas remain at a low level, mainly due to accumulation of substantial gas stocks in the European countries as a result of higher temperatures in the winter period than in previous years on average, as well as high supply of liquefied natural gas (LNG) in the European market.

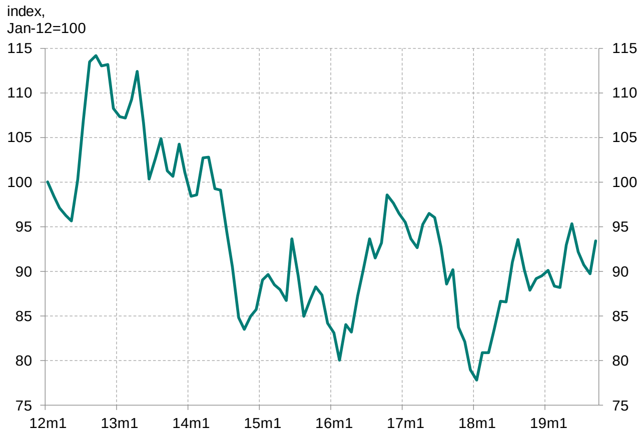
Also prices of hard coal have stabilized of late, following previous marked falls. In the second half of October 2019, they were 30% lower than a year ago. The main reason for the prices running below the level of a year ago was a decline in demand for hard coal, driven by weaker global economic conditions and reduced competitiveness of energy production from coal due to rising prices of CO2

Figure 1.9 Energy commodity prices



Source: Bloomberg data, NBP calculations.
USD/b – price expressed in US dollar per barrel of oil. USD/t – price expressed in US dollar per metric tonne. USD/MMBtu – price expressed in US dollar per million of British Thermal Unit, i.e. unit representing a quantity of energy required to raise the temperature of 1 pound (approx. 0.45 kg) of water by 1°F (slightly more than 0.5°C).

Figure 1.10 Index of agricultural commodity prices



Source: Bloomberg data, NBP calculations.
Index of agricultural prices includes prices of wheat, colza, pork, potatoes, sugar, cocoa, coffee, skimmed milk powder, butter and frozen concentrated orange juice. The weights reflect the consumption structure of Polish households.

[15] On 14 September 2019, an attack was launched on an oil processing plant in Saudi Arabia, which resulted in a temporary spike, to more than USD 69/b, in oil prices on 16 September 2019. In the following days, oil prices declined again.

emission allowances, amid persistently high coal supply.

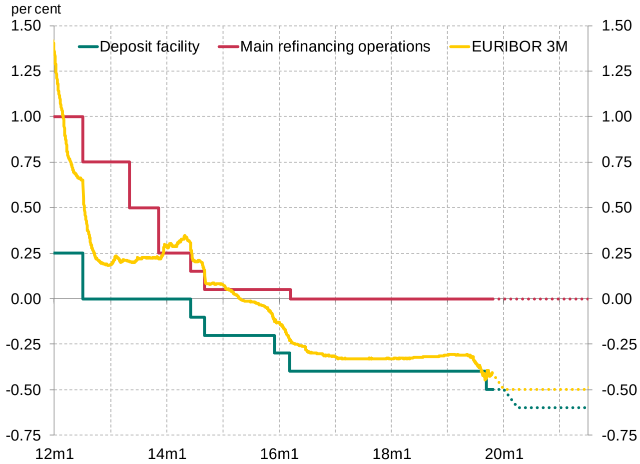
Agricultural prices in global markets, following a temporary decline in the summer months, picked up again in September (Figure 1.10). This was mainly accounted for by higher prices of wheat and skimmed milk powder reflecting stronger demand for these products in international markets. Prices of pork also continued to grow on the back of a significant reduction in the pigs population in China as a result of the African swine fever (ASF) and a sharp rise in Chinese demand for pork in global markets.

1.4 Monetary policy abroad

As GDP growth remains relatively weak in a number of economies and the global outlook continues to deteriorate, the major central banks have loosened their monetary policies in the past few months. Moreover, financial market participants expect further monetary easing in the quarters to come.

In September 2019, the European Central Bank (ECB) cut the deposit rate by 10 bp to -0.50%[16], at the same time announcing the introduction, from 30 October, of a two-tier system of remuneration on reserves held at the central bank[17]. In addition, the ECB changed its forward guidance by indicating that interest rates would be kept at the present level or lower until inflation forecasts robustly converge to the targeted level[18]. Market analysts expect further ECB interest rate cuts and market interest rates running lower than at present until at least 2021 Q3 (Figure 1.11). Furthermore,

Figure 1.11 Historical and expected interest rates in the euro area



Source: Bloomberg data.

Expected interest rates based on the median of market analysts' expectations in Bloomberg October survey.

[16] The remaining ECB rates were left unchanged.

[17] In line with the decision of the Governing Council, part of commercial banks' excess liquidity holdings on current accounts in the Eurosystem (up to the level corresponding to 6 times the amount of the required reserve of the given bank) will be remunerated at 0.0%. This arrangement is meant to limit the negative impact of negative interest rates on the banking sectors' financial performance. It expands also a room for possible further cuts of ECB interest rates, curbing their potentially negative effect on banks' financial results.

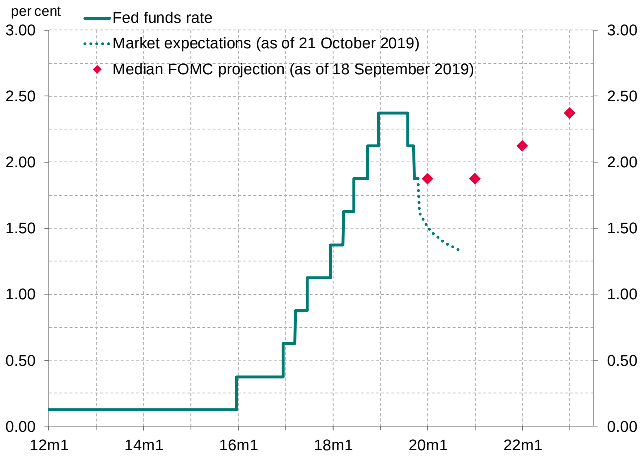
[18] Excerpt from the ECB press release following the meeting of the Governing Council on 12 September 2019: "The Governing Council now expects the key ECB interest rates to remain at their present or lower levels until it has seen the inflation outlook robustly converge to a level sufficiently close to, but below, 2% within its projection horizon, and such convergence has been consistently reflected in underlying inflation dynamics."

the ECB has announced the resumption of the asset purchase programme at a monthly pace of EUR 20bn as of November 2019[19]. Finally, the ECB lowered the rate applied in the third series of its lending support programme (Targeted Longer-Term Refinancing Operations: TLTRO-III)[20], while extending the maturity of its operations from two to three years.

At its meetings in July and September 2019, the Federal Reserve of the United States (Fed) cut its interest rates, each time by 0.25 bp. At present the target range for fed funds rate stands at 1.75-2.00%. Simultaneously, the median forecast of the Federal Open Market Committee (FOMC) points to a stabilisation of interest rates in 2019 and 2020. Yet some FOMC members and market participants forecast further monetary policy easing (Figure 1.12). In order to loosen monetary conditions, the Fed additionally decided to shorten the programme of balance sheet reduction by two months and concluded it as early as at the beginning of August 2019 (Figure 1.13)[21].

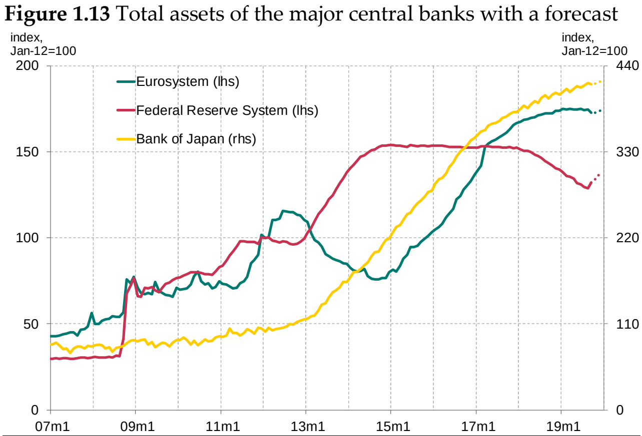
The deteriorating economic outlook has also inclined other central banks – both in the advanced and emerging market economies – to cut their interest rates. Monetary policy has recently been eased by the central banks of Australia, Denmark, Iceland, Korea and New Zealand, and, among major emerging market economies – those of China, India, Brazil, Russia and Indonesia.

Figure 1.12 Historical and expected interest rates in the United States (midpoint of the target range for the fed funds rate)



Source: Bloomberg data.
Expectations as of 21 October 2019 based on fed funds futures contracts.

Figure 1.13 Total assets of the major central banks with a forecast



Source: FRED data, NBP calculations.
Forecast until December 2019: for the Eurosystem under an assumption of stable balance sheet in October and monthly growth of 20 bln EUR in November-December, for the Bank of Japan under an assumption of extrapolation of the average growth observed in the period from October 2018 to September 2019, for the Federal Reserve System under an assumption of a monthly growth of 60 bln USD.

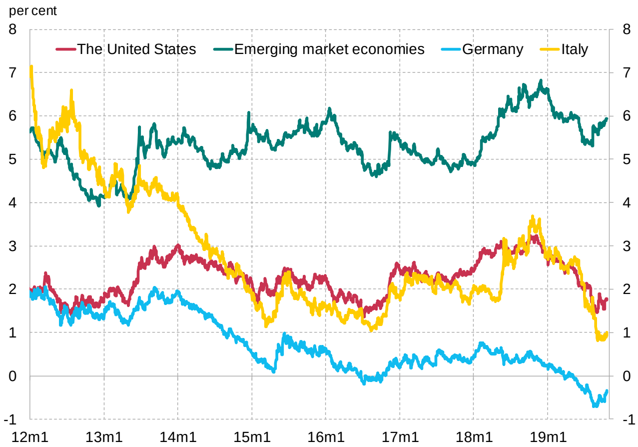
[19] According to the ECB press release, the net asset purchases will be continued for as long as necessary to reinforce the accommodative impact of the key ECB interest rates, and will end shortly before the Council starts raising them.
[20] Excerpt from the ECB press release following the meeting of the Governing Council on 12 September 2019: "The interest rate in each operation will now be set at the level of the average rate applied in the Eurosystem's main refinancing operations over the life of the respective TLTRO. For banks whose eligible net lending exceeds a benchmark, the rate applied in TLTRO III operations will be lower, and can be as low as the average interest rate on the deposit facility prevailing over the life of the operation."
[21] Expected rise in the Fed's balance sheet is an effect of the announced additional repo operations to be conducted at least through January 2020 and Treasury bills purchases to be conducted at least into 2020 Q2 in order to maintain ample reserve balances.

1.5 International financial markets

As the sentiment in the financial markets deteriorated and major central banks eased their monetary policies, the recent months have seen a decline in bond yields in advanced economies and some rise in emerging market economies. At the same time, equity prices – which have been subject to considerable fluctuations in the recent quarters – were close to record highs in advanced economies, while in emerging market economies they stood only slightly above their long-term averages.

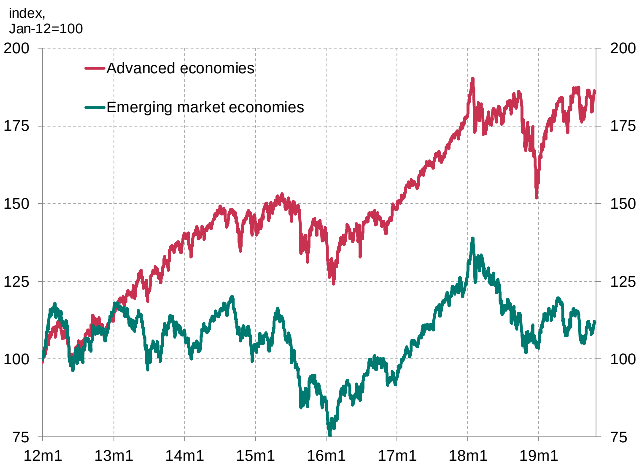
The deterioration in current global economic conditions and their outlook boosted investors' demand for assets considered as safe. Along with toned town rhetoric and the subsequent easing of monetary policy by the ECB and the Fed, this contributed to a decline in bond yields in advanced economies, which are currently markedly below the levels seen a few months ago (Figure 1.14). As a result, the number of bonds trading with negative yields increased. In particular, the yield on 10-year government bonds in Germany decreased to -0.5% in the first half of October 2019 as against -0.3% in June 2019[22]. As a result of measures taken by the ECB, bond yields of other euro area economies also fell, and in Italy, for example – where, in addition, the political situation stabilized – they have recently reached historically low levels. Meanwhile, in the United States – due to the disparity between Fed and ECB interest rates – government bond yields remain higher than in the euro area economies (in the first half of October they stood at 1.6% as against 2.1% in June). In turn, in many emerging market economies, bond yields have recently increased slightly due to deteriorating sentiment in the financial markets driven by uncertainty about the global economic situation.

Figure 1.14 Government bond yields



Source: Bloomberg data.
The United States, Germany and Italy – 10 year government bond yield; emerging market economies – Bloomberg Barclays Emerging Markets Sovereigns.

Figure 1.15 Equity prices



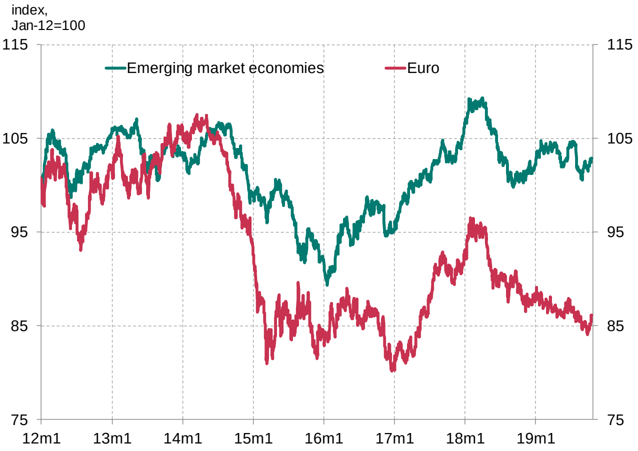
Source: Bloomberg data.
Advanced economies – MSCI World Equity Index; emerging market economies – MSCI Emerging Markets Equity Index.

[22] In August 2019, yields on 10-year government bonds in Germany reached their historical low at -0.71%

In recent months, equity prices in advanced economies were close to their record highs (Figure 1.15), boosted by the toned down rhetoric of major central banks, followed by easing of their monetary policies and the expected further easing of monetary conditions. Alongside that, the deterioration in global economic conditions and mounting concerns about their outlook had a downward impact on equity prices. These factors affected more strongly equity prices in emerging market economies, where stock indices fell slightly.

In the FX market, the euro was weakening against the US dollar until September 2019, amid a more favourable growth outlook for the United States than for the euro area (Figure 1.16). Faced with heightened uncertainty about future global economic conditions and reduced demand from investors for assets considered as more risky, the currencies of emerging market economies also depreciated against the US dollar in July and August. However, the US dollar has recently weakened somewhat – both against the euro and the currencies of emerging market economies – due to growing expectations of further interest rate cuts in the United States and fewer concerns about the escalation of international trade disputes. Yet the exchange rate of the US dollar against these currencies remained above the average recorded in the first half of the year.

Figure 1.16 Exchange rates against the US dollar (rise indicates appreciation)



Source: Bloomberg data, NBP calculations.
Emerging market economies – MSCI Emerging Market Currency Index.

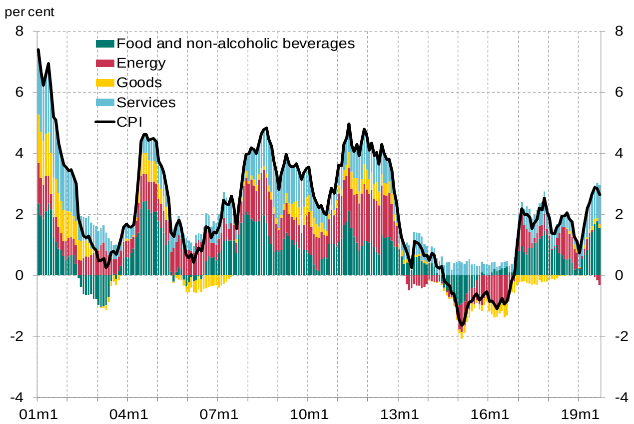
2. Domestic economy

2.1 Consumer prices

Consumer price growth in Poland decelerated slightly in September (to 2.6% y/y; Figure 2.1), following an increase in the previous months. The increase in inflation was mainly driven by an earlier significant pickup in the prices of unprocessed food related to the fall in supply of some agricultural products and meat. This is accompanied by an increase in service price growth amid rising consumer demand, which translates into a gradual pickup in core inflation. Alongside that, lower energy prices than a year ago have a dampening effect on CPI growth.

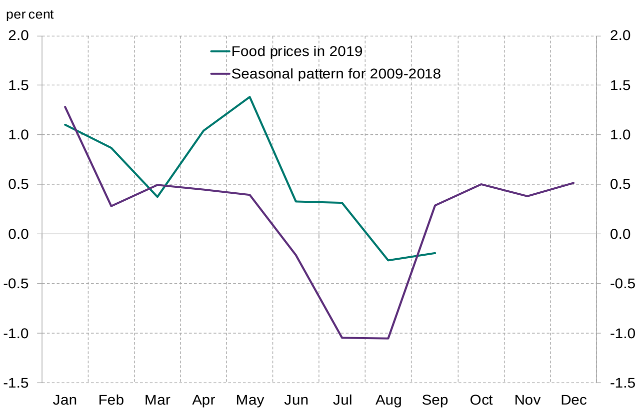
The rise in consumer prices in recent months was largely accounted for by high food price growth (despite its decline in September to 6.3% y/y). Higher food prices, particularly of unprocessed food, were driven by supply-side factors – mainly the fall in supply of fruit and vegetables owing to extremely unfavourable weather conditions. As a result, in the summer months, fruit prices – contrary to seasonal pattern – did not decline, and the fall in vegetable prices was significantly weaker than in recent years. Only in September did fruit prices decrease slightly, accompanied by a sharp fall in vegetable prices. Another driver of food price growth in recent months was the reduction in the number of pigs, particularly in China, in response to the ASF epidemic (see Chapter 1.3 *Global commodity markets*). Combined, the above changes made total food price growth significantly deviate upwards from the seasonal pattern up to August, and downwards in September (Figure 2.2).

Figure 2.1 Composition of CPI inflation (y/y)



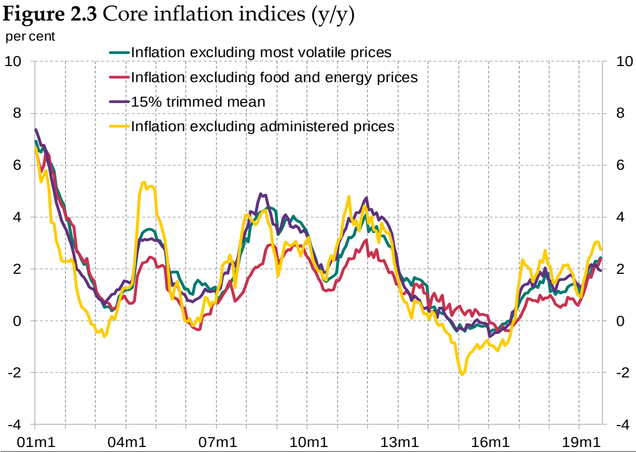
Source: Statistics Poland (GUS) data, NBP calculations.

Figure 2.2 Monthly food price growth in 2019 against its seasonal pattern over 2009-2018



Source: Statistics Poland (GUS) data, NBP calculations.

Figure 2.3 Core inflation indices (y/y)



Source: Statistics Poland (GUS) data, NBP calculations.

Amid the persistently favourable financial situation of households and the related growing consumer demand, the majority of core inflation measures are currently higher than several months ago. In September, inflation excluding food and energy prices stood at 2.4% y/y (Figure 2.3). The increase in this core inflation measure was driven by the acceleration in service price growth (to 4.6% y/y), which in particular was due to a marked pickup in refuse collection fees as well as prices of telecommunications and gastronomic services. At the same time, price growth of non-food goods was low and relatively stable (0.4% y/y).

Energy price growth slowed down in recent months to reach the level of -2.0% y/y in September (Figure 2.4). Amid the freezing of electricity prices since the beginning of the year, this was mainly the result of the decline in fuel prices related to the previously seen fall in global oil prices (see Chapter 1.3 *Global commodity markets*)[23].

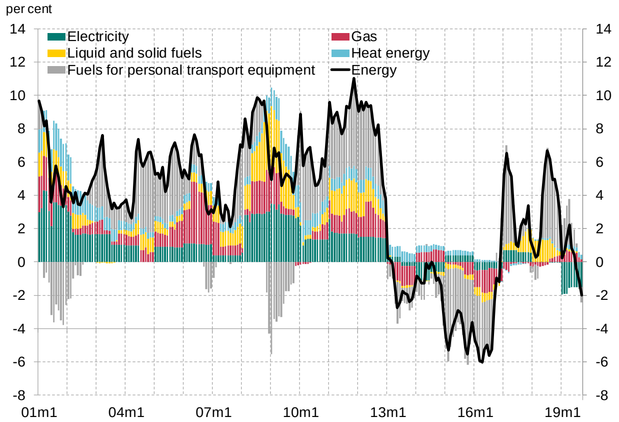
The earlier fall in global oil prices also dragged on producer price growth, which remains significantly lower than in the first months of 2019 (0.9% y/y in September; Figure 2.5).[24]

Consumers' and enterprises' survey opinions about future inflation have not changed significantly in the recent period, running higher than the 2018 average (Figure 2.6). In turn, economists surveyed by NBP have recently slightly raised their expectations (Table 2.1).

2.2 Demand and output

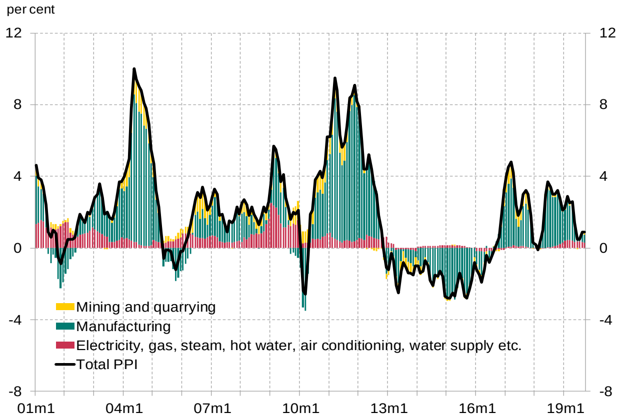
In the wake of the slowdown in the global economy, the annual growth rate in Poland has declined in recent quarters. Despite this, GDP growth remains relatively high - in 2019 Q2, it ran

Figure 2.4 Energy price growth and its components (y/y)



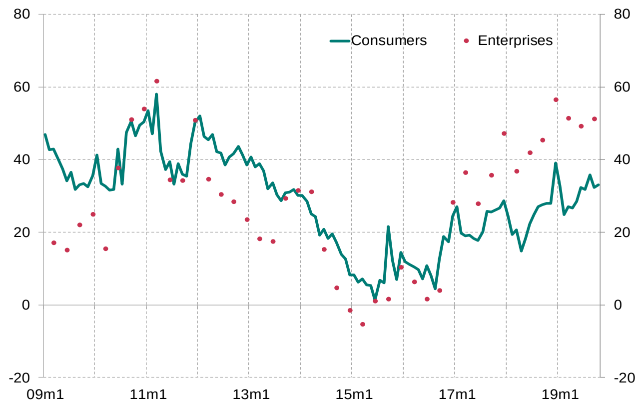
Source: Statistics Poland (GUS) data, NBP calculations.

Figure 2.5 Composition of PPI inflation (y/y)



Source: Statistics Poland (GUS) data, Eurostat.

Figure 2.6 Balance statistics of consumer and enterprise inflation expectations



Source: Statistics Poland (GUS) and NBP data, NBP calculations.

Balance statistics is defined as a difference between a fraction of respondents expecting rise in prices and the fractions of respondents expecting no change or fall in prices (with respective weights). A rise in balance statistics should be interpreted as a shift in opinions towards higher rise in prices.

[23] In August and September, an additional factor deepening the fall in energy price growth was the decline in the annual growth in natural gas prices (negative base effect related to the increase in tariffs for households introduced a year earlier).

[24] Apart from price growth in oil processing, also price growth in intermediate goods manufacturing decreased, although to a lesser extent, including, among others, in the production of chemicals, products from other non-metallic mineral raw materials and from metal. Alongside that, price growth in consumer goods manufacturing was relatively stable, while in capital goods manufacturing it increased slightly.

at 4.5% y/y against 4.7% y/y in 2019 Q1 (and 5.1% in 2018; Figure 2.7, Table 2.2).

Consumption demand continues to be the main driver of growth, as it is still supported by a favourable situation of employees in the labour market, including systematic employment and wage growth, and rising consumer credit (see also Chapter 2.6 *Money and credit*). After some slowdown in the previous quarters, in 2019 Q2 consumption growth picked up again, underpinned by benefit payments under the "Pension plus" programme, the later date of Easter than last year, and an improvement in consumer confidence related to the extension of the "Family 500 plus" programme and the announced income tax cuts.

Rising investment, particularly corporate investment, is also an important driver of GDP growth. In 2019 Q2, growth of corporate investment remained significantly higher than in 2018 as companies faced favourable business conditions and high capacity utilisation. At the same time, slower growth in absorption of EU funds weakened public investment growth (see also Chapter 2.2.2 *Investment*).

Public expenditure on goods and services also makes a significant contribution to GDP growth, even though public consumption growth slowed down in 2019 Q2 as the local government expenditure on wages rose at a slower pace due to the teachers' strike.

In turn, the contribution of net exports to GDP growth in 2019 Q2 was close to zero. However, growth in foreign trade declined compared to 2019 Q1, with export growth slowing down more sharply than import growth. This was related to further deterioration in economic conditions around the world, including in the immediate environment of the Polish economy.

Table 2.1 Inflation expectations of bank analysts and participants to to the *NBP Survey of Professional Forecasters* (per cent)

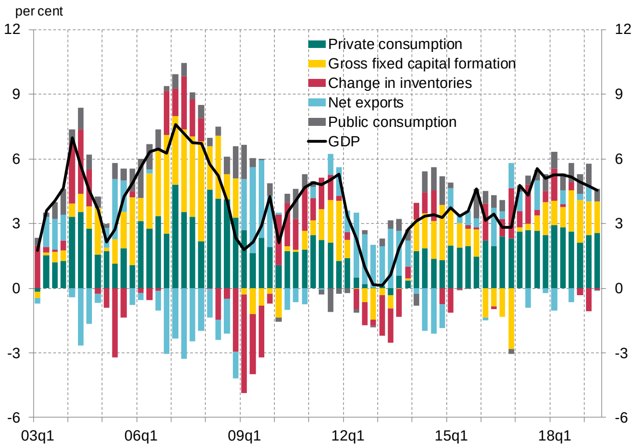
	Survey conducted in:				
	18q4	19q1	19q2	19q3	19q4
Thomson Reuters Survey, inflation expected in 4 quarters	2.3	2.4	2.6	2.8	2.8
NBP Survey, inflation expected in 4 quarters	2.3	2.3	2.6	2.8	-
NBP Survey, inflation expected in 8 quarters	2.6	2.3	2.6	2.6	-

Source: NBP and Reuters data.

Inflation expectations of the financial sector analysts are proxied by the median forecast of the analysts surveyed by Thomson Reuters in the last month of a given quarter, except for 2019 Q4, when the October forecast was used.

Inflation expectations of the participants to the *NBP Survey of Professional Forecasters* reflect the median probability distribution obtained from the aggregation of probability forecasts of the experts surveyed by NBP.

Figure 2.7 GDP growth and its components (y/y)



Source: Statistics Poland (GUS) data.

Table 2.2 GDP growth and its contributions (y/y, per cent)

	2017				2018				2019	
	q1	q2	q3	q4	q1	q2	q3	q4	q1	q2
GDP	**4.8**	**4.3**	**5.5**	**5.1**	**5.2**	**5.3**	**5.2**	**4.9**	**4.7**	**4.5**
Private consumption	2.6	2.7	2.7	2.5	2.9	2.8	2.6	2.1	2.5	2.6
Public consumption	0.3	0.4	0.5	0.8	0.8	0.8	0.9	0.9	1.1	0.6
Gross fixed capital formation	0.2	0.3	0.7	1.5	1.1	1.0	1.9	2.0	1.6	1.5
Change in inventories	0.7	1.8	0.3	0.5	1.5	0.1	0.4	-0.3	-1.1	-0.1
Net exports	0.9	-0.9	1.3	-0.2	-1.0	0.6	-0.6	0.3	0.7	0.0

Source: Statistics Poland (GUS) data.

2.2.1 Consumption

Consumption remains the main source of economic growth in Poland. In 2019 Q2, the pace of household consumption growth increased to 4.4% y/y, from 3.9% y/y in 2019 Q1 (Figure 2.8).

The rise in consumption in 2019 Q2 was underpinned by the consistently strong financial position of households, resulting from relatively high growth of the wage bill, disbursements of benefits under the "Pension Plus" programme, and increasing consumer credit (see Chapters 2.4 *Labour market* and 2.6 *Money and credit*). In addition, high consumer confidence – driven by the strong position of employees in the labour market and the expected rise in disposable income related to both the extension of the "Family 500 Plus" programme and the announced reduction of the income tax rate – boosted households' propensity to consume (Figure 2.9).[25]

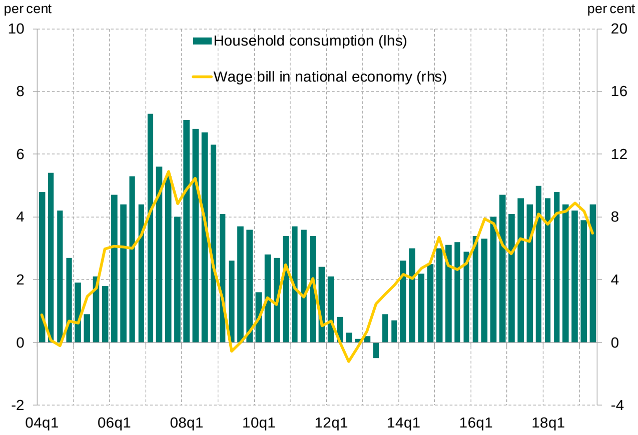
Recently incoming data, including high consumer confidence indicators, point to a continuation of favourable conditions for consumer demand also in 2019 Q3, despite some decline in growth of retail sales.[26]

2.2.2 Investment

In 2019 Q2, gross fixed capital formation in Poland increased by 9.0% y/y (as compared to 12.6% y/y in 2019 Q1; Figure 2.10). According to NBP estimates, a rise in corporate investment outlays is the main source of investment growth in the economy, while a sharp fall in public investment growth has dragged on it.

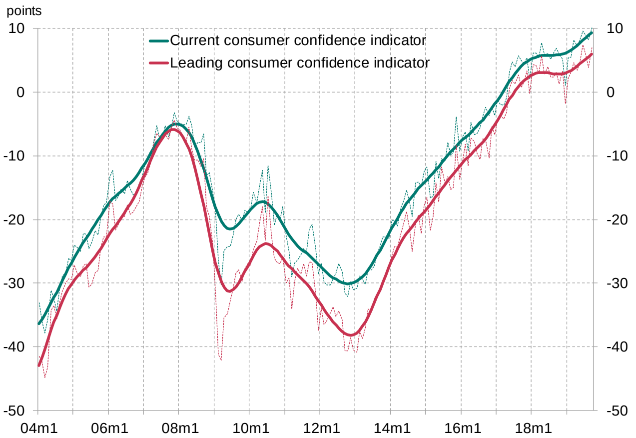
Investment growth in large and medium-sized enterprises remains robust, despite a decline to 16.7% y/y in 2019 Q2 (from 22.2% y/y in 2019 Q1; Figure 2.10). Corporate investment growth is supported by the continued strong domestic

Figure 2.8 Real growth in household consumption and wage bill in national economy (y/y)



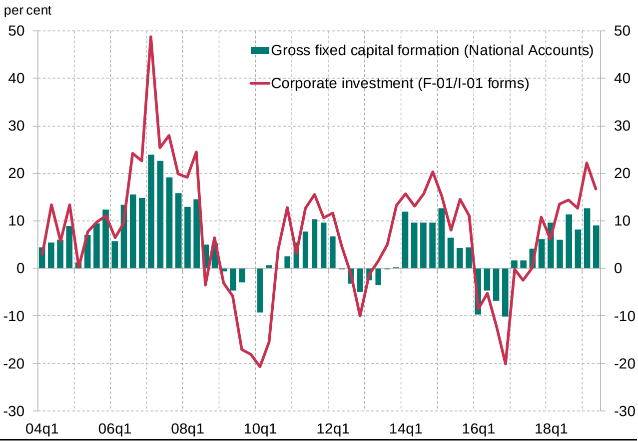
Source: Statistics Poland (GUS) data, NBP calculations.

Figure 2.9 Consumer confidence indicators



Source: Statistics Poland (GUS) data, NBP calculations.
The dashed line denotes raw data, while the solid line denotes HP filtered data.

Figure 2.10 Growth in investment (y/y)



Source: Statistics Poland (GUS) data, NBP calculations.
Data on corporate investment from the survey conducted by Statistics Poland (GUS) on revenues, costs and financial results as well as gross fixed capital formation (based on F-01/I-01 forms).

[25] Household consumption growth in 2019 Q2 was additionally boosted by Easter purchases: in 2018, all of the Easter shopping was completed in Q1, while in 2019 some purchases were carried out in Q2, due to the movable nature of this holiday.
[26] Retail sales in constant prices rose by an average of 4.8% y/y in 2019 Q3, as against 7.1% y/y in 2019 Q2.

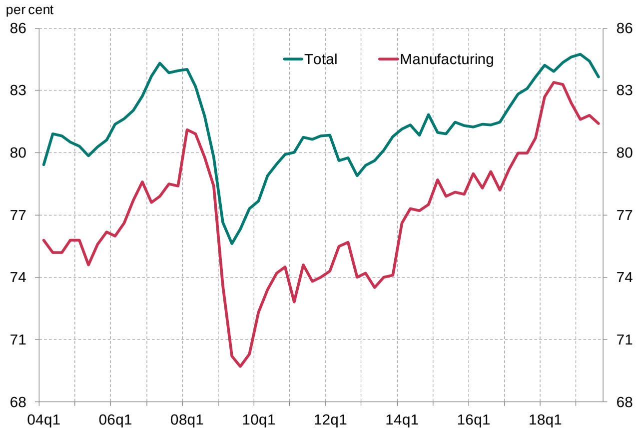
demand combined with high capacity utilisation (Figure 2.11). In 2019 Q2, however, growth in corporate investment was constrained by a slowdown in the absorption of EU funds earmarked for infrastructural investment. In many industries, slower investment growth might have also stemmed from deteriorating economic conditions abroad and elevated uncertainty about the economic outlook. Outlays on means of transport are the fastest-growing item of corporate investment,[27] with high growth in expenditure on buildings and structures, and weaker, albeit stable over the past few quarters, growth in machinery and equipment outlays.

According to NBP estimates, public investment growth in 2019 Q2 decreased significantly compared to 2019 Q1. It was driven by a substantial decline in local government investment growth (to 1.7% y/y compared to 27.0% y/y in 2019 Q1),[28] after its robust rise in 2018 on the back of numerous investment projects launched before the local government elections.

2.2.3 Public finance

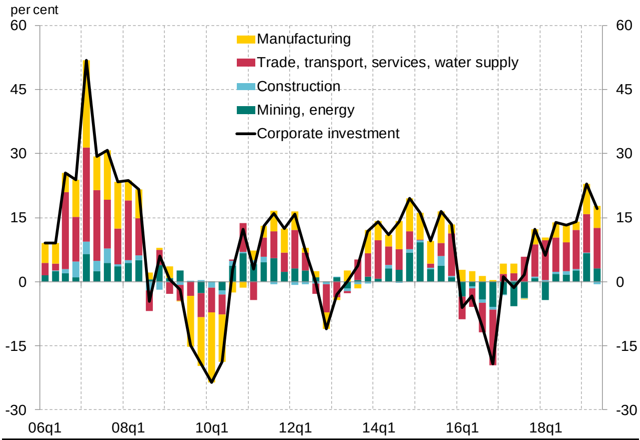
The current financial performance of the general government sector remains very good. In the first half of 2019 the general government sector (in ESA2010 terms) recorded a higher surplus than in the corresponding period in 2018 (0.6% against 0.4% of full-year GDP, see Figure 2.13), which was supported by favourable macroeconomic conditions, in particular solid growth in the wage bill. This transferred into high growth in tax revenue and revenue from social insurance contributions (an increase of 11.6% y/y and 9.1% y/y respectively in the period between January and June 2019, ESA20120), which allowed to compensate for the increase in expenditure related to the payment of the so-called thirteenth pension

Figure 2.11 Corporate capacity utilisation (seasonally adjusted)



Source: *NBP Quick Monitoring Survey. Economic climate in the enterprise sector* (total) and Statistics Poland (GUS) data (manufacturing).

Figure 2.12 Corporate investment by sectors (y/y, current prices)



Source: Statistics Poland (GUS) data (F-01/I-01 forms), NBP calculations.

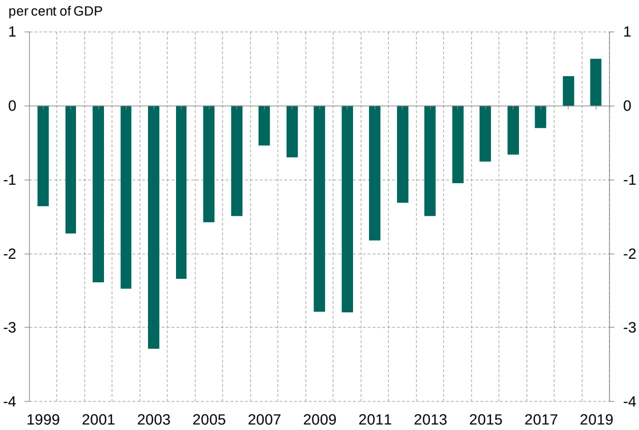
[27] The elevated propensity to purchase means of transport may have been prompted by new tax regulations, applicable since the beginning of 2019, equalising tax deduction limits in relation to outright purchase and other forms of financing passenger cars used by companies.
[28] Data on an accrual basis, elaborated by NBP in accordance with the Statistics Poland (GUS) methodology.

(approx. 0.5% of GDP). However, the balance of the general government sector for the whole 2019 is expected to deteriorate as a result of the implementation of the fiscal package (a total of 1.1% of GDP in 2019), presented by the government in February 2019. Apart from the thirteenth pension, the elements of this package include, among others, an extension of the Family 500 plus Programme to cover the first child in the family and a reduction in personal income tax (PIT).[29] In addition, the balance of the general government sector will be deteriorated by changes aimed at counteracting the increases in electricity prices for consumers (approx. 0.4% of GDP).

The 2020 Draft[30] Budget Act adopted by the government at the end of September 2019, envisages a balanced state budget and an improvement in the balance of the general government sector (deficit in ESA2010 terms at 0.3% of GDP), among others, due to one-off factors (1% of GDP). These are, in particular, Social Insurance Fund revenue from a one-off transformation fee charged on the transfer of assets from Open Pension Funds to the Individual Pension Accounts. This payment as a whole will be registered as revenue of the sector in 2020 in terms of EU methodology.

The changes under the fiscal package (the full-year effect of the extension of the Family 500 plus programme and changes to personal income tax, jointly amounting to approx. 0.4% of GDP) as well as the introduction of supplementary benefits for people with disabilities (from autumn 2019, approx. 0.2% of GDP), which put upward pressure on the general government sector deficit, are to be partly compensated for by increases in excise tax

Figure 2.13 Balance of general government sector in the first half of the year (ESA2010)



Source: MF data, NBP calculations.

Figure depicts the ratio of balance of general government sector in the first half of the year to GDP in the entire year (in 2019 MF estimate).

[29] These changes cover the exemption from personal income tax of people who are under the age of 26 years from August 2019 (exemption limited by a threshold) and also the reduction of the lower personal income tax rate from 18% to 17%, along with an increase in tax deductible costs (from October 2019); see the Act of 4 July 2019 amending the Act on Personal Income Tax, the Act on Family Allowances and the Act on Health Services Financed from Public Funds (Journal of Laws item 1394) and the Act of 30 August 2019 amending the Act on personal income tax, the Act on personal income tax and certain other acts (Journal of Laws item 1835).

[30] In connection with the parliamentary elections in October 2019 and the so-called principle of discontinuing the work of the Sejm, it can be expected that this draft law will not be adopted. The government appointed after the elections will send the new draft *Budget Act* to the Sejm – the experience of previous years suggests that this will not occur earlier than in November 2019.

on tobacco products and alcohol, the abolition of the upper limit of the assessment base for the pension and disability pension contributions and the cessation of payment of contributions to the Open Pension Funds (total of approx. 0.4% of GDP).

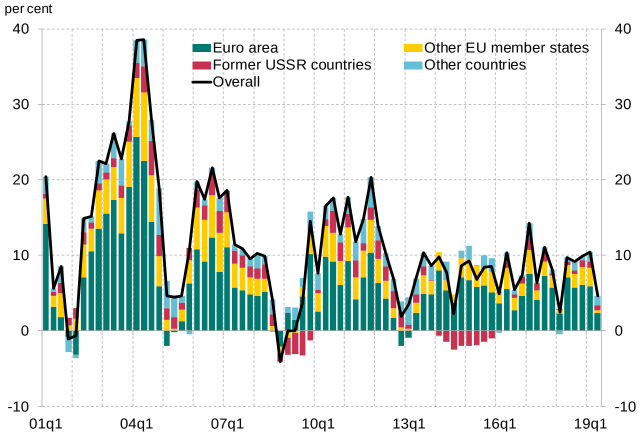
2.2.4 External trade[31]

Continued subdued economic conditions in the external environment of the Polish economy led to a marked decline in growth in the value of exports in 2019 Q2.[32] At the same time, despite the still strong domestic demand, growth in the value of imports also decreased and remained lower than that of exports.

The fall in export growth (to 4.6% y/y from 10.5% y/y in 2019 Q1) occurred in all groups of countries, with the strongest decline in exports to the euro area and the remaining European Union countries (Figure 2.14). Growth in exports to countries outside this region – despite some slowdown – continued at a relatively high pace (close to 10% y/y). The softer export growth was mainly the result of weaker growth in foreign sales of intermediate goods. This is related to the continued unfavourable business conditions in industry in many of Poland's trading partners. However, growth in exports of consumer and investment goods also slowed down, which may indicate that the downturn in global industry is beginning to have a negative impact on the remaining sectors of the economy.[33]

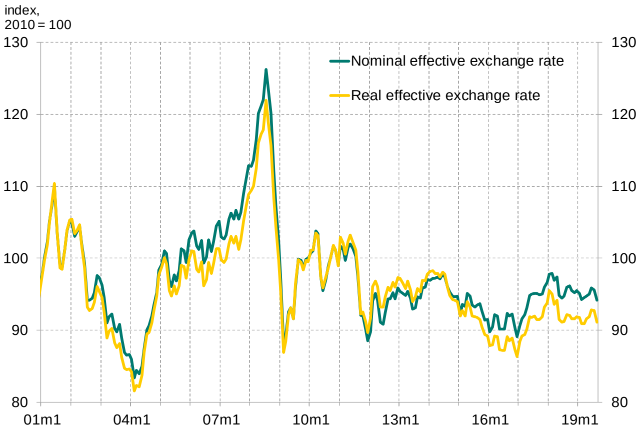
The weaker export growth in 2019 Q2 was accompanied by a relatively stable exchange rate of the zloty (Figure 2.15). In effect, the percentage of enterprises reporting unprofitable exports remained at a record low level. Likewise, the

Figure 2.14 Contribution to export growth by destination (y/y)



Source: Statistics Poland (GUS) data, NBP calculations.

Figure 2.15 Nominal and real effective exchange rate (rise indicates appreciation)



Source: BIS data.

[31] In this chapter, the analysed data are Statistics Poland (GUS) data on the nominal value of exports and imports in PLN terms. Trends in trade of services are not described, as no detailed data are available on the breakdown of the value of this trade by type of service and country of destination.
[32] Data for July and August 2019 indicate a further decline in trade growth in 2019 Q3. Growth in the value of exports in the period July-August 2019 amounted to 2.4% y/y, while growth in the value of imports was 0.1% y/y.
[33] Slower decline in exports of passenger cars contributed, in turn, to higher export growth.

exchange rate of the zloty did not pose a barrier to import profitability.[34]

In 2019 Q2, growth in the value of imports was lower than in the previous quarter (3.7% y/y compared to 7.2% y/y; Figure 2.16). This was primarily accounted for by growth in intermediate goods imports coming to a halt, which might be due to the decline in export growth, characterised by high import intensity. At the same time, the continued strong domestic consumer demand, which translated into steadily rising import of consumer goods, limited the scale of the slowdown in imports.

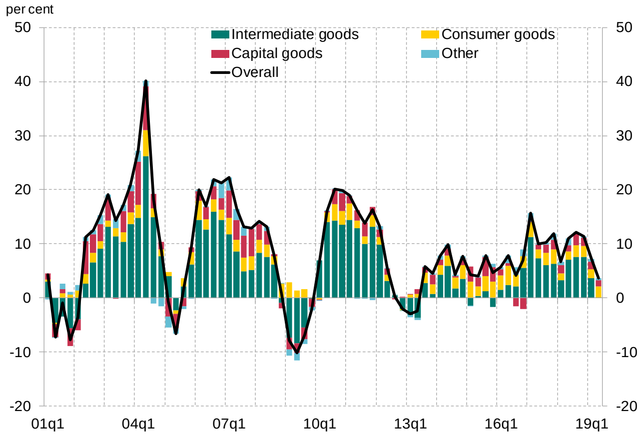
2.2.5 Output

In 2019 Q2, growth in value added slightly declined again, which resulted from a slower growth in industrial and construction output (Figure 2.17). However, in services, especially in trade, value added growth increased, which reduced the scale of its fall in the entire economy.

Industrial output growth decreased both in 2019 Q2 and Q3 (to 4.2% and 3.3% y/y, respectively, from 6.1% in 2019 Q1). It was dragged down by the weakening of demand for Polish products in the EU countries (see also Chapter *2.2.4 External trade*) as economic conditions in the immediate environment of the Polish economy, particularly in Germany, deteriorated (Figure 2.18). Weaker growth in construction was also likely to negatively affect output in some industry branches.[35] At the same time, the scale of the slowdown in industry was constrained by the consistently robust domestic demand.

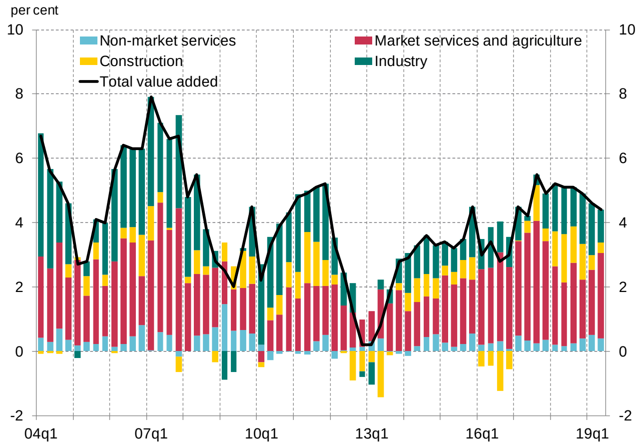
Similarly, activity growth in construction was slowing down in 2019 Q2 and Q3 (to 7.8% and 5.7%, respectively, from 9.9% y/y in 2019 Q1; Figure 2.19). Output growth weakened primarily in infrastructure construction, particularly road and

Figure 2.16 Contribution to import growth by commodity (y/y)



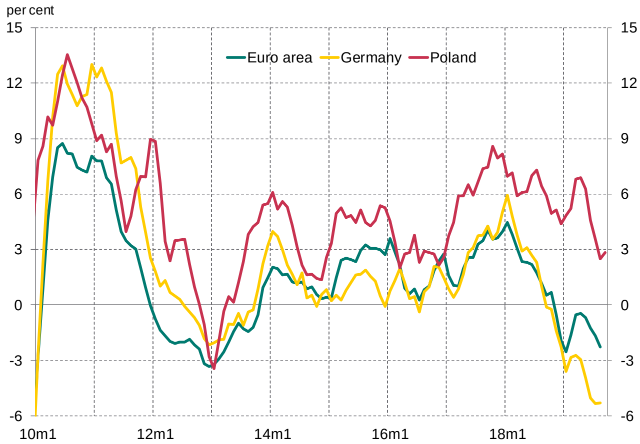
Source: Statistics Poland (GUS) data, NBP calculations.
Data based on Statistics Poland (GUS) classification of the main product categories for the value of Polish exports and imports in zlotys. "Other" comprises passenger cars, motor gasoline and goods else not classified.

Figure 2.17 Growth of gross value added by sectors (y/y)



Source: Statistics Poland (GUS) data, NBP calculations.

Figure 2.18 Industrial output growth in the euro area, Germany and Poland (y/y, seasonally-adjusted data, 3-month moving average)



Source: Statistics Poland (GUS) and Eurostat data, NBP calculations.

[34] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector*, NBP, July 2019.
[35] Industry branches which provide a substantial part of their output to the construction sector include: production of other non-metallic mineral goods, of rubber and plastics goods, and – to a lesser extent – of fabricated metal goods.

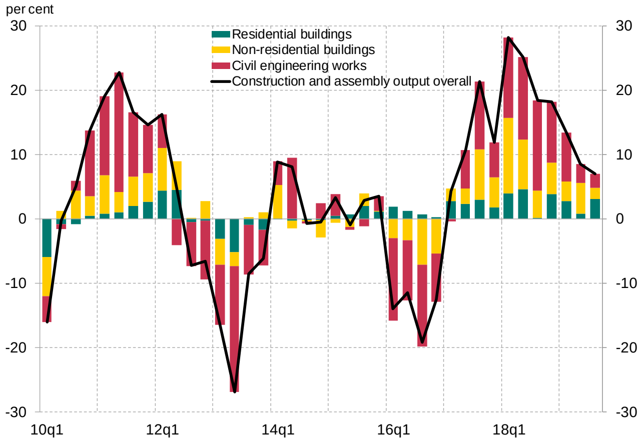
energy construction, which was related to slower growth in EU funds absorption. In commercial construction, activity growth was also slower than a year ago, despite further relatively high output growth in trade and industrial construction, supported by the robustly expanding corporate investment outlays on buildings and structures attributable to high capacity utilisation and favourable economic conditions. Likewise, despite substantial fluctuations from quarter to quarter, residential construction grew, on average, fairly robustly throughout 2019 Q2 and Q3. This was supported by a very favourable position of employees in the labour market, as well as stable, and – historically – relatively low interest rates on mortgage loans (see also Chapter 2.5 *Real estate market*).

In market services, value added growth was higher in 2019 Q2 than in 2019 Q1 (Figure 2.20). Activity growth in trade picked up markedly (from 3.1% y/y to 6.9 y/y), backed by an increase in households' disposable income related to the payment of benefits under the "Pension plus" programme, as well as a later date of Easter than a year ago. Economic conditions remain strong also in financial and insurance activity. In turn, a substantial slowdown in value added growth in transportation, which probably resulted from a decline in external trade turnover growth, had a downward effect on activity growth in services. In 2019 Q3, activity growth in trade – and, in effect, in the entire service sector – probably slowed down somewhat, as indicated by weaker retail sales growth.[36]

2.3 Financial situation of enterprises

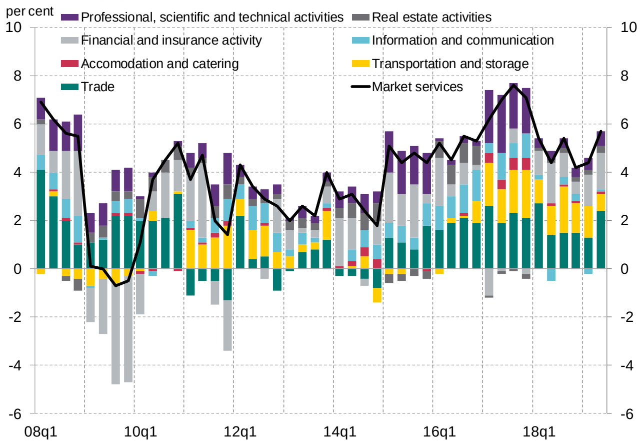
The financial performance of enterprises continues to be relatively strong, although in 2019 Q2 the net revenue from sale was slightly lower than in the corresponding period of 2018 (a decline of 2.8% y/y). At the same time, owing to a sharp rise in the

Figure 2.19 Construction and assembly output growth in current prices by construction objects (y/y)



Source: Statistics Poland (GUS) data, NBP calculations.

Figure 2.20 Growth of gross value added in market services by branches (y/y)



Source: Statistics Poland (GUS) data, NBP calculations.

[36] In 2019 Q3, retail sales grew by 4.8% y/y on average against 7.1% in 2019 Q2.

results on financial activity – which, however, partially resulted from the revaluation and sale of assets by enterprises in the energy sector – the gross financial results rose markedly (Figure 2.21). The financial performance of enterprises continued to vary across sectors.

In 2019 Q2, the annual growth in total sales increased, resulting, among others, from a pick-up in domestic sales growth. In turn, the growth of total costs fell slightly, mainly as a result of slower growth in the cost of commodities and raw materials. At the same time, the cost of sales – given the persistently rising wages – continued to increase at a rate exceeding sales growth. In effect, the net revenue from sale fell somewhat compared to 2018 Q2.

The relatively good situation of enterprises in 2019 Q2 is also indicated by the consistently sound levels of profitability of both sales and net turnover (Table 2.3). The higher share of profitable companies than a year ago, resulting in a great measure from profitability improvements in enterprises previously recording low profitability, is also a positive sign.

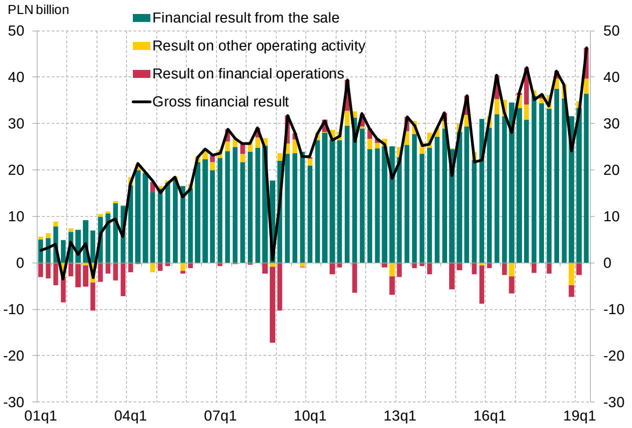
The liquidity of enterprises also remains good. The decline in the 1st degree financial liquidity ratio in annual terms in 2019 Q2 is to a considerable extent the result of its decline in the largest energy and mining companies, which, however, are still characterised by relatively high liquidity levels.

2.4 Labour market

Favourable conditions in the economy are supportive of further employment growth, which, however, is gradually losing momentum. This is due to somewhat weaker demand for labour on the one hand, and labour supply-side constraints on the other (Figure 2.22).

Data on enterprise sector employment and the number of people employed in the national economy evidence that – despite some decline –

Figure 2.21 Gross financial result of enterprises and its components



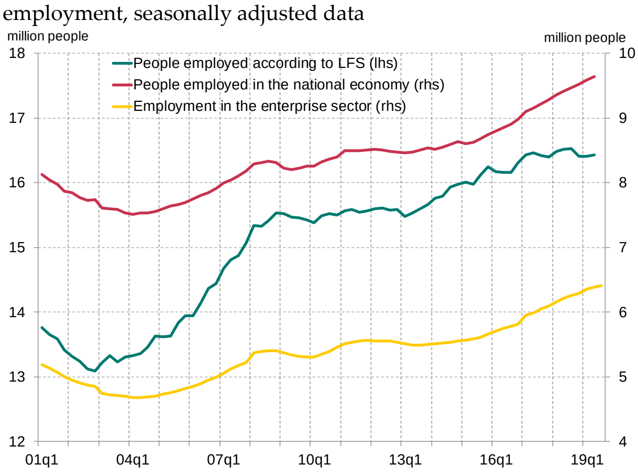
Source: Statistics Poland (GUS) data, NBP calculations.
Data from the survey conducted by Statistics Poland on revenues, costs and financial results as well as gross fixed capital formation (based on F-01/I-01 forms).

Table 2.3 Selected financial efficiency ratios in the enterprise sector (per cent)

	2018				2019	
	q1	q2	q3	q4	q1	q2
Sales profitability ratio	4.8	5.1	4.7	3.9	4.5	4.6
Net turnover profitability	3.9	4.6	4.2	2.2	3.4	4.8
Share of profitable enterprises	75.6	75.3	74.9	74.5	76.3	75.8
1st degree liquidity ratio	37.0	36.1	34.8	36.2	34.7	34.6

Source: Statistics Poland (GUS) data, NBP calculations.
Data from the survey conducted by Statistics Poland on revenues, costs and financial results as well as gross fixed capital formation (based on F-01/I-01 forms).
Share of profitable enterprises – seasonally-adjusted data.

Figure 2.22 The number of people employed and the level of employment, seasonally adjusted data



Source: Statistics Poland (GUS) data, NBP calculations.
People employed according to LFS is a survey-based estimate of the number of employed persons, regardless of employment relationship. These data do not include temporary immigration. People employed in the national economy denotes the enterprise-reported average number of persons performing paid work at the end of each reporting period. These data do not comprise, among others, businesses employing up to 9 persons, individual farmers, persons contributing to a family business free of charge and persons working under civil law contracts. In addition, data on average employment in the enterprise sector do not cover the public sector and sole proprietors.

employment growth remains relatively strong (2.6% y/y in September 2019 and 2.4% y/y in 2019 Q2, respectively). By contrast, LFS survey data point to a slight decline in the number of people employed (of 0.5% y/y in 2019 Q2).[37]

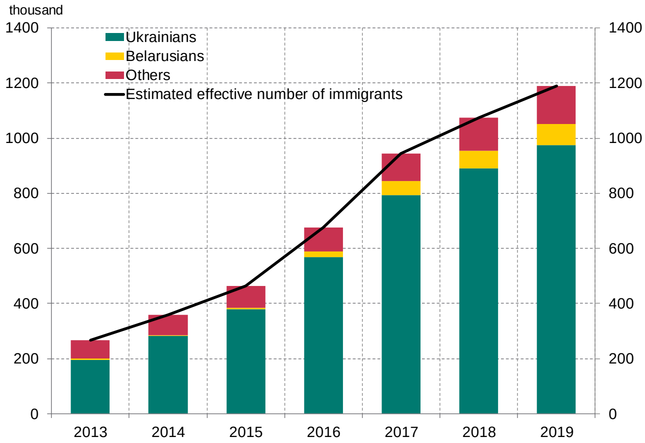
Employment growth is constrained by some fall in the still high demand of firms for employees, as indicated by a decrease in both the number of new jobs created (by 12.6% y/y in 2019 Q2) and the number of job vacancies.[38]

Employment growth has also been dragged down by the declining size of economically active population according to LFS (by 0.9% y/y in 2019 Q2). The decline reflected a fall in the working age population (15-64 years old; by 1.5% y/y in 2019 Q2), which is not offset by the gradually increasing labour force participation in this age group. Yet LFS data do not take into account temporary foreign workers, whose number continues to rise and is currently estimated at about 1.2 million, including approximately 1 million Ukrainians (Figure 2.23).

Amid rising employment and falling labour supply, the unemployment rate, which was already very low, fell again (Figure 2.24). Under these circumstances, many firms continue to report recruitment difficulties. In recent quarters, the scale of these difficulties has decreased slightly, however – the share of firms pointing to staff shortages as a barrier to growth has declined from approx. 10% to approx. 7%.[39]

There was also a slight decrease in the share of firms signalling wage pressure.[40] Yet the position of employees in wage negotiations remains strong. As a result, nominal wages in the economy continue to

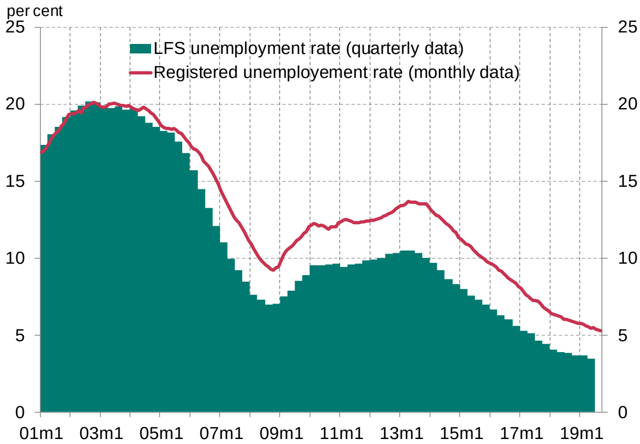
Figure 2.23 The estimated number of immigrants in Poland



Source: Ministry of Foreign Affairs, Ministry of Family, Labour and Social Policy, Office for Foreigners, and Social Insurance Institution data, NBP calculations.

Estimates based on the number of granted work and business activity visas, Pole's Cards, permanent, temporary and long-term EU resident permits, declarations on entrusting work to a foreigner, and the number of foreigners paying pension contributions to the Social Insurance Institution. Since Ukrainian and Belarusian immigrants work in Poland mostly on a temporary basis, it is assumed that an average immigrant from these countries works in Poland for 7 months a year.

Figure 2.24 Unemployment rate, seasonally adjusted data



Source: Statistics Poland (GUS) data, NBP calculations

Data adjusted by NBP for seasonal factors and breaks related to the change in Statistics Poland (GUS) methodology in 2012. There are three reasons for the difference between the registered unemployment rate and the LFS rate: 1) the definition of an unemployed person is different, 2) the definition of the population to which the number of the unemployed is referred is different, 3) registered unemployment rate is based on the number of uneployed people registered in labour offices, while LFS unemployment rate is based on survey results.

[37] The discrepancy between employment growth in the enterprise sector and the national economy on the one hand, and growth in the number of people employed according to LFS on the other, may partly result from the decreasing number of workers in agriculture, the transition of workers from less to more formal work arrangements (from informal assistance in family companies and civil law contracts to employment contracts) and the fact that the LFS data do not include temporary foreign workers.

[38] The Job Offer Barometer, gauging the number of job vacancies posted online, declined by 9.7% y/y in September 2019, while the number of job vacancies registered in labour offices during a month fell by 6.7% y/y in September.

[39] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector, October 2019.*

[40] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector, October 2019.*

grow at a stable and relatively fast pace (of 7.0% y/y in 2019 Q2; Figure 2.25).[41] Real wages also continue to grow, albeit they slowed down due to some increase in inflation.

With employment growth and GDP growth having declined only slightly, labour productivity growth remained largely unchanged in 2019 Q2 compared to the previous quarter, and remains high. Consequently, unit labour cost growth is still moderate (amounting to 1.9% y/y in 2019 Q2 against 1.8% in Q1; Figure 2.26).

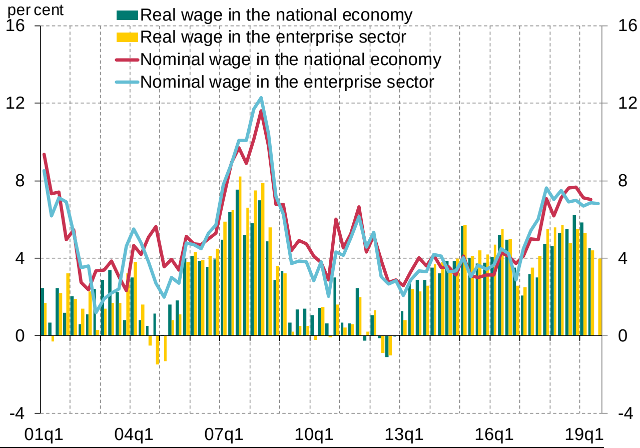
2.5 Monetary policy and asset markets

The Monetary Policy Council keeps the NBP interest rates unchanged, including the reference rate at 1.50%. Market interest rate expectations have not changed significantly since the beginning of 2019 and still suggest that the NBP interest rates will remain stable in the coming quarters (Figure 2.27). This is the effect of inflation remaining close to the NBP target in the monetary policy transmission horizon, market expectations for the major central banks further easing their monetary policy and concerns about the impact of a slowdown in the global economy on economic conditions in Poland (see Chapter 2.1 *Consumer prices*, Chapter 1.4 *Monetary policy abroad* and Chapter 1.1 *Economic activity abroad*).

2.5.1 Financial market

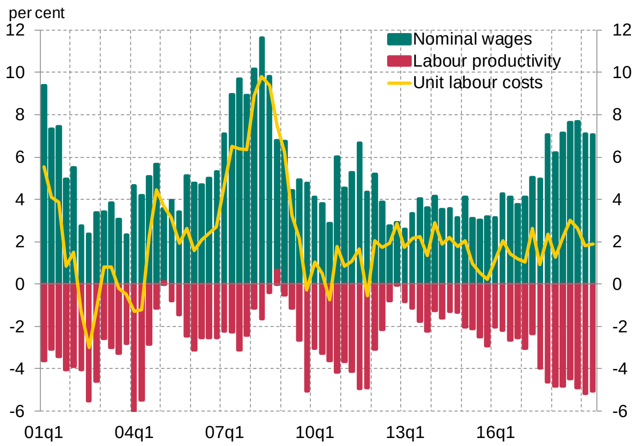
Against the background of an easing of monetary policy by the world's major central banks and a fall in bond yields of the advanced economies, yields on Polish government bonds have decreased in recent months (Figure 2.28; see Chapter 1.5 *International financial markets*). The relatively low supply of Polish government bonds in the primary market was also conducive to the fall in their yields. As a result, yields on 10-year government bonds in August 2019 reached their lowest level on record (1.73%). Yields on Polish bonds are also

Figure 2.25 Annual wage growth in the national economy and in the enterprise sector (y/y, nominal and real)



Source: Statistics Poland (GUS) data.

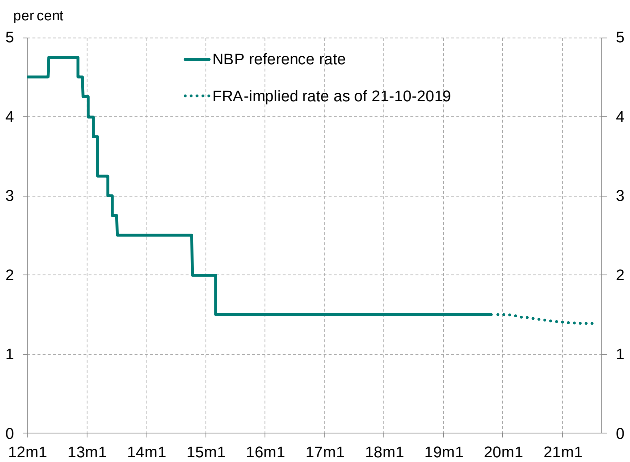
Figure 2.26 Growth of unit labour costs in the economy (y/y) and its determinants



Source: Statistics Poland (GUS) data, NBP calculations.

Unit labour costs are defined as nominal wages in the national economy divided by labour productivity, which is defined as GDP per person employed according to LFS. Therefore, an increase in labour productivity is a factor limiting unit labour cost growth; hence in the graph it assumes negative values.

Figure 2.27 NBP reference rate and 3M FRA-implied interest rate



Source: NBP and Bloomberg data, NBP calculations.

[41] In 2019 Q3, in the enterprise sector, average wage growth amounted to 6.8%, compared with 6.9% in 2019 Q2.

lower than in the majority of emerging market economies, which reflects a favourable assessment of the fundamentals of the Polish economy by investors, including the absence of macroeconomic imbalances.

In recent months, the volatility of equity prices has remained elevated on the Polish stock exchange. In the first half of October 2019, equity prices were running at a slightly lower level than in June (Figure 2.29). Besides concerns about a deterioration in global economic conditions, also uncertainty as to the revaluation of foreign currency-denominated loans held in portfolios of Polish banks has had a negative impact on the main indices of the Polish stock exchange. In the first half of October, the WIG-banking index was 11.5% lower than in June. As a result, the value of the WIG index decreased, despite relatively strong economic growth continuing in Poland.

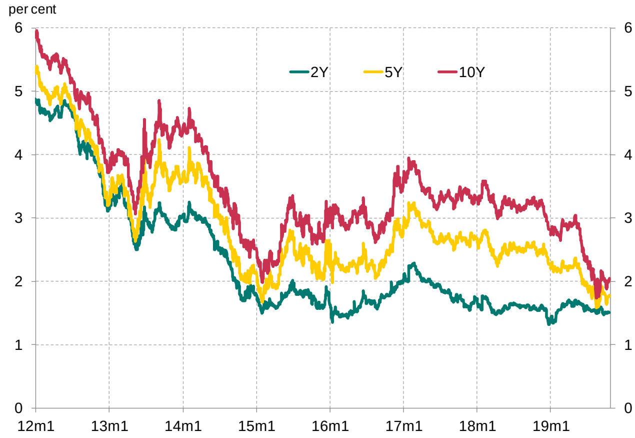
After weakening slightly in August and September 2019, in October the exchange rate of the złoty against the major currencies returned to the levels recorded in the first half of the year (Figure 2.30). The stable exchange rate of the złoty testifies to the resilience of the Polish currency to changing sentiment in the global financial markets, which is supported by relatively fast and sustainable growth of the Polish economy.

2.5.2 Real estate market[42]

High activity in the residential real estate market continues. The number of dwellings sold, despite further slight decline in 2019 Q2, remains relatively strong (Figure 2.31).

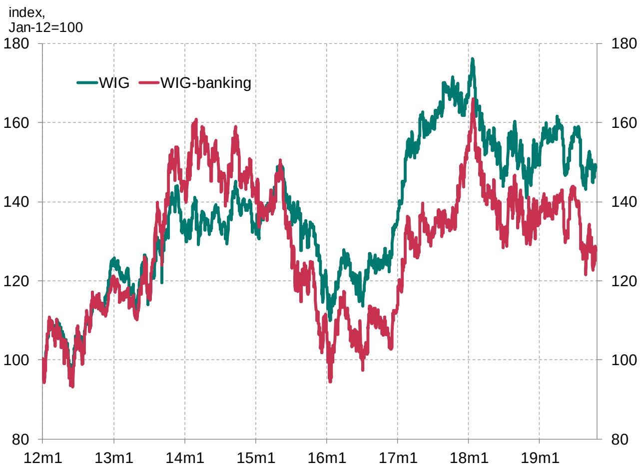
Demand for dwellings is supported by the solid situation of employees in the labour market (see also Chapter 2.4 *Labour market*) as well as stable and – historically – relatively low interest rates on mortgage loans. In 2019 Q2, the relatively high

Figure 2.28 Yields of Polish government bonds



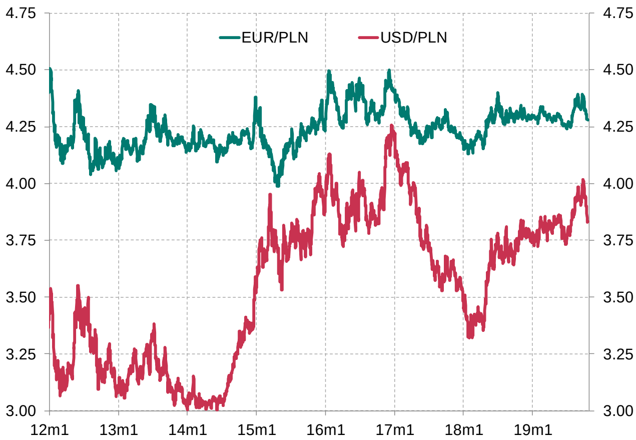
Source: Bloomberg data.

Figure 2.29 The main stock market index in Poland (WIG) and the index of banking sector



Source: Bloomberg data.

Figure 2.30 Nominal exchange rate of euro and US dollar in Polish zloty



Source: Bloomberg data.

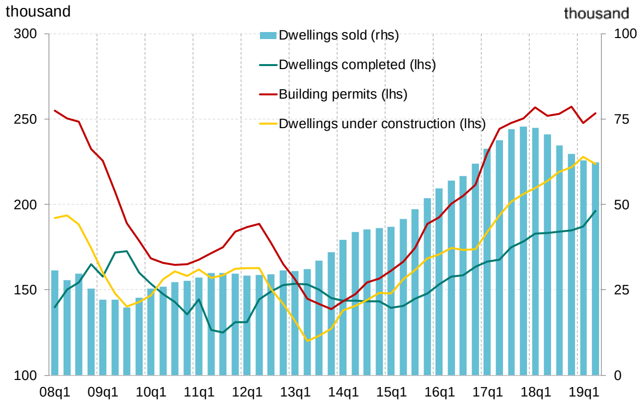
42 For more information on the situation in the real estate market in Poland see the NBP report: *Information on home prices and the situation in the housing and commercial real estate market in Poland in 2019 Q2*, NBP, October 2019.

demand for housing was accompanied by a further increase in the number of dwellings completed and made ready for occupancy, as well as, following a decline in 2019 Q1, a rise in the number of dwelling permits issued.[43] In contrast, the number of dwelling starts has diminished somewhat. In these conditions, housing were purchased at increasingly earlier stages of the development project.

At the same time, an increase in supply of dwellings is constrained by rising costs of materials and wages, as well as recruitment difficulties in the construction sector. Furthermore, strong demand for building land in the entire construction sector[44] has contributed to a considerable rise in its prices. As a result, high activity in the housing market was accompanied by a marked increase in offer and transaction prices of dwellings, both in the primary (9.9% and 10.5% y/y[45], respectively) and the secondary market (12.1% and 8.2% y/y, respectively; Figure 2.32).

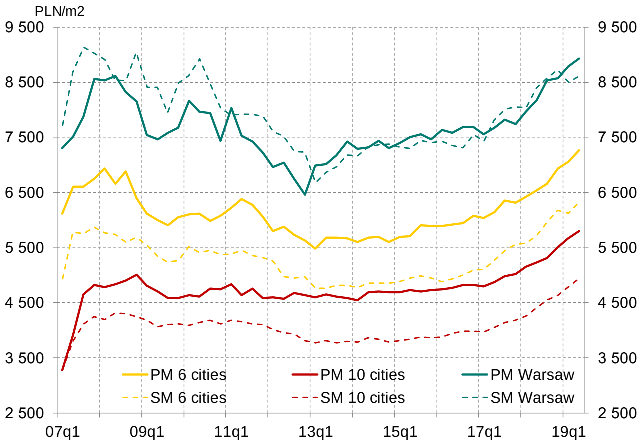
In the office real estate market, high supply continued in 2019 Q2, which was supported by higher rates of return on investment in this type of property in Poland than abroad, and the high availability of external funding amidst very low interest rates abroad, including in the euro area (see also Chapter 1.4 *Monetary policy abroad*). At the same time, as the demand for office rentals remained strong, the vacancy rate[46] in large cities declined slightly. In turn, in the retail and service premises, the increment in new space was slight, which might suggest that investors consider the market as saturated. The emergence of projects aiming to transform the existing shopping centres

Figure 2.31 Residential construction in Poland (4-quarter rolling sum)



Source: Statistics Poland (GUS) and REAS data, NBP calculations.
Sales data are based on 6 major markets in Poland (Warszawa, Kraków, Trójmiasto, Wrocław, Poznań and Łódź).

Figure 2.32 Average prices of flats in major cities in Poland



Source: NBP calculations based on the NBP survey.
PM – primary market, SM – secondary market. Transaction prices – an average weighted with the share of the housing stock in a given city in the total housing stock. Aggregate of 6 cities consists of: Gdańsk, Gdynia, Kraków, Łódź, Poznań, Wrocław, whereas of 10 cities: Białystok, Bydgoszcz, Katowice, Kielce, Lublin, Olsztyn, Opole, Rzeszów, Szczecin and Zielona Góra.

[43] According to Statistics Poland (GUS) data, in 2019 Q2 the number of dwelling starts was approx. 61.5 thousand, i.e. had fallen by 6.4% y/y; approximately 47.3 thousand dwellings were completed and made ready for occupancy, i.e. 24.5% more than the year before, and 71.5 thousand building permits were issued, i.e. a increase of 8.5% y/y.
[44] Residential and commercial construction accounts each for 25% of the sector, with civil and water engineering constructions accounting for the remaining 50%.
[45] Average price of a dwelling (PLN/m2) in 17 provincial cities: Białystok, Bydgoszcz, Gdańsk, Gdynia, Katowice, Kielce, Kraków, Lublin, Łódź, Olsztyn, Opole, Poznań, Rzeszów, Szczecin, Wrocław, Zielona Góra and Warsaw.
[46] The vacancy rate is the ratio of non-leased space to the total space for rental.

into shopping and leisure centres seems to confirm this inference.

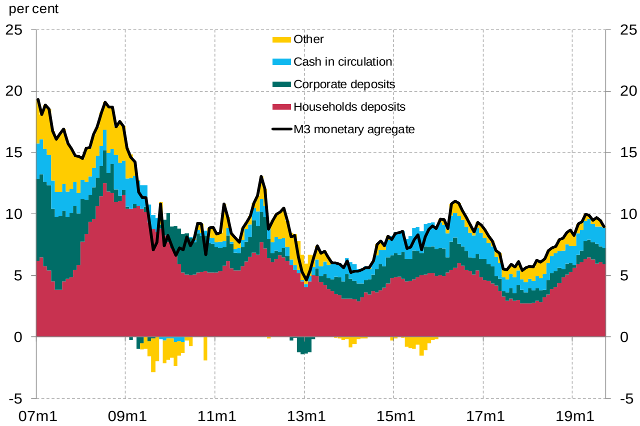
2.6 Money and credit

In 2019 Q3, broad money (M3) growth in the economy slowed (to 9.4% y/y from 9.8% y/y in 2019 Q2), which was driven by a weaker increase in household deposits (Figure 2.33).[47]

The slowdown in broad money growth was largely the result of a decline in the net debt of the central government sector, while an increase in credit for the non-financial sector remained the main driver of growth in broad money in 2019 Q3. For the past few quarters, lending growth has been close to the nominal GDP growth (Figure 2.34). Consequently, the ratio of outstanding loan portfolio of the non-financial sector to GDP has remained stable, and at the end of 2019 Q3 amounted to 51.6%.

In 2019 Q3, the rise in household loans remained the major source of growth in lending to the non-financial sector. Household loan growth in that quarter picked up slightly again (to 6.5% y/y from 6.2% y/y in 2019 Q2;Figure 2.35) due to both stronger housing loan growth (5.7% y/y against 5.3% y/y in 2019 Q2) and continued high consumer loan growth (10.0% y/y against 9.6% y/y in 2019 Q2). The rise in the total value of housing loans amid a further decrease in the value of the portfolio of FX housing loans (-7.9% y/y) resulted from the continued growth in zloty-denominated loans (12% y/y). On the one hand, stable interest rates and favourable labour market conditions, among others, supported the rise in household loans. On the other hand, the tightening of credit standards and some credit terms on consumer loans (among others, an increase of credit spread) as well as the tightening of credit standards on housing loans had a curbing effect on household loans growth.[48]

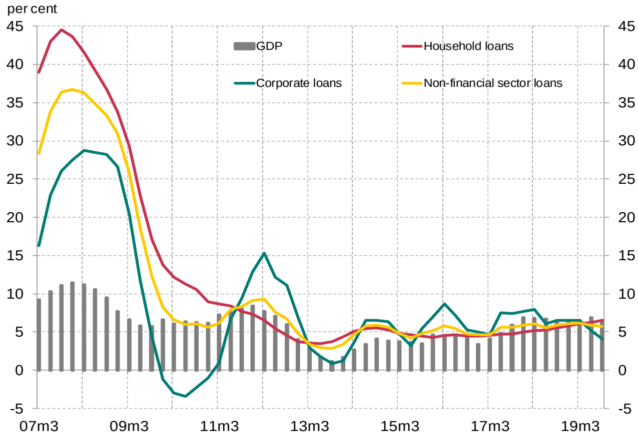
Figure 2.33 Composition of M3 growth (y/y)



Source: NBP data.

The category Other covers deposits of non-monetary financial institutions and local government units, repurchase agreements between banks and non-banking sector as well as debt securities with maturity up to 2 years issued by banks.

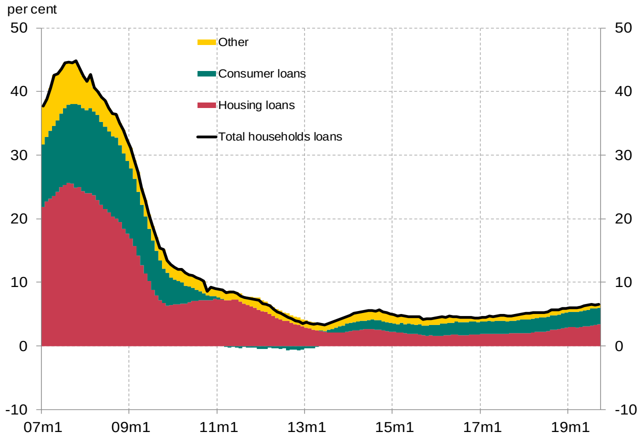
Figure 2.34 Nominal GDP and loans to non-financial sector growth (y/y)



Source: NBP data.

Loans - loans and other claims, annual growth rate, 3-month moving average.

Figure 2.35 Composition of growth in household loans (y/y)



Source: NBP data.

The category *Other* covers loans connected with credit cards, loans to individual entreprenuers, loans to individual farmers and other receivables.

[47] In this chapter, the growth in the M3 broad money aggregate and in loans cited in the text is defined as the three-month average of the annual growth in the stock of a given category resulting from transaction changes in a given quarter. The data refer to monetary financial institutions.
[48] *Senior loan officer opinion survey on bank lending practices and credit conditions 4th quarter 2019*, NBP, November 2019.

The rise in credit to the non-financial sector also resulted partially from growth in corporate loans, even though this growth decreased in 2019 Q3 (to 4.1% y/y from 5.2% y/y;Figure 2.36), reflecting the slowdown in operating loan growth (to 6.7% y/y against 9.1% y/y in 2019 Q2). At the same time, growth in investment loans increased (to 4.5% y/y against 3.7% y/y in 2019 Q2). The pick-up in investment activity of enterprises, seen from early 2019, supported acceleration of investment loan growth. Concurrently, the pace of corporate loans growth was contained by modest demand from enterprises, reflected in a low percentage of the loan-applying enterprises,[49] as well as the tightening of credit standards, primarily in the segment of short-term loans to small and medium-sized enterprises.

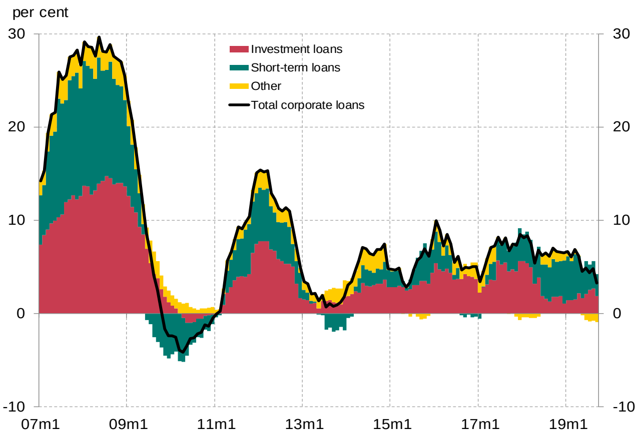
2.7 Balance of payments

In 2019 Q2, the current account balance remained positive and was higher than in the previous year. This resulted in a further improvement in the balance in terms of four-quarter rolling sum, which rose to -0.4% of GDP (against -0.6% of GDP in 2019 Q1; Figure 2.37)[50]. The improvement in the current account balance was primarily the effect of the continued surplus in the trade in goods in 2019 Q2.

Despite the slowdown in foreign trade seen in 2019 Q2 (see Chapter 2.2.4 *External trade*), export growth – as in 2019 Q1 – exceeded import growth, which contributed to the improvement in the balance of trade in goods. Alongside that, the surplus in trade in services stayed at a record high. In turn, the balance of the primary income account remained significantly negative due to the high income of foreign direct investors in Poland.

The surplus on the capital account was higher than in 2019 Q1 and amounted to 2.2% of GDP, which together with the improvement in the current

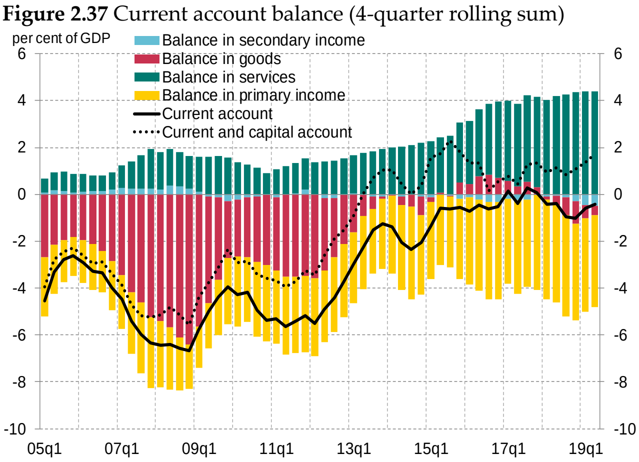
Figure 2.36 Composition of growth in corporate loans (y/y)



Source: NBP data.

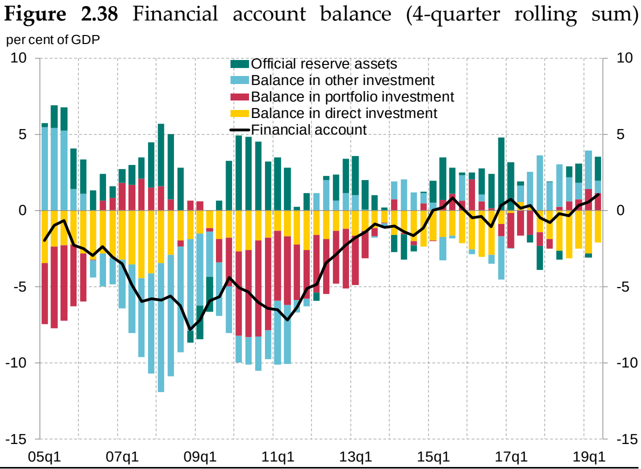
The category *Investment loans* covers loans for investments and real estate purchases. The category *Other* covers car loans, loans for security purchases and other receivables.

Figure 2.37 Current account balance (4-quarter rolling sum)



Source: NBP data.

Figure 2.38 Financial account balance (4-quarter rolling sum)



Source: NBP data.

A positive value of the balance means an increase in Polish net assets (net outflow of capital from Poland).

[49] Merely around 17% of enterprises apply for bank loans. *NBP Quick Monitoring. Economic climate in the enterprise sector*, No. 04/19, NBP, October 2019.

[50] Data on the balance of payments are presented in terms of a four-quarter rolling sum.

account balance led to an increase in the combined current and capital account balance to 1.7% of GDP (from 1.4% of GDP in 2019 Q1).

In 2019 Q2, the financial account balance was also positive and substantially higher than in the previous year, which resulted in its improvement also in terms of four-quarter rolling sum (an increase to 1.1% against 0.6% of GDP in 2019 Q1; Figure 2.38). The improvement in the financial account balance was driven by a significant increase in official reserve assets and a reduction in the involvement of foreign direct investors in Poland. Similarly, portfolio investors scaled back investments in Poland, although not as sharply as in the previous year, which was reflected in a reduction in the balance of portfolio investment. The deterioration of this balance, along with a reduction in the balance of other investments – primarily related to a decrease in the current accounts and deposits of the Polish banking sector abroad – limited the scale of improvement in the financial account balance.

External imbalance indicators evidence that the Polish economy is well balanced. In recent quarters, Poland's external debt to GDP ratio has declined and net international investment position has improved (Table 2.4).

Table 2.4 Selected external stability indicators (4-quarter rolling sum in per cent, unless indicated otherwise)

	2017				2018				2019	
	q1	q2	q3	q4	q1	q2	q3	q4	q1	q2
Current account balance/GDP	0.2	-0.4	0.3	0.1	-0.4	-0.4	-0.9	-1.0	-0.6	-0.4
Current and capital account balance/GDP	0.8	0.4	1.3	1.3	0.9	1.1	0.8	1.1	1.4	1.7
Trade balance/GDP	4.0	3.9	4.2	4.1	3.9	3.8	3.5	3.4	3.8	4.0
Official reserve assets (in monthly imports of goods and services)	5.7	5.2	5.0	4.7	4.8	4.7	4.7	4.8	4.7	4.7
Foreign debt/GDP	72	71	69	67	67	67	65	64	62	60
Net international investment position/GDP	-62	-63	-62	-61	-59	-57	-57	-56	-55	-53
Official reserve assets/short-term foreign debt and forecast current account balance	113	109	98	100	103	100	99	112	105	101
Official reserve assets/short-term foreign debt	116	112	103	106	107	103	99	112	108	105

Source: NBP data.
The last two indicators include foreign debt and the level of official reserves at the end of the period.

3. Monetary policy in July – November 2019

At the meetings held between July and November 2019 the Monetary Policy Council kept the NBP interest rates unchanged at the following levels: reference rate 1.50%, lombard rate 2.50%, deposit rate 0.50%, rediscount rate 1.75%.

This chapter includes the previously published *Minutes of the Monetary Policy Council decision-making meetings* held between July and October 2019 as well as the *Information from the meeting of the Monetary Policy Council* in November 2019. *Minutes* of the MPC meeting held in November 2019 will be published on 21 November, and thus included in the next *Report*.

Minutes of the Monetary Policy Council decision-making meeting held on 3 July 2019

During the meeting, the Council pointed out that activity growth in the global economy remained relatively soft. Industrial confidence indicators continued to be weak and the volume of world trade was declining. At the same time, although business conditions in the service sector remained relatively strong, incoming data pointed to their possible deterioration in the months to come. This was accompanied by heightened uncertainty about the global economic outlook for the coming quarters, resulting in part from further possible changes in the trade policy of the largest economies.

The Council members observed that activity growth in the euro area continued to be sluggish. Attention was drawn to subdued business conditions in the euro area industry, with an emphasis on the decline in industrial output in Germany in the recent period. This was accompanied by the consistently strong performance of the service sector. However, some Council members judged that the persistent downturn in industry might gradually start weighing on household sentiment, thus posing a downside risk to activity in services. It was stressed that according to available forecasts, GDP growth in the euro area would be markedly slower in 2019 than a year ago. Some Council members perceived a substantial risk that growth in the area might be lower than the forecasts, particularly if tariffs on the exports of some European products to the United States would be imposed.

Referring to economic conditions in the United States, it was pointed out that they remained good. At the same time, recent readings of business climate indicators in this economy signalled a possible weakening of activity in the subsequent quarters, and available forecasts pointed to a gradual decline in GDP growth. In turn, when analysing the economic situation in China, it was noted that incoming data were indicative of weaker economic conditions in 2019 Q2.

While discussing the situation in the global commodity markets, it was observed that in the recent period heightened volatility of oil prices had persisted, yet those prices remained lower than a year ago. Parallel to that, global prices of some food products had risen. It was emphasised that in many countries inflation remained at moderate levels. It was highlighted that inflation in the euro area had declined recently, and core inflation was running below 1%.

Referring to monetary policy abroad, attention was drawn to a marked shift in the rhetoric of the main central banks in recent months. It was observed that the Federal Reserve, while keeping interest rates unchanged so far, was gradually limiting the pace of its balance sheet reduction and was signalling the possibility of a monetary policy easing in the subsequent quarters. The European Central Bank was keeping its interest rates close to zero, including the deposit rate below zero, and was reinvesting maturing securities bought under the asset purchase programme. At the same time, the ECB had extended the indicated period of keeping interest rates unchanged, while signalling the possibility of further monetary policy easing. Some Council members additionally observed that in Central and Eastern Europe – despite inflation running above the targets in some of the economies – central banks had not signalled a tightening of monetary policy.

When discussing developments in Poland's real economy, it was observed that economic conditions remained favourable. Rising consumption, fuelled by increasing employment and wages, very strong consumer sentiment and disbursement of benefits, continued to boost economic activity growth. Incoming data also point to a further substantial rise in investment and exports.

While analysing the outlook for economic growth, the Council members judged that GDP growth should continue at a relatively high pace in the coming years. Economic growth would still be supported by expanding consumer demand growth. Some Council members assessed that business climate indicators signalled the possibility of weaker conditions in the industrial sector in subsequent months. These Council members also expressed the opinion that export growth might slow down as well, should household sentiment deteriorate and consumer demand in the immediate environment of the Polish economy weaken. These Council members additionally observed that in the event of a more pronounced slowdown in the euro area, GDP growth in Poland might be slower than forecast in the July NBP projection. However, other Council members argued that economic growth might run above the level expected in the July projection. They assessed that in the quarters to come the impact of the slowdown abroad on the Polish economy might be – as it had been so far – limited and weaker than expected.

When analysing labour market performance, it was indicated that employment growth in the enterprise sector had decreased in May. Some Council members judged that this might signal a stabilisation of labour demand. At the same time, despite somewhat faster growth in May, wages in the industrial sector rose at a relatively stable pace. The Council members emphasised that the change in regulations on the employment of non-EU employees in Germany was an uncertainty factor to the future labour market situation in Poland. It was pointed out that it might cause an outflow of some Ukrainian workers from the Polish market, yet the scale of this phenomenon was difficult to estimate. Certain Council members assessed that the reduction in the number of Ukrainian employees active in the Polish labour market, coupled with the expected by those Council members acceleration of wage growth in the government sector might contribute to higher wage growth across the economy, and consequently to higher price growth. In contrast, other Council members expressed the opinion that, given the expected gradual decline in GDP growth in Poland, the risk of accelerating wage growth and inflation was small.

Turning to inflation developments in Poland, it was noted that consumer price growth had risen in recent months, yet remained at a moderate level. The rise in inflation was partially caused by higher price growth of fuel and food. This was accompanied by a rise in core inflation. Some Council members emphasised that core inflation had increased moderately and remained significantly lower than CPI inflation. Certain Council members observed that the rise in core inflation – along with higher growth in prices of goods sensitive to domestic economic conditions and prices of services – was an indication of the build-up of demand pressure in the economy.

While analysing the outlook for inflation, some Council members emphasised that, according to the NBP projection, price growth over almost the whole projection horizon would remain close to 2.5%, except for the beginning of 2020, when – due to the impact of temporary factors beyond the control of domestic monetary policy – it might be higher, although still below the upper limit of deviations from the target. These Council members pointed out that the above developments would be accompanied by only a gradual rise in core inflation. Some Council members expressed the opinion that in the case of a more pronounced slowdown in GDP growth in the euro area – and consequently, in Poland – price growth might be lower than the forecast. However, certain Council members pointed out that the inflation path in the NBP July projection was higher than in the NBP March projection, with price growth running in the upper band for deviations from the target during most of the forecast period. They expressed the opinion that inflation growth in the coming years might be fuelled by a further rise in the growth of prices of services, expected by these Council members, as well as stronger pass-through of rising costs of enterprises to prices of final products. These Council members judged that the expected higher inflation at the beginning of 2020 might become persistent and that price growth in the whole projection horizon might be higher than the forecast.

Certain Council members pointed out that the NBP reference rate deflated by both CPI and inflation net of food and energy prices was currently negative. These Council members observed that in view of the forecast rise in inflation, the stabilisation of the NBP interest rates would lead to a further fall in real interest rates, which would stimulate lending. However, other Council members noted that real interest rates in Poland were among the highest in Europe and that lending growth was moderate and slower than growth in deposits.

While discussing monetary policy, the majority of the Council members decided that interest rates should remain unchanged. In the opinion of these Council members, the outlook for economic conditions in Poland remains favourable, and GDP growth will continue at a relatively high rate in the coming years. At the same time, inflation will remain moderate and will stay close to the target in the monetary policy transmission horizon. Thus, the majority of Council members judged that the current level of interest rates was conducive to keeping the Polish economy on a sustainable growth path and maintaining macroeconomic stability.

The majority of the Council members expressed the opinion that, taking into account current information, interest rates were also likely to remain stable in the coming quarters. These Council members pointed out that their assessment was supported by current forecasts indicating a limited risk of a lasting deviation of price growth from the inflation target. They emphasised that another argument in favour of keeping interest rates stable was the continued heightened uncertainty about the scale and duration of the slowdown in the global economy, along with its feeding through into domestic economic conditions.

Some Council members stressed that in the event of significant price growth that would jeopardise meeting the inflation target in the medium term, it might be justified to consider an increase in the NBP interest rates in the coming quarters.

However, certain Council members judged that the economic growth and inflation would most likely be higher than indicated by the current projection. In their assessment, as a result, inflation might exceed the target in the coming years. Moreover, along with the expected rise in price growth, the level of real interest rates would decline, which could – in the opinion of these Council members – excessively stimulate lending and create the problem of over-indebtedness of households. In the view of these Council members, in order to maintain price stability and limit household lending growth, it would be advisable to increase NBP interest rates at the current meeting of the Council.

A view was also expressed that in the hypothetical event of a slump in economic activity accompanied by a marked deterioration in consumer and corporate sentiment, in the longer run it might be justified to consider a decrease in interest rates or the introduction of unconventional monetary policy instruments.

At the meeting a motion to raise the NBP interest rates by 0.25 percentage points was submitted. The motion was rejected. The Council decided to keep the NBP interest rates unchanged: the reference rate at 1.50%, the lombard rate at 2.50%, the deposit rate at 0.50%, the rediscount rate at 1.75%.

Minutes of the Monetary Policy Council decision-making meeting held on 11 September 2019

During the meeting, the Council pointed out that activity growth in the global economy remained relatively soft, and the global economic outlook had deteriorated. The volume of world trade was declining, which, combined with the announcements of further measures to increase trade barriers was reflected in the persistently weak performance of the industrial sector. At the same time, although business conditions in the service sector remained relatively strong, incoming data pointed to their possible deterioration in the months to come. It was underlined that as a result, uncertainty about the global economic outlook for the coming quarters had risen in recent months. Some Council members observed that besides changes in the trade policy of key economies, it was probably the tendency of slowdown in economic growth after years of expansion that negatively affected activity in many countries.

The Council members observed that GDP growth in the euro area in 2019 Q2 continued to be sluggish. Attention was drawn to the fact that although the performance of the service sector continued to be strong, activity in the industrial sector was decreasing. It was pointed out that euro area growth continued to be mainly driven by consumer demand, supported by relatively strong consumer sentiment and the improvement in the labour market conditions compared to previous years. However, industrial output, particularly sensitive to conditions in international trade, was on the decline. Some Council members judged that in the quarters to come, the persistent downturn in industry might start negatively weighing on household sentiment and translate into weaker activity in services. It was stressed that GDP had shrunk in Germany in 2019 Q2 in quarter-on-quarter terms, and forecasts pointed to a possible further GDP fall in 2019 Q3. Certain Council members observed at this point that the German Finance Minister had signalled its readiness to apply a fiscal stimulus should the German economy face a crisis.

Referring to economic conditions in the United States, it was indicated that while GDP growth in 2019 Q2 was higher there than in the euro area, it had slowed down on previous quarters. Some Council members observed at that point that business climate indicators in this economy signalled a possible further weakening of activity in the subsequent quarters, which gave rise to downward revisions of 2019 GDP forecasts for the United States. Certain Council members pointed out that many indicators already suggested a growing risk of recession in the United States in the coming quarters. They underlined that a potential recession in the United States would have a highly adverse effect on the global economic outlook, especially the outlook for euro area, Germany, and, hence, also Poland.

With regard to the economic situation in the external environment of the Polish economy, it was noted that in China GDP growth had also decelerated in 2019 Q2, hitting the lowest point since 1992.

While discussing the situation in the global commodity markets, it was observed that in recent months global oil prices had declined. Certain Council members pointed out that prices had declined despite mounting geopolitical tensions. It was underlined that the development of crude oil extraction and transport capacity in the United States had a stabilising effect on the market. Some Council members pointed out that the fall in oil prices was the result of a slowdown in global economic growth and the persistence of negative signals regarding the global economic outlook. It was emphasised that lower oil prices were also reflected in lower inflation in the largest advanced economies and a strong decline in inflation expectations in these countries.

Referring to monetary policy abroad, attention was drawn to the fact that many central banks had started monetary policy easing. It was underlined that the European Central Bank was keeping its interest rates close to zero, including the deposit rate below zero, and was reinvesting maturing securities bought under the asset purchase programme, while signalling the possibility of monetary policy easing in the near future. It was also noted that the Federal Reserve had cut interest rates in July 2019 and in August had stopped reducing its balance sheet. Certain Council members judged that, despite the cautious rhetoric of the Fed regarding further interest rate cuts, it should be expected that the Federal Reserve would continue its monetary policy easing in the coming months. It was noted that fears about the future economic conditions were having a negative impact on financial market sentiment, leading to growing uncertainty and volatility in the prices of financial instruments, and causing a sharp fall in the yields on debt securities. As a result, at present a significant portion of government bonds in advanced countries have negative yields.

When discussing developments in Poland's real economy, it was observed that, despite flagging growth abroad, domestic economic conditions remained favourable, and GDP growth in 2019 Q2 amounted to 4.5% y/y. Rising consumption, fuelled by increasing employment and wages, very strong consumer sentiment and disbursement of benefits, continued to boost economic activity growth. It was noted that investment also increased in 2019 Q2, despite some slowdown in growth. At the same time, the growth rate of exports and imports declined.

While analysing the outlook for economic growth, the Council members judged that GDP growth should continue at a relatively high pace in the coming years, although probably somewhat lower than forecast in the July projection. It was noted that economic growth would still be supported by expanding consumer demand. In this context, certain Council members drew attention to the positive impact of the fiscal stimulus on GDP growth. However, some Council members observed that business climate indicators pointed to the possibility of a slowdown in the industrial sector activity over the coming months. These Council members noted that amid a slowdown abroad and weaker inflow of funds from the European Union, there could be softer growth in investment. It was noted that the key source of risk for domestic economic activity was the scale and persistence of the downturn in the euro area, including in Germany.

When analysing labour market performance, it was indicated that employment growth in the enterprise sector had decreased and that there was no further increase in wage growth. Some Council members judged that this might signal a stabilisation of labour demand. According to these Council members, wage growth in the economy as a whole was still not a factor which could lead to excessive price growth, since due to a significant rise in labour productivity, unit labour cost growth remained low.

Turning to inflation developments in Poland, it was noted that consumer price growth remained moderate. It was pointed out that in August 2019 – according to the GUS flash estimate – inflation stood at 2.8% y/y. Attention was drawn to the fact that price growth was boosted mainly by the significant increase in food prices, partly resulting from the ASF epidemic in China and the drought in Poland, thus due to factors beyond the control of domestic monetary policy. In turn, lower energy prices, including fuel prices, than a year ago had a curbing effect on price growth. At the same time, core inflation remained at a moderate level.

Some Council members emphasised that inflation was in line with the NBP inflation target, while core inflation – despite accelerating – remained significantly lower than CPI inflation. These Council members pointed out that prices of services were rising faster than in previous years, but that this was partly due to the high growth in administered prices, and partly reflected real convergence processes. Other Council members noted that the relatively high growth in the prices of services was also the result of supply barriers, amid relatively strong demand growth. In the opinion of these Council members, there was a similar situation in the construction industry, where many companies were reporting high capacity utilisation. At the same time, it was underlined that PPI inflation had declined in recent months and was currently very low.

While analysing the outlook for inflation, some Council members emphasised that, according to the latest NBP forecasts, price growth would probably rise only slightly by the end of 2019, while in 2020 Q1 inflation might temporarily rise close to the upper limit of deviations from the inflation target. These Council members underlined that inflation growth at the beginning of 2020 would largely result from the statistical base effect and the assumed increase in energy prices. It was underlined that – according to current forecasts – in the successive months of 2020 inflation would, however, decline, falling to levels close to 2.5% in the middle of the year. However, certain Council members drew attention to the need to monitor the changes in inflation expectations.

Certain Council members pointed out that the NBP reference rate deflated by both CPI and inflation net of food and energy prices was currently negative. These Council members argued that very low interest rates reduced the propensity of households to save and encouraged them to search for more profitable, albeit riskier forms of investing their savings. In the opinion of these Council members, low interest rates have a negative impact on the performance of the banking sector, which strengthens the tendency to concentrate banking activity in market segments yielding high margins. In this context, attention was drawn, on the one hand, to the relatively high growth in consumer and housing loans, and on the other hand, to low growth in corporate loans. Yet other Council members stressed that the real interest rates on loans in Poland are significantly positive.

While discussing monetary policy, the majority of the Council members decided that interest rates should remain unchanged. In the opinion of these Council members, the outlook for economic conditions in Poland remains favourable, and GDP growth will continue at a relatively high rate in the coming years, although it will gradually decline. However, uncertainty about the scale and persistence of the slowdown abroad and its impact on domestic economic activity had increased. At the same time, after a temporary rise in 2020 Q1, inflation will remain close to the target in the monetary policy transmission horizon. Thus, the majority of the Council members judged that the current level of interest rates was conducive to keeping the Polish economy on a sustainable growth path and maintaining macroeconomic stability.

The majority of the Council members expressed the opinion that, taking into account current information, interest rates were also likely to remain stable in the coming quarters. These Council members pointed out that their assessment was supported by current forecasts indicating a limited risk of a lasting deviation of price growth from the inflation target, amid the forecast gradual slowdown in economic growth.

Certain Council members pointed to factors that might boost inflation higher than indicated by the current forecasts. They noted that should there be a significant rise in inflation that would jeopardise meeting the inflation target in the medium term, it might be justified to consider an increase in the NBP interest rates in the coming quarters. In the opinion of these Council members, uncertainty about the economic outlook and future price growth had risen.

Certain Council members noted that in recent months there were more signs of a deterioration in the global economic conditions, including a significant increase in the risk of recession in the US economy. In the opinion of these Council members, these factors could also have a negative impact on economic growth in Poland. At the same time, the risk of a lasting deviation of inflation from the NBP target was limited. As a result, a view was expressed that it was justified to lower interest rates at the current meeting. The view was also upheld that in the longer run it might be justified to consider a further decrease in interest rates or the introduction of unconventional monetary policy instruments.

At the meeting a motion to cut the NBP interest rates by 0.25 percentage points was submitted. The motion was rejected The Council decided to keep the NBP interest rates unchanged: the reference rate at 1.50%, the lombard rate at 2.50%, the deposit rate at 0.50%, the rediscount rate at 1.75%.

Minutes of the Monetary Policy Council decision-making meeting held on 2 October 2019

During the meeting, the Council pointed out that activity growth in the world economy remained relatively soft, and the global economic outlook continued to deteriorate. It was observed that global activity growth was dragged down by the continued downturn in the industrial sector. It was emphasized that while conditions in the service sector remained relatively strong, incoming data pointed to a likely slowdown in activity in this sector over the coming months.

The Council members observed that activity growth in the euro area remained low, and GDP growth in 2019 Q3 was probably weaker than in the previous quarter. Incoming information signalled a deepening of the downturn in the industrial sector of the euro area, which was beginning to have an adverse effect on the previously relatively high activity in the service sector.

It was stated that economic conditions in Germany continued to be weak, and the outlook for that economy had worsened. Some Council members judged that the German economy had probably entered recession in 2019 Q3. Incoming data showed that the deteriorating situation in German industry was accompanied by softer activity in the service sector and slower employment growth. Some Council members were of the opinion that those developments increased the risk that consumer demand, which had been the main driver of economic growth in Germany up to that point, would weaken in the subsequent quarters.

In the United States, while business climate continues to be favourable, the economy is in a slowdown. Business confidence indicators for both industry and services signal that economic activity growth in 2019 Q3 had softened. Some Council members expressed the opinion that weaker growth in these sectors would have a dampening effect on corporate investment activity in the quarters to come. It was observed that against the background of shrinking exports, growth in the US economy would continue to be driven by rising consumption. It was pointed out that that the recent decline in household confidence posed a risk factor to consumer demand growth. Should consumption weaken, GDP growth in the United States might, according to some Council members, slow in the coming quarters by more than forecast. Certain Council members pointed to a range of indicators signalling a growing risk of recession in the United States.

The Council members highlighted the fact that the growth outlook for the major emerging market economies was also deteriorating. It was noted that in China, following the likely slowdown in 2019 Q3, GDP growth was expected to decelerate further. Growth forecasts for India had recently been revised markedly downwards. In turn, GDP growth in Russia – notwithstanding the expected slight pick-up – would probably remain weak.

In the global commodity markets, oil prices increased in September while remaining lower than a year ago. It was highlighted that following their temporary spike, related to the attack on an oil refinery in Saudi Arabia, oil prices fell. Certain Council members judged that the fall in oil prices was due to supply-side factors. Other Council members expressed the view that the decline in oil prices was also driven by the negative outlook for demand for oil as a result of the slowing pace of global economic growth. It was emphasised that lower oil prices than a year ago dragged on price growth in many economies, including the euro area.

The Council members observed that many central banks had recently eased their monetary policy. In particular, in September, the European Central Bank had loosened its monetary policy by decreasing the deposit rate further below zero, announcing the resumption of its asset purchase programme and relaxing the terms of long-term refinancing operations. At the same time, the ECB had signalled the likely maintenance of interest rates at the present level or below in the subsequent quarters. Likewise, the Federal Reserve of the United States had eased the monetary policy by cutting interest rates again. Some Council members observed that market expectations pointed to further monetary policy easing in the United States in the quarters to come.

The Council members judged that economic conditions in Poland remained favourable, even though incoming data pointed to a weakening in economic growth in 2019 Q3. It was observed that the main factor behind softer activity growth was the deterioration in economic conditions abroad. It is reflected in the slowing export growth and a decline – seen in August 2019 – in industrial output. It was pointed out that, at the same time, GDP growth was being stabilised by rising consumption, supported by increasing employment and wages, very strong consumer sentiment and the disbursement of social benefits. Investment in the economy was also judged to be rising, albeit probably at a slower pace than in the first half of 2019, as indicated by a slowdown in output growth in construction and assembly in recent months.

In the Council's assessment, GDP growth in the coming years would continue at a relatively high level, despite the expected slowdown. It was noted that economic growth would still be driven by consumption demand growth, supported by the sustained rise in household disposable income due to favourable labour market conditions combined with the increase in the minimum wage in 2020, as well as the disbursement of social benefits and the tax cuts. At the same time, some Council members judged that owing to the deteriorating outlook for global economic conditions and the signs of its feeding through to activity in Polish industry, the pace of growth in the subsequent quarters might be slower than envisaged in the July projection. In contrast, certain Council members expressed the opinion that GDP growth might prove slightly higher than forecast. They judged that the diminished demand for Polish products from key trading partners could be substituted by increased sales to other foreign markets and to the domestic market. Certain Council members were of the opinion that investment growth might also exceed the forecast due to the positive influence of public investment projects on enterprises' investment decisions. At the same time, the Council members highlighted the fact that uncertainty about the scale and duration of the slowdown abroad and about its impact on domestic economic activity had increased again recently.

Incoming data on employment and wages confirm the continued good labour market performance. Some Council members were of the view that demand for labour was probably weakening, as indicated by the slowing growth in employment in the enterprise sector and data on the number of newly created positions and job offers. At the same time, the unemployment rate remains very low. It was stressed that this was accompanied by stable wage growth in the enterprise sector.

It was pointed out that in September – according to the GUS flash estimate – inflation stood at 2.6% y/y. It was highlighted that despite the decline in month-on-month growth in food prices, their annual growth remained high and posed a major factor driving the inflation up. Alongside that, lower than a year ago energy prices, including fuel prices, had a curbing effect on price growth. At the same time, core inflation remained moderate, which – in the opinion of some Council members – was consistent with the present business cycle position of the Polish economy. Certain Council members judged that the pick-up in the prices of services and goods sensitive to domestic economic conditions might be a sign of mounting demand pressure. It was also emphasised that producer price growth remained low.

According to current forecasts, inflation might rise slightly in the coming months, and in 2020 Q1 price growth might temporarily accelerate and run close to the upper limit of deviations from the inflation target. Some Council members noted that the inflation growth forecast at the beginning of 2020 would largely result from the statistical base effect and the assumed increase in energy prices. These Council members underlined that – according to current forecasts – in the successive months of 2020 inflation would decline and run close to 2.5% within a year. The majority of the Council members judged that a factor of uncertainty regarding the possible rise in inflation at the beginning of 2020 was the regulatory changes in the electricity market, which were difficult to predict. Some Council members expressed the opinion that in the case of a further deterioration in global economic conditions and its stronger impact on the domestic economic situation, price growth in the subsequent quarters of 2020 might decline more sharply than forecast. However, certain Council members were of the opinion that the negative impact of the downturn abroad on inflation in Poland might be limited when accompanied by increased domestic sales. These Council members also pointed out that the relatively high wage growth, exceeding that of labour productivity, might boost price growth. Certain Council members underlined that a factor of uncertainty for the inflation outlook was the development of global oil prices.

Certain Council members noted that in the recent period growth in consumer loans and money supply remained high, exceeding the growth rate of nominal GDP. However, other Council members judged that total growth of loans to the non-financial sector was currently not excessive.

While discussing monetary policy, the majority of the Council members decided that interest rates should remain unchanged. In the opinion of these Council members, the outlook for economic conditions in Poland remains favourable, and

GDP growth will continue at a relatively high rate in the coming years, although it will gradually decline. However, uncertainty about the scale and persistence of the slowdown abroad as well as its impact on domestic economic activity had increased. At the same time, after a temporary rise in 2020 Q1, inflation will remain close to the target in the monetary policy transmission horizon. Thus, the majority of the Council members judged that the current level of interest rates was conducive to keeping the Polish economy on a sustainable growth path and maintaining macroeconomic stability.

The majority of the Council members expressed the opinion that, taking into account current information, interest rates were likely to remain stable also in the coming quarters. These Council members pointed out that their assessment was supported by current forecasts indicating a limited risk of a lasting deviation of price growth from the inflation target, amid the forecast gradual slowdown in economic growth.

Certain Council members pointed to factors that might boost inflation higher than indicated by the current forecasts. They noted that should there be a significant rise in inflation that would jeopardise meeting the inflation target in the medium term, it might be justified to consider an increase in the NBP interest rates in the coming quarters. However, in the opinion of these Council members, uncertainty about economic outlook and future price growth had risen, while the likelihood of such a scenario had declined.

Certain Council members noted that in recent months there were more signs of a deterioration in global economic conditions. In the opinion of these Council members, these factors could also have a negative impact on economic growth in Poland. At the same time, the risk of a lasting deviation of inflation from the NBP target was limited. As a result, a view was expressed that it was justified to lower interest rates at the current meeting. The view was also upheld that in the longer run it might be justified to consider a further decrease in interest rates or the introduction of unconventional monetary policy instruments.

At the meeting a motion to cut the NBP interest rates by 0.25 percentage points was submitted. The motion was rejected. The Council decided to keep the NBP interest rates unchanged: the reference rate at 1.50%, the lombard rate at 2.50%, the deposit rate at 0.50%, the rediscount rate at 1.75%.

Information from the meeting of the Monetary Policy Council held on 5-6 November 2019

The Council decided to keep the NBP interest rates: the reference rate at 1.50%, the lombard rate at 2.50%, the deposit rate at 0.50%, the rediscount rate at 1.75%

Global economic growth remains relatively low and uncertainty about the global outlook persists. In the euro area, annual GDP growth in 2019 Q3 declined alongside the ongoing downturn in industry. In the United States, economic conditions continue to be relatively strong, however, GDP growth in 2019 Q3 in the US economy also declined. At the same time, in China economic activity growth continues to slow down.

In recent months, inflation declined in many countries and continues to run at a moderate level, supported by lower oil prices than a year ago. In particular, inflation is low in the euro area.

The European Central Bank is keeping the deposit rate unchanged, after lowering it further below zero in September. At the same time it has resumed the asset purchase programme and signalled the maintenance of loose monetary policy in the coming quarters. The Federal Reserve cut interest rates again in October.

In Poland, economic conditions remain good, although the incoming data point to a possible decrease in the economic growth rate in 2019 Q3, mainly due to the economic downturn abroad. However, rising consumption, fuelled by increasing employment and wages, very strong consumer confidence and social benefit payments, exerts a stabilising influence on GDP growth. At the same time, the incoming data indicates that investment continues to rise.

Inflation in October 2019 – according to the GUS flash estimate – stood at 2.5% y/y. Food price growth, despite a gradual slowdown, remains elevated and is contributing to higher inflation. On the other hand, lower energy prices than a year ago, including fuel prices, are having a curbing effect on price growth. At the same time, in the recent period core inflation has risen, but continues to run at moderate levels.

The Council became acquainted with the results of the November projection of inflation and GDP, prepared under the assumption of unchanged NBP interest rates. The November projection takes into account data and information published up to 18 October 2019. In line with the November projection based on the NECMOD model, there is a 50-percent probability that the annual price growth will be in the range of 2.2-2.4% in 2019 (against 1.7-2.3% in the July 2019 projection), 2.1-3.6% in 2020 (compared to 1.9-3.7%) and 1.6-3.6% in 2021 (compared to 1.3–3.5%). At the same time, the annual GDP growth – according to this projection – will be with a 50-percent probability in the range of 3.9-4.7% in 2019 (against 3.9-5.1% in the July 2019 projection), 2.7-4.4% in 2020 (compared to 3.0-4.8%) and 2.3-4.2% in 2021 (compared to 2.4-4.3%).

In the Council's assessment, the outlook for economic conditions in Poland remains favourable, and GDP growth, despite the expected decline, will continue at a relatively high level in the coming quarters. At the same time, there remains uncertainty about the scale and persistence of the slowdown abroad and its impact on domestic economic activity. Inflation – after a temporary rise in 2020 Q1 – will stay close to the target in the monetary policy transmission horizon. Such an assessment is supported by the results of the November NBP projection of inflation and GDP.

The Council judges that the current level of interest rates is conducive to keeping the Polish economy on a sustainable growth path and maintaining macroeconomic stability.

The Council adopted the *Inflation Report – November 2019* and the resolution on the principles for creating and releasing the provision against the foreign exchange rate risk of the złoty at Narodowy Bank Polski and amended the resolution on the NBP accounting principles.

4. Projection of inflation and GDP

This inflation and GDP projection was prepared by the Economic Analysis Department of Narodowy Bank Polski and presents a forecast of economic developments under the assumption of the unchanged NBP interest rates. In terms of the contents, works on this projection were supervised by Piotr Szpunar, Director of the Economic Analysis Department. The process was coordinated by the Macroeconomic Forecasts Division of the Economic Analysis Department. Using the macroeconomic model NECMOD, the projection was prepared as the outcome of an iterative process, in the course of which the paths of some variables were adjusted if they diverged from NBP experts' economic intuition based on their knowledge of economic processes. The Management Board of NBP approved the projection to be submitted to the Monetary Policy Council. The projection constitutes one of the inputs to the Monetary Policy Council's decision-making process concerning the NBP interest rates.

The November projection based on the NECMOD model covers the period from 2019 Q4 to 2021 Q4. The starting point for the projection is 2019 Q3.

The cut-off date for the data used in this projection is 18 October 2019.

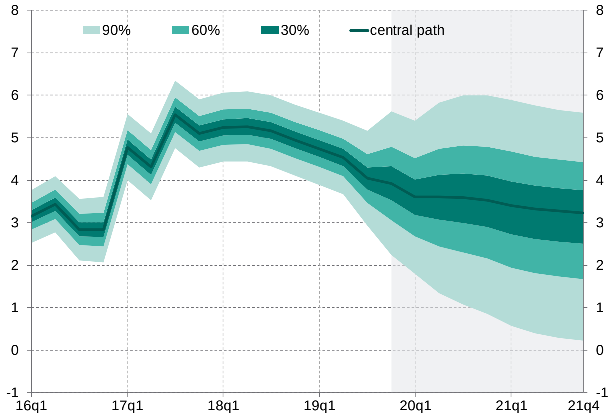
4.1 Summary

Since the publication of the last projection, certain risks related to economic growth in the external environment of the Polish economy which the projection pointed out have materialised. In particular, the outlook for growth in the global economy has deteriorated, with a deepening slowdown in global trade. So far, the domestic economic activity has shown strong resilience to negative impulses from abroad, yet GDP growth in 2019 Q3 has most probably declined and is running slightly below the level assumed in the July forecasting round. In the horizon of the current projection, GDP dynamics is expected to continue on a gradual downward trend, which will be driven by an ongoing downturn in countries being Poland's main trading partners. Slower growth in the absorption of EU funds in the last phase of the EU financial framework 2014-2020 will act in the same direction. The scale of the slowdown in domestic demand will be mitigated by the fiscal changes already introduced by the government and those planned ahead. These changes include an increase in social benefits and a decrease in the tax burden, thus boosting private consumption. Domestic demand will also be stimulated by low interest rates and the resulting low cost of credit.

In the coming months CPI inflation will increase, reaching a peak in 2020 Q1. The consumer price inflation, especially core inflation, will be driven up by the elevated dynamics of labour costs in the projection horizon and in the quarters to come still relatively strong demand pressure as well as high growth of food prices. The beginning of 2020 is expected to bring an increase in energy price inflation in line with the projection's assumption that the period of freezing of electricity prices for households will end.

In the longer-term projection horizon consumer price inflation will decline, running close to 2.5% until the end of 2021. This will be driven by weaker

Figure 4.1 GDP (y/y, %)



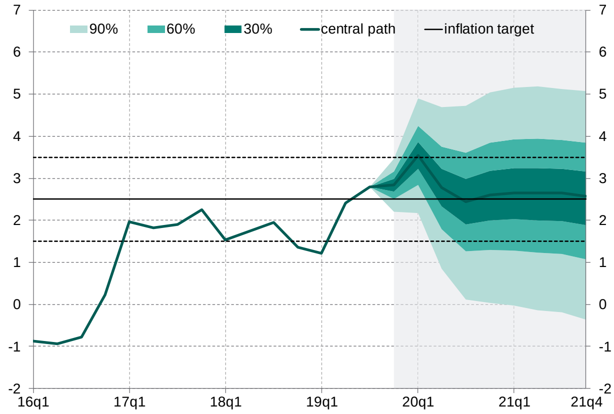
Source: Statistics Poland (GUS) data, NBP calculations.

Fan charts depict the probability distribution of possible outcomes of GDP growth (Figure 4.1) and inflation rate (Figure 4.2). The part of the chart in the grey background illustrates forecast uncertainty of these variables over the projection horizon; additionally, for GDP growth there exists the uncertainty of past values due to possible data revisions by Statistics Poland (GUS). It was assumed that the probability distribution of the possible outcomes of a variable at each forecast horizon belongs to the family of two-piece normal (TPN) distributions. This distribution is determined by three parameters: mode, variance and a measure of skewness. The mode of the distribution is the central path of the projection, while the variance is determined based on historical forecast errors for each of the horizons adjusted for the impact of the current uncertainty of exogenous variables. The skewness of the distribution is obtained on the basis of an analysis of several alternative scenarios together with the assigned probabilities of their realisation. On the chart, the distribution of the realisation of a given variable is illustrated by 30%, 60% and 90% probability intervals around the central projection path, which were constructed in such a way as to minimize the width of the bands (for more information see: Pońsko P., Rybaczyk B., 2016, Fan Chart – A Tool for NBP's Monetary Policy Making, Narodowy Bank Polski Working Paper, No 241.).

demand pressure accompanying the falling GDP growth and fading impact of supply disturbances on food prices. In the projection horizon CPI inflation will be curbed also by low price dynamics in countries being Poland's main trading partners and the substantial number of immigrants on the domestic labour market (mainly Ukrainian citizens).

Whether the projection scenario will materialise largely depends on future activity in the global economy. The risk factors for economic growth and inflation include the possible further escalation of trade disputes restricting world trade. Developments in global oil and other energy commodity prices as well as future regulatory changes in Poland and their pass-through to energy prices will also be an important risk factor. The balance of risk factors for GDP growth and – to a lesser extent – CPI inflation suggests they are more likely to run below the central scenario path, which is reflected in the fan charts for these variables (Figure 4.1, Figure 4.2).

Figure 4.2 CPI inflation (y/y, %)



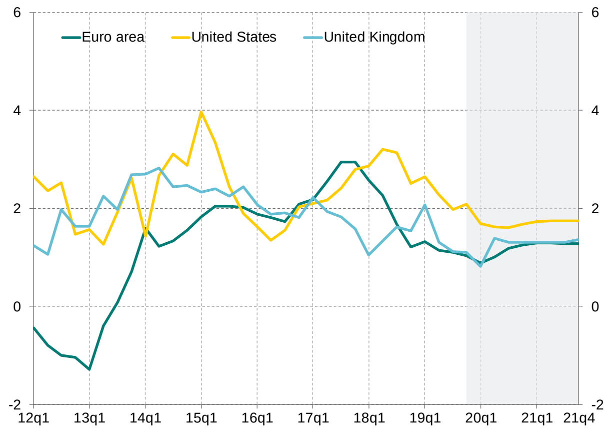
Source: Statistics Poland (GUS) data, NBP calculations.
The methodology of construction of fan charts is discussed in the note under Figure 4.1.

4.2 External environment

Economic growth

As some risk factors indicated in the previous projection have materialised, the outlook for euro area growth has deteriorated further. The downward revision of GDP forecasts for the euro area was largely the result of the persistently sluggish world trade (see Box: *Slowdown in global trade*). Economic activity, especially corporate business activity, is negatively affected by heightened uncertainty about a no-deal Brexit and changes in trade policy of major world economies. In the baseline scenario of the current projection this uncertainty is assumed to be gradually fading away and the ECB's accommodative monetary policy as well as fiscal expansion of some of euro area countries are expected to boost household and corporate demand. Nonetheless, GDP growth in

Figure 4.3 GDP abroad (y/y, %)



Source: Bloomberg, Eurostat data, NBP calculations.

the euro area will continue to run below its potential level (Table 4.1, Figure 4.3).

Escalating tensions in the trade policy and the deteriorating outlook for global economic growth have brought a downward revision of expected future GDP dynamics also in the United States. Similarly as in the euro area, GDP growth in the American economy will continue below the potential output growth in the years 2020-2021. The scale of the slowdown will be mitigated by the relatively high private consumption dynamics, driven by the favourable labour market situation and high value of household assets. The slowdown in the US economy will also be moderated by the Fed's interest rate cuts expected by the financial markets, resulting in falling long-term interest rates.

In the coming years, economic activity in the United Kingdom will remain sluggish. Yet, the expected GDP growth path in the British economy is lower than in the previous forecasting round. The uncertainty related to Brexit, having a negative impact on corporate investment, continues to be a barrier to GDP growth. The November projection, similarly to the previous forecasting rounds, doesn't assume any substantial increase in trade barriers between the United Kingdom and the European Union, which would be related to no-deal Brexit.

The outlook for GDP growth in economies being Poland's main trading partners is subject to heightened uncertainty. This uncertainty is driven by the possibility of a further escalation of trade disputes between the United States and China, which would increase the already relatively high probability of American economy plunging into recession. An important risk factor for the projection is the no-deal Brexit which, in turn, is likely to trigger recession in Great Britain. Should any of the above risks materialise, the economic growth path in the euro area would also shift downwards.

Table 4.1 GDP abroad - November projection versus July projection

	2019	2020	2021
GDP in Euro Area (y/y, %)			
November 2019	1.2	1.1	1.3
July 2019	1.2	1.4	1.4
GDP in United States (y/y, %)			
November 2019	2.2	1.7	1.7
July 2019	2.5	1.8	1.8
GDP in United Kingdom (y/y, %)			
November 2019	1.4	1.2	1.3
July 2019	1.4	1.4	1.5

Source: NBP calculations.

Inflation and interest rates

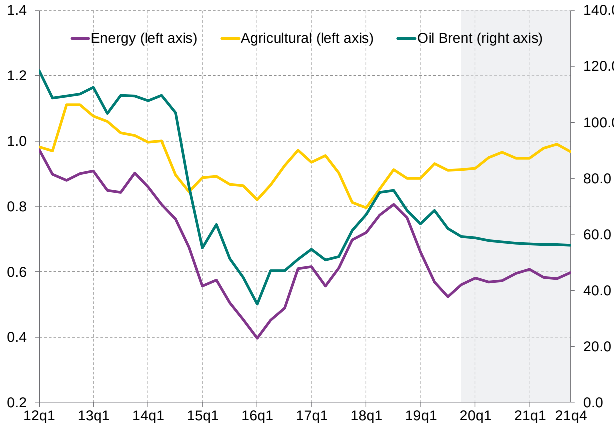
In line with the assumptions adopted in the current projection, the coming years will see oil prices declining gradually and running slightly below the expectations of the previous forecasting round (Figure 4.4). This scenario is supported by deteriorating outlook for GDP growth in the global economy and growing oil extraction in the United States. Oil prices may be however boosted by geopolitical tensions in the Middle East and falling oil production in the OPEC countries – yet, the impact of those factors will be moderate and should not halt the decline in the prices of this commodity.

As a result of last year's mild winter, among others in Europe and China, prices of natural gas and coal in the global markets have declined considerably. In the projection horizon, as the situation in these commodity markets returns to normal, those prices will gradually rise, approaching the levels observed in the previous forecasting round.

The agricultural commodities index declined in 2019 Q3, which was largely driven by lower wheat prices related to the record high wheat crops worldwide and high levels of wheat stocks (Figure 4.4). Commodity futures price quotes indicate that in the projection horizon the currently lower agricultural commodities price index will increase slightly above the level recorded in the previous forecasting round. The upswing in the index will be mainly driven by rising pork prices, as the result of lower pork production in China in the aftermath of the ASF epidemic.

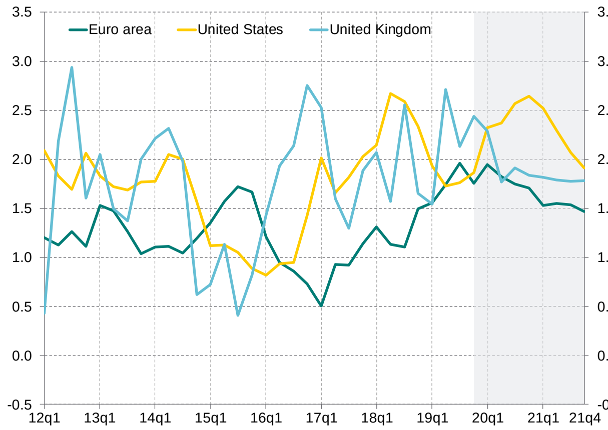
The November projection assumes that inflation in the economic environment of Poland (measured by the change in the value added deflator, see Figure 4.5) will remain moderate. In the euro area, inflation in the projection horizon will remain below 2% on account of low GDP growth in this economy and stable prices of energy commodities (falling oil prices, slightly rising natural gas and coal prices). In the United States inflation will run

Figure 4.4 Energy commodities price index (USD, 2011=1) and index of agricultural prices (EUR, 2011=1) in global markets and Brent oil prices (USD/b)



Source: Bloomberg data, NBP calculations.
The index of the prices of energy commodities includes the prices of crude oil, coal and natural gas, taking account of the consumption structure of these commodities in Poland.

Figure 4.5 Inflation abroad (y/y, %)



Source: Bloomberg, Eurostat data, NBP calculations.
Inflation as measured by the value added deflator.

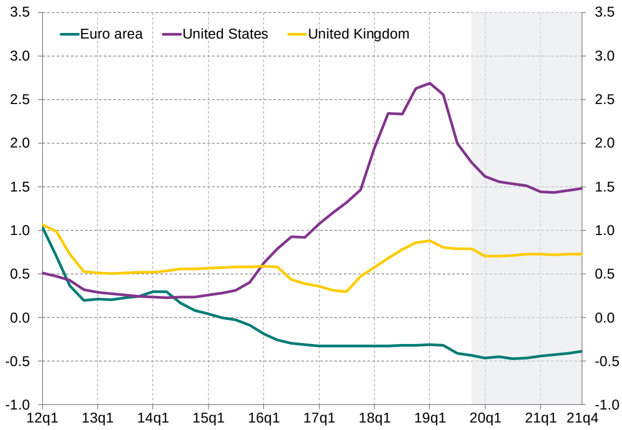
at slightly higher level as the US economy is in a more favourable phase of the business cycle.

Monetary policy

Since the cut-off date of the July projection, taking into account deteriorating outlook for growth in the euro area and low inflation in this economy, the ECB has eased its monetary policy, among others, by lowering the deposit rate and strengthening forward guidance. Futures quotes indicate that the ECB deposit rate may decline further, which was assumed as the baseline scenario in the current projection (Figure 4.6).

Futures quotes suggest also further interest rate cuts in the United States, and to a lesser extent, in the United Kingdom. The monetary policy stance expected by the financial markets in these economies is consistent with the deteriorating outlook for growth in the US and UK assumed in the projection. This reflects considerable uncertainty regarding the institutional determinants of economic processes both in the United States (trade policy) and in the United Kingdom (the way the UK leaves the European Union).

Figure 4.6 Interest rates abroad (%)



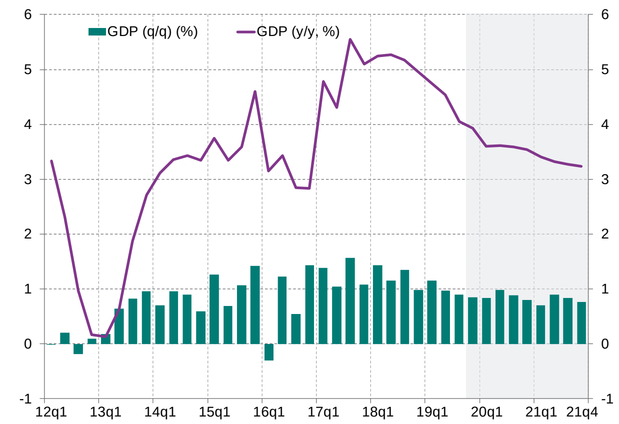
Source: Bloomberg data, NBP calculations.

4.3 Polish economy in 2019-2021

Domestic demand

Over the projection horizon GDP is expected to continue its gradual decline which started in the second half of 2018 in response to the weakening economic activity in the global economy, including in the largest euro area economy – Germany (Figure 4.7, Figure 4.8). Also the slower growth in absorption of the EU funds, after their high utilisation level in 2018 will have a negative impact on the Polish economy(Figure 4.11) The scale of the slowdown in the domestic economy will be mitigated by the introduced and announced fiscal changes which by increasing household disposable

Figure 4.7 Economic growth

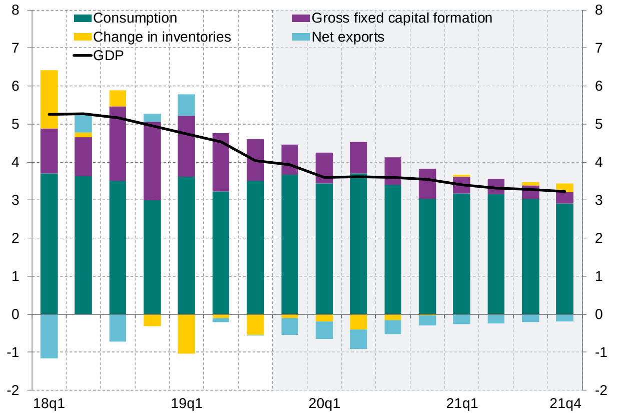


Source: Statistics Poland (GUS) data, NBP calculations.

income will have the influence on private consumption in particular.

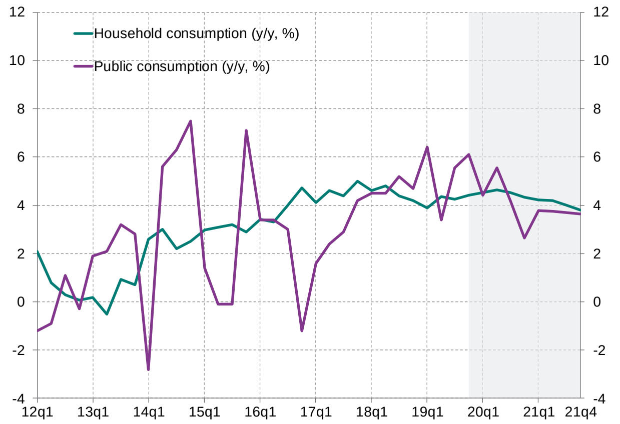
In the years 2019-2021 household consumption growth will decline, yet it will remain at a relatively high level (Figure 4.8, Figure 4.9). The high private consumption growth will be supported by the effect of the legislation package enacted in 2019, which will be spread over time. It will include the extension of the "Family 500 plus" programme[51], changes in tax legislation concerning personal income tax resulting in reduced tax burden of employees[52] as well as a one-off pension payment. Moreover, the "Pension plus" programme (the payment of the so-called thirteenth pension) is to be continued in the subsequent years, which, together with the introduction as of 2019 Q4 of a new supplementary benefit for the disabled will be another driver of private consumption in this period. Household expenditure will also be positively affected by still favourable situation of employees in the labour market, resulting in continued, despite a decline, relatively high growth in the wage bill. Additionally, wage growth resulting from the announced increase in the minimum wage will concern households with relatively higher marginal propensity to consume. At the same time, however, due to the weakening demand for labour over the projection horizon, there will be a gradual decline in wage bill growth and consequently, also in household disposable income growth. Income growth in real terms will also be curbed by increasing inflation. As a result, in the longer term projection horizon household consumption is expected to decline, which is also driven by the fact that fiscal policy will exert the strongest impact on private consumption growth in 2020. Yet, the scale of consumption decline expected in the projection will be limited, and household consumption over the whole of the

Figure 4.8 GDP growth (y/y,%) – breakdown



Source: Statistics Poland (GUS) data, NBP calculations.

Figure 4.9 Household and public consumption



Source: Statistics Poland (GUS) data, NBP calculations.

[51] As of 1 July 2019 the "Family 500 plus" programme will be extended; this will involve payment of family benefits for the first (including the only) child with no income criteria applied.

[52] The changes in tax legislation concern: the decrease of the first tax threshold to 17%, the increase in the tax deductible costs for employees as of 1 October 2019 and the introduction of a zero-rate personal income tax for persons aged under 26 as of 1 August 2019.

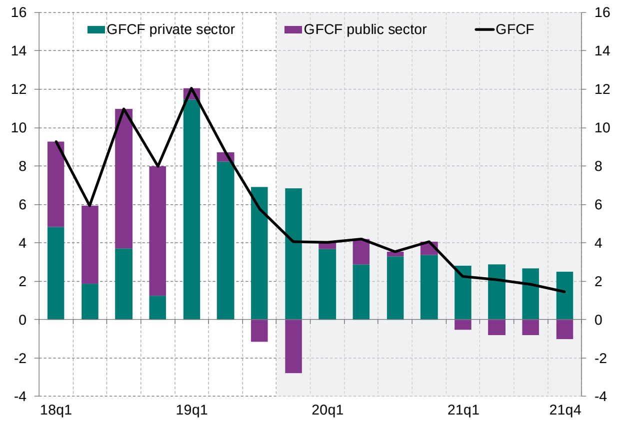
projection horizon will be the main driver of economic growth in Poland.

In the years 2019-2021, the growth rate of gross fixed capital formation will follow a downward trend, which will be driven by the slowdown in public sector investment and – in the longer projection horizon – also private investment (Figure 4.10).

The growth rate of gross fixed capital formation in the general government sector will run at a slightly negative level, except for 2020, thus curbing total investment growth in the economy. The anticipated slight decline in public sector investment in 2019 is the result of lower local government expenditure on fixed capital formation than in 2018.[53] In the subsequent years the growth rate of public sector investment will be significantly affected by the level of EU funds absorption assumed in the projection. It indicates only a slight increase in the utilisation of EU funds co-financing public investment in 2020 and a slight decline in 2021 (Figure 4.11).

In 2019 the growth rate of gross fixed capital formation of the private sector will pick up considerably, which will be driven by the high growth rate of corporate investment amid continued relatively strong household demand for residential real estate (Figure 4.10). Corporate investment is supported by the currently low investment rate, which has so far been accompanied by high capacity utilisation. Loan-financed purchase of fixed assets is also supported by the record low level of interest rates, although the main source of funding investment of both enterprises and households continues to be own funds.[54,55]

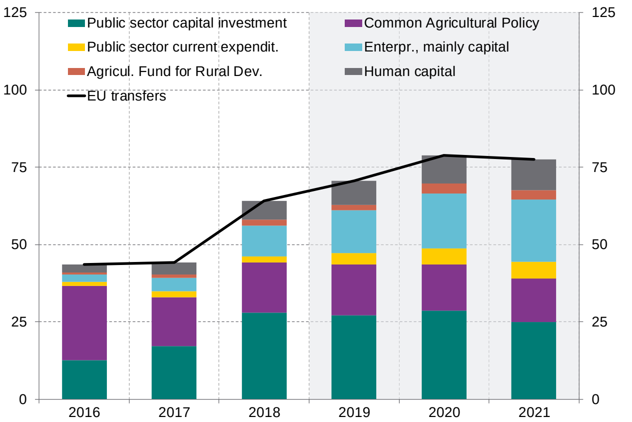
Figure 4.10 Gross fixed capital formation (y/y, %) – breakdown



Source: Statistics Poland (GUS) data, NBP calculations.

Private sector investment is defined as gross fixed capital formation according to the national accounts except for the general government sector. It covers gross fixed capital formation of non-financial enterprises, financial and insurance companies, households (both housing and non-housing investment) and non-profit institutions serving households.

Figure 4.11 Expenditure financed by EU funds (in PLN billion) – breakdown



Source: NBP calculations.

[53] According to local government units' plans these investments in 2019 will be almost 11% lower than in the previous year – data from budget realisation of local government units for 2019 Q2.

[54] Half of enterprises planning new investment in the coming quarter indicate own funds as a source of financing – *NBP Quick Monitoring Survey. Economic climate in the enterprise sector*, NBP, October 2019.

[55] *Information on home prices and the situation in the residential and commercial real estate market in Poland in 2019 Q1*, NBP, June 2019. This study shows that the estimated share of cash-financed purchases of completed housing in the primary market in the seven analysed cities (Gdańsk, Gdynia, Kraków, Łódź, Poznań, Warsaw, Wrocław) has been in excess of 60% for many quarters.

In the years 2020-2021 the outlook for private investment will deteriorate on the back of the slowdown in external demand observed since mid-2018, which has a lagged impact on the domestic economy. The expected slowdown in investment is confirmed by the findings of business surveys pointing to a marked decline in capacity utilisation and deteriorating outlook for demand. This concerns, in particular, the group of exporters, mainly specialised exporters, which faced with declining expectations of foreign orders announce a marked decline in expenditure on new investment and lower growth in expenditure on projects already under way.[56] At the same time, the inflow of EU funds will finance investment expenditure growth of the private sector to a lesser extent (Figure 4.11). The gradual decline in the growth rate of household disposable income in the projection horizon will also contribute to slower growth of housing expenditure.

In the longer projection horizon the growth in capital expenditure should be supported by the low degree of automation and robotization of Polish industry. Growing labour costs resulting from the planned legislative changes, including a considerable increase in the minimum wage in subsequent years, may be another factor urging enterprises to speed up automation processes in production and services at the expense of employment. Yet, the impact of this factor in the projection horizon will be relatively small due to the limited possibility of human labour substitution in many branches of industry and the length of the investment cycle.

In the projection horizon, public consumption growth will exceed GDP growth, which will be driven by the expected relatively high increase in wages in the public sector as well as intermediate consumption in this sector. In particular, 2019 will see further wage increases for public health employees and public administration staff. In 2020

[56] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector*, NBP, October 2019.

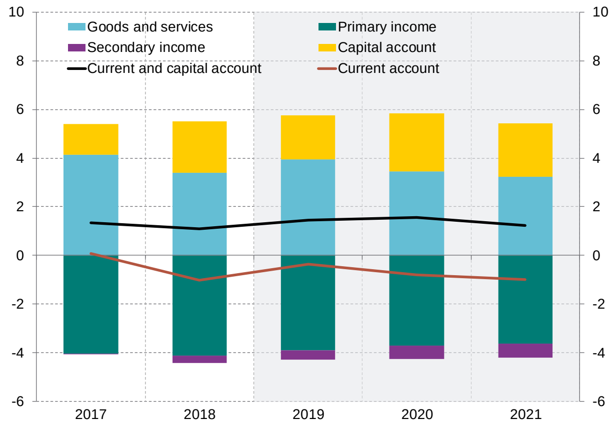
public consumption growth will be affected by the government's decision to proceed to the annual average wage increase of 6 % in the public sector and a wage increase of 9.6% for teachers implemented in September 2019.

Current and capital account balance

Poland's balance of payments continues to be favourable. In 2019 Q2 the current and capital account balance was positive and stood at 1.7% of GDP (4-quarter rolling sum). This was another consecutive quarter of improvement in the goods and services balance, which reached 4.0% of GDP in 2019 Q2. The gradual increase in the trade surplus in the first half of 2019 was supported by the weakening of the zloty in year-on-year terms against the currencies of Poland's main trading partners, which improved price competitiveness of the domestic production. In the subsequent quarters the positive trend in the goods and services account is expected to reverse and its balance to decline (Figure 4.12). The future export path will be increasingly affected by the weakening demand from the euro area, in particular, from Germany, while the relatively high consumption and investment growth will support import growth (Figure 4.13). In the last year of the projection horizon this downward trend will slow down in the wake of the expected weaker domestic demand growth amid a slight improvement in the economic activity in the euro area.

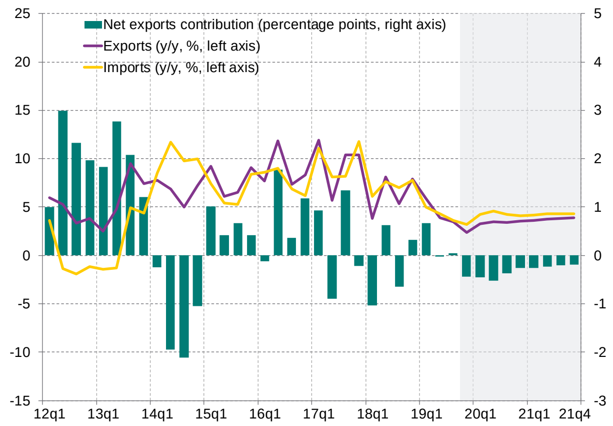
The remaining components of the current account – the primary and secondary income balance – will be negative over the whole of the projection horizon (Figure 4.12), while the income of foreign direct investors in Poland will continue to be the main source of the deficit. This will be accompanied by a persistently high surplus in the capital account, which will exceed on average 2% of GDP in the years 2019-2021. This will be the result of a high inflow of EU funds settled under the EU financial framework 2014-2020 (Figure 4.11).

Figure 4.12 Current and capital account balance (percent of GDP) - breakdown



Source: Statistics Poland (GUS) data, NBP calculations.

Figure 4.13 Foreign trade



Source: Statistics Poland (GUS) data, NBP calculations.

In the wake of the forecasted decline in the trade balance amid the stable level of income deficit and persistently high surplus in the capital account, the current and capital account balance will decline in the projection horizon, however, it will remain positive (Figure 4.12).

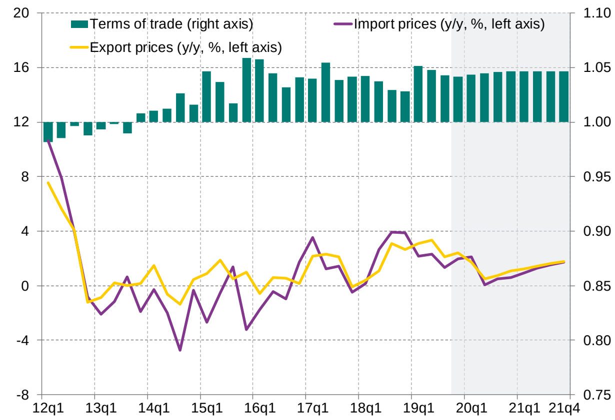
Potential output

In the projection horizon the rate of potential output growth of the Polish economy will run at an average level of 3.6%, which will be driven by the decline in the labour share amid growing contribution of capital (Figure 4.15).

The inflow of immigrants (mainly Ukrainian citizens) onto the domestic labour market, which is an additional source of labour force, has had a positive impact on the potential of the Polish economy in recent years[57]. In addition to steady growth of their productivity which is reflected, among others, in the rising share of immigrants in higher productivity sectors. In the projection horizon, along with the depletion of immigration potential of Ukraine and the possible outflow of immigrants working in Poland to other EU member states, it is possible that an increase in their number will slow down.

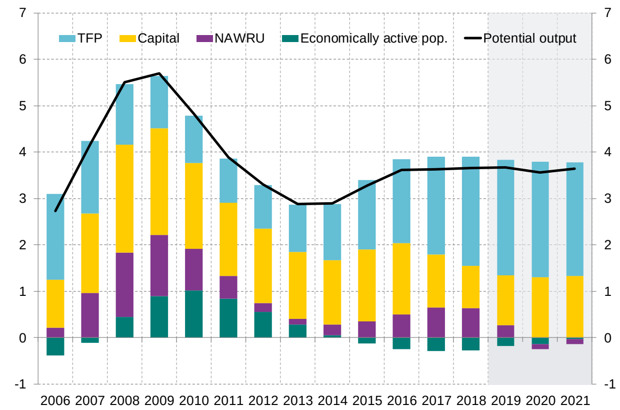
Positive impact on potential output have also had the structural changes in the labour market, resulting in a significant improvement in the match between the demand and supply of domestic employees (Figure 4.16). These trends are reflected, among others, in the sharply falling number of the long-term unemployed. The favourable structural changes are also reflected in steady growth of labour force participation rate of pre-retirees (45-59/64 years old), which, however, is still lower

Figure 4.14 Export and import prices



Source: Statistics Poland (GUS) data, NBP calculations.

Figure 4.15 Potential product (y/y, %) – breakdown



Source: NBP calculations.

Potential output growth is defined as the economic growth rate that does not cause the accumulation of inflationary pressure. It may originate from the growth of labour supply, productive capital or total factor productivity. In the NECMOD model it is estimated on the following Cobb-Douglas production function:

$$PKB_t^{pot} = TFP_t^{trend} \cdot \left[LF_t^{trend} \cdot (1 - NAWRU_t)\right]^{0,67} \cdot K_t^{1-0,67},$$

where PKB_t^{pot} is the level of potential output, TFP_t^{trend} – total factor productivity, smoothed by the Hodrick-Prescott (HP) filter extended with an index of capacity utilisation, LF_t^{trend} – the number of economically active people smoothed by a HP filter, $NAWRU_t$ – non-accelerating wage rate of unemployment in the equilibrium, K_t – productive capital. The output elasticity with respect to labour was set at the level of 0.67.

[57] Immigrants have a positive impact on the potential of Poland's economy, but due to the definition of the Polish residents used in the LFS survey, they are included in the cohorts of the economically active and employed persons only to a limited extent according to this methodology. In the NECMOD model, immigrants not included in the LFS population do not, therefore, increase the labour supply, but they have an influence on the potential output through their positive impact on total factor productivity (TFP). At the same time, the presence of immigrants on the domestic labour market reduces the equilibrium unemployment rate (NAWRU), because they are characterised by lower wage expectations, which also lower wage pressure among the Polish employees. This means that due to the inflow of immigrants, the level of the unemployment rate that does not lead to a strengthening of wage expectations (NAWRU) is lower.

compared to Western European countries. The increased labour market participation of this age group has offset the decline in the working age population observed in recent years (Figure 4.19, Figure 4.17). At the same time, in the population aged 45-59/64 years the share of employees with higher education is growing, reflecting the improving quality of human capital that has a positive impact on the rate of productivity growth in the economy.

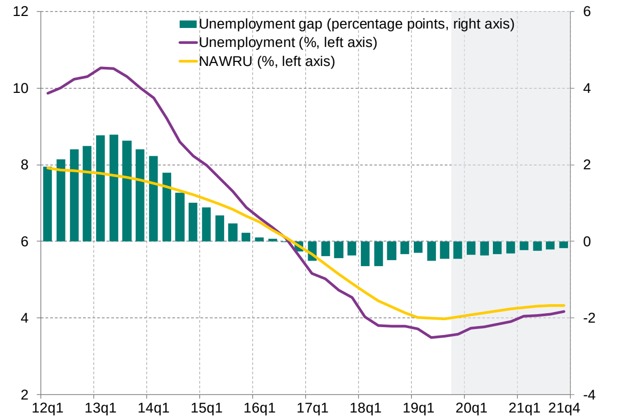
These positive structural changes in the labour market are expected to continue in the projection horizon, with the multidirectional impact of legislative changes already enacted or planned. In particular, the match between demand and supply in the labour market will deteriorate on account of the planned 15% increase in the minimum wage in 2020 and 2021, thus larger than the rate of wage growth in the whole economy. The impact of this change will be mitigated by the simultaneous reduction in the tax burden on income from work. As of 1 August 2019, persons aged up to 26 years are exempted from personal income tax (up to the first tax bracket). Moreover, as of 1 October 2019 the personal income tax rate was cut from 18 to 17 per cent for other taxpayers and the tax deductible costs were increased.

The increasing innovation capacity of the Polish economy and improvement in its position in the global value chains, associated with the long-term inflow of foreign direct investment and real convergence process, have also had a positive impact on total factor productivity growth. In the projection horizon these positive trends will continue on account of the growing investment rate since 2018, adding to the rate of productive capital growth.

Output gap

Slowing economic growth in the projection horizon will no longer exceed the rate of potential output growth in the years 2020-2021. As a result, the currently positive output gap, which is the

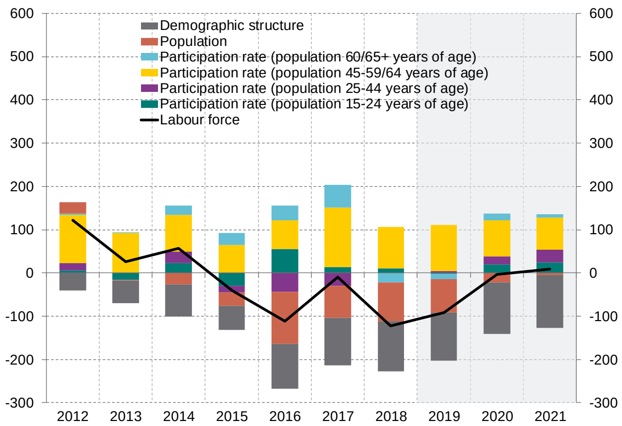
Figure 4.16 Unemployment



Source: Statistics Poland (GUS) data, NBP calculations.

$NAWRU_t$ – non-accelerating wage rate of unemployment in the equilibrium

Figure 4.17 Changes in the labour force (thous., y/y)

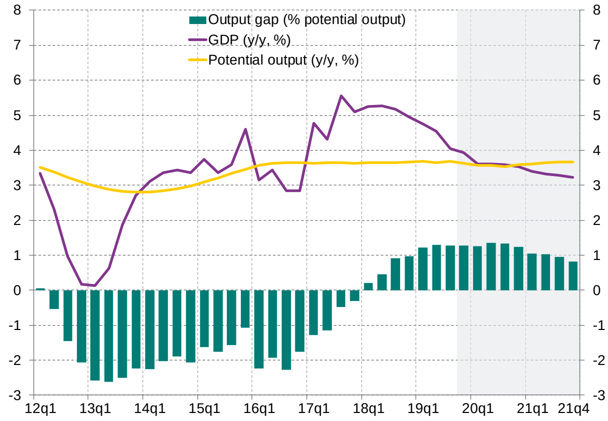


Source: Statistics Poland (GUS) data, NBP calculations.

Changes in the labour force in the chart are decomposed into those resulting from changes in the labour force participation rate in individual age groups, changes in demographic structure and changes in the total population. The impact of demographic structure determines changes in the labour force arising only from changes in the age structure of the population with an unchanged total population and constant labour force participation rate in individual age groups.

synthetic measure of demand pressure, will start to gradually close as of 2020 Q3 (Figure 4.18). Thus, in the longer projection horizon, both demand pressure and the resulting pressure on price growth will weaken.

Figure 4.18 Output gap

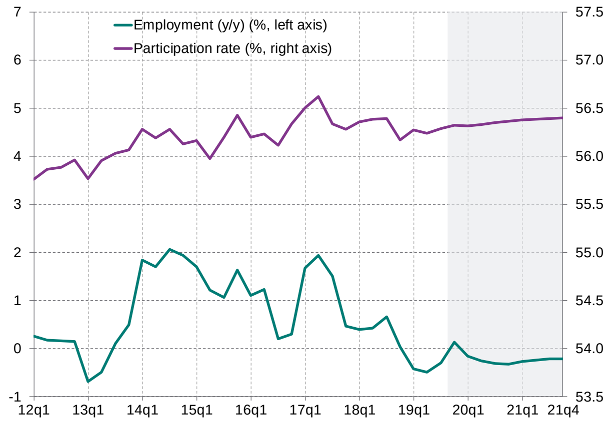


Source: Statistics Poland (GUS) data, NBP calculations.
The output gap is a synthetic measure of demand pressure in the economy. It is expressed as a percentage of the deviation of the actual real level of GDP from the level of potential output.

Labour market

In the projection horizon the growth rate of the employed according to the LFS will decline as compared to previous years, turning slightly negative. Recently strong labour demand will weaken due mainly to a slowdown in the domestic economy. Such a scenario is supported by the business surveys results indicating a worse outlook for employment growth combined with a simultaneous increase in the share of companies declaring job cuts in the coming 12 months.[58] At the same time, since the beginning of 2019 staff shortages have been reported much less frequently as a barrier to growth – the share of companies raising this issue is at its lowest since the beginning of 2017[59]. The announced strong increase in the minimum wage is expected to reduce employment of low-wage workers only to a small extent. As a result of flagging demand for labour amid the relatively stable labour participation rate, in the years 2020-2021 the unemployment rate is on a slight increase; nevertheless, it will stay at a very low level (Figure 4.16, Figure 4.20).

Figure 4.19 Employment and labour force participation



Source: Statistics Poland (GUS) data, NBP calculations.

Moderately high rate of real wages growth exceeding the rate of labour productivity growth will continue over the projection horizon (Figure 4.21). The wage growth in the years 2020-2021 will be boosted by the announced strong increase in the minimum wage, but the weakening demand for labour will limit the scale of wage increases for the remaining group of employees. Business surveys results support this scenario. On the one hand, the share of companies declaring a wage increase in the next quarter (2018 Q4) has fallen and the share of enterprises planning significant wage increases has

[58] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector*, NBP, October 2019.
[59] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector*, NBP, October 2019.

also declined. On the other hand, the share of companies planning an increase both in average wage in the next 12 months and in their size, has risen[60].

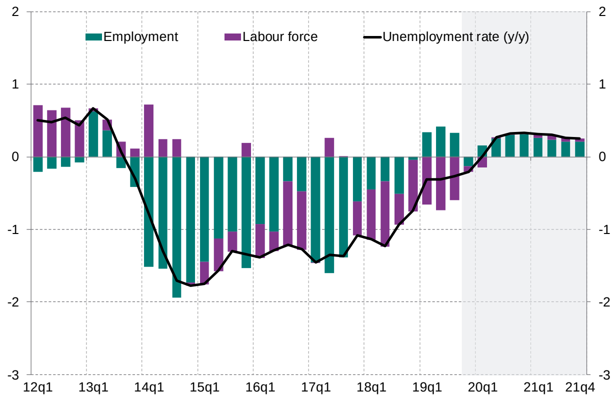
Over the projection horizon wage pressure will continue to be mitigated by the presence of immigrants, mainly from Ukraine[61]. Their importance for the labour market is growing along with a rise in the average length of stay in Poland and increasing presence in other occupational sectors of the economy. On the other hand, after a partial opening of the German labour market to non-EU citizens in 2020, the risk that a large number of Ukrainian workers will leave Poland and go to Germany is limited. Employment conditions in Germany will remain quite restrictive and at the same time there has been a marked deterioration in a country's economic performance in recent quarters, which may limit the demand for migrant workers.

Labour costs over the projection horizon will be increased - apart from a marked increase in the minimum wage - also by the introduction of the Employee Capital Plans, but the impact of this factor would be relatively weaker. The resulting increase in labour costs will be reflected in an acceleration of unit labour costs growth rate in 2020-2021. However, due to the forecasted slowdown of economic activity in Poland limiting labour demand as well as the presence of a significant number of migrant workers, the scale of this increase will be relatively small. As a result, the rate of unit labour costs growth will only slightly exceed 3% y/y (Figure 4.21).

Exchange rate

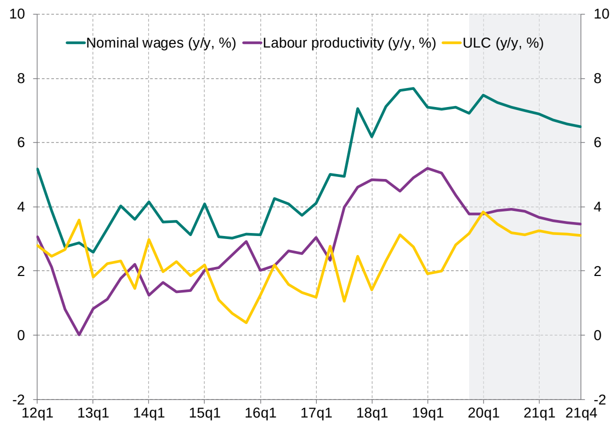
In recent period the zloty exchange rate remained relatively stable against the currencies of Poland's main trading partners, continuing to run below the level consistent with fundamentals.

Figure 4.20 Change in unemployment rate - decomposition



Source: Statistics Poland (GUS) data, NBP calculations.

Figure 4.21 Unit labour costs

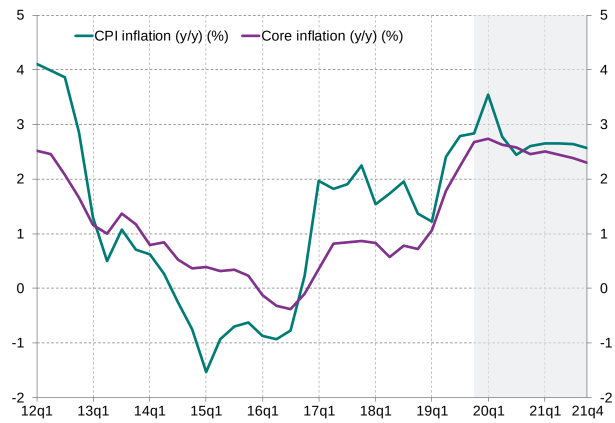


Source: Statistics Poland (GUS) data, NBP calculations.
Unit labour costs are defined as the average cost of labour per unit of output produced. They are calculated by dividing the total remuneration in the economy by the total GDP. Alternatively, they can be expressed as the quotient of the average wage and labour productivity, in other words, the relation of GDP to the number of the employed persons. Unit labor costs (ULC) presented in the chart include employers' social security contributions.

[60] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector*, NBP, October 2019.
[61] The projection also assumes a further inflow of immigrants from outside Ukraine to Poland.

Therefore, over the projection horizon the real effective exchange rate of the zloty is expected to strengthen, approaching gradually the equilibrium exchange rate. Such a scenario is supported by the projected favourable outlook for the domestic economy – strong GDP growth compared to the main trading partners, a record high joint current and capital account balance and sound public finances. The growing interest rate disparity will also act in the same direction. This is due to the assumed in the projection unchanged NBP interest rates against an expected interest rates cuts in the euro area, United States and United Kingdom.

Figure 4.22 CPI and core inflation

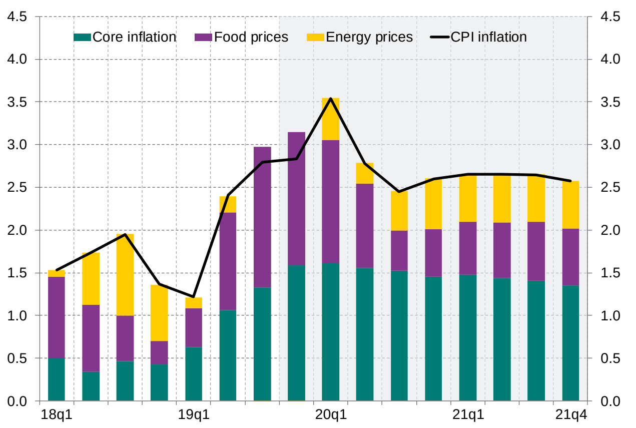


Source: Statistics Poland (GUS) data, NBP calculations.

CPI inflation

In the coming months CPI inflation will continue to grow. It will peak in 2020 Q1 to subsequently decline, running close to 2.5% till the end of 2021 (Figure 4.2, Figure 4.22). Higher CPI inflation, and, in particular, higher core inflation will result from heightened growth rate of labour costs over the projection horizon and a relatively strong demand pressure in the coming quarters. At the same time, unfavourable supply conditions increase the current level of food prices. Also energy price inflation is expected to increase once the electricity price freezing comes to an end in 2020 (Figure 4.24). In the longer projection horizon, as GDP growth declines, the demand pressure which is currently pushing up inflation, will gradually weaken. As a result, with the fading impact of supply disruptions on food prices, the inflation path will decline (Figure 4.23). CPI inflation throughout the projection horizon will be curbed by the slow price growth observed in Poland's main trading partners (Figure 4.5).

Figure 4.23 CPI inflation (y/y, %) – breakdown

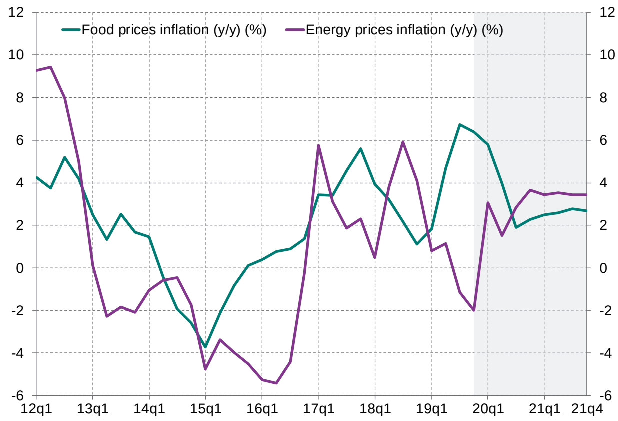


Source: Statistics Poland (GUS) data, NBP calculations.

The relatively high path of food prices in the coming quarters is largely due to the high growth of vegetable and fruit prices, driven by the poor harvests of 2018 and 2019 due to drought in agriculture. Heightened fruit and vegetable prices will be accompanied by a further increase in the prices of pork and processed meat. The increase is caused by China's high import demand for meat resulting from the ASF epidemic in this country, with a simultaneous decline in the pig population in the EU, including Poland. Along with the assumption of the normalisation of the weather conditions in the next economic season adopted in the projection as well as a gradual stabilization of the situation in the meat market, the growth rate of food prices in the further projection horizon will decline.

Until the end of 2019 CPI inflation will be affected by lower energy prices, driven by a fall in global energy commodity prices, including, primarily, crude oil as well as by the freezing of electricity prices to end-users, including households under the "Act of 28 December 2018 amending the Act on excise duty and certain other Acts". In the years 2020-2021, energy prices, consistently with the mechanisms of the model, accelerate, reflecting the lagged effect of higher costs of electricity production and higher wholesale electricity prices (amid a reduced excise tax and a transitional fee).

Figure 4.24 Food and energy price inflation



Source: Statistics Poland (GUS) data, NBP calculations.

4.4 Current versus previous projection

Data released after the cut-off date of the July projection have contributed to a downward revision of the GDP growth forecast. At the same time, the new data have brought an upward revision of forecasts of inflation for the current year, with a close-to-neutral impact on the expected price growth in the years 2020-2021 (Table 4.2, Figure 4.25, Figure 4.27).

Table 4.2 November projection versus July projection

	2019	2020	2021
GDP (y/y, %)			
November 2019	4.3	3.6	3.3
July 2019	4.5	4.0	3.5
CPI inflation (y/y, %)			
November 2019	2.3	2.8	2.6
July 2019	2.0	2.9	2.6

Source: NBP calculations.

GDP

As compared with the July projection, as some of the risks identified in that projection materialised, the outlook for growth in the external environment of the Polish economy deteriorated (see *External developments*). This contributed to probably lower reading of GDP growth in 2019 Q3 as well as to downward revision of domestic economic activity forecast in the longer projection horizon – as compared with the expectations from the previous forecasting round.

Weaker external demand and heightened uncertainty about the outlook for foreign trade have primarily affected the current and forecasted economic activity in the enterprise sector. Recent months have seen deteriorating sentiment in industry – including in the export-oriented branches – and construction, which was reflected, among others, in lower production in these sectors. Consequently, the current projection expects both lower private investment growth and slower growth of exports of goods and services. This year's contribution of net exports, which is higher than previously expected, is driven by lower import growth in 2019 Q2 than previously assumed, as a result of slowing growth of domestic demand.

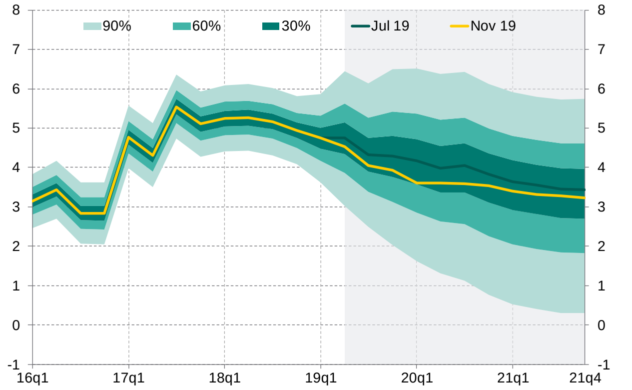
Household consumption growth in 2019 Q2 ran below the level assumed in the July projection, amid lower than expected growth in the number of the employed and wages in real terms. Yet, over the projection horizon private consumption growth should slightly exceed the levels assumed in the previous forecasting round. This will be supported by the legislative package planned and already introduced that includes thirteenth-month pension payments in the years 2020-2021 and the rise in the minimum wage as well as earlier implementation of the personal income tax rate cut from 18% to 17% – than previously assumed.

This will have a positive impact on disposable income of households, especially less wealthy ones, characterised by higher propensity to consume. On the other hand, the minimum wage rise may negatively affect the competitiveness of enterprises, increasing their costs. Thus, the negative supply effects will curb the positive impact of increased household demand on GDP.

Inflation

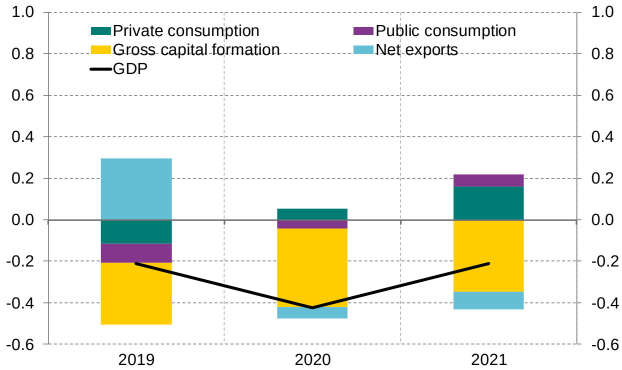
In line with the November projection CPI inflation in 2019 is most likely to run above the expectations

Figure 4.25 November projection versus July projection: GDP growth (y/y, %)



Source: NBP calculations.

Figure 4.26 Decomposition of deviations between November and July projection: GDP growth (percentage points)



Source: NBP calculations.

The data presented in the chart may vary slightly from those in Table 4.2, due to rounding of numbers to one decimal place.

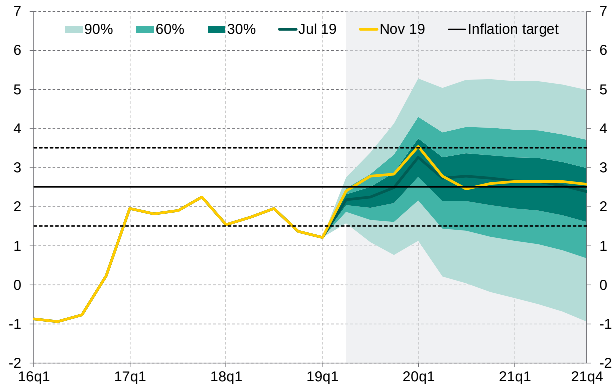
of the previous forecasting round (Figure 4.28). This will be driven to the largest extent by the higher than assumed growth in the prices of unprocessed food, in particular, fruit and vegetables, on the back of weather conditions which were extremely unfavourable for their harvest and storage. This year's consumer price growth is also boosted by the higher core inflation level than expected in the previous projection. This is connected with a faster growth in this price category in 2019 Q2 and Q3, mainly as a result of higher prices of services, affected by growing labour costs. Services price inflation was also increased by a sharp growth in the prices of housing services reflecting the launch of new, higher waste disposal charges by municipalities.

In the longer projection horizon, taking into account multidirectional impact of the factors observed since the cut-off date of the July projection on the CPI components, consumer price inflation will approach the expectations of the previous forecasting round.

On the one hand, inflation in the years 2020-2021 will be boosted by more rapid growth of prices of core inflation components. Higher core inflation growth is mainly driven by rising cost pressure in the economy, which is connected with the announcement of minimum wage increases. This is reflected in the growth of unit labour costs, which is higher than assumed in the previous projection. The impact of higher cost pressure on core inflation growth is partly curbed by lower demand pressure in the economy resulting from the slower GDP growth in the coming years as compared to the July projection.

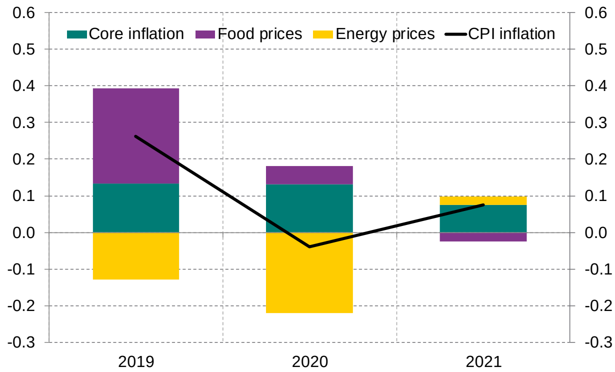
In 2020, consumer price inflation is also boosted by higher growth of domestic food prices, than assumed in the previous projection. It is the result of faster rise in pork prices in the coming years than previously expected, as indicated by futures contracts quotations. This increase is due to a slower than previously assumed rebound in pig

Figure 4.27 November projection versus July projection: CPI inflation (y/y, %)



Source: Statistics Poland (GUS) data, NBP calculations.

Figure 4.28 Decomposition of deviations between November and July projection: CPI inflation (percentage points)



Source: NBP calculations.

The data presented in the chart may vary slightly from those in Table 4.2, due to rounding of numbers to one decimal place.

population in China after its strong reduction following the ASF epidemic.

On the other hand, as compared to the previous projection, the growth in CPI inflation in 2020 is curbed by a slower growth of domestic energy prices. It is associated with lower energy commodity prices in the world markets.

4.5 Forecast uncertainty sources

The central scenario of the projection, presenting the most likely macroeconomic developments in Poland, is subject to uncertainty reflected in the fan charts (Figure 4.1, Figure 4.2). The most important source of risk for economic activity and inflation in Poland continue to be the global economic conditions. The balance of uncertainty factors in the case of GDP growth and, to a lesser extent, CPI inflation indicates a higher probability of outcomes below the central scenario (Table 4.3). Under the assumption of the unchanged NBP reference rate, the probability of CPI inflation running within the symmetrical band of deviations from the NBP inflation target (defined as 2.5% +/- 1 p.p. in the medium term) gradually declines to approx. 45% at the end of the projection horizon (Table 4.3).

Table 4.3 Probability of inflation running:

	Below 1.50%	Below 2.50%	Below 3.50%	Below the central projection	In the range (1.5-3.5%)
19q4	0.00	0.19	0.96	0.50	0.96
20q1	0.01	0.11	0.48	0.50	0.47
20q2	0.14	0.41	0.73	0.50	0.60
20q3	0.25	0.52	0.78	0.51	0.53
20q4	0.25	0.49	0.73	0.51	0.49
21q1	0.25	0.48	0.72	0.52	0.47
21q2	0.26	0.49	0.72	0.52	0.46
21q3	0.27	0.50	0.73	0.53	0.46
21q4	0.30	0.52	0.75	0.54	0.45

Source: NBP calculations.

Deteriorating growth prospects in the global economy

The risk of GDP growth in Poland running below the central scenario is mainly due to the possible weakening of business conditions in the world economy. Such a scenario is largely related to a further escalation of trade disputes and a decline in growth in the developed countries. An important risk factor remains also a no-deal Brexit.

In August 2019 the escalation of the trade conflict between the United States and China entered another stage. After China announced the imposition of new customs duties on US goods worth USD 75 billion (soybean, crude oil, as well as cars and their parts), the US administration imposed tariffs on subsequent batches of goods imported from China, simultaneously raising the existing duties on selected Chinese products. The last batch of goods imported from China worth about USD 150 billion not yet subject to punitive tariffs will be cleared on 15 December 2019. As a result, some of the risks identified in the previous forecasting round have materialized.

Moreover, in mid-October 2019 the United States imposed customs duties on imports of aircraft and selected industrial and agricultural products from the European Union (mainly from the United Kingdom, France, Germany and Spain, with the total value of goods of USD 7.5 billion).

The US administration imposed new tariffs as a retaliation for financial assistance to Airbus after the World Trade Organization (WTO) declared EU subsidies to Airbus illegal.

In the light of the above, the risk of further aggravation of trade conflicts persists, which could result in disruptions in global supply chains, and thus in a reduction of global trade and in shocks in international financial markets. Falling exports, deteriorating sentiment and growing uncertainty about the conditions for future economic activity would lead to a decline in GDP growth in the countries affected by trade disputes.

The economic situation in Europe would be particularly negatively affected by additional customs duties on EU imported cars and automotive spare parts with the total value in excess of USD 200 billion, whose imposition was announced by the United States in May 2019. The US administration postponed its final decision until November 2019. An increase in customs duties on passenger cars would exacerbate the situation in automotive sector of the euro area. Higher tariffs would to the largest extent affect the German economy, in which the export of cars and their parts in the first half of 2019 accounted for approx. 16.5%[62] of the total value of exported goods.

An important risk factor is also the possible stronger spillover of unfavorable business climate in the US and German industry to other sectors of these economies. In September 2019 the ISM manufacturing index in the US was below the level of 50 points for the second consecutive month, indicating the possibility of this sector entering the contraction phase of the business cycle. At the same time, PMI readings in German manufacturing have remained low since the beginning of 2019, signaling recessionary trends in this sector.

Should the poor performance of industry driven by the escalated trade disputes have a stronger pass-through to services, it could lead to a more pronounced slowdown in Germany and the United States than expected in the baseline projection scenario.

In the United States, the risk of lower growth is additionally associated with a possible larger decline in equity prices on US stock markets. Given the high share of financial assets in household asset holdings and the growing scale of issuance of risky debt instruments in the corporate sector, this would reduce consumption and private investment through deteriorating sentiment and wealth effect.

Another downside risk for economic activity in Poland's external environment is a no-deal Brexit. Both the United Kingdom and the European Union have taken a number of steps to limit the negative economic effects of such a scenario. Some of them concern customs tariffs – such as the planned unilateral temporary reduction of customs duties to zero on approx. 88% of British imports in the case of a no-deal Brexit. The UK Government is striving to roll over its trade agreements with non-EU countries on terms as close as possible to those it now enjoys as an EU member state. The already reached agreements account for approx. 8% of the British trade. Transition regulations would also apply to financial, transport and air services. Despite the above solutions, the no-deal Brexit would lead to increased uncertainty, an abrupt change in the principles for business operation in many areas of the economy and, as a result, a slowdown in GDP growth both in the UK and, to a lesser extent, in EU countries.

[62] *Eurostat, SITC*

Improvement in the global economy perspectives

On the other hand, there are some upside risks for the assumed GDP growth in the external environment of the Polish economy. The scenario of stronger economic activity of Poland's trading partners would entail the easing of trade disputes, involving the lowering of tariffs by the conflicting parties and the withdrawal of plans for further tariffs, which would lead to lower uncertainty, and improved consumer and business confidence. At the same time, a lack of further escalation of trade conflicts and gradual improvement in world trade could also result in stronger than assumed global economic activity. The recovery could be driven by a decline of the negative impact of existing trade conflicts on the condition of the industrial sector in Europe, the United States and China. Under these assumptions, the negative effects of global trade tensions on the remaining areas of these economies, including the services sector, would also fade faster.

The more expansive fiscal policy announced for the coming years in some European countries may also have a positive effect on economic activity in these countries, boosting GDP growth in Poland's economic environment above that assumed in the projection. In France, work is underway on cutting personal income tax and providing housing support. At the same time, structural reforms to be introduced in the pension system and regulations affecting the French labour market are being negotiated. In the United Kingdom an increase in budget expenditure in 2020 has been announced. The above-mentioned plans affecting fiscal policy have not been taken into account in the base scenario and are risk factors to higher growth in the immediate environment of the Polish economy.

The risk of better economic conditions abroad that assumed in the November projection is also connected with the possibility of a stronger than assumed positive impact of monetary policy easing by the Fed and the ECB.

More favourable economic conditions abroad would support an acceleration in domestic economic growth and a higher inflation path compared to the central scenario of the projection.

Energy commodity prices and the impact of energy sector conditions on inflation in Poland

Changes in prices of oil and other energy commodities, as well as contract prices of natural gas imported from Russia, continue to be a significant source of risk for the inflation path in the base projection scenario. Uncertainty also persists about the path of electricity prices for end users in Poland in the years 2020-2021.

Uncertainty about the path of energy commodity prices in the projection horizon is related to both supply- and demand-side factors. Geopolitical factors, above all an escalation of conflicts in the Middle East, might cause higher oil prices than assumed in the base scenario of the projection. A consequence of the tense situation in this region was September's attack by Yemen's Houthi rebels on oil refineries in Saudi Arabia, which temporarily limited global production of this commodity by approx. 5%. Due to the relatively high cost of extraction and transport of shale oil in relation to current oil prices, there is uncertainty about further growth in its supply in the United States. An additional risk is related to the supply policy of the OPEC countries. At the same time, demand for energy resources, which is to a large extent dependent on the global economic situation, continues to be a significant area of uncertainty for the path of oil prices. A possible escalation of trade conflicts, leading to lower global economic growth could hold commodity prices below the assumptions adopted in the central scenario of the projection.

The path of energy prices in Poland assumed in the November projection is also subject to uncertainty. In the base scenario it was assumed that the provisions of the Act freezing electricity prices for end users in 2019, which was adopted in December 2018, would not be extended. As a result, in the years 2020-2021 an increase in tariffs is forecast for the sale of electricity as a commodity. It was assumed that the impact of higher costs of electricity production on the prices for end users would be spread out in time. Possible changes in legal regulations limiting tariff increases would result in lower electricity prices than assumed in the projection. On the other hand, an increase in global prices of energy commodities and CO_2 emission allowances might persuade the Energy Regulatory Office to approve higher prices in the tariffing process than those assumed in the base scenario.

A risk factor with a downward effect on the path of energy prices in the current projection is the possible completion in 2019 of negotiations between PGNiG and Gazprom regarding the lowering of contract prices of natural gas, which began 5 years ago. The previous round of negotiations ended in 2012 with a significant reduction in these prices. Currently, it is also expected that as a result of the arbitration settlement in the Arbitration Tribunal in Stockholm, prices of natural gas imported to Poland will decline over the projection horizon. However, since there is no rigid timetable in which the arbitrage is to be settled, the date, as well as the scale of any possible price reduction, remains difficult to determine.

Table 4.4 Central path of inflation and GDP projection

	2017	2018	2019	2020	2021
Consumer Price Index CPI (%, y/y)	2.0	1.6	2.3	2.8	2.6
Core inflation net of food and energy prices (%, y/y)	0.7	0.7	1.9	2.6	2.4
Food prices (%, y/y)	4.2	2.6	4.9	3.5	2.6
Energy prices (%, y/y)	3.2	3.6	-0.3	2.8	3.5
GDP (%, y/y)	4.9	5.1	4.3	3.6	3.3
Domestic demand (%, y/y)	4.9	5.5	4.4	4.0	3.6
Household consumption (%, y/y)	4.5	4.5	4.2	4.5	4.1
Public consumption (%, y/y)	2.9	4.7	5.1	4.2	3.7
Gross fixed capital formation (%, y/y)	4.0	8.7	7.1	4.0	1.9
Contribution of net exports (percentage points, y/y)	0.3	-0.2	0.0	-0.4	-0.2
Exports (%, y/y)	9.5	6.3	4.2	3.4	3.8
Imports (%, y/y)	9.8	7.1	4.3	4.3	4.3
Gross wages (%, y/y)	5.3	7.2	7.1	7.2	6.7
Total employment (%, y/y)	1.4	0.4	-0.2	-0.3	-0.2
Unemployment rate (%)	4.9	3.8	3.6	3.8	4.1
NAWRU (%)	5.3	4.4	4.0	4.2	4.3
Labour force participation rate (%, y/y)	56.4	56.3	56.3	56.3	56.4
Labour productivity (%, y/y)	3.5	4.8	4.6	3.9	3.6
Unit labour cost (%, y/y)	1.9	2.4	2.6	3.4	3.2
Potential output (%, y/y)	3.6	3.7	3.7	3.6	3.6
Output gap (% potential GDP)	-0.8	0.6	1.3	1.3	1.0
Index of agricultural commodity prices (EUR; 2011=1.0)	0.90	0.86	0.91	0.95	0.97
Index of energy commodity prices (USD; 2011=1.0)	0.62	0.77	0.58	0.58	0.59
Inflation abroad (%, y/y)	1.1	1.5	1.8	1.9	1.7
GDP abroad (%, y/y)	2.6	1.9	1.2	1.1	1.3
Current and capital account balance (% GDP)	1.3	1.1	1.5	1.6	1.2
WIBOR 3M (%)	1.73	1.71	1.72	1.72	1.72

Source: Bloomberg, Eurostat, Statistics Poland (GUS), NBP calculations.

LFS data on total employment, labour force participation rate and unemployment rate. Index of agricultural prices is based on futures quoted mainly on European stock exchanges. Index includes prices of wheat, oilseed, pork, potatoes, sugar, cocoa, coffee, skimmed milk powder, butter and frozen concentrated orange juice allowing for weights reflecting the consumption structure of Polish households. The index of the prices of energy commodities includes the prices of crude oil, coal and natural gas allowing for the consumption structure of these commodities in Poland.

5. The voting of the Monetary Policy Council members in mid-May – September 2019

Date: 24 May 2019

Subject matter of motion or resolution:
Resolution No. 4/2019 of the Monetary Policy Council of 24 May 2019 on approving the report on the operations of the National Bank of Poland in 2018.

Voting of the MPC members:

For:	A. Glapiński	**Against:**	E. Gatnar
	G. M. Ancyparowicz		Ł. J. Hardt
	E. M. Łon		E. J. Osiatyński
	R. Sura		K. Zubelewicz
	J. Żyżyński		

J. J. Kropiwnicki was absent.

Date: 4 June 2019

Subject matter of motion or resolution:
Resolution No. 1/DRF/2019 of the Monetary Policy Council of 4 June 2019 on the appointment of a registered auditor for the Annual Financial Statements of the National Bank of Poland for years 2019 and 2020.

Voting of the MPC members:

For:	A. Glapiński	**Against:**	
	G. M. Ancyparowicz		
	E. Gatnar		
	Ł. J. Hardt		
	E. M. Łon		
	R. Sura		
	K. Zubelewicz		
	J. Żyżyński		

J. J. Kropiwnicki and E.J.Osiatyński were absent.

Date: 3 July 2019

Subject matter of motion or resolution:
Motion to raise the NBP interest rates by 0.25 percentage points.

MPC decision:
Motion did not pass.

Voting of the MPC members:

For:		**Against:**	
	E. Gatnar		A. Glapiński
	K. Zubelewicz		G. M. Ancyparowicz
			Ł. J. Hardt
			E. M. Łon
			E. J. Osiatyński
			R. Sura
			J. Żyżyński

J. J. Kropiwnicki was absent.

Date: 10 September 2019

Subject matter of motion or resolution:
Resolution No. 5/2019 of the Monetary Policy Council of 10 September 2019 on adopting monetary policy guidelines for 2020.

Voting of the MPC members:

For:		**Against:**	
	A. Glapiński		K. Zubelewicz
	G. M. Ancyparowicz		
	E. Gatnar		
	Ł. J. Hardt		
	E. M. Łon		
	E. J. Osiatyński		
	R. Sura		
	J. Żyżyński		

J. J. Kropiwnicki was absent.

Date: 11 September 2019

Subject matter of motion or resolution:
Motion to lower the NBP interest rates by 0.25 percentage points.

MPC decision:
Motion did not pass.

Voting of the MPC members:

For:	E. M. Łon
Against:	A. Glapiński G. M. Ancyparowicz E. Gatnar Ł. J. Hardt J. J. Kropiwnicki E. J. Osiatyński R. Sura K. Zubelewicz J. Żyżyński

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