NBP Narodowy Bank Polski

Monetary Policy Council

March 2020

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. As a rule, the cut-off date for the data in this *Report* was 20 February 2020. The *Report* also contains some important information that arrived up to 2 March 2020.

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

Contents

Summary

At the end of 2019, signs from the global economy pointed to a stabilisation of activity growth at a relatively low level. Indicators of business confidence were slowly rising, although they remained below their historical averages. At the same time, the volume of global trade and the number of new export orders continued to shrink. The conclusion of a partial trade agreement between the United States and China at the beginning of 2020 reduced the threat of a further escalation in the trade dispute between the two countries. Currently, global economic activity is being disturbed by the spread of coronavirus in China. Yet at this stage it is difficult to assess its impact on the global economic outlook.

Inflation in the world economy has risen in recent months, which was driven, above all, by supply-side factors. As a result of the spread of the African Swine Fever (ASF) epidemic, there was a further rise in pork prices, which triggered food price increases in many countries, including emerging market economies. Higher consumer price growth at the turn of the year was also due to the increase in annual energy price growth. At the same time, core inflation indices stabilised at moderate or low levels in the majority of advanced and emerging market economies.

Faced with the persistence of relatively low GDP growth and inflation in some economies, as well as the perspective of still rather weak economic growth around the world, the main central banks have continued tu run loose monetary policy in recent months. In particular, the European Central Bank, after the cut in the deposit rate in September 2019, is maintaining it at -0.50% and increases the Eurosystem's balance sheet. Moreover, the ECB indicates in its forward guidance that interest rates will remain at the current or lower level until inflation forecasts point clearly to its return to the ECB's target level. In turn, the Federal Reserve of the United States (the Fed), following three interest rate cuts in 2019, has been keeping interest rates unchanged since November 2019.

In recent months, there have been sharp sentiment swings in global financial markets. First, following the easing of the trade disputes between the United States and China, sentiment improved, but subsequently deteriorated with the spread of coronavirus and heightened fears about the global outlook. As a result, after a temporary rise, bond yields and equity prices in world markets have significantly declined in the recent period.

In 2019, consumer price growth in Poland amounted to 2.3%, and thus was compliant with the NBP inflation target (2.5% +/- 1 percentage point). In January 2020, according to preliminary Statistics Poland (GUS) data, CPI inflation rose to 4.4% y/y. The rise of inflation above the upper limit of band for deviations was due to supply-side and regulatory factors remaining beyond the impact of domestic monetary policy. It was driven by an increase in electricity prices for households, higher fuel prices, a rise of waste disposal charges, increases in excise taxes on alcoholic beverages and tobacco products, as well as further growth in unprocessed food prices. The favourable financial situation of households, including a rise in their income, and the related consumption demand growth also contributed to further price growth. Consumers' and businesses' survey opinions about price growth in the coming quarters shifted towards higher inflation. At the same time, experts participating in the December NBP Macroecononomic Survey expect that after a temporary increase in inflation in 2020, the following year will see the CPI index fall back close to the NBP inflation target. Also financial sector analysts' inflation expectations from January 2020 point to the return of inflation to the vicinity of the inflation target in 2021.

In the second half of 2019, economic conditions in Poland remained good, yet the annual rate of GDP growth decreased (real GDP growth amounted to 3.9% y/y in 2019 Q3 and 3.2% y/y in 2019 Q4, compared to 4.5% y/y in 2019 Q2). The slowdown in GDP growth resulted mainly from weak activity growth in the external environment of the Polish economy and lower consumption growth. Although consumption demand has lost some momentum in recent quarters, it continues to grow at a robust pace. Investment is also an important driver of GDP growth. A marked contribution to GDP growth has come from government expenditure on goods and services, reflecting increased spending on wages in the public sector. At the same time, amid relatively weak GDP growth in the global economy, foreign trade turnover slowned down further, although the contribution of net exports to GDP growth was significantly positive.

The still relatively favourable economic conditions are supportive of further, although decelerating employment growth. On the one hand, this is due to some weakening of demand for labour, and on the other hand, due to labour supply-side constraints. Amid rising employment and falling labour supply, the unemployment rate, which was already very low, continues to fall. As a result, the position of employees in wage negotiations remains strong, although according to the results of the NBP survey, wage pressure in enterprises is decreasing slightly. After some decline in 2019 Q4, nominal wage growth in the enterprise sector picked up somewhat in January 2020 and remains close to the average for the last two years. In 2019 Q4, the rate of wage growth in the economy was running at 6.9% y/y and was supported by dynamic wage rise in the public sector. Given the simultaneous decline in GDP growth, unit labour cost growth in 2019 Q4 increased to 3.9% y/y.

Changes in sentiment in financial markets and current inflation readings drove the yields on Polish government bonds in recent months. Polish government bond yields remained substantially below their average level of previous years, and below yields of most emerging market economies. In the recent period – similarly to the case of advanced economies – the Polish government bond yields declined. This reflects investors' favourable assessment of the Polish economy fundamentals, including the absence of material macroeconomic imbalances. At the same time, due to the currently observed deterioration of sentiment in global markets, the WIG index has significantly decreased. In turn, there was no significant change in the zloty exchange rate compared to the average of the second half of 2019.

In 2019 Q4, broad money (M3) growth in the economy slowed, which was driven by a weaker increase in household deposits. Also the growth rate of credit to the non-financial sector decelerated somewhat and, according to NBP estimates, ran below the nominal GDP growth. In turn, the housing market was in the expansion phase and the number of dwellings sold was large.

In the second half of 2019, the current account balance in terms of a four-quarter rolling sum improved compared to the first half of the year. The improvement was mainly the result of the higher balance of trade in goods than in the previous year. In the second half of 2019, also the financial account balance increased. The remaining external imbalance indicators likewise evidence that the Polish economy is well balanced.

Taking into account the above developments, the Monetary Policy Council keeps the NBP interest rates unchanged, including the reference rate at 1.50%. Market expectations point to possible cuts in the NBP interest rates 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 November 2019 and February 2020, together with the *Information from the meeting of the Monetary Policy Council* in March 2020. Minutes of the MPC meeting held in March will be published on 19 March 2020 and so will be included in the next *Report*. Chapter 5 presents the Monetary Policy Council voting records from the meetings held between October 2019 and January 2020. Furthermore, the *Report* includes a box: *The path of food price inflation in Poland in 2019*.

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 February 2020 – there is a 50-percent probability that the annual price growth will be in the range of 3.1-4.2% in 2020 (against 2.1-3.6% in the November 2019 projection), 1.7-3.6% in 2021 (compared to 1.6-3.6%) and 1.3-3.4% in 2022. At the same time, the annual GDP growth – according to this projection – will be with a 50-percent probability in the range of 2.5-3.9% in 2020 (compared to 2.7-4.4% in the November 2019 projection), 2.1-3.9% in 2021 (compared to 2.3-4.2%) and 1.8-3.7% in 2022.

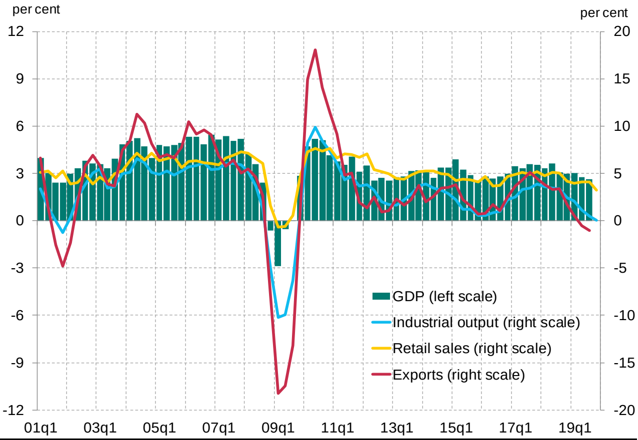
1. External developments

1.1 Economic activity abroad

At the end of 2019, signs from the global economy pointed to a stabilisation of activity growth at a relatively low level (Figure 1.1). Indicators of business confidence were slowly rising, although they remained below their historical averages, notably in the manufacturing sector, where they persisted at relatively low levels. At the same time, the volume of global trade and the number of new export orders continued to shrink. The conclusion of a partial trade agreement between the United States and China at the beginning of 2020 reduced the threat of a further escalation in the trade dispute between the two countries. Currently, global economic activity is being disturbed by the spread of coronavirus beyond China. Yet at this stage it is difficult to assess its impact on the global economic outlook.

In the euro area, the pace of economic growth decreased to 0.9% y/y in 2019 Q4, from 1.2% y/y in Q2 and Q3 (Figure 1.2). In 2019 Q3, the euro area economic activity was hampered by weak external demand, reflected in persistently sluggish export growth, a drop in manufacturing output and downbeat sentiment in companies of that sector. Amid the falling capacity utilisation of enterprises and elevated uncertainty about the demand outlook, growth in the euro area investment, including expenditure on machinery and equipment, slowed down.[1] Yet conditions for consumer demand remained favourable, even though wage bill growth gradually weakened, and

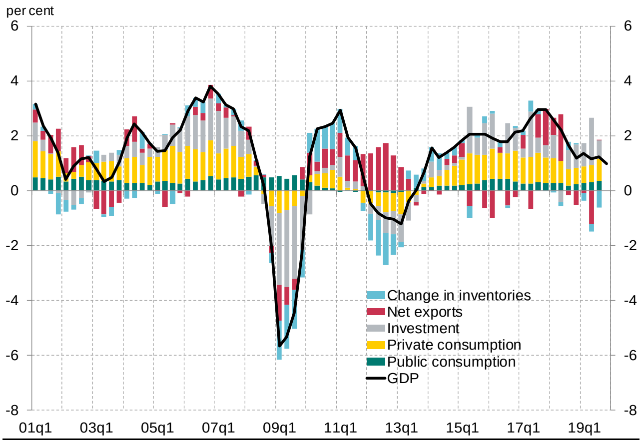
Figure 1.1 GDP growth and global economic activity indicators (y/y)



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.

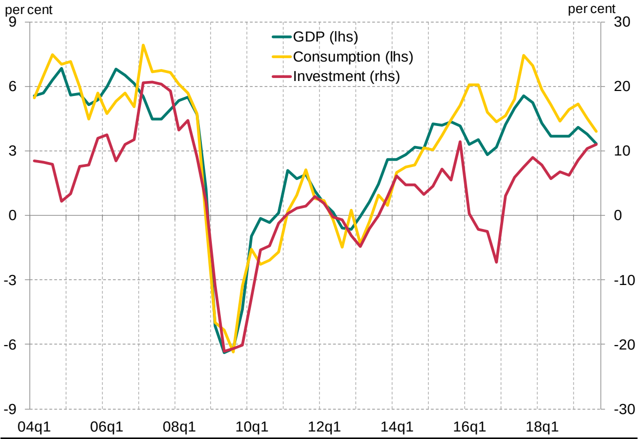
[1] Investment growth in 2019 Q2 was additionally increased by one-off transactions involving the assignment of intellectual property rights to companies based in Ireland, which did not occur in 2019 Q3.

household sentiment deteriorated somewhat. In the final months of 2019, also car sales picked up on the back of the anticipated rise in their prices due to regulatory and tax changes to take effect at the beginning of 2020. This could have been a factor supporting capital and consumption expenditure in the euro area at the end of 2019.

GDP growth in the German economy in the second half of 2019 remained weaker than on average in the euro area (running at 0.5% y/y in 2019 Q4, compared to 0.6% y/y in 2019 Q3 and 0.3% y/y in 2019 Q2[2]). Factors supporting GDP growth in 2019 Q3 included a pickup in household consumption and high value-added growth in construction. A downward effect on GDP growth came, in turn, from a deepening decline in activity in manufacturing. The sentiment of manufacturing companies improved slightly in 2019 Q4, despite a still relatively sharp fall in output.

In the countries of Central and Eastern Europe (CEE), the slowdown in economic growth is deepening (Figure 1.3). The declining pace of GDP growth is the effect of subdued external demand, but in some of the countries it also reflects a cyclical slowing of domestic demand, after its previous strong expansion. In 2019 Q3, GDP growth in the region dropped to 3.3% (compared to 3.8% in 2019 Q2), i.e. to the lowest point in almost three years. Preliminary data for 2019 Q4 point to further weakening of activity growth in the Czech Republic and in Hungary, while growth accelerated in Romania. The decomposition of GDP growth in 2019 Q3 shows that its decline was driven, above all, by weaker consumer demand growth. This growth had declined for the second quarter in a row, with a simultaneous marked slowdown in employment and a slight decline in the still relatively robust wage growth. In contrast, the high growth in gross investment outlays continued, supported by absorption of funds from

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.

[2] In q/q terms, in 2019 Q4 GDP in Germany remained unchanged compared to the previous quarter, following a rise of 0.2% q/q in 2019 Q3 and a decline of 0.2% q/q in 2019 Q2 (seasonally adjusted data).

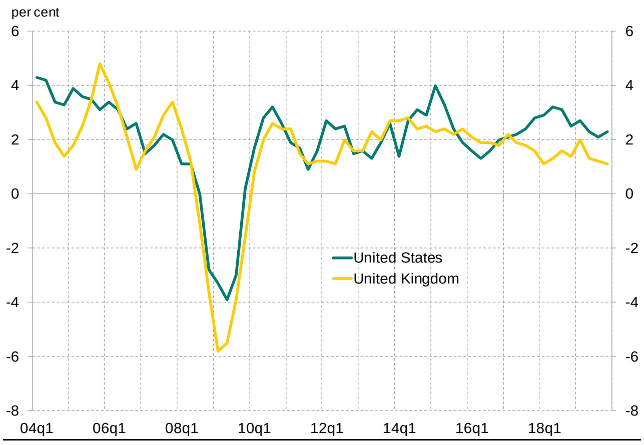
the EU structural funds; although the situation varied considerably across the individual countries of the region. The contribution of net exports remained negative, although due to a pickup in exports, especially to non-EU countries, it was smaller than in 2019 Q2.

In the United States, the pace of economic growth was relatively stable in the second half of 2019 (Figure 1.4).[3] Yet, the annual GDP growth picked up a little in 2019 Q4 (to 2.3% y/y from 2.1% y/y in 2019 Q3 and 2.3% in 2019 Q2) as a result of an improvement in the balance of trade. The latter was driven by a reduction in imports from China due to the trade dispute between the United States and China. In turn, the further slowdown in corporate investment amid weak business conditions in the manufacturing sector had the opposite effect. At the same time, private consumption growth remained stable in the second half of 2019, which benefited from the sustained employment growth and households' solid financial standing.

Economic growth in the United Kingdom slowed down marginally in 2019 Q4 (to 1.1% y/y, from 1.2% y/y in 2019 Q3[4]). Uncertainty about the terms on which the United Kingdom would exit the EU translated into considerable volatility of net exports and inventory levels in 2019. The heightened uncertainty coupled with weaker global economic conditions also contributed to a decline in corporate investment in 2019 Q4. In addition, consumption growth decelerated, which could be partially attributed to the signs of slowing wage growth. In contrast, public expenditure rose at a significant rate.

In China, economic growth stabilised at 6.0% y/y in 2019 Q4. This was supported by measures stimulating economic growth, including those in the area of fiscal and monetary policy, although

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



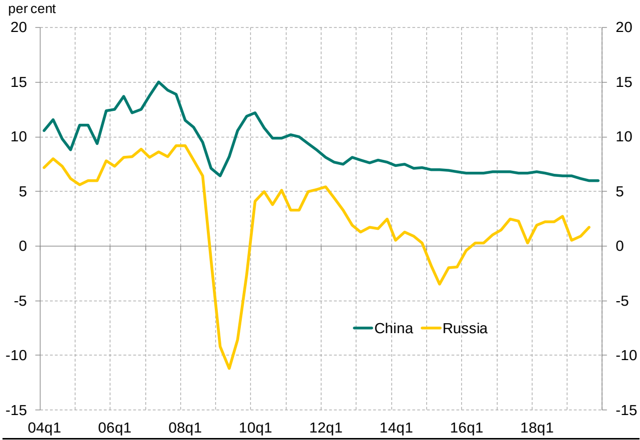
Source: Bloomberg data.

[3] In q/q terms, GDP growth in the United States in 2019 Q3 and Q4 stood at 2.1%, against 2.0% in 2019 Q2 (annualised data).
[4] In q/q terms, the UK's GDP remained unchanged in 2019 Q4 compared to the previous quarter, following a rise of 0.5% q/q in 2019 Q3 and a decline of 0.1% q/q in 2019 Q2 (seasonally adjusted data).

they were modest in comparison to previous periods (Figure 1.5). The spread of coronavirus is adversely affecting the Chinese economy, albeit the strength of this impact cannot be gauged at present.

In most of the remaining major emerging market economies, GDP growth increased in 2019 Q3, driven by the loosening of global financial conditions and – in most cases – the accommodative stance of domestic monetary policy. Economic activity gathered momentum, among others, in Russia and Brazil, and returned on a growth path in Turkey.

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

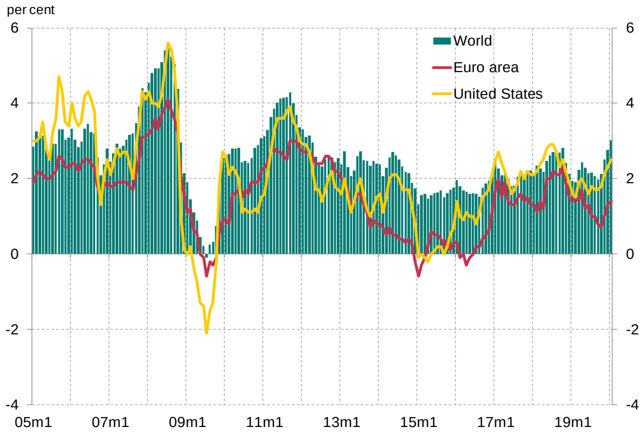


Source: Bloomberg data.

1.2 Inflationary developments abroad

Inflation in the world economy has risen in recent months (Figure 1.6). Global inflation was boosted, above all, by supply-side factors. As a result of the spread of the African Swine Fever (ASF) epidemic, there was a further rise in pork prices, which triggered food price increases in many countries, including emerging market economies.[5] Higher consumer price growth in December 2019 and January 2020 was also due to the increase in energy prices in annual terms. Alongside that, core inflation indices stabilised at moderate or low levels in the majority of advanced and emerging market economies.

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

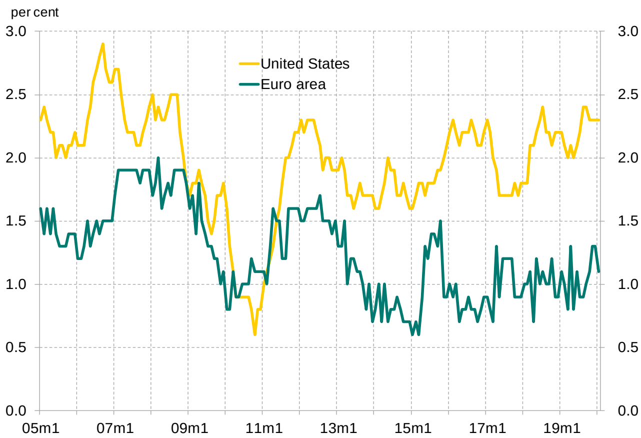


Source: Bloomberg data, NBP calculations.

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

HICP inflation in the euro area has risen in recent months, but is still running below the level consistent with the definition of price stability by the European Central Bank (ECB; inflation below, but close to 2%), while the levels of inflation in individual euro area economies continue to vary. In January 2020, HICP inflation in the euro area stood at 1.4% y/y (compared to 0.7% in October 2019). The higher level of inflation mainly reflected the increased energy price growth and rising prices of unprocessed food, while core inflation

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



Source: Bloomberg and Eurostat data.

The United States – annual CPI inflation less food and energy. Euro area – HICP inflation excluding energy, food, alcohol and tobacco.

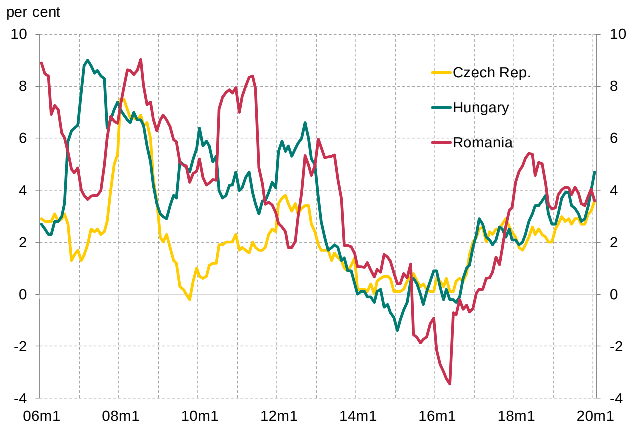
[5] In particular, in China the increase in pork prices caused inflation to rise to the highest level for 8 years.

remains low (in January 2020 it stood at 1.1% y/y; Figure 1.7).

In the United States, consumer price growth in recent months has also accelerated, but – unlike in the euro area – it remains higher than in many other developed economies (in January 2020, CPI inflation rose to 2.5% y/y from 2.3% y/y in December, and core inflation remained at the level of 2.3% y/y). The fact that inflation continues to run at a higher level than in other economies is supported by more than the decade-long economic recovery in the United States. This is reflected in the low unemployment rate and the relatively strong wage growth.

After a slight decline in 2019 Q3, inflation in the region of Central and Eastern Europe rose again in 2019 Q4 and at the beginning of 2020 (Figure 1.8). Like in many other countries, inflation in the CEE economies was boosted by faster growth in the prices of unprocessed food and energy. Core inflation in the majority of those countries remained at a stable but elevated level. This was driven by the still relatively high, although weakening, wage pressure and ongoing growth in consumer demand. As a result, consumer price growth in January 2020 in the Czech Republic, Romania and Hungary exceeded the upper bounds for deviations from inflation targets of these central banks (inflation in the Czech Republic and Romania stood at 3.6% y/y and in Hungary at 4.7% y/y).

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



Source: Bloomberg data.
Annual CPI inflation.

1.3 Global commodity markets

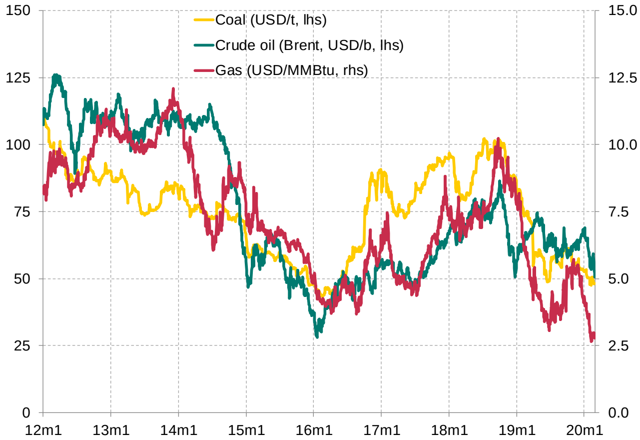
In 2019 Q4, global energy commodity markets saw prices changing in different directions (Figure 1.9). In particular, oil prices rose significantly, while hard coal and natural gas prices fell, with this trend being especially pronounced in the case of gas. However, from the beginning of 2020 energy commodity prices decreased markedly as a result of growing fears about the consequences of the spread of coronavirus. In turn, agricultural commodity prices have continued to rise markedly in recent months (Figure 1.10).

Oil prices are currently running lower than a year ago (at the end of February 2020 the price of Brent crude stood at approx. USD 50 per barrel). In 2019 Q4 and at the beginning of 2020 oil prices first rose and then dropped sharply.

At the end of 2019, the factors impacting the oil market were the decisions of the OPEC+ countries to reduce oil production as well as tensions between Iran and the United States, which resulted in heightened geopolitical risk. Restrictions on the export of oil from Iran due to the sanctions imposed by the United States additionally lowered the supply of oil. The US sanctions also caused production to fall in Venezuela, where the tense domestic situation is anyway putting downward pressure on production. In turn, increased production of this commodity in the United States had a stabilising effect on the oil market. At the same time, improved expectations about the global economic outlook as a result of the conclusion of a partial trade agreement between the United States and China at the turn of the year were conducive to the increases in oil prices recorded at that time. In January and February 2020, the factor which had the greatest impact on the oil market was the expansion of coronavirus, which caused a fall in demand for oil in China and rising concerns about the global economic outlook. For this reason, in January and February, oil prices fell sharply.

Natural gas prices are running significantly lower than their long-term average. After a temporary increase in 2019 Q3, gas prices declined and at the end of February 2020 were running at a level around 50% lower than a year earlier. The fall in prices was the result of lower demand for natural gas and an increase in its stocks, which was caused by higher average temperatures in the winter period than in previous years. The increased supply of liquefied natural gas (LNG) in Europe, due to, among others, rising production of shale gas in the United States, also depressed gas prices.

Figure 1.9 Energy commodity prices



Source: Bloomberg data, NBP calculations.

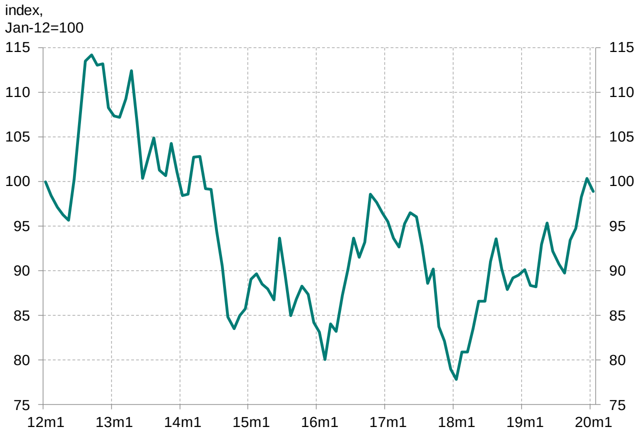
USD/b – price expressed in US dollar per barrel of oil. USD/t – price expressed in US dollar per metric tonne. USD/MMBtu – price expressed in US dollar per million of British Thermal Unit, i.e. unit representing a quantity of energy required to raise the temperature of 1 pound (approx. 0.45 kg) of water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

As in the case of the oil market, in recent weeks fears about the global economic outlook have caused gas prices to fall further.

Similarly, global prices of hard coal have declined in recent months (at the end of February 2020 they were over 30% lower than a year earlier).[6] This was due to the weak demand for coal in the energy sector in the face of higher average temperatures in the winter period than in previous years, as well as increased production of energy from substitute energy commodities: natural gas and renewable sources.

The prices of agricultural commodities in 2019 Q4 rose significantly, and their price index in December 2019 was running at the highest level for over five years. Although in January 2020 the index decreased slightly, it remained high (see also *Box: The path of food price inflation in Poland in 2019*). The main cause of food price growth around the world was the significant reduction in the pig population in China as a result of the ASF epidemic, which is reflected in a sharp increase in Chinese demand for pork in international markets. This was accompanied by an increase in the price of skimmed milk powder, also driven by a sharp increase in demand from China. At the same time, adverse weather conditions in Europe in 2019 translated into higher prices of certain vegetables and fruit.

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.

1.4 Monetary policy abroad

Faced with the persistence of relatively low GDP growth and inflation in some economies, as well as the perspective of still rather weak economic growth around the world, the main central banks have continued tu run loose monetary policy in recent months. Financial market participants in the largest economies expect monetary policy to stay accommodative or to be eased further in the

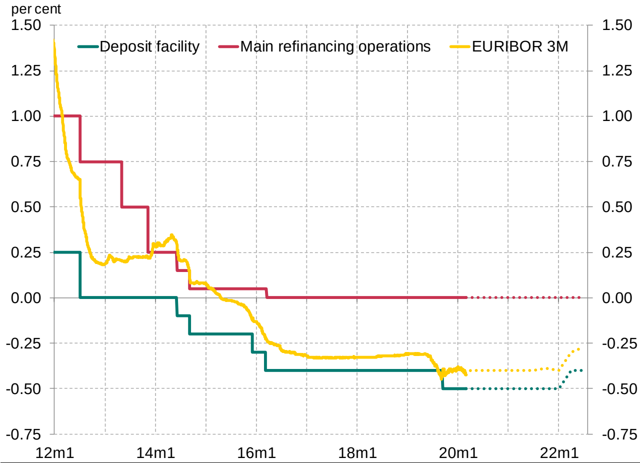
[6] The chart presents the API2 coal price index based on the prices of hard coal in the ports of Rotterdam, Amsterdam and Antwerp, which has replaced the Richards Bay (South Africa) coal price index, used in the previous editions of the *Report*. The change is a result of the unusual behaviour of the Richards Bay index in recent months compared to other indices.

coming quarters due to new risks for global economic outlook arising from the spread of coronavirus.

After the cut in the deposit rate in September 2019, the European Central Bank is maintaining it at -0.50%, while applying the so-called *tiering* system in order to limit the harmful impact of negative interest rates on the financial performance of the banking sector.[7] Moreover, the ECB indicates in its forward guidance that interest rates will remain at the current or lower level until inflation forecasts point clearly to its return to the ECB's target level.[8] Market analysts expect stabilisation of the ECB rates and market rates at their current levels at least until the end of 2021 (Figure 1.11). Starting from November 2019, the degree of accommodation in the ECB's monetary policy has been increased by the relaunch of the asset purchase programme in the amount of EUR 20 billion per month (Figure 1.13). Moreover, the ECB has been conducting the third series of the Targeted Longer-Term Refinancing Operations (TLTRO-III), the consecutive tranches of which will be allocated until 2021 Q1.[9]

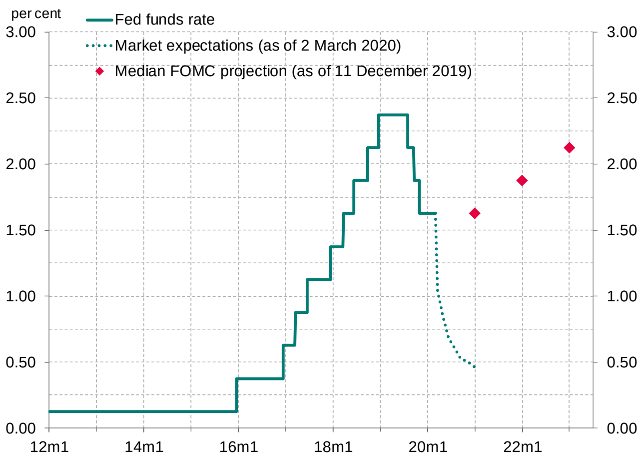
Following three interest rate cuts in 2019, the Federal Reserve of the United States (the Fed) has been keeping interest rates unchanged since November 2019. At present, the target range for the fed funds rate stands at 1.50-1.75%. The median forecast of the Federal Open Market Committee (FOMC) of December 2019 points to a stabilisation of interest rates in 2020. However, market participants expect a further easing of monetary policy in the United States (Figure 1.12) in order to support growth of the US economy in the face of continued risks for the global economic outlook, including the expansion of coronavirus. In reaction to the disturbances in the US money

Figure 1.11 Historical and expected interest rates in the euro area



Source: Bloomberg data.
Expected ECB interest rates and EURIBOR 3M based on the median of market analysts' expectations in Bloomberg February 2020 survey.

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.
Market expectations based on fed funds futures contracts.

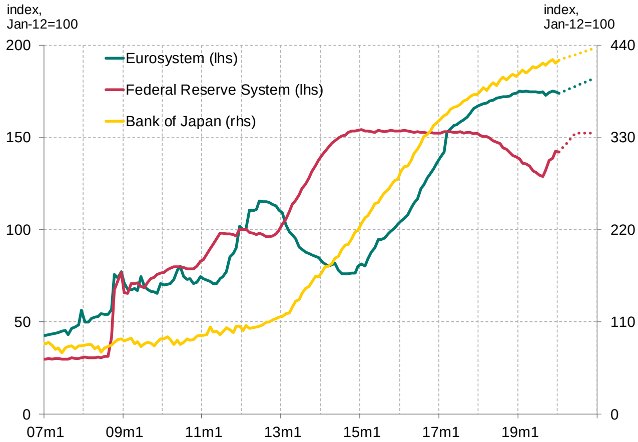
[7] In January 2020, the Governing Council of the ECB confirmed that it embarked on reviewing the ECB's monetary policy strategy.
[8] Excerpt from the ECB's press release after the meeting of the Governing Council of 23 January 2020: "The Governing Council expects the key ECB interest rates to remain 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."
[9] The repayments of refinancing obtained by commercial banks under TLTRO-III will continue until 2024 Q1.

market in September 2019, since October 2019 the Fed has conducted a Treasury bills purchase programme at a value of USD 60 billion per month and has conducted additional repo operations.[10]

The relatively poor global economic outlook, combined with local factors, have prompted the central banks of many emerging market economies to loosen monetary policy. In recent months, the banks of China, Brazil, Russia and Mexico were among those who have eased their monetary conditions.

Alongside that, Riksbank – having discontinued the policy of negative interest rates in recent months[11] – signals that it will continue its expansionary monetary policy, including keeping the main interest rate at zero as well as keeping its balance sheet at an elevated level. In turn, the Czech National Bank, which in February 2020 raised interest rates, at the same time published the projected path of interest rates, assuming the possibility of interest rate cuts in the second half of 2020.[12]

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



Source: FRED data, NBP calculations.

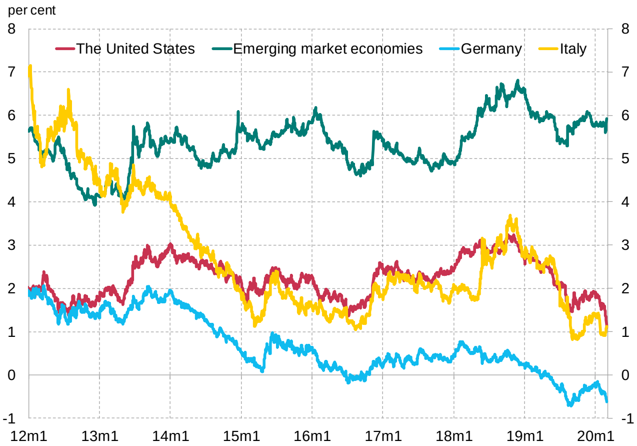
Forecast until December 2020: for the Eurosystem under an assumption of a monthly growth of 20 bln EUR, for the Bank of Japan under an assumption of extrapolation of the average growth observed in the period from February 2019 to January 2020, for the Federal Reserve System under an assumption of a monthly growth of 60 bln USD until June 2020 and stable balance sheet in consecutive months.

1.5 International financial markets

In recent months, there have been sharp sentiment swings in global financial markets. First, following the easing of the trade disputes between the United States and China, sentiment improved, but subsequently deteriorated with the spread of coronavirus and heightened fears about the global outlook. As a result, after a temporary rise, bond yields and equity prices in world markets have significantly declined in the recent period.

Against the background of relatively weak economic growth, particularly in some of the advanced economies, bond yields of this group of countries remain low (Figure 1.14). This is

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.

[10] These activities are to ensure a sufficient level of reserves in the US money market. The purchase of Treasury bills is to last at least until 2020 Q2, while the additional repo operations are to be carried out at least until April 2020.
[11] In December 2019, Riksbank raised the main interest rate by 0.25 pp to 0.00%.
[12] In February 2020, the Czech National Bank raised the main interest rate by 0.25 pp to 2.25%.

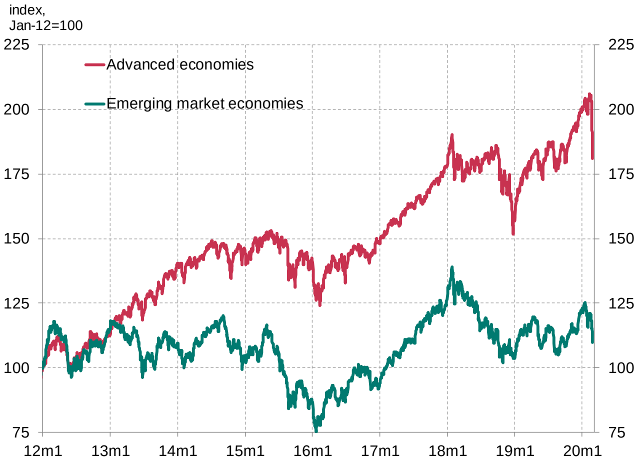
supported by the accommodative monetary policy of the main central banks (see chapter 1.4 *Monetary policy abroad*), and over the recent past also fears about the global economic prospects in the face of coronavirus expansion. Consequently, bond yields in some of the euro area states remained negative – in particular, the yields on German 10-year government bonds in February 2020 stood at -0.4% on average. The yields on the US 10-year Treasury bonds were 1.5%.

The loosening of monetary policy by the central banks of many emerging market economies, together with some improvement in sentiment in relation to these countries at the end of 2019, led to a decline in their average bond yields in recent months that stabilised at a level close to the average from the second half of 2019.

In the last months of 2019, equity prices rose both in advanced and in emerging market economies (Figure 1.15). As in the case of the bond market, the decisive factors supporting the valuation of share prices in the global markets were the loosening of monetary policy by many central banks over recent quarters, and the partial trade agreement between the United States and China (see chapter 1.1 *Economic activity abroad*). However, in the first months of 2020, investors' concerns about the spread of coronavirus translated into falls in equity prices, both in the advanced and emerging market economies.

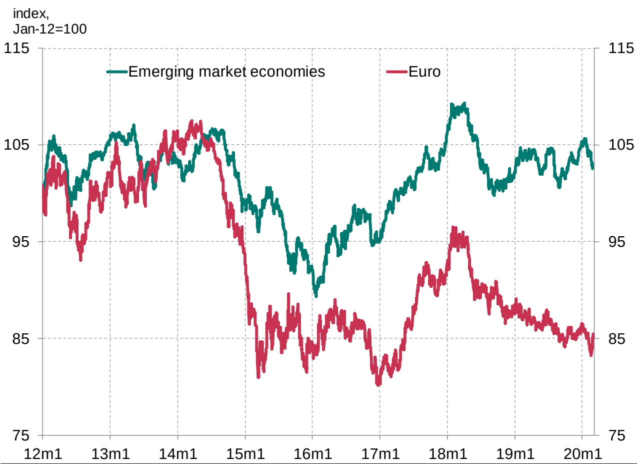
The exchange rate of the euro against the US dollar has weakened in recent months, reaching its lowest level for many quarters (Figure 1.16). This was the result of fears of a further deterioration in global economic conditions related to the expansion of coronavirus, which could have a greater impact on the relatively weaker euro area economy than on the United States. After an initial strengthening of their currencies – related to improved sentiment in global financial markets at the end of 2019 – emerging market economies also saw their currencies to weaken in the wake of fears about the spread of coronavirus. As a consequence

Figure 1.15 Equity prices



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

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.

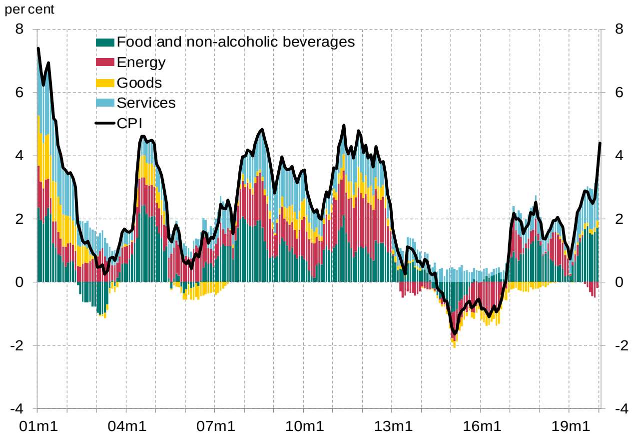
of these opposite changes, in February 2020 their exchange rates were close to their average for the second half of 2019.

2. Domestic economy

2.1 Consumer prices

In 2019, consumer price growth in Poland amounted to 2.3%, and thus was compliant with the NBP inflation target (2.5% +/- 1 percentage point). In January 2020, according to preliminary Statistics Poland (GUS) data, CPI inflation rose to 4.4% y/y (Figure 2.1).[13] The rise of inflation above the upper limit of band for deviations was due to supply-side and regulatory factors remaining beyond the impact of domestic monetary policy. It was driven by an increase in electricity prices for households, higher fuel prices, a rise of waste disposal charges, increases in excise taxes on alcoholic beverages and tobacco products, as well as further growth in unprocessed food prices. The favourable financial situation of households, including a rise in their income, and the related consumption demand growth also contributed to further price growth.

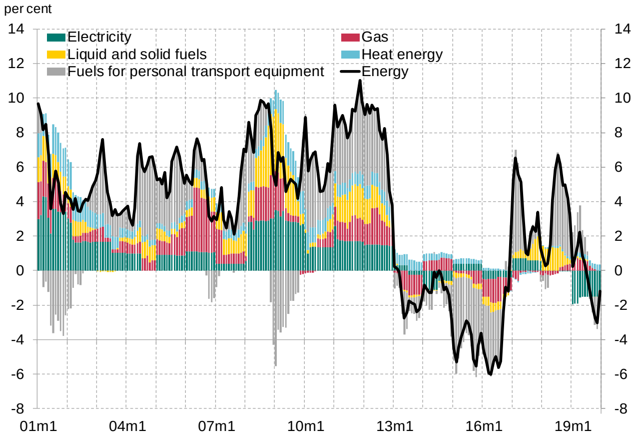
Figure 2.1 Composition of CPI inflation (y/y)



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

Energy price growth was negative since mid-2019 (Figure 2.2). This stemmed mainly from the freeze on electricity charges in 2019. Alongside that, the rise in fuel prices, which reflected growth in global crude oil prices in the second half of 2019, acted in the opposite direction (see also Chapter 1.3 *Global commodity markets*).[14] In January 2020, a further rise in fuel prices was accompanied by a significant increase in electricity prices related to higher tariffs introduced on the sale and distribution of electricity, additionally strengthened by a statistical base effect (stemming from reductions in

Figure 2.2 Energy price growth and its components (y/y)



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

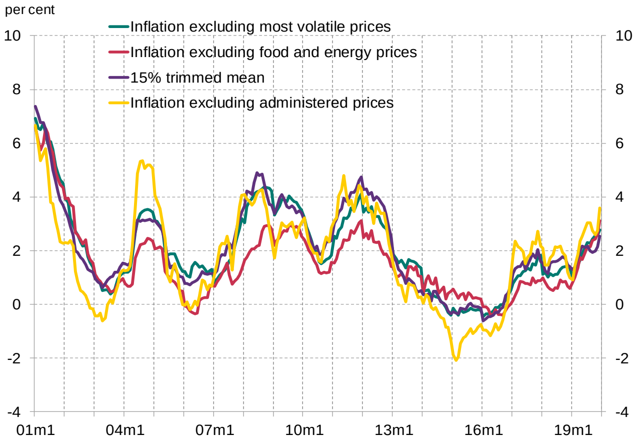
[13] Data on inflation in January 2020 may be revised after the reweighting of the CPI basket carried out by GUS at the beginning of each year. Due to the preliminary nature of the data, GUS has not published information on price changes of all the components of the CPI basket.
[14] In December, annual fuel price growth was additionally increased by a strong positive base effect.

both excise tax and transformation fee for energy at the beginning of 2019). As a result, energy price growth increased sharply in January 2020.

The recent months have also seen the faster growth of food prices (by 6.9% y/y in December 2019). This was underpinned by a sharp rise in unprocessed food prices, related primarily to the decline in the domestic and global supply of pork, and the resulting hike in pork prices in the European market (the effect of the spreading ASF epidemic). To a lesser extent, a sharp rise in unprocessed food prices also stemmed from reduced supply of fruit (due to unfavourable weather conditions in Poland, in particular the spring frosts and the summer drought in 2019). Alongside that, the rise in unprocessed food prices was constrained by the slowing growth of vegetable prices (the effect of larger supply of the later vegetable varieties due to improved domestic weather conditions following the dry spell). The acceleration of unprocessed food price growth was accompanied by relatively stable and slow growth in processed food prices (see also *Box: The path of food price inflation in Poland in 2019*). In January 2020, according to the NBP estimates, a further increase in food price growth occurred, which was still likely to reflect mainly the rising growth of unprocessed food prices, mostly those of meat.

The consistently favourable financial situation of households and the related consumption demand growth contributed to the rise in core inflation. In recent months, an additional factor that strongly pushed up core inflation was a significant rise of waste disposal charges. Inflation net of food and energy prices stood at 3.1% y/y in December (Figure 2.3). It was also driven by the accelerated (to 5.9% y/y) price growth in services, including primarily telecommunications services, which owed much to statistical base effects. These effects also translated into sharper growth of radio and TV fees.[15] Furthermore, there was an increase in

Figure 2.3 Core inflation indices (y/y)



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

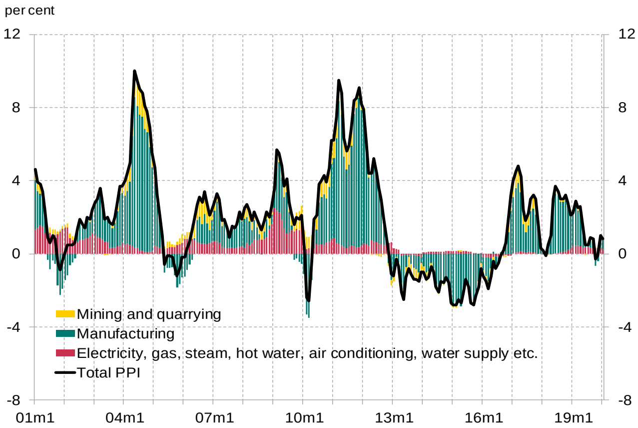
[15] The positive base effects in both groups of services were related to the promotions introduced in November 2018.

insurance premiums and prices of tourist services. Finally, the seasonal growth in international air fares in December was greater than in previous years. Alongside that, the prices of non-food products continued to grow at a slow pace (0.7% y/y). According to the NBP estimates, in January 2020, there was a slight rise in core inflation (to 3.2% y/y) due to somewhat stronger growth in the prices of non-food goods, with service price growth slowing down a bit. The rise in the prices of non-food goods was triggered mainly by those of excise goods (as a result of increases in excise taxes on alcoholic beverages and tobacco products).

Developments in producer prices in 2019 Q4 and at the beginning of 2020 largely reflected changes in global oil prices. Having initially declined slightly below zero, PPI growth turned positive starting from December 2019 (in January 2020 it stood at 0.8% y/y; Figure 2.4). Thus, despite some increase, PPI remained low, and its growth resulted chiefly from price developments in oil processing, additionally supported in recent months by rising producer price growth of non-durable consumer goods, particularly food products. Concurrently, the fall in the producer prices of supply goods, mostly metals and chemicals, had a curbing effect on PPI growth.

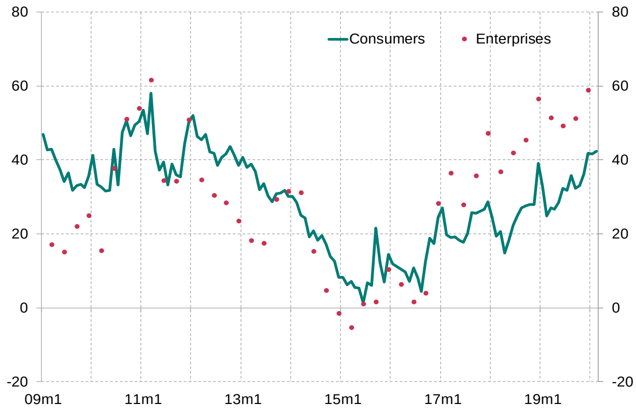
Consumers' and businesses' survey opinions about price growth in the coming quarters shifted towards higher inflation (Figure 2.5). At the same time, experts participating in the December NBP Macroecononomic Survey[16] expect that after a temporary increase in inflation in 2020, the following year will see the CPI index fall back close to the NBP inflation target. Also financial sector analysts' inflation expectations from January 2020 point to the return of inflation to the vicinity of the inflation target in 2021 (Figure 2.6). The median forecast of the financial sector analysts surveyed in January 2020 indicates that in 2021 Q1 inflation will

Figure 2.4 Composition of PPI inflation (y/y)



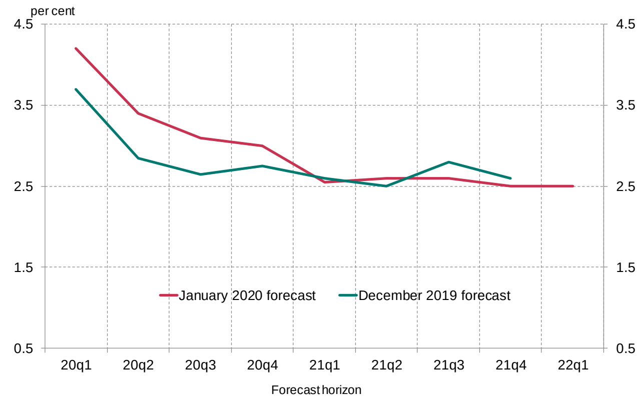
Source: Statistics Poland (GUS) and Eurostat data.

Figure 2.5 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 a 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.

Figure 2.6 Financial sector analysts' inflation forecasts



Source: Reuters data.
The median forecast of the analysts surveyed by Thomson Reuters.

[16] *NBP Survey of Professional Forecasters. Results of the NBP Macroeconomic Survey. December 2019*, NBP, No 4/2019.

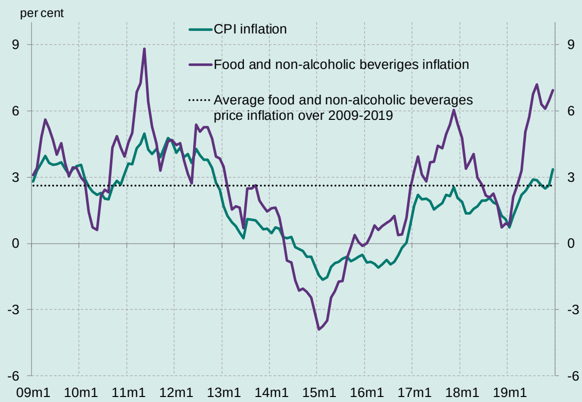
decrease to 2.6% y/y and remain close to that level throughout 2021.

Box: The path of food price inflation in Poland in 2019

Food price inflation in Poland increased from 0.8% y/y in January 2019 to 6.9% y/y in December 2019. Food prices grew faster than the prices of the whole consumer goods and services basket in 2019, with the pace of their growth exceeding the long-term average (Figure B.1). In average annual terms, the prices of food and non-alcoholic beverages rose by 4.9% y/y in 2019 (compared to 2.6% y/y in 2018), while the average annual CPI inflation stood at 2.3% y/y (against 1.6% y/y in 2018). Viewed in a long-term perspective, food prices in 2009-2019 had been growing at a moderate rate of 2.6% y/y on average.

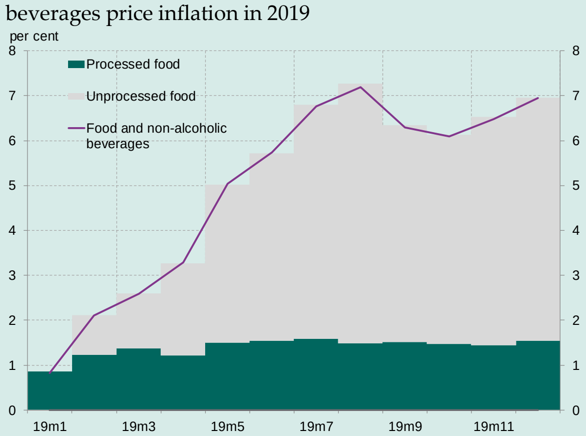
The main driver of the 2019 hike in the prices of food and non-alcoholic beverages was the rise in the prices of unprocessed food,[17] with processed food[18] prices growing, in annual terms, at a stable and slow pace. Following a gradual acceleration in processed food prices at the beginning of 2019,[19] in the subsequent months of 2019 inflation of this category strayed from 2.7% y/y only marginally. Thus, demand fluctuations, rising costs of labour and agricultural commodities in the domestic and global markets as well as higher electricity prices transmited into processed food price growth only to a limited degree. Inflation of unprocessed food prices, in turn, accelerated from 0.0% y/y in January 2019 to 12.0% y/y in December 2019, which means that the pickup in inflation of food and non-alcoholic beverages prices stemmed almost entirely from trends in unprocessed food prices (Figure B.2). The most important causes for such a sharp price rise in this category are presented further on in this Box.

Figure B.1 CPI inflation and food and non-alcoholic beverages price inflation in 2009-2019 (y/y)



Source: Statistics Poland (GUS) data.

Figure B.2 Decomposition of food and non-alcoholic beverages price inflation in 2019



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

The increase in food prices in 2019 was mainly due to supply-side factors – such as the ASF epidemic in China (the largest producer and consumer of pork in the world) and droughts which reduced vegetable and fruit crops. In 2019 Q1, the month-on-month change in food prices followed its seasonal pattern[20] (Figure B.3). Yet starting from April 2019, food prices in Poland rose much faster in monthly terms than the average of the past 10

[17] The basket of unprocessed food comprises meat, fish, fruit and vegetables.

[18] Processed food includes: bread and cereals, milk, cheeses and eggs, oils and fats, sugar, jam, honey, chocolate and confectionery, food products (not categorised elsewhere) and non-alcoholic beverages.

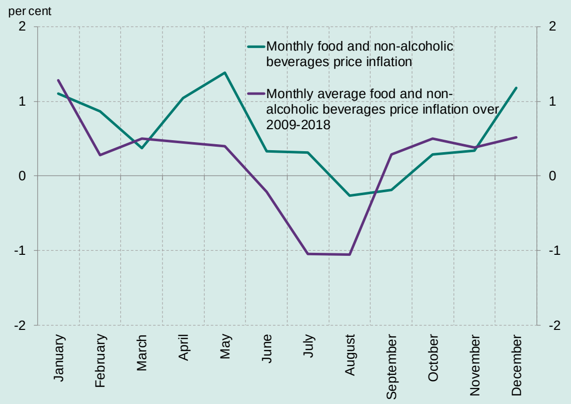
[19] The accelerated processed food price inflation in year-on-year terms at the beginning of 2019 was due to a rise in the prices of sugar (the effect of diminished supply), bread (a consequence of a decline in crops in Poland in 2018 and higher labour cost) as well as the fading of the statistical base effects related to the sharp increase in egg prices in the second half of 2017 and early 2018, after eggs contaminated with fipronil (a toxic substance not allowed in food production) had been discovered in most EU countries.

[20] February 2019 excepted, due to a sharp rise in vegetable prices.

years (2009-2018, Figure B.3). This translated into a substantial rise in food price inflation in year-on-year terms – from 2.6% y/y in March 2019 to 6.9% y/y in December 2019. This path of inflation, significantly exceeding the seasonal pattern derived from averaged price changes of 2009-2018, resulted largely from the following factors:

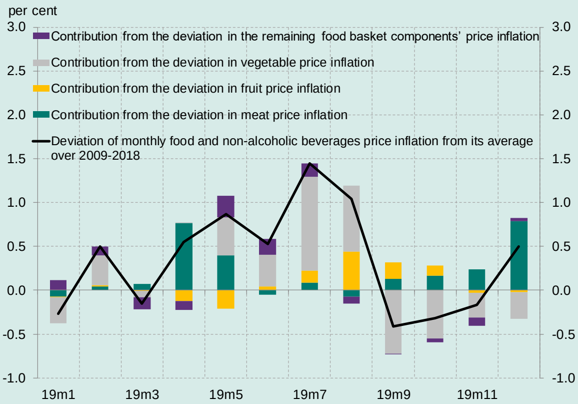
- *A sharp increase in the prices of meat in international markets, triggering their rise in the domestic market.* In 2019, pork and cured meat price growth picked up markedly in Poland (notably in April, May and December, Figure B.4), in the wake of the increase in meat prices abroad. This, in turn, resulted from the mounting shortage of pork in the Chinese market and a substantial rise in China's demand for this meat from countries not covered by the import ban.[21] The limited supply of pork in China is related to the ASF epidemic spreading in this country from August 2018, and subsequently in the other countries of South East Asia. Due to its outbreak, the population of pigs in China shrank substantially, as did their slaughter and the capacity to restore the herd.[22] As a result, China systematically supplements domestic pork shortages with imports. In 2019, China imported approx. 67% more pork than in 2018, and many European Union countries remained crucial partners in the exchange (EU exports to China in 2019 increased by approx. 78% y/y). Such a surge in demand caused a sharp rise in meat prices in the European market, which also boosted prices of meat and its products in Poland. According to Statistics Poland (GUS), the average price of porkers in Poland was 49.2% higher in December 2019 than the year before. In turn, consumer meat prices in general rose by 12.8% y/y in December 2019, including a rise of 11.9% y/y in cured meat prices and 23.6% y/y in pork prices.[23]

Figure B.3 Monthly food and non-alcoholic beverages price inflation in 2019 against its average over 2009-2018



Source: Statistics Poland (GUS) data, NBP calculations.
Monthly average inflation is calculated as the arithmetic mean of monthly food and non-alcoholic beverage price inflation observed for a given month over 2009-2018.

Figure B.4 Decomposition of the deviation of monthly food and non-alcoholic beverages price inflation from its average over 2009-2018



Source: Statistics Poland (GUS) data, NBP calculations.
The Figure depicts the decomposition of the differential between the paths presented in Figure B.3. The respective contributions reflect the impact of the deviations of monthly growth rates of prices of the main subaggregates of the food basket from their seasonal patterns, with weights of the respective food price components considered throughout calculations.

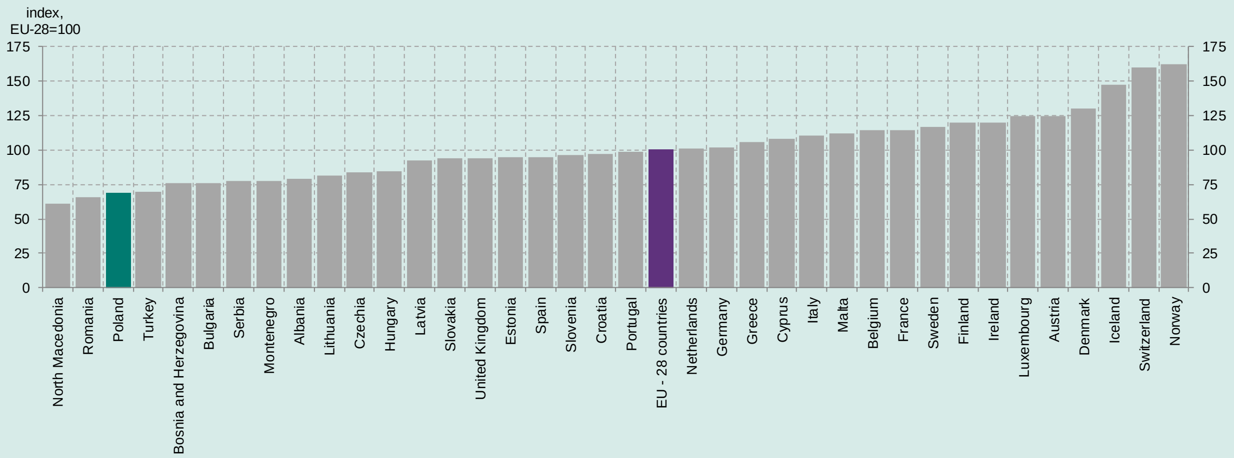
- *A significant rise in vegetable prices due to adverse weather conditions in Poland.* In February and May 2019, the monthly change in the prices of vegetables was running substantially above its seasonal pattern (Figure B.4), which was related to the drought Poland experienced in 2018 having a downward effect on vegetable output in 2018, their poorer quality (resulting in storage losses) and low supply of the very

[21] Due to lack of consideration to the so-called regionalisation principle, China imposed an absolute ban on pork imports from Poland in 2014, shortly after the first foci of ASF had been discovered in Poland.
[22] According to Bloomberg, the drop in pig population in China reached approx. 40% y/y in November 2019. The decline in pig population in this country is comparable to the size of the entire swine herd in the EU. The overall slaughter, on the other hand, decreased by an average of approx. 17% between January and November 2019 compared to the corresponding period of 2018; the number of sows fell by approx. 33%, to a mere 19 million, which, given the low average production efficiency in China, does not allow for more than 100 million pigs to be bred annually. For comparison, slaughter in 2018 exceeded 241 million pigs.
[23] In comparison, consumer pork prices increased in China in January 2020 by 116% y/y.

early vegetable varieties in 2019. In turn, in July and August 2019, the seasonal decline in the prices was exceptionally shallow, which was due to a new spell of drought in 2019. For a second consecutive year, major shortages of moisture occurred in the soil, and lack of downfall and extremely high temperatures in summer months contributed to a marked drop in vegetable supply – the aggregate output of soil-grown vegetables declined by approx. 13% y/y relative to the 2009-2018 average. From September 2019, conditions for vegetable vegetation improved, boosting the supply of the later varieties. As a result, vegetable price growth slowed down. This was also supported by the base effect materialising at that time. The annual vegetable price growth slowed down from 34.8% y/y in August 2019 to 12.3% y/y in December 2019.

- *A marked increase in fruit prices, as a consequence of unfavourable weather conditions in Poland.* The agrometeorological conditions in Poland in 2018 and 2019 also heavily influenced the supply of fruit, albeit due to the different cycle of fruit vegetation the impact was not the same as in the case of vegetables. Specifically, fruit supply in 2018 was record-high, which contained fruit prices growth even until April and May 2019. However, from June to October 2019 the monthly growth of fruit prices was running significantly above its seasonal pattern (Figure B.4). In particular, the significant price drop typically observed from July to September did not materialise. The increase in fruit prices at that point was caused by a marked decline in their output due to losses caused by spring frosts occurring at the time of blossom and fruit setting. At the same time, as in the case of vegetables, the substantial shortage of downfall and extremely high temperatures during summer months reduced the crops further. In effect, although fruit output declined by a mere 1% on the 2009-2018 average, it fell by more than 24% in comparison to 2018, which boosted fruit prices by 12.1% y/y in December 2019.

Figure B.5 Price level indices for food and non-alcoholic beverages in selected economies in 2018.



Source: Eurostat data.

Despite the fast rise in food prices in 2019, their level is probably still substantially lower in Poland than in most EU countries. Although latest available data relate to 2018, considering the large difference observed then between the level of food prices in Poland and the EU average, the ranking presented above should not be expected to have changed significantly (Figure B.5). Eurostat data show that, adjusted for the population's purchasing power, food prices in Poland were over 30% lower than the EU average in 2018, and could be counted among the lowest in Europe (lower prices were only recorded in Romania and North Macedonia). Food in Poland has also been cheaper than in the economies of Central and Eastern Europe. One of the factors having a curbing effect on food prices is intensive competition in the domestic retail market.

2.2 Demand and output

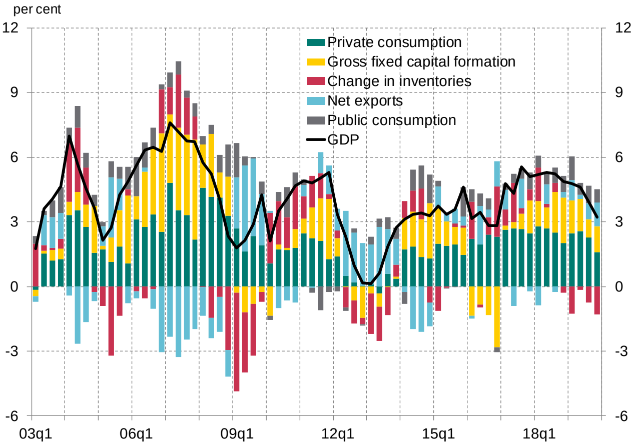
In the second half of 2019, economic conditions in Poland remained good, yet the annual rate of GDP growth decreased (real GDP growth amounted to 3.9% y/y in 2019 Q3 and 3.2% y/y in 2019 Q4, compared to 4.5% y/y in 2019 Q2; Figure 2.7; Table 2.1). The slowdown in GDP growth resulted mainly from weak activity growth in the external environment of the Polish economy and lower consumption growth.

Consumption demand continues to be the main growth driver, even though it has lost some momentum in recent quarters. Consumption demand is still supported by favourable position of employees in the labour market, payment of social benefits, high consumer confidence and expanding consumer credit (see also *2.6 Money and credit*). The extension of the "Family 500 plus" programme and the reduction in income tax are also supportive of consumption growth, though recently the additional disposable income from these sources seems to have been saved to a greater degree than before. At the same time, consumption growth is dampened by decelerating real growth in labour income, which is due to the increasingly weaker employment growth and higher inflation.

Investment is also an important driver of GDP growth, though its growth was slower in the second half of 2019 than in previous quarters. Investment growth was curbed by a decline in public investment, stemming from slower growth in the absorption of EU funds and the completion of investment projects related to the local government elections. Alongside that, the capital expenditure of firms, particularly private ones, continued to grow at a robust pace, warranted by high capacity utilisation and relatively favourable economic conditions.

Moreover, a marked contribution to GDP growth has come from government expenditure on goods

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



Source: Statistics Poland (GUS) data.

Table 2.1 GDP growth and its contributions (y/y, per cent)

	2017				2018				2019			
	q1	q2	q3	q4	q1	q2	q3	q4	q1	q2	q3	q4
GDP	**4.8**	**4.3**	**5.5**	**5.1**	**5.2**	**5.3**	**5.2**	**4.9**	**4.8**	**4.6**	**3.9**	**3.2**
Private consumption	2.6	2.7	2.7	2.5	2.8	2.7	2.5	2.0	2.5	2.6	2.3	1.6
Public consumption	0.3	0.4	0.5	0.8	0.5	0.6	0.7	0.7	1.1	0.5	0.8	0.6
Gross fixed capital formation	0.2	0.3	0.7	1.5	1.2	1.0	1.9	2.1	1.5	1.5	0.8	1.2
Change in inventories	0.7	1.8	0.3	0.5	1.6	0.2	0.4	-0.3	-1.3	-0.2	-0.7	-1.3
Net exports	0.9	-0.9	1.3	-0.2	-0.9	0.9	-0.3	0.2	1.0	0.2	0.8	1.1

Source: Statistics Poland (GUS) data.

and services, reflecting increased spending on wages in the public sector.

In 2019 Q3 and Q4, the contribution of net exports to GDP growth was significantly positive, which resulted from a deeper slowdown in the growth of imports than that of exports. At the same time, growth in foreign trade turnover is slow. With regard to exports, this is connected with sluggish activity growth in the external environment of the Polish economy, while in the case of imports it results from weaker domestic demand growth than in previous quarters.

2.2.1 Consumption

Consumption remains the main source of economic growth in Poland. However, in 2019 Q4, the pace of household consumption growth declined to 3.3% y/y compared to 3.9% y/y in 2019 Q3 (Figure 2.8).

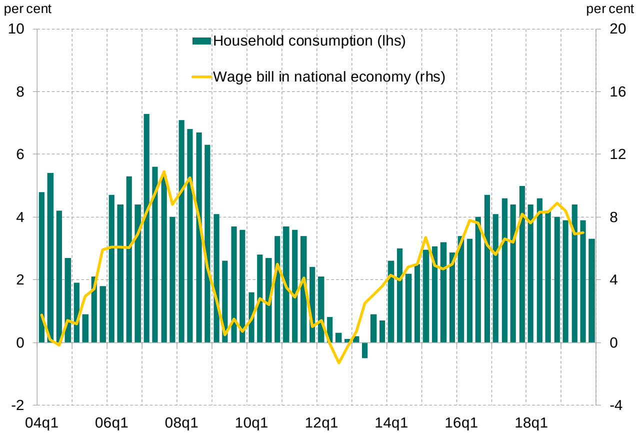
The rise in consumption in the second half of 2019 was underpinned by the consistently strong financial position of households, resulting from a relatively high growth of the wage bill, the extension of the "Family 500 Plus" programme, the reduction of the personal income tax rates as well as increasing consumer credit (see Chapter 2.4 *Labour market* and Chapter 2.6 *Money and credit*).

Household consumption was also supported by consumer optimism. Despite a slight deterioration in consumer sentiment in 2019 Q4, consumer confidence indicators continue at a high level (Figure 2.9).

2.2.2 Investment

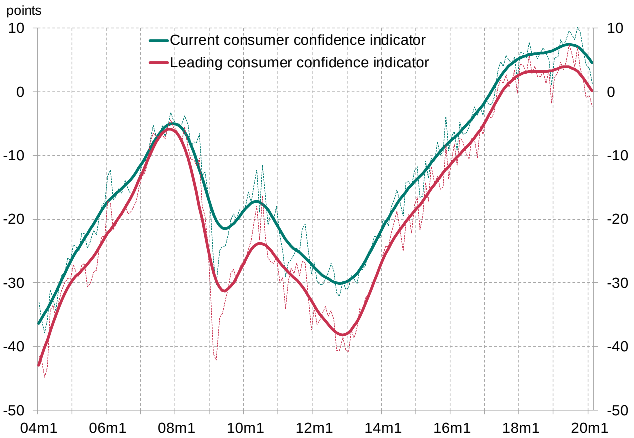
In the second half of 2019 investment continued to rise. In 2019 Q3, gross fixed capital formation increased by 4.7% y/y, followed by a growth of 4.9% y/y in 2019 Q4 (Figure 2.10). According to NBP estimates, investment growth in the economy is primarily underpinned by rising corporate investment. A decline in public investment, in turn,

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



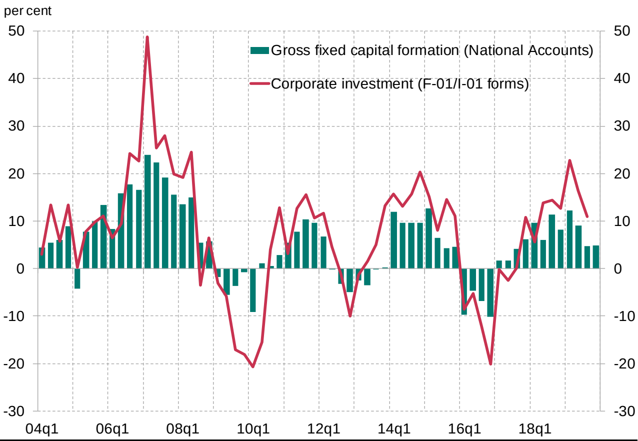
Source: Statistics Poland (GUS) data, NBP calculations.

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).

has a dampening effect on gross fixed capital formation.

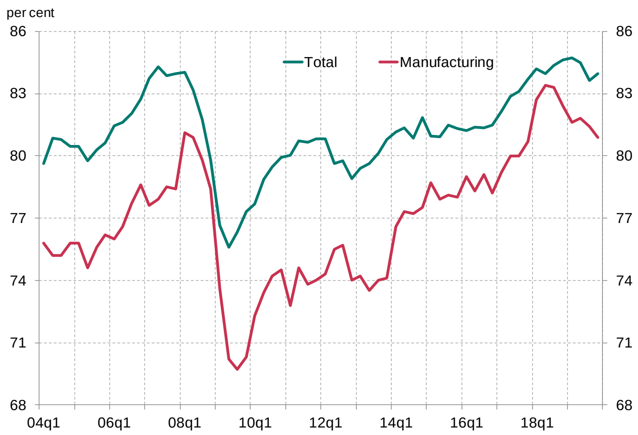
Investment growth is supported by the still relatively strong domestic economic conditions and high capacity utilisation (Figure 2.11). At the same time, weakening forecasts of demand growth, including those of foreign demand, coupled with heightened uncertainty about the general economic outlook, put a downward pressure on gross fixed capital formation growth. In addition, investment growth is curbed, especially in the public sector, by slower inflow of EU funds and the completion of many investment projects by local governments.

Investment growth of the large and medium-sized enterprises remained relatively robust in 2019 Q3, albeit it had declined to 10.9% y/y (from 16.4% y/y in 2019 Q2; Figure 2.10). Corporate investment activity was constrained by the markedly weaker public investment growth, while private investment growth remained relatively strong. Alongside that, according to the preliminary Statistics Poland (GUS) estimates, 2019 Q3 saw a pickup of investment growth in the micro- and small enterprise segment.

In 2019 Q3, investment growth of the large and medium-sized enterprises remained positive across all the sectors except for construction (Figure 2.12). Expenditure on machinery and devices made the largest contribution to the growth of investment outlays.

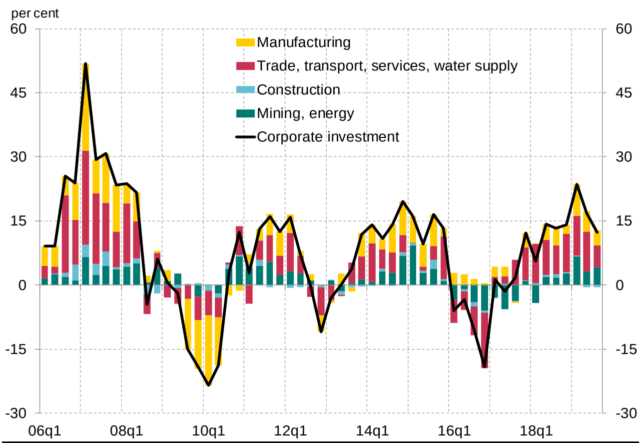
According to NBP estimates, public investment continued to fall in year-on-year terms throughout 2019 Q3 and Q4. This was due to lower investment expenditure by local government units, following its sharp rise in 2018 on the back of, among others, the implementation of numerous investment projects ahead of the local elections, and the decline in investment outlays financed from the National Road Fund.

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 large and medium-sized enterprises by sectors (y/y, current prices)



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

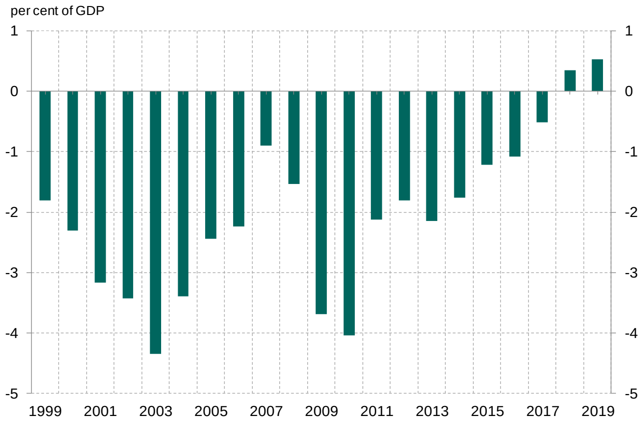
2.2.3 Public finance[24]

Following a decline in the general government deficit in 2018 to an exceptionally low level (0.2% of GDP), the deficit probably increased in 2019. In the *Convergence Programme. 2019 Update* (April 2019) it was assumed that the deficit would grow to 1.7% of GDP. Yet the favourable situation of public finances in the first three quarters of 2019[25] (Figure 2.13) suggests that the sector's deficit was probably running significantly below this level in 2019.

The public finance deficit in 2019 was increased by the implementation of the measures contained in the fiscal package of February 2019 (among others, the extension of the "Family 500 plus" programme, the payment of the so-called thirteenth pension and reductions in personal income tax, the total cost of which amounted to 0.9% of GDP) and decisions aimed at counteracting the increase in electricity prices for end-users (estimated at 0.4% of GDP, including the one-off expenditure on compensation for energy companies amounting to 0.2% of GDP[26]). At the same time, the growth of contributions to the social security funds and income taxes was relatively high in the first three quarters of 2019 (9.1% y/y and 13.8% y/y, respectively), which was supported by the continued favourable economic situation.

The *2020 Draft Budget Act*, adopted by the government at the end of December 2019, envisages – for the first time since 1990 – a balance of incomes and expenditures of the state budget. In turn, according to government estimates, in 2020 the public finance deficit will amount to 1.2% of GDP (under the conservative assumption of full

Figure 2.13 Balance of general government sector in January-September of the given year (ESA2010)



Source: MF data, NBP calculations.

Figure depicts the ratio of balance of general government sector to GDP in the entire year.

[24] Data discussed in this chapter refer to the figures calculated in line with the ESA2010 methodology (unless otherwise stated).

[25] The surplus of the general government sector recorded in the first three quarters of 2019 was PLN 4.6 billion higher than the surplus recorded in the same period of 2018 (PLN 12.1 billion against PLN 7.5 billion). In 2019 Q4, the sector's performance probably deteriorated more than a year earlier due to, among others, an accumulation in this period of one-off expenditure on compensation for energy companies distributing or trading electrical energy for freezing tariffs and prices for end users in 2019, as well as changes regarding reductions in personal income tax (PIT).

[26] Expenditure on compensation for energy companies distributing or trading electrical energy.

utilisation of the expenditure limits),[27] and 2.2% of GDP after excluding one-off factors (among others, the transformation fee, which will cause a one-off increase in income).

The draft state budget for 2020 takes into account the financing of the year-round costs of legislative changes contained in the above-mentioned fiscal package, which entered into force in 2019, as well as supplementary benefits for persons unable to live independently introduced in autumn 2019. The *2020 Draft Budget Act* also provides for more favourable rules for the indexation of retirement and disability benefits (at a cost of 0.1% of GDP) as well as higher wage increases[28] than in 2019 for state sector employees (at a cost of 0.2% of GDP). From the perspective of the impact on the performance of the public sector, the increase in excise tax on tobacco products and alcohol[29] as well as the announced taxation of, among others, sweetened beverages (in total 0.1% of GDP), will compensate the costs of implementing the above-mentioned changes to a small extent.

In the NBP view,[30] the changes in fiscal policy introduced in 2019 and 2020, including the provisions of the draft *Act*, will boost GDP growth in 2020, and will therefore mitigate the scale of the expected economic slowdown. At the same time, they will also exert an upward pressure on inflation in 2020.

2.2.4 External trade[31]

In the second half of 2019 – against the background of relatively low global GDP growth – there was a further slowdown in Poland's external trade. However, in 2019 Q3 and Q4, growth in the value of exports of goods exceeded that in imports, which translated into the continued surplus in the trade

[27] The expenditure limits are a result of the so-called stabilising expenditure rule. See the justification for the *2020 Draft Budget Act*, p. 220.
[28] The index of the annual average wage increase was assumed at a level of 6.0% (against 2.3% in the *2019 Budget Act*).
[29] The increase amounts to 10% and entered into force in January 2020 (see *Act of 21 November 2019 amending the Act on excise duty*).
[30] See *Opinion of the Monetary Policy Council on the 2020 Draft Budget Act adopted by the Council of Ministers on 23 December 2019*, p. 5.
[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 their breakdown.

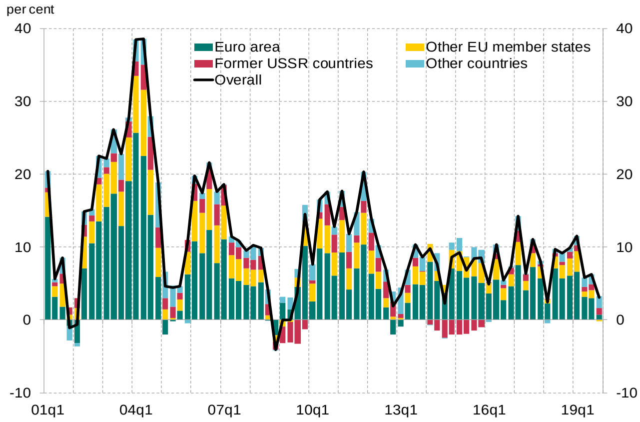
in goods. Available data on the trade in services indicate that in 2019 Q3 also a record high surplus in the trade in services was seen.[32] However, due to the lack of full data on the trade in services in 2019 Q4 and the lack of a detailed breakdown of the value of services by type of services and destination countries, the following description of the trends in external trade is restricted to data on trade in goods.

After a temporary reversal of the decline in export growth in goods in 2019 Q3 (with exports accelerating slightly – to 6.2% y/y from 5.8% y/y in 2019 Q2), in 2019 Q4 export growth continued to decrease (to 3.1% y/y; Figure 2.14).The slowdown was recorded, above all, in export growth to the euro area and the remaining EU countries. In contrast, in the second half of 2019, growth in exports to countries outside the European Union, and in particular, to countries of the former USSR, increased and ran at a relatively high level.[33] The decline in export growth in goods occurred mainly in intermediate goods.

Despite an appreciation of the exchange rate of the zloty in 2019 Q4 (Figure 2.15), in the second half of 2019 the percentage of enterprises reporting unprofitable exports remained close to record low levels. Likewise, the exchange rate of the zloty did not pose a barrier to import profitability.[34]

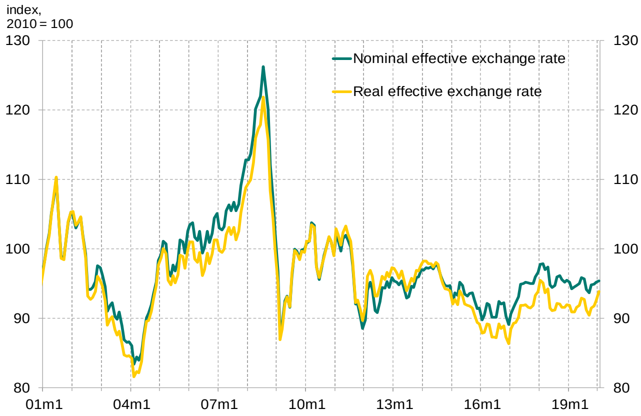
In the second half of 2019, growth in the value of imports of goods fell sharply – to 3.2% y/y in 2019 Q3 and -1.8% y/y in 2019 Q4 (compared to 5.3% y/y in 2019 Q2; Figure 2.16). The decline in import growth took place in most groups of goods. In particular, negative growth in imports was recorded in intermediate goods, including supply goods and fuels.

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



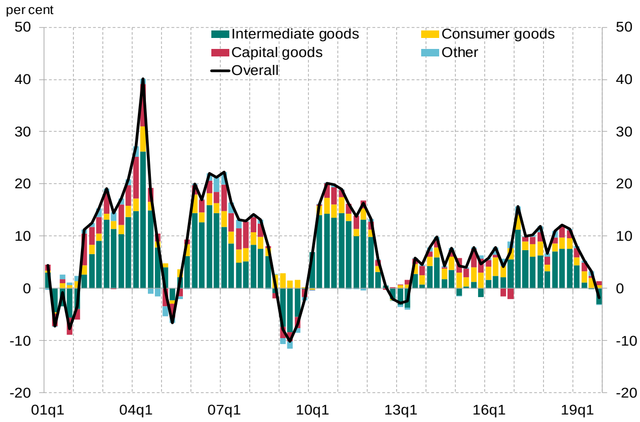
Source: Statistics Poland (GUS) data, NBP calculations.

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



Source: BIS data.

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.

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[32] The balance of trade in services in 2019 Q3 amounted to PLN 25.7 billion, and in terms of a four-quarter rolling sum it stood at 4.5% of GDP. In 2019 Q4, in turn, according to estimated monthly data, the balance of services amounted to PLN 27.7 billion, while calculated as a four-quarter rolling sum it stood at 4.6% of GDP.
[33] Growth in the value of exports to countries of the former USSR stood at 13.3% y/y in 2019 Q3 and 14.4% y/y in 2019 Q4. In turn, growth in the value of exports to the remaining countries stood at 9.8% y/y and 12.5% y/y, respectively.
[34] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector*, NBP, October 2019; *NBP Quick Monitoring Survey. Economic climate in the enterprise sector*, NBP, January 2020.

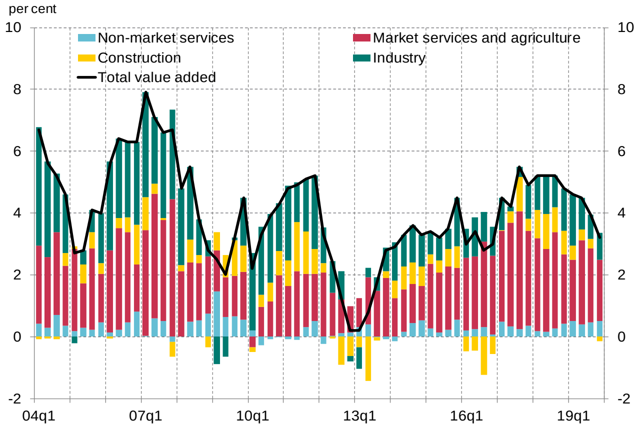
2.2.5 Output

In the second half of 2019, growth in value added declined, reflecting the slowdown in output growth in all the major sectors of the economy (Figure 2.17).

In 2019 Q4, industrial output growth again decelerated slightly (to 2.4% y/y compared to 3.3% y/y in 2019 Q3).[35] It is dragged down by slow activity growth in the external environment of the Polish economy, particularly in the euro area industry, which translates into lower growth in exports of Polish goods than in previous years. A fall in construction output, which results from the decline in public investment, also has a negative impact on activity growth in industry as it curbs demand for investment goods. Industrial output is supported, in turn, by the still relatively strong consumption growth (Figure 2.18).

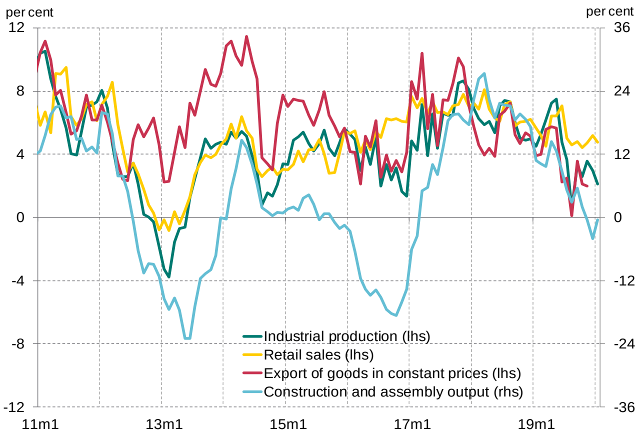
In 2019 Q4, construction output contracted by 4.0% y/y (against a rise of 5.7% y/y in 2019 Q3; Figure 2.19).[36] Growth in construction output slowed down significantly in infrastructure construction (particularly that of roads and railways) as well as residential construction. The fall in infrastructure construction output stems from slower growth in the absorption of EU funds and the completion of investments related to the local government elections. The slowdown in residential construction resulted mainly from a statistical base effect,[37] although supply-side restrictions also lowered growth in this category (see chapter 2.5.2 *Real estate market*). At the same time, output growth in commercial and industrial construction remained positive, which was supported by the low financing cost of investment in offices and

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



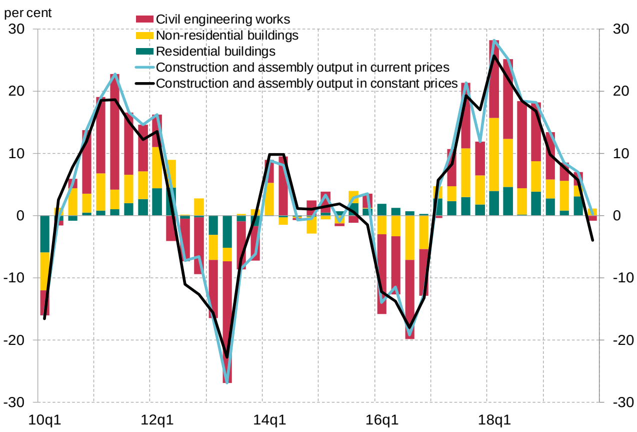
Source: Statistics Poland (GUS) data, NBP calculations.

Figure 2.18 Industrial output growth in Poland and its determinants (y/y, 3-month moving average)



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

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



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

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[35] In January, industrial output growth declined to 1.1% y/y, which, however, resulted from fewer working days than in the previous year. After seasonal adjustment, output growth stood at 3.5% y/y.

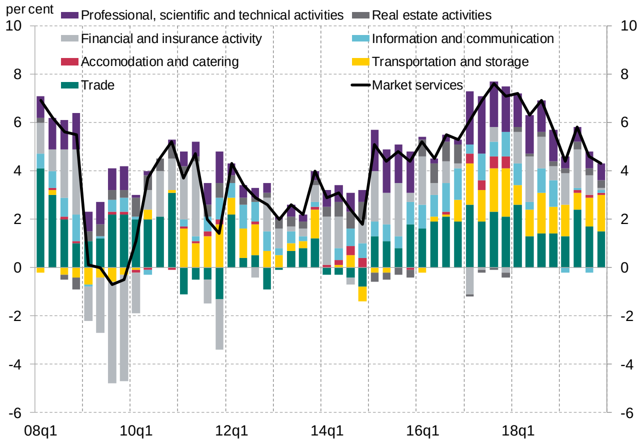
[36] In January 2020, construction and assembly output rose by 6.5% y/y. The pickup in growth was recorded particularly in infrastructure construction, which was supported by the unusually favourable weather conditions.

[37] In 2018 Q4, annual growth in residential construction output was markedly higher than in 2018 Q3 (27.2% in current prices against 0.6% in 2018 Q3), which translated into lower annual output growth in 2019 Q4 compared to 2019 Q3 (0.2% against 21.5% in 2019 Q3).

trade buildings, as well as the continued growth in business investment.

Value added growth in market services declined again in 2019 Q4; however, it remained relatively high (Figure 2.20). In particular, the still relatively strong consumer demand supported a fairly high growth in trade activity, although it declined somewhat. Similarly, the relatively favourable business conditions continue in transportation and business services. In 2019 Q3 and Q4, growth in value added in these sectors even slightly rose. In contrast, value added growth in market services was dampened by a slowdown in financial and insurance activity.

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

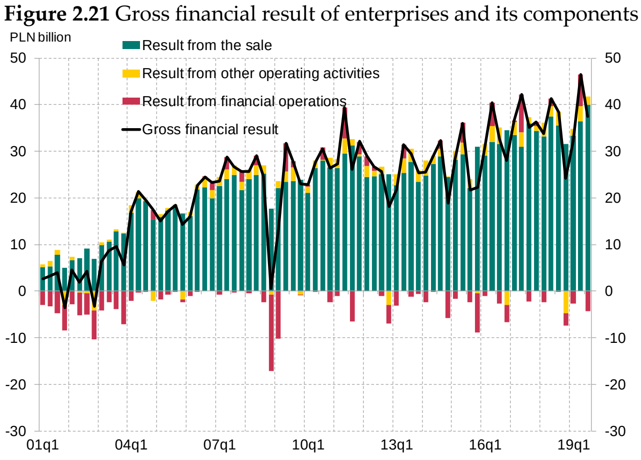


Source: Statistics Poland (GUS) data, NBP calculations.

2.3 Financial situation of enterprises

The financial performance of enterprises remains relatively strong (Figure 2.21). A slight decline in their gross financial result in 2019 Q3 was mainly due to a weaker result on financial operations driven by exchange rate differences and lower proceeds from the sale of financial assets, mainly in the energy sector. The financial situation of enterprises continues to vary across sectors.

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).

In 2019 Q3, the result on sales was 12.4% higher than in the corresponding period of 2018 on account of a faster decline in the growth rate of costs than that of sales revenue. Declining growth rate of costs was seen in most cost categories, including in particular the costs of goods, labour and third party services. At the same time, the decline in the growth of sales revenue was mainly driven by weaker domestic sales.

The relatively sound financial situation of enterprises in 2019 Q3 is also confirmed by a rise in both the sales profitability ratio and the share of profitable enterprises (Table 2.2).

Table 2.2 Selected financial efficiency ratios in the enterprise sector (per cent)

	2018				2019		
	q1	q2	q3	q4	q1	q2	q3
Sales profitability ratio	4.8	5.1	4.7	3.9	4.5	4.6	5.1
Net turnover profitability	3.9	4.6	4.2	2.2	3.4	4.8	3.8
Share of profitable enterprises	75.6	75.3	75.0	74.5	76.3	75.8	76.1
1st degree liquidity ratio	37.0	36.1	34.8	36.2	34.7	34.6	35.4

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.

The liquidity situation of enterprises also remains relatively good. The percentage of enterprises with cash liquidity considered as safe is at a record high. In 2019 Q4, enterprises still declared high capacity to service their trade liabilities, and for 2020 Q1 they also expect the sector's liquidity and ability to pay off liabilities to continue at safe levels.

2.4 Labour market

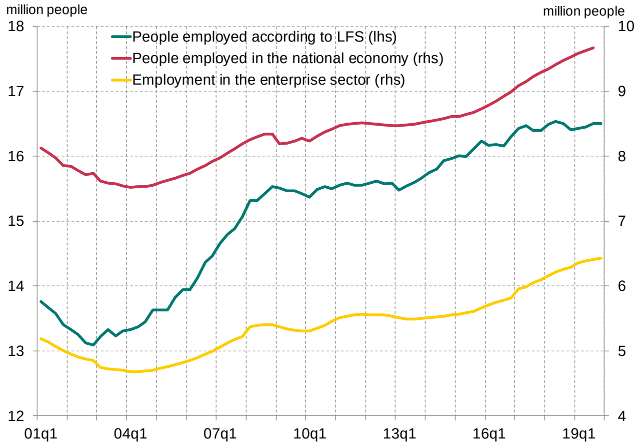
The still relatively favourable economic conditions are supportive of further, although decelerating employment growth. On the one hand, this is due to some weakening of demand for labour, and on the other hand, due to labour supply-side constraints (Figure 2.22).

Both the data on employment in the enterprise sector and the LFS data point to a further rise in employment (by 1.1% y/y in January 2020 and 0.4% y/y in 2019 Q4, respectively).[38] At the same time, employment in the enterprise sector grows at a significantly slower pace than in previous years.

Employment growth is curbed by a decrease in – still relatively high – demand of firms for employees, which takes place amid a gradual slowdown in economic growth. This is evidenced by a fall in the number of new jobs created (by 9.6% y/y in 2019 Q3) and the number of job vacancies.[39]

In addition, employment growth is negatively impacted by the declining size of the economically active population according to the LFS (by 0.6% y/y in 2019 Q4). This fall results from a decline in the working age population (15-64 years old; by 1.4% y/y in 2019 Q3) that is not offset by gradually increasing labour force participation in this age group. However, LFS data do not cover 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).

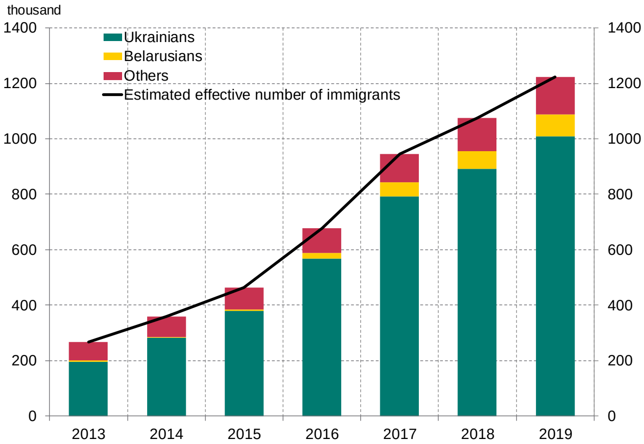
Figure 2.22 The number of people employed and the level of employment, seasonally adjusted data



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.

Figure 2.23 The estimated effective 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.

[38] The discrepancy between employment growth in the enterprise sector and growth in the number of people employed according to the LFS could partly result from the fact that the LFS data do not include temporary workers from abroad as well as from the declining number of people employed in agriculture and the switch of employees from less to more formalised forms of employment (from informal help in family companies and civil law contracts to employment contracts).

[39] In January 2020, the Job Offer Barometer, which gauges the number of job vacancies posted online, declined by 5.0% y/y, while the number of job vacancies registered in labour offices during a month fell by 7.9% y/y.

Amid rising employment and falling labour supply, the unemployment rate, which was already very low, continues to fall (Figure 2.24). At the same time, along with some weakening of demand for labour, recruitment difficulties have decreased slightly. The share of firms pointing to staff shortages as a barrier to growth has declined from approx. 10% to approx. 7% in recent quarters.[40]

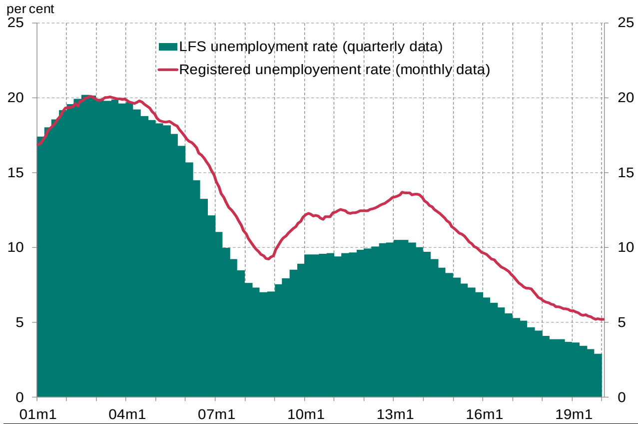
However, the position of employees in wage negotiations remains strong, although according to the results of the NBP survey, wage pressure in enterprises is decreasing slightly.[41] After some decline in 2019 Q4, nominal wage growth in the enterprise sector picked up somewhat in January 2020 (to 7.1% y/y from 5.8% y/y in 2019 Q4), which was accounted for by an increase in the minimum wage. Therefore, wage growth in the enterprise sector remains close to the average for the last two years. In 2019 Q4, the rate of wage growth in the economy was running at 6.9% y/y and was supported by dynamic wage rise in the public sector (Figure 2.25). Alongside that – given an increase in inflation – real wage growth decreased.

With GDP growth declining and employment growth according to the LFS increasing, labour productivity growth fell markedly in 2019 Q3 and Q4. Given the relative stability of wage growth in the economy, this led to a pickup in unit labour cost growth to 3.6% and 3.9% y/y respectively (against 1.9% y/y in 2019 Q2; Figure 2.26).

2.5 Monetary policy and asset markets

The Monetary Policy Council is keeping the NBP interest rates unchanged, including the reference rate at 1.50%. The future path of interest rates expected by market participants has recently been shaped, on the one hand, by higher current inflation than in previous periods, and, on the other, by concerns about the global economic

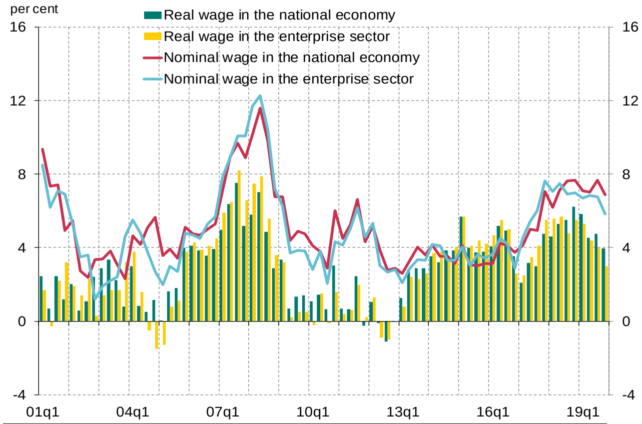
Figure 2.24 Unemployment rate, seasonally adjusted data



Source: Statistics Poland (GUS) data, NBP calculations

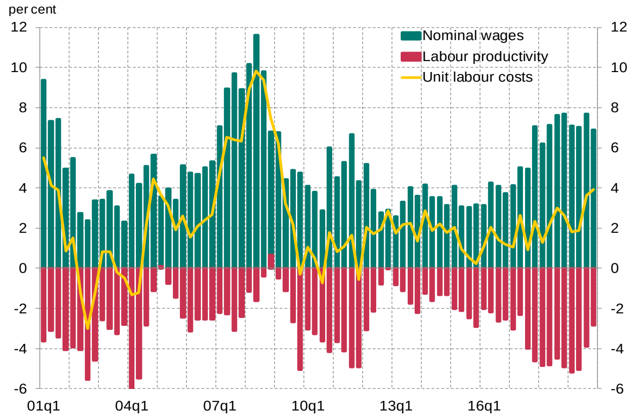
Data adjusted by NBP for seasonal factors and breaks related to the change in Statistics Poland (GUS) methodology in 2012. There are three reasons for the difference between the registered unemployment rate and the LFS rate: 1) the definition of an unemployed person is different, 2) the definition of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

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.

[40] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector*, NBP, January 2020.
[41] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector*, NBP, January 2020.

outlook arising from the spread of coronavirus and slower GDP growth in Poland than in previous periods (see also Chapter *2.1 Consumer prices*, Chapter *1.1. Economic activity abroad* and Chapter *2.2 Demand and output*). As a result, market expectations point to possible cuts in the NBP interest rates in the coming quarters (Figure 2.27).

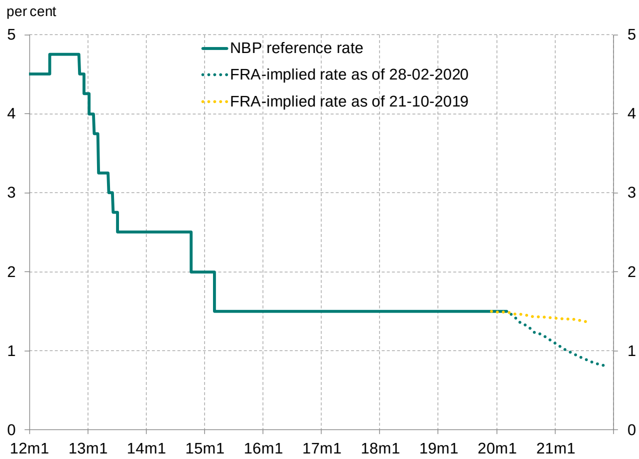
2.5.1 Financial market

The yields on Polish government bonds in recent months were driven by changes in sentiment in financial markets and current inflation readings (see also Chapter *1.5 Global financial markets*). As a result, in February 2020, 10-year Polish government bond yields amounted to an average of 2.1%. Thus, the yields remained substantially below their average level of previous years, and below yields of most emerging market economies. In the recent period – similarly to the case of advanced economies – the Polish government bond yields declined. This reflects investors' favourable assessment of the fundamentals in the Polish economy, including the absence of material macroeconomic imbalances (Figure 2.28).

At the same time, due to the currently observed deterioration of sentiment in global markets, the WIG index has significantly decreased (Figure 2.29). This took place despite relatively favourable conditions in the Polish economy and low NBP interest rates. The fall in equity prices on the Polish stock exchange was driven also by concerns about the financial performance of some companies from the fuel sector and some banks.[42]

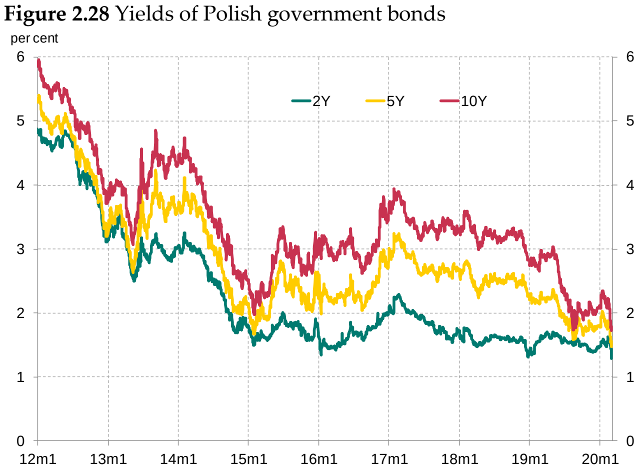
In February 2020, the average EUR/PLN exchange rate stood at 4.28, and the USD/PLN rate at 3.92 (Figure 2.30). This means that there was no significant change in the zloty exchange rate compared to the average of the second half of 2019. The stability of the zloty in the face of recent

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



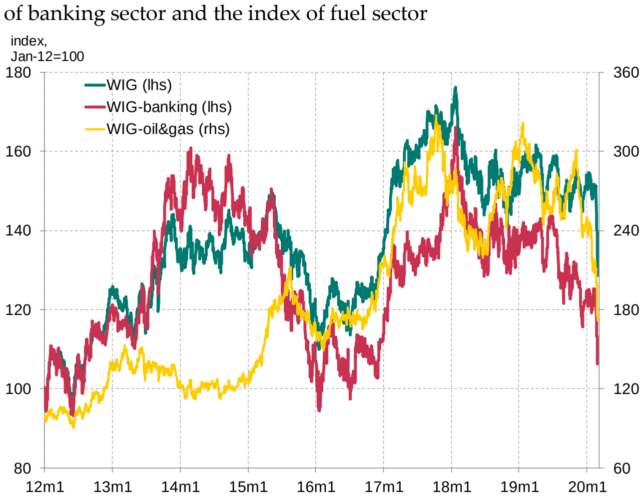
Source: NBP and Bloomberg data, NBP calculations.

Figure 2.28 Yields of Polish government bonds



Source: Bloomberg data.

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



Source: Bloomberg data.

[42] The WIG-oil&gas index was on average about 27% lower in the February 2020 than in October 2019 while WIG-banking was approx. 5% lower. The companies comprised by the two sectoral indices accounted jointly in January 2020 for nearly 40% of the WIG portfolio.

substantial swings in sentiment in global financial markets was underpinned by the balanced and relatively robust growth of the Polish economy as well as the stable NBP interest rates.

2.5.2 Real estate market[43]

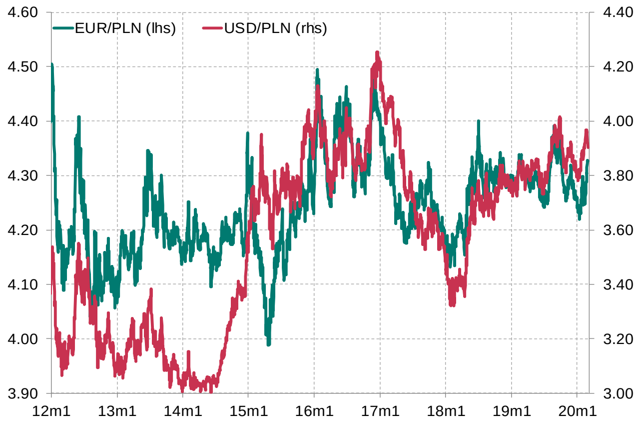
In 2019 Q3, the housing market was in the expansion phase and the number of dwellings sold was large (Figure 2.31). High demand for housing was accompanied by a growth in the number of completed dwellings, building permits issued and – after a temporary decline in 2019 Q2 – housing starts.

In 2019 Q3, demand for dwellings continued to be supported by the very good situation of employees in the labour market (see Chapter 2.4 *Labour market*) and stable interest rates on mortgage loans. As a result, growth in demand for housing was slightly faster than that in housing supply. At the same time, the rise in the number of building permits issued and housing starts suggests that growth in housing supply should pick up in the coming quarters.

High activity in the housing market was accompanied by an increase in offer and transaction prices of dwellings[44], both in the primary (10.2% and 9.5% y/y in 2019 Q4, respectively) and in the secondary market (10.3% and 9.1% y/y in 2019 Q4, respectively; Figure 2.32). Price growth was driven by relatively high demand for housing, shortages of construction workers and the resulting growth in their wages, as well as rising prices of building land and construction materials.

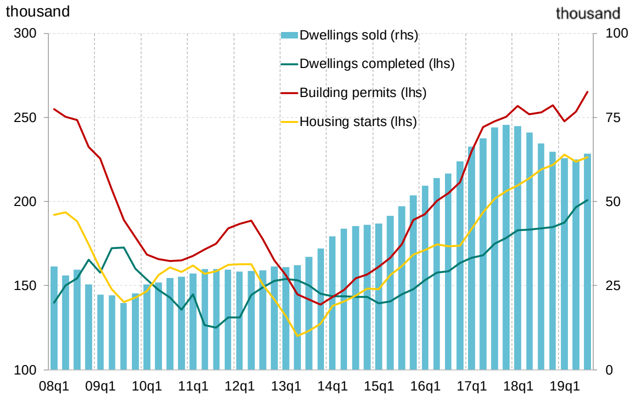
In the office real estate market, high supply continued in 2019 Q3, backed by higher rates of return on this type of investment in Poland than abroad, as well as high availability of funding amidst very low interest rates abroad, including in

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



Source: Bloomberg data.

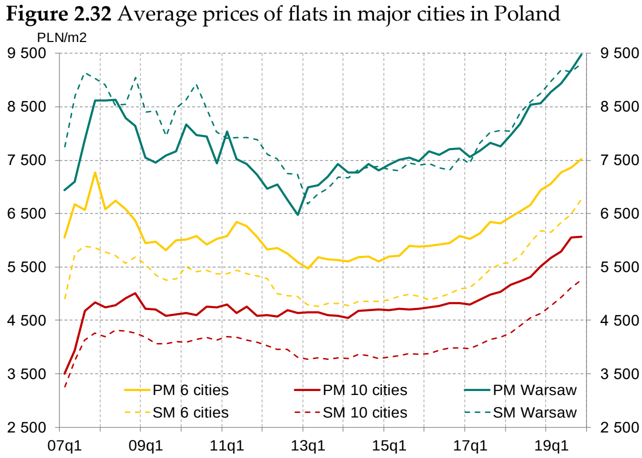
Figure 2.31 Residential construction in Poland (4-quarter rolling sum)



Source: Statistics Poland (GUS) and JLL/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] 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 Q3*, NBP, February 2020.

[44] The average home price (PLN/m2) in 16 cities – voivodeship capitals – and Gdynia.

the euro area (see Chapter 1.4 *Monetary policy abroad*). Moreover, rental demand for office space continued to be strong, which led to a further slight decline of vacancy rates[45] in large cities. At the same time, the costs of maintaining the office space stock, mainly the costs of repair and modernisation, remain high, which may translate into a decline in the expected profitability of this type of investment.

In the retail and service premises, in turn, only a slight increase in new space was recorded in 2019 Q3, which might suggest that investors consider this market to be saturated.

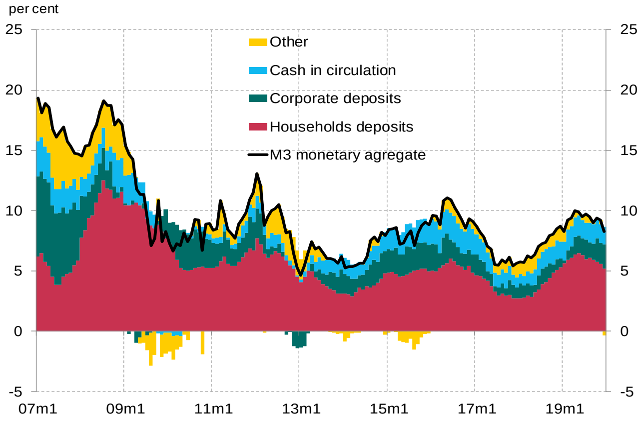
2.6 Money and credit[46]

In 2019 Q4, broad money (M3) growth in the economy slowed (to 9.0% y/y from 9.4% y/y in 2019 Q3). This was driven by a weaker increase in household deposits, which have the largest share in the M3 broad money aggregate (Figure 2.33).

In 2019 Q4, the growth rate of credit to the non-financial sector decelerated somewhat and, according to NBP estimates, ran below the nominal GDP growth (Figure 2.34). The ratio of outstanding loan portfolio of the non-financial sector to GDP declined to 50.3% in 2019 Q4 from 51.4% in 2019 Q3.

The growth in lending to the non-financial sector was driven by the rise in household loans. In 2019 Q4, the household loan growth stood at 6.3% y/y and was close to the level recorded in 2019 Q3 (Figure 2.35). The stable household loan growth was, on the one hand, the result of higher housing loan growth (6.0% y/y compared to 5.7% y/y in 2019 Q3) and – on the other hand – slightly lower, albeit still high, consumer loan growth (9.5% y/y compared to 10.0% y/y in 2019 Q3). The rise in the total value of housing loans primarily reflected the

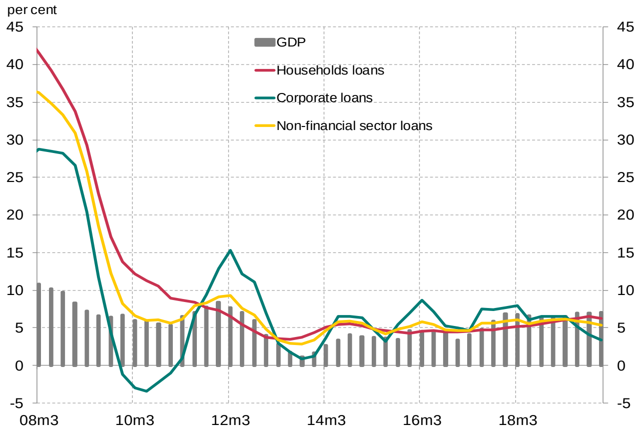
Figure 2.33 Composition of M3 growth (y/y)



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.

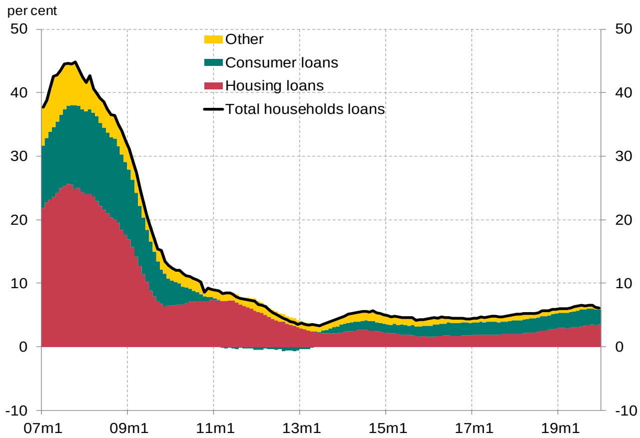
Figure 2.34 Nominal GDP and loans to non-financial sector growth (y/y)



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 entrepreneurs, loans to individual farmers and other receivables.

[45] The vacancy rate is the share of unleased space to the total space for rent.

[46] 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.

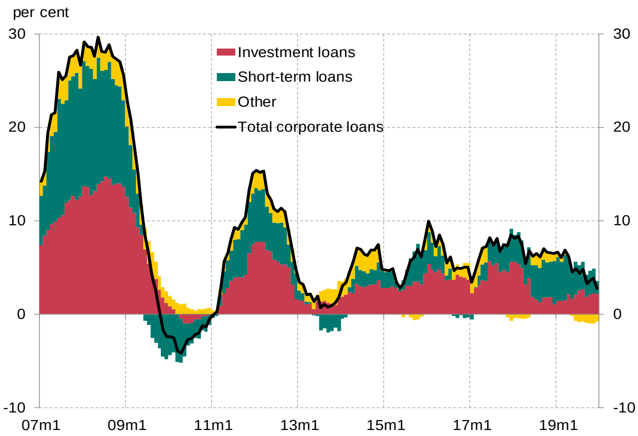
steadily growing stock of zloty-denominated loans (by 12.3% y/y), while that of FX loan portfolio was declining at the pace recorded so far (-7.9% y/y). The rise in household loans was supported, among others, by stable interest rates and favourable developments in the labour market. At the same time, however, an increase in the credit spread on housing loans by certain banks and the tightening of credit standards on consumer loans, justified by the risk of the expected worsening of the economic situation, had a curbing effect on household lending.[47]

The rise in credit to the non-financial sector in 2019 Q4 also resulted from growth in corporate loans. Yet, the corporate lending growth declined in 2019 Q4 (to 3.4% from 4.1% y/y; Figure 2.36), which was due to the slower growth in both current loans (5.6% y/y against 6.7% y/y in 2019 Q3) and investment loans (4.1% y/y against 4.5% y/y in 2019 Q3). According to surveys conducted among enterprises, in 2019 Q4 the percentage of companies applying for loans rose slightly, but was still low.[48] On the supply side, it was a further banks' tightening of credit standards on corporate loans, especially in the segment of long-term loans, that contributed to their slower growth. Banks justified the move by the possible deterioration of economic conditions and an increase in industry-specific risk.[49]

2.7 Balance of payments

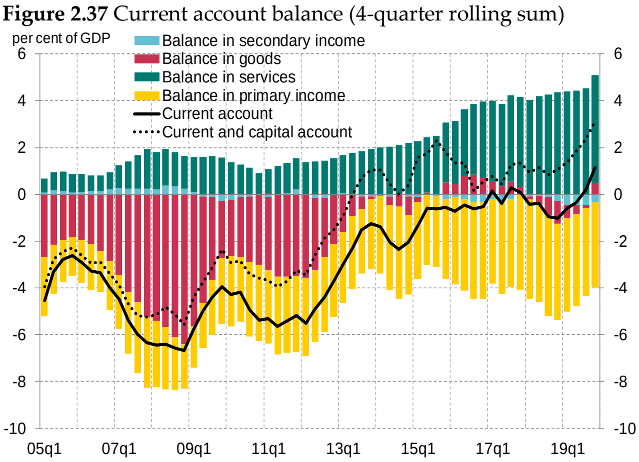
In the second half of 2019, the current account balance improved in terms of a four-quarter rolling sum compared to the first half of the year (Figure 2.37). In 2019 Q3, the current account balance grew to 0.2% of GDP (against -0.4% of GDP in 2019 Q2)[50], and the estimated monthly data for 2019 Q4 indicate its further increase to 1.1% of GDP. The

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.
Data for 2019 Q4 are based on estimated monthly data for October, November, December 2019.

[47] *Senior loan officer opinion survey on bank lending practices and credit conditions 1st quarter 2020*, NBP, February 2020.
[48] In 2019 Q4, the percentage of enterprises applying for loans was approx. 18%, and in 2019 Q3 – approx. 17%. *NBP Quick Monitoring. Economic climate in the enterprise sector*, No. 01/20, NBP, January 2020.
[49] *Senior loan officer opinion survey on bank lending practices and credit conditions 1st quarter 2020*, NBP, February 2020.
[50] Data on the balance of payments are presented in terms of a four-quarter rolling sum.

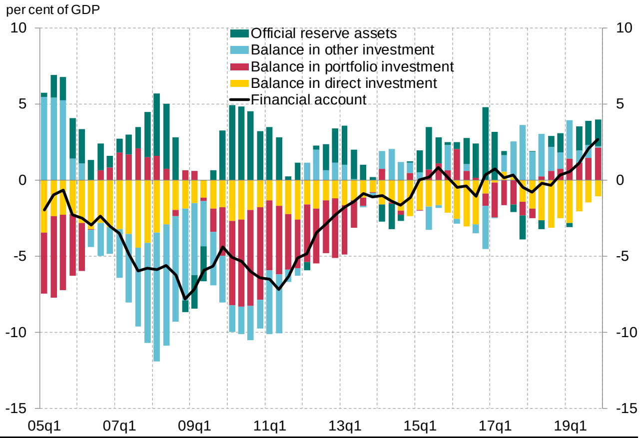
improvement was mainly the result of the higher balance of trade in goods than in the previous year.

In the second half of 2019, annual export growth continued to exceed import growth, which was conducive to an improvement in the balance of trade in goods (to 0.5% of GDP in 2019 Q4 from - 0.4% of GDP in 2019 Q2). That has occurred alongside a record high surplus in trade in services (4.6% of GDP), mainly due to the further growth of the positive balances in such categories as other services, transportation services, and foreign travels. Despite a slight improvement, the balance of the primary income account remained significantly negative owing to high income of foreign direct investors in Poland.

The surplus on the capital account at the end of 2019 Q4, resulting from the inflow of EU funds, was slightly lower than in 2019 Q2 and amounted to 2.0% of GDP. However, along with the visibly higher current account balance, the combined current and capital account balance rose to 3.1% of GDP in 2019 Q4 (against 1.8% of GDP in 2019 Q2).

In the second half of 2019, the financial account balance was significantly higher than in the previous year, which translated into its strong improvement in terms of a four-quarter rolling sum (to 2.7% of GDP in 2019 Q4, against 1.1% of GDP in 2019 Q2; Figure 2.38). The rise in balance was boosted by the improvement in the direct investment balance, resulting to a greater extent from the decrease in liabilities to foreign investors than the increase in the assets of Polish residents abroad. The improvement in the financial account balance in the second half of 2019 was also due to the widening of the positive balance in portfolio investment. This was primarily related to the reduced involvement of non-residents in the debt instruments market. On the one hand, this was caused by the sale of government bonds to residents by foreign investors, and on the other hand, by the scheduled redemption of bonds by the State Treasury. At the same time, official reserve assets were higher than in 2019 Q2 as a result of

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). Data for 2019 Q4 are based on estimated monthly data for October, November, December 2019.

transactions carried out by the NBP.[51] Whereas the decrease in the balance of other investments, mostly driven by a rise in liabilities, put downward pressure on the financial account balance.[52]

External imbalance indicators evidence that the Polish economy is well balanced (Table 2.3). Poland's external debt to GDP ratio is steadily declining, which in turn further improves Poland's net international investment position to GDP ratio. Moreover, the structure of Poland's foreign assets and liabilities is favourable owing to relatively large share of stable and long-term direct investments in both liabilities (47%) and net international investment position (69%).

Table 2.3 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
Current account balance/GDP	0.1	-0.4	-0.4	-1.0	-1.0	-0.6	-0.4	0.2	1.1
Current and capital account balance/GDP	1.3	0.9	1.1	0.8	1.1	1.4	1.8	2.3	3.1
Trade balance/GDP	4.1	3.9	3.8	3.5	3.4	3.8	4.0	4.4	5.1
Official reserve assets (in monthly imports of goods and services)	4.7	4.8	4.7	4.6	4.8	4.6	4.6	5.0	5.1
Foreign debt/GDP	67	67	67	65	64	62	61	61	-
Net international investment position/GDP	-61	-60	-57	-57	-56	-55	-54	-52	-
Official reserve assets/short-term foreign debt and forecast current account balance	100	103	101	100	113	106	101	106	-
Official reserve assets/short-term foreign debt	106	107	103	99	112	108	105	111	-

Source: NBP data.

The last two indicators include foreign debt and the level of official reserves at the end of the period. Data for 2019 Q4 are based on estimated monthly data for October, November, December 2019.

[51] These were primarily own transactions of the central bank (including reverse repo operations) as well as transactions concluded on behalf of NBP clients, in particular the European Commission and the Ministry of Finance.

[52] The increase in liabilities was due to NBP transactions (reverse repo operations) and transactions recorded in other sectors.

3. Monetary policy in November 2019 – March 2020

At the meetings held between November 2019 and March 2020 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 November 2019 and February 2020 as well as the *Information from the meeting of the Monetary Policy Council* in March 2020. *Minutes* of the MPC meeting held in March 2020 will be published on 19 March, and thus included in the next *Report*.

Minutes of the Monetary Policy Council decision-making meeting held on 6 November 2019

During the meeting, the Council pointed out that activity growth in the world economy remained relatively soft and uncertainty about the global economic outlook persisted. It was underlined that industrial output was declining in year-on-year terms in almost all major world economies and global growth forecasts were lowered. As a result, in line with some projections, global GDP growth in 2019 might hit the lowest level for 10 years, and in 2020 might remain low, especially in the advanced economies.

In the euro area, annual GDP growth in 2019 Q3 continued at a low level. It was pointed out that the downturn in industry was negatively affecting GDP growth in this economy. Against this background, it was highlighted that the euro area manufacturing PMI indicated the continuation of recessionary trends, although recently the index ceased to deteriorate. At the same time it was emphasised that business conditions in services in the euro area remained favourable, yet some Council members were of the opinion that the new orders index in this sector had declined considerably, which might signal a deterioration in business conditions in services in the coming quarters.

It was pointed out that in Germany GDP growth in quarter-on-quarter terms probably remained low in 2019 Q3. It was stressed that industrial output in the German economy had been on a downward trend for several months, and the incoming data on business conditions suggested continuing negative trends in industry. It was underlined that the GDP growth forecasts for the German economy foresaw low economic growth also in 2020. Certain Council members indicated that economic conditions in France remained more favourable than in Germany.

The Council members judged that in the United States economic conditions stayed relatively favourable, yet GDP growth declined in 2019 Q3. It was emphasised that activity growth in this economy continued to be driven by consumption, supported by robust rise in wages and low unemployment, while annual growth in investment and exports were close to zero in 2019 Q3.

Inflation in many economies worldwide had decreased in recent months and remained moderate. In this regard, attention was drawn to a decline in inflation in the euro area, including in the euro area's major economies, significantly below the level consistent with the price stability definition of the European Central Bank. At the same time, it was pointed out that inflation was higher in the faster growing Central and Eastern European euro area economies.

The Council members drew attention to the fact that crude oil prices worldwide remained at a moderate level, which was one of the factors supporting low inflation. Certain Council members also expressed an opinion that crude oil prices might remain moderate in the coming quarters on account of low global growth and the expected increase in oil production.

The Council members noted that many central banks have eased their monetary policies in the recent period. It was indicated that in October 2019, the Federal Reserve had cut its interest rates for the third time this year, while announcing it might leave interest rates unchanged in the coming months. Yet some Council members remarked that in line with the current market expectations, the Federal Reserve might take a decision on further interest rate cuts, although not in the months to come.

It was emphasised that the European Central Bank, following the monetary policy easing in September 2019, had not changed the parameters of its monetary policy in October 2019. It was also indicated that financial markets expected further deposit rate cuts by the ECB in the future and anticipated the deposit rate to remain negative for the next several years.

The Council members noted that economic conditions remained good in Poland, although the incoming data pointed to a possible slowing in growth in 2019 Q3, mainly due to the economic downturn abroad. It was underlined that the decline in the annual GDP growth in 2019 Q3 was suggested by lower output growth in both industry as well as assembly and construction in this period. Attention was also paid to further investment growth in 2019 Q3, although it was probably lower than in previous quarters. Some Council members pointed out that the recent fall in the PMI suggested that the weakening in economic activity abroad led to a change in the assessment of economic conditions by some enterprises. Some Council members indicated that despite sluggish economic activity in the euro area, Polish exports continued to expand, which was supported by its higher geographic diversification.

The Council members noted that further growth in consumer demand, related to very strong consumer sentiment, favourable labour market conditions and disbursement of social benefits, had a positive impact on economic conditions in Poland. Yet some Council members pointed out in this context that although the situation in the labour market remained very good, the annual growth rate of employment in the enterprise sector declined and wage growth remained stable.

The Council members judged that the outlook for domestic economic conditions remained favourable and GDP growth – despite its expected decline – would continue at a relatively high level over the coming quarters. The majority of the Council members was of the opinion that GDP growth would probably run close to the level envisaged in the November projection. It was pointed out that the economic downturn abroad and the possible decline in investment growth might contain GDP growth, while the continuing rise in consumer demand would have a stabilising impact on economic conditions.

Some Council members judged that the risk of GDP growth being lower than envisaged by the central path of the November projection persisted. It was pointed out that stronger than expected economic slowdown abroad might contribute to lower GDP growth in Poland. According to certain Council members, rising prices of services could be a risk factor for consumption growth in the quarters to come, as they were likely to negatively affect both consumer sentiment and the purchasing power of consumers' income.

The Council members pointed out that according to the flash estimate of Statistics Poland (GUS), inflation in October 2019 was running at 2.5% y/y. It was boosted by the elevated – albeit declining – growth of food prices, whereas falling energy prices were curbing CPI inflation. The majority of the Council members indicated that in the recent period core inflation had risen, yet it continued to be moderate. These Council members emphasised that growth in goods prices remained very low, while core inflation was propelled by rising services prices, partly driven by increases of certain administered charges, and partly by rising wages that reflected convergence of the Polish economy. Certain Council members also drew attention to the low deflator of retail sales and the very low growth rate of the PPI that had persisted for several months.

Certain Council members indicated, however, that the higher growth of services prices was also the result of persisting demand pressure in the economy. Moreover, they noted that the value added deflator was currently higher than consumer price growth.

The majority of the Council members pointed out that in line with the central path of the November projection, CPI inflation in 2020 Q1 would temporarily increase, then decline and run close to the inflation target in the subsequent quarters. It was underlined that in the years to come inflation would be contained by weaker economic growth in Poland and likely persistence of low inflation abroad. The majority of the Council members also indicated that uncertainty about energy prices in the coming quarters remained.

Certain Council members assessed that due to the marked – in their opinion – demand pressure in the economy, the following quarters might continue to see inflation run higher than envisaged in the central projection path. In this context, they also attracted attention to the high – in their view – rise in household lending and growth in monetary aggregates exceeding that of nominal GDP. However, other Council members pointed out that corporate lending was low and continued to decline.

The majority of the Council members decided that interest rates should remain unchanged. In their opinion, the outlook for the domestic economy remained favourable and GDP growth, despite the expected decline, would continue at a relatively high level in the coming quarters. At the same time, the Council assessed that uncertainty as to the scale and duration of the economic slowdown abroad and its impact on domestic economic activity persisted. In the opinion of the majority of the Council members, after a temporary rise in 2020 Q1, inflation would stay close to the target over the monetary policy transmission horizon. Consequently, 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 also expressed an opinion that, taking into account current information and the projection results, interest rates were likely to remain stable in the coming quarters. These Council members pointed out that their assessment was supported by current forecasts indicating that inflation would remain in line with the NBP inflation target over the monetary policy horizon amid the forecast gradual slowdown in GDP growth.

Certain Council members emphasised that there were factors that might boost inflation higher than indicated by the current forecasts. They noted that should there be a significant rise in inflation and inflation expectations that would jeopardize meeting the inflation target in the medium term, it might be justified to consider an increase in interest rates in the coming quarters.

In turn, certain Council members pointed out that in recent months there were more signs of a deterioration in global economic conditions. In the opinion of these Council members, the above 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% and the rediscount rate at 1.75%.

Minutes of the Monetary Policy Council decision-making meeting held on 4 December 2019

During the meeting, the Council pointed out that activity growth in the world economy remained soft and uncertainty about the global economic outlook persisted. Recessionary trends continue in industry in the major economies and annual growth in global trade is negative. Reflecting these developments, forecasts of international financial institutions indicate continued sluggish GDP growth worldwide in 2020.

It was emphasised that in the euro area economic growth remained low in 2019 Q3. It was noted that industrial output in the euro area was declining and business confidence indicators for the industrial sector – despite some improvement seen in November – still did not signal a recovery. It was judged that economic activity in the euro area was supported by a steady rise in consumption, driven by positive household sentiment and favourable labour market conditions. However, certain Council members pointed to the gradually deteriorating sentiment in services and slower annual growth in employment, which both may pose a risk for economic conditions in the euro area.

In Germany, GDP growth in 2019 Q3 was positive and higher than expected, albeit still very low. It was also emphasised that in the United States, the GDP data for 2019 Q3 corroborated the persistently robust economic conditions as compared to other advanced economies, yet annual GDP growth was gradually decreasing. It was pointed out that amid weak global economic growth, inflation in many countries was moderate, and in the euro area it was low.

In November, oil prices in the global commodity markets were relatively stable, although subject to temporary fluctuations driven by both supply and demand factors.

The European Central Bank is keeping the deposit rate below zero, while conducting asset purchases and signalling the maintenance of loose monetary policy in the coming quarters. The US Federal Reserve, after the interest rate cuts of recent months, was keeping the rates unchanged.

In Poland, economic conditions remain good, despite slower economic growth in 2019 Q3. GDP growth is supported by stable consumption growth, fuelled by favourable labour market conditions, very strong consumer confidence and disbursement of social benefits. Investment continued to rise in 2019 Q3, although at a slower pace, which was most likely due to the fall in local government investment and the slower growth in investment co-financed by EU funds. At the same time, it was underlined that exports growth increased in 2019 Q3, albeit it was lower than in the previous years.

Some Council members pointed out that the incoming monthly data were signalling the likelihood of a slight slowdown in GDP growth in 2019 Q4. In October 2019, growth in industrial output was lower than in the first half of 2019, while assembly and construction output declined in year-on-year terms. Certain Council members also stressed that household sentiment remained upbeat, although it had deteriorated slightly in the recent period, and the PMI in industry continued at below 50 points.

The Council members indicated that wage growth in the economy had picked up somewhat in 2019 Q3 on the back of the rising wages in the public sector. Attention was also drawn to the persistently low unemployment rate. However, certain Council members emphasised that demand for labour might stabilise. This was suggested by the weaker wage growth and a further slight decrease in employment in month-on-month terms in the corporate sector as well as the lower number of job offers in the recent period.

The majority of the Council members were of the opinion that the outlook for domestic economic conditions remained favourable, and GDP growth – despite the expected slowdown – would continue at a relatively high level in the coming quarters. It was argued that the continuation of sluggish growth abroad and the possible decline in investment growth might contain GDP growth, while the continuing rise in consumer demand would have a stabilising impact on economic conditions.

It was pointed out that annual inflation stood at 2.6% y/y in November 2019. It was driven up by elevated food price growth, while being curbed by lower energy prices than a year ago, including fuel prices. Some Council members noted that inflation in month-on-month terms was lower than in the first half of 2019.

The majority of the Council members judged that although core inflation had risen somewhat in recent months, it remained moderate. These Council members underlined that growth of non-food goods prices stayed very low, while core inflation was propelled by faster growth in services prices, partly driven by increases in certain administered charges, and partly by rising wages that reflected convergence of the Polish economy. Consequently, the majority of the Council members assessed price pressures in the economy to be moderate. At the same time, it was observed that the retail sales deflator was low, and producer price growth had declined slightly below zero in the recent period. Certain Council members were of the opinion that one of the factors behind the faster growth in services prices than in previous years was the persisting demand pressure in the economy.

The majority of the Council members anticipated that CPI inflation would rise temporarily in 2020 Q1, before declining and running close to the inflation target in the subsequent quarters. It was emphasised that over the projection horizon inflation would be contained by weaker economic growth in Poland and the likely persistence of low inflation abroad. The majority of the Council members emphasised that the forecast temporary rise in inflation in 2020 Q1 would stem from factors beyond the reach of domestic monetary policy, including statistical base effects. Moreover, it was judged that uncertainty about energy price growth in the coming quarters continued.

Certain Council members were of the opinion that inflation in the subsequent quarters might remain higher than 2.5%. They underlined that price growth might be boosted by further growth in services prices, including prices of administered services. They also pointed out the potential upward pressure on inflation stemming from the growth in monetary aggregates, related to the rapid – in their opinion – expansion in consumer and housing loans to households. In this context, these Council members additionally observed that the NBP reference rate was negative in real terms, and that the rise in inflation in 2020 Q1, should it materialise, would bring it down.

In turn, the majority of the Council members indicated that central bank interest rates were currently negative in real terms in many economies, including, in particular, in the euro area. They also pointed out that the real interest rates on lending to households and enterprises were well into positive territory. These Council members underlined that total credit growth in the economy was stable and remained lower than nominal GDP growth, while corporate lending growth was slowing down.

The majority of the Council members decided that interest rates should remain unchanged. In their opinion, the outlook for the domestic economy remained favourable and GDP growth, despite the expected decline, would continue at a relatively high level in the coming quarters. At the same time, the Council assessed that uncertainty as to the scale and duration of the economic slowdown abroad and its impact on domestic economic activity persisted. In the opinion of the majority of the Council members, after a temporary rise in 2020 Q1, inflation would stay close to the target over the monetary policy transmission horizon. Consequently, 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 also expressed an opinion that, taking into account current information, interest rates were likely to remain stable in the coming quarters. These Council members pointed out that their assessment was supported by current forecasts indicating that inflation would remain in line with the NBP inflation target over the monetary policy horizon amid the forecast gradual slowing in GDP growth.

Certain Council members emphasised that there were factors that might boost inflation higher than indicated by the current forecasts. They noted that should there be a significant rise in inflation and inflation expectations that would jeopardize meeting the inflation target in the medium term, it might be justified to consider an increase in interest rates in the coming quarters.

In turn, certain Council members pointed out that signs of a deterioration in global economic conditions persisted. In the opinion of these Council members, the above factors could also have a negative impact on economic growth in Poland in the quarters to come. 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 and 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% and the rediscount rate at 1.75%.

Minutes of the Monetary Policy Council decision-making meeting held on 8 January 2020

During the meeting, the Council pointed out that activity growth in the world economy remained relatively weak, although signals concerning a possible trade agreement between the United States and China had translated into some improvement of the sentiment in the global economy at the end of 2019. Attention was also drawn to a slight increase in the global manufacturing PMI and a slower decline in the global trade. Despite this, uncertainty about the global economic outlook for the quarters to come persists. This uncertainty might be aggravated by a rise in the geopolitical tensions in the Middle East and the risk of oil prices rising further.

In the euro area, amid an ongoing downturn in industry, economic activity growth remains slow. Confidence indicators for the industry and services sectors point to further weak GDP growth in 2019 Q4. Growth is supported by consumption, which continues to benefit from high consumer confidence and low unemployment. At the same time, it was observed that in December the European Central Bank had again revised down its forecasts of GDP growth for 2020.

In the United States, economic conditions are still fairly robust when compared to other economies, although activity in the US industry also remains weak, and GDP growth probably slowed down in 2019 Q4. In China, economic activity growth is slower than in previous years, with data for November 2019 indicating GDP growth stabilisation in 2019 Q4.

Oil prices have risen recently. The increase in oil prices was initially driven by the improvement in the sentiment concerning trade relations between the largest global economies, and subsequently by a sharp rise in geopolitical tensions in the Middle East. At the same time, some Council members indicated that the supply of oil from the United States was a factor alleviating the upward pressure on global prices of this commodity, which curbed the impact of negative supply shocks in the oil market. Furthermore, it was observed that despite higher oil prices, inflation in the external environment of the Polish economy was moderate, and in the euro area it was low.

The European Central Bank is keeping the deposit rate below zero, while conducting asset purchases and signalling the maintenance of loose monetary policy in the coming quarters. The US Federal Reserve, after the interest rate cuts of 2019, is keeping the rates unchanged.

Proceeding to discuss the information from the Polish economy, the Council started by assessing the economic situation in Poland in 2019. It was pointed out that GDP growth in 2019 had probably exceeded 4%, unemployment had dropped to a record-low level and confidence indicators had been high. At the same time, it was emphasised that the zloty exchange rate had been stable, the current account close to zero and lending growth slightly below the nominal GDP growth. Moreover, public debt in relation to GDP had probably decreased. Attention was also drawn to the fact that despite higher CPI at the end of the year, the average annual inflation had stood at 2.3%. Council members underlined that the above indicators confirmed that economic growth was robust and the economy remained balanced both internally and externally.

When analysing recent months' data more closely, it was highlighted that economic conditions in Poland remained good despite gradually slowing economic growth. GDP growth is supported by stable consumption growth, fuelled by favourable labour market conditions, very strong consumer confidence and disbursement of social benefits. At the same time, the Council members observed that consumer confidence indicators had declined somewhat in the recent period and signs of weakening labour demand had become apparent. In this context, some Council members pointed to slower wage growth in enterprises in recent months, although they also noted that raising the minimum wage at the beginning of 2020 would support wage growth. It was also underlined that incoming information signalled further, albeit slower than in previous quarters, growth in investment and exports. In this context, certain Council members highlighted the recent strengthening of the zloty exchange rate, which, along with weaker export growth, might negatively affect the financial performance of exporters.

When referring to inflation developments, it was observed that according to the GUS flash estimate, the CPI stood at 3.4% y/y in December 2019. Available information showed that the higher December inflation was driven by a rise in the prices of food and fuels. The majority of the Council members assessed that core inflation might have increased as well, which would have been related to higher prices of some services. Certain Council members indicated that inflation in December had risen more than expected. These

Council members believed that apart from the likely impact of temporary factors, the increase in inflation might have been driven by a gradual weakening of structural factors which had previously constrained consumer price growth, especially that of goods. In this context, these Council members pointed to a slowdown in the expansion of the discount chains.

The majority of the Council members argued that the higher-than-forecast preliminary CPI reading for December did not affect the anticipated inflation path over the monetary policy horizon. In their assessment, inflation would rise temporarily in 2020 Q1, to subsequently start declining and approximate the inflation target in 2021. It was emphasised that inflation in the next few years would be dampened by the expected slowing of economic growth in Poland. Those Council members underlined that such a scenario was also suggested by medium-term expectations of financial analysts. The majority of the Council members also highlighted the fact that the temporary rise in inflation anticipated for 2020 Q1 would result mainly from factors beyond the scope of domestic monetary policy, including regulatory factors and supply shocks. Factors boosting inflation would include higher electricity prices (related to, among others, the climate policy) and more expensive fuels (associated with higher global oil prices). Moreover, the anticipated rises in waste disposal charges and the excise taxes on alcohol and cigarettes may temporarily heighten inflation as well. The expansion of the ASF epidemic, in turn, along with other supply shocks, may translate into higher food prices. Those Council members observed that the above factors, apart from leading to a temporary rise in price growth, would also have a negative impact on real incomes and the sentiment of businesses and households, thus putting downward pressure on demand growth, which would in the medium term hamper the growth in the prices of the remaining goods and services. Certain Council members drew attention to the persistently slow producer price growth, and the recent appreciation of the zloty, as factors weakening price pressure.

At the same time, certain Council members argued that the expected acceleration of consumer price growth in 2020 might prove stronger than previously estimated. They indicated that this may result in particular from possible further oil price growth and a stronger pass-through of both rising wages and demand on prices, especially amid the rise of the minimum wage. At this point, these Council members also drew attention to an increase in households' inflation expectations.

The majority of the Council members stressed that, faced with uncertainty about the global economic outlook, a considerable number of central banks were currently conducting loose monetary policies, which was a significant factor supporting economic conditions in many countries. This means that the interest rates of a number of central banks – including in particular the ECB – are negative in real terms and will most likely remain in negative territory for a long time. At the same time, these Council members pointed out that although the NBP reference rate in Poland was negative in real terms as well, the real interest rates on household and corporate loans were positive, and the total credit growth in the economy remained lower than nominal GDP growth, with corporate lending growth continuing to be weak.

However, certain Council members underlined that the growth of both broad money (M3) and household lending was currently higher than or close to nominal GDP growth. Referring to corporate investment loans, these Council members judged that they were characterised by low price elasticity, which meant that any possible increase in interest rates on these loans would not have a strong impact on the investment outlays of companies. Moreover, it was pointed out that inflation increase coupled with no NBP interest rate rises, caused the NBP reference rate to decline in real terms.

Taking into account the current information and forecasts, the majority of the Council members decided that interest rates should remain unchanged. In their opinion, the outlook for the domestic economy remained favourable, yet GDP growth would most likely be lower than in previous years. At the same time, the Council assessed that uncertainty as to the scale and duration of the economic slowdown abroad and its impact on domestic economic activity persisted. Moreover, the majority of the Council members judged that the factors that would most likely boost CPI inflation in the coming months were mainly of a supply-side and regulatory nature. Therefore they would have only a temporary impact on inflation, while at the same time, they would put a drag on economic activity. As a result, along with the expected slowdown in economic growth, inflation would stay close to the target over the monetary policy transmission horizon. In the opinion of the majority of the Council members, the current level of interest rates would hence be conducive to keeping the Polish economy on a sustainable growth path and maintaining macroeconomic stability, and would at the same time allow meeting the inflation target in the medium term.

The majority of the Council members also expressed an opinion that, taking into account current information, interest rates were likely to remain stable in the coming quarters. These Council members pointed out that their assessment was supported by current forecasts indicating that inflation would remain in line with the NBP inflation target over the monetary policy horizon amid the forecast gradual slowing in GDP growth. In the opinion of these Council members, considering lags in the monetary policy transmission mechanism, any interest rate increase under the current conditions would not prevent a temporary rise in inflation in 2020, while at the same time, could deepen the economic slowdown.

However, certain Council members emphasised that there were factors that might keep inflation higher than indicated by the current forecasts. They noted that the risk of a further rise in inflation and inflation expectations, combined with the small – in their opinion – scale of the expected economic slowdown in Poland, could jeopardise meeting the inflation target in the medium term, which justified – in their view – increasing interest rates at the current meeting. According to these Council members, such a move would curb the rise in real estate prices, contributing to increasing their affordability.

In turn, certain Council members pointed to signs indicating that global economic conditions would continue to be weak. In the opinion of these Council members, this could have a negative impact also on economic growth in Poland in the quarters to come. At the same time, the risk of inflation deviating from the NBP target over the monetary policy transmission horizon was limited. As a result, a view was expressed that it was justified to lower interest rates at the current meeting and that – in the longer run – it might be justified to consider further cuts in interest rates or the introduction of unconventional monetary policy instruments.

At the meeting, a motion to increase the NBP interest rates by 0.15 percentage points was submitted. The motion was rejected. 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% and the rediscount rate at 1.75%.

Minutes of the Monetary Policy Council decision-making meeting held on 5 February 2020

During the meeting, the Council noted that incoming data from the global economy indicated a stabilisation of economic growth at a relatively low level. Despite a recent improvement in sentiment, economic conditions in some economies remained weakened, while available forecasts pointed to a stabilisation in global GDP growth or its merely marginal pick-up in 2020 as compared to the previous year. At the same time, uncertainty persists about the global economic outlook, related, among others, to the spreading-out of coronavirus, whose impact on economic activity is hard to assess.

In the euro area, economic growth declined in 2019 Q4, amid the ongoing downturn in industry. It was observed that the situation in the industrial sector remained unfavourable, despite some rise in the PMI indicators. This has a negative impact on the outlook for growth in the euro area, and current forecasts suggest that GDP growth in 2020 will be slightly lower in that area than in the previous year. In the United States, economic conditions are still relatively strong compared to other advanced economies. GDP in 2019 Q4 progressed at a pace close to that of the previous quarter, although it continued to be held back by flagging activity in industry. Certain Council members judged that the economic climate in this economy might deteriorate, which, in their opinion, was indicated by the negative yield differential between short- and long-term Treasury securities. In China, GDP growth stabilised in 2019 Q4 at a lower level than in previous years.

In the recent period, global oil prices have fallen sharply, following their prior rise. This was assessed to have been driven by concerns about a decline in demand for this commodity in the subsequent quarters due to the potential adverse effect of the coronavirus on economic activity growth in China. These concerns also brought about a fall in the prices of natural gas and industrial metals. At the same time, the prices of many food commodities have risen in recent months, and the food commodity price index is running high at the moment. The increasingly expensive food and the previous rise in oil prices contributed to higher inflation in the external environment of the Polish economy.

The European Central Bank is keeping the deposit rate below zero, while conducting asset purchases and signalling the maintenance of loose monetary policy in the coming quarters. The US Federal Reserve, after the interest rate cuts of 2019, is keeping the rates unchanged. Moreover, a number of central banks in large emerging market economies have eased their monetary policy.

When analysing the situation in the Polish economy, it was observed that economic conditions remained strong, although economic growth had slowed down. According to preliminary GUS data on GDP in 2019, GDP growth in 2019 Q4 may be estimated to have fallen by more than expected. GDP growth is supported by the rising consumption, which, however, has probably slowed down notwithstanding the strong financial position of households. Some Council members assessed that this could have followed from a slight weakening of household sentiment. Certain Council members expressed the view that slower real consumption growth might also have been driven by higher price growth than at the beginning of 2019.

It was observed that preliminary GDP estimates suggested a possible pick-up in investment growth in 2019 Q4. In this context, some Council members pointed to the uncertainty about the pace of investment growth in 2019 Q4 related to weaker readings of some sectoral data over the past few months.

According to preliminary estimates, export growth also continued in 2019 Q4, albeit probably at a slower pace than in the preceding quarter. It was pointed out that export growth was benefiting from strongly rising exports of services. Growth in external sales of goods, on the other hand, had probably halted. It was judged that this was a sign of the increasing impact of the weakened conditions in the external environment of the Polish economy on external sales and domestic economic activity.

The Council members judged that given the slower than expected implied GDP growth in 2019 Q4, economic growth in 2020 might also prove weaker than previously forecast and slower than the estimated potential output growth. In this context, some Council members drew attention to a recurring decline – following a few months of improvement – in the PMI index and the results of the NBP surveys of enterprises signalling weaker expectations of financial performance of firms and lower forecasts of their investment activity in 2020. They also pointed out that the outlook for economic activity in Poland's immediate environment remained a significant source of risk of slower growth in the domestic economy.

When referring to inflation processes, it was observed that annual CPI inflation stood at 3.4% y/y in December 2019. An increase in price growth was driven, above all, by higher food prices related to the spread of the ASF epidemic, combined with a rise in fuel prices on the back of prior increases in global oil prices. At the same time, the rises in waste disposal charges, insurance premiums and air fares were reflected in higher service price growth. High growth of administered prices was also noted. As a consequence, core inflation also rose, although it runs at moderate level. Some Council members expressed the opinion that faster than in previous years growth in service prices was a natural and expected response of the economy to several quarters of the ongoing expansion in consumer demand and income. At the same time, it was pointed out that the prices of non-food products were still rising slowly, rendering a still moderate total growth in goods and services prices excluding the impact of supply-side and regulatory factors.

The Council members noted that according to current forecasts, inflation would rise in the coming months and might exceed the upper limit of band for deviations from the inflation target. It was observed that the rise in inflation was to be primarily the effect of supply-side and regulatory factors, which were beyond the direct influence of domestic monetary policy. These included the increase in the prices of electricity, further rises of waste disposal charges, increase in excise taxes and rising meat prices resulting from the ASF epidemic spreading out further and the related strongly rising demand from China for European pork. The majority of the Council members pointed out that the rise in inflation would be driven by supply shocks that negatively affect aggregate demand growth. In effect, these Council members judged that the rise in inflation above the upper limit for deviations from the inflation target would only be temporary, and as the impact of those factors faded, and amid the anticipated weakening of economic growth, inflation would subside and return close to the inflation target over the monetary policy horizon.

In turn, certain Council members argued that considering the persistence of some of the factors increasing inflation, price growth might be higher than currently forecast. At the same time, in those Council members' opinion, the scale of economic slowdown would be limited and thus would not weaken demand pressure substantially. Those Council members assessed that in the face of the current heightened inflation there was a risk of mounting wage pressure and the occurrence of second-round effects. As a consequence, although price growth in the second half of 2020 will probably be lower than in the first half of the year, according to these Council members it might continue above the inflation target over the monetary policy horizon. Those Council members also observed that some measures of inflation expectations of households and businesses had risen recently. They judged that the rising inflation expectations of enterprises, amid lower profitability of their operations than in previous years, might increase the propensity of firms to raise prices.

Yet the majority of the Council members noted that households' and enterprises' inflation expectations were adaptive and their rise mainly reflected higher current inflation. It was indicated that given the expected economic slowdown, the propensity and ability of firms to raise prices would be limited. Furthermore, it was observed that financial analysts forecast inflation to decline to around 2.5% next year.

The majority of the Council members pointed out that in the current global economic conditions, real interest rates were at negative levels in many countries, including in all the economies of Central and Eastern Europe, and that their level in Poland was among the highest in the region. At the same time, these Council members noted that although the NBP reference rate in Poland was negative in real terms, the real interest rate on loans to households and corporations was significantly positive. They also emphasised that the average interest rate on new loan agreements for households in Poland was currently one of the highest of all the economies of the European Union. These Council members additionally highlighted the recent marked slowdown in lending growth in the economy. They also underlined that in 2019 the loan-to-GDP ratio had further declined.

However, certain Council members pointed out that – with no NBP interest rate increases – the forecast rise in inflation would cause the NBP reference rate to decline in real terms to a more negative level. Those Council members judged that the negative level of real interest rates, in their opinion, was conducive to rapid lending growth, including in particular lending growth in consumer loans to households. They also expressed the view that the low level of real interest rates was responsible for the high growth in current deposits and also increased demand for other, more risky assets, including real estate.

Taking into account current information and forecasts, the majority of the Council members decided that interest rates should remain unchanged. In their opinion, the outlook for the domestic economy remained favourable, yet GDP growth would be lower than in previous years. At the same time, the Council assessed that uncertainty as to the scale and duration of the economic slowdown abroad and its impact on domestic economic activity persisted. The Council observed that according to current forecasts, in the coming months inflation might exceed the upper limit for deviations from the inflation target. At the same time, the factors that would most likely boost CPI inflation in the coming months were mainly of a supply-side and regulatory nature. Therefore they would have only a temporary impact on inflation, while at the same time they would put a drag on economic activity. As a result, along with the expected slowdown in economic growth, inflation would decline and return close to the target over the monetary policy transmission horizon. In the opinion of the majority of the Council members, the current level of interest rates would hence be conducive to keeping the Polish economy on a sustainable growth path and maintaining macroeconomic stability, and would at the same time allow meeting the inflation target in the medium term.

The majority of the Council members also expressed an opinion that, taking into account current information, interest rates were likely to remain stable in the coming quarters. These Council members pointed out that their assessment was supported by current forecasts indicating that inflation would remain in line with the NBP inflation target over the monetary policy horizon amid a more pronounced slowdown in GDP growth than previously forecast. In the opinion of these Council members, considering lags in the monetary policy transmission mechanism, any interest rate increase under the current conditions would not prevent a temporary rise in inflation in 2020, but at the same time could deepen the economic slowdown and cause inflation to fall below the target over the monetary policy horizon.

However, certain Council members judged that over the monetary policy horizon inflation might be higher than indicated by the current forecasts. They pointed out that such a risk was related to the possible persistence of some of the factors currently raising price growth. In the opinion of these Council members, should incoming data and the projection indicate an increase in this risk, it might be justified to raise interest rates in the coming period.

In turn, certain Council members pointed to the increased risk of a sharper and more lasting global economic slowdown, as well as to further signs indicating the transmission of the weak global economic conditions into economic growth in Poland. At the same time, the risk of inflation deviating from the NBP target over the monetary policy transmission horizon was limited. As a result, a view was maintained that it was justified to lower interest rates now and that – in the longer run – it might be justified to consider further cuts in interest rates or the introduction of unconventional monetary policy instruments.

At the meeting, a motion to cut the basic 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% and the rediscount rate at 1.75%.

Information from the meeting of the Monetary Policy Council held on 3-4 March 2020

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%

Incoming data from the global economy indicate a stabilisation of economic growth at a relatively low level. In the euro area, economic growth declined in 2019 Q4, amid the ongoing downturn in industry. In contrast, in the United States GDP growth remained stable in this period, despite the subdued activity in industry. In China, GDP growth stabilised in 2019 Q4 at a lower level than in previous years, and economic activity growth weakened markedly at the beginning of 2020.

Due to the spread of coronavirus, uncertainty about the global economic outlook has increased and sentiment in the financial markets deteriorated recently.

Global oil prices have fallen considerably. In turn, the prices of many food commodities remain high. As a result, inflation in the global economy, including the external environment of the Polish economy, has risen in the past few months.

The US Federal Reserve lowered interest rates in March 2020.The European Central Bank is keeping the deposit rate below zero, while conducting asset purchases and signalling the maintenance of loose monetary policy in the coming quarters.

In Poland, economic conditions remain good despite a slowdown in economic growth. In 2019 Q4, real GDP growth stood at 3.2%. GDP growth was supported by the steady consumption growth, albeit slightly slower than before, fuelled by favourable labour market conditions, strong consumer confidence and social benefit payments. At the same time, investment continued to rise and the contribution of net exports to GDP growth remained positive.

According to the preliminary GUS data, inflation rose to 4.4% y/y in January 2020. The rise in inflation above the upper bound for deviations from the inflation target was driven by regulatory and supply-side factors that remain beyond the influence of domestic monetary policy. These comprised, in particular, higher electricity prices, higher fuel prices, an increase in waste disposal charges and in the excise tax on alcohol and tobacco, as well as a further rise in the prices of unprocessed food. The favourable financial situation of households and the resulting rise in consumption demand also put an upward pressure on price growth.

The Council became acquainted with the results of the March projection of inflation and GDP, prepared under the assumption of unchanged NBP interest rates. The March projection takes into account data and information published up to 18 February 2020. In line with the March projection based on the NECMOD model, there is a 50% probability that inflation will be in the range of 3.1-4.2% in 2020 (compared to 2.1-3.6% in the November 2019 projection), 1.7-3.6% in 2021 (against 1.6-3.6%) and 1.3-3.4% in 2022. At the same time, the annual GDP growth – according to this projection – will be with a 50% probability in the range of 2.5-3.9% in 2020 (compared to 2.7-4.4% in the November 2019 projection), 2.1-3.9% in 2021 (against 2.3-4.2%) and 1.8-3.7% in 2022.

In the Council's assessment, the outlook for economic conditions in Poland remains favourable, yet GDP growth in the coming quarters will probably be weaker than in the previous years. In the recent period, however, uncertainty about the scale and persistence of the economic slowdown abroad and its impact on domestic economic activity has increased.

In the coming quarters, the annual inflation may remain above the upper bound for deviations from the inflation target due to supply-side and regulatory factors, i.e. ones remaining beyond the direct influence of domestic monetary policy. As the impact of these factors fades and GDP growth weakens, inflation will gradually decrease. In the monetary policy transmission horizon inflation will be close to the target. Such an assessment is supported by the results of the March 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, while at the same time enabling to meet the inflation target in the medium term.

The Council adopted the *Inflation Report – March 2020.*

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 March projection based on the NECMOD model covers the period from 2020 Q1 to 2022 Q4. The starting point for the projection is 2019 Q4.

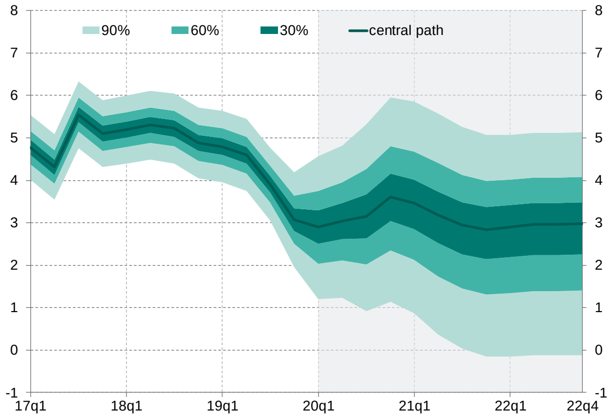
The cut-off date for the data used in this projection is 18 February 2020.

4.1 Summary

GDP growth in Poland slowed down in 2019 Q4, running below the expectations of the November projection. Deceleration of economic growth in Poland is to a large extent a result of the protracted slowdown in the main European economies, which adversely affects corporate and household sentiment. In the absence of a marked recovery in the external environment of the Polish economy, it is expected that domestic economic activity will remain subdued in the horizon of the projection. Decreasing absorption of EU funds in 2021-2022 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 legislative and fiscal changes introduced by the government which increase household disposable income. These changes will help smooth consumption amid an expected fall in demand for labour. Positive impact of fiscal policy on household income in 2020 will be reduced by an increase in CPI inflation, including the rise of energy prices and waste disposal charges related to EU environment and climate change policies. On the other hand, low interest rates and the resulting low cost of credit will have a favourable impact on domestic demand over the projection horizon.

In 2020 CPI inflation will increase. This will be a result of the delayed impact of the earlier increase in demand and growing labour costs, combined with the effects of the supply-side shock in the food market as well as one-off factors including the increase in administrative prices and higher excise tax on alcohol and tobacco products. In the coming years, together with the receding impact of supply-side factors boosting price growth in 2020 and weakening demand pressure, CPI inflation will decrease, to run slightly lower than 2.5% at the end of the projection horizon. Consumer price inflation over the projection horizon will be curbed by the presence of a substantial number of immigrants in

Figure 4.1 GDP (y/y, %)



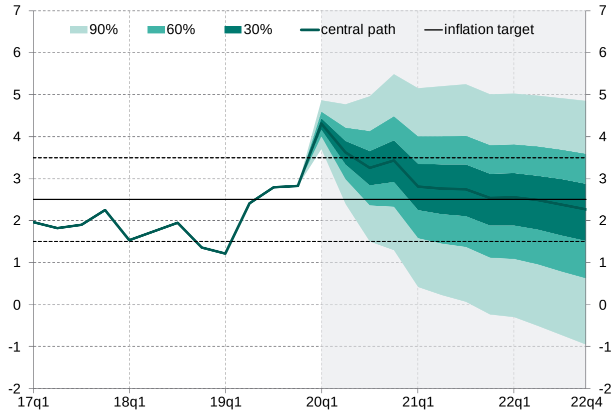
Source: Statistics Poland (GUS) data, NBP calculations.

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.).

the domestic labour market, mainly Ukrainian citizens, increasing the productive potential of the Polish economy and curbing growth in labour costs. Low price dynamics in countries that are Poland's main trading partners will also exert downward pressure on domestic inflation.

The materialisation of the projection scenario will largely depend on the future economic conditions in the global economy. The main risk factors for domestic GDP growth and inflation include longer and more severe coronavirus epidemic, as compared with the current assessment, an escalation of trade disputes between the world's major economies, and the scale of transmission of the slowdown in the European economies to sentiment in Poland. Developments in global prices of energy and agricultural commodities will also be an important uncertainty factor. The balance of risks 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, %)



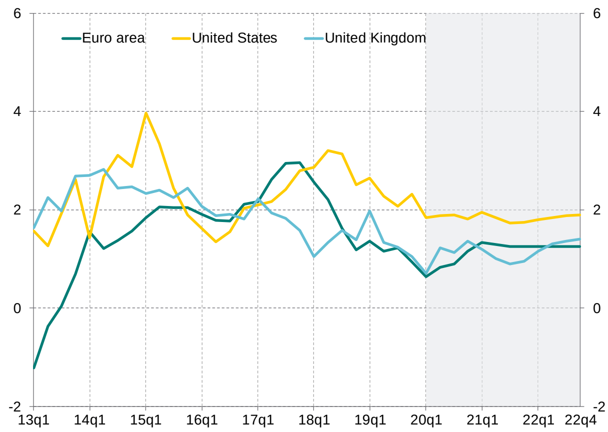
Source: Statistics Poland (GUS) data, NBP calculations.
The methodology of construction of fan charts is discussed in the note under Figure 4.1.

4.2 External environment

Economic growth

Data incoming since the publication of the previous projection indicated that the downward trends in global GDP growth had weakened. However, the outbreak of the coronavirus epidemic has led to a renewed deterioration in the growth outlook of the global economy. In particular, it can be expected that the consequences of the spread of the COVID-19 virus for the Chinese economy will be greater than in the case of the SARS epidemic, which led to a temporary slowdown in GDP growth in China by approx. 2 percentage points in 2003 Q2. Since that time, the share of services in the Chinese GDP has grown, which increases the exposure of this economy to shocks in the transport, tourism and entertainment sectors. The scale of restrictions introduced by the Chinese authorities aimed at

Figure 4.3 GDP abroad (y/y, %)



Source: Bloomberg, Eurostat data, NBP calculations.

limiting the spread of the virus is also much greater than in 2003. It can also be expected that the global effects of the coronavirus epidemic will be greater than in the case of SARS due to the quadrupling of the share of China in global GDP since 2003 and the significant position of this country in global value chains. An important effect of the spread of coronavirus is heightened volatility in financial markets and a deterioration in business sentiment. In the baseline scenario of the projection it is assumed that it will be possible to control the epidemic in a relatively short time, and as a result, the slowdown in GDP growth in China and the global economy will be temporary. However, there is a risk that the epidemic will be more severe, and its prolongation will have economic consequences in the form of a permanent downward shift of the growth path of the global economy. It may be caused, among others, by supply disruptions due to disturbances in global supply chains (see Chapter 4.5 *Forecast uncertainty sources*).

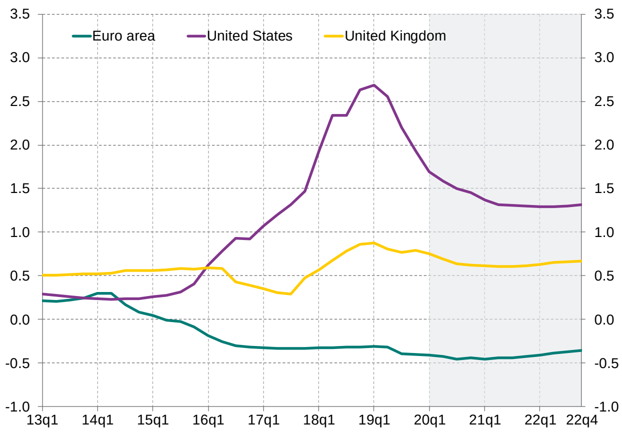
In the projection horizon no significant improvement in the economic situation of Poland's main trading partners is expected (Table 4.1, Figure 4.3). The spread of the coronavirus epidemic has caused a downward revision of the GDP growth forecast for the euro area compared to the assumptions of the previous forecasting round. In particular, it is assumed in the baseline scenario of the projection that the effects of the epidemic will to the greatest extent affect the service sector in some of the large economies of the euro area, as well as the industrial sector in Germany due to its exposure to disturbances in world trade. Expectations about the economic growth outlook in the United Kingdom have also been lowered. The British parliament has ruled out the possibility of extending the transition period in the UK-EU post-Brexit relations, which will most likely lead to an increase in non-tariff barriers in trade between these entities starting from 2021. On the other hand, in the case of the United States, the current projection assumes a slightly higher GDP growth path than in the November projection, which is due

Table 4.1 GDP abroad - March projection versus November projection

	2019	2020	2021
GDP in Euro Area (y/y, %)			
March 2020	1.2	0.9	1.3
November 2019	1.2	1.1	1.3
GDP in United States (y/y, %)			
March 2020	2.3	1.9	1.8
November 2019	2.2	1.7	1.7
GDP in United Kingdom (y/y, %)			
March 2020	1.4	1.1	1.0
November 2019	1.4	1.2	1.3

Source: NBP calculations.

Figure 4.4 Interest rates abroad (%)



Source: Bloomberg data, NBP calculations.

to the de-escalation of the trade disputes after the signing of the *Phase One* agreement between the United States and China. However, in the projection horizon, GDP growth in the United States will decline compared to the level observed in 2019 due to the uncertainty about the trade policy, which still remains elevated, as well as the fading procyclical impact of fiscal policy. The unfavourable economic conditions in the countries that are Poland's main trading partners will be mitigated by the actions of the central banks. Futures quotes suggest a slight interest rate cuts could be expected in the United States and the United Kingdom, while the ECB will maintain its accommodative monetary policy stance (Figure 4.4). Despite these measures, GDP growth in the euro area, the United States and the United Kingdom will run below the potential growth rate.

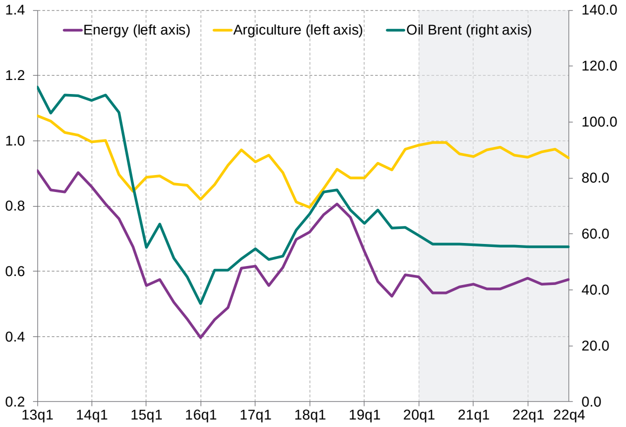
The forecast of GDP growth in the economies of Poland's main trading partners is still subject to heightened uncertainty. This is mainly the result of concerns about the growth outlook of the global economy in light of the spread of the coronavirus epidemic, the possible re-escalation of trade conflicts and the concentration of economic growth of developing countries among a narrow group of states. Heightened uncertainty concerning the lack of agreement regulating mutual trade relations between the EU and the United Kingdom after Brexit remains an important risk factor in the projection.

Inflation and commodity markets

The energy commodity price index, covering oil, natural gas and hard coal prices, taking into account the consumption structure of these commodities in Poland, will run at a relatively stable level in the projection horizon (Figure 4.5).

In 2020 Q1, global oil prices are running at a level close to the expectations of the previous forecasting round. The increase in prices of this commodity at the beginning of 2020 due to the escalation of the conflict between the United States and Iran and the

Figure 4.5 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 prices of crude oil, coal and natural gas, taking into account of the consumption structure of these commodities in Poland. The agricultural commodity price index includes prices of wheat, pork, skimmed milk powder, butter, sugar, cocoa, coffee, frozen concentrated orange juice, potatoes, oilseed, allowing for weights reflecting the consumption structure of Polish households.

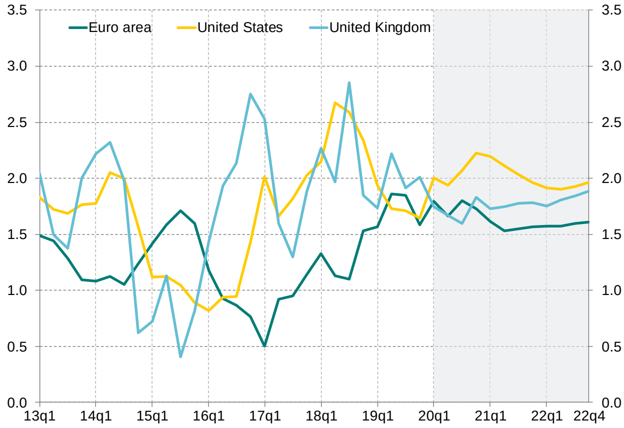
accompanying concerns about the supply of oil from the Persian Gulf was only temporary. With the assumed lack of a recovery in the global economy, which in the recent period is additionally caused by the spread of the coronavirus epidemic, in the coming years global oil prices will run at a stable level, close to the expectations of the November projection. At the same time, growing oil production in the United States will offset the decision of OPEC+ to limit production of this commodity.

As a result of the warm winter in Europe, natural gas prices in the global markets have fallen significantly. In the projection horizon, as the situation in the market for this commodity normalises, natural gas prices will gradually increase, approaching the levels from the previous forecasting round.

In the coming years hard coal prices will remain relatively low, as they will continue to be affected by weak global economic conditions and the climate policy implemented by the developed countries, aimed at reduction of the consumption of coal as a source of energy.

In 2019 Q4 the agricultural commodity price index was running significantly higher than assumed in the November projection, mainly due to higher pork prices in global markets (Figure 4.5). This change is the result of stronger than expected growth in pork imports by China due to the escalation of the ASF epidemic in this country. As the process of rebuilding the pig herd is lengthy, in the current forecasting round it is assumed that the agricultural commodity price index will remain elevated in 2020. In the longer projection horizon, along with the likely return of pork production in China close to the level observed in the period before the outbreak of the ASF epidemic and a significant reduction of pork imports, the agricultural commodity price index will gradually decrease.

Figure 4.6 Inflation abroad (y/y, %)



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

The March projection assumes that inflation in the economic environment of Poland (measured by the change in the value added deflator, see Figure 4.6) will remain moderate, amid low GDP growth in relation to productive capacity. Cost pressure in the United States will be lowered by the reduction of import duties on goods imported from China and the cancellation of the introduction of new tariffs on goods imported from this country. On the other hand, the operating costs of enterprises in the euro area will be increased by the effects of the implementation of the climate and energy package introducing CO2 emission fees for energy producers and the transport sector.

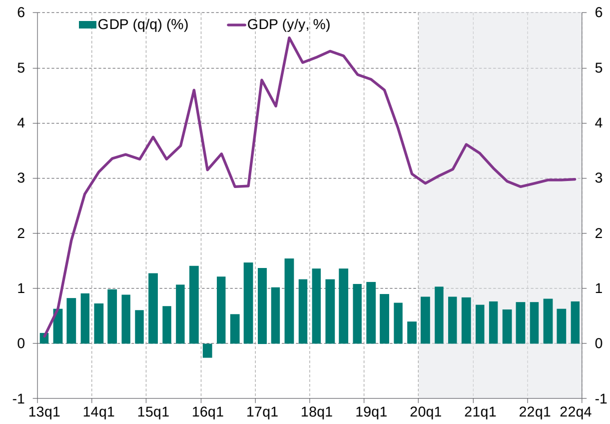
4.3 Polish economy in 2020-2022

Domestic demand

After a decline during 2019, resulting to a great extent from the deteriorating economic situation abroad, GDP in Poland will grow at a level below its potential over the projection horizon (Figure 4.7, Figure 4.8). Apart from the prolonged period of low growth in foreign demand, the decline in absorption of the EU funds after it reached its peak in 2020 will have a negative impact on the growth outlook for the Polish economy (Figure 4.11). The scale of the slowdown in economic activity will be mitigated by the introduced and announced fiscal changes, which by increasing household disposable income will have a positive impact on private consumption in particular.

In the years 2020-2022 household consumption growth will remain to be the main driver of GDP growth (Figure 4.8, Figure 4.9). Private consumption will continue to benefit from the still favourable situation of employees in the labour market, resulting in continued relatively high growth in the wage bill. Additionally, wage growth resulting from the increase in the minimum wage at the beginning of 2020 will affect households with relatively higher marginal propensity to consume. Household disposable income will also be

Figure 4.7 Economic growth



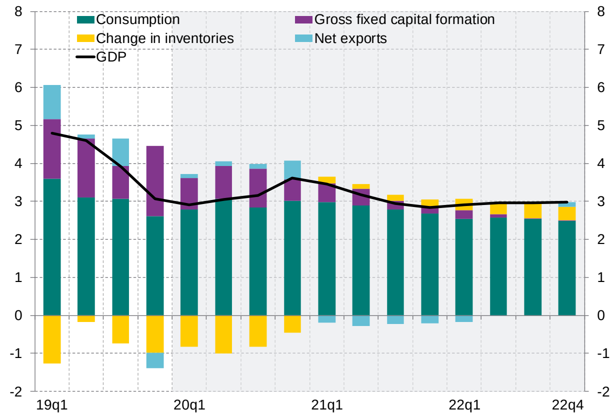
Source: Statistics Poland (GUS) data, NBP calculations.

increased by the fiscal package, which includes an extension of the "Family 500 plus" programme, a reduction in the tax burden on employees, payment of additional annual pension benefits, and the payment of additional benefits for disabled people. At the same time, in 2019 households were cautious about spending their growing disposable income, to a greater extent allocating it to build up their savings. This creates space to smooth out the consumption path in the future. As a result, the decline in private consumption growth accompanying the slower growth in the wage bill will be relatively small over the projection horizon.

In the years 2020-2022, the growth rate of gross fixed capital formation will decline as a result of the slowdown in private investment growth, which in the years 2021-2022 will be accompanied by reduced public investment due to the decline in the utilisation of EU funds co-financing these investments (Figure 4.10, Figure 4.11).

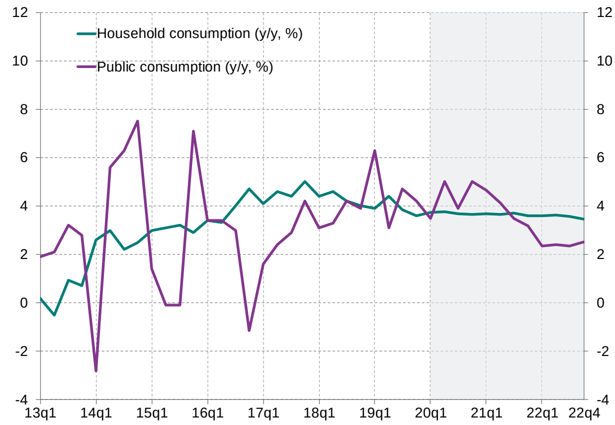
The deterioration in the outlook for private investment in the years 2020-2022 will be primarily due to the continued low growth in external demand (Figure 4.10). The results of business surveys confirm there is very little interest among companies in starting new investments, in either the perspective of a quarter or a year, and more often they scale back or give up on investments already started.[53] According to these surveys, the relatively high capacity to increase production is accompanied by a deterioration in demand forecasts.[54] This especially concerns the group of exporting enterprises, for which export is the main source of income. In addition, private sector capital expenditure will to a lesser extent be financed by the inflow of EU funds (in 2022 this contribution will be negative, as in the case of public investment)(Figure 4.11). The gradual decline in the growth rate of household disposable income in

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.

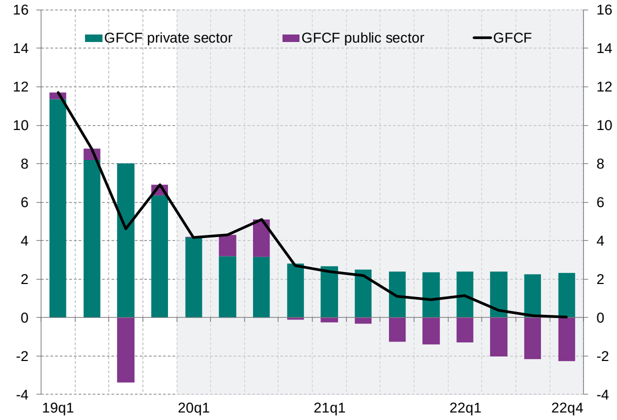
[53] NBP Quick Monitoring Survey. Economic climate in the enterprise sector, NBP, January 2020.
[54] NBP Quick Monitoring Survey. Economic climate in the enterprise sector, NBP, January 2020.

the projection horizon will also contribute to slower growth of housing expenditure.

In the long run, however, the growth in capital expenditure should be supported by the low degree of automation and robotization of Polish industry. Rising labour costs resulting from the planned legislative changes may be another factor encouraging enterprises to speed up automation processes in production and services at the expense of employment. In particular, the results of surveys indicate that more often than a year ago the aim of new investments will be to reduce costs, and firms with a high share of employees receiving remuneration at the level of the minimum wage are twice as interested in investments allowing them to reduce costs.[55] However, the impact of this factor over the projection horizon will be relatively small due to the limited possibilities of substituting human labour in many industries and given the length of the investment cycle. Loan-financed purchase of fixed assets is also supported by the record low interest rates, although own funds remain the main source of financing investments of both enterprises and households.[56,57]

In the years 2020-2021, 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, in 2020 public consumption growth will be supported by wage increases of 6% for state sector employees and the wage increases of 9.6% that teachers received in September 2019. In 2021, growth in this consumption component will be boosted by the inclusion of public sector workers in the Employee Capital Plans (PPK), which will increase the public sector expenditure on contributions paid from

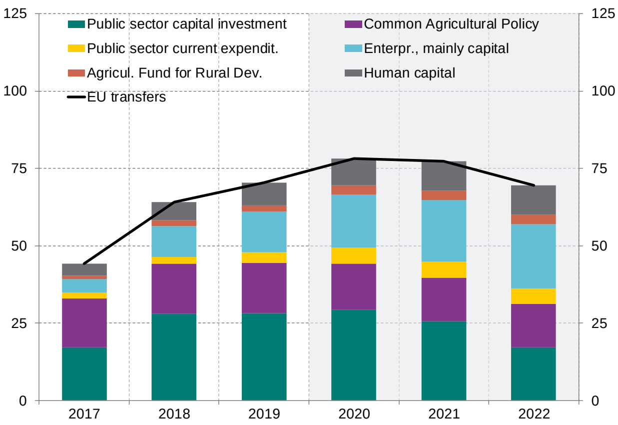
Figure 4.10 Gross fixed capital formation (y/y, %) – breakdown



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.

[55] NBP Quick Monitoring Survey. Economic climate in the enterprise sector, NBP, January 2020.

[56] 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, January 2020.

[57] Information on home prices and the situation in the residential and commercial real estate market in Poland in 2019 Q3, NBP, January 2020. 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.

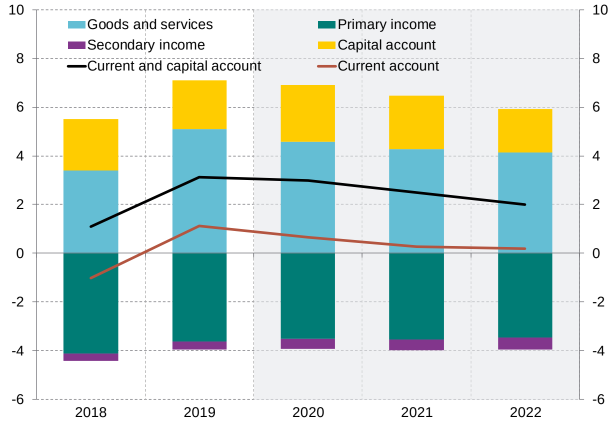
remuneration. In the longer projection horizon, public consumption growth will converge towards the GDP growth path, as a result of the assumption of neutral fiscal policy.

Current and capital account balance

In 2019 the surplus on the current and capital account increased and amounted to 3.1% of GDP.[58] A further improvement in external balance indicators of the Polish economy was the result, above all, of the record high trade balance, which reached 5.1% of GDP in 2019 (Figure 4.12). Polish export growth continued to be characterised by strong resilience to the continued slowdown in the euro area, including in the German economy (Figure 4.13). This was supported by the structure of Polish exports, which on the one hand, is characterised by a greater importance of final consumer demand than in other countries of the region, and on the other hand, is increasingly based on the service sector. Given that consumer demand and the export of services show less sensitivity to changes in business conditions, such structure of Polish exports contribute to maintain foreign sales growth amid a slowdown in the economies of Poland's trading partners. Moreover, this was accompanied by a more favourable terms of trade in 2019 (Figure 4.14) related to the fall in prices of energy commodity in the global markets.

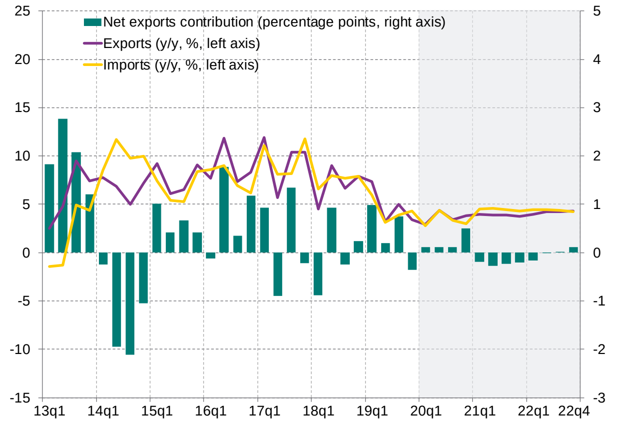
It is expected that in the years 2020-2022 the current and capital account balance will deteriorate, but remain positive (Figure 4.12). Over the projection horizon the positive trend in the developments of the trade balance will reverse due to the expected decline in the contribution of net export to GDP growth in the coming years (Figure 4.13). This will be caused by the negative impact of low external demand, particularly from Germany and the United Kingdom, which will increasingly affect Polish exporters, accompanied by a relatively

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.

[58] The balance of payments indicators for 2019 were calculated on the basis of quarterly data for the period 2019 Q1-Q3 and monthly estimates for the period October-December 2019. Data could be subject to revision. Data for 2019 Q4 will be published on 31 March 2020.

stable path of import growth. The currently high surplus on the capital account will decline somewhat over the projection horizon which will result from the lower inflow of EU funds settled under the EU financial framework 2014-2020, which is nearing its end (Figure 4.11). These trends will be accompanied by the continued negative primary and secondary income balance (Figure 4.12), while income of foreign direct investors in Poland will remain the main source of the deficit.

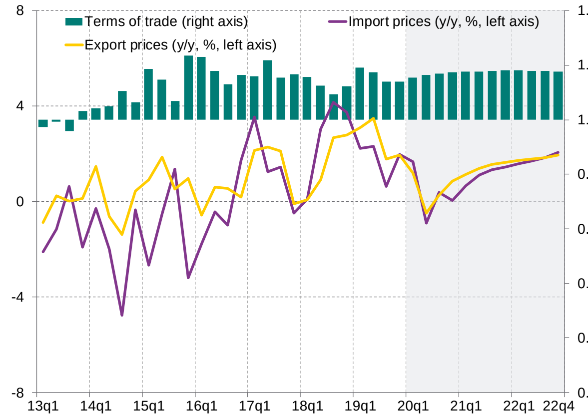
Potential output

In the projection horizon potential output growth of the Polish economy will run at an average rate of 3.6% y/y, with the negative labour share and the positive contribution of capital and factor productivity to growth (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.[59] At the same time, their productivity is growing steadily, which is reflected, *inter alia*, in an increasing share of immigrants in higher productivity sectors. In the projection horizon, along with the depletion of the immigration potential of Ukraine and the possible outflow of immigrants working in Poland to other EU member states, it is possible that the increase in the number of employees from Ukraine will slow down.

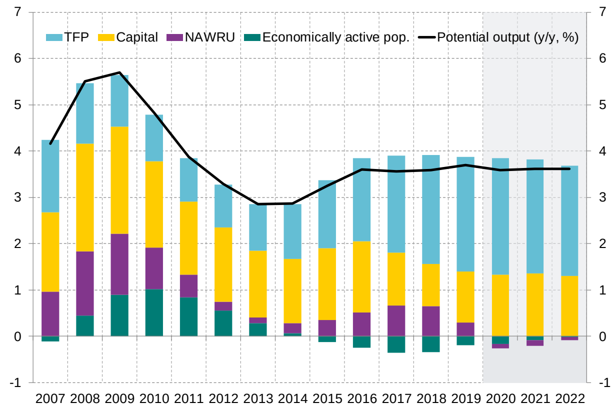
Other structural changes in the labour market, resulting in a significant improvement in the match between the demand and supply of domestic employees, have also had a positive impact on potential output (Figure 4.16). These trends are

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:

$PKB_t^{pot} = TFP_t^{trend} \cdot [LF_t^{trend} \cdot (1 - NAWRU_t)]^{0.67} \cdot K_t^{1-0.67}$,

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.

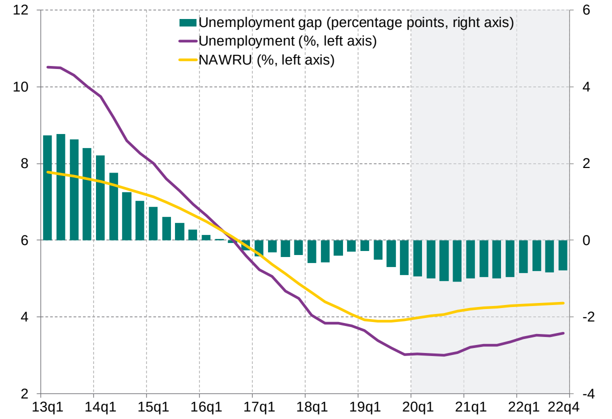
[59] Immigrants have a positive impact on the potential of Poland's economy, but due to the definition of the Polish residents used in the LFS survey, they are included in the cohorts of the economically active and employed persons only to a limited extent according to this methodology. In the NECMOD 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.

reflected, *inter alia*, 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 than in Western European countries. The increased labour market participation of this age group has to a large extent offset the decline in the working age population observed in recent years (Figure 4.19, Figure 4.17). At the same time, the share of employees with higher education in the population aged 45-59/64 years is growing, reflecting the improving quality of human capital that has a positive impact on the productivity growth rate 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 15% increase in the minimum wage in introduced in 2020 and planned in 2021, thus larger than the rate of forecast 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 threshold). 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 allowance was increased.

Another factor positively affecting potential output growth is the growing innovation capacity of the Polish economy and the improvement in Poland's position in the global value chains as well as the export of services. On the other hand, the gradually declining investment rate over the projection horizon is a factor that hampers the growth rate of productive capital.

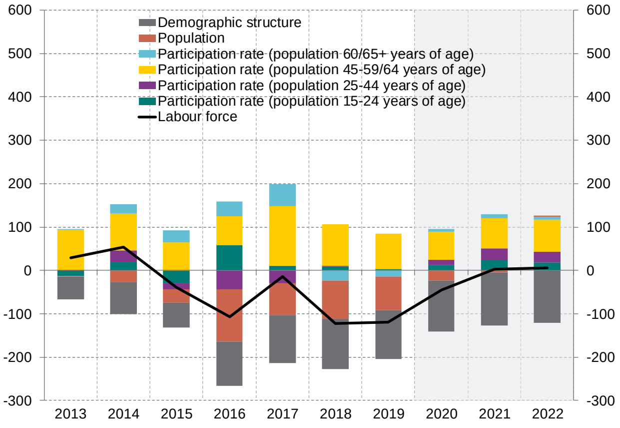
Figure 4.16 Unemployment



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)



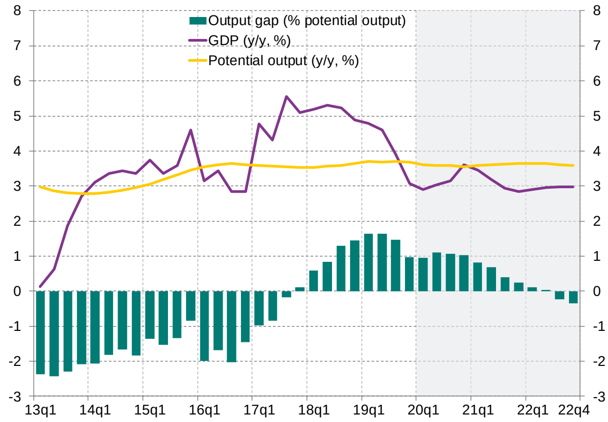
Source: Statistics Poland (GUS) data, NBP calculations.

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.

Output gap

Slowing economic growth in the projection horizon will no longer exceed the growth rate of potential output as it has in recent years. As a result, the currently positive output gap, which is a synthetic measure of demand pressure, will start to gradually close and will turn negative at the end of the projection horizon. Thus, over the next three years, demand pressure will weaken significantly and will lead to a slowdown in the rate of price growth in the economy.

Figure 4.18 Output gap

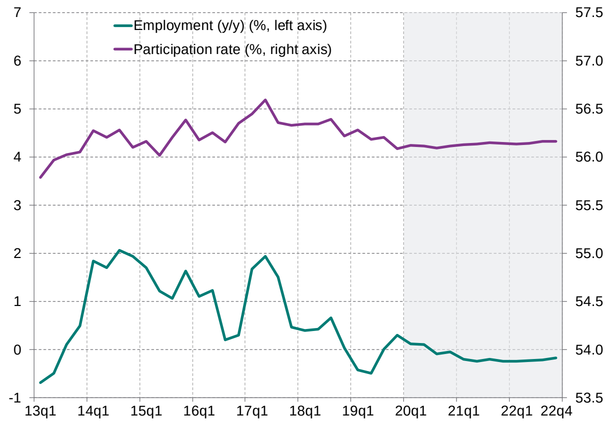


Source: Statistics Poland (GUS) data, NBP calculations.
The output gap is a synthetic measure of demand pressure in the economy. It is expressed as a percentage of the deviation of the actual real level of GDP from the level of potential output.

Labour market

The economic slowdown in Poland contributes to the weakening of the previously strong demand for labour (see Chapter 2.4 *Labour market*). In the projection horizon these trends are expected to continue, with the additional effects of significant increases in the minimum wage in 2020 and 2021. The materialisation of a slower growth in demand for labour scenario is indicated by a declining percentage of companies planning to increase employment over the next 12 months, with a simultaneous increase in the percentage of firms expecting to reduce the number of employees.[60] At the same time, firms are less frequently reporting staff shortages as a barrier to growth.[61] The economic slowdown will be the main factor behind a fall in employment and an increase in unemployment rate, while the increase in the minimum wage will have a limited impact, which is confirmed in the survey responses of enterprises[62] (Figure 4.16, Figure 4.20).

Figure 4.19 Employment and labour force participation



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

Wage growth will gradually decrease over the projection horizon, along with the fall in demand for labour (Figure 4.21). The scale of this slowdown in the years 2020-2021 will be curbed by the significant increase in the minimum wage. This scenario is supported by business survey results,

[60] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector*, NBP, January 2020.
[61] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector*, NBP, January 2020.
[62] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector*, NBP, January 2020.

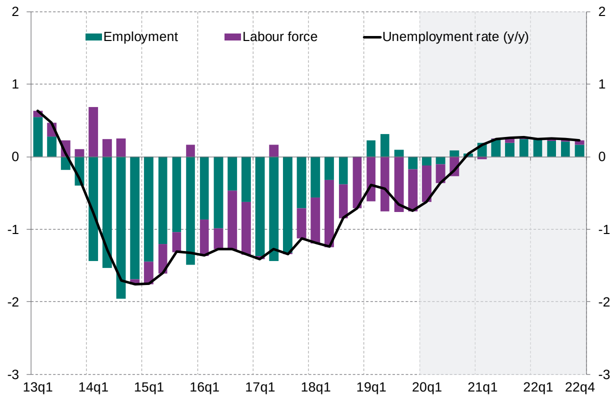
according to which the percentage of firms signalling wage pressure has been slowly decreasing since mid-2019. However, these surveys indicate an increase in the percentage of enterprises planning significant wage increases in the first quarter of 2020, in particular, among micro and small enterprises,[63] which may be related to the increase in the minimum wage since the beginning of 2020. However, over the projection horizon wage pressure will continue to be mitigated by the presence of immigrants, mainly from Ukraine. Their importance for the labour market is growing along with the increase in the average length of stay in Poland and their growing presence in other sectors of the economy.

Over the projection horizon labour costs will also be boosted by the introduction of Employee Capital Plans (PPK), but the impact of this factor will be relatively weaker. The above conditions are reflected in the growth in unit labour costs. At the beginning of the projection horizon the slowdown in economic activity will relatively more strongly reduce the rate of labour productivity growth than the rate of wage growth, while a significant fall in growth in unit labour costs is expected in the further projection horizon (Figure 4.21).

Exchange rate

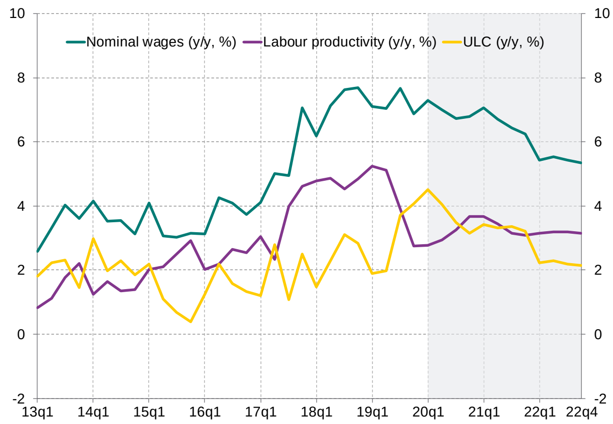
In the recent period the zloty exchange rate has remained relatively stable against the currencies of Poland's main trading partners, continuing to run below the level consistent with fundamentals. Therefore, over the projection horizon the real effective exchange rate of the zloty is expected to strengthen, gradually approaching the equilibrium exchange rate. Such a scenario is supported by the still favourable outlook for the domestic economy, reflected in stronger GDP growth than in the main trading partners. The record high joint current and capital account balance and sound public finances will also run in the same direction.

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.

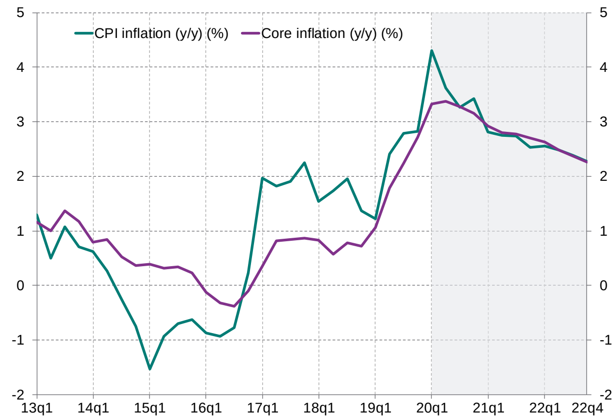
[63] NBP Quick Monitoring Survey. Economic climate in the enterprise sector, NBP, January 2020.

CPI inflation

In 2020 there will be a marked increase in CPI inflation. This will be a result of the still relatively strong, although weakening, demand pressure, the effects of the supply-side shock in the food market as well as one-off factors including the increase in administrative prices and higher excise tax on alcohol and tobacco products. In the coming years, with the receding impact of supply-side factors boosting price growth in 2020 and with flagging demand pressure, CPI inflation will decrease, and at the end of the projection horizon will reach a level slightly below 2.5% (Figure 4.2, Figure 4.22).

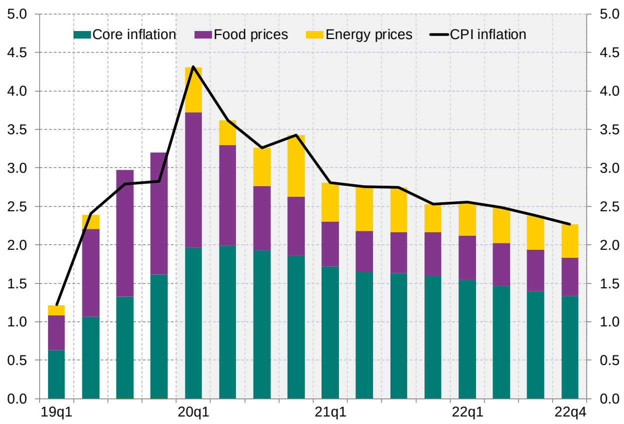
Elevated growth in labour costs and the continued positive output gap will boost consumer price inflation in 2020. The increase in waste disposal charges, both introduced and planned by local governments will also significantly boost core inflation in 2020. The increase in excise tax on alcohol and tobacco products by 10% from 1 January 2020 is also a factor working in the same direction. At the same time, unfavourable supply-side conditions are increasing the current level of food prices. The occurrence of the ASF epidemic in China, resulting in increased import demand from this region for pork amid a simultaneous fall in the pig herd in the EU, is causing a sharp increase in pork prices in Poland. Unfavourable weather conditions in 2019 resulted in lower fruit and vegetable harvests, which will continue to boost price growth of these products in the first half of the current year. In 2020 energy price growth is also picking up. This is caused by the approval by the President of the Energy Regulatory Office of new, higher tariffs for households after the expiry of the statutory freeze on electricity prices, as well as the introduction at the end of 2020 of the so-called capacity charge[64] added to the electricity bills (Figure 4.24).

Figure 4.22 CPI and core inflation



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

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



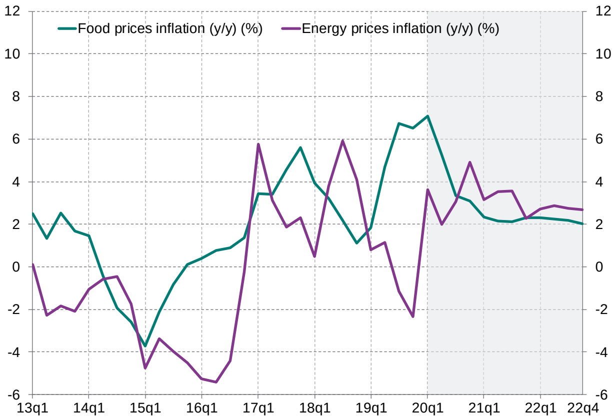
Source: Statistics Poland (GUS) data, NBP calculations.

[64] The funds from the capacity charge are to be allocated to supporting the functioning of the so-called capacity market, in other words, solutions which are supposed to provide funds for the construction of new generating units as well as for the modernisation

In the longer projection horizon along with slowing GDP growth output gap will close and then turn negative, hence weakening demand pressure will lead to a decrease in price growth. The flagging cost pressure on the part of the labour market, reflected in the declining growth in unit labour costs, will also put downward pressure on inflation. At the same time, the majority of supply disturbances boosting food price growth in 2020 will fade in the next year. This is a result of the assumption of a normalisation of weather conditions and a slowdown in growth in meat prices. Regulatory factors raising core inflation significantly in 2020, in particular the increase in excise tax and in waste disposal charges, will cease to bear an impact on year-on-year inflation rate in the second half of 2021. In the case of energy prices, it is expected that in the years 2021-2022 they will grow in accordance with the mechanisms of the model and that the scale of electricity price increases will be smaller than assumed for 2020.

As a result, in the years 2021-2022 consumer price inflation will decline (Figure 4.23). In the whole of the projection horizon, the level of CPI inflation will also be limited by the relatively low level of energy commodity prices in the global markets (Figure 4.5), as well as the low level of inflation in Poland's main trading partners (Figure 4.6).

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 November 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 forecast of inflation for the current year, with a close-to-neutral impact on the expected price growth in 2021 (Table 4.2, Figure 4.25, Figure 4.27).

Table 4.2 March projection versus November projection

	2019	2020	2021
GDP (y/y, %)			
March 2020	4.0	3.2	3.1
November 2019	4.3	3.6	3.3
CPI inflation (y/y, %)			
March 2020	2.3	3.7	2.7
November 2019	2.3	2.8	2.6

Source: NBP calculations.

and functioning of existing ones. The existence of this type of generating unit is essential to ensure continuity of electricity supply in a situation in which weather conditions do not support the RES electricity production.

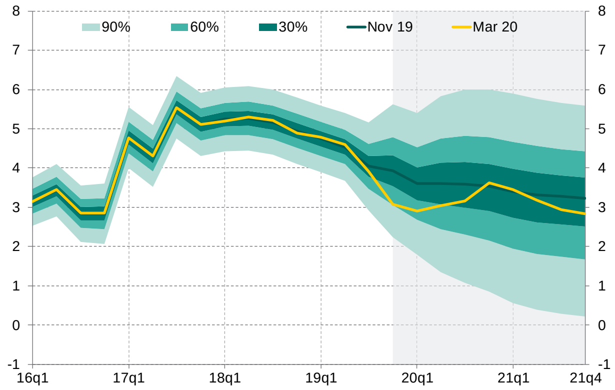
GDP

According to the Statistics Poland (GUS) estimates, GDP growth in 2019 declined as compared with the expectations of the previous forecasting round, translating into a lower economic growth in 2020 and, to a lesser extent, in 2021. A slight downward revision of the expected slowdown in the global economy in 2020, in particular in the euro area, will also contribute to the slower GDP growth forecast.

The reading of GDP growth in 2019 point to a slowdown in household consumption growth in the second half of 2019 to run below the expectations of the previous forecasting round. The slowdown in private consumption growth was observed despite relatively rapid household income growth due to increase in social transfers (including the extended Family 500 plus scheme) and the reduced tax burden amid persistently favourable labour market conditions. With the growing uncertainty about the outlook for economic growth abroad and in Poland, households are expected to make more prudent purchasing decisions in the coming quarters. This scenario is supported by the deteriorating consumer sentiment observed in the recent months. On the other hand, as there is more possibility to smoothen consumption, the revision of household consumption will be less pronounced in the longer projection horizon. A sharper slowdown in domestic economic growth will be translated into a lower growth path of inventories in the current forecasting round, according to the procyclical character of this category.

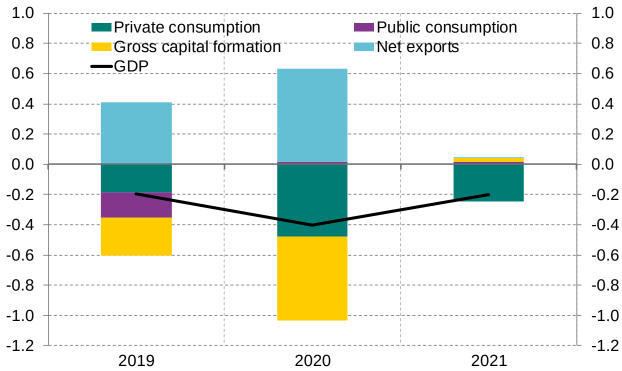
The scale of the downward revision of GDP growth in the projection horizon will be partly curbed by a higher contribution of net exports to economic growth. This will be driven by a steeper than expected slowdown of growth in domestic demand, translating into lower import growth. At the same time, the growth in exports of goods and services will run slightly above the expectations of the November projection. This is suggested by the foreign trade data for the second half of 2019,

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



Source: NBP calculations.

Figure 4.26 Decomposition of deviations between March and November 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.

indicating that the Polish export sector continued to feature high resilience to the persisting slowdown in the euro area economy, including in the German economy.

Inflation

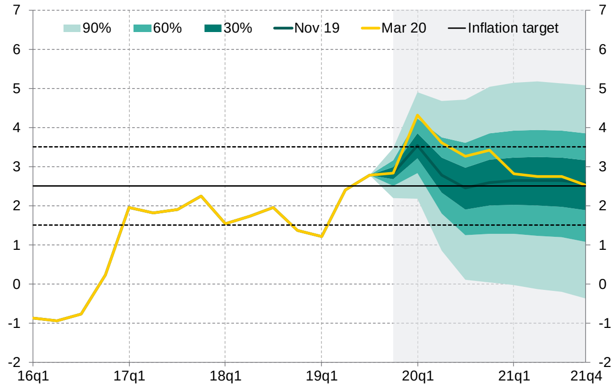
CPI inflation in 2020 will run well above the expectations of the previous forecasting round, which will be driven by an upward revision of all the main components of the index (Figure 4.28).

The upward revision of core inflation forecast in 2020 was driven by stronger than expected growth in the administered prices of waste disposal services. Faster growth of prices of core inflation components is also the result of a 10% rise, as of 1 January 2020, of the excise tax on alcoholic beverages and tobacco products as compared with the 3% rise assumed in the draft budget bill for 2020.

Higher growth of domestic food prices in 2020 is also the result of faster growth in pork prices than previously forecast due to a further escalation of the ASF epidemic in China. Higher growth in domestic food prices in current year is also driven by the planned introduction of the excise tax on sales of the so-called sweetened beverages as of 1 July 2020. In turn, faster growth in domestic energy prices as compared with the November projection is connected with the approval of higher than expected increases of tariffs on the sale and distribution of electrical energy by the Energy Regulatory Office.

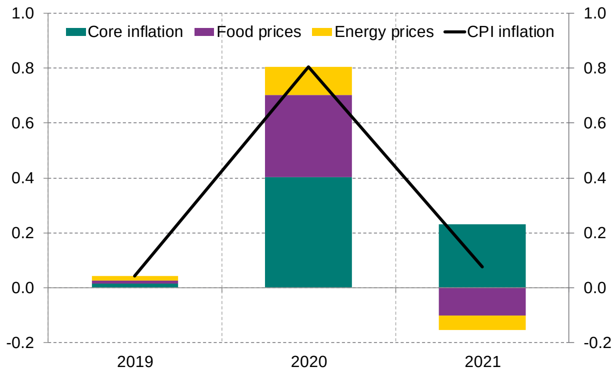
In 2021 the impact of regulatory changes affecting the prices of goods subject to excise tax in 2020 and electrical energy tariffs will fade away. At the same time, in 2021 consumer price inflation will be curbed by the fading away of supply shocks driven by the ASF epidemic in China, which was assumed in the projection. The increase in all CPI components will be additionally limited by lower demand pressure in the economy connected with the weakening economic growth in the years 2020-2021. As a result of the above developments, CPI in

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



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

Figure 4.28 Decomposition of deviations between March and November 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.

2021 should decline and return to the central path of the previous forecasting round

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 global economic conditions continue to be the major source of risk for economic activity and inflation in Poland. 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. 40% 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%)
20q1	0,00	0,00	0,01	0,52	0,01
20q2	0,00	0,07	0,45	0,51	0,45
20q3	0,05	0,24	0,60	0,51	0,55
20q4	0,07	0,24	0,53	0,51	0,46
21q1	0,19	0,42	0,69	0,50	0,50
21q2	0,21	0,44	0,70	0,51	0,49
21q3	0,23	0,45	0,70	0,52	0,47
21q4	0,28	0,52	0,75	0,53	0,47
22q1	0,29	0,52	0,75	0,54	0,46
22q2	0,32	0,55	0,77	0,55	0,45
22q3	0,35	0,58	0,79	0,55	0,44
22q4	0,39	0,61	0,81	0,56	0,42

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 further weakening of business conditions in the world economy.

One of the factors increasing the likelihood of this scenario materialising is a longer and possibly more dramatic course of the coronavirus epidemic (see Chapter 4.2 External *environment*). The base-line scenario assumed that the epidemic would soon be eliminated and its short-lived negative effects would affect only the service sector in China (transport, tourism, entertainment), the economies strongly integrated with China and some European economies. Should the coronavirus epidemic continue to spread, its consequences would be much more serious. This would particularly disrupt the global value chains, resulting in problems with the supply of many technologically advanced products. Consequently, the expected slowdown in business activity would increasingly hit the manufacturing sector, reducing global production capacity. Especially amid the inevitable increase in uncertainty in the financial markets, an economic downturn in China could lead to declining confidence of foreign investors, stronger outflow of capital from China and put a downward pressure on the Chinese juan. The need to counteract the depreciation of the Chinese currency would limit the room for manoeuvre of the Chinese central bank's monetary policy. In the event of a rapid spread of coronavirus in China and other countries and the accompanying increase in uncertainty, the volatility of financial markets would increase considerably and the sentiment of economic operators would markedly deteriorate. A more dramatic course of the coronavirus epidemic combined with a sustained slowdown in global trade and the deteriorating business sentiment would translate into a downward revision of the forecast economic growth in Poland as compared with the central projection path.

A major risk factor boosting the likelihood of a slowdown in the global economy is a possible further escalation of trade disputes between the world's major economies. While the Phase One agreement signed between the United States and China has partly eased the tension in their relations, there is still a long list of issues to be resolved between the United States and the European Union. One of the axis of the trade disputes between these two economies is the issue of subsidies for the manufacture of large passenger airplanes. In October 2019, the World Trade Organization (WTO) declared EU subsidies to Airbus contrary to the WTO rules, giving the United States the right to impose customs duties to offset losses. Under this decision, the US could increase their customs duties by 100% on goods manufactured in the European Union to a value of more than USD 7.5 billion. Up to now, the US Administration has taken advantage of this opportunity only to a limited extent, increasing tariffs on aircrafts to 10% and tariffs on certain agricultural and industrial products to 25%, hitting Germany, France and Spain the most, i.e. Airbus manufacturing countries. At the same time, the US Administration are considering the possibility of further increases in customs duties to offset the illegal subsidies. In the first half of 2020, the WTO is expected to issue a decision concerning the EU's appeal against the US subsidies to Boeing aircrafts production. Should the WTO rule in favour of the EU, the EU will have the right to impose customs duties on goods imported from the United States.

Another issue of contention is the imposition of a digital tax planned by certain European countries, which would increase the tax burden of large American technological companies (Google, Apple, Facebook and Amazon). In July 2019 this tax was introduced in France which met with a negative reaction from the United States, who announced in response that they would increase customs duties on French goods worth in excess of USD 2.4 billion. Both countries' leaders agreed, during talks held in January 2020, that bilateral burdens would be suspended by the end of 2020, until a more comprehensive digital tax convention covering all EU countries is agreed. Should such a convention fail to be agreed, the likelihood of growing trade barriers between the United States and France and other countries intending to impose a digital tax (among others, Italy, Austria and the Czech Republic) will grow considerably.

American-European relations continue to be affected by the US announced imposition of additional customs duties on EU cars and automotive parts imported by the United States, to a total value exceeding USD 200 billion. For the time being, the US Administration has postponed its decision on this matter. However, should the trade dispute escalate, such a decision may be expected to be taken.

The UK leaving the EU without a Brexit deal regulating mutual trade relations continues to be a major risk factor, albeit somewhat postponed. While the likelihood of such a scenario is close to the expectations of the previous forecasting round, its impact on the balance of risks is slightly smaller than in the previous projection. This is due to the fact that the current base-line scenario has already factored in growing non-tariff barriers in trade between the UK and the EU from 2021, after the British Parliament ruled out an extension of the transition period. The November projection expected the status quo in trade relations between the UK and the EU to be preserved and growing customs duties and non-tariff barriers were one of the risk factors.

Apart from the escalating trade disputes, which would have a relatively larger impact on curbing economic growth of the countries directly involved in trade disputes, major risks for global economic growth also result from the sustainability of the economic recovery in developing countries. The acceleration in GDP growth in this group of countries is observed in only a few large economies (Argentina, Brazil, India, Iran, Mexico, Russia, Saudi Arabia and Turkey), accounting for a mere 30% of GDP of developing countries.[65] Concentration of growth in a small number of countries makes developing countries more vulnerable to global shocks. Also the rapidly growing debt level in those countries works in the same direction. According to a report of the World Bank,[66] in the last decade the debt to GDP ratio in developing economies has increased by 54 p.p., which was observed in the private sector, especially in China. In this period, debt of developed countries remained at a stable level. Amid uncertainty about the outlook for future growth, considerably heightened risk of a debt crisis in certain countries may lead to a surge in risk aversion in the global financial markets.

A longer and more dramatic course of the coronavirus epidemic than currently expected, further exacerbation of trade conflicts and weaker growth in developing countries would curb economic growth worldwide, including in countries that are Poland's trading partners. The above developments, apart from their direct impact on the domestic economy via the trade channel, would translate into deteriorating business sentiment in Poland, adding to the negative impact of sluggish economic growth abroad on domestic growth.

Improvement in global economic conditions

On the other hand, there is a likelihood of stronger GDP growth in the environment of the Polish economy than assumed in the central scenario. While the trade disputes between world's major economies cannot be expected to ease rapidly, the absence of their further escalation and a gradual rebound of global trade could bring about faster growth in the global economy than assumed in the central scenario of the projection. This rebound would require a reduced negative impact of the existing trade conflicts on the manufacturing sector in Europe, in the United States and in China.

The base-line scenario of the projection assumes an almost neutral impact of fiscal policy on economic growth in the United States – amid the fading effects of the past stimulation – and its slightly expansionary stance in the euro area countries. Under the pressure of the ECB, which points to the need for a stronger coordinated fiscal expansion in the euro area, there is a likelihood of a rise in expenditure and reduction in tax burden in certain euro area countries. A more expansionary fiscal policy may also be adopted in the United Kingdom. Under its 2019 Spending Round, the UK government announced a considerable rise in public expenditure in the years 2020-2021. It may be expected that after years of contractionary fiscal policy in the United Kingdom, amid considerable uncertainty about the consequences of Brexit, the scale of the planned fiscal expansion in the UK may be larger than assumed in the central path of the projection.

A gradual recovery of global trade, combined with a slightly stronger impact of expansionary fiscal policy in certain European countries, could bring about faster GDP growth in the environment of the Polish economy than assumed in the central scenario. 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.

[65] The World Bank, Global Economic Prospects – Slow Growth, Policy Challenges, January 2020.

[66] The World Bank, Global Economic Prospects – Slow Growth, Policy Challenges, January 2020.

Energy commodity prices

Changes in the prices of oil and other energy commodities in the global markets, especially amid heightened uncertainty about the outlook for growth in developing countries, continue to be a major source of risk for the inflation path in the base-line projection scenario. A risk factor with a downward effect on the path of energy prices in the current projection is the possible completion in 2020 of negotiations between PGNiG and Gazprom regarding the lowering of contract prices of natural gas.

Table 4.4 Central path of inflation and GDP projection

	2019				2020				2021				2022				2019	2020	2021	2022
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
Consumer Price Index CPI (%, y/y)	1.2	2.4	2.8	2.8	4.3	3.6	3.3	3.4	2.8	2.8	2.7	2.5	2.6	2.5	2.4	2.3	2.3	3.7	2.7	2.4
Core inflation net of food and energy prices (%, y/y)	1.1	1.8	2.2	2.7	3.3	3.4	3.3	3.2	2.9	2.8	2.8	2.7	2.6	2.5	2.4	2.3	2.0	3.3	2.8	2.4
Food prices (%, y/y)	1.8	4.7	6.7	6.5	7.1	5.2	3.3	3.1	2.3	2.1	2.1	2.3	2.3	2.2	2.2	2.0	4.9	4.7	2.2	2.2
Energy prices (%, y/y)	0.8	1.2	-1.2	-2.3	3.6	2.0	3.1	4.9	3.2	3.5	3.6	2.3	2.7	2.9	2.8	2.7	-0.4	3.4	3.1	2.8
GDP (%, y/y)	4.8	4.6	3.9	3.1	2.9	3.0	3.2	3.6	3.5	3.2	2.9	2.8	2.9	3.0	3.0	3.0	4.0	3.2	3.1	3.0
Domestic demand (%, y/y)	3.9	4.6	3.3	3.5	2.9	3.0	3.1	3.2	3.7	3.5	3.2	3.1	3.1	3.0	3.0	2.9	3.8	3.0	3.4	3.0
Household consumption (%, y/y)	3.9	4.4	3.9	3.6	3.7	3.8	3.7	3.7	3.7	3.7	3.7	3.6	3.6	3.6	3.6	3.5	3.9	3.7	3.7	3.6
Public consumption (%, y/y)	6.3	3.1	4.7	4.2	3.5	5.0	3.9	5.0	4.6	4.1	3.5	3.2	2.3	2.4	2.3	2.5	4.5	4.4	3.8	2.4
Gross fixed capital formation (%, y/y)	12.2	9.1	4.7	7.1	4.2	4.3	5.1	2.7	2.4	2.2	1.1	0.9	1.1	0.4	0.1	0.0	7.8	4.1	1.7	0.4
Contribution of net exports (percentage points, y/y)	1.0	0.2	0.8	-0.4	0.1	0.1	0.1	0.5	-0.2	-0.3	-0.2	-0.2	-0.2	0.0	0.0	0.1	0.4	0.2	-0.2	0.0
Exports (%, y/y)	7.3	3.2	5.0	3.4	2.9	4.4	3.4	3.8	4.0	3.9	3.9	3.8	4.0	4.3	4.3	4.3	4.7	3.6	3.9	4.2
Imports (%, y/y)	6.0	3.1	3.9	4.3	2.8	4.4	3.4	3.0	4.5	4.6	4.5	4.3	4.4	4.4	4.4	4.2	4.3	3.4	4.5	4.4
Gross wages (%, y/y)	7.1	7.0	7.7	6.9	7.3	7.0	6.7	6.8	7.1	6.7	6.4	6.2	5.4	5.5	5.4	5.4	7.2	6.9	6.6	5.4
Total employment (%, y/y)	-0.4	-0.5	0.0	0.3	0.1	0.1	-0.1	0.0	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	0.0	-0.2	-0.2
Unemployment rate (%)	3.7	3.4	3.2	3.0	3.0	3.0	3.0	3.1	3.2	3.3	3.3	3.3	3.4	3.5	3.5	3.6	3.3	3.0	3.3	3.5
NAWRU (%)	3.9	3.9	3.9	3.9	4.0	4.0	4.1	4.1	4.2	4.2	4.3	4.3	4.3	4.3	4.3	4.4	3.9	4.1	4.2	4.3
Labour force participation rate (%, y/y)	56.3	56.2	56.2	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.2	56.2	56.2	56.1	56.1	56.2
Labour productivity (%, y/y)	5.2	5.1	3.9	2.8	2.8	2.9	3.2	3.7	3.7	3.4	3.1	3.1	3.2	3.2	3.2	3.2	4.2	3.2	3.3	3.2
Unit labour cost (%, y/y)	1.9	2.0	3.7	4.1	4.5	4.1	3.5	3.1	3.4	3.3	3.4	3.2	2.2	2.3	2.2	2.1	3.0	3.8	3.3	2.2
Potential output (%, y/y)	3.7	3.7	3.7	3.7	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.7	3.6	3.6	3.6
Output gap (% potential GDP)	1.6	1.6	1.5	1.0	0.9	1.1	1.1	1.0	0.8	0.7	0.4	0.2	0.1	0.0	-0.2	-0.3	1.4	1.0	0.5	-0.1
Index of agricultural commodity prices (EUR; 2011=1.0)	0.89	0.93	0.91	0.97	0.99	1.00	1.00	0.96	0.95	0.97	0.98	0.96	0.95	0.97	0.97	0.95	0.93	0.98	0.97	0.96
Index of energy commodity prices (USD; 2011=1.0)	0.66	0.57	0.52	0.59	0.58	0.53	0.53	0.55	0.56	0.55	0.55	0.56	0.58	0.56	0.56	0.58	0.59	0.55	0.55	0.57
Inflation abroad (%, y/y)	1.6	1.9	1.8	1.6	1.8	1.7	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.7	1.7
GDP abroad (%, y/y)	1.5	1.2	1.2	1.0	0.7	0.9	1.0	1.2	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.0	1.3	1.3
Current and capital account balance (% GDP)	1.4	1.8	2.3	3.1	3.4	3.4	3.4	3.0	2.9	2.8	2.7	2.5	2.4	2.3	2.2	2.0	3.1	3.0	2.5	2.0
WIBOR 3M (%)	1.72	1.72	1.72	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.72	1.71	1.71	1.71

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

For the majority of variables, the values up to 2019 Q4 are determined on the basis of raw quantities, while in the projection horizon are presented seasonally adjusted data. In the case of the unemployment rate, the NAWRU rate, the labour force participation rate, potential output growth, the output gap, the agricultural commodity price index, the energy commodity price index, inflation abroad and GDP growth abroad only seasonally adjusted data are presented, while the WIBOR 3M rate and import price growth are not seasonally adjusted series.

LFS data on total employment, labour force participation rate and unemployment rate. The agricultural commodity price index includes prices of wheat, pork, skimmed milk powder, butter, sugar, cocoa, coffee, frozen concentrated orange juice, potatoes, oilseed, allowing for weights reflecting the consumption structure of Polish households. The energy commodity price index covers prices of crude oil, coal and natural gas, taking into account the structures of consumption of these commodities in Poland.

The voting of the Monetary Policy Council members in October 2019 – January 2020

Date: 2 October 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:		Against:	
	E. M. Łon		A. Glapiński
			G. M. Ancyparowicz
			Ł. J. Hardt
			J. J. Kropiwnicki
			E. J. Osiatyński
			R. Sura
			K. Zubelewicz
			J. Żyżyński

E. Gatnar was absent.

Date: 5 November 2019

Subject matter of motion or resolution:

Resolution No. 6/2019 of the Monetary Policy Council of 5 November 2019 on the principles for creating and releasing provision against the foreign exchange rate risk of the zloty at the National Bank of Poland.

Voting of the MPC members:

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

Date: 5 November 2019

Subject matter of motion or resolution:

Resolution No. 7/2019 of the Monetary Policy Council of 5 November 2019 amending the resolution on accounting principles, the layout of balance sheet assets and liabilities and profit and loss of the National Bank of Poland.

Voting of the MPC members:

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

Date: 6 November 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:		Against:	
	E. M. Łon		A. Glapiński
			G. M. Ancyparowicz
			E. Gatnar
			Ł. J. Hardt
			J. J. Kropiwnicki
			E. J. Osiatyński
			R. Sura
			K. Zubelewicz
			J. Żyżyński

Date: 3 December 2019

Subject matter of motion or resolution:

Resolution No. 8/2019 of the Monetary Policy Council of 3 December 2019 on approving the Financial Plan of the National Bank of Poland for 2020.

Voting of the MPC members:

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

Date: 4 December 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

■ Date: 8 January 2020

Subject matter of motion or resolution:
Motion to raise the NBP interest rates by 0.15 percentage points.

MPC decision:
Motion did not pass.

Voting of the MPC members:

For: E. Gatnar
Ł. J. Hardt
K. Zubelewicz

Against: A. Glapiński
G. M. Ancyparowicz
C. Kochalski
J. J. Kropiwnicki
E. M. Łon
R. Sura
J. Żyżyński

■ Date: 8 January 2020

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
C. Kochalski
J. J. Kropiwnicki
R. Sura
K. Zubelewicz
J. Żyżyński

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