NBP Narodowy Bank Polski

Monetary Policy Council

March 2021

Inflation Report

The Inflation Report presents the Monetary Policy Council's assessment of macroeconomic developments influencing inflation. The projection of inflation and GDP presented in Chapter 4 has been prepared at the Economic Analysis Department of Narodowy Bank Polski (NBP). In terms of the contents, works on the projection have been supervised by Piotr Szpunar, Director of the Economic Analysis Department. The projection has been prepared with the use of the NECMOD macroeconomic model. The NBP Management Board has 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, while its periodisation (breakdown into sub-periods) is conditioned by the development of particular variables. The *Report* includes data available until 24 February 2021 and data on GDP in Poland published on 26 February 2021.

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

Contents

Summary

Although the COVID-19 pandemic curbed global economic activity the most in 2020 Q2, in the second half of 2020 it continued to have a significant impact on the world economy. After a marked increase in global GDP in quarter-on-quarter terms in 2020 Q3, in the following months the pace of recovery slowed down, and some economies saw another decline in GDP. This was due to the worsening of the epidemic and the tightening of sanitary restrictions in some countries, especially in Europe. However, the situation varied significantly across sectors of the economy and countries. Industry and international trade were relatively resistant to the epidemic in the last months of 2020. In contrast, the situation in the services sector remained adverse. As economic activity weakened again in many countries, the scale of fiscal anti-crisis packages was increased and, at the same time, monetary policy easing continued.

Inflation worldwide remains low. In December 2020, consumer price growth in the global economy stood at 1.1% y/y, i.e. it was running at over 1.5 percentage points below the level recorded a year earlier. Across many economies core inflation also stayed below pre-COVID levels. In the euro area, deflation persisted for most of the second half of 2020, driven by the negative growth in energy prices, some goods and services, i.e. categories particularly vulnerable to the impact of the pandemic restrictions. In January 2021, inflation in the euro area rose to 0.9% y/y which reflected, among others, the increase in VAT rates in Germany following their temporary cut, and the pickup in energy price growth. In the United States, inflation remained below pre-pandemic levels, and in January 2021 it stayed at 1.4% y/y.

In the second half of 2020 and at the beginning of 2021, the prices of agricultural and energy commodities in the global markets have gradually risen after their previous sharp decline. In particular, in February 2021 oil prices were higher than a year ago. The rise in oil prices was mainly supported by expectations of a recovery in global economic activity related to the launch of the coronavirus vaccination programmes. In addition, OPEC+ countries continued the policy of restricting oil output, thus counteracting a rise in oil supply in the market.

In recent months, many central banks have eased monetary policy, mainly by announcing an increase in asset purchases. The expansionary monetary policy around the world was due to the persistence of low consumer price growth and only a partial rebound in economic activity, amid a rise in COVID cases and renewed tightening of sanitary restrictions in some countries. This was accompanied by persistently high uncertainty, in particular about the further course of the pandemic, despite the launch of vaccination programmes. Widespread easing of monetary policy in response to COVID-19 was reflected in a significant increase in the size of central banks' assets worldwide in 2020. Currently, the prices of financial instruments indicate that market participants expect the interest rates of the major central banks to remain close to zero or negative in the coming years.

Since mid-2020, the risk assessment measures in the global financial markets declined, although some of them remained slightly higher than in the period before the COVID-19 pandemic. Against this background, share prices in advanced and emerging market economies have risen sharply in recent months. At the same time, yields on government bonds in many emerging market economies dropped to

very low levels. Similarly, yields on government bonds in the euro area countries – despite an increase in recent weeks – were running at a low level, and in most of these countries were negative. In turn, in the United States, after a marked fall in previous quarters, yields on long-term bonds have risen in recent months.

In Poland, consumer price growth in recent months has decreased. This was mainly the effect of decelerating growth in the prices of unprocessed food, and – to a lesser extent – in the prices of market services and non-food goods. Rising prices of fuels for private means of transport, driven by growing prices of crude oil in the global markets, acted in the opposite direction. According to GUS preliminary data, in January inflation amounted to 2.7% y/y (compared with 2.4% in December 2020). In line with NBP estimates, a somewhat higher inflation in January was largely driven by increasing electricity prices and further growth in fuel prices.

Economic activity in Poland, following a sharp decline in 2020 Q2 (by 8.4% y/y), rebounded markedly in 2020 Q3, even though in annual terms GDP was still lower than a year ago (by 1.5%). The recovery in 2020 Q3 was backed by the easing of epidemic restrictions domestically and abroad, an improvement in economic sentiment and the support from fiscal and monetary policies. In 2020 Q4, as the pandemic situation worsened and restrictions were tightened, economic activity decreased again, albeit less than in 2020 Q2, and GDP fell by 2.8% y/y in 2020 Q4. Adaptation of economic agents to operating under the sanitary regime, a slightly narrower scope of restrictions, higher consumer and business confidence than at the outbreak of the epidemic, and the lack of major disturbances in global value chains contributed to the strengthening of the economy's resilience to the second wave of infections. At the same time, rising foreign demand was an important factor supporting business conditions.

After a fall in demand and supply of labour during the first wave of the pandemic, the labour market situation improved in 2020 Q3. In 2020 Q4, however, along with the worsening of the epidemic situation and introduction of restrictions, the recovery of demand for labour slowed down. In particular, according to data from the labour offices, the registered unemployment rate in 2020 Q4 and at the beginning of 2021 remained close to the level recorded in 2020 Q3 (approx. 6.1%). At the same time, average wage growth in the national economy picked up in the second half of 2020, driven by the rise in wage growth in the enterprise sector which, however, decelerated slightly at the beginning of 2021.

Following a significant easing of NBP monetary policy in 2020 Q1, in subsequent months NBP has kept its interest rates unchanged and continued to pursue other measures adopted in response to the pandemic. The NBP reference rate has been kept at 0.1%. At the same time, NBP has continued to purchase government securities and government-guaranteed debt securities in the secondary market. NBP has also continued to offer bill discount credit aimed at refinancing loans granted to enterprises by banks. In the period since the release of the previous *Report*, NBP has also intervened in the foreign exchange market, aiming to enhance the impact of its monetary policy easing on the economy.

In Poland, like in many other economies, after a significant fall in the first half of 2020, yields on the longer-term government bonds have risen over the recent past, yet they are still low. Equity prices on the Warsaw Stock Exchange, in turn, increased markedly and stabilised at levels close to those observed before the outbreak of the COVID-19 pandemic. Since the end of October 2020, the zloty has strengthened against the major currencies. An important factor affecting the zloty exchange rate during the pandemic – on top of the present and expected economic and epidemic situation in Poland and abroad – was highly expansionary monetary policy of central banks abroad, including in the major advanced economies. At the same time, NBP interventions in the foreign exchange market were a factor restricting the appreciation of the zloty.

Annual broad money (M3) growth – following a sharp rise during the first wave of the pandemic – was gradually declining in the second half of 2020. Among the counterparts of broad money, growth in household loans slowed down and the fall in corporate loans deepened. The decrease in the value of corporate loans largely reflected reduced demand for bank funding related to, among others, the financial support provided to enterprises under the government anti-crisis measures. Reduction in business activity by some enterprises and higher uncertainty also dampened loan demand. The lower loan demand was accompanied by some tightening of the banks' lending policy in this market segment.

The current account balance improved in the second half of 2020 as compared to the first half of 2020. The improvement was mainly due to a higher than a year ago balance of trade in goods and services, and – albeit to a lesser extent – due to a narrowing of the primary income deficit. Also other external imbalance indicators evidence that the Polish economy is well balanced.

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 October 2020 and February 2021, together with the *Information from the meeting of the Monetary Policy Council* in March 2021. Chapter 5 presents the Monetary Policy Council voting records from the meetings held between September 2020 and January 2021.

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 March projection – prepared under the assumption of unchanged NBP interest rates and taking into account data available until 16 February 2021 – there is a 50-percent probability that the annual price growth will be in the range of 2.7-3.6% in 2021 (against 1.8-3.2% in the November 2020 projection), 2.0-3.6% in 2022 (compared to 1.6-3.6%) and 2.2-4.2% in 2023. At the same time, the annual GDP growth – according to this projection – will be with a 50-percent probability in the range of 2.6-5.3% in 2021 (against 0.8-4.5% in the November 2020 projection), 4.0-6.9% in 2022 (compared to 3.8-7.8%) and 4.0-6.8% in 2023.

1. External developments

1.1 Economic activity abroad

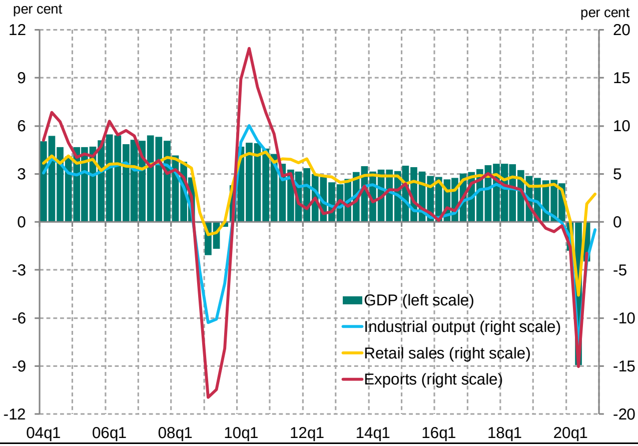
Although the COVID-19 pandemic curbed global economic activity the most in 2020 Q2, in the second half of 2020 the epidemic situation continued to have a significant impact on the global economy. After a marked increase in global GDP in quarter-on-quarter terms in 2020 Q3 (Figure 1.1), in the following months the pace of economic recovery slowed down, and some economies saw another decline in GDP. This was due to the worsening of the epidemic situation and the tightening of sanitary restrictions in some countries, especially in Europe. However, the situation varied significantly across sectors of the economy and countries.

Industry and international trade were relatively resistant to the epidemic in the last months of 2020. The second half of 2020 saw an increase in both industrial output and the volume of trade. In November 2020, for the first time since the outbreak of the pandemic, world exports of goods were even higher than a year earlier. The favourable economic conditions in industry and world trade in goods continued also at the beginning of 2021. In contrast, the situation in the services sector remained adverse. In many countries activity rates in this sector were markedly lower than before the outbreak of the pandemic.

As economic activity weakened again in many countries, the scale of fiscal anti-crisis packages was increased and, at the same time, monetary policy easing continued (see Chapter 1.4 *Monetary policy abroad*).

In the euro area, GDP – following a fall by almost 15% y/y in 2020 Q2 – posted a rise in Q3 in quarter-

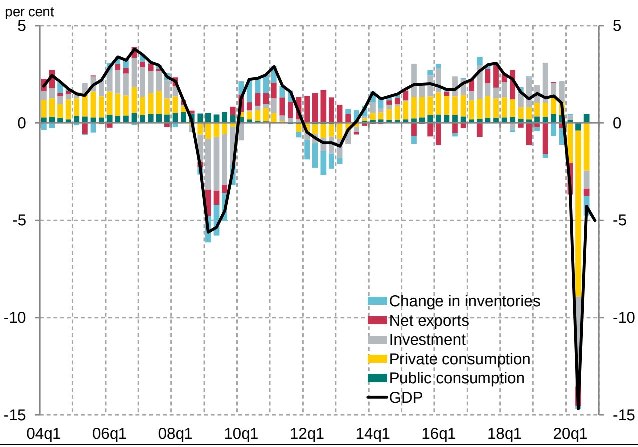
Figure 1.1 Global GDP growth and economic activity indicators (y/y)



Source: Bloomberg, Centraal Planbureau, Eurostat and 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 – growth in global exports of goods estimated by Centraal Planbureau. Note: due to limited availablility of data from some countries during the pandemic, the economies used for calculating each time series differ slightly.

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



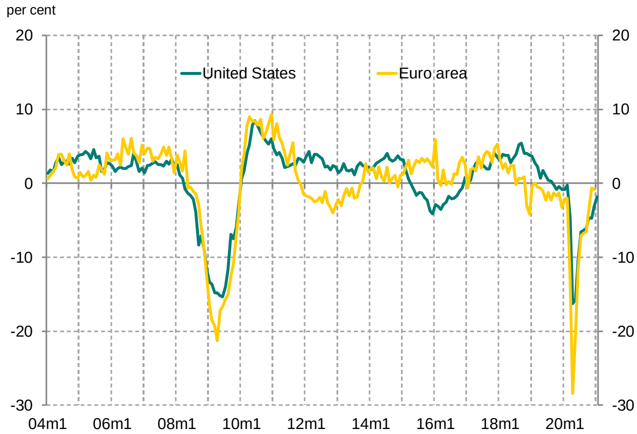
Source: Eurostat data, NBP calculations.

on-quarter terms (Figure 1.2) with the strength of the recovery different across countries. In annual terms, the scale of GDP decline decreased then to 4.3%. In Q4, as a result of a strong increase in the number of COVID-19 cases and tightened restrictions, economic activity fell again and, according to preliminary estimates, GDP growth amounted to -5.0% y/y.[1] A relatively good situation was observed in industry, supported by a rise in foreign demand, which made it possible to make up for most of the losses suffered by this sector during the first wave of the pandemic (Figure 1.3).[2] However, the worsening of the epidemic situation was reflected in weaker activity of the services sector. This was pointed out by high-frequency data, sentiment in the enterprise sector, as well as a marked decline in retail sales in November and December 2020 (Figure 1.4). Similarly to spring 2020, the impact of the pandemic on the growth of unemployment in the euro area was contained by widely available wage subsidy programs.

In Germany, GDP growth stood at -4.0% y/y in Q3 and at -3.6% y/y in Q4 compared to -11.3% y/y in Q2.[3] The persisting decline in GDP at the end of 2020 resulted from the worsening of the epidemic situation and the tightening of restrictions. As in many other countries, the situation in services worsened, while at the same time industry was on the path of recovery, which was supported by growing exports. Moreover, in the last months of 2020, the growth in retail sales and new car registrations increased, reflecting a rising demand in anticipation of the VAT rate hike in early 2021.[4] Favourable sentiment in manufacturing continued also in January and February 2021.

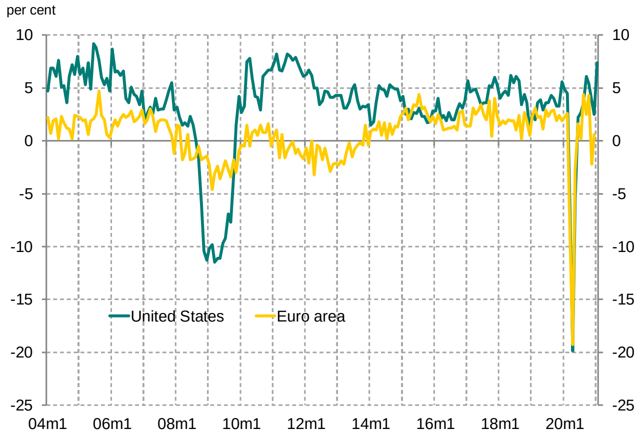
In the non-euro area Central and Eastern European countries, decline in GDP amounted to 5.5% y/y in

Figure 1.3 Industrial production in selected advanced economies (y/y)



Source: Bloomberg data.

Figure 1.4 Retail sales in selected advanced economies (y/y)

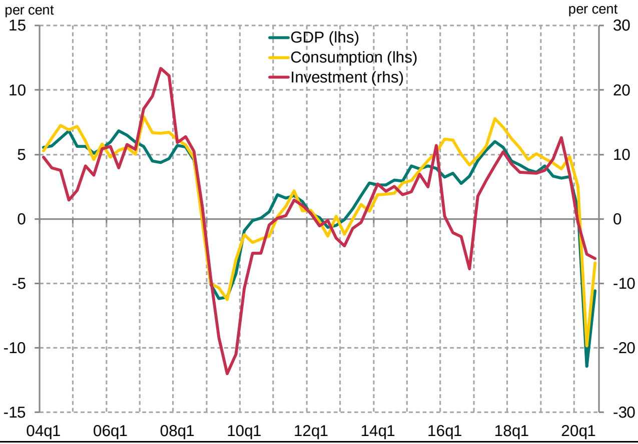


Source: Bloomberg data.

[1] According to preliminary data, GDP growth in the euro area for the entire 2020 amounted to -6.8% (adjusted for the number of working days).
[2] Industrial output growth in November and December continued to be negative, but higher than in the previous months (amounted to -0.6% y/y and -0.8% y/y, respectively), and sentiment in the enterprise sector strengthened also in the subsequent months.
[3] Germany's GDP growth for the entire 2020 amounted to -4.9%.
[4] In Germany, the measures taken to mitigate the negative effects of the pandemic in the second half of 2020 included a temporary decline in the VAT rate.

2020 Q3 (against a fall of 11.4% y/y in 2020 Q2; Figure 1.5). The driving factors behind the slowdown in GDP contraction as compared to Q2 included higher growth in private consumption and improvement in foreign trade balance. At the same time, however, a marked decline in investment continued. In the Czech Republic, the scale of contraction in economic activity in 2020 Q4, according to preliminary data, remained at a similar level as in Q3 (GDP growth amounted to -5.0% y/y), whereas in Romania and Hungary it continued to decrease (a decline in GDP in these economies amounted to 1.7% y/y and 4.3% y/y, respectively, against 5.6% y/y and 4.8% y/y in Q3). On one hand, the recovery in activity was underpinned by relatively favourable economic conditions in industry, backed by growing exports, but on the other hand it was adversely affected by the escalating number of COVID-19 cases and tougher restrictions.

Figure 1.5 Economic growth and its selected components in Central and Eastern Europe (y/y)

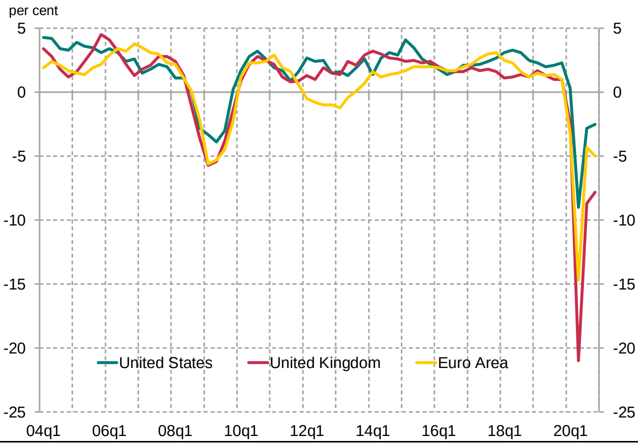


Source: Eurostat data, NBP calculations.

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.

The United States saw a gradual recovery in economic activity in the second half of 2020, with GDP growth amounting to -2.8% y/y in Q3 and -2.5% y/y in Q4, compared to -9.0% in Q2[5] (Figure 1.6). The reduction in the scale of the GDP decline in annual terms was driven by a rise in consumption of durable goods as well as housing investment, which was supported by both accommodative monetary policy, including low interest rates, and pandemic-related changes in residence preferences. Despite the improvement observed in Q3 and Q4, consumption of services and corporate investment were still below the pre-pandemic levels. In particular, the degree of fall in capital expenditure on non-residential construction remained significant, reflecting the unfavourable situation in the commercial real estate market. At the beginning of 2021, the recovery in economic activity accelerated, as indicated by, among others, an increase in industrial output and retail sales in January 2021. At the same time, the unemployment

Figure 1.6 Economic growth in selected advanced economies (y/y)



Source: Bloomberg data.

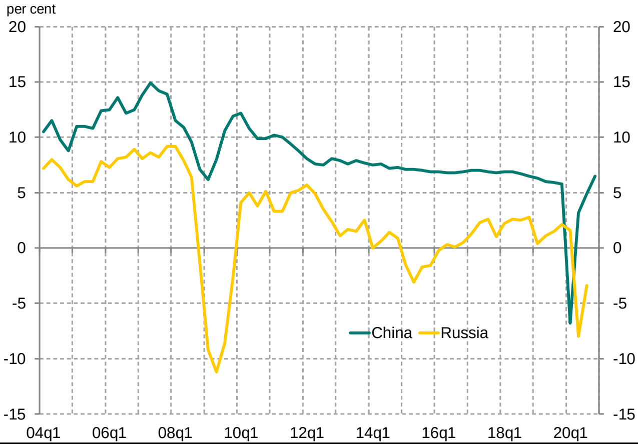
[5] According to preliminary data, the decrease in GDP in the United States for the whole 2020 was 3,5% - the largest fall since 1946.

rate was still markedly higher than before the pandemic.

The scale of GDP decline in Great Britain was deeper than in the largest advanced economies, although in the second half of 2020 also in Great Britain the recession was markedly halted. Due to the recovery in both corporate investment and consumption, GDP growth reached -8.7% y/y in Q3 and -7.8% y/y in Q4, compared to -21.0% y/y in Q2. Given a significant worsening of the epidemic situation and tightening of restrictions in November 2020, activity in services remained weakened in Q4, mainly in the consumer services sector. At the same time, good economic conditions continued in construction. Industry also remained relatively resistant to the deterioration of the epidemic situation in 2020 Q4.

In China, where the spread of the epidemic was halted at the early stage, a fall in GDP in annual terms was recorded only in 2020 Q1. Then, after a 3.2% increase in Q2, GDP growth picked up to 4.9% y/y in 2020 Q3 (Figure 1.7).[6] Accommodative fiscal and monetary policies, together with the rebound in exports, allowed to make up for the losses suffered at the beginning of the year. Further recovery of economic activity in Q4 (a rise in GDP growth by 6.5% y/y) was mainly driven by investment growth and increased foreign demand, including for medical and protective measures as well as electronic equipment.

Figure 1.7 Economic growth in selected emerging market economies (y/y)



Source: Bloomberg data.

Other emerging market economies in the second half of 2020 witnessed a limited recovery in economic activity which, however, varied considerably across countries. Despite an improvement in economic conditions in 2020 Q3, the major emerging market economies, except China, saw their GDP decline in annual terms (by 3.4% in Russia, by 3.9% in Brazil and by 7.5% in India).

[6] GDP growth in China for the entire 2020 was positive and reached 2.3%.

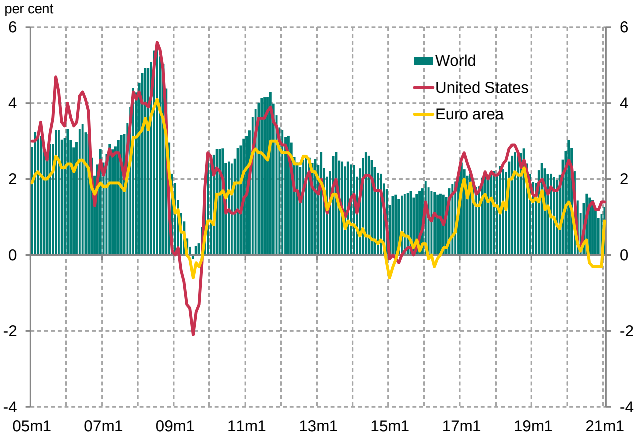
1.2 Inflation developments abroad

Inflation worldwide remains low (Figure 1.8). In December 2020, consumer price growth in the global economy stood at 1.1% y/y, i.e. it was running at over 1.5 percentage points below the level recorded a year earlier, mainly reflecting the negative growth of energy prices due to the sharp drop in global oil prices in the initial phase of the pandemic (see Chapter 1.3 *Global commodity markets*). In many economies core inflation also remained below pre-COVID levels. In recent months, global inflation was additionally dragged down by the slower food price growth in China. This was accounted for by the base effect in pork prices, which rose sharply in the second half of 2019 as a result of disturbances triggered by African Swine Fever (ASF).

In the euro area, deflation persisted for most of the second half of 2020, driven by the negative growth in energy prices, some goods (primarily clothing and footwear) and certain services, mainly in transport and tourism industries, i.e. categories particularly vulnerable to the impact of the pandemic restrictions. In December 2020, inflation stood at -0.3% y/y, and core inflation at 0.4% y/y. In January 2021, inflation rose to 0.9% y/y, and core inflation to 1.4% y/y (Figure 1.9). The rise in price growth was a result, among others, of the increase in VAT rates in Germany following their temporary reduction,[7] and the pickup in energy price growth.

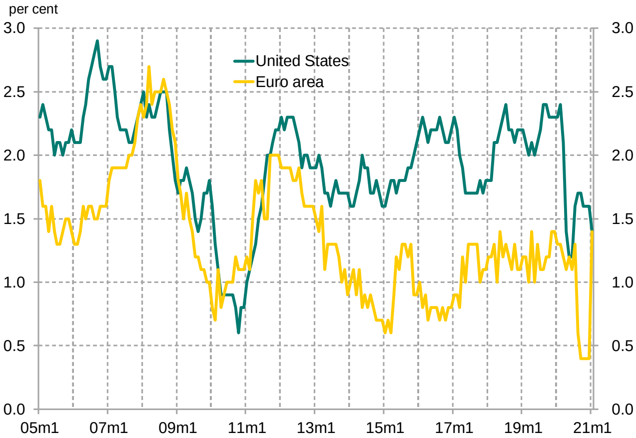
Inflation in the non-euro area Central and Eastern European countries declined in 2020 Q4 (Figure 1.10). This was mainly attributable to a significant slowdown in food price growth, particularly of unprocessed food. In most countries of the region core inflation in December 2020 was also lower than a year earlier, reflecting weaker growth in services prices. In January 2021, inflation in the Czech Republic and Hungary stabilised at similar levels as

Figure 1.8 CPI inflation globally and in selected economies (y/y)



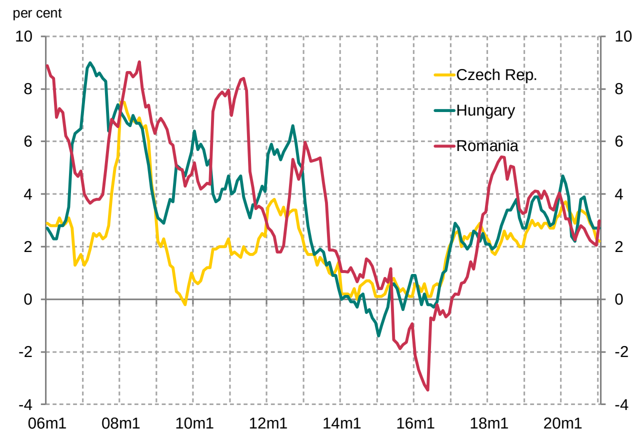
Source: Bloomberg and IMF data, NBP calculations.
World – average consumer price inflation in economies comprising over 80% of global GDP, weighted by 2017 GDP. The United States – annual CPI inflation. Euro area – annual HICP inflation.

Figure 1.9 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 and unprocessed food.

Figure 1.10 CPI inflation in the Czech Republic, Romania and Hungary (y/y)



Source: Bloomberg data.

[7] In Germany, the measures mitigating the negative effects of the pandemic included the temporary cut to VAT rates in force from July to December 2020. The tax rates were reduced from 19% and 7% to 16% and 5% respectively.

at the end of 2020, while in Romania it picked up markedly on the back of faster growth in electricity prices due to the deregulation of the electricity market.

In the United States, inflation remained below pre-pandemic levels. In December 2020, CPI inflation amounted to 1.4% y/y, and core inflation to 1.6% y/y. In January 2021, inflation stayed at 1.4% y/y, and core inflation fell to 1.4% y/y. The driving factors behind these developments included lower energy prices than a year ago and weaker growth of services prices. Alongside that, in recent months, inflation has been boosted by faster growth in the prices of certain goods. High growth in the prices of private means of transport, largely as a result of stronger demand related to the pandemic, was accompanied by a fall in the prices of many other goods (among others, clothing and footwear).

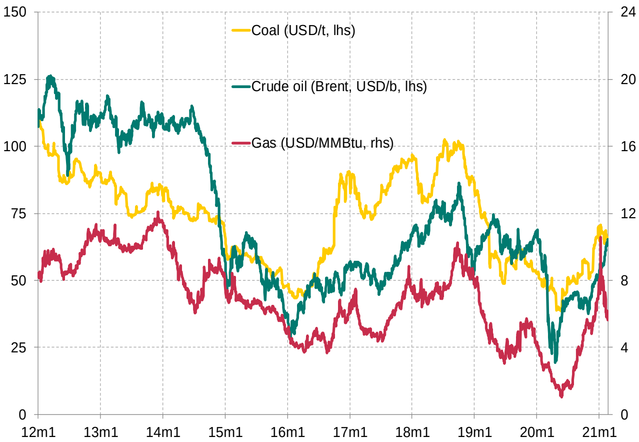
1.3 Global commodity markets

In the second half of 2020 and at the beginning of 2021, the prices of agricultural and energy commodities in the global markets have gradually risen after their previous sharp decline.

In the past few months, prices of oil have increased substantially, and in February 2021 they were higher than a year ago (Figure 1.11). The rise in oil prices was driven primarily by expectations of a recovery in global economic activity related to the launch of the coronavirus vaccination programmes. In addition, OPEC+ countries continue the policy of restricting oil output, thus counteracting a rise in oil supply in the market.

Similarly, global prices of natural gas and coal have increased recently, following their earlier decline. As a result, in February 2021, the prices of those commodities were running above the previous year's level. Apart from seasonal factors, the increase in the prices of gas and coal was driven by the recovery of demand in Asia as a result of improved economic conditions (see Chapter 1.1

Figure 1.11 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).

Economic activity abroad), and an exceptionally cold winter in this part of the world.

Since mid-2020, agricultural commodity prices have also risen while still running relatively low (Figure 1.12). Their growth was mainly driven by rising prices of cereals and oil seed crops (particularly in 2020 Q4 and at the beginning of 2021) due to reduced output in Europe, the gradually deteriorating global supply outlook and export restrictions announced by some countries (among others, Russia). The upward pressure on agricultural commodity prices is also exerted by increasing prices of dairy products related to strong demand in the international market. In the opposite direction, in turn, acts a marked decline in pork prices in Europe triggered by the discovery of ASF outbreaks in Germany in 2020 Q4 and the introduction of a ban on pork imports from this country to China and other Asian countries.

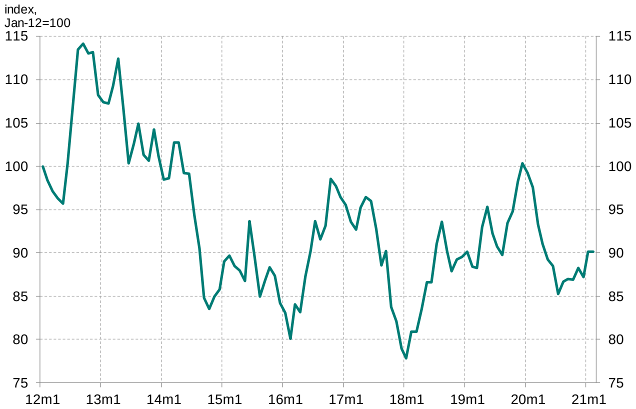
1.4 Monetary policy abroad

In recent months, many central banks have eased monetary policy, mainly by announcing an increase in asset purchases.

The expansionary monetary policy around the world was due to the persistence of low consumer price growth and only a partial rebound in economic activity, amid a rise in COVID cases and renewed tightening of sanitary restrictions in some countries. This was accompanied by persistently high uncertainty, in particular about the further course of the pandemic, despite the launch of vaccination programmes.

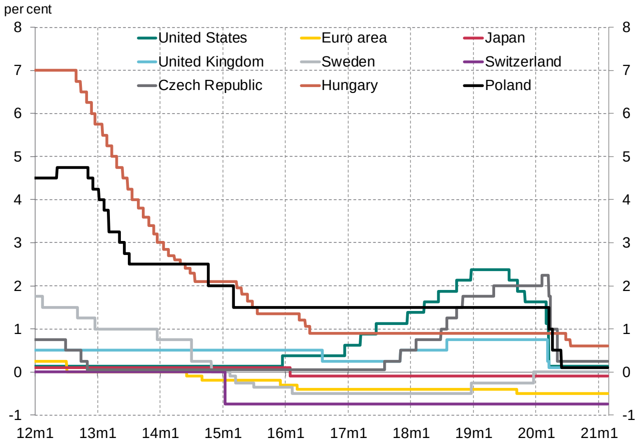
Widespread easing of monetary policy in response to COVID-19 was reflected in a significant increase in the size of central banks' assets around the world in 2020 (Figure 1.14, Figure 1.15). Currently, the prices of financial instruments indicate that market participants expect the interest rates of the major central banks to remain close to zero or negative in the coming years (Figure 1.13, Figure 1.16).

Figure 1.12 Index of agricultural commodity prices



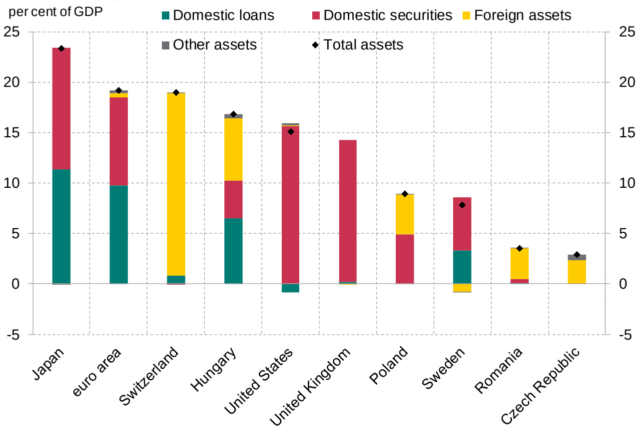
Source: Bloomberg data, NBP calculations.
Index of agricultural prices includes prices of wheat, colza, pork, potatoes, sugar, cocoa, coffee, skimmed milk powder, butter and frozen concentrated orange juice. The weights reflect the consumption structure of Polish households.

Figure 1.13 Interest rates of selected central banks



Source: Bloomberg data.
Central bank interest rate: for the United States – the midpoint of the *fed funds* range; for the euro area – the *deposit facility*; for the United Kingdom – the *Bank Rate*; for Japan – the *Complementary Deposit Facility*; for Sweden – the 1W repo rate; for Switzerland – the *policy rate*; for the Czech Republic – the 2W repo rate; for Hungary – the *base rate*; for Poland – the NBP reference rate.

Figure 1.14 Increase in central banks' assets in selected economies in 2020 as a per cent of GDP

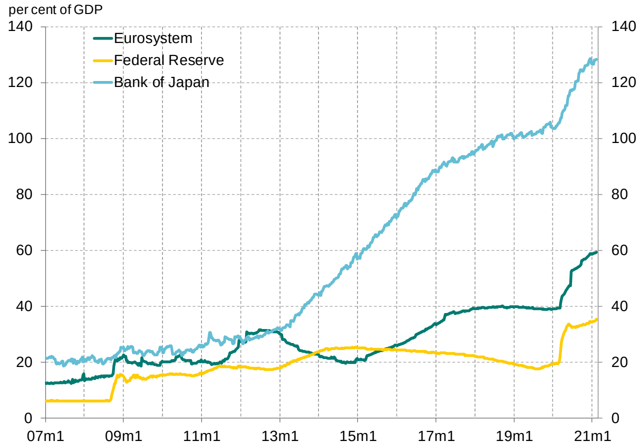


Source: central banks, Eurostat and FRED data, NBP calculations.
GDP as of 2019.

The European Central Bank (ECB) is keeping the deposit rate negative at -0.5% and continues to expect interest rates to remain at their present or lower levels until the inflation outlook over the projection horizon robustly converges to a level sufficiently close to, but below, 2%. Moreover, in December 2020 the ECB significantly eased monetary policy. In particular, it increased the scale of the pandemic emergency purchase programme (PEPP) to EUR 1850 billion at least until March 2022 (earlier it had announced purchases of up to EUR 1350 billion at least until June 2021). At the same time, the ECB underlined its readiness to recalibrate the scale of the programme, if required. The central bank also continues to conduct asset purchase programme (APP) at the level of EUR 20 billion per month without stipulating the termination date of the programme. In addition, the ECB continues TLTRO programme, under which it recently announced that it would conduct three additional operations (the last one is scheduled for December 2021). Alongside that, in recent months in its communication the ECB has underlined the importance of the exchange rate for monetary policy in the euro area.

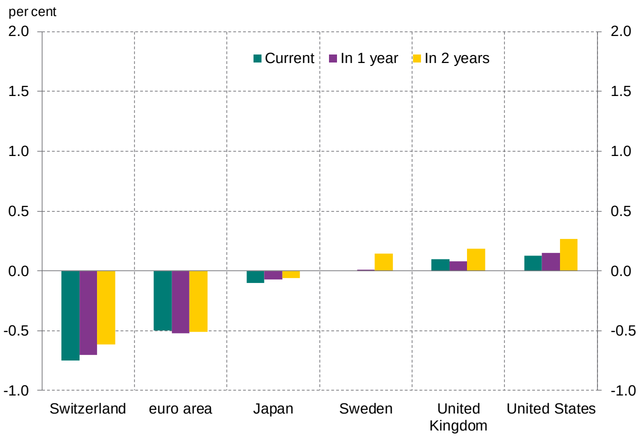
The Federal Reserve of the United States (the Fed) is maintaining the target range for the fed funds rate at 0.00%-0.25%. At the same time, the Fed continues to conduct large-scale asset purchases. In recent months, the Fed has informed that it expects to continue purchasing Treasury bonds at a scale of at least USD 80 billion monthly and mortgage-backed securities (MBS) of at least USD 40 billion monthly, "until substantial further progress has been made toward the Committee's maximum employment and price stability goals". The Fed also expects to maintain the current level of interest rates until "labor market conditions have reached levels consistent with the Committee's assessments of maximum employment and inflation has risen to 2 percent and is on track to moderately exceed 2 percent for some time".

Figure 1.15 Total assets of major central banks as a per cent of GDP



Source: Bloomberg and OECD data, NBP calculations.
GDP data quarterly, annualised and seasonally adjusted. Calculation for 2020 and 2021 based on 2019 annual GDP.

Figure 1.16 Current and expected level of central banks' interest rates in selected advanced economies



Source: Bloomberg data.
Central bank interest rate: for the United States – the midpoint of the *fed funds* range; for the euro area – the *deposit facility*; for Japan – the *Complementary Deposit Facility*; for Switzerland – the *policy rate*; for the United Kingdom – the *Bank Rate*; for Sweden – the 1W repo rate. Market expectatations according to Bloomberg based on FRA, as of 23 February 2021.

Most of the remaining central banks in the advanced economies, including in the United Kingdom, Sweden and Australia, have recently increased the target level of asset purchases (and in Japan the planned period of asset purchases has been extended), while maintaining interest rates close to zero. At the same time, the central banks of Switzerland and Israel have intervened in the foreign exchange market to counteract the appreciation of domestic currencies.

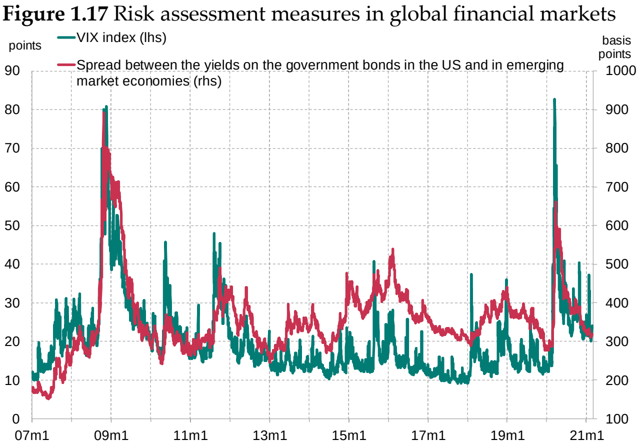
Likewise, the central banks of the major emerging market economies have continued to conduct an expansionary monetary policy. In the Central and Eastern Europe, in recent months the central bank of Hungary has increased the scale of its asset purchases and the central bank of Romania has lowered interest rates. The majority of central banks in the non-European emerging market economies have also recently lowered interest rates or kept them at a lower level than in previous years.

1.5 International financial markets

Since the middle of 2020, the risk assessment measures in the global financial markets declined, although some of them remained somewhat higher than in the period before the COVID-19 pandemic (Figure 1.17). At the turn of the year, sentiment in the financial markets was supported by the highly expansionary monetary policy and fiscal stimulus in many economies, reports of the high efficacy of the vaccines against COVID-19 and the launch of vaccination programmes in many countries, as well as the end of the presidential election campaign in the United States. However, above all, the high uncertainty about the further development of the pandemic and the related restrictions had the opposite effect.

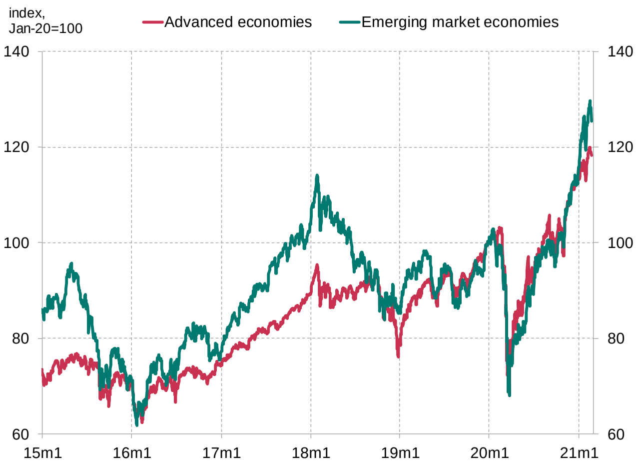
Against this background, share prices in advanced and emerging market economies have risen sharply in recent months (Figure 1.18). As a result, some of the indices of the major stock exchanges, among others in the United States and Germany,

Figure 1.17 Risk assessment measures in global financial markets



Source: Bloomberg data.

Figure 1.18 Equity prices



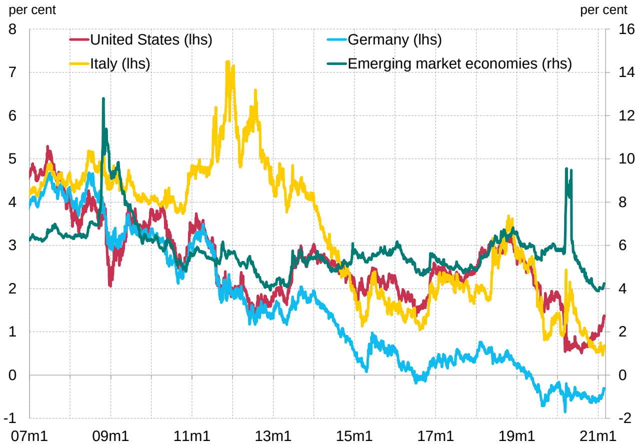
Source: Bloomberg data.
Advanced economies – MSCI World Equity Index; emerging market economies – MSCI Emerging Markets Equity Index.

temporarily reached their record highs in mid-February 2021.

At the same time, yields on government bonds in many emerging market economies dropped to very low levels (Figure 1.19). Similarly, yields on government bonds in the euro area countries – despite an increase in recent weeks – were running at a low level and in most of these countries were negative.[8] In turn, in the United States, following a marked fall in previous quarters and a record low reached in August 2020 (approx. 0.50%), yields on long-term bonds have risen in recent months (in late February 2021 yields on 10-year Treasury bonds were approx. 1.35%). The rise was fuelled by both the global increase in appetite for risk and the outlook for further fiscal expansion in this economy.

In the last months of 2020, the US dollar continued to depreciate markedly, while at the beginning of 2021 its exchange rate stabilised against the currencies of emerging market economies, and appreciated slightly against the euro (Figure 1.20). In late February 2021, the dollar exchange rate remained significantly weaker than immediately before the outbreak of the pandemic. The relatively early and strong monetary policy easing of the Fed compared to other major central banks in response to the outbreak of the pandemic contributed to the depreciation of the dollar. By contrast, in recent period, further monetary policy easing in many advanced economies, alongside the relatively stable monetary policy parameters in the United States at the turn of the year, may have contributed to the appreciation of the dollar against the majority of other currencies (see Chapter 1.4 *Monetary policy abroad*).

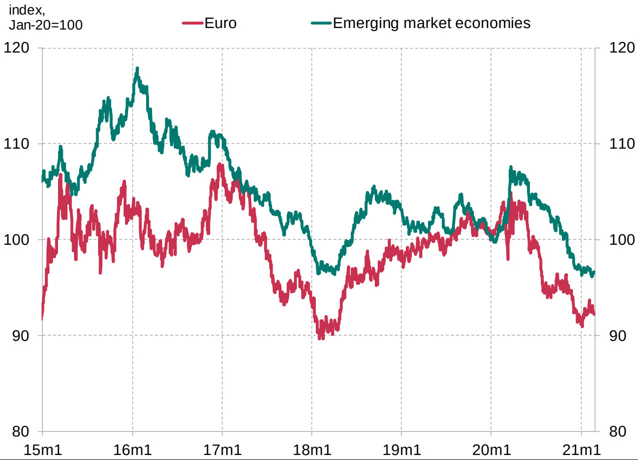
Figure 1.19 Government bond yields



Source: Bloomberg data.

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

Figure 1.20 US dollar exchange rates against the currencies of emerging market economies and the euro (rise indicates appreciation of the dollar)



Source: Bloomberg data, NBP calculations.

Emerging market economies – MSCI Emerging Market Currency Index.

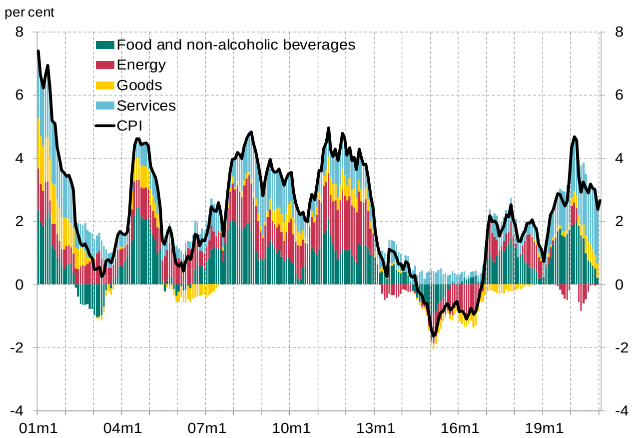
[8] In late February 2021, among the euro area countries for which quotations were available, yields on 10-year Treasury bonds were negative in Germany (approx. -0.3% in late February), France, the Netherlands, Belgium, Austria, Finland, Luxembourg, Slovenia, Slovakia and Latvia.

2. Domestic economy

2.1 Inflation developments

Consumer price growth in recent months has decreased (Figure 2.1).[9] This was mainly the effect of decelerating growth of prices of unprocessed food and – to a lesser extent – declining growth in the prices of market services and non-food goods. Rising prices of fuels for private means of transport,[10] driven by growing prices of crude oil in the global markets, acted in the opposite direction. According to GUS preliminary data, in January inflation amounted to 2.7% y/y (compared with 2.4% in December 2020).[11] In line with NBP estimates, a somewhat higher inflation in January was largely driven by increasing electricity prices and further growth in fuel prices.

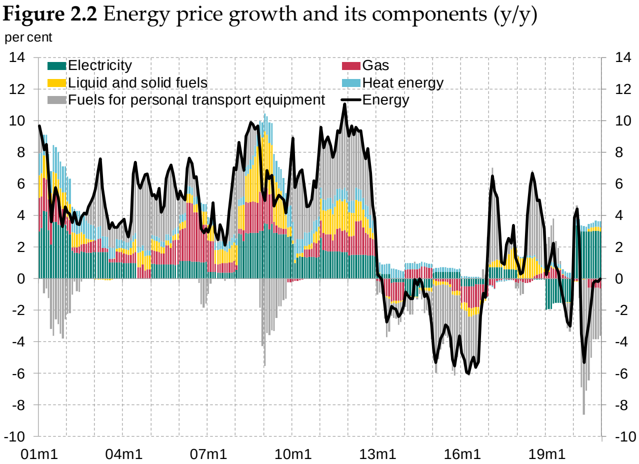
Figure 2.1 Composition of CPI inflation (y/y)



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

Growth in the prices of food and non-alcoholic beverages throughout 2020 in Poland had been decreasing strongly and reached 0.8% y/y in December. Lower food price growth was mainly the result of falling prices of unprocessed food, which was driven by the decline in the annual growth of the prices of meat (as a result of the outbreak of ASF epidemic in September 2020 in Germany leading to pork oversupply in the EU market) and fruit (as a result of their increased supply and statistical base effects). At the same time, growth in processed food prices decreased to a relatively small extent to reach 2.4% y/y in December 2020.

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



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

At the end of 2020, the annual growth of energy prices slightly increased and stood at 0.0% y/y in

[9] Along with the deterioration of epidemiological situation in Poland observed in November 2020 and the imposition of restrictions aimed at preventing the spread of the pandemic, the share of price imputation in the CPI basket in November and December 2020 was close to 8.5%.
[10] In the last few months of 2020, the prices of fuel for private means of transport were rising in monthly terms, yet their growth in annual terms remained negative.
[11] Data on inflation in January 2021 may be subject to revision after the adjustment of weights in the CPI basket by GUS at the beginning of each year. Due to the preliminary nature of data, GUS has not released information about price changes of all components of the CPI basket.

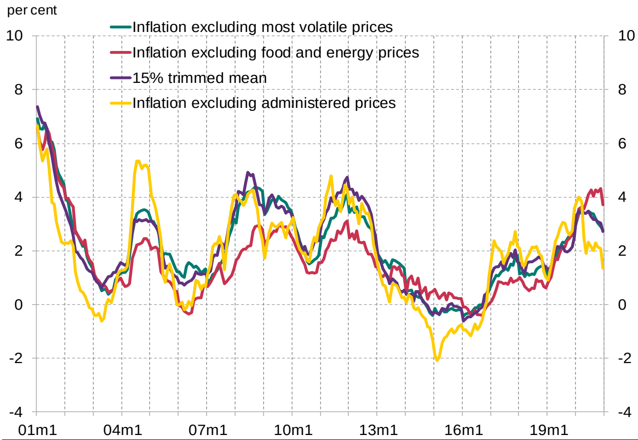
December (Figure 2.2). Energy price growth was mainly driven by the decelerating fall in fuel prices in year-on-year terms. This was related to a gradual rise in global crude oil prices – following their steep decline at the beginning of 2020 (see Chapter 1.3 *Global commodity markets*). Further growth in crude oil prices and the rise in the average electricity bill[12] since the beginning of 2021 point to a further pickup in price growth in this category of goods.

Inflation net of food and energy prices in December 2020 declined to 3.7% y/y (Figure 2.3). Lower core inflation was driven by both a decline in the growth of the prices of services and non-food goods. Services price growth in December 2020 declined to 6.4% y/y as a result of a steep decline in the annual growth of the prices of air flights as well as insurance[13] and communication services. Growth in the prices of non-food goods declined to 1.4% y/y in December 2020 largely as a result of further decline in the growth of clothing and footwear (the effect of intense special offers and sales amid restricted activity of shopping centres). The largest contribution to inflation net of food and energy prices in year-on-year terms was still made by increases in waste disposal fees (approx. 0.9 percentage point in 2020) and by rising prices of excise goods (approx. 0.5 percentage point in 2020), namely administered and regulated prices.

At the same time, inflation net of administered prices i.e. adjusted for among others the changes in waste disposal fees and electricity charges decreased to 1.4% in December 2020.

After a decline observed for several quarters, January 2021 saw a rise in producer prices in industry (PPI growth increased to 0.7% y/y in January from -1.1% y/y in 2020 Q3 and from -0.2% y/y in Q4; Figure 2.4) Slower declines in producer

Figure 2.3 Core inflation indices (y/y)



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

[12] The rise in the average electricity bill is mainly driven by the introduction as of 1 January 2021 of a capacity charge aimed to ensure continuous operation of the electrical power system. Funds from this fees will be used to finance the so-called power market, i.e. the solution intended to provide funds for the construction of new and modernisation and operation of the existing power generation units.

[13] The decline in the growth of insurance services prices in December 2020 resulted from the statistical base effect. December 2019 saw a 7.8% rise in these services prices.

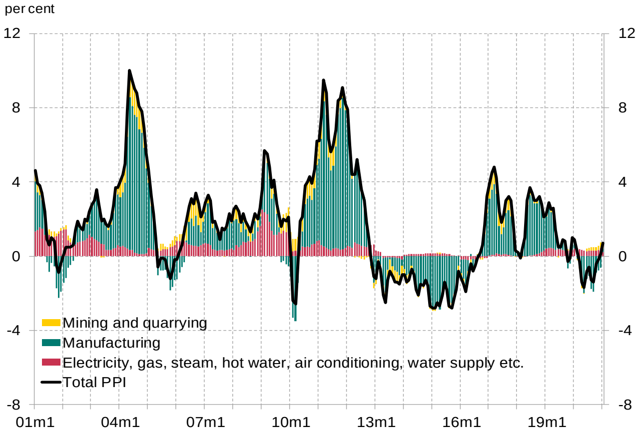
prices in crude oil industry[14] and increases in the prices of metal production, driven by price developments of those commodities in the global market, were the most important factors behind the growth in PPI.

Inflationary expectations of market analysts over the four quarters' horizon remain at a level of approx. 2.5% (according to Refinitiv's survey; Table 2.1) The median forecasts of participants to the NBP Macroeconomic Survey[15] over the horizon of both four and eight quarters are at a similar level. At the end of 2020, survey opinions of enterprises (measured by the balance statistics) shifted somewhat towards higher inflation (Figure 2.5) Consumer opinions expressed in the survey – after a temporary increase in January 2021 – in February declined to the level observed in the second half of 2020.

2.2 Demand and output

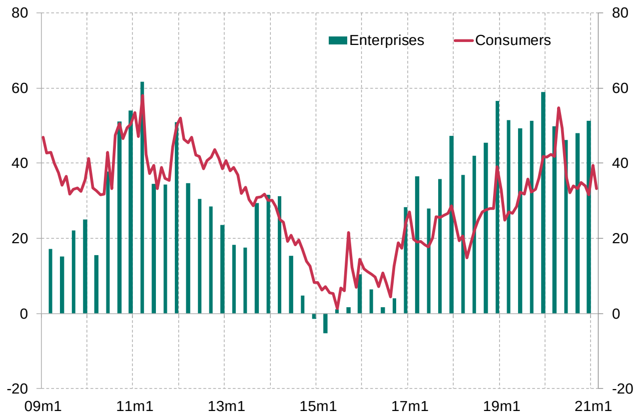
Following a sharp decline in 2020 Q2 (of 8.4% y/y), economic activity rebounded markedly in 2020 Q3, even though in annual terms GDP was still lower than a year ago (by 1.5%). The recovery in 2020 Q3 was backed by the easing of epidemic restrictions at home and abroad, an improvement in economic sentiment and the support from fiscal and monetary policies. In 2020 Q4, as the pandemic situation worsened and restrictions were tightened, economic activity decreased once again, albeit less than in 2020 Q2 – GDP fell by 2.8% y/y in 2020 Q4 (Figure 2.6, Table 2.2, Figure 2.7). Adaptation of economic agents to operating under the sanitary regime, a slightly narrower scope of restrictions, higher consumer and business confidence than at the outbreak of the epidemic, and the lack of major disturbances in global value chains contributed to the strengthening of the economy's resilience to the second wave of infections. At the same time, rising foreign demand

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.

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

	Survey conducted in:				
	20q1	20q2	20q3	20q4	21q1
Refinitiv Survey, inflation expected in 4 quarters	1.8	1.9	1.8	2.8	2.6
NBP Survey, inflation expected in 4 quarters	2.2 (1.4-2.9)	2.3 (1.3-3.3)	2.3 (1.6-2.8)	2.6 (2.1-3.1)	-
NBP Survey, inflation expected in 8 quarters	2.5 (1.5-3.4)	2.6 (1.6-3.3)	2.4 (1.7-3.2)	2.7 (2.1-3.5)	-

Source: NBP and Refinitiv data.
Inflation expectations of the financial sector analysts are proxied by the median forecast of the analysts surveyed by Refinitiv (former Thomson Reuters) in the last month of a given quarter with the exepction of 21q1, which comes from January 2021.
Inflation expectations of the participants to the NBP Survey of Professional Forecasters reflect the median probability distribution obtained from the aggregation of probability forecasts of the experts surveyed by NBP. In the parentheses there are given 50% probability intervals (between the 1st and 3rd quartiles) of this distribution. In principle, the survey takes place within the last two weeks of a given quarter and overlaps with the first two working days of a following quarter.

[14] At the same time – despite a rise – lower than a year before crude oil prices at the turn of 2021 continued to be a factor curbing PPI growth.
[15] *NBP Survey of Professional Forecasters. Results of the NBP Macroeconomic Survey. December 2020*, NBP. No. 4/2020.

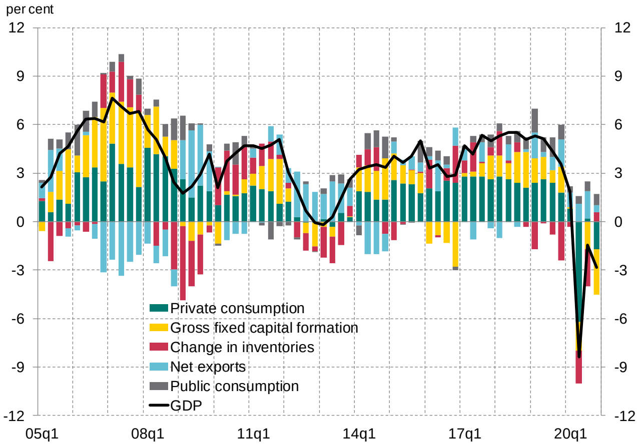
was an important factor supporting business conditions.

Consumption demand remained under a strong influence of the temporary easing and tightening of sanitary restrictions, which largely determined access to services involving physical contact and to some goods. Following a 10.8% contraction in 2020 Q2, consumption rose by 0.4% y/y in 2020 Q3 and declined by 3.2% y/y in 2020 Q4. Along with the epidemic restrictions, voluntary social distancing for the fear of infection, lower consumer confidence and lower wage bill growth than before the pandemic continued to exert downward pressure on consumption. Still, the impact of these factors on the behaviour of households was much weaker in 2020 Q4 than in 2020 Q2.

Investment demand remained low in the second half of 2020 – it fell by 9.0% y/y and 10.9% y/y in 2020 Q3 and Q4, respectively (compared to a decline of 10.7% y/y in 2020 Q2). Corporate investment continued to fall at a fast pace, while in the public and residential sectors fixed capital formation growth was close to zero. Investment continued to be dragged down by high uncertainty, low capacity utilisation and lower-than-before-the-pandemic expectations about the future level of economic activity.

Net exports had a significant, positive contribution to GDP growth (1.7 percentage points in 2020 Q3 and 0.4 percentage points in 2020 Q4). Despite still relatively weak economic conditions among Poland's main trading partners (see also Chapter 1.1 *Economic activity abroad*), the growth of exports was markedly positive (2.0% y/y in 2020 Q3 and 8.0% y/y in 2020 Q4). Import growth, while significantly accelerated in 2020 Q4 (to 7.9% y/y in 2020 Q4 from -1.0% y/y in 2020 Q3), remained lower than export growth. The growth in foreign trade turnover was supported by the structure of Poland's exports, in which durable and intermediate goods enjoying high demand during the pandemic (e.g. electronics, furniture, household appliances, electric car batteries) have a

Figure 2.6 GDP growth and its components (y/y)



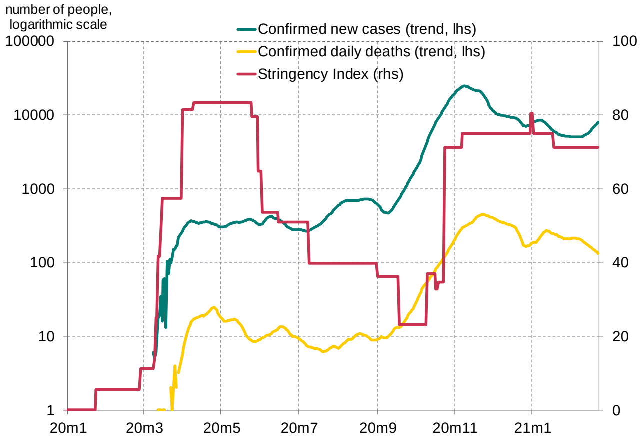
Source: Statistics Poland (GUS) data.

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

	2018				2019				2020			
	q1	q2	q3	q4	q1	q2	q3	q4	q1	q2	q3	q4
GDP	**5.3**	**5.5**	**5.5**	**5.1**	**5.3**	**5.1**	**4.4**	**3.6**	**1.9**	**-8.4**	**-1.5**	**-2.8**
Private consumption	2.8	2.6	2.4	2.1	2.4	2.6	2.4	1.8	0.8	-6.2	0.2	-1.7
Public consumption	0.5	0.5	0.7	0.7	1.5	0.9	1.2	0.9	0.4	0.5	0.6	0.7
Gross fixed capital formation	1.3	1.0	1.9	2.2	1.5	1.4	0.8	1.6	0.1	-1.8	-1.7	-2.8
Change in inventories	1.5	0.2	0.6	-0.3	-1.7	-0.1	-0.8	-2.4	-0.3	-2.0	-2.3	0.6
Net exports	-1.0	1.0	-0.3	0.2	1.6	0.3	0.8	1.7	0.9	1.1	1.7	0.4

Source: Statistics Poland (GUS) data.

Figure 2.7 COVID-19 cases, related deaths and stringency of epidemic restrictions in Poland



Source: Ministry of Health and University of Oxford Coronavirus Government Response Tracker data, NBP calculations.

relatively high share, and by gradually improving business conditions in global industry (see also Chapter 1.1 *Economic activity abroad*).

Government expenditure on goods and services had a stable, positive contribution to GDP growth in the second half of 2020, which was aided by, among others, expenditure related to the COVID-19 pandemic.

2.2.1 Consumption

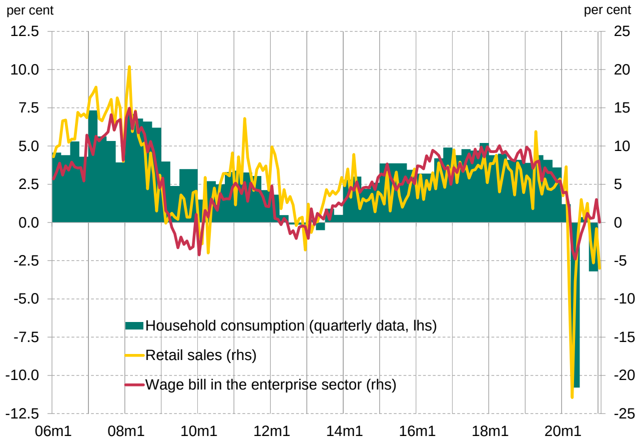
Following a sharp decline in 2020 Q2 (of 10.8% y/y), consumption increased by 0.4% y/y in 2020 Q3 as a result of, among others, purchases deferred during the first wave of the pandemic. In 2020 Q4, due to the second wave of infections, consumption in the household sector fell again, albeit on a much lower scale than in 2020 Q2 (by 3.2% y/y, Figure 2.8).

Consumer demand weakened in 2020 Q4 as the pandemic situation aggravated, consumers self-restricted their mobility and epidemic restrictions were tightened, limiting the activity of, among others, hotels and restaurants, entertainment, recreation and cultural venues as well as shopping malls (though in December the restrictions imposed on the trade sector were temporarily eased). These circumstances took their toll on consumer sentiment at the year-end (Figure 2.9) and demand for credit (see also Chapter 2.6 *Money and credit*).

Despite a much higher rate of infections during the second wave of the pandemic, the scale of consumption contraction was significantly lower at the end of 2020 than during the first wave of the pandemic. This was due to a somewhat narrower range of restrictions, lower scale of voluntary social distancing and precautionary saving, and higher wage growth than in 2020 Q2, yet still lower than prior to the pandemic (Figure 2.8).

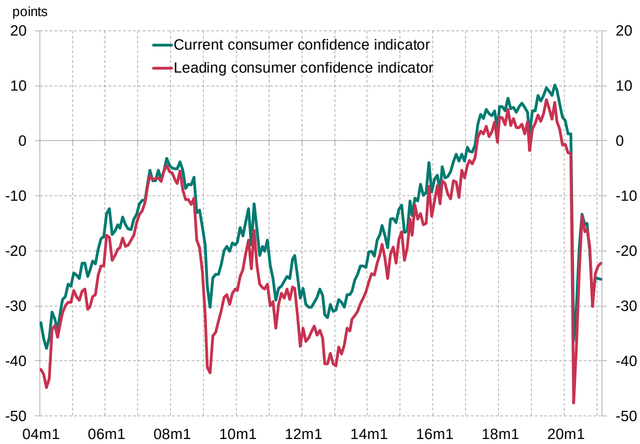
Consumption of both services – predominantly those subject to pandemic restrictions – and goods declined in 2020 Q4. Among goods, apparel and footwear recorded the biggest drop, and due to

Figure 2.8 Real growth in consumption, retail sales and wage bill in the enterprise sector (y/y)



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

Figure 2.9 Consumer confidence indicators



Source: Statistics Poland (GUS) data.

lower mobility, the sale of fuels and cars also shrank markedly. The annual growth in sales of furniture and household appliances slowed down as well, even though it remained significantly positive, which may indicate a shift in demand away from other categories of goods and services.

Even though the drop in retail sales deepened in January[16] as the operation of shopping malls was again temporarily restricted, data on payment card transactions indicate that consumption picked up in February driven by the easing of restrictions related to, among others, trade, accommodation, recreation and culture. At the same time, consumer expectations of the future economic conditions improved somewhat.

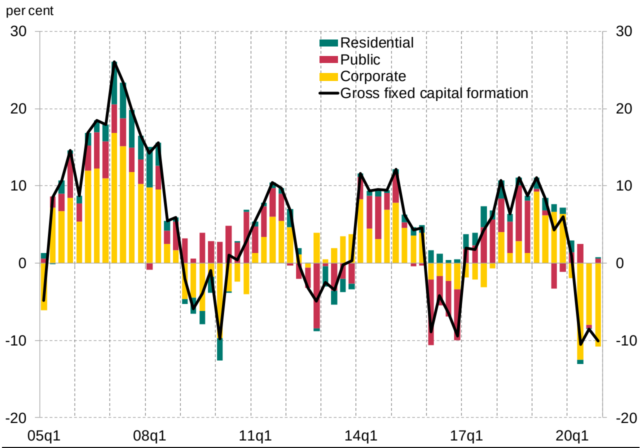
2.2.2 Investment

In the second half of 2020, investment activity remained low - after a 10.7% y/y fall in 2020 Q2, gross fixed capital formation decreased by 9.0% y/y in 2020 Q3 and 10.9% in 2020 Q4. Investment continued to fall primarily in the enterprise sector, while growth in public and residential investment was close to zero (Figure 2.10).

Corporate investment activity remained constrained by the COVID-19 pandemic restrictions, high uncertainty over the future course of the pandemic and its economic fallout, relatively low capacity utilisation (Figure 2.11) and lower-than-before-the-pandemic expectations about the future level of economic activity.

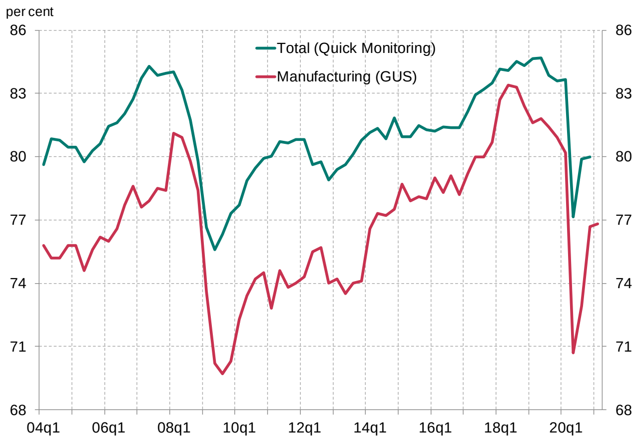
In 2020 Q3, the degree of the decline in corporate investment was slightly smaller than in 2020 Q2. Outlays on means of transport increased, which may be related to a faster-than-originally-expected economic recovery in this quarter. At the same time, investment which is characterised by greater inertia, i.e. outlays on buildings and structures, fell further, which translated into a further drop in

Figure 2.10 Growth in investment and its main components (y/y)



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

Figure 2.11 Corporate capacity utilisation (seasonally adjusted data)



Source: NBP and Statistics Poland (GUS) survey data.

[16] Retail sales in constant prices declined in January 2021 by 6.0% y/y as compared with a drop of 0.8% y/y in December 2020 and of 2.8% on average in 2020 Q4. The sale of apparel and footwear dropped the most (by 40.8% y/y).

investment in industry, energy and trade (Figure 2.12). Small companies continued to cut investment to a larger extent than large and medium-sized businesses, and foreign-owned companies – to a larger extent than domestic companies, especially state-owned ones which reported a rise in outlays in year-on-year terms.

According to NBP estimates, public investment growth in the second half of 2020 was lower than in 2020 Q2 and close to zero. A decline in local government investment contributed to this slowdown. The stabilisation – at a high level – of public investment is supported by the current phase of the EU funds expenditure cycle.

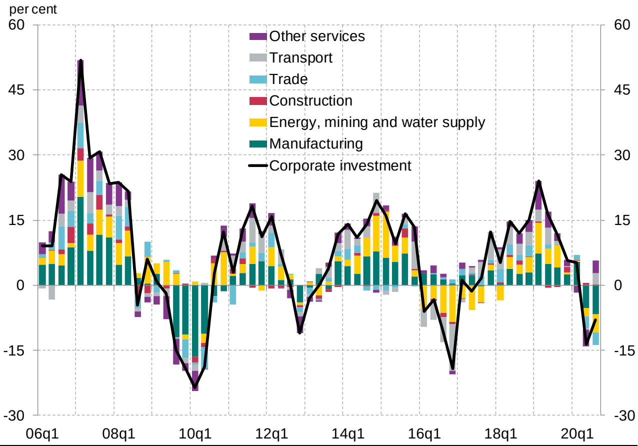
At the same time, residential investment growth, albeit also close to zero, edged up in the second half of 2020 compared to 2020 Q2. Following the partial suspension of transactions in 2020 Q2, activity in the housing market resumed, while demand remained relatively high (see Chapter 2.5.2 *Real estate market*).

2.2.3 Public finance

The general government deficit in ESA 2010 terms for the first three quarters of 2020 amounted to 5.0% of GDP, of which approx. 3.8% of GDP was due to the anti-crisis measures taken by the government in response to the epidemic. As a result, the deficit in the period 2020 Q1 to Q3 was high compared to the previous years' levels (Figure 2.13). At the same time, taking into account partially available data for 2020 Q4, in the entire 2020 the general government deficit was probably considerably lower than projected in the government's autumn fiscal notification.[17]

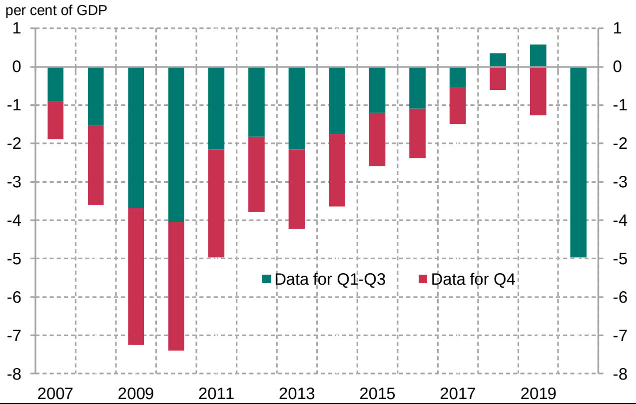
The largest part of the anti-crisis fiscal support took the form of subsidies for enterprises and was disbursed mainly in 2020 Q2. The expenditure under this category includes, in particular, funds

Figure 2.12 Growth in investment of medium and large non-financial enterprises in current prices by sectors (y/y)



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

Figure 2.13 General government balance (ESA2010)



Source: Eurostat data, NBP calculations.

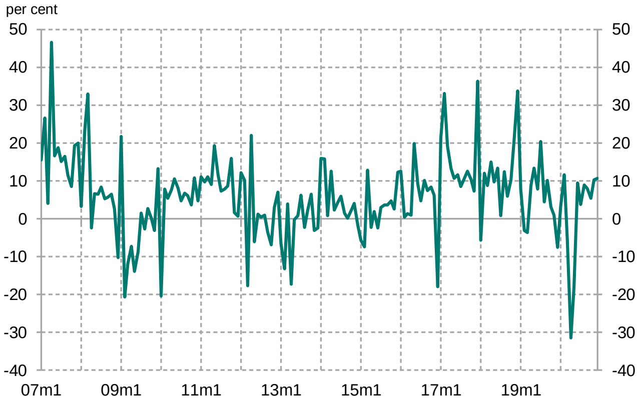
[17] See Table 1, *Reporting of Government Deficits and Debt Levels. Member State: Poland,* October 2020, https://ec.europa.eu/eurostat/documents/1015035/11440377/PL-2020-10.pdf/82a1092f-000f-2be7-e819-de6025899862.

from the Financial Shield of the Polish Development Fund (PFR), exemptions from ZUS social insurance contributions, wage subsidies and loans of PLN 5 000 for micro-enterprises.

At the end of 2020, due to the second wave of the pandemic, the government announced another package of anti-crisis measures addressed at sectors the most severely affected by the tightening of the sanitary restrictions. Under this package the government is supposed to provide further funds from the Financial Shield of the Polish Development Fund (PFR) to the micro and SME sector and cancel the debt resulting from loans granted under the first round package (this support is supposed to amount to approx. PLN 20 bilion). Moreover, under the so-called sectorial shield, enterprises may apply for exemption from ZUS social security contributions for months provided for in the law, an one-off additional work suspension benefit and wage subsidies (the support may be estimated at approx. PLN 10 billion).

According to the preliminary data of the Ministry of Finance, in 2020 the state budget deficit amounted to PLN 85.0 billion compared to PLN 13.7 billion in 2019. The rise in the deficit was mainly driven by a considerable increase in expenditure in December 2020, namely by 141.1%, due to the prepaid expenditure to be incurred in 2021.[18] Higher than expected growth in tax revenues of the state budget was a factor limiting the scale of the deficit. In the whole of 2020, they were by 0.8% y/y higher and exceeded by PLN 20.6 billion the amount forecasted in the amended 2020 Budget Act.[19] In the second half of 2020, the tax revenues of the state budget increased by 7.7% y/y (Figure 2.14) which was supported by a relatively good situation in the labour market.

Figure 2.14 Growth rates of state budget tax receipts (y/y)



Source: Ministry of Finance data, NBP calculations.

December 2020 – preliminary data of the Ministry of Finance.

[18] This concerns in particular the so-called non-expiring expenditure and subsidies transferred to the Solidarity Fund. Yet, in ESA 2010 terms, the rise in expenditure on this account does not affect the outcome of the general government in 2020, but in 2021.

[19] The Act of 28 October 2020 on the amendment of the 2020 Budget Act (Journal of Laws of 2020, item 1919).

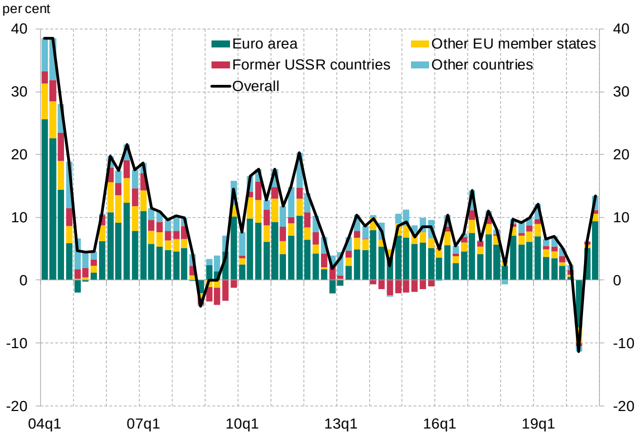
At the end of 2020, the State Treasury debt reached PLN 1 097 billion, i.e. 47.3% of GDP compared to 42.5% of GDP at the end of 2019. Public debt as defined in the Public Finance Act was probably close to that level (at the end of September 2020, the difference between the State Treasury debt and the above mentioned public debt was PLN 6.2 billion), thus markedly below the thresholds of 55% and 60% of GDP provided for in the Public Finance Act[20] and the Constitution of the Republic of Poland. Meanwhile, the general government debt in ESA 2010 terms increased to a greater extent in 2020, mainly due to massive bond issues by PFR and Bank Gospodarstwa Krajowego (BGK)[21]. Basing on available data, it can be expected that the general government debt in ESA 2010 terms at the end of 2020 may not have exceeded 60% of GDP either.

Despite the persisting uncertainty about the further course of the epidemic, the scale of expenditure on anti-crisis measures in 2021 will likely be smaller than in 2020. Combined with the expected economic recovery in 2021, this suggests that the situation of the general government may improve.

2.2.4 External trade[22]

The second half of 2020 saw a marked recovery in Poland's external trade after the sharp fall in 2020 Q2. In 2020 Q3, the value of exports of goods increased by 6.2% y/y, which – coupled with a significantly lower growth in imports at 0.6% y/y – translated into wider surplus in the trade in goods (see Chapter *2.7 Balance of payments*). In 2020 Q4, despite a deterioration of epidemiological situation both domestically and in Poland's trade partners, the growth of exports and imports accelerated – to 13.4% y/y and 7.3% y/y, respectively.

Figure 2.15 Contribution to export growth by destination (y/y)



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

[20] The Act of 27 August 2009 on Public Finance (Journal of Laws of 2019, item 869, consolidated text with further amendments).
[21] In accordance with the provisions of the Act on Public Finance, PFR and BGF are not considered public sector entities. In 2020, they issued bonds with a total nominal value of PLN 166.1 billion.
[22] In this chapter, the analysed data are primarily Statistics Poland (GUS) data on the nominal value of exports and imports of goods in PLN terms. Trends in the trade of services are not described, as no detailed data are available on their breakdown.

Increase in the growth of value of exports was registered in all the analysed groups of countries, but it was the most pronounced with respect to the euro area, and Germany in particular (Figure 2.15). In terms of goods, the largest share of this increase in 2020 Q3 was due to consumer goods. In 2020 Q4 – along with the recovery in trade within the global supply chains – exports were additionally propped up by the higher growth in the external sales of intermediate goods, mainly supply goods for the manufacturing sector and parts and accessories for the means of transport.

The largest positive contribution to the growth of imports was made by consumer goods, both durable and non-durable (Figure 2.16). At the same time, imports were pushed down primarily by the decreasing value of imports of fuels, belonging to intermediate goods, which was more due to oil prices being lower than a year before, than due to a decline in the volume of imports. Among other goods imports continued to decrease, most notably imports of passenger cars.

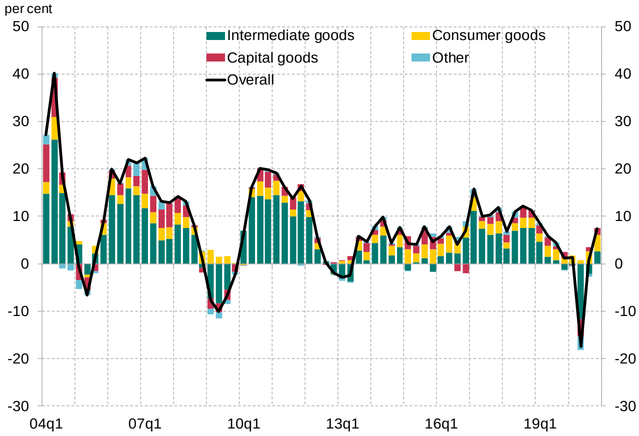
Since the release of the previous *Report*, the nominal and real effective exchange rate of the zloty have appreciated (Figure 2.17). The exchange rate of the zloty was shaped by both domestic and global factors (see Chapter 2.5.1 *Financial markets*).

2.2.5 Output

After a marked recovery of activity in industry and services in 2020 Q3 amid the simultaneous decline in value added in construction, the epidemic situation deteriorated in 2020 Q4. As a result, activity in services, particularly those subject to epidemic restrictions, declined again. Meanwhile, the recovery continued in industry, which this time proved to be resilient to the surge in the epidemic. Output growth in construction also improved, falling at a slower pace (Figure 2.18).

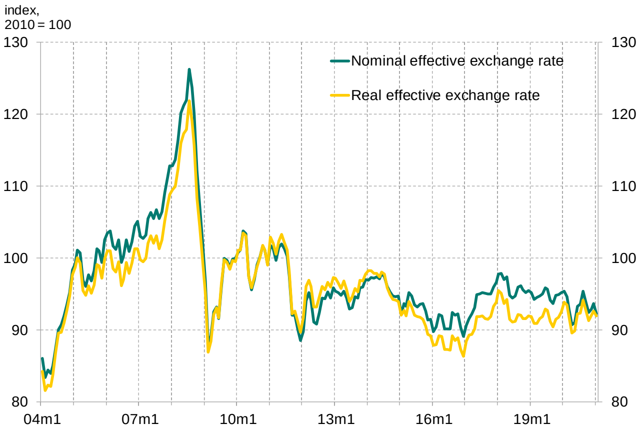
Industrial output rose by 5.2% y/y in 2020 Q4 and – after seasonal adjustment – by 5.7% y/y in

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



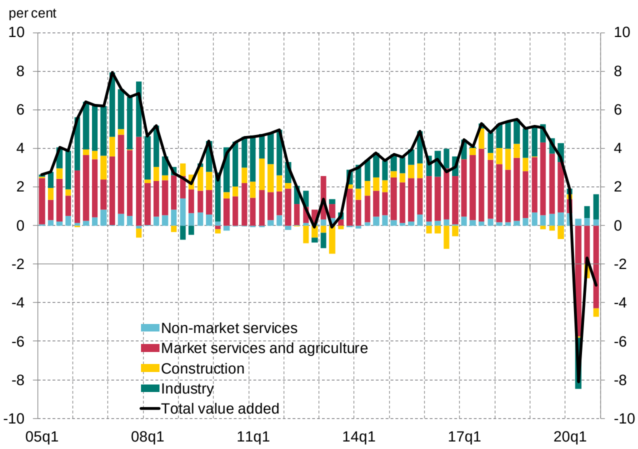
Source: Statistics Poland (GUS) data, NBP calculations.
Data based on Statistics Poland (GUS) classification of the main product categories for the value of Polish exports and imports in zlotys. "Other" comprises passenger cars, motor gasoline and goods else not classified.

Figure 2.17 Nominal and real effective PLN exchange rate (rise indicates appreciation)



Source: BIS data.

Figure 2.18 Growth of gross value added by sectors (y/y)

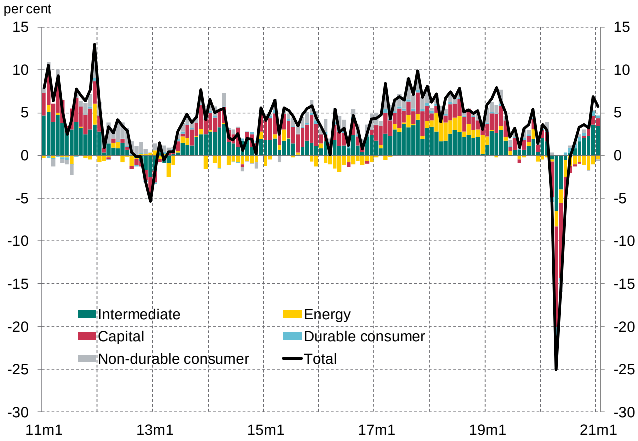


Source: Statistics Poland (GUS) data, NBP calculations.

January 2021[23] (compared to 3.2% y/y in 2020 Q3), thus returning to the pre-pandemic growth trend. Production of durable consumer goods continued to rise at the fastest pace, though growth in the production of intermediate and - to a lesser extent - capital goods also accelerated (Figure 2.19). Activity in industry was driven by exports growth, backed by a recovery in the euro area industrial sector and the structure of exports, in which durable and intermediate goods enjoying high demand during the pandemic (e.g. electronics, furniture, household appliances, electric car batteries) have a relatively high share. At the same time – unlike in 2020 Q2 – there were no major disturbances in the global value chains, despite the pandemic resurgence around the world. As a result, business conditions in industry improved, in spite of restrictions imposed on domestic trade and persistently low investment demand.

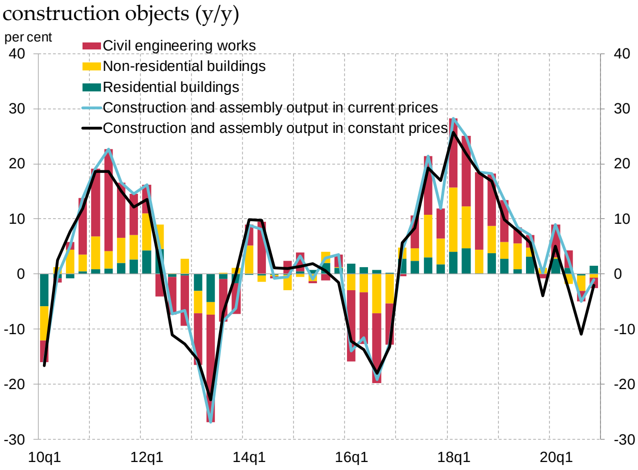
In 2020 Q4, growth in construction and assembly output also improved, although it remained negative (standing at -2.0% y/y compared to -10.9% y/y in 2020 Q3; Figure 2.20). However, the improvement stemmed largely from a statistical base effect, particularly in residential construction, which – partly due to weak activity at the end of 2019 – recorded positive growth in annual terms. Nevertheless, residential construction continues to be supported by the housing demand, which remains at a relatively high level despite the pandemic. At the same time, in non-residential and infrastructure construction output growth remained slightly negative, which is related to low corporate investment demand (see Chapter 2.2.2 *Investment*) and the relatively stable level of absorption of EU funds in the current phase of settling investment expenditure under the EU financial framework 2014-2020.[24]

Figure 2.19 Industrial output growth by groups of goods (y/y, seasonally adjusted data)



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

Figure 2.20 Construction and assembly output growth by construction objects (y/y)



Source: Statistics Poland (GUS) data, NBP calculations.
Decomposition of output growth by construction objects is in current prices.

[23] Unadjusted industrial output rose only by 0.9% y/y, which resulted from the difference in the number of working days between January 2021 and January 2020.
[24] Although the EU financial framework formally covers the years 2014-2020, expenditure of the funds planned under this framework will end in 2023.

However, at the beginning of 2021 the fall in construction and assembly output deepened again (to 10% y/y in January), with activity in finishing works and the construction of buildings declining. The weaker economic conditions may have at least partly resulted from worse weather conditions than a year earlier.

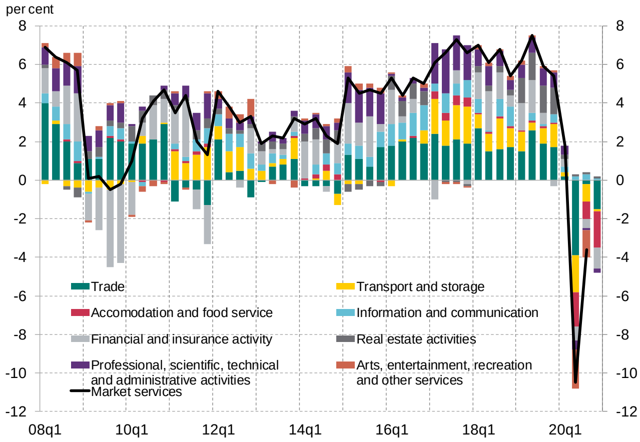
Following a marked improvement in 2020 Q3 – particularly in the sectors affected earlier by the sanitary restrictions, i.e. trade, transport, and accommodation and food service[25] – business conditions in market services once again deteriorated in 2020 Q4 (Figure 2.21, Figure 2.22). Besides the sectors subject to the restrictions (trade, accommodation and food service), value added also fell significantly in financial and insurance activities. Yet activity in market services declined less in 2020 Q4 than in 2020 Q2, which was due to the narrower scope of restrictions, less voluntary social distancing and better business conditions in industry, which supported activity in transport. However, the available data indicate that at the beginning of 2021 activity in services remained low as the tightened restrictions remained in place.

2.3 Financial situation of enterprises

In 2020 Q3, the financial performance of enterprises improved somewhat. The result on sales increased by 5.6% y/y against a decline of 8.6% y/y in 2020 Q2, amid a fall in both revenue and costs (Figure 2.23, Figure 2.24). Survey data suggest that under tightened epidemic restrictions in 2020 Q4, which affected various firms unevenly, the financial performance of enterprises was highly dependent on sector.

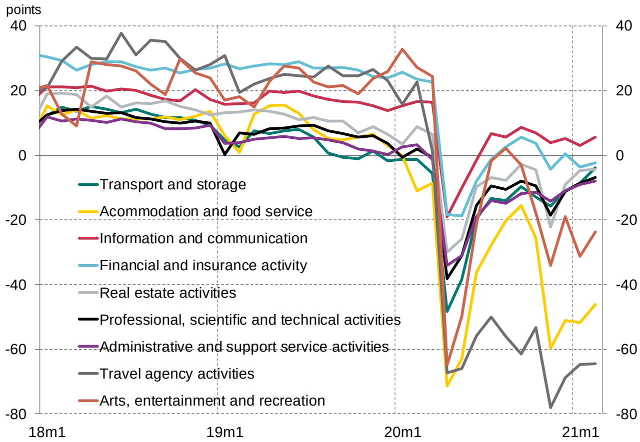
Sales revenue declined by 3.3% y/y in 2020 Q3, with varied growth in individual sectors. The highest growth in sales was recorded in other service activities, arts, entertainment and recreation, and in

Figure 2.21 Growth of gross value added in market services by branches (y/y)



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

Figure 2.22 General business climate indicators in services (seasonally adjusted data)



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

[25] In accommodation and food service as well as in arts, entertainment and recreation, which in 2020 Q3 were still subject to some restrictions, the fall in activity at that time remained very steep (-29.7% and -43.1% y/y, respectively).

enterprises dealing with water supply, sewerage, waste management and remediation activities. The sharpest fall in sales was in education, administrative and support service activities, as well as in hotels and restaurants. Total revenue declined in 2020 Q3 to a lesser extent than sales revenue (by 2.1% y/y), mainly due to the disbursement of public aid under the government's anti-crisis programmes and the higher dividend income than a year ago.

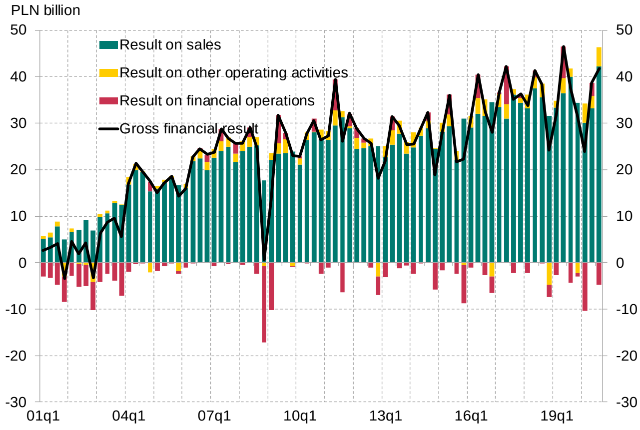
Sales costs[26] declined in 2020 Q3 to a greater extent than sales revenue (by 3.7% y/y), which had a positive impact on the result on sales. This decline was mainly due to significantly lower commodity prices than a year ago (see Chapter 1.3 *Global commodity markets*), reduced supply needs and lower costs of external services. At the same time, labour costs, costs of energy and depreciation write-offs were higher than a year ago.

In 2020 Q3, the improvement in the financial result coupled with the simultaneous decline in sales caused the profitability indicators to run at a higher level than a year ago (Table 2.3). The share of profitable firms did not change compared to 2019 Q3. In turn, the share of bank credits and loans in the balance sheet total declined slightly in 2020 Q3.

The liquidity ratio remained high in 2020 Q3, which in particular was the result of the government liquidity support measures for enterprises and still low investment outlays of firms (see Chapter 2.2.2 *Investment*; Table 2.3).

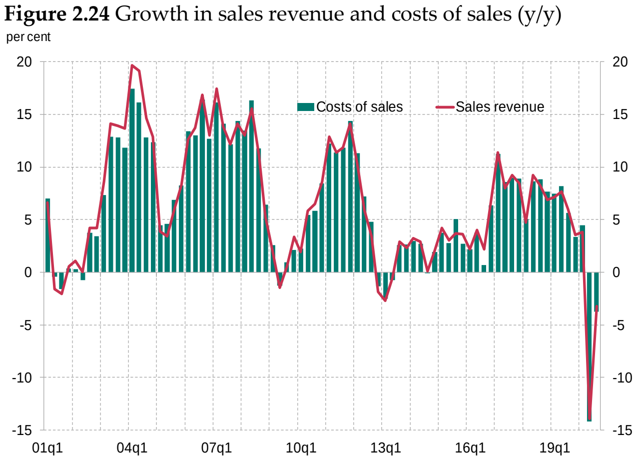
NBP survey data indicate that in 2020 Q4, under tightened epidemic restrictions, the economic situation of enterprises remained highly diverse across the sectors. The percentage of firms assessing their condition as good or very good stood at 74.6% in 2020 Q4 compared to 74.4% in 2020 Q3 and 77.7% in 2019 Q4. Positive assessments of the situation dominated in industry and the construction sector, while negative assessments

Figure 2.23 Gross financial result of enterprises and its components



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

Figure 2.24 Growth in sales revenue and costs of sales (y/y)



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

[26] Sales costs are defined as total costs excluding costs of other operating activities and financial costs.

prevailed in the sectors most badly affected by the restrictions (hotels, restaurants, tourism). Despite the tightening of the restrictions, in 2020 Q4 the share of companies declaring problems with liquidity or settling credit and trade obligations decreased slightly.

2.4 Labour market

After a fall in demand and supply of labour during the first wave of the pandemic, the labour market situation improved in 2020 Q3. In 2020 Q4, however, along with the worsening of the epidemic situation and introduction of restrictions, the recovery of demand for labour slowed down.

In particular, in 2020 Q3 the number of employed persons according to the LFS was running 0.6% below the level of a year earlier, compared with a fall of 1.3% y/y in 2020 Q2 (Figure 2.25). The recovery of employment in 2020 Q3 took place mainly in the services sector and – to a lesser degree – in industry, while growth in the number of employed in construction continued to decline. At the same time, the number of employees who did not perform their duties as they were put on furlough or had their working hours reduced fell to pre-pandemic levels.

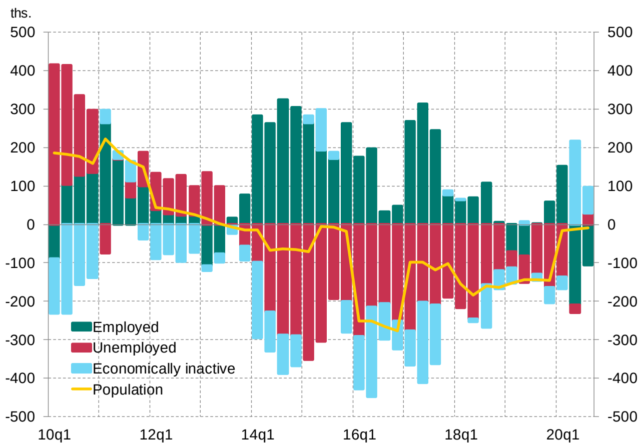
Available data for 2020 Q4 show that the second wave of infections and the related restrictions slowed down the pace of the improvement in the domestic labour market. The number of people employed in the enterprise sector[27] in 2020 Q4 was running at a level 0.6% lower than a year earlier (Figure 2.26), while the number of vacancies in labour offices fell by 5.4% y/y. Data for January 2021 indicated a further fall in the number of people employed in this sector and the lower interest of firms in recruiting new workers.[28]

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

	Average 2004-2019	2019 q1	2019 q2	2019 q3	2019 q4	2020 q1	2020 q2	2020 q3
Sales profitability ratio	5.0	4.5	4.6	5.0	4.1	3.9	4.9	5.5
Net turnover profitability	4.1	3.4	4.8	3.8	2.9	2.4	4.5	4.4
Share of profitable enterprises	72.5	76.3	75.9	76.0	75.7	74.4	73.3	76.0
1st degree liquidity ratio	34.7	34.7	34.6	35.4	38.1	38.9	42.6	42.9
Return on Assets	1.3	1.0	1.5	1.1	0.9	0.7	1.1	1.2
Share of bank credits and loans in the balance sheet total	13.1*	15.2	15.3	15.6	15.5	15.9	15.9	15.3

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.
*In case of share of bank credits and loans in the balance sheet total average was calculated over 2013-2019.

Figure 2.25 Annual changes in the size of basic population groups, distinguished by their labour market status



Source: Statistics Poland (GUS) data.
Population as defined by the LFS, i.e. Poland's population at the age of 15 years or over living in households.

[27] Data from the enterprise sector cover enterprises with the number of employees exceeding 9 persons and do not include employees working on the basis of civil law contracts. Moreover, this sector does not include certain areas of economic activity, in particular, public administration, education, health care, agriculture and financial and insurance activity.
[28] In January 2021, the number of people employed in the enterprise sector declined by 0.8% compared to December 2020. At the same time, the number of vacancies posted at labour offices in January 2021 fell by 1.1% in monthly terms (after seasonal adjustment) and was running 16.3% below the level of a year earlier.

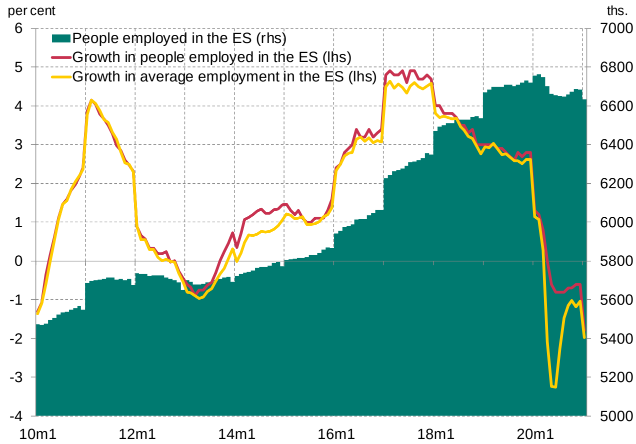
In 2020 Q3, the labour force participation rate rose to 56.4% compared to 55.5% in 2020 Q2. This was primarily due to the increased labour market participation of the population aged 45-59/64, while that of people aged 15-24 was still markedly lower than a year earlier. At the same time, the degree of underutilisation of potential labour resources rose only slightly.[29]

The LFS unemployment rate in 2020 Q3 rose to 3.3% compared to 3.1% in 2020 Q2 (Figure 2.27). The rise in the number of unemployed – despite the recovery in economic activity that was taking place at the time – was due to the delayed influx to this group of people who in 2020 Q2 did not meet the criteria defining unemployed people according to LFS. The youngest age group (15-24 years old) was the most affected by the unfavourable changes in the labour market.[30]

According to data from the labour offices, the registered unemployment rate in 2020 Q4 and at the beginning of 2021[31] remained close to the level recorded in 2020 Q3 (approx. 6.1%; Figure 2.27). The stabilisation of the unemployment rate took place amid the lower number of both registrations and deregistrations from the unemployment register compared to a year earlier. This was due to the increase in the share of people remaining without work for longer than 6 months among all the registered unemployed.

The available data indicate that the outflow of migrants from the domestic labour market remains limited. While the data from the land border crossings with Ukraine show that the number of foreigners in the territory of Poland declined during the pandemic, the number of foreigners

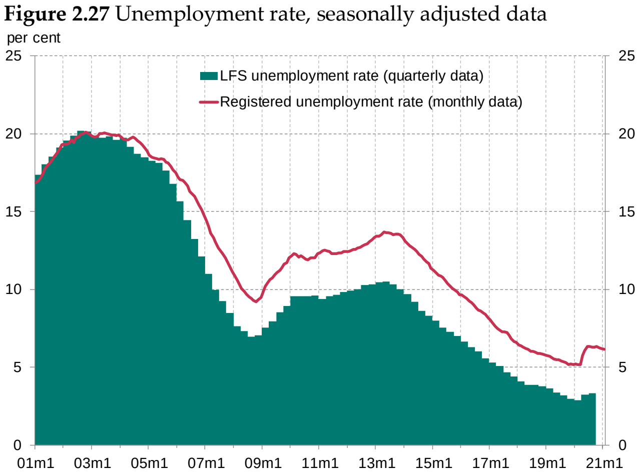
Figure 2.26 Annual growth rates in the number of people employed and average employment, and the number of people employed in the enterprise sector (ES)



Source: Statistics Poland (GUS) data.

People employed in the ES as of the last day of the month, without recalculating part-time employment into full-time equivalent. These data have a wider coverage than average employment as they include owners and co-owners of enterprises and, among others, employees receiving sickness, care and maternity allowance, who are included in the average employment statistics only to a limited extent.

Figure 2.27 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.

[29] Potential labour resources are the total number of people: (i) unemployed, (ii) economically inactive looking for a job but not ready to take it, (iii) economically inactive not looking for a job but ready to take it, and (iv) part-time employees who could and would like to work for longer hours. The share of this group in the economically active population – extended by the above-mentioned categories of economically inactive – after a temporary rise to 6.3% in 2020 Q2, stood at 6.1% (for the age group 20-64), the same as in 2020 Q1.

[30] In this group the unemployment rate rose from 9.5% in 2020 Q2 to 12.5% in 2020 Q3.

[31] The registered unemployment rate in January 2021 was 6.5%, compared with 6.2% in December 2020. After seasonal adjustment, this reading represented a fall to 6.1% (i.e. by 0.1 percentage points in monthly terms).

insured in the Social Insurance Institution (ZUS) rose sharply in annual terms.[32]

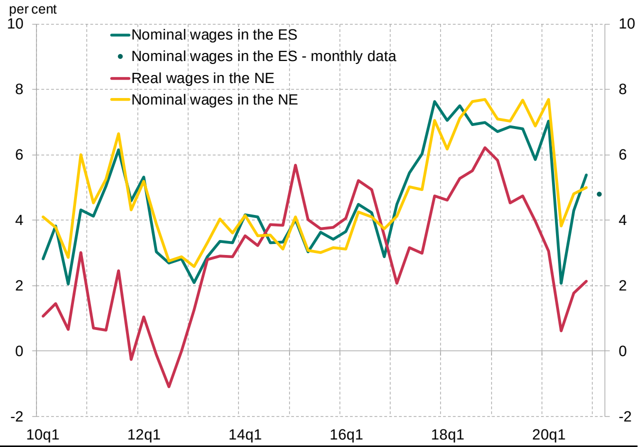
In the second half of 2020, growth in the average wage picked up. Along with the return of pre-pandemic forms of work in the private sector, wage growth in the national economy in 2020 Q3 reached 4.8% y/y, compared to 3.8% y/y in 2020 Q2. Despite the renewed tightening of the pandemic restrictions at the end of 2020, average wage growth in the national economy increased in 2020 Q4 to 5.0% y/y. This was due to the rise in wage growth in the enterprise sector from 4.3% y/y in 2020 Q3 to 5.4% y/y in 2020 Q4 (Figure 2.28). To a large degree this result reflected the high wage growth in industry in December 2020, accompanying the significant pickup in labour productivity growth in this sector. At the beginning of 2021, wage growth in the enterprise sector declined slightly, from 6.6% y/y in December 2020 to 4.8% y/y in January 2021.

2.5 Monetary policy and asset markets

After a significant easing of NBP monetary policy in 2020 Q1,[33] in subsequent months NBP has kept its interest rates unchanged and continued to pursue other measures adopted in response to the pandemic.

In particular, the NBP reference rate has been kept at 0.1% (Figure 2.29). At the same time, NBP has continued to purchase government securities and government-guaranteed debt securities in the secondary market. The scale and timing of its actions have been dependent on market conditions. The purchases of securities since the middle of 2020 have been smaller than during the first wave of the pandemic, and in total (as at the end of February

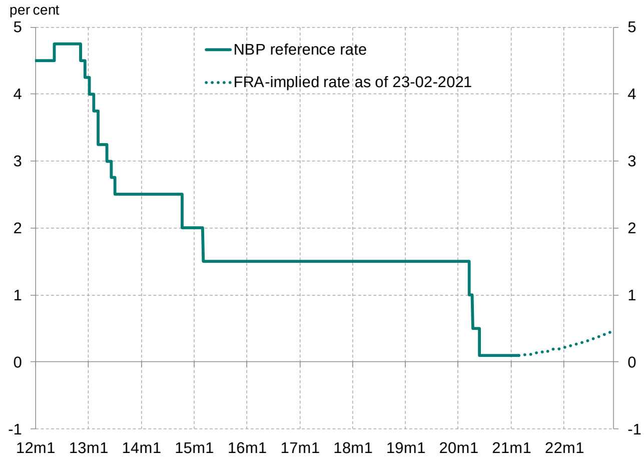
Figure 2.28 Annual nominal and real wage growth rates in the national economy (NE) and annual nominal wage growth rate in the enterprise sector (ES)



Source: Statistics Poland (GUS) data.

Wages in enterprise sector (ES) concern entities classified in certain PKD (NACE) sections that employ 10 or more people. Data on wages in the national economy (NE) cover the whole statistical population, regardless of the number of people employed.

Figure 2.29 NBP reference rate and 3M WIBOR FRA-implied expected interest rate



Source: NBP and Bloomberg data, NBP calculations.

[32] Data on the number of people crossing the border on the land border crossings between Poland and Ukraine indicate that the number of foreigners staying in Poland in 2020 declined by 46 thousand, while only part of this outflow concerned people connected with the domestic labour market (the remainder were, for example, family members). At the same time, as of the end of December 2020, the number of foreigners insured in the Social Insurance Institution (ZUS) increased by 73.7 thousand (i.e. 11.3%) compared to the end of 2019. This increase reflects the trend observed for several years of an increase in the percentage of foreigners paying contributions to the Polish social insurance system.

[33] See Box 2: *Monetary policy of Narodowy Bank Polski in response to the COVID-19 pandemic* in: *Inflation Report – July 2020*, NBP.

2021) NBP has purchased securities at a nominal value of PLN 109.7 billion, i.e. PLN 115.5 billion at the purchase price (Figure 2.30). NBP has also continued to offer bill discount credit aimed at refinancing loans granted to enterprises by banks.

In the period since the release of the previous *Report*, NBP has also intervened in the foreign exchange market, aiming to enhance the impact of its monetary policy easing on the economy.

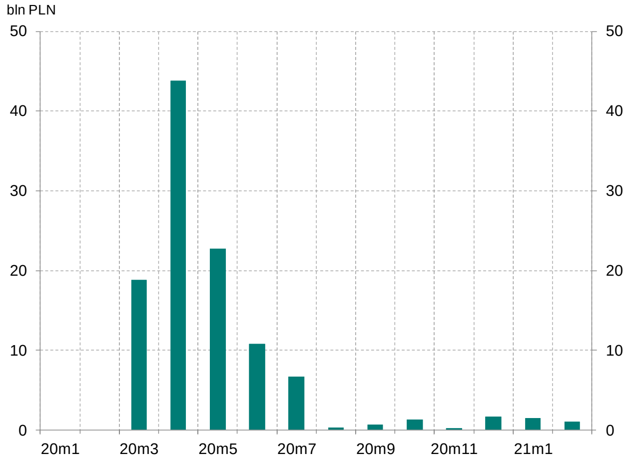
2.5.1 Financial market

In Poland, like in many economies around the world, after a significant fall in the first half of 2020, yields on the longer-term government bonds have increased recently, yet they are still low (Figure 2.31; see also Chapter 1.5 *International financial markets*).[34] Low yields on Polish government bonds have still been supported by the low current level of NBP interest rates, the expectations of financial market participants regarding future developments in short-term interest rates and the ongoing purchases of securities by NBP. Highly accommodative monetary policy around the world, including close to zero or negative interest rates in the advanced economies and asset purchases conducted by many central banks, has also exerted downward pressure on yields (see Chapter 1.4 *Monetary policy abroad*).

At the end of 2020, equity prices on the Warsaw Stock Exchange significantly increased, and at the beginning of 2021 stabilised at levels close to those observed a year earlier, i.e. before the outbreak of the COVID-19 pandemic (Figure 2.32). Higher equity prices were supported by higher appetite for risk and the associated increase in stock exchange indices in international financial markets.

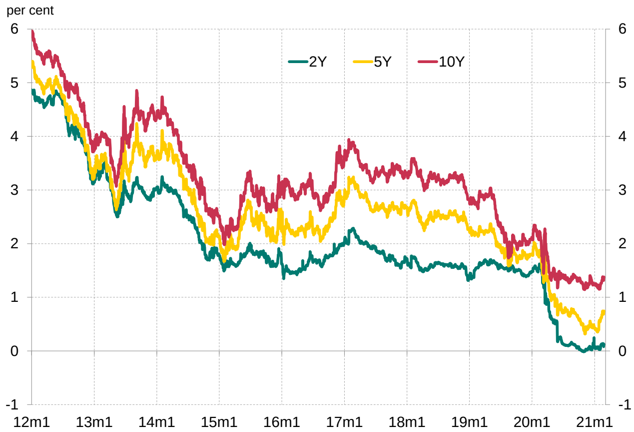
Since the end of October 2020, the zloty has strengthened against the major currencies (Figure

Figure 2.30 Stuctural open market operations conducted by NBP (nominal value, monthly)



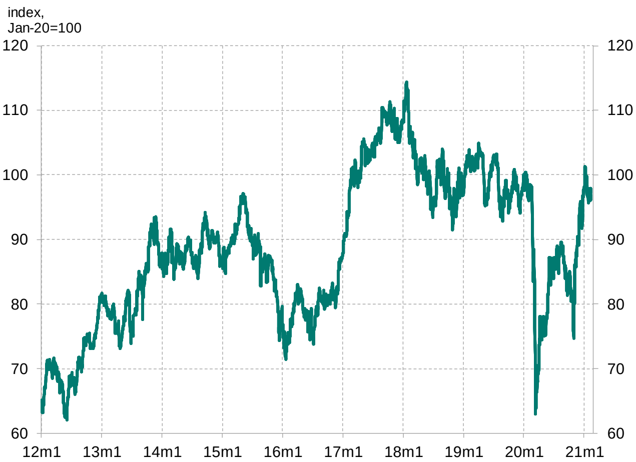
Source: NBP data.

Figure 2.31 Yields on Polish government bonds



Source: Bloomberg data.

Figure 2.32 WIG stock market index

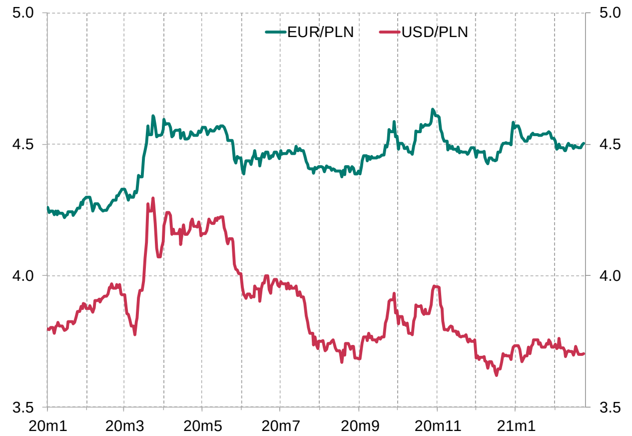


Source: Bloomberg data.

[34] In February 2021, yields on 10-year Polish Treasury bonds were running on average at 1.3%, while those on 2-year bonds stood at 0.1%.

2.33).[35] An important factor affecting the zloty exchange rate during the pandemic – on top of the present and expected economic and epidemic situation in Poland and abroad – was highly expansionary monetary policy of central banks abroad, including in the major advanced economies (see Chapter 1.4 *Monetary policy abroad*). At the same time, NBP interventions in the foreign exchange market were a factor restricting the appreciation of the zloty.

Figure 2.33 Nominal exchange rate of the euro and the US dollar in zloty



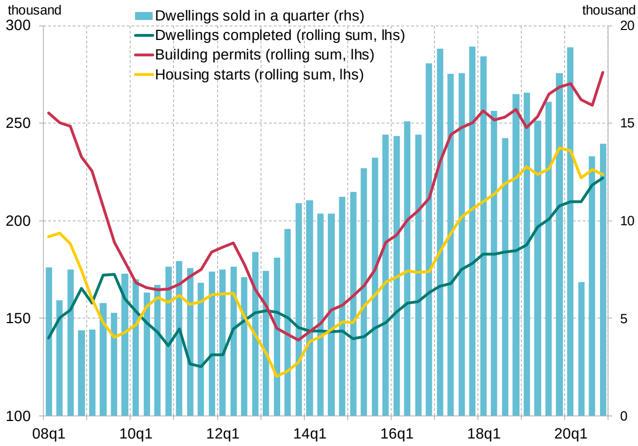
Source: Bloomberg data.

2.5.2 Real estate market[36]

In 2020, the activity in the real estate market declined, which was caused by the epidemic and the epidemic-related restrictions. This translated into a decline in the number of transactions in the last three quarters of 2020 as compared to the corresponding period of 2019. At the same time, the primary and the secondary real estate market continued to see further, albeit lower, growth in transaction prices (in year-on-year terms).

The sharpest fall in the number of dwellings sold in the primary markets of the largest cities was observed in Q2, while 2020 Q3 and Q4 saw an increase in the number of transactions, albeit to the levels still lower than before the pandemic (Figure 2.34). In 2020 Q4, the number of building permits issued increased considerably,[37] which, however, may be the effect of changes in energy efficiency standards regulations.[38] Despite the epidemic restrictions, the number of dwellings completed and made ready for occupancy rose again, whereas the number of construction starts decreased, yet remained high.[39] The costs of home construction

Figure 2.34 Residential construction in Poland (4-quarter rolling sum) and new dwellings sold in a quarter



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

Sales data cover 6 major markets in Poland (Warszawa, Kraków, Tri-City, Wrocław, Poznań and Łódź).

[35] In turn, since the outbreak of the pandemic, the zloty has appreciated against the US dollar by around 6% and depreciated against the euro by around 4% (as compared to the end of February 2020).

[36] For more information on the Polish housing market see the NBP publication *Information on home prices and the situation in the residential and commercial real estate market in Poland in 2020 Q3*. NBP, December 2020.

[37] In 2020 in Poland, a total of approx. 275.9 thousand building permits were issued, i.e. approx. 7.5 thousand more than in 2019 (an increase by 2.8% y/y). At the same time, construction companies kept signaling about difficulties with issuing building permits, for example, in Warsaw.

[38] Regulation of the Minister of Infrastructure of 12 April 2002 on technical conditions to be met by buildings and their location specifies in paragraph 329 that the new energy efficiency standards have been effective since 1 January 2021.

[39] In 2020 in Poland, a total of approx. 222.0 thousand dwellings, i.e. approx. 14.6 thousand more than in 2019, were completed and made ready for occupancy (a rise of 7.0% y/y). At the same time, the number of construction starts reached approx. 223.8 thousand dwellings, i.e. approx. 13.4 thousand less than in 2019 (a decline of 5.7% y/y).

continued to rise on the back of high construction demand having persisted for a longer time, which supported growth in the prices of land and materials.

According to NBP data, in 2020 Q4 the average transaction prices[40] in the primary market rose by 1.5% q/q, while posting a decline in the secondary market of 0.3% q/q (Figure 2.35).[41]

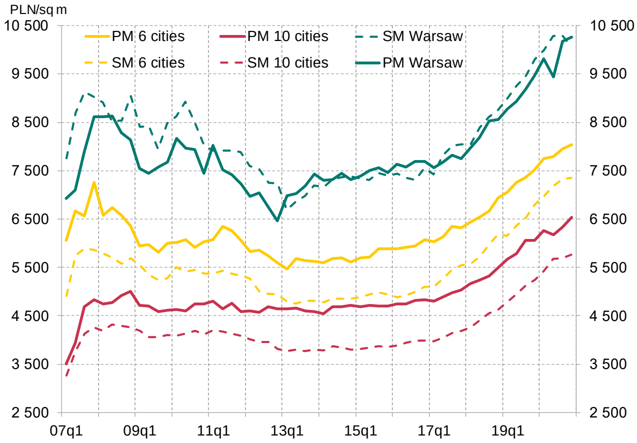
In the office real estate market, the supply of new office space remained high in 2020 Q3 due to construction projects that had started earlier. This was supported by persistently higher rates of return on investment in this type of real estate in Poland than abroad over the last few years. However, falling demand combined with growing supply led to a slight increase in vacancy rate in large cities (to 10.7% from 9.0% in Q2).

Similarly to the previous periods, in 2020 Q3 the retail real estate market recorded only a small increase in new space. For the few years, retail tenants have been shifting their businesses to online trade, which weakens demand for commercial space rental. In such circumstances, the warehouse sector is growing strongly. Demand in this segment is driven mostly by logistics and trade companies, including those active in e-commerce.

2.6 Money and credit[42]

Annual broad money (M3) growth – following a sharp rise during the first wave of the pandemic – was gradually declining in the second half of 2020 (it amounted to 16.6% in 2020 Q3, and it was 16.0% in 2020 Q4 compared to 17.5% in 2020 Q2; Figure 2.36). The modest weakening of M3 growth was

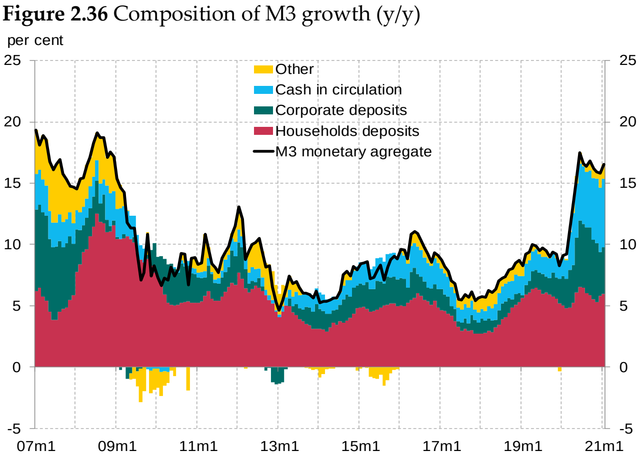
Figure 2.35 Nominal transaction prices of flats in major cities in Poland



Source: NBP data.

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.

Figure 2.36 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.

[40] The discussed data cover transactions concluded in the period September – November 2020; consequently, 2020 Q4 analysed in the chapter does not full correspond to the quarter of the calendar year.

[41] The data concern the average home transaction price (PLN/m2) in 17 cities (in 16 voivodeship capitals and in Gdynia) weighted by the housing stock. In annual terms, so defined price growth remained positive, both in the primary (7.6%) and secondary market (6.7%).

[42] In this chapter, the growth in the broad money aggregate M3 and loans is defined as the annual growth resulting from transaction changes. The data refer to monetary financial institutions.

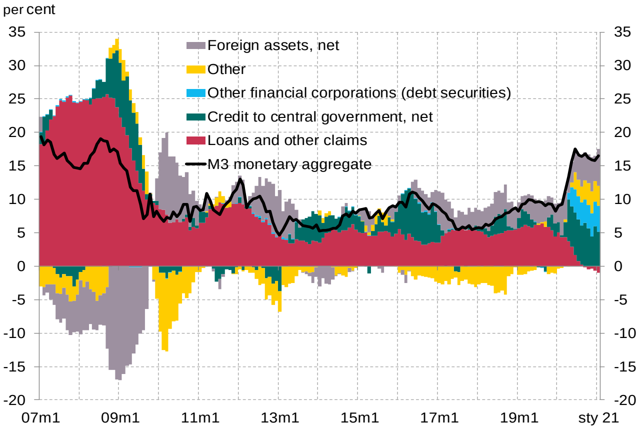
related to a slower pace of growth of corporate and household deposits.[43]

Among the counterparts of broad money, the increase in net credit to central government had the highest share in the M3 aggregate growth. The increase was driven by financing of the government anti-crisis measures (Figure 2.37). Money supply developments were also heavily influenced by an increase in both net foreign assets and the growth in the outstanding value of financial institutions' debt securities (among others by the PFR). At the same time, the decline in corporate loans and the lower growth in household loans hampered the pace of M3 growth.

The growth rate of household loans declined (to 2.1% y/y in 2020 Q4[44] from 2.7% y/y in 2020 Q3; Figure 2.38) due to, among others, lower demand, especially for consumer credit. The lower propensity to borrow was related to the restrictions on, among others, shopping centres and the self-constraining behaviour of consumers in view of the deteriorating epidemic situation (see chapter 2.2.1 *Consumption*). Therefore, the lower growth rate of lending to households was mainly the result of the slowdown in consumer loan growth (to -0.2% y/y in 2020 Q4 from 1.5% y/y in 2020 Q3) amid a relative stabilisation of housing loan growth (5.3% y/y in 2020 Q4 compared to 5.6% y/y in 2020 Q3).[45] Following the earlier tightening of bank lending policy, in the second half of 2020 banks eased their lending standards on housing and consumer loans, while raising the credit spread.[46]

In 2020 Q4, the annual rate of growth of corporate loans amounted to -5.3% y/y[47] compared to -3.3% y/y in 2020 Q3. The fall was due to deeper decline

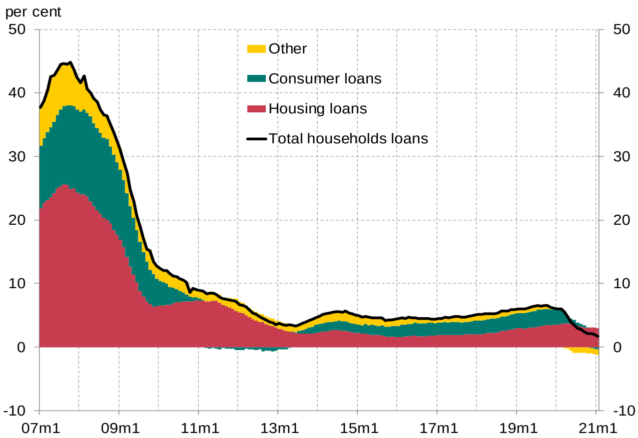
Figure 2.37 Composition of growth in M3 counterparts (y/y)



Source: NBP data.

Other financial institutions cover i.a. Polish Development Fund (PFR), pension funds, insurance corporations and investment funds.

Figure 2.38 Composition of growth in household loans (y/y)



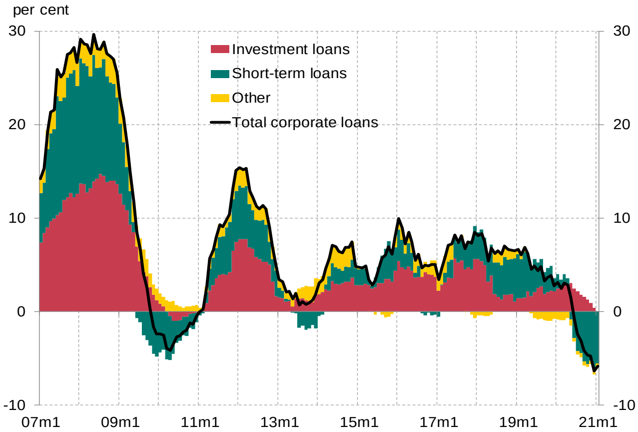
Source: NBP data.

The category *Other* covers credit card loans, loans to individual entreprenuers and individual farmers as well as other receivables.

[43] In January 2021, M3 aggregate growth picked up again (to 16.5% y/y), mainly as a result of somewhat faster growth of cash in circulation and household deposits.
[44] In January 2021, household loans growth decelerated further to 1.7% y/y.
[45] In the category of housing loans, zloty-denominated loans grew (by 10.3% y/y) amid a continued decrease in the portfolio of FX loans(the growth rate of -7.6% y/y).
[46] *Senior loan officer opinion survey on bank lending practices and credit conditions. 4th quarter 2020*, NBP, October 2020; *Senior loan officer opinion survey on bank lending practices and credit conditions. 1st quarter 2021*, NBP, January 2021.
[47] January 2021 saw a further deepening of the decline in corporate loans to -5.7% y/y.

in working capital loans (to -14.2% y/y in 2020 Q4 from -11.7% y/y in 2020 Q3) and slower investment loan growth (1.6% y/y in 2020 Q4 compared to 3.5% y/y in 2020 Q3; Figure 2.39). The decrease in the value of corporate loans largely reflected reduced demand for bank funding related to, among others, the financial support provided to enterprises under the government anti-crisis measures. Reduction in business activity by some enterprises and higher uncertainty also dampened loan demand. The lower loan demand was accompanied by some tightening of the banks' lending policy in this market segment.[48]

Figure 2.39 Composition of growth in corporate loans (y/y)



Source: NBP data.

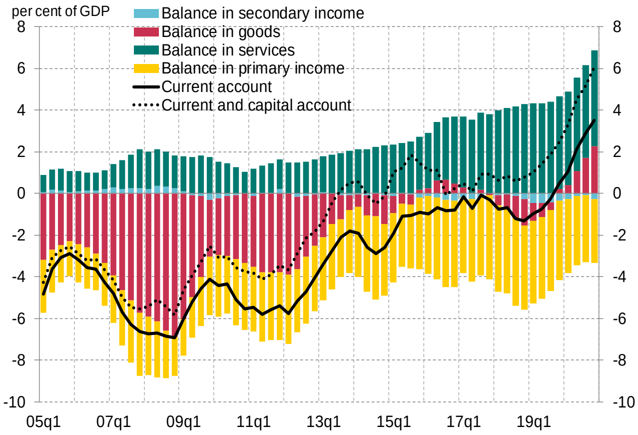
The category *Investment loans* covers loans for investments and real estate purchases. The category *Other* covers i.a. car loans, loans for security purchases and other receivables.

2.7 Balance of payments

In the second half of 2020, the current account balance improved as compared to the first half of 2020. In 2020 Q3, the current account balance increased to 2.8% of GDP (compared to 2.1% in 2020 Q2; Figure 2.40),[49] and estimated monthly data suggest its further growth to 3.5% of GDP in 2020 Q4. The improvement was mainly due to a higher than a year ago balance of trade in goods and services, and – albeit to a lesser extent – due to a narrowing of the primary income deficit.

The improvement in the balance of trade in goods was the result of a relatively high growth in exports recorded in 2020 Q3 and Q4 (6.3% y/y and 14.8% y/y, respectively) amid a markedly lower growth in imports (0.5% y/y and 9.8% y/y, respectively; see Chapter 2.2.4 *External trade*). Despite the decline in the trade in services, the surplus in this category remained high (4.6% of GDP in Q4). The surplus in the trade of services was mainly driven by large balances of transportation services and other services, including business services. At the same time, the primary income balance slightly improved, yet, remained negative due to the

Figure 2.40 Current account balance (4-quarter rolling sum)



Source: NBP data.

Data for 2020 Q4 are based on estimated monthly data for October, November, December 2020.

[48] *Senior loan officer opinion survey on bank lending practices and credit conditions. 2nd quarter 2020*, NBP, April 2020; *Senior loan officer opinion survey on bank lending practices and credit conditions. 3rd quarter2020*, NBP, July 2020; *Senior loan officer opinion survey on bank lending practices and credit conditions. 4th quarter 2020*, NBP, October 2020; *Senior loan officer opinion survey on bank lending practices and credit conditions. 1st quarter 2021*, NBP, January 2021.

[49] In this chapter, data on the balance of payments in relation to GDP are presented in terms of a four-quarter rolling sum.

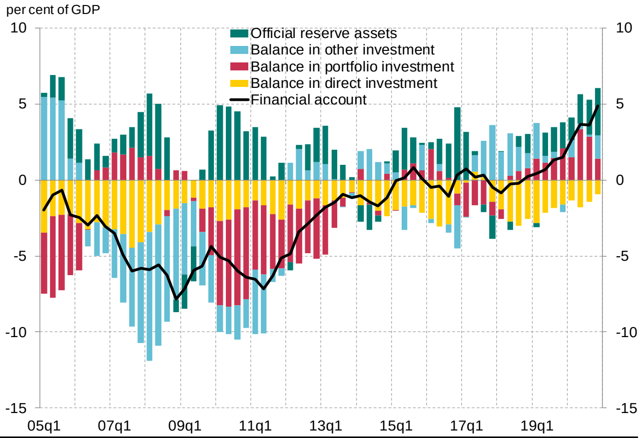
income earned by foreign direct investors in Poland.

The surplus on the capital account, resulting from the inflow of EU funds, reached 2.3% of GDP in 2020 Q3 and 2.5% of GDP in 2020 Q4 (compared to 2.4% of GDP in 2020 Q2). Along with the increase in the current account balance, the joint current and capital account balance increased to 5.1% of GDP in 2020 Q3 and to 6.1% in 2020 Q4 (compared to 4.5% of GDP in 2020 Q2).

The financial account balance reached 3.6% of GDP and 4.9% of GDP in 2020 Q3 and Q4, respectively (against 3.7% of GDP in 2020 Q2; Figure 2.41).The increase in the financial account balance was primarily driven by a rise in foreign assets of Polish entities in the form of other investment and a higher balance of official reserve assets. In turn, the decrease in the portfolio of Polish investment in equity securities had a curbing effect on the financial account balance.

External imbalance indicators in 2020 Q3 evidence that the Polish economy is well balanced (Table 2.4). The negative net international investment position and the level of foreign debt in relation to GDP stabilized close to the level recorded in 2020 Q2.

Figure 2.41 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 2020 Q4 are based on estimated monthly data for October, November, December 2020.

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

	2018	2019				2020			
		q1	q2	q3	q4	q1	q2	q3	q4
Current account balance/GDP	-1.3	-1.0	-0.8	-0.3	0.5	1.0	2.1	2.8	3.5
Current and capital account balance/GDP	0.8	1.0	1.4	1.9	2.5	3.3	4.5	5.1	6.1
Trade balance/GDP	3.0	3.5	3.7	4.0	4.7	4.9	5.5	6.2	6.9
Official reserve assets (in monthly imports of goods and services)	4.8	4.6	4.6	5.0	5.0	5.2	5.5	5.8	6.2
Foreign debt/GDP	64	62	61	61	59	59	58	59	-
Net international investment position/GDP	-56	-55	-54	-52	-49	-46	-45	-45	-
Official reserve assets/short-term foreign debt and forecast current account balance	115	114	119	130	146	147	147	196	177
Official reserve assets/short-term foreign debt	111	108	105	111	118	118	121	158	153

Source: NBP data.

The last two indicators include foreign debt and the level of official reserves at the end of the period. Data for 2020 Q4 are based on estimated monthly data for October, November, December 2020.

3. Monetary policy in October 2020 – March 2021

This chapter includes the previously published *Minutes of the Monetary Policy Council decision-making meetings* held between October 2020 and February 2021 as well as the *Information from the meeting of the Monetary Policy Council* in March 2021.

Minutes of the Monetary Policy Council decision-making meeting held on 7 October 2020

The Council members observed that incoming data confirmed the recovery in global economic activity in 2020 Q3, following a sharp decline in global GDP in Q2. It was pointed out that this was accompanied by a rise in international trade. The earlier easing of epidemic restrictions in many economies, leading to realisation of pent-up demand, combined with the implemented fiscal measures and the accompanying easing of monetary policy were pointed out as factors conducive to improved economic conditions. However, the Council members emphasised that despite the recovery, economic activity in most countries remained weaker than before the onset of the pandemic, and in some economies – including in the Euro area – signs of a slowdown in the recovery had appeared.

At the same time, the Council members assessed that the recently observed surge in the number of COVID-19 cases worldwide heightened the uncertainty about the pace and robustness of the global recovery. It was observed that the resurgence of the pandemic inclined some governments to restore some of the restrictions – although, so far, milder ones than those introduced in response to the first wave of the pandemic – which, together with the flagging sentiment of economic agents would have a negative impact on economic activity.

It was observed that the rise in the number of COVID-19 cases also contributed to deteriorating sentiment in international financial markets, which was reflected in a weakening of emerging market currencies, a decline in equity prices and a decrease in the prices of some commodities. It was emphasised that oil prices remained significantly lower than in previous years. In the opinion of certain Council members, this resulted mainly from the reduced demand for this commodity amid weakened global economic activity. At the same time, in the opinion of those Council members, the scale of the decrease in oil prices was curbed by the reduced supply of this commodity in connection with the extension by the OPEC+ countries of their agreement to cut oil production.

The Council members emphasised that in the face of weakened economic activity in many countries and amid the relatively low prices of some commodities, inflation in the global economy remained low. It was observed that price growth had recently slowed down in many countries. In the euro area, price growth had been running below zero for two months, and available forecasts suggest that it would also be negative in the subsequent months.

The Council members emphasised that given the above conditions, the major central banks were pursuing highly expansionary monetary policy and signalling their willingness to ease it even further. It was assessed that considering such announcements, interest rates in many economies, including the euro area, would remain very low also in the coming years.

In Poland, incoming data point to a recovery in 2020 Q3, following a marked – although shallower than in most European countries – decline in GDP in 2020 Q2. Nevertheless, despite a substantial increase in economic activity, it remains lower than before the pandemic. The Council members underlined that the initially strong rebound in economic activity resulted in part from the restored activity of some industries and the realisation of households' deferred demand. Yet along with the weakening impact of those factors, the pace of the recovery in activity slowed down, as indicated by data on production and retail sales as well as the readings of economic climate indicators. Certain Council members drew attention to the fact that economic activity was supported by the sustained good situation in foreign trade, reflected in a large surplus in the trade in goods account of the balance of payments. It was emphasised that the situation in the labour market had not significantly changed in recent months. The stabilisation in the unemployment rate was coupled with a rise in average employment in the corporate sector in July and August compared to the previous months, yet this rise stemmed mainly from the return of employees from holidays and care leave. At the same time, wage growth remained significantly lower than in previous years.

The Council members assessed that the recovery might be expected to continue in the coming months, even though uncertainty in this regard had increased due to the resurgence of the epidemic and the risk of a tightening of epidemic restrictions. The recovery will continue to be supported by the policy measures taken so far, including the easing of monetary policy by NBP. Some Council members expressed the opinion that economic growth would also be supported by publicly funded infrastructure projects, which will also stimulate the activity of private enterprises. At the same time, in the opinion of Council members, the recently observed marked rise in COVID-19 cases may contribute to a new deterioration in household sentiment and a reduction in their propensity to consume. In the opinion of some Council members, downward pressure on consumption may also come from possible more pronounced adjustment of employment occurring with expiring firms' obligations related to the use of the assistance under anti-crisis shield. The pace of economic recovery may also be curbed by the potential weakening of economic conditions in the external environment of the Polish economy resulting from the worsening epidemiological situation abroad, and – in the opinion of most Council members – due by the absence of a substantial and more permanent adjustment of the zloty exchange rate to the global shock caused by the pandemic and the easing of NBP's monetary policy.

When referring to price developments, it was pointed out that according to the Statistics Poland flash estimate inflation in Poland was running at 3.2% y/y in September. Some Council members emphasised that price growth remained consistent with the NBP inflation target. They observed that inflation readings continued to be boosted by the rises in administered prices introduced at the beginning of 2020, and inflation excluding those prices was running below 2.5% They highlighted the continued negative producer price growth. In turn, certain Council members emphasised that core inflation and services price growth probably continued to run at an elevated level.

The majority of Council members judged that price growth would probably stabilise in the coming months, and would decline significantly at the beginning of 2021. These Council members argued that the persistence of the negative output gap, weakened wage pressure due to the higher level of unemployment, and the absence of inflationary pressure abroad would contribute to a decline in inflation next year. They emphasised that due to the absence of pro-inflationary macroeconomic factors, price growth in 2021 would run at a moderate level, even in the event of regulatory factors boosting it.

However, certain Council members were of the opinion that in the coming quarters the price growth might remain close to the current level. These Council members judged that the persistence of such price growth would mainly be caused by factors beyond the control of monetary policy, including regulatory factors and possibly the process of deglobalisation. According to these Council members, inflation would also be boosted next year by the announced increase in the minimum wage, which may also result in an upward adjustment of the wages of higher earners.

The Council members observed that the measures taken by NBP so far had contributed to an easing of the financing conditions in Poland, which translated into both a decline in costs of obtaining funding by private entities, as well as resulted in savings for indebted households and firms. It was underlined that interest on new consumer and housing loans, as well as on corporate loans, had declined by a similar or greater extent than the NBP reference rate. Some Council members pointed out that although this was accompanied by a decline in interest on deposits, it was smaller than in the case of loans. Moreover, these Council members underlined that the measures taken by NBP – both the interest rate cuts and the asset purchases – were contributing to a decline in bond yields, leading to a reduction in the costs incurred by taxpayers as a result of the implementation of the anti-crisis measures.

Certain Council members expressed the opinion that the NBP interest rate cut had led to an increase in current deposits at the expense of term deposits and had prompted the banks to increase their fees. These Council members also underlined that despite the lower interest on loans, their availability might be limited by banks tightening their credit policy. In this context, they drew attention to the continued decline in growth in lending to the non-financial sector.

The Council members were of the opinion that the present meeting should keep interest rates unchanged and continue to pursue NBP's remaining measures. It was pointed out that NBP's monetary policy easing mitigated the negative economic effects of the pandemic, supported the economic recovery and reduced the risk of a decline in inflation below the NBP inflation target in the medium term. Through a positive impact on the financial situation of borrowers, they contribute to the strengthening of the stability of the financial system.

The Council decided to keep the NBP interest rates unchanged: the reference rate at 0.10%, the lombard rate at 0.50%, the deposit rate at 0.00%, the rediscount rate at 0.11%, and the discount rate at 0.12%.

Minutes of the Monetary Policy Council decision-making meeting held on 6 November 2020

During the meeting the Council members pointed out that after a sharp fall in global GDP in 2020 Q2, economic activity rebounded in Q3. The recovery was supported by the earlier relaxation of the epidemic restrictions in many countries, the fiscal measures launched, and the accompanying loosening of monetary policy, including interest rate cuts and asset purchases by central banks. However, it was indicated that economic activity in most countries remained below the levels observed before the onset of the pandemic.

The Council members observed that a sharp rise in COVID-19 infections had been recorded at the beginning of 2020 Q4, and many countries had tightened the epidemic restrictions again. As a result, the economic outlook in the external environment of the Polish economy had deteriorated and uncertainty about the future global economic climate had increased.

In this context, it was observed that GDP might be expected to decline again in many economies in 2020 Q4. Yet it was assessed that the decline would be smaller than in the spring, i.e. during the first wave of the pandemic. It was indicated that the foreign trade channels remained open, and some of the firms had adapted their production processes to the sanitary requirements. As a result, production in industrial companies had not been halted so far, and industry in many economies had remained relatively resilient to the spread of the second wave of the pandemic.

However, the Council members drew attention to the fact that the data as well as consumer and business confidence might lag behind developments of the second wave of the pandemic. At the same time, it was assessed that the services sector, which made the largest contribution to GDP, was the most heavily affected by the pandemic. The sentiment in this sector had already deteriorated sharply in many economies. It was emphasised at this point that the scale of new infections during the autumn wave of the pandemic was several times larger than in the spring. Against this background, current forecasts suggested that economic activity in the major economies of the world, including the United States and the euro area, would remain weak over a longer period and would not return to the pre-pandemic levels in the following year.

Given the above factors, it was pointed out that the highly expansionary macroeconomic policy might be expected to continue. Some Council members emphasised that amid the weaker business conditions, central banks signalled that they would keep interest rates low for a longer time to come, and would continue asset purchases as well.

It was observed that the rise in global infections had contributed to a slump in confidence in international financial markets, which was reflected, among others, in a weakening of emerging market currencies. It was emphasised that due to the flagging economic activity, commodity prices remained markedly lower than at the beginning of the year. Against this background price growth in many countries, including Poland’s main trading partners, remained slow.

When referring to the Polish economy, the Council members assessed that the incoming data as of September suggested that there had been a relatively rapid rebound in economic activity. It was pointed out that in September industrial output and retail sales had risen year-on-year, although construction and assembly output had continued to fall. This was accompanied by a certain improvement in the labour market situation, including higher average wage growth in the corporate sector. However, it was emphasised that according to available estimates, in 2020 Q3 economic activity remained lower than a year ago.

The Council members judged that – similarly to many other countries in the world – amid a marked deterioration in the epidemiological situation and the tightening of the epidemiological restrictions, GDP could be expected to decrease in 2020 Q4 compared to 2020 Q3. This was indicated, among others, by the mobility data. According to them, traffic in shopping and entertainment centres had dropped and road traffic had declined. Growth in payment card transactions had also fallen significantly.

While discussing the growth outlook, the Council members pointed out that according to the results of the November projections, GDP would grow in 2021, although the level of economic activity would probably be limited, and output gap would remain negative. It was underlined that in these conditions a rise in unemployment was forecast as well as a fall in the number of persons employed. It was pointed out that high uncertainty persisted about the further development of the pandemic and its impact on the economy. For this reason, GDP growth was mainly subject to downside risk in the November projection. Some Council members expressed the opinion that in the coming quarters a temporary easing and tightening of the sanitary restrictions was possible in response to changes in the epidemiological situation, which would constitute an important condition for the development of the economic climate. Certain Council members argued in this context that some economic entities would limit their activity along with the development of the pandemic, regardless of restrictions introduced.

Taking into account these conditions, the Council members pointed out that in the coming period domestic economic conditions would be held back by a decline in activity in the services sector, restrictions introduced in trade, increased uncertainty about the further course and effects of the pandemic and a deterioration in economic agents' sentiment. It was pointed out that domestic economic activity may also be limited by economic downturn in the environment of the Polish economy as well as by the lack of a visible and more durable zloty exchange rate adjustment to the global pandemic-driven shock and to the monetary policy easing introduced by NBP. At the same time, it was observed that uncertainty about investment developments persisted.

The Council members judged that economic activity would be supported by the economic policy measures, including the easing of NBP's monetary policy. At the same time, it was observed that currently many enterprises were better prepared for the pandemic than they had been in the spring, both with regard to the sanitary regime and the liquidity buffer. The share of online trade had also increased. Moreover, certain Council members pointed out that in the coming months investment might be supported by the implementation of the public infrastructure projects.

When referring to inflation, the Council members emphasised that it remained consistent with the NBP's symmetrical inflation target. In the recent months annual CPI growth had remained close to 3.0% y/y. It was observed that the annual inflation rate in Poland continued to be boosted by the statistical effects of the earlier increases in administered prices, including waste disposal charges and energy prices. In this context it was pointed out that the inflation rate excluding administered prices remained close to 2% y/y.

The majority of the Council members underlined that according to the NBP's November projection, inflation would decline in 2021 and would remain consistent with the NBP inflation target over the projection horizon. The Council members pointed out that the decline in inflation in 2021 would be supported by the persistence of negative output gap as well as the higher level of unemployment, which would hold back growth in unit labour costs. The persistently low price growth in the environment of the Polish economy would also probably dampen inflation. At the same time, it was emphasised that the regulatory factors of a supply-side nature, including the introduction of the so-called capacity charge and the forecast further increase in waste disposal charges would continue to boost inflation. Certain Council members argued that in 2021 price growth would be subject to downside risks.

However, certain Council members judged that inflation might be higher than foreseen in the November projection. These Council members argued that, besides growth in administered prices, price growth might also be boosted by faster growth in service prices. At the same time, they pointed out that the increase in the minimum wage, which might also translate into an adjustment of the wages of people earning more than the minimum wage, might also boost inflation. Certain Council members were also of the opinion that due to a possible faster growth in prices of capital goods than consumer goods, GDP deflator might be higher than CPI inflation.

When discussing monetary policy, the Council members judged that the measures taken by NBP so far had contributed to an easing of the monetary conditions. In particular, interest on loans and Treasury bond yields had declined and currently remain low. This had a positive impact on indebted entities, limited the credit losses of banks and lowered the costs of public debt servicing, thus providing additional room for the necessary fiscal stimulus. It was observed that NBP's monetary policy mitigated the negative economic impact of the pandemic, supported economic activity and stabilised inflation at the level consistent with the NBP's medium-term inflation target. Due to its positive impact on the financial situation of debtors, it was also conducive to the strengthening of financial system stability.

The Council members were of the opinion that the present meeting should keep interest rates unchanged and continue to pursue the NBP's remaining measures.

The Council decided to keep the NBP interest rates unchanged: the reference rate at 0.10%, the lombard rate at 0.50%, the deposit rate at 0.00%, the rediscount rate at 0.11%, and the discount rate at 0.12%.

Minutes of the Monetary Policy Council decision-making meeting held on 2 December 2020

During the discussion the Council members pointed out that 2020 Q3 had seen a strong global economic recovery, although in most countries economic activity had not returned to its pre-pandemic levels. At the same time, it was underlined that in view of the significant increase in the number of new COVID-19 cases in October and November together with renewed tightening of the pandemic restrictions, the economic conditions in many countries had deteriorated. The weakening of economic activity was observed mainly in services, with a limited – so far – impact of intensification of the pandemic on the situation in industry. In Europe the epidemiological situation had deteriorated significantly, and available forecasts indicated that in many European economies – including in the euro area – GDP might decline in 2020 Q4. Moreover, it was underlined that in the coming quarters only a gradual rebound of economic activity could be expected in the euro area, and it might take over 2 years for GDP to return to its pre-pandemic level. At the same time, it was observed that – despite the development of COVID-19 vaccines – uncertainty about the global outlook remained high, mainly driven by the future course of the pandemic.

Information on the results of clinical trials of COVID-19 vaccines had contributed to some improvement in global financial market sentiment. At the same time, global commodity prices remained significantly lower than at the beginning of the year. In particular, oil prices were lower than before the outbreak of the pandemic. According to certain Council members, the persistently low oil prices mainly resulted from a significant fall in demand for this commodity due to the continuing economic downturn in many economies.

In view of the lower commodity prices, as well as the weaker economic activity due to the pandemic inflation, in many countries was running at low levels, and in the euro area price growth had been negative for several months. The majority of the Council members judged that, taking into account the expected economic developments, i.e. only gradual improvement in the economic situation and elevated unemployment, price growth in Poland's immediate environment would most likely remain very low in the coming years.

It was pointed out that in the current conditions the central banks of the major economies were keeping interest rates low and purchasing assets. The majority of the Council members underlined that some of them, i.e. the central banks of England, Australia and Sweden, had recently further eased their monetary policy, and the ECB had indicated that it might ease monetary conditions at its December meeting. These Council members drew attention to the fact that some of the major central banks were communicating their intention to keep interest rates low in the coming years. In the opinion of these Council members, the Polish economy was therefore highly likely to be functioning in conditions of expansionary monetary policy around the world for many quarters to come.

When referring to the Polish economy, it was pointed out that data on GDP in 2020 Q3 confirmed the marked recovery in activity compared to the previous quarter. However, it was observed that despite this improvement in the economic conditions, annual GDP growth remained negative. It was pointed out that the recovery in consumer demand had boosted annual GDP growth. It was underlined that in 2020 Q3 export growth had also picked up, supported by the improvement in the economic situation abroad. At the same time, investment growth was significantly below zero.

The Council members judged that in 2020 Q4 – in view of the significant increase in the number of new COVID-19 cases, the tightening of the pandemic restrictions, and the deterioration in the sentiment of economic agents – GDP had most likely declined again compared to the previous quarter. It was emphasised that the deterioration in the epidemiological situation was having a negative impact mainly on the economic situation in the services sector. The weakening of activity in this sector in recent months was indicated by the fall in retail sales in October as well as the greatly reduced traffic in retail and entertainment centres and the flagging growth in payment card transactions. At the same time, it was emphasized that so far the available data did not suggest a significant weakening of activity in industry. However, some Council members judged that in view of weakened consumer demand in Poland and renewed recession in the euro area, a deterioration in the situation in this sector could not be ruled out in the coming months.

While discussing the situation in the labour market, it was pointed out that employment in the enterprise sector in October had risen again in monthly terms. This was accompanied by a slight decline in wage growth in this sector.

The Council members judged that 2021 would see a recovery in economic activity, although uncertainty remained about its scale and pace. It was emphasised that the economic policy measures taken so far, including the easing of NBP's monetary policy, would have a positive impact on the economic situation. Certain Council members were of the opinion that in the coming quarters economic activity would also be supported by the implementation of public infrastructure projects.

At the same time, the opinion was expressed that the rebound in economic activity in 2021 might be gradual and that GDP might remain lower than before the pandemic. The majority of the Council members underlined that according to the available forecasts the output gap would remain negative in 2021, which – along with the still heightened uncertainty and weaker sentiment of economic agents than in previous years – would hold back investment growth. In turn, in the opinion of these Council members, the forecast rise in unemployment might slow down consumer demand growth. The majority of the Council members once again drew attention to the fact that the pace of the economic recovery could be limited by the lack of a visible and more durable zloty exchange rate adjustment to the global pandemic-driven shock and to the monetary policy easing introduced by NBP. At the same time, it was observed that there was still heightened uncertainty about the economic outlook in the coming quarters, and its source continued to be the further course of the pandemic and its impact on the economic situation in Poland and abroad.

When referring to inflation, the Council members pointed out that according to the GUS flash estimate consumer price growth stood at 3.0% y/y in November, i.e. in line with the NBP inflation target. Some Council members also drew attention to core inflation and service price growth persisting at elevated levels. Certain Council members observed that inflation expectations of households and enterprises were heightened. However, other Council members observed that inflation expectations were significantly lower than at the beginning of 2020.

The majority of the Council members judged that in 2021 inflation would be lower than the 2020 average and would run at a level consistent with the NBP inflation target. In the opinion of these Council members, inflation would be curbed by the persistence of the negative output gap and the higher level of unemployment than in 2020. Low price growth in the environment of the Polish economy would probably also act in the same direction. At the same time, the Council members pointed out that regulatory factors, which act as negative supply shocks, including the further rise in electricity prices for households and waste disposal charges, would continue to have a positive impact on inflation in 2021.

Certain Council members judged that in 2021 inflation might be higher than indicated by current forecasts. According to these Council members, apart from regulatory factors, price growth would be also boosted by base effects related to the fading impact of the fall in oil prices in 2020. These Council members expressed the opinion that inflation would also be boosted by the satisfaction of deferred consumer demand. According to these Council members, the large scale of this effect might be indicated by the significant increase in household and corporate deposits in recent months. These Council members also stressed that strong growth of money supply might potentially have a pro-inflationary effect.

While discussing domestic monetary policy, the Council members judged that the measures that NBP had taken so far had contributed to an easing of the monetary conditions. In particular, interest on loans had been lowered, which translated into lower loan instalments – including some of the loans taken out before the outbreak of the pandemic – and an improvement in the financial situation of indebted enterprises and households. The measures taken by NBP also contributed to lowering Treasury bond yields, which reduced the costs of public debt servicing, thus providing additional room for the necessary fiscal stimulus.

Certain Council members also observed that the easing of monetary policy had failed to contribute to a significant recovery in consumer and corporate loans. However, the majority of Council members argued that lower corporate loan growth was the result of reduced demand for bank finance in view of the significant scale of public aid obtained in recent months by many economic agents.

It was observed that NBP's monetary policy mitigated the negative economic impact of the pandemic, supported economic activity and stabilised inflation at the level consistent with NBP's medium-term inflation target. Due to its positive impact on the financial situation of debtors, it was also conducive to the strengthening of financial system stability.

The Council members were of the opinion that the present meeting should keep interest rates unchanged and continue to pursue NBP's remaining measures.

The Council decided to keep the NBP interest rates unchanged: the reference rate at 0.10%, the lombard rate at 0.50%, the deposit rate at 0.00%, the rediscount rate at 0.11%, and the discount rate at 0.12%.

Minutes of the Monetary Policy Council decision making meeting held on 13 January 2021

During the discussion the Council members pointed out that in 2020 Q4 – as COVID-19 infections increased and sanitary restrictions were tightened again in some countries – the global recovery had slowed down. The pace of the global economic recovery had been negatively affected primarily by deteriorating situation in the services sector, while industrial activity had continued to grow. It was observed that despite weakened economic conditions, GDP growth in some economies had probably been positive in 2020 Q4. However, it was judged that the euro area economy had probably again plunged into recession in that period. It was pointed out that GDP growth in the euro area had been dragged down mainly by a downturn in the services sector. In turn, economic growth in the region had been boosted by relatively robust external demand, which had supported industrial activity in the euro area.

The Council members observed that the epidemic situation in Europe remained difficult. In some countries, the number of new infections remained elevated, and a new rise in infections was observed in a number of economies. This was causing the authorities in many European countries to extend or tighten existing restrictions. Some Council members expressed the opinion that under the circumstances, despite the fact that vaccinations had started in many countries, uncertainty about the further course of the pandemic and its impact on global economic conditions had risen. Referring to the economic outlook in the euro area, the Council members judged that a possible resurgence in global COVID-19 infections might hurt not only the services sector, but also exports, and consequently have an adverse impact on the region's GDP. That would reduce the chance that inflation in the euro area would rise from its current very low levels.

It was indicated that under such circumstances the ECB and other major central banks – the Federal Reserve, Bank of Japan and Riksbank – had recently continued their monetary policy easing, primarily through increasing the scale of asset purchases or extending the announced duration of their operation. At the same time, those banks had continued to communicate that they would maintain interest rates at a very low level over the next few years.

In view of the further easing of monetary policy by the major central banks and the improved sentiment in the international financial markets following the launch of COVID-19 vaccinations, the prices of some financial assets, including those of emerging economies, had risen. This was accompanied by an increase in the prices of some commodities in the global markets, including the prices of oil.

When referring to the Polish economy, it was pointed out that the rise in COVID-19 infections and the tightening of the epidemic restrictions in 2020 Q4 had had a negative effect on economic activity. It was observed that there had been a marked slump in business conditions in the services sector, as indicated by a t fall in retail sales in October and November and the declining expenditure on services settled by payment cards. Certain Council members emphasised that although the slowdown in activity was registered only in some sectors, those sectors made a substantial contribution to GDP. At the same time, it was observed that the situation in the industrial sector remained favourable, as indicated by sustained industrial output growth. It was judged that the progressive increase in production showed that Polish companies had adapted their operations to the restrictions and requirements related to the pandemic. It was pointed out that output had risen particularly robustly in sections where a significant part of the products were exported. It was judged that rising exports were the main factor supporting economic activity in 2020 Q4. It was observed that current forecasts suggested that annual GDP growth in 2020 Q4 was still negative and probably lower than in the previous quarter.

While discussing the situation in the labour market, it was pointed out that the November data suggested a stabilisation of average employment and the annual growth of average wage in the corporate sector. It was also observed that the registered unemployment rate remained stable.

The Council members judged that current forecasts suggested a rebound in economic activity in 2021, although uncertainty about its scale and pace had increased. The main source of this uncertainty was the further development of the pandemic and its impact on the economic situation at home and abroad. It was observed that the economic policy measures taken so far, including the easing of NBP's monetary policy, would have a positive impact on the economic situation.

At the same time, the majority of the Council members believed that the economic recovery in 2021 would be gradual. It was stated that the heightened uncertainty and weaker sentiment of economic agents than before the pandemic would result in a substantial decline in investment. The majority of the Council members were of the opinion that, in view of the increased likelihood of a new surge in COVID-19 infections and an extension of the restrictions in Poland and abroad, there was a higher risk that GDP growth in the coming quarters would be weaker than previously expected. These members judged that under these conditions the financial situation of part of companies might deteriorate further, resulting in higher unemployment and slower wage growth. Furthermore, the majority of the Council members observed that in the case of a synchronised surge in the pandemic across many countries, external demand might decline, with a negative impact on domestic activity.

The Council members pointed out that the development of zloty exchange rate against the major currencies would be a factor affecting domestic economic conditions and prices in 2021. It was observed that amid a negative shock, exchange rate adjustments were an important mechanism of shock absorption, as evidenced by Poland's experience during the global financial crisis. The majority of the Council reiterated that the lack of a visible and more durable zloty exchange rate adjustment might reduce the pace of economic recovery. In this context it was highlighted that in 2020, despite the major shock related to the COVID-19 pandemic and the easing of NBP' monetary policy, zloty real effective exchange rate had remained stable. The majority of the Council members also emphasised that the risk of a slower and weaker recovery in domestic activity and – as a result of an excessive slowdown in price growth - was boosted by pressure on the zloty to appreciate observed since the end of October 2020 and related to the further monetary policy easing by the major central banks. The majority of the Council members judged that the foreign exchange interventions conducted since December 2020 had curbed the risk of a procyclical strengthening of the zloty and amplified the impact of NBP's monetary policy easing on the economy.

Certain Council members were of the opinion that the positive effect of zloty depreciation on export activity might currently be smaller than in the past. They judged that the impact of zloty exchange rate movements on the financial performance of companies was limited by the significant import intensity of goods exports and the fact that many Polish companies operate as part of global value chains.

When referring to inflation, the Council members pointed out that consumer price growth had declined significantly in December 2020 and was running close to 2.5%. It was observed that the decrease in inflation resulted partly from a marked decline in core inflation, and partly from the slower growth in the prices of food and non-alcoholic beverages.

The majority of Council members assessed that inflation in 2021 would run at a level consistent with the NBP inflation target. These members emphasised that this year's inflation would continue to be boosted by regulatory factors, which act as negative supply shocks, including a further rise in electricity prices for households and waste disposal charges. It was observed that since 2021 Q2 annual price growth would also be increased by base effects related to the waning of the impact of the 2020 decline in oil prices.

Certain Council members judged that inflation in 2021 would be slightly higher than the current forecasts suggest. These members were of the opinion that inflation would be pushed up by the satisfaction of deferred consumer demand and – following an improvement in sales prospects – the adjustment of prices of goods and services to the earlier rise in production costs.

The Council members observed that the deposits of both households and non-financial companies had risen sharply in 2020. They judged that the rise in funds deposited in banks despite an economic slump had been caused by the continued heightened uncertainty about the future economic situation, discouraging consumer and investment spending. Moreover, the increase in corporate deposits had resulted from the fact that many companies had received considerable state aid funds. The majority of the Council members expressed the opinion that in such conditions the demand for credit – especially working capital credit – from enterprises was strongly limited.

While discussing monetary policy, the Council members were of the opinion that the present meeting should keep interest rates unchanged and continue to pursue NBP's remaining measures.

The majority of the Council members judged that if economic recovery progressed in 2021 and price growth was in line with the inflation target, it would also be advisable to keep interest rates unchanged in the subsequent quarters. At the same time, in the opinion of these Council members, if the economic conditions and outlook were to deteriorate significantly, e.g. due to a new surge in the pandemic, further monetary policy easing might be justified, including by a reduction in the interest rate.

Certain Council members believed that, should further easing of monetary conditions be necessary, a further cut in NBP interest rates would not be advisable and instead the additional measures aimed at supporting corporate lending should be implemented.

It was observed that NBP's monetary policy mitigated the negative economic impact of the pandemic, supported economic activity and stabilised inflation at the level consistent with NBP's medium-term inflation target. Due to its positive impact on the financial situation of debtors, it was also conducive to the strengthening of financial system stability.

The Council decided to keep the NBP interest rates unchanged: the reference rate at 0.10%, the lombard rate at 0.50%, the deposit rate at 0.00%, the rediscount rate at 0.11%, and the discount rate at 0.12%.

Minutes of the Monetary Policy Council decision making meeting held on 3 February 2021

During the discussion the Council members pointed out that – as COVID19 infections increased and sanitary restrictions were tightened again – the global recovery had slowed down in 2020 Q4. In particular, attention was drawn to the fact that according to preliminary data, GDP in the euro area had fallen in that period, although less than in 2020 Q2, and in January 2021, faced with the risk of another wave of infections, some European countries had extended or tightened the existing pandemic restrictions. It was pointed out that the extension or tightening of the restrictions had adversely affected the sentiment of economic agents and might delay and reduce the scale of the expected economic recovery in the external environment of the Polish economy. At the same time, it was underlined that although a downturn in the services sector continued, the situation in industry and international trade was relatively good.

The Council members stressed that inflation in the global economy remained low. At the same time, certain Council members observed that in January 2021 there had been a marked increase in inflation in Germany. It was pointed out that this had largely resulted from the expiry of the temporary cuts in VAT rates in that country. In the context of price developments in the external environment of the Polish economy, attention was drawn to the rise in global oil prices in recent months. The increase in these prices was driven by an improvement in sentiment due to the launch of the vaccination programmes and the announcement of an additional stimulus package for the US economy, which had boosted expectations regarding a rebound in global economic activity at the beginning of 2021. Moreover, it was emphasised that countries associated in OPEC+ were continuing the policy of limiting oil production, counteracting the excessive growth in supply of this commodity, which also translated into higher prices. It was pointed out that in the long term the global supply of oil might be affected, on the one hand, by the likely change in climate policy in the United States, and on the other hand, by the possible easing or lifting sanctions imposed on certain oil producers.

The Council members underlined that the major central banks were continuing their highly expansionary monetary policy, including maintaining low interest rates and purchasing assets on a large scale. In particular, the Council members drew attention to the fact that the Federal Reserve of the United States announced it would conduct an accommodative monetary policy until an improvement in activity was seen in the data, and not only in the forecasts. Furthermore, the Fed had been clearly indicating that it would aim for inflation to exceed its inflation target for some time in the future. The European Central Bank also stressed its commitment to maintain all its current measures, including conducting asset purchases on a large scale and maintaining negative interest rates in subsequent years.

When referring to the Polish economy, it was pointed out that the rise in COVID-19 infections and the tightening of the epidemic restrictions in 2020 Q4 had had a negative impact on economic activity in this period, which was particularly noticeable in part of the services sector. The Council members indicated that taking into account the preliminary estimate of GDP for 2020 and assuming no revision of GDP data for 2020 Q1-Q3, it could be estimated that in 2020 Q4 there had been another fall in GDP, although its scale was significantly smaller than in 2020 Q2. It was pointed out that the decline in activity had been driven by a fall in consumption and investment. The Council members drew attention to the still lower level of average employment in the enterprise sector than a year earlier, and a rise in the annual growth in average wages in this sector. At the same time, some Council members pointed out that in December there had been an increase in growth in construction and assembly output and industrial output, including in the export sectors.

The Council members judged that according to the current forecasts following the fall in GDP in 2020, in 2021 there would be a recovery in economic activity, which might even be somewhat stronger than earlier estimated. Alongside that, it was pointed out that data from the beginning of the year did not suggest that the recovery had already begun, although the situation in individual sectors varied. The Council members also underlined that the scale and timing of the recovery would depend, above all, on the epidemic situation and the related restrictions. The further course of the pandemic and its impact on the economic situation in Poland and abroad would remain the key sources of uncertainty for the economic outlook in Poland, while it would take time to see the impact of the vaccination process on the pandemic and the economy. At the same time, it was observed that the economic policy measures taken so far, including NBP's monetary policy easing, and in the longer term also funds from the European Union, would continue to have a positive impact on the economic situation.

When discussing price developments, the Council members pointed out that data on inflation in December were evidence that consumer price growth at the end of 2020 was running at a level consistent with the NBP's inflation target, and was close to 2.5%. Some Council members judged that according to current forecasts, in 2021 inflation would rise somewhat compared to December, but despite this it would remain within the band of deviations from the inflation target.

These Council members underlined that the forecast increase in annual CPI would be due to the rise in global oil prices and the base effects in fuel prices. Moreover, as in 2020, inflation would be boosted by regulatory factors, above all by higher electricity prices and waste disposal charges, which are negative supply shocks. These Council members pointed out that regulatory factors would be responsible for over 1 percentage point of inflation. At the same time, the further development of global oil prices remained a risk factor for inflation; however, it was a factor beyond the control of monetary policy.

Certain Council members underlined that due to the significance of oil for price developments in the economy, their pass-through to the remaining consumer prices should be carefully observed. Moreover, these Council members pointed out that inflation might be boosted by the materialisation of pent-up demand and the launch of large infrastructure investments. Certain Council members the risk of an increase in inflation was also evidenced by a rise in producer prices.

When assessing the outlook for economic activity and inflation in Poland in the coming quarters, the Council members drew attention to the significance of the zloty exchange rate. It was underlined that adjustment of the exchange rate was one of the basic mechanisms acting as a shock absorber for the domestic economy. The majority of the Council members reiterated that the lack of a visible and more durable zloty exchange rate adjustment might reduce the pace of the economic recovery. These Council members judged that the interventions in the foreign exchange market conducted since December 2020 – aimed at diminishing pressure on the appreciation of the zloty due to further monetary policy easing by the major central banks – had lowered the risk of a procyclical strengthening of the zloty and enhanced the impact of NBP's monetary policy easing on the economy.

The majority of the Council members also underlined that due to the relatively high share of domestic value added in exports compared to other countries of the region, the depreciation of the zloty would clearly improve the economic situation. It was observed that Polish exports were less import-intensive than in other economies of Central and Eastern Europe and as a result they were more vulnerable to exchange rate fluctuations. Furthermore, the position of Poland in the structure of the global supply chains makes the impact of the exchange rate significant for the competitiveness of the country's producers. These Council members pointed out that the sharp increase in the role of services in Poland's foreign trade had a positive effect on the exchange rate pass-through on GDP growth. Certain Council members expressed the opinion that while the impact of a zloty depreciation on exports growth was positive, currently it was weaker than in the past.

The Council members underlined that NBP's monetary policy easing in 2020 had been accompanied by a decline in bond yields and the full pass-through of cuts in NBP interest rates to interest rates on loans to households and enterprises. In effect, households and enterprises had received significant support, both through measures related to the anti-crisis shields and through a reduction in loan instalments. Some Council members also pointed out that the significant financial resources received by many firms in the form of state aid had driven a strong rise in their deposits, which along with uncertainty about the future economic conditions, had reduced demand for corporate loans. At the same time, certain Council members drew attention to the fact that amid keeping interest rates low – which was accompanied by a decrease in interest rates on deposits – a marked increase in the prices of other assets, including real estate prices, was noticeable.

While discussing monetary policy, the Council members were of the opinion that at the present meeting interest rates should be kept unchanged and the remaining NBP’s measures should be continued.

The majority of the Council members judged that if economic recovery progressed in 2021 and price growth was in line with the inflation target, it would also be advisable to keep interest rates unchanged in the subsequent quarters. At the same time, in the opinion of these Council members, if the economic conditions and outlook were to deteriorate significantly, e.g. due to a new surge in the pandemic, further monetary policy easing might be justified, including by a reduction in the interest rate.

Certain Council members believed that, should further easing of monetary conditions be necessary, a further cut in NBP interest rates would not be advisable and instead additional measures aimed at supporting corporate lending should be implemented.

Certain Council members argued that should a sharp rise in inflationary pressure appear in the coming quarters, it might be advisable to consider raising NBP interest rates in the second half of 2021.

It was observed that NBP’s monetary policy mitigated the negative impact of the pandemic, supported economic activity and stabilised inflation at a level consistent with NBP's medium-term inflation target. Due to its positive impact on the financial situation of debtors, it was also conducive to the strengthening of financial system stability.

The Council decided to keep the NBP interest rates unchanged: the reference rate at 0.10%, the lombard rate at 0.50%, the deposit rate at 0.00%, the rediscount rate at 0.11%, and the discount rate at 0.12%.

Information from the meeting of the Monetary Policy Council held on 3 March 2021

The Council decided to keep the NBP interest rates unchanged: reference rate at 0.10%; lombard rate at 0.50%; deposit rate at 0.00%; rediscount rate at 0.11%; discount rate at 0.12%.

NBP will continue to purchase government securities and government-guaranteed debt securities on the secondary market as part of the structural open market operations. The timing and scale of the conducted measures will depend on the market conditions. Furthermore, NBP will also offer bill discount credit aimed at refinancing loans granted to enterprises by banks.

The surge in COVID-19 pandemic and related restrictions had a negative impact on global economic activity in 2020 Q4 and the beginning of 2021. The euro area slipped into recession again in 2020 Q4. Available data on the economic situation at the beginning of 2021 point to a continued weakness in the services sector, with further rise in industrial output in this economy.

Inflation in the global economy is low, despite a slight rise recorded in some countries in January. The major central banks are keeping interest rates low and conducting asset purchases. Despite uncertainty about the development of the pandemic, financial market sentiment remains positive. This is accompanied by a rise in global commodity prices, including oil.

In Poland, preliminary data on national accounts for 2020 Q4 confirmed that GDP fell in this period. Activity declined as a result of a fall in consumption and lower investment than a year ago. In turn, the fall in GDP was limited by the positive impact of net exports.

Incoming data on the economic conditions in January indicate that the relatively good situation in the industrial sector continues, although industrial output growth slowed down. In turn, construction and assembly output and retail sales recorded significant falls. This was accompanied by a fall in average employment in the enterprise sector and a decline in annual growth of average wages in this sector. According to the GUS flash estimate, inflation stood at 2.7% y/y in January 2021.

Following the fall in GDP in 2020, a rise in economic activity is expected in 2021, although the scale and pace of the recovery are uncertain. The further course of the pandemic and its impact on the economic situation in Poland and abroad continue to be the main source of uncertainty. The economic policy measures, including the easing of NBP's monetary policy introduced last year and the expected recovery in the global economy, will have a positive impact on the domestic economic situation. The pace of the economic recovery in Poland may be reduced by the lack of a visible and more durable zloty exchange rate adjustment to the global pandemic shock and to the monetary policy easing introduced by NBP.

The Council became acquainted with the results of the March projection of inflation and GDP based on the NECMOD model. In line with the projection prepared under the assumption of unchanged NBP interest rates and taking into account data available until 16 February 2021 there is a 50-percent probability that the annual price growth will be in the range of 2.7–3.6% in 2021 (against 1.8–3.2% in the November 2020 projection), 2.0–3.6% in 2022 (compared to 1.6–3.6%) and 2.2–4.2% in 2023. At the same time, the annual GDP growth – according to this projection – will be with a 50-percent probability in the range of 2.6–5.3% in 2021 (against 0.8–4.5% in the November 2020 projection), 4.0–6.9% in 2022 (compared to 3.8–7.8%) and 4.0–6.8% in 2023.

NBP will continue to purchase government securities and government-guaranteed debt securities on the secondary market as part of the structural open market operations. These operations are aimed at changing the long-term liquidity structure in the banking sector, ensuring the liquidity in the secondary markets for the purchased securities and enhancing the impact of the NBP interest rate cuts on the economy, i.e. strengthening the monetary policy transmission mechanism. In order to strengthen the impact of NBP's monetary policy easing on the economy, NBP may also intervene in the foreign exchange market. The timing and scale of the measures taken by NBP will depend on the market conditions. Furthermore, NBP will also continue to offer bill discount credit aimed at refinancing loans granted to enterprises by banks.

NBP's monetary policy mitigates the negative economic impact of the pandemic, supports economic activity and stabilises inflation at the level consistent with NBP's medium-term inflation target. Due to its positive impact on the financial situation of debtors, it is also conducive to the strengthening of financial system stability.

The Council adopted the *Inflation Report – March 2021*.

The Council adopted the Resolution on National Strategy for Safety of Cash Circulation.

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 2021 Q1 to 2023 Q4. The starting point for the projection is 2020 Q4.

The cut-off date for the data used in this projection is 16 February 2021.

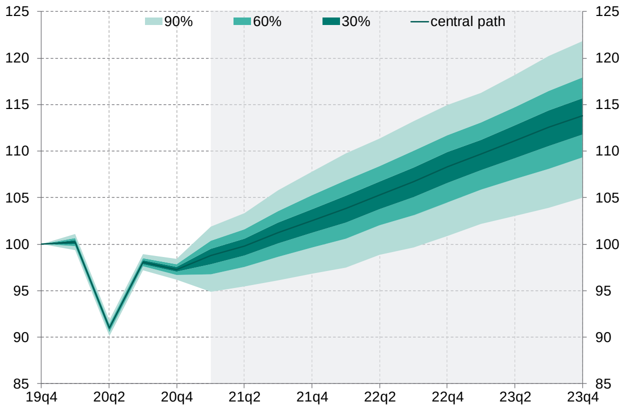
4.1 Summary

Economic activity continues to be heavily affected by the current epidemic situation caused by the SARS-CoV-2 virus and the level of the restrictions in force in Poland and other countries. The negative impact of the restrictions on domestic output and the labour market is partly mitigated by the anti-crisis measures taken by the government and Narodowy Bank Polski. At the same time, current data suggests an increasingly adaptation of economic agents to functioning during a pandemic and, as a consequence, a relatively small decline in GDP in 2020 Q4 and 2021 Q1.

At the end of 2020 and beginning of 2021, Poland and other European countries embarked on the COVID-19 vaccination process. Available data on the planned pace of the vaccination and the efficacy of the preparations used allow us to expect that in the coming months, despite a temporary deterioration in the epidemic situation, a sharp decline in the number of hospitalisations due to COVID-19 is likely. The improvement in the epidemic situation will be followed by a gradual lifting of the existing restrictions, which by the end of the year will no longer significantly disrupt European economies. The realisation of this scenario will enable the Polish economy to return to the growth path from 2021 Q2. This will be supported by the realisation by households of the pent up demand due to the pandemic and their current relatively high level of savings. However, the heightened uncertainty about the future course of the pandemic persisting throughout 2021, will continue to hamper the recovery in corporate investment, which will not rise markedly until 2022-2023. Consumer and investment demand growth will be supported by the assumption made in the projection that NBP will keep interest rates at the current record low level.

In 2021 Q1, CPI inflation will decline to 2.5% y/y, reacting with a lag to the fall in demand last year.

Figure 4.1 Level of real GDP (Q4 2019 = 100)



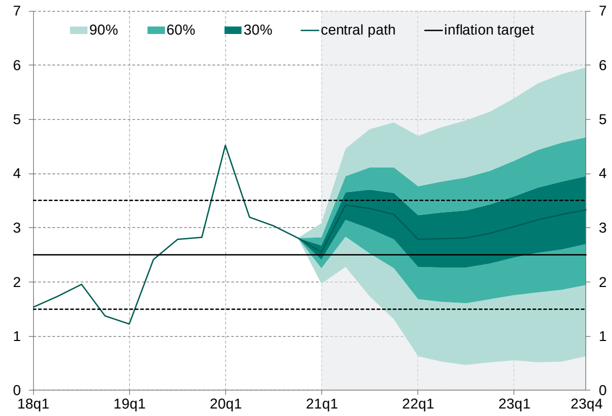
Source: Statistics Poland (GUS) data, NBP calculations.

Fan charts depict the probability distribution of possible outcomes of the level of GDP (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. 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: Rońsko P., Rybaczyk B., 2016, Fan Chart – A Tool for NBP's Monetary Policy Making, Narodowy Bank Polski Working Paper, No 241.).

Food price growth is further curbed by the high supply of vegetables and fruit as well as meat. Yet in the subsequent quarters of 2021, inflation will be boosted by accelerated fuel price growth and the introduction of the capacity charge from January 2021. Later in the projection horizon, the recovery of economic activity and the improvement in the labour market will gradually translate into price increases; yet over the entire projection horizon, CPI inflation will remain within the band of deviations from the NBP inflation target defined as 2.5% +/-1 percentage point.

Poland's future economic situation is closely conditioned by the effectiveness of vaccinations, the further path of the COVID-19 pandemic and the scale of administrative restrictions and the freedom to conduct business. The balance of uncertainty factors in the case of GDP growth, and – to a lesser degree – CPI inflation indicates that these categories are more likely to remain below the central projection scenario (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

In 2020 Q4, there was a decline in economic activity in the major advanced economies due to a significant deterioration in the epidemic situation and a renewed tightening of the restrictions imposed on social and economic life during this period. The GDP decline in the external environment of the Polish economy in 2020 was at the same time smaller than anticipated in the November projection due to the milder impact of the autumn wave of the pandemic on economic activity (Table 4.1). The current forecasting round assumes that a more pronounced easing of restrictions in major advanced economies will take place in 2021 Q2, following a fall in the number of infections, as the proportion of people from high-risk groups vaccinated increases. However, until herd immunity is achieved in these countries, which will probably take place by the end of 2021,

Table 4.1 GDP abroad – March projection versus November projection

	2020	2021	2022
GDP in Euro Area (y/y, %)			
March 2021	-6.8	3.9	3.9
November 2020	-7.5	3.2	4.0
GDP in United States (y/y, %)			
March 2021	-3.5	4.6	3.2
November 2020	-3.8	3.3	2.3
GDP in United Kingdom (y/y, %)			
March 2021	-9.9	3.6	5.5
November 2020	-10.4	4.2	4.5

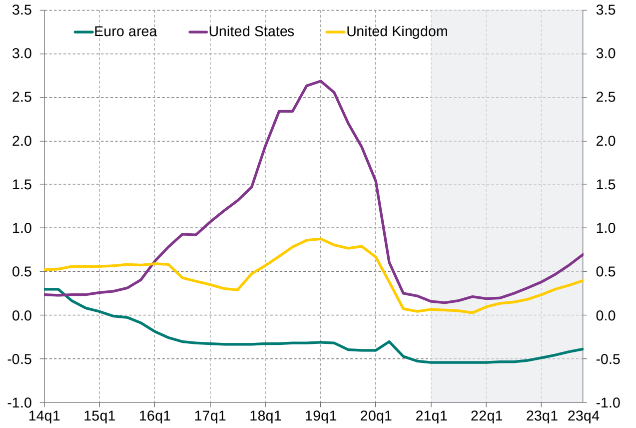
Source: NBP calculations.

the requirement to conduct business under a strict sanitary regime will be maintained, and partial restrictions relating to international travel will apply. Temporary restrictions on economic activity at a local level may also continue to be imposed. Despite the launch of the vaccination process, uncertainty about the further course of the pandemic remains high. This uncertainty is in particular related to the risk of the spread of new virus strains which may be more contagious or resistant to the vaccines used (see also chapter 4.5 *Forecast uncertainty sources*).

From 2021 Q2, following a marked rebound in consumer demand, GDP in the external environment of the Polish economy is expected to return to the growth path. This will be driven by the lifting of the restrictions affecting many categories of services as well as the public's diminished concerns about being infected. The realisation of the deferred consumer needs will be supported by the possibility of households to spend savings accumulated during the pandemic. In the United States, additional substantial support to private consumption growth will come from the next fiscal package adopted in December 2020, which includes funding for increased unemployment benefits and cash transfers to households. The outlook for the recovery of corporate investment demand is less favourable. It will be negatively affected by the persistently elevated uncertainty about long-term trends in demand structure and the deterioration in the financial situation of firms from the sectors particularly affected by the pandemic. In the euro area, the impact of the above factors on investment will be partially mitigated by spending under the Next Generation EU instrument.

It is expected that GDP in the euro area will return to its pre-pandemic level in 2022 Q2. Yet the pace of the recovery will vary significantly across the individual countries. The economies of the southern countries of the euro area will take relatively longer to recover due to their greater

Figure 4.3 Interest rates abroad (%)



Source: Bloomberg data, NBP calculations.

reliance on foreign tourism and the often tighter fiscal positions.

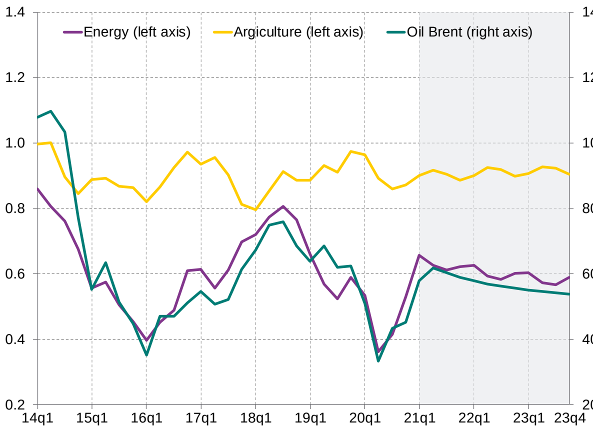
Inflation and commodity markets

In November and December 2020, there was an acceleration of the upward trend in oil prices on the back of the information about the positive trials for COVID-19 vaccines and the start of the vaccination programmes in subsequent countries (Figure 4.4). Global natural gas and coal prices followed a similar pattern, their sharp rise being additionally boosted by growing demand from Asia related to the exceptionally cold winter in that region.

Following the improvement in the global epidemic and economic situation, prices of energy commodities in 2021-2023 are expected to be higher on average than in 2020, yet they will remain relatively low in comparison to previous years (Figure 4.4) This scenario will be supported by the further gradual increase in oil demand assumed in the projection, which will, however, to a large extent be balanced by expected adjustments on the supply side. Yet there is a high degree of uncertainty surrounding this forecast relating to both the impact of the pandemic on the developments in demand for energy commodities in the coming years and the future decisions of OPEC and other oil producers regarding output.

As in the case of energy commodities, the prices of most agricultural products have risen in the second half of 2020, supported by improved global demand and an increase in production and freight costs (Figure 4.4). Oil prices remaining at a relatively low level over the projection horizon, affecting the costs of freight and artificial fertilisers, will limit the scale of further rises of the agricultural commodities prices (Figure 4.4). The main risk to the adopted forecast, apart from the further course of the COVID-19 pandemic, continues to be posed by the development of the ASF epidemic in Germany and future agrometeorological conditions.

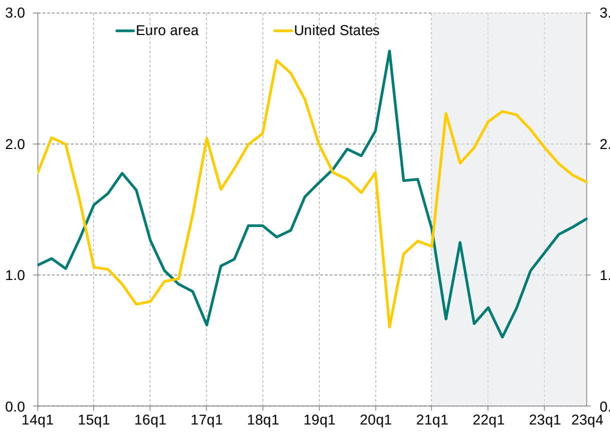
Figure 4.4 Energy commodities price index (USD, 2011=1) and index of agricultural prices (EUR, 2011=1) in global markets and Brent oil prices (USD/b)



Source: Bloomberg data, NBP calculations.

The index of the prices of energy commodities includes 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.

Figure 4.5 Change in gross value added deflator (y/y, %)



Source: Bloomberg, Eurostat data, NBP calculations.

Price growth in Poland's immediate economic environment (measured by changes in the gross value-added deflator) is expected to run at a subdued level in the coming quarters, remaining under the disinflationary impact of the COVID-19 pandemic (see also Figure 4.5). In the euro area and the United Kingdom low inflation will be supported by adjustments in the labour markets after the expiry of aid programmes and by the under-utilisation of productive capacity. In the longer projection horizon, following the recovery of demand, inflation is expected to rise gradually in these economies, yet will not exceed 2%.

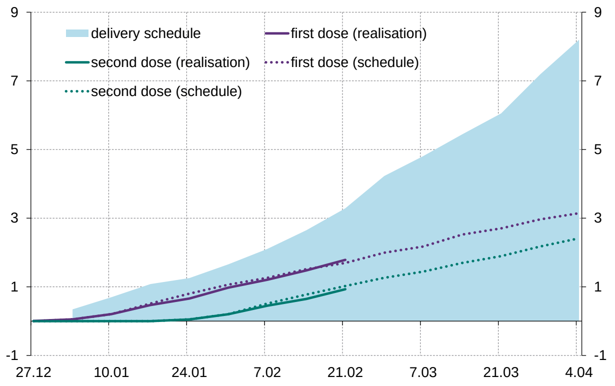
4.3 Polish economy in 2021-2023

Assumptions about the development of the pandemic and the scope of government restrictions

At the end of 2020 and beginning of 2021 Poland and other European countries embarked on the process of vaccinations against COVID-19. At the moment the pace of vaccinations is being constrained by the availability of the vaccines (Figure 4.6), but as producers' output capacity increases and new preparations are endorsed, this process should pick up. Yet even if the current pace of vaccinations is merely maintained, it should enable the vaccination of the oldest age group, the most exposed to an acute form of the illness, within 6 months. Available data on the efficacy of the applied preparations allow us to expect that the vaccination of this part of the population should radically reduce the number of hospitalisations due to COVID-19. The pace of vaccinations, the duration of the post-vaccine immunity and the efficacy of the currently available preparations against the new mutations of the virus that are emerging are subject to high uncertainty.

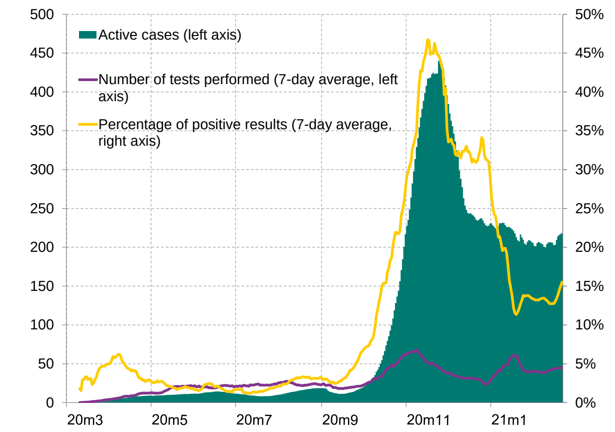
Following the improvement in the epidemic situation (Figure 4.7) and the start of the vaccination process, the government embarked on the process of again gradually reducing the scope of the restrictions imposed on economic and social

Figure 4.6 Weekly vaccination plan for 2021Q1 and its realisation (millions of doses)



Source: Ministry of Health data.

Figure 4.7 Number of active cases in Poland, number of tests performed (thous.) and percentage of positive results (%)



Source: Ministry of Health data.

life. The restrictions still in force impose the greatest constraints on the activity of businesses in the service sector, such as catering, culture, education, and sport and recreation. In particular the activity of most sports facilities (gyms, fitness clubs) remains suspended; cultural institutions and hotels are allowed to fill up to 50% of their available capacity; schools – with the exception of early learning – operate remotely, and restaurants may only serve takeaway meals.

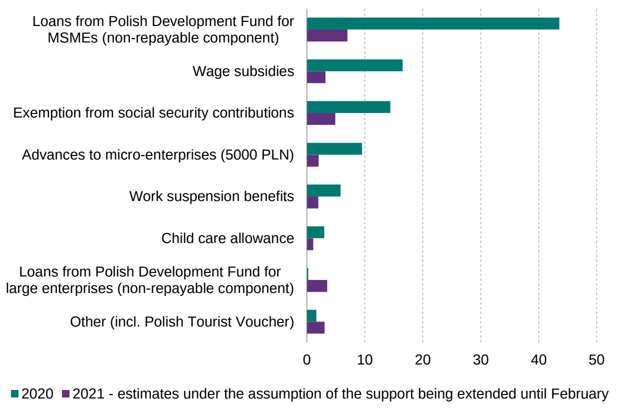
The projection assumes that after the current temporary increase in cases, the number of hospitalisations will gradually decline, leading to a reduction in the scale of the restrictions. The sanitary regime will remain in place for most of the year, but the activity of most industries will be restored. Once a significant part of the population, including the oldest age groups, has been vaccinated, most of the current restrictions are expected to be lifted, and will no longer substantially disrupt the domestic economy. A different than assumed scale of the restrictions poses the main source of risk to the evolution of future economic growth.

Anti-crisis measures in support of post-pandemic development

The negative impact of the pandemic on the economy is mitigated by the government's crisis programmes – partly financed from EU funds – and a significant easing of monetary policy by NBP (Figure 4.8, Figure 4.9). The positive effect of these measures will also be felt after the financial support is discontinued, due to the reduction in the percentage of people at risk of long-term unemployment and in the number of businesses that would not survive a sharp decline in their revenues.

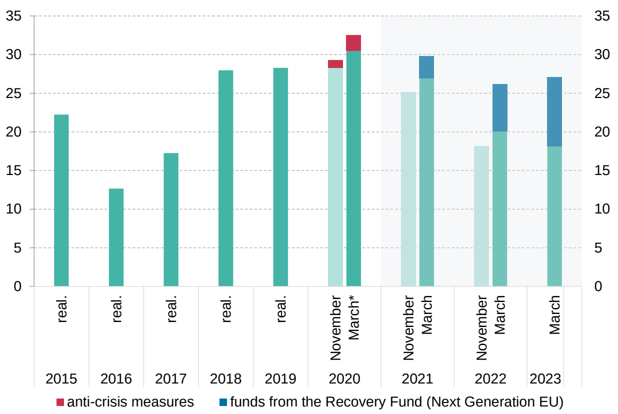
The anti-crisis measures were widely implemented in 2020 Q2, when the toughest restrictions were imposed on economic activity. In the face of the second wave of the pandemic and the related tightening of the restrictions, at the end of 2020 the

Figure 4.8 Anti-crisis measures - non-repayable support financed from the national sources (PLN billion)



Source: NBP estimates based on regulatory impact assessment and ZUS, MRPiPS, MRPiT, PFR data.

Figure 4.9 Use of EU funds for public investment (PLN billion)



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

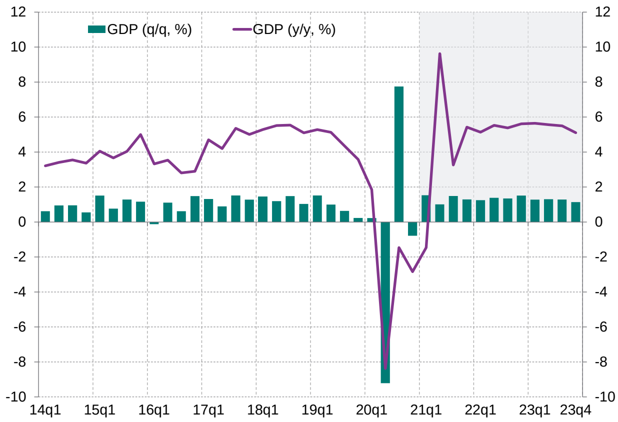
government announced subsequent packages of anti-crisis measures. Aid was expanded to include the sectors hardest hit by the pandemic, in particular the catering, fitness, trade fair, tourist and culture-entertainment sectors. Micro, small and medium-sized enterprises may apply for subsidies under the PFR Financial Shield 2.0, and the businesses most severely affected by the restrictions will be able to seek full cancellation of the support granted in 2020. The deadlines for seeking loans under the PFR Shield for large firms were also extended. At the same time, under the Shields 6.0 and 7.0, wage subsidies, exemption from social security contributions and support for the self-employed are continued.

A new EU aid instrument will be launched this year – Next Generation EU – aiming to support growth in the European economies following the crisis caused by the COVID-19 pandemic. Its main element is the Recovery and Resilience Facility, from which Poland is to receive nearly EUR 24 billion in grants. These funds will be designated, among others, to finance projects relating to energy transformation and digitalisation, and they may be spent until 2026. Due to the new nature of this instrument and the lack of detailed information on the planned destination of the available funds (the government has time to submit the so-called National Recovery Plan to the European Commission by the end of April 2021), it has been cautiously assumed that in the years 2021-2023 Poland will use about one-third of the grants available under the entire allocation of the Recovery and Resilience Facility.

Economic activity

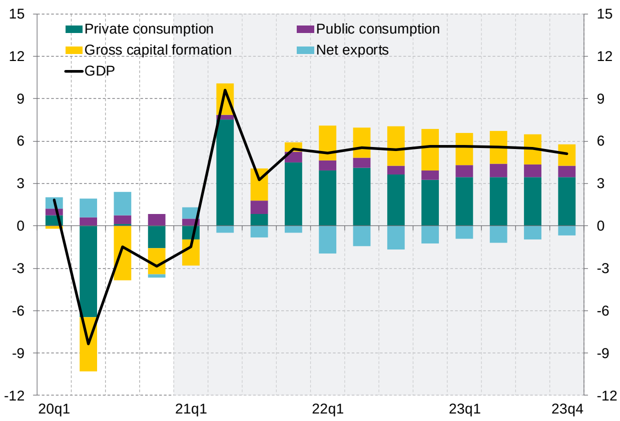
The projection assumes that the economy will return to the growth path in 2021 Q2, yet this will be contingent on the normalisation of the epidemic situation, a recovery in activity abroad and an improvement in the private demand outlook (see also Figure 4.10, Figure 4.11). The projection scenario also assumes relatively sluggish – considering the scale of the decline in economic

Figure 4.10 Economic growth



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

Figure 4.11 GDP growth (y/y,%) – breakdown)



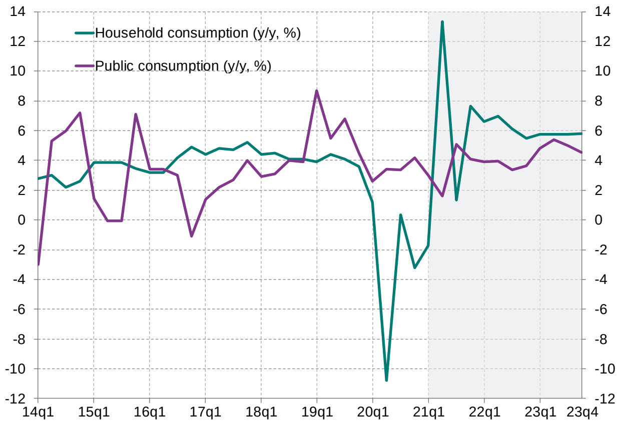
Source: Statistics Poland (GUS) data, NBP calculations.

activity in 2020 – GDP growth in 2021. It will be dampened by the slow lifting of the epidemic restrictions and the persistently heightened uncertainty about the future course of the pandemic. On the other hand, the recovery of economic activity will be supported by the anti-crisis measures of the government and Narodowy Bank Polski (see also the subchapter Anti-crisis measures), including the reduction of interest rates to record-low levels. GDP is expected to return to its pre-pandemic level in mid-2021. In the subsequent two years, growth will exceed 5% y/y, bringing the economy gradually to the medium-term growth path expected before the pandemic.

Private consumption growth continues to be held back by administrative restrictions, changes in behaviour patterns of the public due to fear of coronavirus infection, and an increase in the marginal propensity to save forced by the restrictions and driven by precautionary motives. As a result, after a sharp rise in 2020 on the back of additional fiscal measures, households' savings rate will decline only marginally in 2021. However, the lifting of epidemic restrictions and the relatively high initial savings level will encourage robust growth of consumption in the subsequent years (Figure 4.12), gradually bringing the household savings rate closer to the pre-pandemic level.

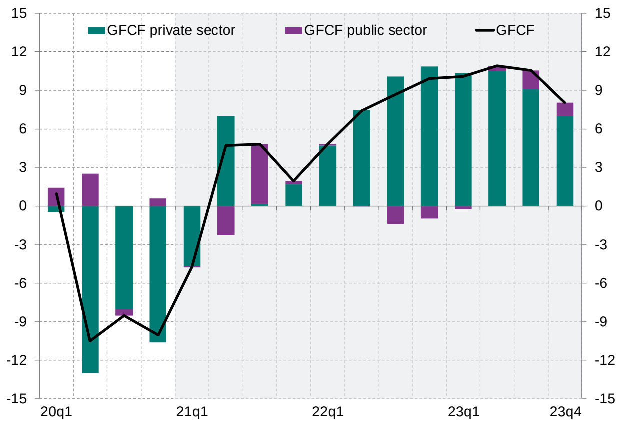
Restrictions on activity in some industries and heightened uncertainty, along with the related reluctance to incur long-term financial commitments will continue to hamper the recovery of corporate investment demand in the current year (Figure 4.13). This is confirmed by the results of company surveys, according to which the outlook for a return of investment to pre-pandemic levels is closely dependent on the extent a business is exposed to the restrictions.[50] At the same time, firms expect the level of the expenditure to be close to last year's, despite a sharp decline recorded in

Figure 4.12 Household and public consumption



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

Figure 4.13 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.

[50] NBP Quick Monitoring Survey Economic climate in the enterprise sector, NBP, January 2021.

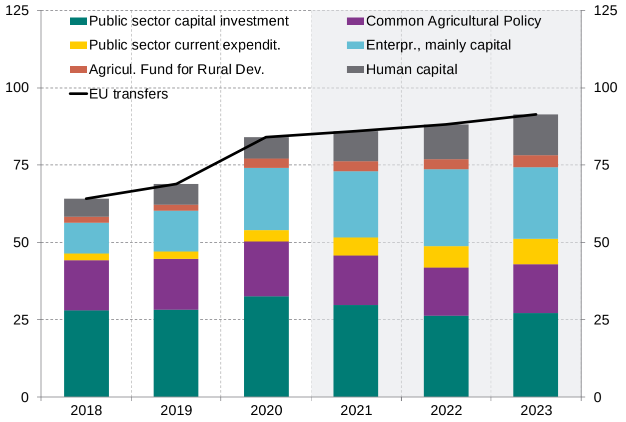
2020.[51] The assumed sustained easing of epidemic restrictions will cause the level of fixed capital formation to rise markedly in the subsequent years, and the corporate investment rate will return to levels close to those seen before the pandemic at the end of 2023. The increase in capital expenditure should be supported by the low initial degree of automation and robotisation in Polish industry and rising labour costs. The increase in corporate investment will also be supported by the use of funds under the Next Generation EU instrument.

As the labour market improves, last year's slowing growth in demand for dwellings may prove temporary. The elevated level of some households' savings and the record-low interest rates will be conducive to accelerated residential investment growth.

Overall investment growth in the projection horizon will benefit from investment spending of the public finance sector, albeit to a smaller extent than from private sector demand growth. Public investment will be supported by funds from the Next Generation EU instrument. These will partially offset the decline in the cohesion policy funds observed during the final stage of their utilisation under the 2014-2020 framework (Figure 4.14).

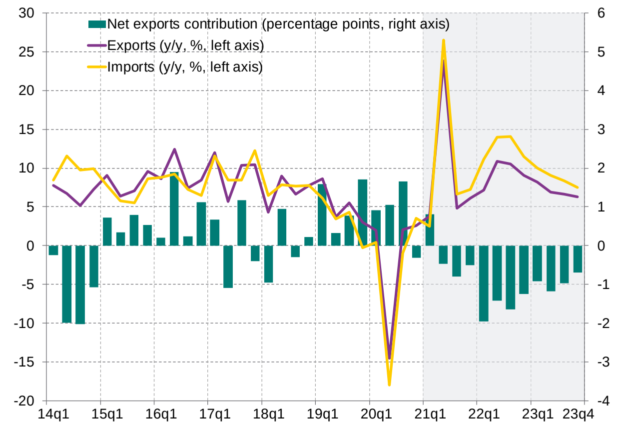
The improved business climate both at home and abroad in the projection horizon will boost the volume of imports and exports (Figure 4.15). Even now, most businesses' forecasts of foreign sales are running above the pre-pandemic levels, with exporters expecting more demand than businesses selling exclusively on the domestic market.[52] Yet at the same time, due to a substantial pick-up in domestic demand growth and a stronger cyclical response of imports than exports, the contribution of net exports to GDP growth will decrease and run at a firmly negative level in 2022-2023.

Figure 4.14 Expenditure financed by EU funds (in PLN billion) – breakdown



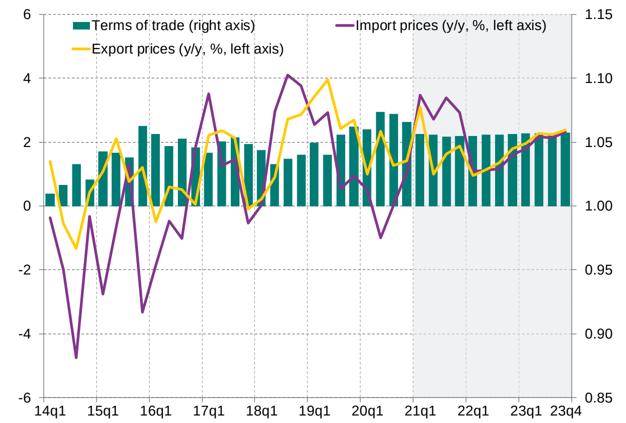
Source: NBP calculations.

Figure 4.15 Foreign trade



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

Figure 4.16 Export and import prices



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

[51] NBP Quick Monitoring Survey Economic climate in the enterprise sector, NBP, January 2021.
[52] NBP Quick Monitoring Survey Economic climate in the enterprise sector, NBP, January 2021.

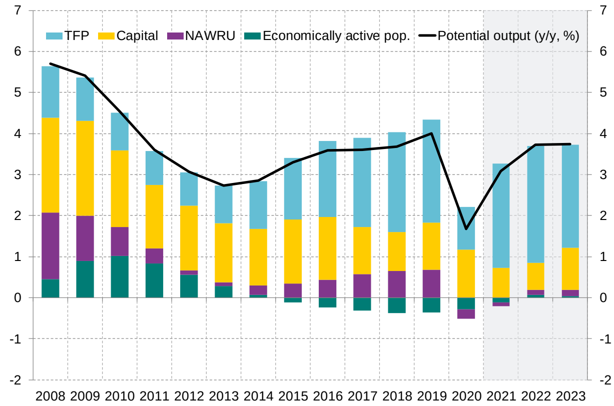
Potential output and the output gap

Following a substantial decline in 2020, potential GDP growth returns, in the projection horizon, to levels close to those observed before the pandemic (Figure 4.17). Factors conducive to faster growth in the Polish potential output will include the return of total factor productivity (TFP) and productive capital growth to the average figures seen in the previous years.

Accelerated total factor productivity growth will be supported by a reversal of the adverse changes having occurred in the Polish economy during the COVID-19 pandemic. Along with the improvement in the epidemic situation the degree of employee absenteeism will decline significantly and most people will return to the pre-pandemic forms of employment. At the same time, a large proportion of employees working remotely will have gained the skills necessary to do so effectively. The easing of economic restrictions will also contribute to a new increase in the utilisation of fixed assets and a decline in companies' operating costs related to the need to maintain the sanitary regime. A positive influence on the potential of the Polish economy will also come from the recovery of investment activity, which will increase the stock of productive capital; yet, due to the gradual transformation of investment into fixed assets, this process will be spread over time.

The COVID-19 pandemic has also contributed to a decrease in the pool of potential labour. This, however, will be largely reversed in the projection horizon. The decline is related to a greater labour market mismatch reflected in the rise of the equilibrium unemployment rate (NAWRU) and a decline in the number of economically active people. (Figure 4.18, Figure 4.20). On the one hand, jobs are being lost in crisis-affected industries, on the other, other sectors of the economy which have seen a rise in demand for their products or services due to the pandemic are reporting problems with the availability of skilled workers. This stems from the inability of those losing their job to quickly gain

Figure 4.17 Potential product (y/y, %) – breakdown



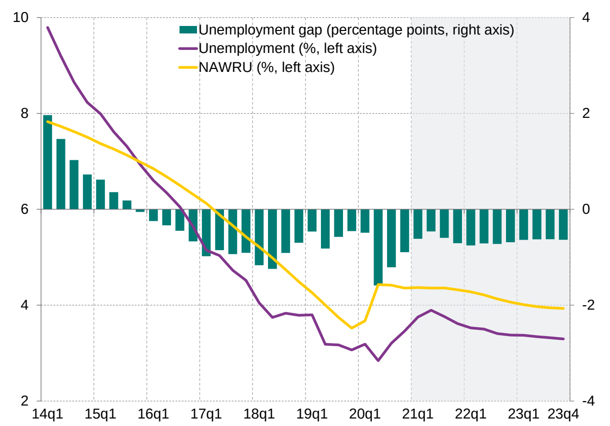
Source: NBP calculations.

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

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

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

Figure 4.18 Unemployment



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

$NAWRU_t$ – non-accelerating wage rate of unemployment in the equilibrium the skills required to take up another one. These people will gradually return to the labour market, as the restrictions are eased and the improvement in the economic climate progresses, resulting in an increase in job offers in their profession.

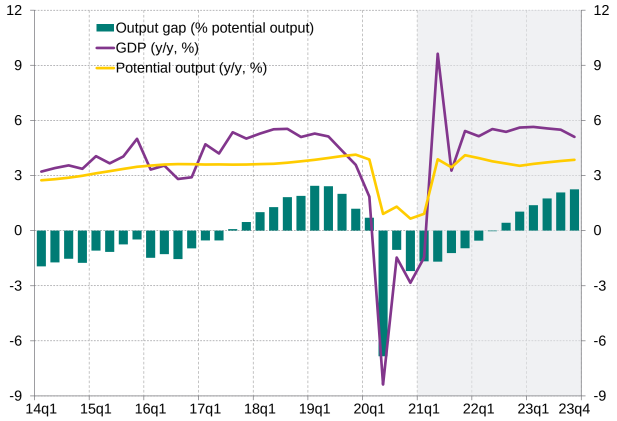
Since demand growth declined much deeper than potential output growth in 2020, the output gap was running at a negative level (Figure 4.19). In 2021, along with the progressive recovery in economic activity, the output gap will narrow down, yet it will not yet reach positive territory. This development of the output gap results from the high persistence of the factors currently depressing demand, with the supply side constraints giving way more quickly. In 2022-2023 GDP growth will pick up significantly, which will translate into a steady increase in the positive output gap, boosting price growth.

Labour market

The onset of the pandemic, resulting in the introduction of administrative restrictions and a drop in economic activity had an adverse effect on the situation in the labour market in 2020 (Figure 4.20). The scale of the decrease in employment was, however, mitigated by the shielding measures under the government's anti-crisis shields and companies inclination for labour hoarding. Government support will be continued in 2021, and once the restrictions are lifted and business conditions have improved, demand for labour will gradually take off. On the other hand, employment growth will be constrained by the relatively small scale of previous lay-offs. Further on in the projection horizon, when economic recovery has taken hold, the number of job offers will increase substantially. However, employment growth rate will be hampered by the limited supply of labour.

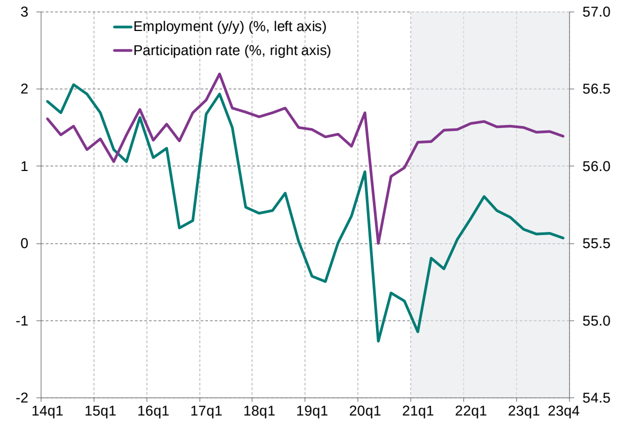
In 2021 wage growth will remain below the pre-pandemic levels (Figure 4.21). On the one hand, wages will be boosted by the restored labour intensity related to the lifting of restrictions (in several sectors of the economy). At the same time,

Figure 4.19 Output gap



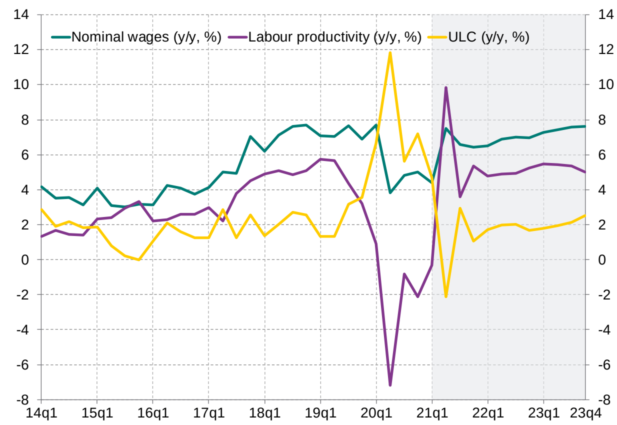
Source: Statistics Poland (GUS) data, NBP calculations.
The output gap is a synthetic measure of demand pressure in the economy. It is expressed as a percentage of the deviation of the actual real level of GDP from the level of potential output.

Figure 4.20 Employment and labour force participation



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 product of average wages and the number of employed persons 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.

amid the gradually rising demand for labour, pay rises planned for 2020 will be implemented, particularly in sectors with shortages of skilled workers. On the other hand, the bargaining power of employees will be curbed by the persistently smaller number of job openings in some industries as well as the relatively large number of economic migrants. This is confirmed by the findings of company surveys, indicating weakened wage pressure relative to the pre-pandemic period and a decline in the percentage of the firms planning wage increases in 2021 Q1.[53] The rise in wages in the national economy in 2021 will also be dampened by the wage freeze, coupled with a substantial cut in the awards and bonuses in public finance sector entities. In 2022-2023, wage growth will accelerate, driven by the recovery in demand for labour against the background of a small pool of the unemployed.

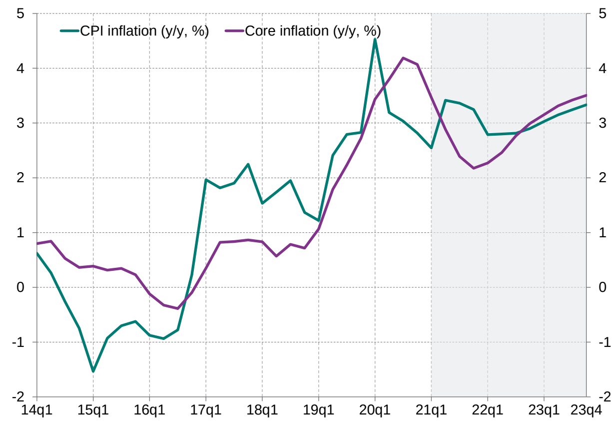
CPI inflation

After a decline in the annual average CPI inflation in 2021-2022, price growth will pick up again in 2023, yet will run within the NBP inflation target tolerance band, defined as 2.5% +/- 1 percentage point, throughout the projection horizon (Figure 4.22, Figure 4.23, Figure 4.24).

The decline in the average annual inflation relative to 2020 will be driven by a number of factors. Firstly, price growth will have a lagged response to the decline in demand observed in 2020, amid persistent uncertainty about the pace of vaccinations, which determines the future course of the pandemic. Inflation will also be curbed by the slower growth of unit labour costs.

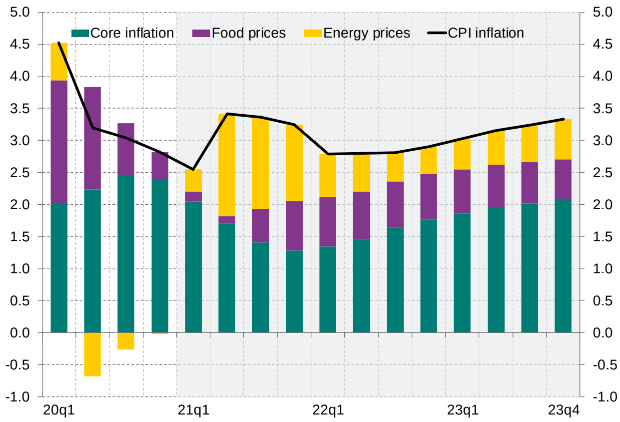
In addition, in the first half of 2021, domestic food price growth will be dragged by the large supply of vegetables and fruit resulting from the favourable crops in 2020. The further spread of the ASF epidemic in Germany will in turn translate into a decline in meat prices due to a rise in pork supply

Figure 4.22 CPI and core inflation



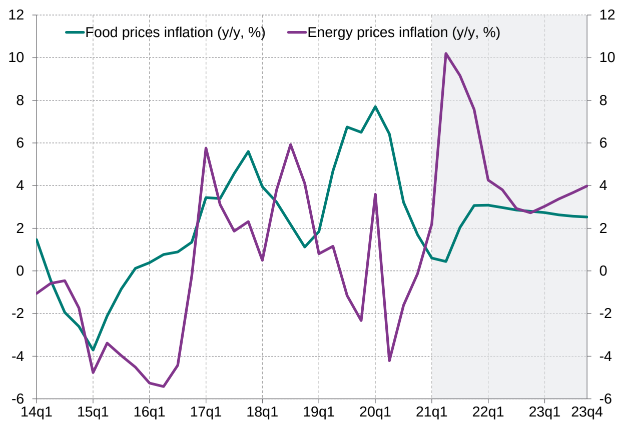
Source: Statistics Poland (GUS) data, NBP calculations.

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



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

Figure 4.24 Food and energy price inflation



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

[53] NBP Quick Monitoring Survey. Economic climate in the enterprise sector, NBP, January 2021.

in Poland caused by the deterioration in the possibility to export it.[54]

An additional factor dampening y/y inflation in 2021 will be the waning impact of the so-called "covid charges", imposed by some firms in 2020. This will be driven by the anticipated improvement in the epidemic situation, resulting in an easing of the restrictions, which will boost companies' productivity and reduce their operating costs related to the maintenance of the sanitary regime.

The scale of the decline in CPI inflation in 2021 will be limited by growing energy costs. This will be due to faster fuel price growth in comparison with 2020, when demand for oil declined substantially and oil prices dropped on global markets. On the other hand, the capacity charge introduced in January 2021 and the sugar charge will put upward pressure on consumer prices.

In 2023, CPI inflation will pick up again on the back of the lagged impact of the recovery in domestic and foreign demand, and consequently, positive levels of the output gap. At the same time, due to limited supply of labour, wage growth will accelerate. Higher consumer prices will also be supported by the expected rise in inflation in Poland's external economic environment, which drives up import prices.

4.4 Current versus previous projection

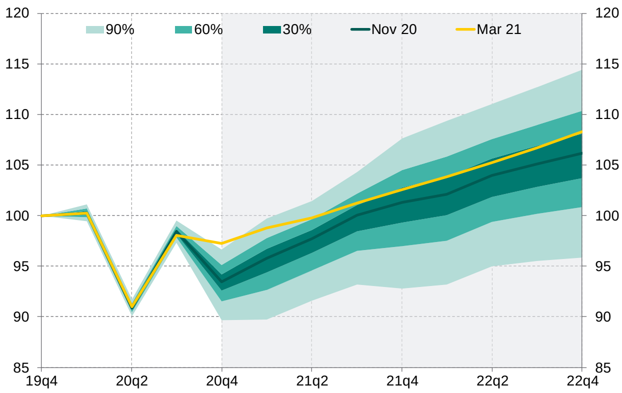
Data received after the cut-off date of the November projection have contributed to an upward revision of the projected GDP growth in 2021, suggesting a quicker return of economic activity to pre-pandemic levels. At the same time, new information has contributed to an upward revision of CPI inflation in 2021 and, on a substantially smaller scale, in 2022 (Table 4.2, Figure 4.26, Figure 4.28).

Table 4.2 March projection versus November projection

	2020	2021	2022
GDP (y/y, %)			
March 2021	-2.8	4.1	5.4
November 2020	-3.5	3.1	5.7
CPI inflation (y/y, %)			
March 2021	3.4	3.1	2.8
November 2020	3.4	2.6	2.7

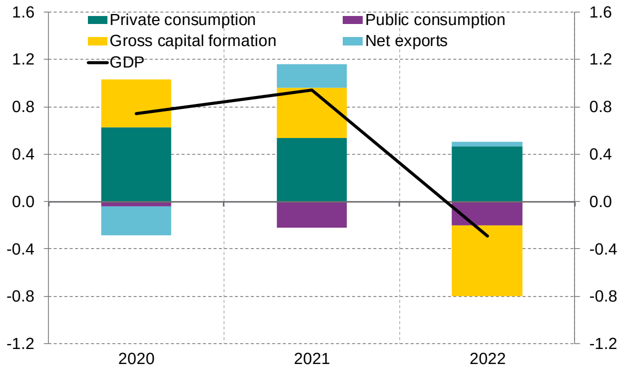
Source: NBP calculations.

Figure 4.25 March projection versus November projection: level of real GDP (Q4 2019 = 100)



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

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



Source: NBP calculations.

[54] Cases of ASF have led to bans on exports of German pork – also from unaffected areas – to some countries which do not recognise intra-state regionalisation. Thus, the supply of pork in Germany's domestic market will rise, reducing the need for imports of this meat from Poland. This will also result in increased supply in Poland.

The GDP forecast in the current round was shifted upwards due to the faster recovery of domestic economic activity, and, to a lesser extent, abroad, than assumed in the previous projection. In particular, data from the end of 2020 and the beginning of 2021 indicate a marked improvement in economic conditions in the industrial sector, an increase in goods exports, and a relatively favourable situation in the labour market. This is indicated by the increasingly better adjustment of businesses to operating during the pandemic. At the same time, the GDP growth forecast is positively affected by the government's new anti-crisis measures, and – particularly in the long run – the use of EU funds under the Next Generation EU instrument. The GDP level forecast in the entire projection horizon will run above the expectations of the previous forecasting round, yet the faster than anticipated pace of the domestic recovery in 2020-2021 will translate into slightly slower GDP growth in 2022, due to the reference point.

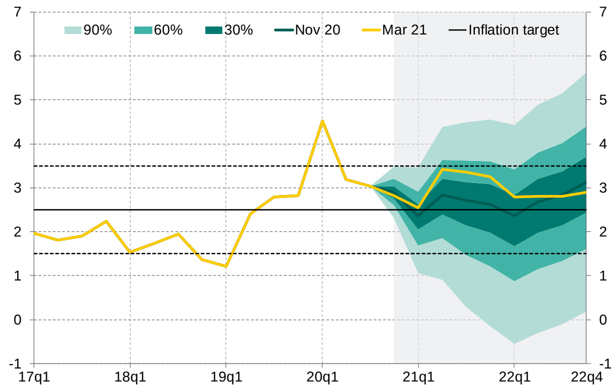
The upward shift in the CPI inflation path in 2021 relative to the November projection was largely accounted for by the revision of the forecast energy prices, with a smaller-scale correction of the growth in the prices of food and core inflation.

The energy price forecast is boosted by a sharp rise in global oil prices which occurred after the cut-off date for the previous projection and affects fuel prices. Another upward influence is the higher prices of CO_2 emission allowances than assumed in the November projection. This increase is related to a tightening of the EU target for carbon dioxide emission reduction by 2030,[55] which translates into an upward trend in the wholesale prices on the electrical energy exchange.

4.5 Forecast uncertainty sources

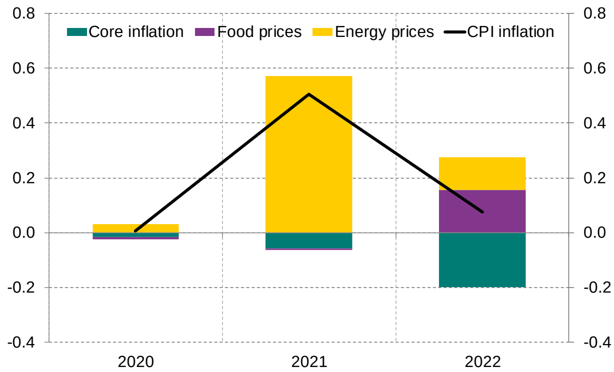
The central projection scenario, presenting the most likely development of the macroeconomic

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.

Table 4.3 Probability of inflation running:

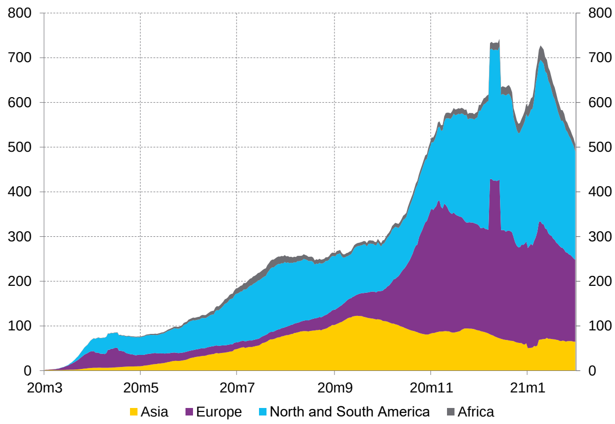
	Below 1.50%	Below 2.50%	Below 3.50%	Below the central projection	In the range (1.5-3.5%)
21q1	0.00	0.46	1.00	0.52	1.00
21q2	0.00	0.10	0.57	0.52	0.57
21q3	0.03	0.20	0.59	0.53	0.55
21q4	0.07	0.28	0.62	0.53	0.55
22q1	0.17	0.44	0.75	0.53	0.57
22q2	0.18	0.44	0.73	0.53	0.54
22q3	0.19	0.43	0.71	0.52	0.52
22q4	0.17	0.40	0.68	0.51	0.51
23q1	0.16	0.37	0.64	0.51	0.48
23q2	0.16	0.35	0.60	0.51	0.45
23q3	0.15	0.33	0.57	0.51	0.43
23q4	0.14	0.31	0.55	0.51	0.41

Source: NBP calculations.

[55] In December 2020, The European Council decided that the CO_2 emission reduction target by 2030 will be at least 55% compared to 1990, against the previous target of 40%.

situation in Poland is subject to uncertainty reflected in the fan charts (Figure 4.1, Figure 4.2). The major source of risk for economic activity and, to a lesser extent, the path of inflation in Poland is the further course of the pandemic. The impact of the pandemic on changes in inflation is a product of changes in demand on the one hand and business operating costs on the other. The balance of uncertainty factors in the case of GDP growth and CPI inflation indicates a higher probability of outcomes below the central projection scenario (Table 4.3).

Figure 4.29 Daily new cases of COVID-19 in the world (thous. of people, 7-day average)



Source: Johns Hopkins University data, NBP calculations.

More severe course of the pandemic combined with a permanent decline in economic activity in Poland

In the current forecasting round, the main risk to the realisation of the central projection scenario is the smaller effectiveness of the measures to contain the COVID-19 pandemic, especially in terms of new infection and illness prevention. In particular, the likelihood of this scenario realising may be enhanced by the emergence of new coronavirus mutations, which, compared with the current viral strains would have higher transmission, increased mortality or resistance to the vaccines used. As a result, immunity acquired as a result of inoculation might prove shorter than expected, resulting in the need to repeat the vaccination. The pessimistic scenario might also realise if the pace of the vaccinations is too slow due to the limited availability of the vaccines. In particular, this could be caused by limited production capacity, delayed deliveries due to shortcomings of the infrastructure currently used to transport the jabs, and the heavy burden on the health system. The materialisation of these risks means that it will not be possible to contain the pandemic and that spikes in new infections may occur again in the projection horizon.

Such a course of events may require the temporary tightening of restrictions by the governments of the individual countries and the reinstatement of some administrative restrictions on economic activity. The recurring spells of pandemic expansion will result in diminished supply of labour due to employee absenteeism caused by quarantine or the need to take care of children, should remote teaching of all pupils be restored. This could lead to limitations in output, or even bring some companies' operations to a halt. The simultaneous need to maintain an adequate sanitary regime would increase companies' operating costs and furthermore reduce labour productivity. A repetitive pandemic recurrence would result in the preservation of the changed economic behaviour pattern of the population in line with the principle of increased social distance, which would translate into a permanent reduction in demand for many types of services. An extended period of unfavourable conditions would increase the number of bankruptcies of enterprises, to which service industries, in particular hotels, recreation, culture and catering, would be most exposed. The service sector may additionally be affected by reduced economic activity of young people, who may find it difficult to launch their careers and enter the labour market due to the pandemic shock. The limited possibility of further support measures on the part of economic policy may be another factor delaying the economic recovery.

These negative trends might be additionally compounded by mounting problems with solvency and stability of the financial systems in the economies with a high level of debt. Problems in containing the pandemic would also contribute to a rise in social instability, particularly in the countries where the pandemic caused income inequality to increase sharply. The adverse effect of the pandemic on economic activity might also be boosted by an escalation of economic disputes between countries, resulting in increased barriers to world trade, lower foreign investment and slower technology transfer to less developed economies. Such developments would hamper productivity growth in the global economy, particularly in economies highly dependent on international trade.

The materialisation of the above risks would contribute to an extended period of depressed economic activity in the global economy, including Poland. Against the background of heightened uncertainty, corporate investment would also be substantially limited. Considering additionally the decline in labour supply and slower total resources productivity growth rate, this would lead to a permanent reduction in the potential output of the national economy.

A milder course of the pandemic combined with more effective economic policy abroad

On the other hand, a milder development of the pandemic in Poland and abroad is possible – although less likely – resulting in faster economic growth than expected in the baseline scenario. This could be caused by significant progress in suppressing the pandemic, a reduction in the public's fears of infection, and greater adaptation of the behaviour of economic entities to functioning amid a fading pandemic. The effectiveness of the inoculations and an acceleration of the rate of people vaccinated would contribute to an faster improvement in the epidemic situation. This scenario may be realised by an increase in the supply of vaccines resulting from the appearance of new suppliers, improved infrastructure for the transport of the vaccines, and the development of new technology to create and modify jabs rapidly. At the same time, the willingness of the public to get vaccinated might increase in response to optimistic reports about the effectiveness of the vaccination programmes in other countries. With some probability, the SARS-CoV-2 virus might also mutate into a milder course of infection and become a relatively harmless pathogen similar to seasonal viruses (corresponding to influenza).

In the case of such an optimistic course of events, the rules regarding conducting economic activity would return faster to a state similar to the one before the pandemic, and household and business sentiment would improve. Consumers would be able to meet their deferred demand through increased income from work and funds saved during the lockdown and when fears of infection ran high. Stronger growth in household disposable income resulting from an improvement in business conditions would also boost housing expenditure, assuming continued low interest rates. The reduction in employee absenteeism and lower operating costs of companies related to an easing of the sanitary regime would also have a positive impact on economic activity.

Besides a faster than expected suppression of the pandemic, increased support from economic policy, for example the launch of another fiscal package in the United States as postulated by President Joe Biden, could also contribute to a rebound in global economic activity. A more durable acceleration in productivity growth thanks to the implementation of digitalisation and automation as well as changes in the organisation of work implemented as a result of the pandemic could also be a source of faster growth in global economic activity than assumed in the baseline scenario. In addition, a higher GDP growth path could be expected in Poland's main trading partners if the negative effects of Brexit prove to be milder, and the stimulating impact of funds from the Next Generation EU instrument prove stronger than assumed.

The realisation of the optimistic scenario may be supported by a stronger-than-expected impact of fiscal and monetary measures on the situation of economic entities, allowing relatively fast economic activity growth and a recovery of the potential output.

Prices of energy and agricultural commodities

Besides uncertainty related to the future course of the pandemic and its impact on the domestic economy, changes in the prices of energy and agricultural commodities, both in the global and local markets, continue to be a significant source of uncertainty for the inflation path in the baseline scenario. The prices of oil and other energy commodities in the global markets could be subject to significant volatility, not only due to changes in demand, but also due to actions taken by the major producers in response to their budget situation or the condition of domestic production sectors, including the financial situation of private firms. In turn, the risk of a significant deviation of meteorological conditions compared to the long-term average in Poland and in countries that are significant food producers as well as the spread of African Swine Flu (ASF) in the European Union are additional sources of uncertainty for food price developments over the projection horizon.

Table 4.4 Central path of inflation and GDP projection

	2020				2021				2022				2023				2020	2021	2022	2023
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
Consumer Price Index CPI (%, y/y)	4.5	3.2	3.0	2.8	2.5	3.4	3.4	3.2	2.8	2.8	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.1	2.8	3.2
Core inflation (net of food and energy prices, %, y/y)	3.4	3.8	4.2	4.1	3.5	2.9	2.4	2.2	2.3	2.5	2.8	3.0	3.2	3.3	3.4	3.5	3.9	2.7	2.6	3.3
Food prices (%, y/y)	7.7	6.4	3.2	1.7	0.6	0.4	2.0	3.1	3.1	3.0	2.9	2.8	2.7	2.6	2.6	2.5	4.7	1.5	2.9	2.6
Energy prices (%, y/y)	3.6	-4.2	-1.6	-0.1	2.2	10.2	9.2	7.6	4.3	3.8	2.9	2.7	3.0	3.4	3.7	4.0	-0.6	7.2	3.4	3.5
GDP (%, y/y)	1.9	-8.4	-1.5	-2.8	-1.5	9.6	3.3	5.4	5.1	5.5	5.4	5.6	5.6	5.6	5.5	5.1	-2.8	4.1	5.4	5.4
Domestic demand (%, y/y)	1.0	-9.9	-3.2	-2.7	-2.3	10.5	4.2	6.1	7.3	7.1	7.2	7.0	6.7	6.8	6.5	5.8	-3.7	4.4	7.2	6.5
Household consumption (%, y/y)	1.2	-10.8	0.4	-3.2	-1.7	13.3	1.3	7.7	6.6	7.0	6.1	5.5	5.8	5.7	5.8	5.8	-3.0	4.9	6.3	5.8
Public consumption (%, y/y)	2.6	3.4	3.4	4.2	3.0	1.6	5.1	4.1	3.9	4.0	3.4	3.7	4.8	5.4	5.0	4.5	3.4	3.4	3.7	4.9
Gross fixed capital formation (%, y/y)	0.9	-10.7	-9.0	-10.6	-4.8	4.7	4.8	2.0	4.8	7.4	8.7	9.9	10.1	10.9	10.6	8.0	-8.4	1.5	7.7	9.9
Contribution of net exports (percentage points, y/y)	0.9	1.1	1.7	-0.3	0.8	-0.5	-0.8	-0.5	-2.0	-1.4	-1.7	-1.2	-0.9	-1.2	-1.0	-0.7	0.8	-0.2	-1.6	-0.9
Exports (%, y/y)	2.0	-14.5	2.0	2.6	3.8	23.8	4.8	6.1	7.2	10.9	10.6	9.0	8.2	6.9	6.7	6.3	-2.0	9.0	9.4	7.0
Imports (%, y/y)	0.4	-18.0	-1.0	3.6	2.5	26.6	6.7	7.3	11.2	14.0	14.1	11.5	10.0	9.1	8.4	7.5	-3.7	10.0	12.7	8.7
Gross wages (%, y/y)	7.7	3.8	4.8	5.0	4.4	7.5	6.6	6.4	6.5	6.9	7.0	7.0	7.3	7.4	7.6	7.6	5.3	6.2	6.9	7.5
Total employment (%, y/y)	0.9	-1.3	-0.6	-0.7	-1.1	-0.2	-0.3	0.1	0.3	0.6	0.4	0.3	0.2	0.1	0.1	0.1	-0.4	-0.4	0.4	0.1
Unemployment rate (%)	3.2	2.8	3.2	3.5	3.8	3.9	3.8	3.6	3.5	3.5	3.4	3.4	3.4	3.3	3.3	3.3	3.2	3.8	3.5	3.3
NAWRU (%)	3.7	4.4	4.4	4.4	4.4	4.4	4.4	4.3	4.3	4.2	4.1	4.1	4.0	4.0	3.9	3.9	4.2	4.4	4.2	4.0
Labour force participation rate (%, y/y)	56.3	55.5	55.9	56.0	56.2	56.2	56.2	56.2	56.3	56.3	56.3	56.3	56.3	56.2	56.2	56.2	55.9	56.2	56.3	56.2
Labour productivity (%, y/y)	0.9	-7.2	-0.8	-2.1	-0.3	9.8	3.6	5.4	4.8	4.9	4.9	5.3	5.5	5.4	5.4	5.0	-2.3	4.5	5.0	5.3
Unit labour cost (%, y/y)	6.7	11.8	5.6	7.2	4.7	-2.1	2.9	1.1	1.7	2.0	2.0	1.7	1.8	1.9	2.1	2.5	7.8	1.6	1.8	2.1
Potential output (%, y/y)	3.9	0.9	1.3	0.7	0.9	3.9	3.4	4.1	3.9	3.8	3.6	3.5	3.6	3.7	3.8	3.9	1.7	3.1	3.7	3.7
Output gap (% potential GDP)	0.7	-6.8	-1.0	-2.2	-1.7	-1.7	-1.2	-1.0	-0.5	0.0	0.4	1.0	1.4	1.8	2.1	2.2	-2.3	-1.4	0.2	1.9
Index of agricultural commodity prices (EUR; 2011=1.0)	0.96	0.89	0.86	0.87	0.90	0.92	0.91	0.89	0.90	0.92	0.92	0.90	0.91	0.93	0.92	0.90	0.90	0.90	0.91	0.92
Index of energy commodity prices (USD; 2011=1.0)	0.53	0.36	0.42	0.53	0.66	0.63	0.61	0.62	0.63	0.59	0.58	0.60	0.60	0.57	0.57	0.59	0.46	0.63	0.60	0.58
Inflation abroad (%, y/y)	2.1	2.8	2.0	1.8	1.4	0.6	1.2	1.0	1.1	1.0	1.1	1.3	1.4	1.5	1.5	1.6	2.2	1.0	1.1	1.5
GDP abroad (%, y/y)	-2.6	-14.4	-4.6	-4.9	-2.5	12.6	2.4	3.9	5.5	4.6	3.6	2.7	2.3	1.9	1.7	1.6	-6.6	3.8	4.1	1.9
Current and capital account balance (% GDP)	3.3	4.5	5.1	6.1	6.3	5.8	5.6	4.6	4.0	3.4	2.9	2.5	2.2	1.9	1.6	1.4	6.1	4.6	2.5	1.4
WIBOR 3M (%)	1.62	0.58	0.24	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.66	0.22	0.22	0.22

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

For the majority of variables, the values up to Q4 2020 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.

5. The voting of the Monetary Policy Council members in September 2020 – January 2021

■ Date: 15 September 2020

Subject matter of motion or resolution:
Motion to change the NBP inflation target of 2.5% with a symmetrical tolerance band of +/- 1 percentage point to 2% with a symmetric tolerance band of +/- 1 percentage point.

Voting of the MPC members:

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

J. J. Kropiwnicki was absent.

■ Date: 15 September 2020

Subject matter of motion or resolution:
Motion to widen the symmetric tolerance band for the inflation target of 2.5% from +/- 1 percentage point to +/- 2 percentage points.

Voting of the MPC members:

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

J. J. Kropiwnicki was absent.

■ Date: 15 September 2020

Subject matter of motion or resolution:
Resolution No. 12/2020 on adopting monetary policy guidelines for 2021.

Voting of the MPC members:

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

J. J. Kropiwnicki was absent.

Date: 6 November 2020

Subject matter of motion or resolution:
Resolution No. 13/2020 on the accounting principles of Narodowy Bank Polski, the layout of the balance sheet, the profit and loss account, and the contents of notes.

Voting of the MPC members:

For:		Against:	
	A. Glapiński		J. J. Kropiwnicki
	G. M. Ancyparowicz		K. Zubelewicz
	C. Kochalski		
	R. Sura		
	J. Żyżyński		

E. Gatnar, Ł. J. Hardt, E. M. Łon were absent.

Date: 2 December 2020

Subject matter of motion or resolution:
Resolution No. 14/2020 on approving the financial plan of Narodowy Bank Polski for 2021.

Voting of the MPC members:

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

www.nbp.pl