NBP Narodowy Bank Polski

Monetary Policy Council

March 2018

Inflation Report

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

The time frame of the analysis presented in the Report is conditioned by the availability of macroeconomic data. In turn, the periodisation of the analysis (breakdown into sub-periods) is conditioned by the development of particular variables. The cut-off date for the data in this Report was 22 February 2018.

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

Contents

Summary

The global economy continues to recover. Good economic conditions remain, in particular, in Poland's major trading partners. In the second half of 2017, GDP growth increased in the euro area, the Central and Eastern European economies and the United States, while in the major emerging market economies it was somewhat weaker than in the first half of 2017.

Despite favourable global economic conditions, inflation in the external environment of the Polish economy remains moderate. This is supported by relatively low core inflation and lower global prices of agricultural commodities than in the previous year.

Given the still moderate inflation in the euro area – despite good economic conditions – the European Central Bank (ECB) keeps interest rates close to zero, including a negative deposit rate. At the same time, the ECB continues to purchase financial assets, although it has reduced the scale of monthly purchases. In the United States – amid very strong labour market conditions and the expected stabilisation of inflation close to the Federal Reserve target – the gradual tightening of monetary policy continues.

Global equity prices, following a long period of growth, in February 2018 declined temporarily, which was related to the increase in the scale of the expected hikes in the fed funds rate. The decline in global equity prices was accompanied by a rise in bond yields, in particular in the United States. Alongside this, in view of the favourable economic outlook for emerging market economies, government bond yields in these countries rose only slightly, while their currencies strengthened.

Annual consumer price growth in Poland remains moderate due to still limited, although gradually rising, internal demand pressure and low import price growth. This is accompanied by weakening energy price growth. The main driver pushing up inflation is the high, yet declining, food price growth.

Economic conditions in Poland remain favourable, with GDP growth picking up markedly in the second half of 2017. Increasing consumer demand – supported by rising employment and accelerating wages, very good consumer sentiment and disbursement of benefits – continues to be a significant driver of GDP growth. In 2017 Q4, there was also a strong recovery in investment. Investment accelerated mainly in the public sector, however gross fixed capital formation in the corporate sector probably increased as well. The growth in economic activity was additionally supported by rising exports, benefiting from good economic conditions in the external environment of the Polish economy. At the same time, amid accelerating domestic demand, imports growth also increased. As a result, net exports had a negative contribution to GDP growth in 2017 Q4. Sectoral decomposition of GDP growth indicates that in the second half of 2017, services and industry continued to make significant contributions to GDP growth, while construction played a growing role.

Gradually rising demand in the economy supports further growth in labour demand, which translates into continued increase in employment growth and decline in unemployment. Consequently, the position of employees in wage negotiations is improving, and the share of companies forecasting wage increases is rising, which supports a pickup in wage growth in the economy. This is accompanied by faster GDP growth, translating into an increase in labour productivity growth. Accordingly, growth in unit labour costs remains moderate.

Continued favourable economic conditions are accompanied by growth in broad money aggregate (M3), which is mainly accounted for by the increase in the current deposits of households and companies. In 2017, the growth of broad money supply continued to be driven by a stable rise in loans to the non-financial sector at the rate slightly lower than the nominal GDP growth rate. Household loans are still the most important source of lending growth, although corporate loans are also increasing markedly.

The Monetary Policy Council keeps NBP interest rates unchanged, including the reference rate at 1.50%. The majority of market participants currently expect NBP interest rates to remain stable in 2018, while some of them await an increase in the NBP rates further ahead.

In recent months, government bond yields in Poland have been relatively stable, despite a significant growth of yields in developed markets. At the same time, equity prices in Poland have declined, reflecting a change in sentiment in the global financial markets, and strong data on the Polish economy has supported the appreciation of the zloty against all the major currencies. In the residential real estate market, high demand is accompanied by further increase in supply of flats. In effect, flat prices increased moderately. In the commercial real estate market, in turn, stable demand translated into slightly decreasing rents.

Strong domestic economic conditions are accompanied a balanced current account position. This was due to a high trade surplus in the second half of 2017, coupled with a significant primary income deficit. As the inflow of EU funds gradually rose, so did the surplus on the capital account in the second half of 2017, while the financial account balance was close to zero.

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. *Minutes of the Monetary Policy Council decision-making meetings* held in November 2017 – February 2018, together with the *Information from the meeting of the Monetary Policy Council* in March 2018 are presented in Chapter 3. Minutes of the MPC meeting held in March will be published on 29 March 2018 and so will be included in the next Report. The Monetary Policy Council voting records from the meetings held between October 2017 and January 2018 can be found in Chapter 5. This Report also includes a box: *Poland and other European countries in the light of the macroeconomic imbalance procedure*.

Chapter 4 of the Report presents the projection for inflation and GDP based on the NECMOD model, which is one of the inputs into the Council's decision-making process on the NBP interest rates. In line with the projection – prepared under the assumption of unchanged NBP interest rates and taking into account data available until 16 February 2018 – there is a 50-percent probability that the annual price growth will be in the range of 1.6-2.5% in 2018 (against 1.6-2.9% in the November 2017 projection), 1.7-3.6% in 2019 (compared to 1.7-3.7%) and 1.9-4.1% in 2020. At the same time, the annual GDP growth – according to this projection – will be with a 50-percent probability in the range of 3.5-5.0% in 2018 (against 2.8-4.5% in the November 2017 projection), 2.8-4.8% in 2019 (compared to 2.3-4.3%) and 2.6-4.6% in 2020.

1 External developments

1.1 Economic activity abroad

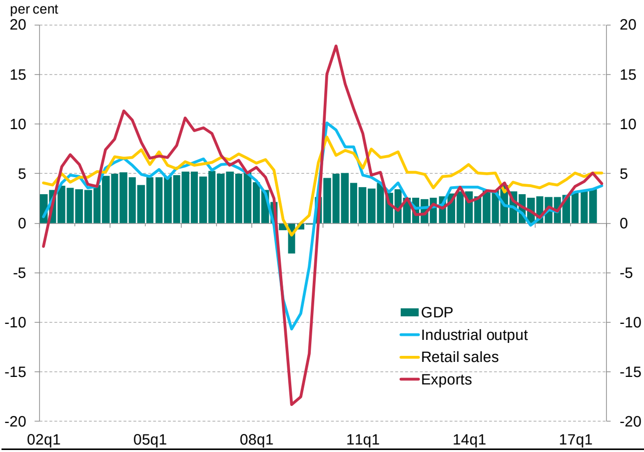
The global economy continues to recover. Still favourable economic conditions in many countries are supported by – apart from rising consumer demand – growth of investment activity and recovery in global trade (Figure 1.1).

Good economic conditions continue in particular in Poland's major trading partners. In the euro area, annual GDP growth in the second half of 2017 was higher than in the previous half year (in 2017 Q3 and Q4, 2.7% and 2.7% y/y respectively, Figure 1.2). Economic growth continues to be driven primarily by domestic demand, particularly private consumption, with a positive contribution of investment outlays. Further growth of domestic demand in the euro area is backed by the gradual rise in employment and wages, the optimism of consumers and enterprises, and the continued expansionary monetary policy of the European Central Bank (see Chapter 1.4 *Monetary policy abroad*). The pickup in the euro area economic activity is increasingly supported by growing exports, related to the recovery in both intra- and extra-euro area trade, the latter despite the appreciation of the euro.

Favourable economic conditions in the euro area are boosting exports of the CEE economies. However, it is domestic demand that continues to be the main driver of the relatively fast GDP growth persisting in these economies (Figure 1.3). The ongoing rise in consumption, underpinned by high wage growth and further employment growth, is accompanied by a gradual recovery in investment demand.

In the United States, GDP growth in the second half of 2017 also increased (to 2.3% and 2.5% y/y in Q3 and Q4, Figure 1.4). Consumer demand

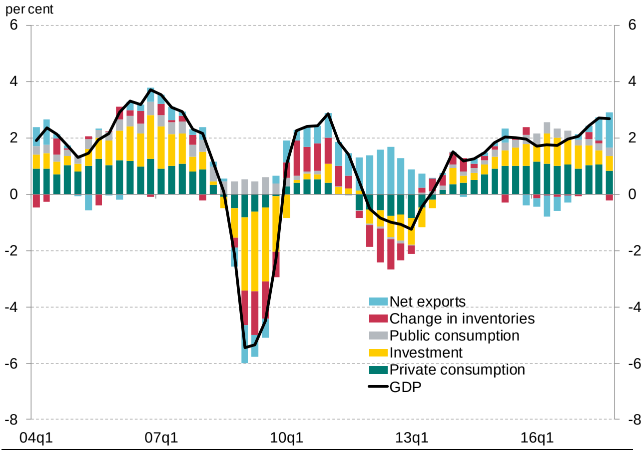
Figure 1.1 GDP growth and global economic activity indicators (y/y)



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

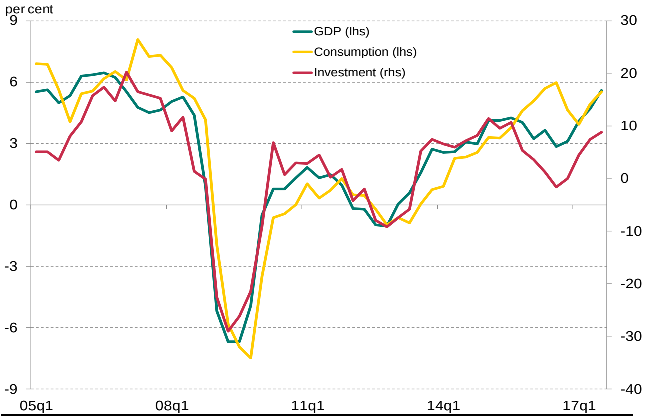
GDP, industrial output and retail sales – GDP-weighted average annual growth in economies comprising 80% of global GDP in 2016. Exports – global export growth rate estimated by Centraal Planbureau.

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



Source: Eurostat data, NBP calculations.

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



Source: Eurostat data, NBP calculations.

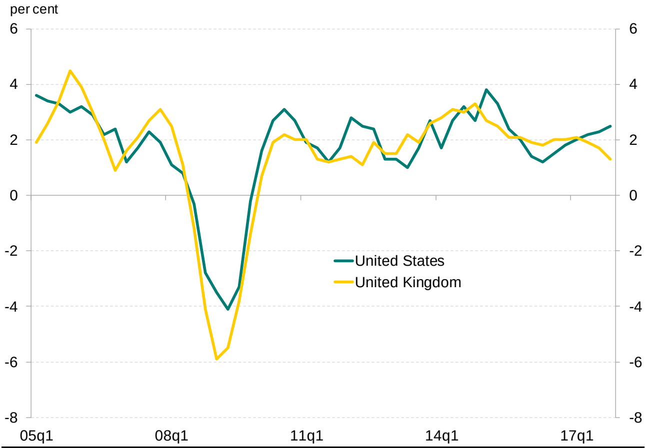
GDP-weighted annual growth rate of the total GDP, private consumption and gross fixed capital formation in non-euro area Central and Eastern European EU member states (excluding Poland).

continues to be the main driver of growth in the US economy, amid rising employment and wages, as well as increasing wealth of households, mainly due to the growth in the prices of financial assets (see Chapter 1.5 *International financial markets*). The growth in economic activity in the United States is also backed by further rise in corporate investment. The pickup in corporate investment in the second half of 2017 was accompanied by a slight increase in annual export growth.

In the United Kingdom, GDP growth remains moderate, although in the second half of 2017 it was slightly lower than in the previous half year (Figure 1.4). This was accounted for by a weakening of investment growth associated with the heightened uncertainty about the shape of the Brexit agreement. Private consumption growth was also lower than in the first half of the year, held back by the negative growth in real wages. Alongside that, the rise in economic activity is increasingly supported by exports, whose growth is driven by the recovery in global trade, together with the exchange rate of the British pound weaker than a year earlier.

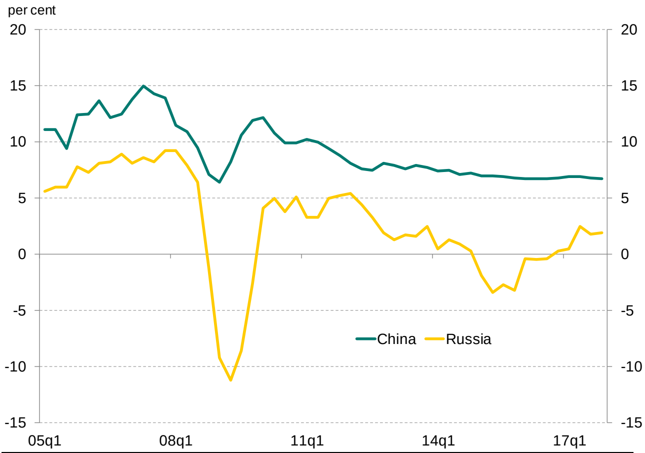
In the major emerging market economies, GDP growth at the end of 2017 was somewhat lower than in the first half of 2017 (Figure 1.5). In Russia, this was mainly due to a slowdown in investment, following its strong but temporary rise in the second quarter, which was to a large extent associated with the implementation of investment projects in the extractive industry. The fall in export growth related to the strengthening of the ruble also lowered GDP growth. In China, a slight decline in GDP growth reflected a drag from weakening investment growth, resulting from the deliberate actions by the government to reduce demand in the housing market and gradually restrain output in heavy industry. At the same time, the pickup in exports gave a boost to China's

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



Source: Bloomberg data.

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



Source: Bloomberg data.

GDP. The steady rise in consumer demand also continues to add to economic growth in this country.

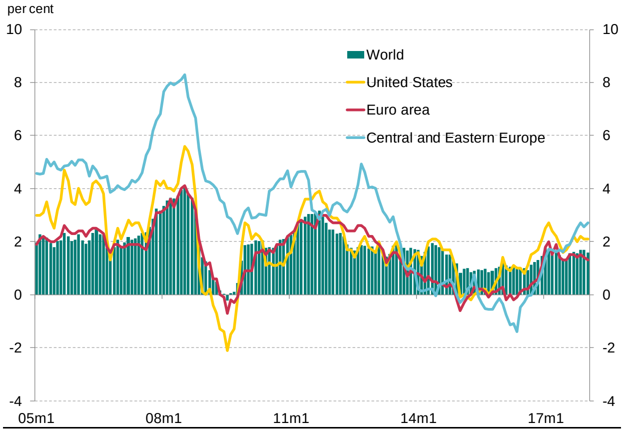
1.2 Inflationary developments abroad

Despite favourable global economic conditions, inflation in the external environment of the Polish economy remains moderate (Figure 1.6). This is supported by relatively low core inflation. The relatively weak growth in food prices, accounted for the lower global prices of agricultural commodities than in the previous years, also has a curbing effect on the growth of global inflation. In turn, global energy commodity prices, including oil prices, increased in the second half of 2017, which translated into higher energy price growth (see chapter 1.3 *Global commodity markets*).

In the euro area, inflation remains below the ECB's definition of price stability (in January 2018 it stood at 1.3% y/y; Figure 1.7). It is held back by the persistently low core inflation, whose growth has been contained by the still weak wage growth. The latter is partly related to the still elevated unemployment rate in some countries of the euro area, and also the weak wage increases agreed under collective bargaining agreements. Consumer price growth is additionally limited by the stronger exchange rate of the euro than a year ago.

In the United States, inflation is still higher than in most other advanced economies. This is backed by the economic recovery evolving there over past few years and reflected in good labour market conditions, including the significantly lower unemployment rate than its long-term average. Despite this, core inflation is lower than in 2016, which, however, is to a large extent due to temporary factors.[1]

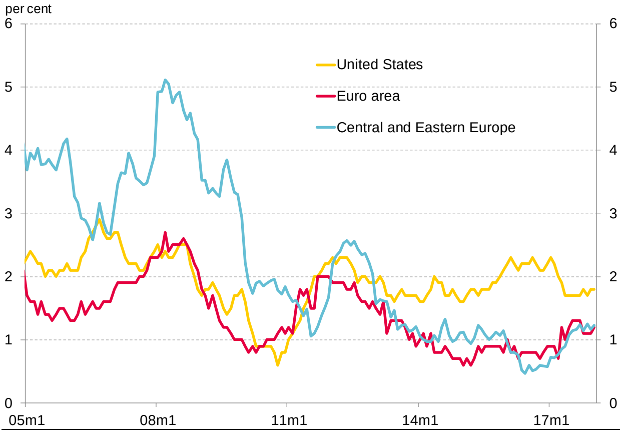
Figure 1.6 CPI inflation globally and in selected economies (y/y)



Source: Bloomberg data, NBP calculations.

World – GDP-weighted average consumer price inflation in economies comprising 80% of global GDP. Central and Eastern Europe – GDP-weighted annual CPI inflation in the non-euro area Central and Eastern European EU member states (excluding Poland). United States – annual CPI inflation. Euro area – annual HICP inflation.

Figure 1.7 Core inflation indices in the United States, the euro area and Central and Eastern Europe (y/y)



Source: Bloomberg data, NBP calculations.

United States – annual CPI inflation excluding food and energy prices. Euro area – annual HICP inflation excluding unprocessed food and energy prices. Central and Eastern Europe – GDP-weighted annual HICP inflation excluding food and energy prices in in the non-euro area CEE EU member states (excluding Poland).

[1] Factors holding down core inflation include legislative changes regarding health care and cuts in the prices of telephone subscriptions.

In the Central and Eastern European region, in turn, inflation rose in the second half of 2017, supported by a pickup in GDP growth and relatively fast wage growth. Inflation was also driven by a strong rise in food prices, mainly related to temporary supply constraints in the markets of some foodstuffs. However, despite the gradual increase in price growth, inflation rates in the majority of countries in the region still remain below their long-term averages (Figure 1.7).

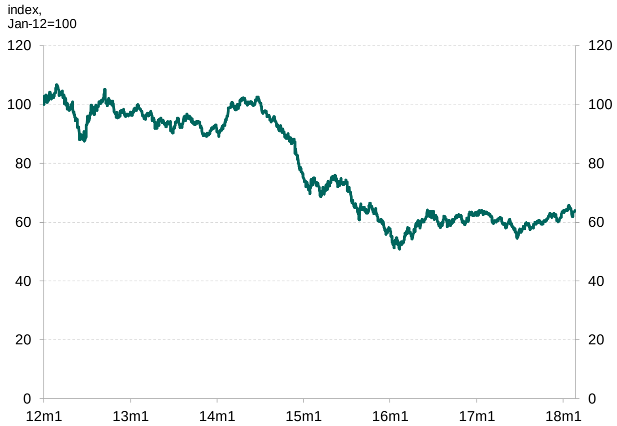
1.3 Global commodity markets

Over the recent past, prices of most energy commodities have risen again to remain higher than in the previous year, while agricultural commodity prices have continued to fall (Figure 1.8; Figure 1.9; Figure 1.10).

Oil prices – after a temporary decline in early February 2018 connected with some deterioration in sentiment in the global financial markets (see Chapter 1.5 *International financial markets*) – have recently increased again (Figure 1.9). The rise in prices of this commodity was mainly due to the cuts in oil production by the Organisation of Petroleum Exporting Countries (OPEC) and some other oil exporters, along with continued growth in demand for this commodity amid favourable global economic conditions. As a result, global oil stocks systematically declined, thus boosting oil prices. The rise in oil prices is, however, contained by the increase in shale oil production in the United States.

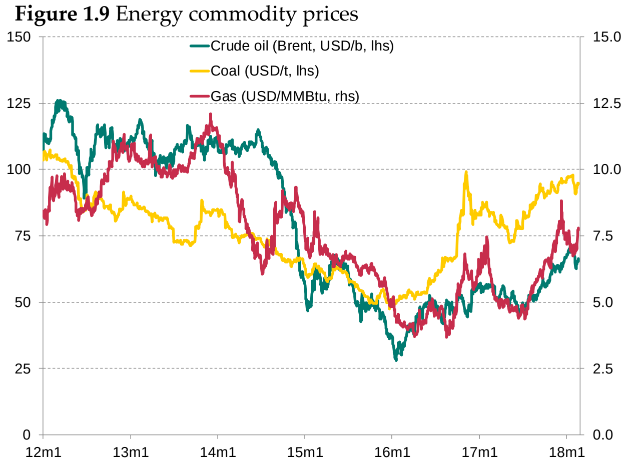
Prices of other energy commodities – following an earlier fall in the wake of the decline in oil prices – have also increased in the recent period (Figure 1.9). Coal prices continued to rise, driven mainly by high demand on the part of Asian countries. In particular, demand from China rose, accompanied by the simultaneous restrictions in coal production by some Chinese producers. In turn, natural gas prices in the recent period have been affected,

Figure 1.8 Commodity price index



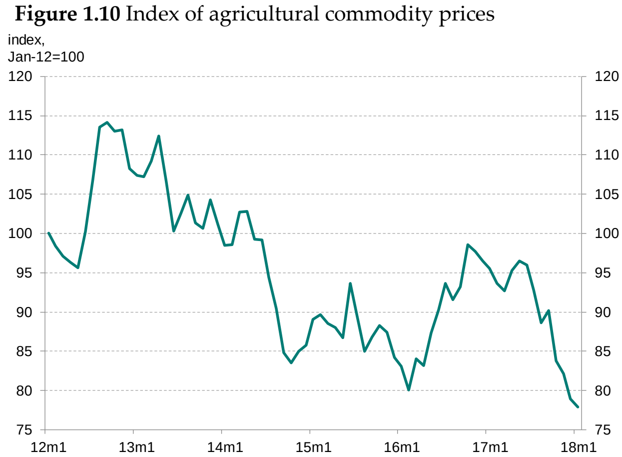
Source: Bloomberg data, NBP calculations.
Thomson Reuters/CoreCommodity CRB index, which is an arithmetic average of prices for the following 19 commodity futures: aluminium, unleaded gasoline, cocoa, coffee, copper, corn, cotton, crude oil, gold, heating oil, hogs, live cattle, natural gas, nickel, orange juice, silver, soybeans, sugar and wheat.

Figure 1.9 Energy commodity prices



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

Figure 1.10 Index of agricultural commodity prices



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

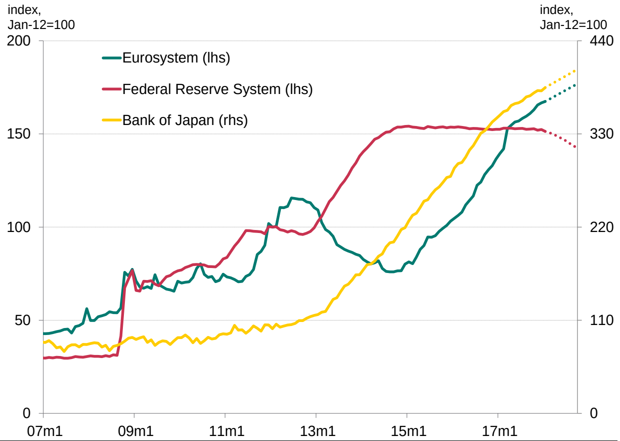
except for changes in oil prices, by increased gas consumption for heating purposes and one-off factors.[2]

Prices of most agricultural commodities have fallen in recent months, despite the continued robust consumption growth in the global economy (see Chapter 1.1 *Economic activity abroad*). The high supply of agricultural commodities, supported by their relatively low production costs and significant stocks of some agricultural products, contributed to the decline in their prices (Figure 1.10).[3]

1.4 Monetary policy abroad

Given the still moderate inflation in the euro area (see Chapter 1.2 *Inflationary developments abroad*) – despite good economic conditions (see Chapter 1.1 *Economic activity abroad*) – the European Central Bank (ECB) keeps interest rates close to zero, including a negative deposit rate. As a result, short-term interbank interest rates remain negative. At the same time, the ECB continues to purchase financial assets, although – according to its earlier decision – in 2018 it has reduced the scale of monthly purchases (Figure 1.11).[4] Moreover, the ECB still expects its interest rates to remain at their present levels well past the horizon of the net asset purchases. Consequently, market participants do not expect changes in the ECB interest rates in the coming quarters (Figure 1.12). At the same time, the ECB has declared that it will reinvest the principal payments from maturing securities purchased under the quantitative easing programme for an extended period of time after the end of its net asset purchases, which will help

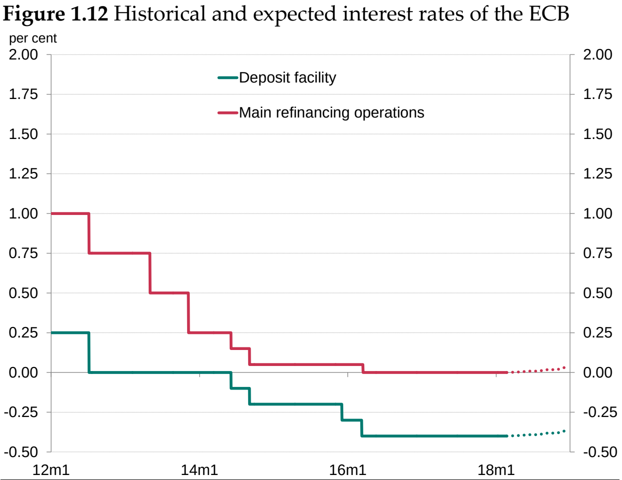
Figure 1.11 Total assets of the major central banks with a forecast



Source: FRED data, NBP calculations.

Forecast until September 2018: for the Eurosystem under an assumption of growth by 30 billion EUR per month, for the Bank of Japan under an assumption of extrapolation of the growth rate observed in period from 2017 Q2 to 2017 Q4, for the Federal Reserve System under an assumption of a decline in accordance with the Fed's reinvestment policy principles and taking into account maturity structure of the Treasuries held by the central bank.

Figure 1.12 Historical and expected interest rates of the ECB



Source: Bloomberg data.

Expected interest rates based on the overnight index swaps for the rates on the deposit facility and the main refinancing operations.

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[2] Temporary factors increasing the prices of natural gas in December 2017 included the worsening weather conditions in the United Kingdom, the pipeline leak in the North Sea and the explosion of the pipeline in Austria.

[3] High cereal stocks, high production of oilseeds, meat and dairy products, as well as low feed costs have all contributed to the fall in prices of agricultural products.

[4] In accordance with the decision of October 2017, the ECB purchased EUR 60 billion assets per month until the end of 2017, and from January 2018 the scale of monthly purchases amounts to EUR 30 billion. The asset purchase programme is intended to be continued at least until September 2018.

preserve expansionary monetary conditions.

By contrast, in the United States, amid very strong labour market conditions and the prospect of a stabilisation of inflation close to the Federal Reserve (Fed) target, the gradual tightening of monetary policy continues. In 2017, the Fed raised the target range for the fed funds rate three times (each time by 0.25 percentage points) to 1.25-1.50%. The median projection of the members of the Federal Open Market Committee (FOMC) indicates three further interest rate hikes in 2018 (in total by 0.75 percentage points). In recent months, due to improvement in economic outlook, market expectations regarding fed funds rate hikes have strengthened and also indicate an increase by 0.75 percentage points in 2018 (Figure 1.13). At the same time, the Fed is gradually reducing its balance sheet by limiting the reinvestment of assets, which additionally contributes to the tightening of monetary conditions in the United States (Figure 1.11).

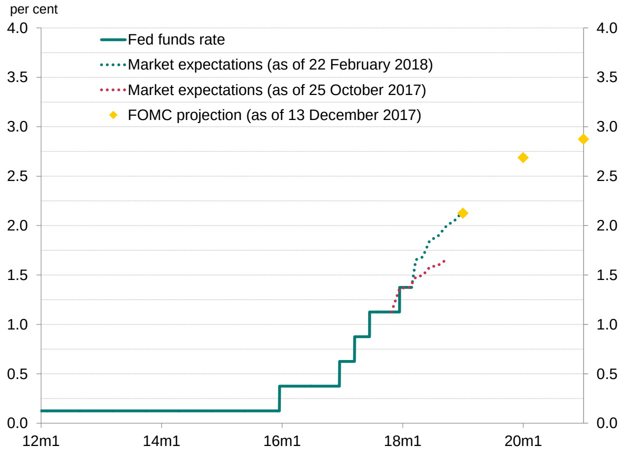
Most of the other central banks in advanced economies are keeping interest rates close to zero. Additionally, the Bank of Japan is continuing its quantitative easing programme, while the Swiss National Bank declares its readiness to carry out currency interventions in order to prevent an excessive appreciation of the Swiss franc. Alongside this, in some advanced economies central banks are gradually limiting the scale of monetary policy accommodation. In particular, in recent months interest rates were raised in the Czech Republic, Canada, and South Korea.

In some of the emerging market economies, in turn, central banks continued to reduce interest rates amid relatively low inflation (Figure 1.14).

1.5 International financial markets

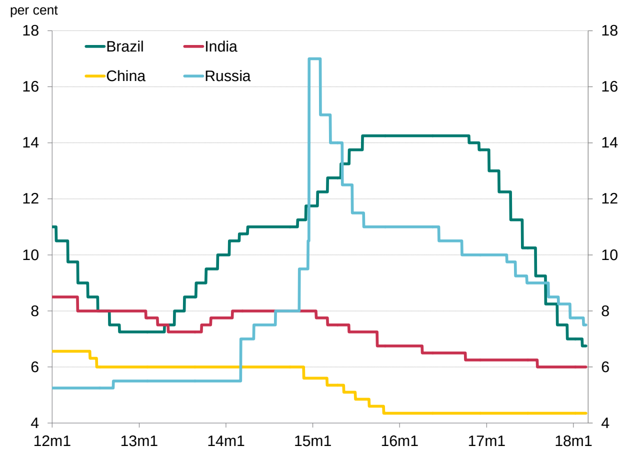
Following a long period of growth, in February 2018 global equity prices fell temporarily, while their volatility increased markedly. The fall in

Figure 1.13 Historical and expected interest rates in the United States (midpoint of the target range for the fed funds rate)



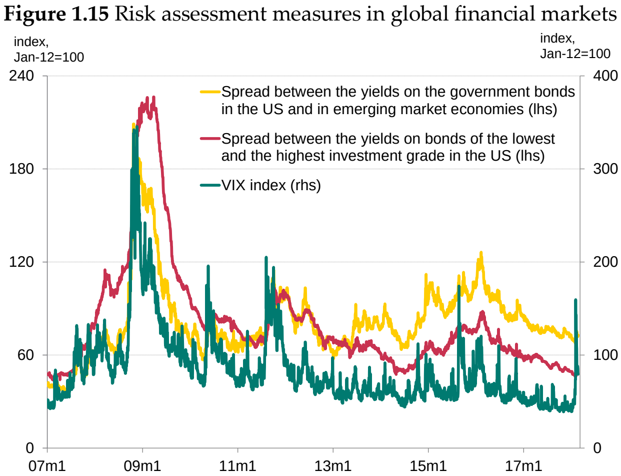
Source: Bloomberg and Fed data.
Market expectations based on fed funds futures contracts.

Figure 1.14 Central banks' interest rates in major emerging market economies



Source: Bloomberg data.

Figure 1.15 Risk assessment measures in global financial markets



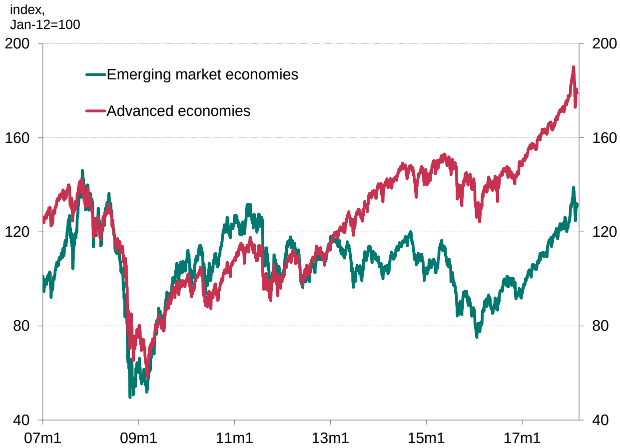
Source: Bloomberg data.

equity prices was related to the increase in the scale of the expected Fed interest rate hikes (see Chapter 1.4 *Monetary policy abroad*). However, so far, this has not been accompanied by a rise in risk assessment in other markets (Figure 1.15; Figure 1.16). Continued relatively positive sentiment was underpinned by stronger global economic recovery (see Chapter 1.1 *Economic activity abroad*) amid still accommodative monetary conditions in many major economies, including the euro area and Japan.

The temporary fall in global equity prices was accompanied by an increase in bond yields (Figure 1.17). Yields rose, in particular, in the United States as the expectations of interest rate hikes by the Fed strengthened. In the euro area, in turn, bond yields rose to a slightly lesser extent and remained very low. This was backed by the expected continuation of the accommodative monetary policy by the ECB. In view of the favourable economic outlook for emerging market economies, government bond yields in these markets rose only slightly, despite a significant increase in bond yields in the United States.

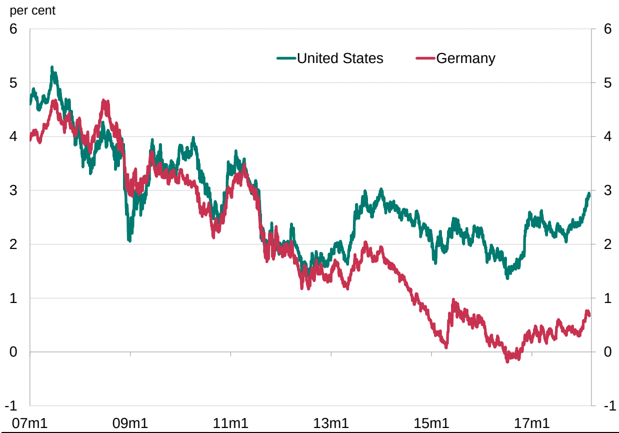
The favourable outlook for emerging market economies was also conducive to the appreciation of the currencies of some of these economies, mainly against the US dollar (Figure 1.18). At the same time, in response to the stronger-than-expected improvement in economic conditions in the euro area, the euro also strengthened markedly against the US dollar, and following this so did the currencies of the Central and Eastern Europe.

Figure 1.16 Global equity prices



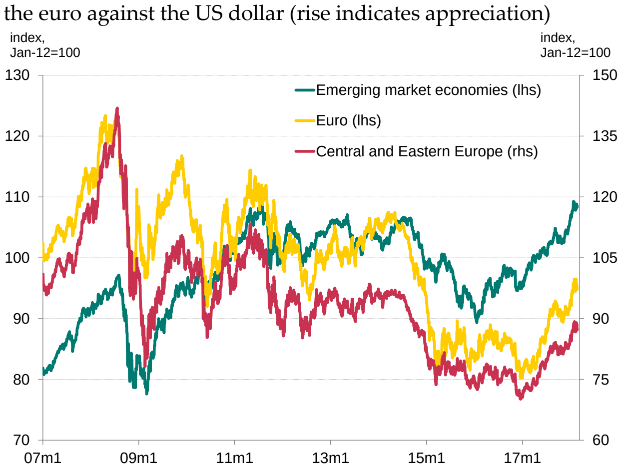
Source: Bloomberg data.
Advanced economies – *MSCI World Equity Index*, emerging market economies – *MSCI Emerging Markets Equity Index*.

Figure 1.17 Global bond yields



Source: Bloomberg data.

Figure 1.18 Exchange rates of emerging markets currencies and the euro against the US dollar (rise indicates appreciation)



Source: Bloomberg data.
Emerging market economies – *MSCI Emerging Market Currency Index*; Central and Eastern Europe – GDP-weighted average of exchange rates of the Polish zloty, the Czech koruna, and the Hungarian forint against the US dollar.

2 Domestic economy

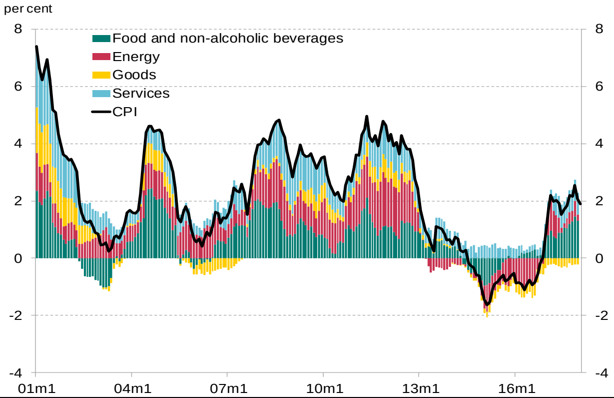
2.1 Consumer prices

Annual consumer price growth in Poland remains moderate (in January 2018 it stood at 1.9% y/y[5]; Figure 2.1) due to still limited, although gradually rising, internal demand pressure (Figure 2.3). At the same time, import price growth continues low, due to moderate inflation in the major trading partners of Poland and a stronger zloty than a year ago.[6] This is accompanied by weakening energy price growth. However, the main driver pushing up inflation is the high, yet declining, food price growth.

Core inflation is still low despite a pickup in consumption growth (Figure 2.2). The persistence of core inflation at a low level is supported by a further decline in the prices of non-food goods (-0.7% y/y in December 2017), coupled with stable growth in services prices in recent months (2.6% y/y).

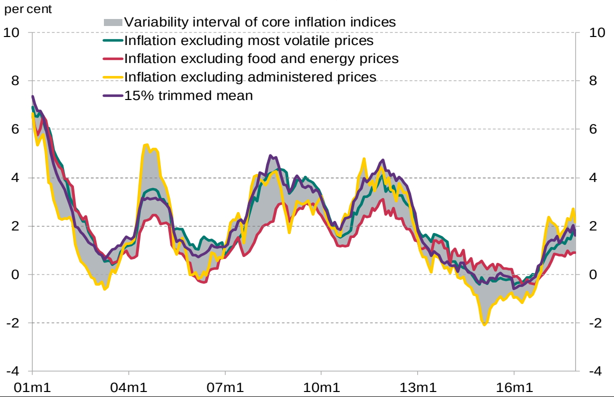
Annual growth of energy prices in 2017 was significantly higher than in previous years, although in recent months it gradually decelerated, mainly due to the declining annual growth of fuel prices. The decline in the annual growth of fuel prices was mainly caused by the fading of the statistical base effects related to strong growth in oil prices at the end of 2016. Another factor containing fuel price growth was the appreciation of the zloty. The decrease in fuel price growth was accompanied by higher annual growth in prices of heating fuels.[7]

Figure 2.1 Composition of CPI inflation (y/y)



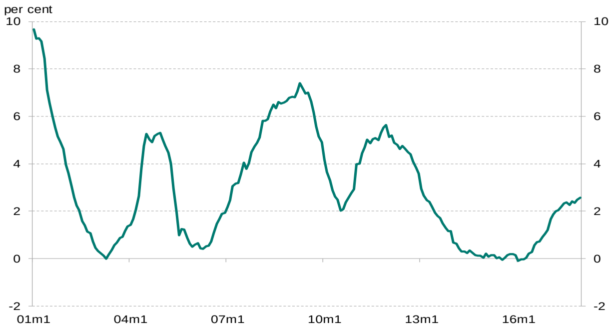
Source: GUS data, NBP calculations.

Figure 2.2 Core inflation indices (y/y)



Source: GUS data, NBP calculations.

Figure 2.3 Inflation index of goods sensitive to domestic economic conditions (y/y)



Source: GUS data, NBP calculations.

The aggregate of the CPI components sensitive to changes in domestic economic conditions. For more on the index calculation methodology, see: Hałka, A., Kotłowski, J. (2014), *Does the domestic Output Gap Matter for Inflation in a Small Open Economy*, Eastern European Economics, vol. 52.

[5] Data on inflation in January 2018 may be revised as a result of the change in the weights in the CPI basket carried out by GUS at the beginning of each year. Due to the preliminary nature of the data, GUS has not published information on price changes of all the components of the CPI basket.

[6] In 2017 Q3 import price growth stood at 1.5% y/y compared to 1.4% y/y in the previous quarter.

[7] The annual growth in prices of heating fuels was the result of an increase in coal prices, both globally and in the domestic market, where quality standards were tightened as part of measures to reduce air pollution.

Higher food prices than a year earlier were connected, in particular, with lower domestic supply of most fruit and some vegetables (the effect of unfavourable weather conditions in spring and summer 2017). The prices of meat, dairy products and butter increased as well, which was driven by the temporary decline in their production around the world, amid continued high global demand. Internal demand also rose along with rising household income, which additionally supported higher growth of domestic food prices.

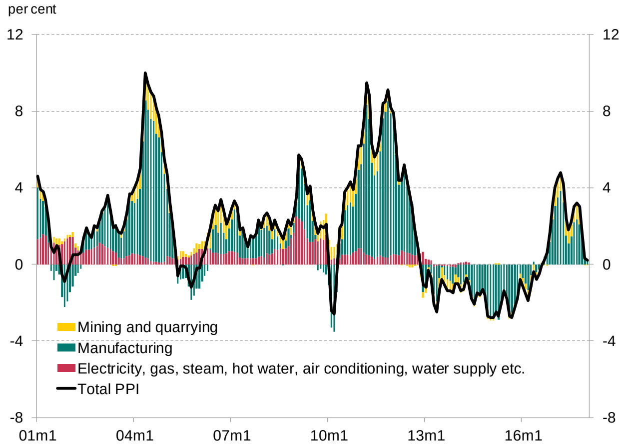
In recent months, annual producer price growth slowed down, despite the persistent robust growth of industrial output (Figure 2.4). This was due to the waning of statistical base effects related to the growth of some commodity prices at the end of 2016 and also the appreciation of the zloty. At the same time, growth in export producer prices decelerated more sharply than domestic producer prices.

Following some rise in previous months, the opinions of surveyed consumers on future inflation declined in January and February. At the same time, inflation expectations of enterprises rose (Figure 2.5). Also the economists surveyed by NBP currently expect slightly higher inflation. However – similar to financial sector analysts – they still expect that inflation will be close to the NBP target in the coming quarters (Table 2.1).

2.2 Demand and output

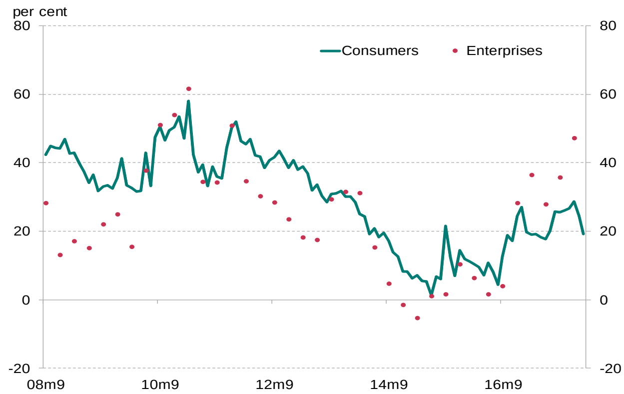
Economic conditions in Poland remain favourable, and GDP growth picked up markedly in the second half of 2017 (to 5.1% y/y in 2017 Q4; Figure 2.6). Increasing consumer demand – supported by rising employment and accelerating wages, very good consumer sentiment and disbursement of benefits – continues to be a significant driver of GDP growth. In 2017 Q4, there was also a strong recovery in investment. Investment accelerated

Figure 2.4 Composition of PPI inflation (y/y)



Source: GUS and Eurostat data

Figure 2.5 Balance statistics of consumer and enterprise inflation expectations



Source: GUS and NBP data, NBP calculations.

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

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

per cent	Survey conducted in:				
	17q1	17q2	17q3	17q4	18q1
Reuters Survey, inflation expected in 4 quarters	2.0	1.8	2.2	2.4	2.2
NBP Survey, inflation expected in 4 quarters	2.0	2.0	2.3	2.4	-
NBP Survey, inflation expected in 8 quarters	2.3	2.2	2.4	2.6	-

Source: NBP and Reuters data.

Inflation expectations of the financial sector analysts are proxied by the median forecast of the analysts surveyed by Thomson Reuters in the last month of a given quarter, except for 2018 Q1, when February forecast was used.

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

mainly in the public sector, however gross fixed capital formation in the corporate sector probably increased as well. The growth in economic activity was additionally supported by rising exports, benefiting from strong economic conditions in the external environment of the Polish economy. At the same time, amid accelerating domestic demand, imports growth increased as well. Consequently, net exports had a negative contribution to GDP growth in 2017 Q4.

2.2.1 Consumption

Consumer demand continues to be an important driver of GDP growth. In the second half of 2017, private consumption growth remained close to its level recorded in the first half-year (4.8% y/y in 2017 Q3 and 4.9% y/y in 2017 Q4; Figure 2.7). Consumption growth is supported by rising household disposable income due to the continued increase in employment, a pickup in wage growth and the disbursement of benefits under the "Family 500 plus" programme. Robust consumer sentiment also has a positive effect on consumption growth (Figure 2.8). However, real private consumption growth is limited by a rise in consumer prices, which is higher than in previous years.

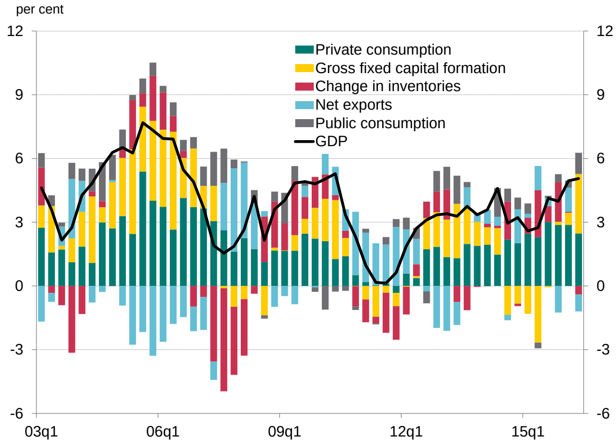
2.2.2 Investment

Investment picked up markedly in the second half of 2017 (to 11.3% y/y in 2017 Q4; Figure 2.9). Gross fixed capital formation rose on the back of accelerated public investment, coupled with a recovery in corporate investment. Housing investment also continued to rise.

Public investment growth accelerated significantly in the second half of 2017 as the absorption of EU funds gradually increased. The pickup in public investment concerned, in particular, investment of local government units.[8]

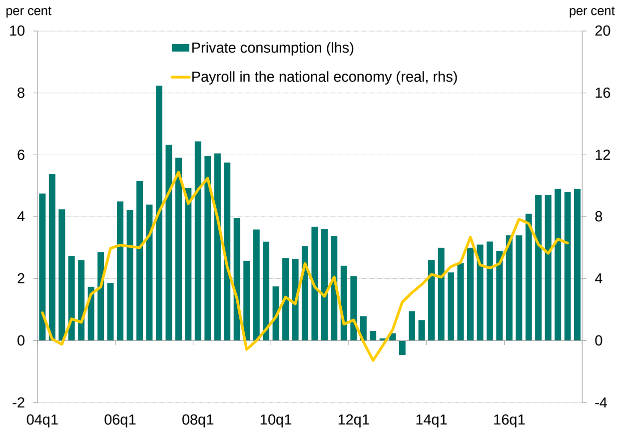
[8] In 2017 Q3, local government investment grew by 48.8% y/y.

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



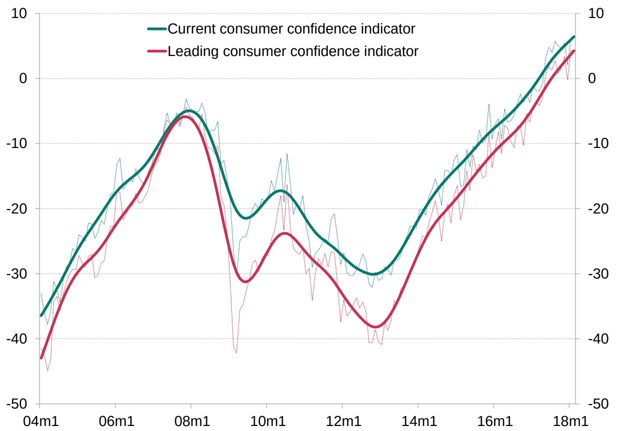
Source: GUS data.

Figure 2.7 Growth in private consumption and wage bill in the national economy (y/y)



Source: GUS data, NBP calculations.

Figure 2.8 Consumer confidence indicators

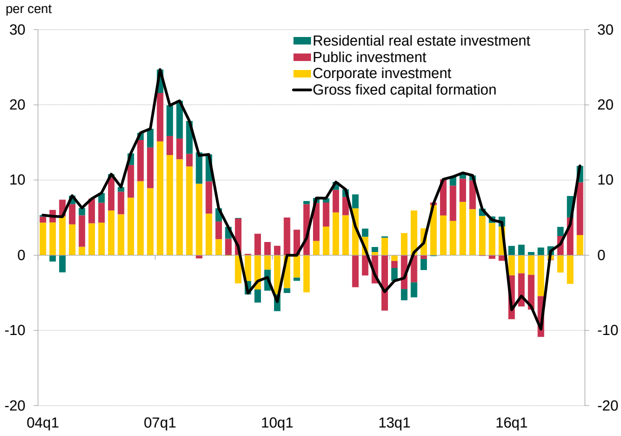


Source: GUS data, NBP calculations.
The dashed line denotes raw data, while the solid line denotes HP filtered data.

In 2017 Q3, investment outlays of a substantial part of enterprises also rose, yet due to a fall in the investment outlays of energy firms, investment growth of the whole sector remained negative. In 2017 Q4, the recovery in investment extended already to the entire sector. Considering the optimistic demand outlook and high capacity utilisation, corporate investment activity will probably gather pace in 2018. This is indicated by the findings of NBP surveys, according to which firms are planning to increase both the number and the scale of investment projects for implementation.

In the second half of 2017, housing investment growth also gained momentum. Robust housing demand is supported by an increase in households' disposable income, which boosts their capacity to finance home purchases, especially given the relatively low interest on loans. At the same time, households' propensity to make such investments is also high, owing to very strong sentiment of those agents, including highly positive assessments of their future financial situation.

Figure 2.9 Investment in the economy and its major components (y/y)



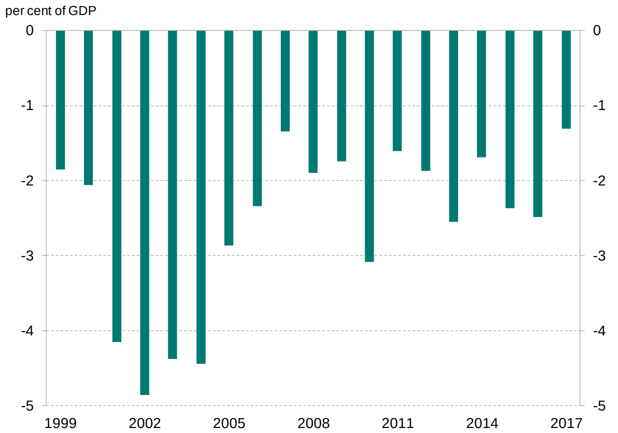
Source: GUS data, NBP calculations.
NBP estimates, seasonally adjusted

2.2.3 Public finance

In view of the favourable economic conditions, rising employment and acceleration in wage growth, as well as improved tax collection, mainly in the case of VAT, the performance of the general government sector (ESA2010) in 2017 probably improved significantly compared to 2016 (at that time the deficit of the sector amounted to 2.5% of GDP). This is indicated by very good data on the general government balance after the first three quarters of 2017 and the low state budget deficit in 2017 (PLN 25.4 billion; Figure 2.10). The good outturn of the state budget was a result of a significant increase in budget revenue (11.4% y/y), amid relatively low expenditure growth (4.2% y/y).

Fiscal policy in 2018 will be similar to that implemented in 2017. On the revenue side, a

Figure 2.10 State budget balance



Source: Ministry of Finance data.

continuation of measures to improve tax collection (VAT and income taxes) is expected to generate additional revenue of 0.6% of GDP, while keeping the most important tax rates unchanged (except for the increase in the tax free amount in the case of personal income tax). In turn, further growth in capital expenditure of the general government sector (including the co-financing of projects implemented with EU funds under the financial framework 2014-2020) and higher social expenditure connected with the lowering of the statutory retirement age will to a large extent be offset by lower growth in expenditure on public consumption. In particular, this will result from the wage freeze for the majority of budget sector employees assumed in the *Budget Act for 2018.*

In 2018 the deficit of the general government sector (ESA2010) is expected to remain at a similar level to that of 2017.

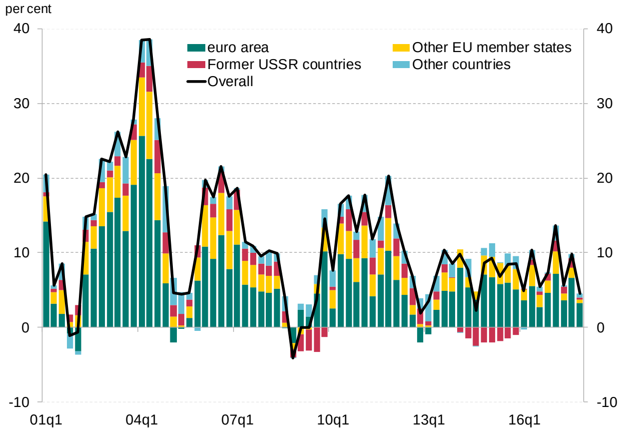
2.2.4 External trade

Favourable economic conditions at home and in the external environment of the Polish economy are conducive to a further increase in Poland's foreign trade turnover.[9]

In the second half of 2017, the value of exports rose at a pace close to its multi-year average (Figure 2.11). However, in 2017 Q4 export growth slowed down somewhat when compared to Q3, which was partially accounted for by a fall in trade within the global supply chains.

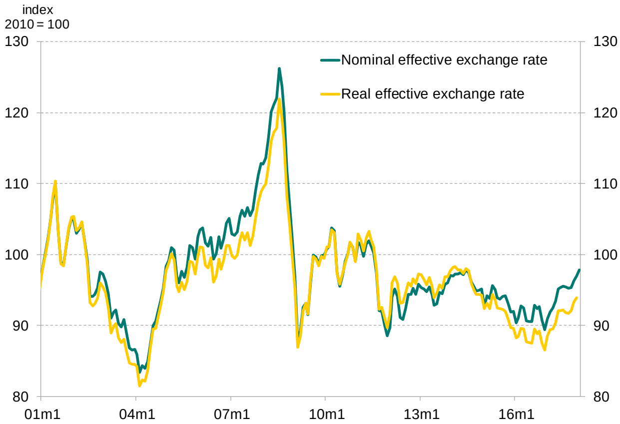
Export growth is supported by strong economic conditions in the euro area, translating into fairly robust growth of sales to this economy across all the main categories of goods. At the same time, export growth is contained by the persistent slowdown in imports of passenger cars in the euro area. The growth in Polish exports is also fuelled

Figure 2.11 Contribution to export growth by destination (y/y)



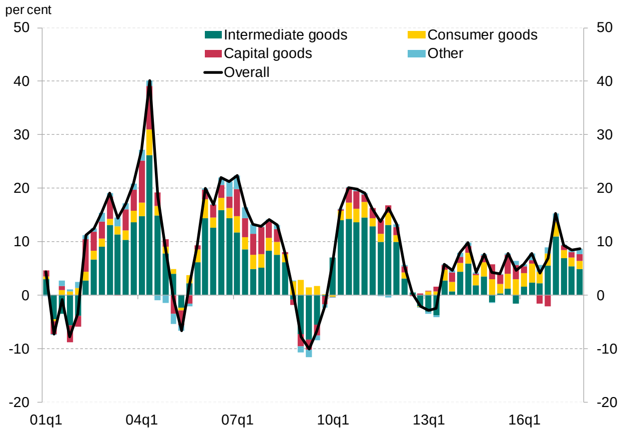
Source: GUS data, NBP calculations.

Figure 2.12 Nominal and real effective exchange rate (rise indicates appreciation)



Source: BIS data.

Figure 2.13 Contribution to import growth by commodity (y/y)



Source: GUS data, NBP calculations.
Data based on 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.

[9] In this chapter, the GUS data on exports and imports of goods in PLN terms is analysed. Trends in trade of services are not described, as no detailed data on the breakdown of the value of trade by the type of service and its destination is available.

by the gradual rebound in sales to the former USSR countries, which has been ongoing since 2016.

As a result, in the second half of 2017, Polish external sales were rising at a faster pace than global exports, which suggests that the competitiveness of Polish production remains strong. The significant rise in Polish exports took place despite the zloty exchange rate stronger than a year ago. The profitability of exports in euro terms remained high, whereas at the end of 2017 the average exchange rate of the zloty against the US dollar approached the borderline export profitability exchange rate as declared by enterprises (Figure 2.12).

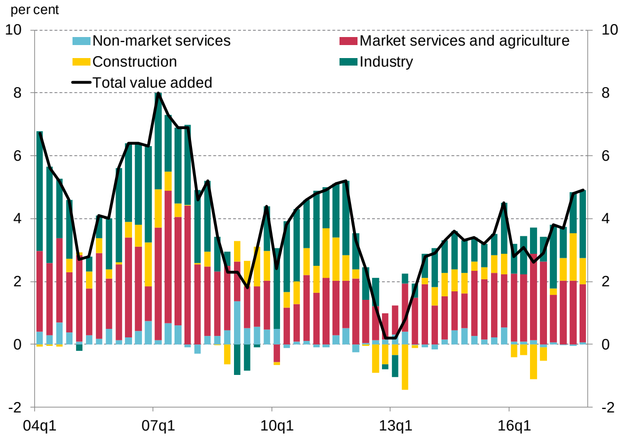
The value of Polish imports, in turn, grew in the second half of 2017 at roughly the same rate as in 2017 Q2 (Figure 2.13), despite the appreciation of the zloty, which had a downward effect on import prices. This was due to a slight acceleration in growth of import volumes across all the major groups of goods, which was related to the continued rise in domestic demand and exports that are characterised by considerable import intensity.

2.2.5 Output

Sectoral decomposition of GDP growth indicates that economic growth encompasses all sectors. In the second half of 2017, services and industry continued to make significant contributions to GDP growth, while construction played a larger role than in the first half of the year (Figure 2.14).

Business conditions in industry remained favourable. Output growth in the second half of 2017 was higher than in the first half of the year and exceeded its multi-year average.[10] The pickup in economic activity in industry stemmed from faster growth in consumer and intermediate goods

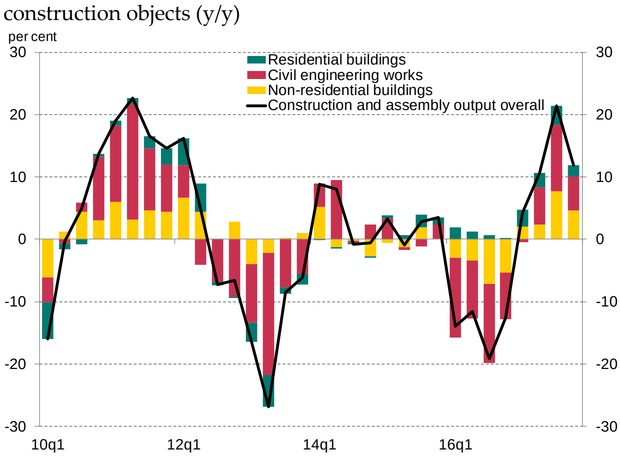
Figure 2.14 Growth of gross value added by sectors (y/y)



Source: GUS data, NBP calculations.

2017 Q4 data implied from GUS annual data.

Figure 2.15 Construction and assembly output growth by construction objects (y/y)



Source: GUS data, NBP calculations.

[10] Industrial output growth in the second half of 2017 amounted to 7.2% on average, compared to 5.7% on average in the first half of the year.

output, supported by both rising external demand (see Chapter 1.1 *Economic activity abroad*) and stable growth in domestic consumer demand. In 2017 Q4, along with the recovery in domestic investment, growth in production of investment goods also increased. Resilient business confidence and strong growth in industrial output in January indicate that the positive trends in this sector will continue in the coming quarters.

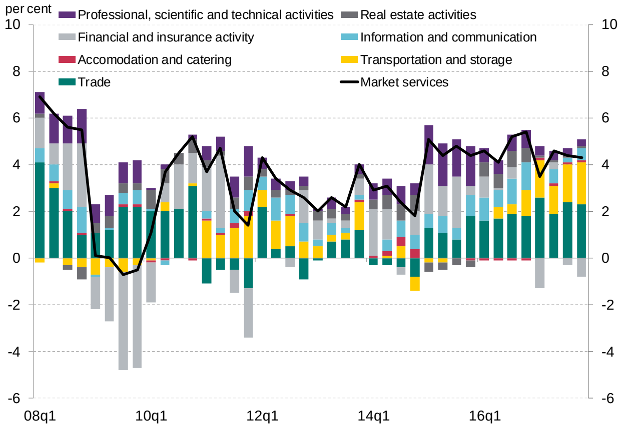
Output growth in construction, positive since the beginning of 2017, was higher in the second half of the year than in the first half (Figure 2.15).[11] January data indicates the continuation of this trend in 2018 Q1. The recovery in construction output was supported by gradually rising absorption of EU funds from the financial framework 2014-2020 that translated into growth in infrastructure construction. Due to the pickup in the growth of construction of office, commercial and industrial buildings, output growth in commercial construction also increased. At the same time, output in residential construction continued to rise.

Business conditions in market services also remain favourable. The rate of growth in this sector's value added is stable and slightly higher than its multi-year average. Available data indicates that trade as well as transportation and storage continue to be the main drivers of growth in this sector (Figure 2.16).

2.3 Financial situation in the enterprise sector

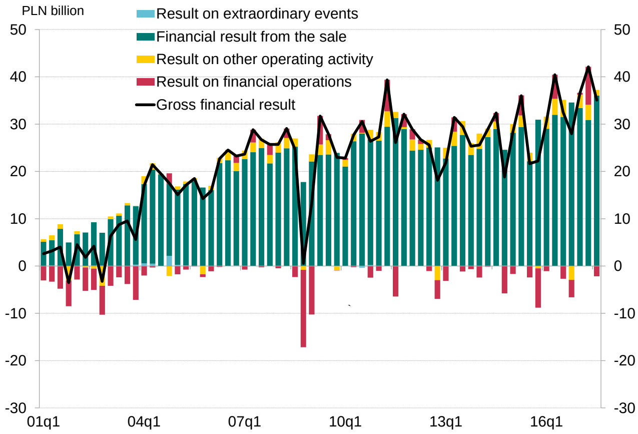
The favourable economic conditions are conducive to maintaining good financial performance in the enterprise sector. High domestic and foreign

Figure 2.16 Growth of gross value added in market services by branches (y/y)



Source: GUS data, NBP calculations.

Figure 2.17 Gross financial result of enterprises and its components



Source: GUS data, NBP calculations.
Data from the survey conducted by GUS on revenues, costs, financial outcome and investment (based on F-01/I-01 forms).

[11] In the second half of 2017, construction and assembly output growth stood at 15.9%, compared to 8.0% in the first half of the year. However, in 2017 Q4 the recovery in this sector slowed down somewhat compared to 2017 Q3 due to slower output growth in construction of roads, railways and power networks, and a marked slowdown in construction of office and commercial buildings.

demand for Polish products is boosting sales revenue (growth of 9.2% in 2017 Q3). This is accompanied by an increase in sales costs – particularly rapid in the case of raw materials – which, however, has been slightly slower than growth in sales revenue. As a result, profit from sales, i.e. the core business activity of enterprises, was higher than a year ago (by 14.4%; Figure 2.17). The improved sales result applied to almost all sectors, although the strongest growth in profit, supported by rising prices of energy commodities, was seen in the energy and mining sectors.

Alongside this, the result on other business activities was significantly lower in 2017 Q3 than in the corresponding period of 2016, when it temporarily rose sharply due to the sale of fixed assets by some enterprises. Despite the fall, the result on these activities was close to the long-term average, and the gross financial result of enterprises improved (by 8.1% y/y).

Profitability and liquidity indicators also point to the sound financial position of enterprises. Despite the increase in costs, sales profitability rose, and net turnover profitability was close to the level recorded in 2016 Q3 (Table 2.2). At the same time, the share of profitable firms remains sizable. The liquidity position of enterprises continues to be high, although it was somewhat lower due to rising operational costs.

2.4 Labour market

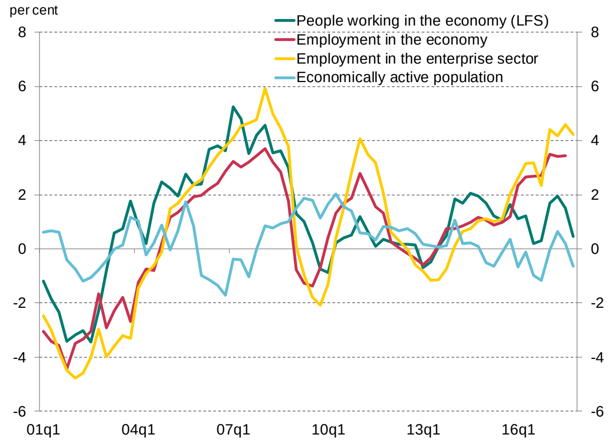
Gradually increasing demand in the economy supports further growth in labour demand, as

Table 2.2 Selected financial efficiency ratios in the enterprise sector

percent	2016				2017		
	q1	q2	q3	q4	q1	q2	q3
Sales profitability ratio	4.9	5.1	5.0	5.0	5.1	4.6	5.2
Net turnover profitability	4.2	5.5	4.2	3.1	4.4	5.3	4.1
Percentage of profitable enterprises (sa)	76.5	76.4	75.8	75.2	75.2	74.3	74.4
1st degree liquidity ratio	37.4	37.2	38.5	38.8	37.4	35.3	36.3

Source: GUS data, NBP calculations.
Data from the survey conducted by GUS on revenues, costs, financial outcome and investment (based on F-01/I-01 forms).

Figure 2.18 Annual growth in employment and economically active population



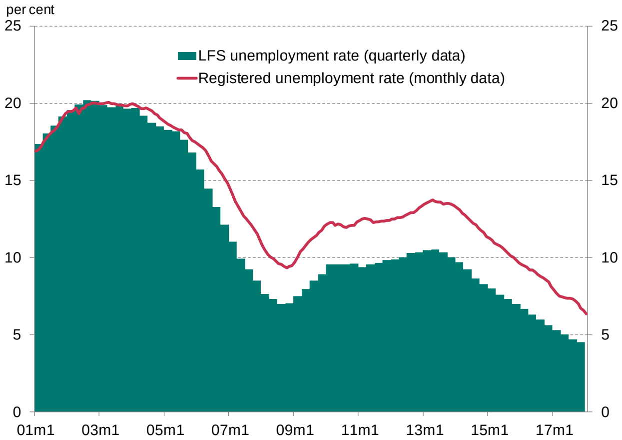
Source: GUS data, NBP calculations.
People working in the economy (LFS) is a survey-based estimate of the number of working persons, regardless of employment relationship. Employment in the economy denotes the enterprise-reported average number of persons performing paid work at the end of each reporting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

indicated by the rising number of vacancies.[12] High labour demand translates into further employment growth (Figure 2.18), as evidenced by both the Labour Force Survey data (LFS; the number of working persons rose by 0.5% y/y in 2017 Q4) and the corporate sector data (employment rose by 3.8% y/y in January 2018).[13]

Growth in employment, which has already lasted for 5 years, takes place amid relatively stable labour supply (Figure 2.18). The impact of the decline in the working age population (by 0.4% y/y in 2017 Q4) on labour supply is limited by the growth in labour force participation among the young (20-24 years old) and pre-retirees (55-64 years old). High demand for employees and stronger wage growth than in previous years encourage to enter and remain in the labour market. At the same time, according to preliminary LFS data, labour force participation in 2017 Q4 remained at a similar level as in the previous quarter.

Employment growth amid stable labour supply translates into a further fall in unemployment, as indicated by both the LFS and the labour office data (unemployment stood at 4.5% in 2017 Q4 and 6.3% after seasonal adjustment in January 2018, respectively; Figure 2.19). Therefore, a growing number of employers are reporting vacant positions (42% of companies in 2017 Q4). Alongside this, the percentage of companies that

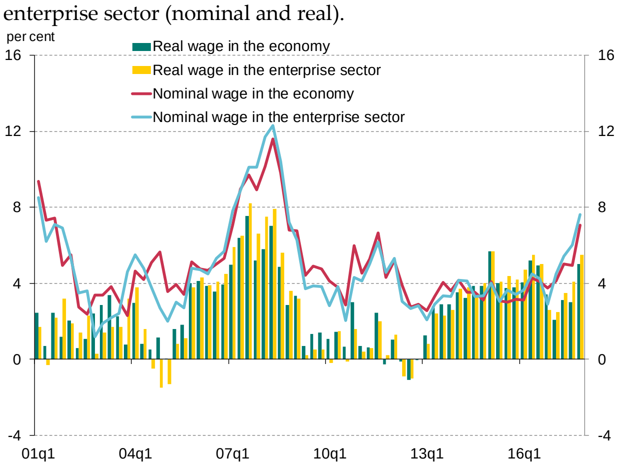
Figure 2.19 Unemployment rate, seasonally adjusted data



Source: GUS data, NBP calculations

Seasonally adjusted NBP data. There are two 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.

Figure 2.20 Annual wage growth in the economy and in the enterprise sector (nominal and real).



Source: GUS data.

[12] In January 2018, the number of vacancies posted at labour offices rose by 17.8% y/y, while the Job Offer Barometer, measuring the number of vacancies posted online, rose by 21.1% y/y.

[13] Annual growth in the number of working persons according to the LFS is lower than growth in employment in the corporate sector mainly due to the switch of employees from temporary forms of employment – and perhaps also the grey economy – to permanent contracts. In 2017 Q4, the number of people employed on temporary contracts fell by 3.9% y/y, while the number of those employed on permanent contracts increased by 2.5% y/y. In 2017 Q4, the fall in the number of both individual farmers (by 8.0% y/y) and the assisting family members (by 7.6% y/y) also contributed to the decline in growth in the number of working persons according to the LFS. Employment growth in the enterprise sector is, in turn, increased by the annual update by GUS of the sample of companies employing more than nine employees.

consider problems with finding employees as a barrier to development stands only at 9.7%.[14]

Consequently, the position of employees in wage negotiations is improving and the share of companies forecasting wage increases is rising (to 39.4% in 2017 Q4 from 18.8% in the previous quarter).[15] This is reflected in the acceleration in wage growth in the economy (to 7.1% y/y in 2017 Q4; Figure 2.20).[16]

The higher wage growth than in previous years is accompanied by a pickup in labour productivity growth, stemming from an acceleration in GDP growth. As a result, growth in unit labour costs remains moderate (Figure 2.21).

2.5 Monetary policy and asset markets

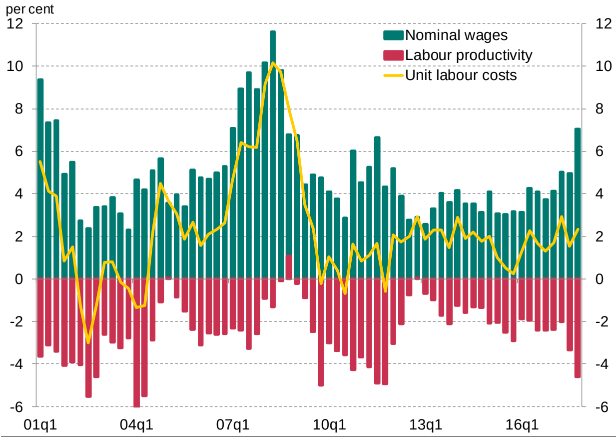
The Monetary Policy Council keeps NBP interest rates unchanged, including the reference rate at 1.50%. The majority of market participants currently expect NBP interest rates to remain stable in 2018, while some of them await an increase in the NBP rates further ahead (Figure 2.22).

2.5.1 Financial market

In recent months, government bond yields in Poland have been relatively stable, while yields in developed markets, particularly in the United States, have increased markedly (see Chapter 1.5 *International financial markets;* Figure 2.23). Yields on 10-year government bonds currently stand at 3.4%.

In turn, after an earlier increase, equity prices in Poland have declined over the recent past. The fall in equity prices reflected a change in sentiment in

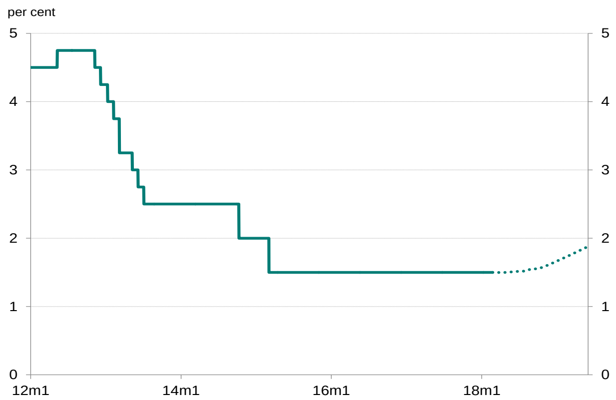
Figure 2.21 Growth of unit labour cost in the economy (y/y) and its determinants



Source: GUS data, NBP calculations

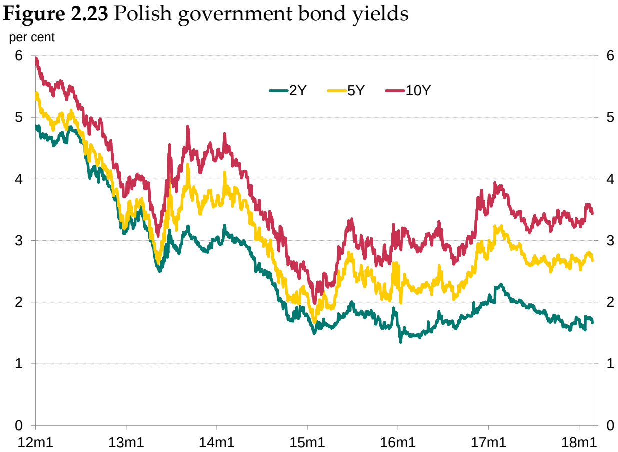
Labour productivity growth is a factor limiting unit labour cost growth; hence in the graph it assumes negative values.

Figure 2.22 NBP reference rate and FRA-implied 3M interest rate (as of 22 February 2018)



Source: NBP and Bloomberg data, NBP calculations.

Figure 2.23 Polish government bond yields



Source: Bloomberg data.

[14] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector*, NBP, January 2018.

[15] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector*, NBP, January 2018.

[16] The increase in wage growth resulted partly from one-off factors, including higher than a year ago bonuses in the mining industry and severance payments for persons who retired after the Act reducing the statutory retirement age came into force. In January 2018, wages in the corporate sector grew at a similar pace as in 2017 Q4 (7.3% y/y against 7.6% in 2017 Q4).

the global markets and took place despite positive signals coming from the Polish economy (Figure 2.24).

At the same time, strong data on the Polish economy has supported the appreciation of the zloty against all the major currencies, including the euro (by 3.4% since the beginning of October 2017), the US dollar (by 8.4%) and the Swiss franc (by 4.0%; Figure 2.25). The zloty has strengthened most significantly against the US dollar due to the appreciation of the euro against this currency (see Chapter 1.5 *International financial markets*).

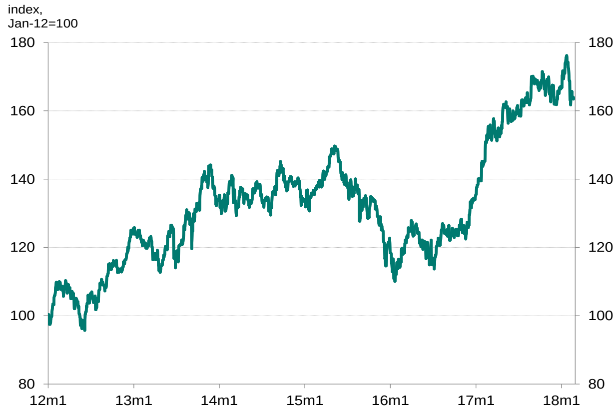
2.5.2 Real estate market[17]

Situation in the real estate market in Poland is mixed. In the residential real estate market, high demand is accompanied by further increase in the supply of flats, which contributes to a moderate increase in their prices (Figure 2.26; Figure 2.27). In the commercial real estate market, in turn, demand is stable, while supply is high and rising, which translates into slightly decreasing rents.

Demand for flats is supported by rising employment and higher growth in wages (see Chapter 2.4 *Labour market)*, along with very good consumer sentiment. Other factors behind the increase in home sales include the relatively low cost of mortgage loans and the expected relatively high profitability of home rental as compared with other forms of household investment. Demand for housing was also supported by the government scheme "Flat for the Young", although its impact was marginal.[18]

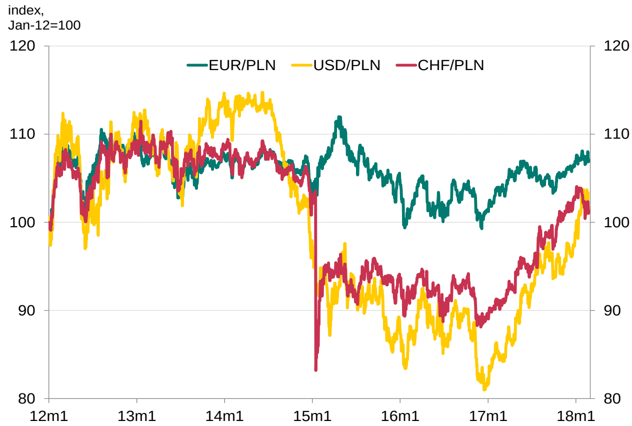
High demand for housing and the optimistic expectations for trends in the residential real estate

Figure 2.24 The main stock market index in Poland (WIG)



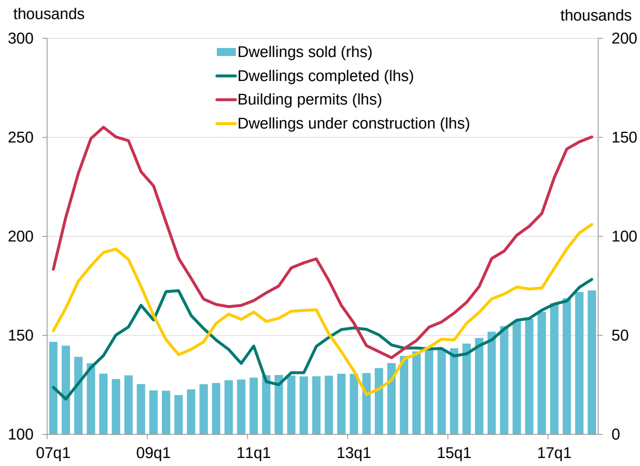
Source: Bloomberg data.

Figure 2.25 Zloty exchange rate (rise indicates appreciation)



Source: Bloomberg data.

Figure 2.26 Residential construction in Poland (4-quarter rolling sum)



Source: GUS and REAS data, NBP calculations.

Sales data is based on 6 major markets in Poland (Warszawa, Kraków, Trójmiasto, Wrocław, Poznań i Łódź)

[17] For more information on the situation in the real estate market in Poland see the NBP report: *Information on home prices and the situation in the housing and commercial real estate market in Poland in 2017 Q3*, NBP, December 2017.
[18] In 2017 Q3, the pool of housing subsidies under the "Flat for the Young" scheme for 2017 was used up. At the beginning of 2018, Bank Gospodarstwa Krajowego (BGK) started to accept applications for 2018, i.e. for the last year of the operation of the scheme. During two days in January 2018 BGK accepted 12.7 thousand applications, which exhausted the pool of housing subsidies for this year (PLN 381 million).

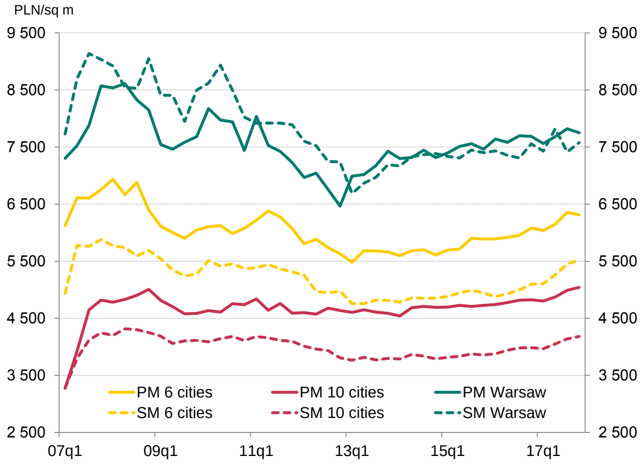
market in the coming quarters incline developers to further increase housing supply (Figure 2.26). This is evidenced by the steadily rising number of building permits issued and dwellings under construction. Despite the expanding supply, the average selling time of flats in the primary market is gradually declining, which indicates that the shortage of housing supply is likely to worsen. Moreover, given some rise in the prices of building materials and a pickup in wage growth (see Chapter 2.4 *Labour market*), construction costs increased somewhat. Against this backdrop, prices in the residential real estate market are rising moderately.[19]

Alongside that, in the commercial real estate market, demand for rental remains stable. At the same time, supply is growing strongly, which is reflected in large space of commercial real estate put into use and being under construction. This development mainly refers to office and retail real estate. Robust growth of supply in commercial real estate market is underpinned by low profitability of comparable investments in the external environment of the Polish economy and high availability of external funding amidst very low interest rates abroad, including in the euro area (see Chapter 1.4 *Monetary policy abroad*). As a result, supply in this market exceeds demand, which is evidenced by relatively high vacancy rate. Consequently, rents in the commercial real estate market are declining slightly.

2.6 Money and credit

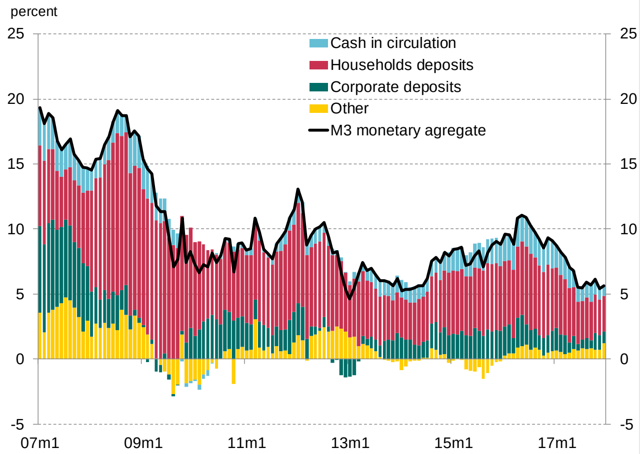
After several quarters of slowdown, growth in the broad money aggregate (M3) stabilised in the second half of 2017 (in 2017 Q3 and Q4, M3 growth

Figure 2.27 Average prices of flats in major cities in Poland



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

Figure 2.28 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.

[19] In 2017 Q4 transaction housing prices in the 17 largest cities rose by an average of 2.9% y/y in the primary market and by 4.8% y/y in the secondary market. The observed price increases were to a certain extent driven by larger sales of high quality, prime location dwellings.

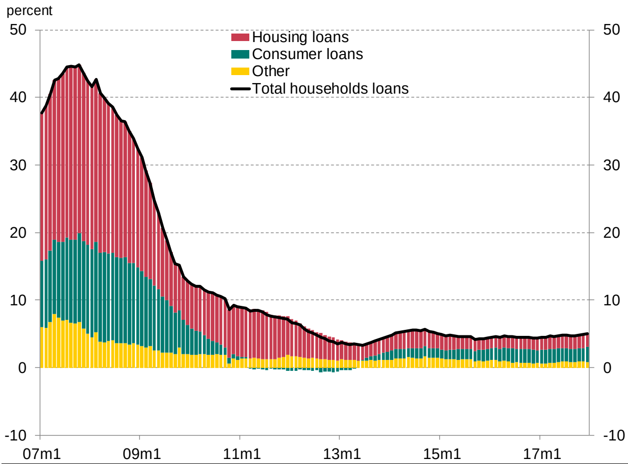
stood at 5.7% y/y; Figure 2.28).[20] The main driver of M3 growth was the increase in current household and corporate deposits.[21]

In 2017, the growth of broad money supply continued to be driven by a stable rise in loans to the non-financial sector[22], which for over a dozen quarters has been running close to nominal GDP growth.[23] Consequently, the ratio of outstanding loan portfolio of non-financial sector to GDP was stable and stood at around 51% at the end of 2017 Q4.

Household loans continued to be the most important source of lending growth. For several years growth of these loans has been stable (in 2017 Q4 it stood at 4.9% y/y; Figure 2.29), and currently it is driven almost equally by the increasing debt from consumer and housing loans. However, consumer loan growth remains significantly higher than housing loan growth (8.1% y/y and 3.4% y/y respectively in the second half of 2017). At the same time, the growth rate of zloty-denominated housing loans continued to be relatively high, while the fall in FX housing loans deepened slightly. The increase in household loans is supported by the favourable labour market conditions and the relatively low interest rate on loans. Demand for housing loans is additionally fuelled by a reduction in loan margins, and for consumer loans by a reduction in non-interest costs.[24]

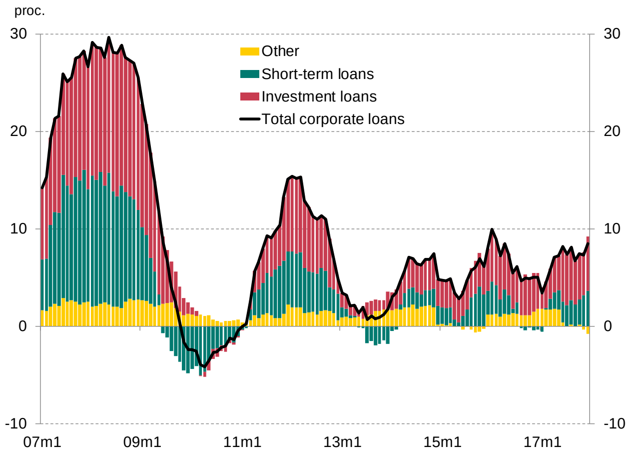
Corporate loans also made a significant

Figure 2.29 Composition of growth in loans to households (y/y)



Source: NBP data.
The category *Other loans* covers operating and investment loans to microenterprises.

Figure 2.30 Composition of growth in loans to companies (y/y)



Source: NBP data.
The category *Other loans* covers i.a. loans for security purchases and export loans.

[20] In this chapter, growth in the broad money aggregate (M3) and loans is defined as the three-month average of the annual growth in transaction changes in the given quarter.

[21] Current deposits are funds deposited on current accounts, savings accounts or other forms of deposits, which can be at sight and without any or significant costs paid in the form of cash or used for the regulation of payments.

[22] In this chapter, lending growth for a given sector is defined as the annual growth of transaction changes in receivables of the monetary financial institutions from this sector.

[23] In the second half of 2017, growth in the net indebtedness of the central government sector in banks gave the strongest boost to broad money growth.

[24] *Senior loan officer opinion survey on bank lending practices and credit conditions. 2018 Q1*, NBP, February 2018. In the case of housing loans, an additional driver of demand for loans in 2017 Q3 was the "Flat for the Young" scheme. At the same time,, a slight tightening of credit standards by the banks contained growth of household loans.

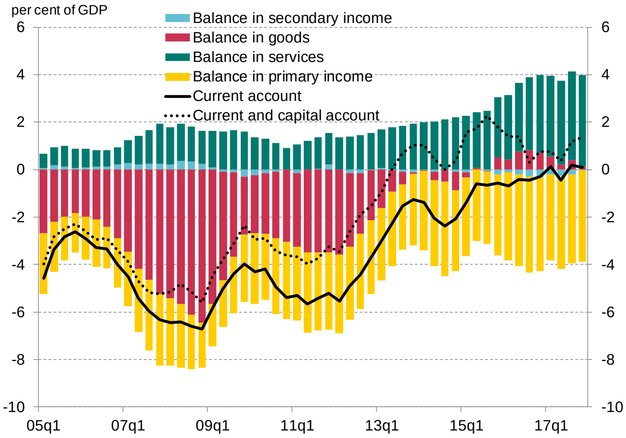
contribution to the rise in lending to the non-financial sector. Growth of these loans in the second half of 2017 was slightly higher than in the first half of the year (7.5% y/y against 6.1% y/y respectively; Figure 2.30). In particular, growth of corporate loans was supported by the recovery in investment. However, a slight tightening by banks of credit standards and terms on loans (the collateral requirements were increased and non-interest loan costs were raised) constrained corporate loan growth.[25] The tightening of the banks' lending policy mainly affected loans to small and medium-sized enterprises.

2.7 Balance of payments

Strong domestic economic conditions support a balanced current account position. In 2017 Q3, the current account balance improved significantly to reach 0.2% of GDP. Monthly data for the period October-December suggest that current account remained balanced also in 2017 Q4, at 0.1% of GDP (in terms of a four-quarter rolling sum; Figure 2.31). The balanced current account position in the second half of 2017 was primarily due to a high trade surplus. A factor which helped to keep the trade balance positive was the rising surplus in trade in services. At the same time, the recovery in Polish goods exports in the second half of 2017 was accompanied by faster growth in goods imports, which translated into a lower balance in goods trade. Alongside that, the balance of primary income remained significantly negative, which was mainly driven by a deficit in investment income (in particular, with regard to income from direct investment).

As the inflow of EU funds, especially those from the European Regional Development Fund and the Cohesion Fund, gradually rose, so did the surplus on the capital account in the second half of 2017. Given the positive current account balance, the

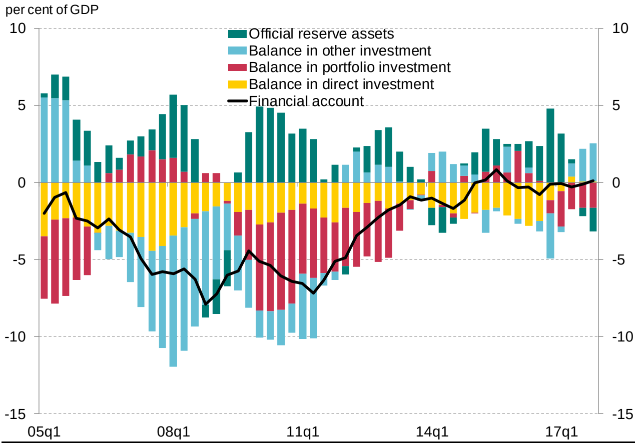
Figure 2.31 Current account balance (4-quarter rolling sum)



Source: NBP data.

Data for Q4 based on preliminary monthly data on balance of payments for the period October-December 2017 and NBP estimates of nominal GDP in 2017 Q4.

Figure 2.32 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 Q4 based on preliminary monthly data on balance of payments for the period October-December 2017 and NBP estimates of nominal GDP in 2017 Q4.

[25] *Senior loan officer opinion survey on bank lending practices and credit conditions. 2018 Q1*, NBP, February 2018.

combined current and capital account balance rose to 1.2% of GDP in Q3 and 1.4% of GDP in Q4.

The financial account balance was close to zero in the second half of 2017 (in terms of a four-quarter rolling sum; Figure 2.32). Considering direct and portfolio investment jointly, a higher inflow of capital to Poland in this period was coupled with a higher outflow of Polish investment abroad. Yet the greatest change related to both the balance in other investment and the stock of official reserve assets and resulted from NBP transactions.[26]

The improvement in the financial account balance was accompanied by a reduction in Poland's foreign debt (Table 2.3). Also other indicators of external imbalance improved in the second half of 2017, which evidence that Polish economy is well balanced (see Box: *Poland and other European countries in the light of the European Commission's assessment of macroeconomic imbalances*, which addresses, among others, external imbalance indicators).

Table 2.3 Selected external stability indicators (4-quarter rolling sum in per cent, unless indicated otherwise)

	2015	2016				2017			
		q1	q2	q3	q4	q1	q2	q3	q4
Current account balance/GDP	-0.6	-0.7	-0.4	-0.5	-0.3	0.1	-0.4	0.2	0.1
Current and capital balance/GDP	1.8	1.4	1.4	0.3	0.8	0.8	0.4	1.2	1.4
Trade balance/GDP	3.1	3.1	3.7	3.9	4.0	4.0	3.8	4.1	4.0
Official reserve assets (in monthly imports of goods and services)	5.3	5.3	6.1	5.9	6.4	5.7	5.3	5.1	4.8
Foreign debt/GDP	72	71	75	74	76	72	71	69	
Net international investment position/GDP	-62	-63	-62	-62	-61	-62	-63	-62	
Official reserve assets/short-term foreign debt and forecast current account balance)	106	108	113	115	115	111	104	96	
Official reserve assets/short-term foreign debt	108	107	116	114	116	115	108	103	

Source: NBP data.
The last two indicators include foreign debt and the level of official reserves at the end of the period. Data for Q4 based on preliminary monthly data on balance of payments for the period October-December 2017 and NBP estimates of nominal GDP in 2017 Q4.

Box: Poland and other European countries in the light of the macroeconomic imbalance procedure

The experience of the past decade, in particular the global financial crisis and the European sovereign debt crisis, has shown the strength and the persistence of negative effects of considerable macroeconomic imbalances and, as a result, the importance of their early identification and correction. Therefore, the European Union has launched the macroeconomic imbalance procedure (a procedure for monitoring imbalances and preventing their building up), whose first stage involves the risk assessment of their emergence in individual EU member states. The results of the latest risk assessment were presented in the European Commission's *Alert Mechanism Report* published at the end of 2017.[27]

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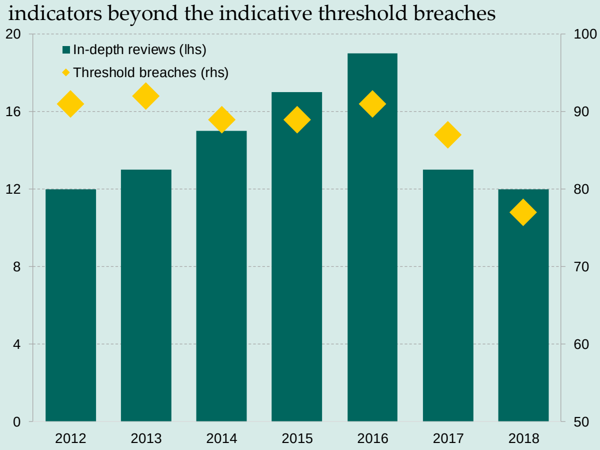
[26] The changes in the balance in other investment were primarily connected with the closure of repo transactions by NBP. NBP transactions were aimed at managing the liquidity of the reserve assets and increasing their profitability. This was accompanied by a decline in the official reserve assets resulting from the closure of the opposite reverse repo transactions by NBP.

[27] *Alert Mechanism Report 2018*, European Commission, Brussels, 22 November 2017, available on the website: https://ec.europa.eu/info/publications/2018-european-semester-alert-mechanism-report_en.

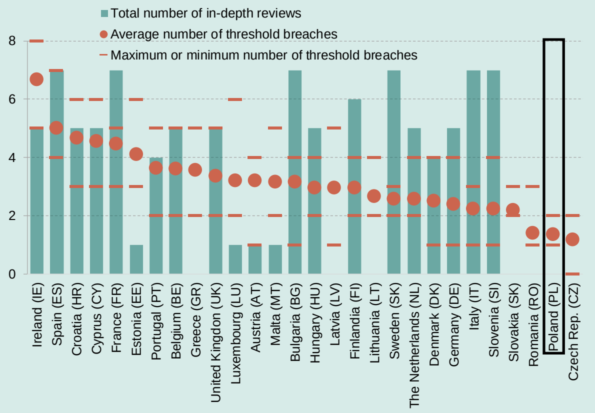
The criteria for assessing macroeconomic imbalances in the European Commission's report are currently based on 14 macroeconomic indicators broken down into three groups: indicators of external imbalance and competitiveness, indicators of internal imbalance and labour market indicators. For each indicator, the European Commission has set thresholds which, if exceeded, may indicate excessive imbalances in a given economy. In order to obtain a more complete assessment of the risk of imbalances in the EU Member States, the European Commission additionally analyses almost 30 macroeconomic variables. Basing on the conclusions from the data analysis, the Commission identifies the member states to be examined in an in-depth review. On the basis of this review, the Commission identifies imbalances, assesses their scale and, if necessary, issues appropriate recommendations for the member state.

Figure B.1 Number of countries qualified by the European Commission for an in-depth review and the number of indicators beyond the indicative threshold breaches



Source: European Commission's data, NBP's calculations.
The timeline indicates the years in which the European Commission undertakes an in-depth review. The chart does not cover labour market indicators, which were first included in the 2016 report.

Figure B.2 Number of in-depth reviews carried out by the European Commission and the number of indicators beyond the indicative threshold breaches



Source: European Commission's data, NBP's calculations.
Countries in stability support programme program are not considered in the macroeconomic imbalance procedure. The chart does not cover labour market indicators, which were first included in the 2016 report.

In its latest report, the European Commission pointed out that the scale of imbalances in the EU member states is decreasing due to strengthening competitiveness of the countries most affected by the European sovereign debt crisis, deleveraging, as well as the economic recovery in the entire EU. However, according to the Commission, the pace of decline in imbalances has slowed down, and new risks have emerged in some countries. On the one hand, external imbalances and high indebtedness of the private sector, already observed before the global financial crisis, persist in many EU countries. On the other hand, the Commission's report draws attention to internal imbalances building up in some countries, most notably as a result of a significant rise in home prices. In consequence, the European Commission considered it justified to undertake an in-depth review for 12 member states (Figure B.1).[28]

Similarly to the previous *Alert Mechanism Reports*, also according to the latest one, based on 2016 data, Poland is one of the most balanced economies in the European Union. This is also indicated by the most up-to-date data (for 2017 Q3, Table B.1). The private and public sector debt of in Poland is among the lowest in the European Union, and the financial sector liabilities are growing at a moderate pace. The rise in home prices is also slower than in the majority of the euro area and Central and Eastern European countries. At the same time, the scale of both the decline in the unemployment rate and the increase in economic activity in Poland markedly exceeds the EU average. The improvement of price competitiveness, reflected in relatively unit labour cost growth, results in a continuing foreign trade surplus and the equilibrium of the current account balance. Importantly, Poland is also

[28] This is only a slightly smaller number of countries than in the previous years. Countries subject to an in-depth review include: Bulgaria, Croatia, Cyprus, France, Spain, the Netherlands, Ireland, Germany, Portugal, Slovenia, Sweden and Italy.

one of few countries with the risk of imbalances remaining low in the entire period analysed by the European Commission (Figure B.2).

Table B.1 Average values of economic indicators in 2017 Q3 against the respective thresholds

		Euro area member states																			Ex-euro area EU member states								
	Threshold	AT	BE	CY	DE	EE	ES	IE	FI	FR	GR	IT	LU	LV	LT	MT	NL	PT	SI	SK	BG	CZ	DK	HR	HU	PL	RO	SE	UK
Current account balance, 3-year average (% GDP)	-4;6	2.6	-0.1	-3.3	8.2	2.2	1.6	7.6	-0.5	-0.7	-1.2	2.3	5.1	0.0	-1.3	7.4	8.8	0.4	5.5	-1.5	2.9	1.0	8.1	2.6	4.5	**-0.3**	-1.8	4.4	-5.3
Net international investment position (% GDP)	-35	5.5	50.7	-121.4	58.2	-33.9	-83.7	-176.7	-3.1	-24.6	-139.3	-7.9	27.2	-58.2	-40.1	63.7	64.1	-105.0	-31.4	-64.0	-41.5	-24.9	52.9	-62.1	-60.3	**-62.2**	-50.8	8.3	-10.4
REER, 3-year average (%)	±5 & ±11	0.5	1.4	-5.0	-1.4	2.1	-2.4	-3.7	-1.7	-2.2	-4.1	-2.3	-0.6	1.7	3.1	-0.1	-1.4	-0.2	-1.5	-2.6	-0.3	6.7	-0.2	-1.2	1.6	**-4.5**	-6.5	-3.4	-3.7
Export market share, 5-year change (%)	-6	2.8	-0.5	92.7	6.1	-7.1	12.6	17.4	-6.6	-3.1	-1.9	4.1	-13.1	3.9	6.9	-42.0	3.1	9.6	19.7	8.9	15.4	16.5	0.6	33.8	11.2	**27.7**	24.4	-9.5	-4.4
Unit labour costs, 3-year change (%)	9 & 12	3.9	1.4	-1.5	5.5	13.9	0.6	-15.5	-1.7	2.1	-0.1	2.5	6.2	12.0	18.8	0.6	-0.5	1.4	2.3	7.1	10.9	7.7	5.0	-5.8	5.9	**7.0**	10.5	2.8	6.9
House price index, 3-year change (%)	6	2.7	2.3	0.6	1.9	0.8	5.3	11.4	0.6	3.1	-1.5	-2.0	3.2	6.9	3.9	3.6	8.3	9.2	5.4	5.4	7.0	9.6	2.8	2.8	7.7	**1.9**	4.9	5.7	2.8
Private sector credit flow (% GDP)	14	0.5	0.2	0.6	1.2	1.1	1.4	11.4	1.8	2.1	1.4	-0.7	3.7	0.3	1.5	2.2	0.6	0.2	0.0	2.8	1.6	1.2	1.4	-0.1	0.3	**0.4**	0.2	-0.4	2.3
Private sector debt (% GDP)	133	140.8	175.8	335.9	107.4	120.4	142.6	264.5	145.6	148.4	108.9	113.1	419.0	92.3	65.5	131.3	225.6	179.2	77.0	98.6	112.6	88.7	207.5	99.5	87.3	**82.6**	53.1	234.4	143.3
General government debt (% GDP)	60	80.4	107.0	103.2	65.1	8.9	98.7	72.1	60.4	98.4	177.4	134.1	23.4	38.3	39.4	54.9	57.0	130.8	78.4	51.3	25.6	35.1	36.9	81.0	72.4	**52.0**	35.7	38.6	86.5
Unemployment rate, 3-year average (%)	10	5.8	8.0	13.5	4.3	6.4	20.2	8.7	9.0	10.1	23.8	11.8	6.2	9.6	8.4	4.9	6.1	11.4	8.2	10.2	8.0	4.2	6.1	14.0	5.6	**6.5**	6.1	7.1	5.0
Total financial sector liabilities, y/y (%)	16.5	0.1	-1.1	2.3	4.4	5.1	4.8	6.1	-8.1	6.1	-2.1	5.6	2.8	4.5	11.2	5.1	0.9	1.9	4.9	8.7	6.8	30.5	1.0	2.9	19.8	**7.6**	7.9	8.8	10.8
Activity rate, 3-year change (pps)	-0.2	0.9	0.5	-0.6	0.5	2.9	-0.1	0.6	1.4	0.7	0.9	1.8	0.4	3.2	2.0	3.6	0.9	1.6	3.9	1.8	2.4	2.6	0.7	-0.5	4.1	**1.7**	1.6	0.8	0.6
Long-term unemployment rate, 3-year change (pps)	0.5	0.4	-1.1	-3.5	-0.6	-1.3	-5.5	-3.8	0.2	-0.1	-4.0	-1.1	0.2	-1.1	-1.8	-1.0	-1.0	-3.8	-1.9	-4.1	-3.4	-1.7	-0.5	-5.7	-1.9	**-2.1**	-0.7	-0.2	-0.9
Youth unemployment rate, 3-year change (pps)	2	-0.4	-2.1	-10.0	-1.1	-2.0	-16.0	-6.9	-0.5	-1.7	-9.6	-7.5	-7.2	-4.2	-6.1	-1.9	-3.7	-8.6	-8.2	-10.4	-9.4	-7.5	-1.0	-19.0	-9.6	**-9.0**	-6.8	-3.7	-4.3

Source: data of the European Commission, Eurostat, ECB, International Trade Organization, Bank of International Settlements, OECD, national central banks, national statistical offices, NBP’s calculations.

The above table might differ from that presented in the Commission’s *Alert Mechanism Report* due to data actualisation and a slightly different methodology used due to limited data availability. In particular, the share in global exports concerns goods only (without services), while the real effective exchange rate is calculated in accordance with the BIS methodology. In the case of the real exchange rate and unit labour costs, the European Commission has set two thresholds, more restrictive for the euro area countries and less restrictive for non-euro area EU countries.

Over past few years Poland has been exceeding solely the net international investment position threshold, which concerns the difference between foreign assets and liabilities. Negative net international investment position is, however, typical of catching-up economies, since they tend to import more capital from abroad. The European Commission acknowledges that breaching that particular threshold is not an indication of macroeconomic imbalances. At the same time, the Commission highlights the favourable structure of Poland’s foreign liabilities, emphasising i.a. that approximately a half of Poland’s foreign liabilities are foreign direct investments. Moreover, almost 2/3 of them are stable forms of external financing (non-debt instruments, including, among others, equity and reinvestment of profits). As the Commission points out, Poland’s net external debt, which excludes the abovementioned liabilities, was systematically declining in recent years to reach 32% in 2017 Q3 (6 percentage points less than just three years before). Moreover, the risk associated with a significantly negative net international investment position is mitigated by a high level of foreign exchange reserves.

The net international investment position criterion is not met by more than a half of the EU member states. These include, in particular, other emerging market economies with a similar structure of foreign liabilities. However, most other EU member states with high net international investment position have a less-favourable structure of foreign financing.

To sum up, Poland continues to be one of few EU countries with a highly balanced economy, with no external imbalances similar to many member states. The level of public and private debt is low and real estate prices are growing at a moderate pace. Out of the 14 criteria excessive imbalance procedure criteria, Poland does not meet that concerning the net international investment position. Yet, due to the favourable structure of foreign liabilities, it does not imply macroeconomic imbalance, and the scale of the deviation from the threshold should be diminishing along with the convergence process of the Polish economy.

3 Monetary policy in November 2017 – March 2018

At the meetings between November 2017 and March 2018 the Council kept the NBP interest rates unchanged at the following levels: reference rate 1.50%, lombard rate 2.50%, deposit rate 0.50%, rediscount rate 1.75%.

What follows in the next part of the chapter are the previously published *Minutes of the Monetary Policy Council decision-making meetings* held between November 2017 and February 2018 as well as the *Information from the meeting of the Monetary Policy Council* in March 2018. *Minutes of the Monetary Policy Council decision-making meeting* in March 2018 will be published on 29 March, and thus included in the next *Report*.

Minutes of the Monetary Policy Council decision-making meeting held on 8 November 2017

Members of the Monetary Policy Council discussed macroeconomic developments abroad analysing their impact on economic conditions in Poland. It was indicated that GDP growth in the euro area in 2017 Q3 was close to that observed in the first half of the year, thus significantly higher than in the previous year. It was pointed out that GDP growth in the euro area was still driven mainly by growth in consumption, although in 2017 Q3 it was probably accompanied by a recovery in investment and exports. It was underlined that, according to the November projection, in 2018 economic conditions in this economy would remain favourable, although GDP growth would slow down slightly. While analysing economic conditions in other economies, it was pointed out that in 2017 Q3 economic growth in the United States – despite the negative impact of adverse weather conditions on economic activity – was close to that observed in the previous quarter. In China, in turn, GDP growth decelerated somewhat in 2017 Q3.

Referring to price developments in the world economy, it was underlined that inflation abroad remained moderate, and continued good economic conditions in many economies were not accompanied by a significant rise in inflationary pressure. It was judged that the observed weakened correlation between economic conditions and price growth could result from several structural factors. The opinion was expressed that under current conditions the risk of a sharp rise in inflation in the majority of developed countries was limited. However, certain Council members drew attention to the recent slight increase in price growth in some economies.

While analysing commodity price developments, it was pointed out that oil prices were higher than in the previous month, but that in recent days there had been signs of their stabilisation. It was judged that oil prices were boosted by the decrease in oil inventories, as well as expectations of a possible extension of the agreement between oil exporting countries. Certain Council members were of the opinion that fundamental factors – in particular, the elastic supply of shale oil in the United States – should lower oil prices in the coming quarters. Referring to remaining energy commodities, other Council members drew attention to the significantly higher coal prices compared to the first half of the year.

Regarding monetary policy abroad, it was highlighted that the European Central Bank was keeping interest rates close to zero, including the deposit rate below zero, and continued to announce that they would remain at their current levels even after the end of the asset purchase programme. At the same time, the ECB extended the duration of the asset purchase programme to at least September 2018, while limiting the monthly scale of purchases by half from 2018. In turn, in the United States, the Federal Reserve began reducing its balance sheet, although – as it was stressed – the scale of monetary expansion was being reduced gradually.

While discussing developments in Poland's real economy, the Council members judged that GDP growth in 2017 Q3 was probably higher than in the previous quarter. It was emphasised that economic growth was still driven primarily by increasing consumer demand, supported by rising employment and wages, disbursement of benefits and very good consumer sentiment. It was underlined that the faster construction and assembly output growth than in the first half of the year pointed to a probable recovery in investment. However, certain Council members pointed out that information incoming in the last month – including data on industrial output, construction and assembly output, and the PMI – was somewhat worse than earlier readings.

It was indicated that – in accordance with the November projection – in 2018 the favourable economic conditions were expected to continue, although GDP growth would probably slow down. It was underlined that the expected weakening in economic activity in the euro area, including in Germany, would result in some slowdown in economic growth. The gradual fading of the statistical effects of the "Family 500 plus" programme would also dampen GDP growth. At the same time, the recovery in both public and corporate investment should support GDP growth next year. However, certain Council members assessed that the scale of the recovery in investment in 2018 – particularly corporate investment – was subject to significant uncertainty. Moreover, it was pointed out that even with the expected investment growth, the investment rate in the economy would remain relatively low. However, other Council members were of the opinion that the increasing scale of child benefit payments along with the rising birth rate, the improvement in the financial situation of some consumers due to the lowering of the statutory retirement age, and in 2019 also the possible increase in social benefits and wages in the budget sector, could boost GDP growth.

With reference to labour market conditions, attention was drawn to the gradual growth in employment and fall in unemployment. It was underlined that this was accompanied by higher wage growth in enterprises and faster rise in unit labour costs than in the previous quarters. While certain Council members drew attention to the high growth in the wage bill in enterprises, other Council members underlined that in September wage growth in the corporate sector had slowed down somewhat. It was judged that the inflow of foreign employees to Poland as well as higher labour force participation among Poles continued to contain wage growth.

It was pointed out that in the coming years wage growth and unit labour cost growth – according to the November projection – would increase slightly. At the same time, some Council members stressed that there was still uncertainty about the impact of the lowering of the statutory retirement age on labour supply and wage pressure, although – according to certain of these members – the scale of this impact would be reduced by the high proportion of non-working persons among those retiring. Certain Council members expressed the opinion that the low propensity of firms to increase wages amid high competition and a fall in profitability in the recent period could contain wage growth in the coming quarters. However, other Council members pointed out that a possible restriction to the inflow of foreign employees and a likely increase in wage pressure in the budget sector could lead to faster than expected wage growth.

When analysing price developments in Poland, it was pointed out that the annual consumer price growth remained moderate. Some Council members underlined that in October annual inflation had decreased somewhat. These Council members stressed that price growth was currently driven up by the rise in oil and food prices, thus the factors beyond the direct impact of domestic monetary policy. At the same time, internal inflationary pressure remained – in the assessment of these Council members – limited, and no significant influence of accelerated wage growth on consumer price growth could be seen. Certain Council members also underlined that price growth took place amid continued moderate lending growth. Other Council members, in turn, drew attention to the increase in all core inflation measures in the recent period, which – in their assessment – indicated an intensification of domestic inflationary pressure. These Council members also pointed to a certain increase in the inflation expectations of households and enterprises as well as the gradually rising producer price growth.

While discussing the outlook for price growth, it was indicated that according to the November projection, it would gradually rise to reach the annual average level of 2.3% in 2018 and 2.7% in 2019. The majority of Council members recognised that the results of the November projection indicated that in the coming years inflation would remain close to the target. However, some Council members underlined that the inflation path in the November projection was higher than in the previous forecasting round, and that in 2019 inflation would exceed 2.5%. These Council members judged that the expected inflation growth would be driven by an intensification of domestic inflationary pressure as evidenced by the forecast growth in both core inflation and the value added deflator. They also pointed out that inflation could be higher than forecast by the current projection due to the possible stronger growth in wage and cost pressure. Certain of these Council members drew attention to higher coal prices compared to the previous year, which – in their opinion – would boost production costs of many goods, including food products, and would impact directly the prices of some consumer goods.

While discussing NBP monetary policy, the Council decided that currently interest rates should remain unchanged. The Council judged that – given the available information – in the coming years inflation would run close to the inflation target. As a result, the current level of interest rates was conducive to keeping the Polish economy on a sustainable growth path and maintaining macroeconomic stability.

The majority of Council members expressed the opinion that, taking into account the present information, interest rates were also likely to remain stable in the coming quarters. These Council members judged that the stabilisation of interest rates would allow to meet the inflation target, which – as they underlined – is of a symmetric nature. At the same time, taking into account the expected slowdown in GDP growth in the coming years, it was indicated that a stabilisation of interest rates would support the maintenance of balanced economic growth, including the expected recovery in investment. Moreover, these Council members pointed out that the need to take into account monetary conditions in the immediate environment of the Polish economy, including the prospect of maintaining negative interest rates in the euro area next year, also spoke in favour of keeping the current level of interest rates.

In the opinion of some Council members, should data and forecasts incoming in the following quarters suggest a more marked intensification of inflationary pressure, it might be justified to consider an increase in the NBP interest rates in the quarters to come. In the opinion of these Council members, interest rate decisions should take into account in particular the impact of negative real interest rates on lending, asset prices and savings in the Polish economy, as well as growth in the unit variable costs. An opinion was also expressed that future decisions of the Council should account for developments in inflation expectations. Certain of these Council members judged that a possible increase in interest rates would have a limited impact on investment growth.

A view was expressed that in the event of a significant decline in economic indicators accompanied by a marked deterioration in consumer and corporate sentiment, in the longer run it might be justified to consider a decrease in interest rates.

Some Council members underlined that in the face of uncertainty about the determinants of monetary policy in the longer term, the March projection of inflation and GDP would be an important prerequisite for an assessment of its prospects.

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

During the meeting the question of lowering the reserve requirement ratio on funds raised from domestic entities for at least a two-year period was also discussed. It was indicated that this ratio currently stood at 3.5%. Taking into consideration that funds raised from abroad for the same period are not subject to reserve requirements, it was judged that it would be justified not to calculate reserve requirements also for the remaining funds raised for at least a two-year period, which would mean the equal treatment of such funds. It was indicated that the application of uniform reserve requirement ratios for all funds raised for at least 2 years would bring the Polish reserve requirement system closer to the solutions applied by the Eurosystem. Moreover, it was pointed out that the introduction of the discussed change could help to lower the scale of the maturity mismatches between assets and liabilities of Polish institutions subject to mandatory reserve requirements.

The Council adopted a resolution according to which the reserve requirement ratio for funds raised for at least a two-year period will stand at 0%. The resolution will come into force on 1 March 2018 and will apply starting with the reserve requirement to be maintained from 30 April 2018.

Minutes of the Monetary Policy Council decision-making meeting held on 5 December 2017

Members of the Monetary Policy Council discussed macroeconomic developments abroad, analysing their impact on economic conditions in Poland. It was emphasised that recovery continued in the global economy, as reflected in the data on industrial output, labour market, sentiment of economic agents and international trade. It was indicated that the recovery in international trade was supporting economic conditions in the euro area, where economic growth remained higher than in 2016. Attention was also drawn to improvement in labour market conditions in the euro area. Yet, it was observed that the unemployment rate in this economy, in spite of ongoing decline, was still higher than before the global financial crisis. During the discussion on the external environment of the Polish economy, it was indicated that economic conditions in the United States remained favourable, while industrial output growth in this economy had accelerated and employment reached record highs, translating into higher than in previous quarters retail sales growth.

Referring to price developments in the world economy, it was underlined that, despite the global recovery, inflation abroad remained moderate. It was assessed that this was caused by the persistently weak domestic inflationary pressure in many countries. It was observed that core inflation remained low in many advanced economies. It was highlighted that price growth was moderate particularly in the immediate environment of the Polish economy, most notably in the euro area, and also in Central and Eastern Europe in spite of a sizeable economic recovery and robust wage growth there. It was indicated that in recent years the links between economic conditions, wage growth and inflation had weakened in many countries.

While analysing commodity price developments, it was pointed out that oil prices were higher than in previous quarters, yet signs of their stabilisation had appeared in recent weeks. It was observed that the prices of this commodity might remain stable in the coming quarters. The Council members stipulated flexible supply of shale oil in the United States and some producers striving to retain their market shares as the likely factors behind the stabilisation of oil prices. With reference to the remaining energy commodities, it was indicated that prices of coal and natural gas were higher than in previous quarters.

Regarding monetary policy abroad, it was highlighted that the Federal Reserve had started reducing its balance sheet in October, and that in December it would probably raise its interest rates. However, it was observed that uncertainty persisted as to the scale and timing of further interest rate rises by the US central bank. Moreover, in this part of the discussion it was emphasised that the European Central Bank was keeping interest rates close to zero, including the deposit rate below zero, and continued to purchase financial assets. It was also observed that the ECB was still announcing that interest rates would remain at their current levels, even after the end of the asset purchase programme. It was emphasised that in other countries in the immediate environment of the Polish economy, particularly in Central and Eastern Europe, interest rates also remained close to zero.

Turning to developments in Poland's real economy, the Council members pointed out that annual GDP growth had accelerated to 4.9% in 2017 Q3, i.e. it was higher than envisaged in the projection. It was observed that growth was still driven primarily by consumer demand, supported by rising employment and wages, disbursement of benefits and very good consumer confidence. It was also indicated that stronger than projected GDP growth was mainly due to a significantly higher export growth rate related to the recovery in the external environment of the Polish economy, particularly in the euro area. It was underlined that gross fixed capital formation had also risen in 2017 Q3, albeit at a slower pace than expected in the projection. Attention was drawn to the fact that the rise in investment had resulted mainly from higher public investment. In this context, it was observed that investment growth in firms outside the mining and energy sectors had increased substantially in 2017 Q3. Yet, certain Council members emphasised that the level of corporate investment was still lower than before 2016.

It was judged that the favourable economic conditions would continue in Poland in the coming quarters, although GDP growth might decelerate slightly in the following years. Economic activity will still be supported by stable consumption growth, accompanied with a further rise in investment growth rate. As certain Council members emphasised, the latter is indicated by the rising absorption of EU funds. Yet, these members noted that the trend had so far been observed mainly in the public sector. It was also judged that, given high capacity utilisation and a concurrent rise in demand, a further rise in the corporate investment growth rate was likely in the coming quarters. However, gradual fading of the statistical effects of the "Family 500 plus" programme and the expected deceleration of economic growth in the euro area would contain GDP growth.

With reference to labour market conditions, it was noted that the number of persons working in the economy had continued to rise, albeit at a slower pace than in previous quarters and, consequently, the unemployment rate continued to fall. It was highlighted that, although in the corporate sector growth in wages and wage bill had accelerated somewhat, in the entire economy wage growth had remained stable in 2017 Q3. It was judged that wage growth in the economy could have been limited by the wage freeze in the public sector, and, possibly, a slower pace of wage growth in smaller enterprises, which employ a large proportion of workers. It was stressed that, in line with the most recent data, the wages of a considerable part of the employed were still only slightly higher than the minimum wage, additionally curbing inflationary pressure. Attention was also drawn to the relatively high labour participation rate which, along with a significant number of foreign employees, may be containing wage growth in Poland. Certain Council members emphasised, however, that the percentage of companies with wage growth increasing faster than labour productivity growth was lower than in the previous year. It was also underlined that unit labour cost growth in the entire economy had decelerated considerably in 2017 Q3. As a result, the majority of the Council members judged that despite low unemployment and recruitment difficulties reported by some companies, the labour market did not generate any significant inflationary pressure for the time being.

As regards inflationary developments in Poland, it was pointed out that annual consumer price growth had increased in November to 2.5%. It was noted that the main factors behind the rise in inflation was high food price growth and markedly higher than in previous years energy price growth. It was also pointed out that the higher energy price growth was associated with rising energy commodity prices in the global markets. In addition, it was emphasised that core inflation net of food and energy prices remained low, despite relatively high consumption growth.

When discussing the outlook for inflation, the majority of the Council members assessed that, given the available information, inflation would remain close to the target over the projection horizon. These members pointed out that core inflation was likely to rise only gradually in the following quarters. It was judged that the price growth would most likely be contained by low inflation in the environment of the Polish economy and a decline in GDP growth rate expected in the coming quarters. In addition, statistical base effects would dissipate in the coming months, which should constrain growth in energy prices.

At the same time, some Council members drew attention to the upside risks to inflation. In their opinion, low corporate investment might translate into weaker labour productivity growth, thus boosting unit labour costs and inflation in the longer term. They also expressed the opinion that ongoing low investment in the mining and energy sectors could prop up energy price growth. Certain Council members argued that costs incurred by natural gas importers could be increased due to the requirement to hold natural gas reserves.

While discussing NBP monetary policy, the Council decided that currently interest rates should remain unchanged. The Council judged that the current interest rate level helped to keep the Polish economy on a sustainable growth path and maintain macroeconomic stability. It was pointed out that in the light of the available information, inflation would remain close to the target in the projection horizon. At the same time, attention was drawn to external trade surplus, persisting despite relatively fast GDP growth, as well as to the fact that lending growth remained close to nominal GDP growth.

The majority of the Council members expressed an opinion that, taking into account the present information, interest rates were also likely to remain stable in the coming quarters. These Council members judged that the stabilisation of interest rates would continue to help meet the inflation target, while supporting the maintenance of balanced economic growth, including the further expected recovery in investment. Moreover, these Council members pointed out that the need to take into account the monetary conditions in the immediate environment of the Polish economy also spoke in favour of keeping the current level of interest rates.

In the opinion of some Council members, should data and forecasts incoming in the following quarters suggest a more marked intensification of inflationary pressure, most notably associated with a possibility of a stronger acceleration in wage growth, it might be justified to consider an increase in the NBP interest rates in the quarters to come. In the opinion of these Council members, interest rate decisions should also take into account the impact of negative real interest rates on lending, asset prices and savings in the Polish economy. The Council members judged that developments in inflation expectations would also be important for monetary policy decisions.

A view was expressed that in the event of a significant decline in economic indicators accompanied by a marked deterioration in consumer and corporate sentiment, in the longer run it might be justified to consider a decrease in interest rates.

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

During the meeting the remuneration on the required reserve was also discussed. Certain Council members pointed out that decreasing the remuneration on the required reserve should help manifest its mandatory character. The majority of the Council members pointed out that the remuneration of the required reserve, combined with the decision not to calculate the reserve requirement ratio on funds raised from domestic entities for at least a two-year period, should help to lower the scale of the maturity mismatches between assets and liabilities of Polish institutions that are subject to mandatory reserve requirements. An opinion was also expressed that the reserve requirement system should not be modified until the decision not to calculate the reserve requirements on funds raised from domestic entities for at least a two-year period came into effect.

The Council adopted a resolution on the remuneration on the required reserve. In line with this resolution, the remuneration of the required reserve will amount to 0.50%. The resolution comes into force on 1 January 2018.

Minutes of the Monetary Policy Council decision-making meeting held on 10 January 2018

Members of the Monetary Policy Council discussed macroeconomic developments abroad, analysing their impact on economic conditions in Poland. It was observed that the recovery continued in the global economy, which was accompanied by a further rise in international trade. It was pointed out that the recovery in economic activity in the euro area continued, supported by improving labour market conditions, very strong business confidence and robust external demand. The recent upward revisions of the 2018 GDP growth forecasts in this economy were brought to attention. Other developments referred to in the course of the discussion included the favourable economic conditions in the United States and only a slight weakening of activity in China.

Referring to price developments in the world economy, it was underlined that, despite the global recovery, inflation abroad remained moderate. It was assessed that this was caused by the persistently weak domestic inflationary pressure in many countries and the disinflationary factors related to global supply chains. In particular, the still moderate price growth in the euro area was highlighted, along with the downward revision of the 2018 core inflation forecasts for this economy.

While analysing developments in commodity prices, it was pointed out that oil prices had risen recently. It was noted that the rise had mainly resulted from reductions in output and inventories of oil, and from the extension of the agreement concluded by oil-exporting countries. Some Council members expressed the opinion that a stabilisation of oil prices was likely in the coming quarters, which would be supported by higher supply of shale oil from the United States.

Regarding monetary policy abroad, it was highlighted that despite the improvement in the outlook for economic conditions in the euro area, the European Central Bank had not changed its monetary policy stance. The ECB was keeping interest rates close to zero, including the deposit rate below zero, and continued its financial asset purchases. Moreover, the ECB was still announcing that interest rates would remain at their current levels, even after the end of the asset purchase programme.

While discussing the developments in Poland's real economy, it was assessed that the GDP growth in 2017 Q4 had probably been close to that observed in 2017 Q3. It was highlighted that growth was still driven primarily by consumer demand, supported by rising employment and wages, disbursement of child benefits and very high consumer confidence. Available data also reveal accelerated investment growth, although, as it was emphasised, this was mainly due to a pickup in public investment. At this point certain Council members highlighted the fact that growth of private investment, which is to a greater extent reliant on the expected return and risk than public investment, remained weak. These members observed that a rise in corporate high-tech investment was important for the prospective competitiveness of the Polish economy. It was also pointed out that the relatively fast growth of exports, supported by the recovery in the immediate environment of the Polish economy, including Germany, was an additional driver of GDP growth.

With reference to the prospects for economic growth, it was assessed that economic conditions would continue to be favourable in the coming quarters, although GDP growth would probably slow down compared to its rate in the second half of 2017. Despite the gradual fading of the statistical effects of the "Family 500 plus" programme, rising consumption will continue to support economic growth. At the same time, a further pickup in investment growth is anticipated, as signalled by the increasing absorption of EU funds. Some Council members judged that given the need for firms to expand their production capacity amid the persistently robust demand, corporate investment growth would also accelerate in the coming quarters. Moreover, exports would add to economic activity growth. Some Council members emphasised that the increase in external sales may be higher than previously expected due to the improvement in the outlook for economic growth in the euro area. At the same time, some Council members expressed the opinion that the pace of export growth may be dragged down by the exchange rate of the zloty having strengthened on the previous quarters. In the opinion of other Council members, in turn, the level of the exchange rate was still higher than the average export profitability exchange rate as declared by enterprises. These members also emphasised the considerable import intensity of export production, limiting its sensitivity to exchange rate changes.

Analysing the developments in the labour market, it was observed that despite the recruitment difficulties reported by some companies, employment in the corporate sector continued to rise strongly. It was indicated that this was accompanied by faster growth in corporate sector wages than in previous quarters. In effect, wage bill growth was also higher, yet, as some Council members stressed, it did not exceed industrial output growth. As a result, the majority of the Council members judged that the labour market did not generate any significant inflationary pressure for the time being. In the opinion of some Council members, the coming quarters may see a further acceleration in wage growth in companies. However, wage growth in the entire economy will continue to be contained by the wage freeze in the public sector as well as an increase in the labour force participation rate and a further inflow of employees from the East. At the same time, it was underscored that unit labour cost growth will be dampened by higher GDP growth in 2018 than previously expected. Certain Council members assessed, however, that wage pressure in the coming quarters may increase substantially. These members pointed to the risk of pay demands arising in the public sector, and a likely rise in demand for labour related to a further investment recovery. At the same time, they judged that the potential for a further increase in both labour force participation rate and inflow of foreign workers is limited. Certain Council members were of the opinion that after the lowering of the statutory retirement age labour supply would be contained as a considerable part of the eligible employees would retire. Yet other Council members underlined that the scale of this impact would be limited due to the high proportion of non-working persons among those retiring and a probability that many retired employees would remain active in the labour market.

While analysing inflationary developments in Poland, it was pointed out that the annual consumer price growth had decreased in December. It was noted that inflation was still being boosted by high food prices. At the same time, core inflation net of food and energy prices remained low due to the moderate growth in prices of services and the continued fall in prices of goods. In the opinion of the majority of the Council members, this indicated limited demand pressure. Certain Council members also underlined that price growth took place amid continued moderate lending growth. It was also pointed out that there was a marked slowdown in producer price growth despite a significant increase in industrial output.

Referring to the outlook for inflation, it was noted that in the coming months changes in energy and food prices, as well as the so-called statistical base effects, would have a strong impact on price developments. It was underlined that low price growth in the environment of the Polish economy and the stronger zloty than in the previous year would continue to have a curbing effect on inflation growth. The majority of the Council members judged that in the light of the current information the average level of inflation in 2018 would be somewhat lower than 2.5%, and in the projection horizon would remain close to the inflation target. Some Council members emphasised that such an assessment is consistent with the expectations of financial analysts. Certain Council members drew attention to a rise in consumer and enterprise inflation expectations in the recent period. They also pointed to the expected higher growth in prices of services in 2018 compared to 2017, which, in the opinion of these Council members, could be evidence of growing demand pressure.

While discussing NBP monetary policy, the Council decided that currently interest rates should remain unchanged. The Council judged that – given the available information – inflation would remain close to the inflation target over the projection horizon. As a result, the current interest rate level helped to keep the Polish economy on a sustainable growth path and maintain macroeconomic stability.

The majority of the Council members expressed the opinion that, taking into account current information, interest rates were also likely to remain stable in the coming quarters. These members judged that the stabilisation of interest rates would continue to help meet the inflation target, while supporting the balanced economic growth, including the further expected recovery in investment. Moreover, these Council members pointed out that the need to take into account the monetary conditions in the immediate environment of the Polish economy, including the likelihood of the maintenance of negative interest rates in the euro area, also spoke in favour of keeping the current level of interest rates in the coming quarters.

In the opinion of some Council members, should data and forecasts incoming in the following quarters suggest a more marked intensification of inflationary pressure than expected, most notably associated with a possibility of a stronger acceleration in wage growth, it might be justified to consider an increase in the NBP interest rates in the quarters to come. In the opinion of these Council members, developments in inflation expectations would also be important for monetary policy. At the same time, these members emphasised that in the light of recently released data the risk of a marked increase in inflationary pressure was lower than previously assumed. A view was expressed that in the event of a significant decline in economic indicators accompanied by a marked deterioration in consumer and corporate sentiment, in the longer run it might be justified to consider a decrease in interest rates. However, it was underlined that currently, faced with a very favourable economic situation and very strong business confidence, there was little likelihood of a decrease in interest rates in the coming quarters. It was also pointed out that the March projection of inflation and GDP would be an important prerequisite for an assessment of the outlook for monetary policy.

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

Minutes of the Monetary Policy Council decision-making meeting held on 7 February 2018

Members of the Monetary Policy Council discussed macroeconomic developments abroad, analysing their impact on the Polish economy. It was observed that a marked recovery continued in the global economy. In particular, it was noted that GDP data confirmed a further recovery in economic activity in the euro area, which was supported by improving labour market conditions, rising business confidence and growth in international trade. Attention was also drawn to the continued favourable economic conditions in the United States and the stabilisation of GDP growth in China.

Referring to price developments in the world economy, it was underlined that, despite the global recovery, inflation abroad remained moderate, which was the result of a weakening of the relationship between price growth and economic activity observed in many countries. It was assessed that this was caused by disinflationary factors related, among others, to the impact of globalisation of the markets for factors of production. As a result, core inflation in many developed economies was still subdued. In particular, it was pointed out that despite the significantly lower unemployment than in previous years, price growth remained low in the euro area, including in Germany.

While analysing developments in commodity prices, it was indicated that oil prices and the prices of other energy commodities had increased recently. It was noted that the rise had mainly resulted from the reductions in output and inventories of oil, amid growing demand for this commodity due to ongoing recovery in global economic growth. It was also pointed out that the depreciation of the US dollar was an additional driver of higher oil prices. Moreover, some Council members underlined that in the wake of the rise in oil prices, the prices of natural gas had also increased. It was indicated that an important factor affecting global commodity prices was the reduction of coal usage in China, alongside an increase in the country's demand for oil and gas.

Regarding monetary policy abroad, it was noted that despite the improvement in economic conditions in the euro area, the European Central Bank had not changed its monetary policy stance. The ECB was keeping interest rates close to zero, including the deposit rate below zero, and continued its financial asset purchases, although – as announced earlier – at the reduced monthly scale. The ECB had also not modified its communication regarding future decisions. It was pointed out that this could have been caused by the recent appreciation of the euro, which increased uncertainty about the pace of the return of inflation to the ECB target. As a result, the ECB was still announcing that interest rates would remain at their current levels, even after the end of the asset purchase programme.

While discussing the developments in Poland’s real economy, it was assessed that the 2017 GDP data indicated that the good economic conditions continued, accompanied by an increasingly balanced structure of economic growth. It was highlighted that growth was still driven primarily by domestic demand, including consumer demand, supported by rising employment and wages, disbursement of benefits and very good consumer confidence. Available data also signal a recovery in investment, although – as emphasised at the meeting – mainly in public investment. However, it was judged that in 2017 Q4 corporate gross fixed capital formation had probably increased as well. Moreover, regarding the structure of GDP growth, it was underlined that in 2017 growth was also driven by strong external demand reflected in a positive contribution of net exports to GDP growth in the second half of 2017.

With reference to the economic growth outlook, it was assessed that an upward revision of the forecast path of GDP growth in Poland could be expected. In the opinion of the Council members, favourable economic conditions will continue in the coming quarters, although GDP growth will probably slow down slightly compared to the second half of 2017.

GDP growth will continue to be supported by rising consumption, yet the statistical effects of the "Family 500 plus" programme will gradually fade. At the same time, a further revival in investment, including private investment, is expected. Certain Council members pointed out that private investment growth was of major significance to the competitiveness of the Polish economy. These members observed that corporate investment growth may, in particular, act as a driver of labour productivity growth in the future, which will mitigate the impact of a potential further acceleration of wages on prices.

In the opinion of the Council members, domestic economic activity in the coming quarters should also be supported by favourable conditions abroad. Yet some Council members observed that in line with the forecasts of international institutions, growth in the largest economies would probably start slowing down as of the beginning of 2019. Certain Council members pointed out that the global growth outlook would, in particular, be affected by the sentiment in the global financial markets, which has recently weakened somewhat. Moreover, some Council members expressed the opinion that even amid a sustained relatively high GDP growth abroad, export growth might be hampered by the stronger exchange rate of the zloty than in the previous months. In turn, in the opinion of other Council members, the zloty exchange rate is still higher – especially against the euro – than the average export profitability exchange rate as declared by enterprises, while high import intensity of export production additionally limits its sensitivity to exchange rate movements.

Referring to the developments in the labour market, it was indicated that despite the recruitment difficulties reported by some firms, employment in the corporate sector continued to rise strongly. It was pointed out that rising employment was accompanied by a further decline in unemployment and a higher wage growth. At the same time, the Council members observed that the wage freeze in the public sector was a factor constraining wage growth. Also the rise in the labour participation ratio and a further inflow of workers from the East had a dampening effect on wage growth.

The majority of the Council members judged that the labour market was not, so far, generating substantial inflationary pressure, and the rise in unit labour costs in the economy remained moderate. Yet certain Council members indicated the rising number of enterprises with wages growing faster than labour productivity. Furthermore, these Council members argued that in the coming quarters wage pressure might increase, as there was a risk of wage demands arising in the public sector, and – after the lowering of the statutory retirement age – further retirements of a substantial part of eligible employees. Other Council members, however, underlined that the impact of retirements on labour supply had so far been limited due to the high proportion of non-working persons among those retiring, and a probability that many retired employees would remain active in the labour market.

While analysing inflationary developments in Poland, it was pointed out that the annual consumer price growth had decreased at the end of 2017 and that core inflation net of food and energy prices remained low. Some Council members emphasised that core inflation in 2017 Q4 had been running below the level envisaged in the November NBP projection, despite higher than expected GDP growth. Weaker growth of producer prices was also pointed out. The majority of the Council members were of the opinion that inflationary pressure remained limited.

Referring to the outlook for inflation, it was observed that moderate price growth in the external environment of the Polish economy and the stronger zloty than in the previous year would continue to have a curbing effect on price developments. The majority of the Council members judged that in the light of current information inflation in the next two years would be running close to the inflation target. Certain Council members argued that hitherto inflation might had been dampened by the structural changes increasing price competitiveness in retail trade. These Council members believed, however, that the role of this factor might weaken in the future. At the same time, these Council members pointed to the likely upward revision of the expected inflation path in the coming years.

While discussing NBP monetary policy, the Council decided that currently interest rates should remain unchanged. The Council judged that despite accelerated economic growth inflation in Poland was still running at moderate rates. As a result, the current level of interest rates is conducive to keeping the Polish economy on the sustainable growth path and maintaining macroeconomic stability.

The majority of the Council members expressed the opinion that, taking into account current information, interest rates were also likely to remain stable in the coming quarters. These Council members judged that the stabilisation of interest rates would continue to help meet the inflation target, while supporting the balanced economic growth, including the expected further recovery in investment. Moreover, these Council members pointed out that the need to take into account the monetary conditions in the immediate environment of the Polish economy, including the likelihood of the maintenance of negative interest rates in the euro area, also spoke in favour of keeping the current level of interest rates in the coming quarters.

In the opinion of some Council members, should data and forecasts incoming in the following quarters suggest a more marked intensification of inflationary pressure than currently expected, it might be justified to consider an increase in the NBP interest rates in the quarters to come. It was also pointed out that the March projection of inflation and GDP would be an important prerequisite for an assessment of the outlook for monetary policy.

A view was expressed that in the event of a significant decline in economic indicators accompanied by a marked deterioration in consumer and corporate sentiment, in the longer run it might be justified to consider a decrease in interest rates.

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

Information from the meeting of the Monetary Policy Council held on 6-7 March 2018

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

The global economic conditions continue to improve. The euro area data for GDP in 2017 Q4 signal that the economy continues to grow faster than in previous years. This is driven by an improvement in the labour market conditions, good sentiment of economic agents, and stronger world trade growth. In the United States, economic conditions also remain favourable, although GDP growth in 2017 Q4 slowed down slightly. In China, in turn, GDP growth was relatively stable in 2017.

Despite the ongoing global recovery, inflation abroad remains moderate, on the back of persistently low domestic inflationary pressure in many countries, and lower than in the previous year global agricultural commodity prices. At the same time, prices of some other commodities, including oil, are higher than a year ago.

The European Central Bank keeps interest rates close to zero, including the deposit rate below zero, while still purchasing financial assets. The US Federal Reserve, in turn, continues to gradually reduce its balance sheet, signalling further interest rate increases in the future.

In Poland, annual GDP growth in 2017 Q4 stood at 5.1%. Growth is still primarily driven by domestic demand, including consumer demand, supported by rising employment and an acceleration in wage growth, disbursement of benefits and very strong consumer sentiment. At the same time, 2017 Q4 saw a marked recovery in investment. The pickup in investment was primarily observed in the public sector, although gross fixed capital formation of enterprises probably increased as well. Growth in economic activity is also supported by strong external demand.

Despite the acceleration in economic growth, annual consumer price growth continues to run at a moderate level. At the same time – although wage growth increased– inflation net of food and energy prices remains low.

The Council became acquainted with the results of the March projection of inflation and GDP, prepared under the assumption of unchanged NBP interest rates. In line with the March projection based on the NECMOD model, there is a 50-percent probability that the annual price growth will be in the range of 1.6-2.5% in 2018 (against 1.6-2.9% in the November 2017 projection), 1.7-3.6% in 2019 (compared to 1.7-3.7%) and 1.9-4.1% in 2020. At the same time, the annual GDP growth – according to this projection – will be with a 50-percent probability in the range of 3.5-5.0% in 2018 (against 2.8-4.5% in the November 2017 projection), 2.8-4.8% in 2019 (compared to 2.3-4.3%) and 2.6-4.6% in 2020.

In the Council's assessment, current data and the results of the projection indicate a favourable outlook for growth in economic activity in Poland, despite an expected slight slowdown in GDP growth in the coming years. In line with the projection, in the monetary policy transmission horizon inflation will remain close to the inflation target. As a result, the Council judges that the current level of interest rates is conducive to keeping the Polish economy on a sustainable growth path and maintaining macroeconomic stability.

The Council adopted *Inflation Report – March 2018.*

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[29], 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 2018 Q1 to 2020 Q4. The starting point for the projection is 2017 Q4.

The cut-off date for the data used in this Projection is 16 February 2018.

[29] Current version of the documentation of the model is available at the NBP website http://www.nbp.pl/homen.aspx?f=/en/publikacje/raport_inflacja/necmod.html

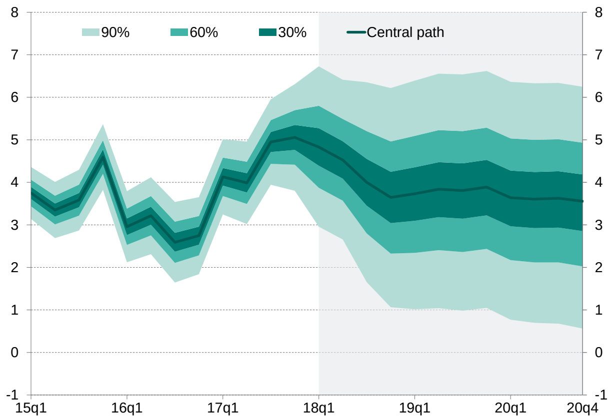
4.1 Summary

In the second half of 2017, the Polish economy was in the expansion phase – GDP growth reached 5%y/y, the highest since 2011. In line with expectations from the November projection, private consumption remains the main component of growth in this period. Gross fixed capital formation also picked up significantly. The fast economic growth of last year was accompanied by a positive (and higher than in 2016) current and capital account balance, while the surplus in trade in goods and services reached a record high.

In the projection horizon GDP growth will gradually slow down from the high levels recorded in the second half of 2017. Private consumption will remain the main component of growth in domestic demand , due to the continued improvement in the labour market situation, which has a positive impact on household disposable income and sentiment. However, in the years 2018-2020 the role of investment in economic growth will increase, connected with the need to expand the productive potential of the Polish economy and the growing absorption of EU structural funds from the current financial framework 2014-2020. The low level of interest rates and the resulting low cost of credit will have a favourable impact on domestic demand. However, economic growth will be restricted by the slowdown in GDP growth in the euro area compared to 2017, which is forecast for 2018-2020.

Robust GDP growth led to the closure in the second half of 2017 of the output gap, which had been negative since 2012. In the coming years the output gap will grow, reaching 1.8% of the potential product at the end of the projection horizon. The size of the output gap allows the

Figure 4.1 GDP (y/y %)



Source: GUS data, NBP calculations.

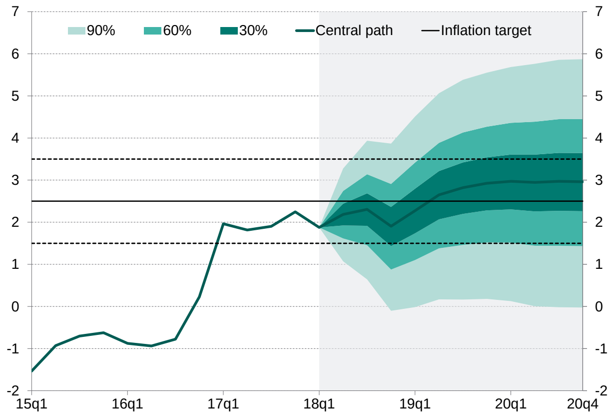
conclusion that in the coming years there will be an increase in demand pressure in the whole economy and the improvement in the economic situation will gradually translate into domestic inflation growth. Wage growth exceeding labour productivity growth, as forecast in the projection horizon, will contribute to higher inflation. The pickup in wage growth will be supported by the continued robust demand for labour on the part of enterprises amid limited supply of labour. However, inflation in Poland will be limited by the continued low import price growth connected with the appreciation of the effective exchange rate of the zloty, low inflation abroad and expectations of a decline in energy commodity prices.

In the light of the above determinants, consumer price inflation will gradually rise in the projection horizon and in the years 2019-2020 will run slightly higher than 2.5%.

The scale and length of the recovery in the global economy will have a significant impact on the expected development of the projection scenario. At the same time, future growth rates in the developed economies are fraught with uncertainty connected with the persistence of a reduced rate of productivity growth amid low investment growth. Among domestic factors, developments in effective labour supply are a significant risk factor to the path of inflation and GDP. It is difficult to assess to what extent the positive structural changes in the labour market observed in the recent period, leading to an increase in economic activity of people in the age group above 45, will continue in the projection horizon.

The assessment of the likelihood of the above-mentioned risk factors materialising points to a nearly symmetrical distribution of risks to CPI inflation (Figure 4.2). However, in the long-term projection horizon a lower path of GDP growth

Figure 4.2 CPI inflation (y/y, %)



Source: GUS data, NBP calculations

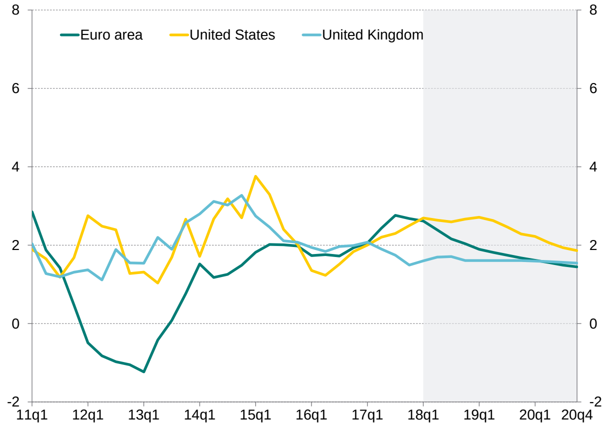
than in the central scenario is somewhat more likely, which is reflected in the fan chart for this variable (Figure 4.1).

4.2 External environment

In the current projection the economic outlook of Poland's most important trading partners is more favourable than in the previous forecasting round, however, the assumption of faster growth in the United States than in the euro area has been upheld. The upward revision of future GDP growth in both of these economies is to a large extent related to better than expected economic indicators for the second half of 2017. The more optimistic forecast of the investment path in the United States is also driven by the positive impact of the significant corporate tax cuts, introduced by the US administration earlier than assumed in the November projection. In turn, the more favourable outlook for economic growth in the United States, as well as for world trade will support the export activity of enterprises in the euro area. However, similarly to the November round, it is expected that the scale of economic recovery abroad in the projection horizon will decrease, amidst still slow labour productivity growth and unfavourable demographic changes.

The relatively high GDP growth recorded in the euro area in 2017 will continue in 2018, while private consumption will remain the main driver of this growth. Rising employment and growing assets of households, low interest rate and wide availability of consumer credit (Figure 4.4), as well as the reduction of fiscal burdens in certain Member States, will have a positive impact on private consumption. In 2018 corporate investment will accelerate, driven by the expected improvement in internal and external demand, currently high degree of capacity utilisation and low level of gross capital spent on the

Figure 4.3 GDP abroad (y/y, %)



Source: Bloomberg, Eurostat data, NBP calculations.

Table 4.1 GDP abroad-March projection versus November projection

	2017	2018	2019
GDP in Euro Area (y/y, %)			
March 2018	2.5	2.3	1.8
November 2017	2.2	1.9	1.6
GDP in United States (y/y, %)			
March 2018	2.3	2.6	2.5
November 2017	2.2	2.4	2.1
GDP in United Kingdom (y/y, %)			
March 2018	1.8	1.7	1.6
November 2017	1.6	1.4	1.7

Source: NBP calculations.

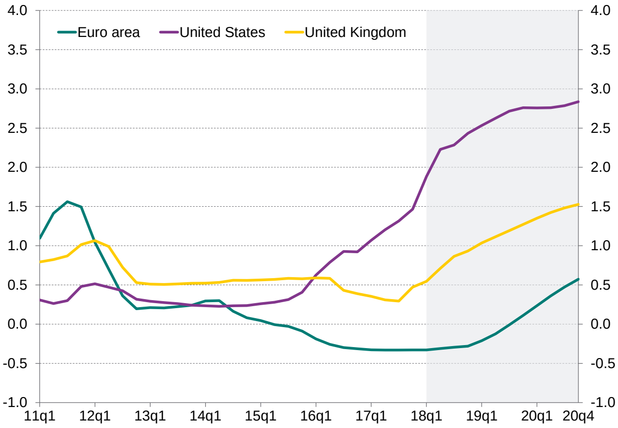
modernisation of machinery in recent years. The contribution of net exports to GDP growth of the euro area will remain positive in 2018, although it will run at a lower level than in 2017, as a result of an improvement in domestic demand, boosting imports.

In the years 2019-2020, GDP growth in the euro area will decelerate, driven by the slowdown in growth of all its main components. Private consumption dynamics will decline due to gradually rising inflation, affecting negatively disposable household income in real terms. In turn, weakening domestic and external demand, combined with high debt in the private sector and low profit growth, will incline firms to cut back investment activity.

Similarly to the euro area, private consumption will also remain the most important component of economic growth in the United States in the projection horizon. The continued positive consumer sentiment will be supported by the favourable situation on the labour market and high net worth of households, driven by the increase of the value of their assets and the end of the deleveraging process. The tax cuts for households and enterprises planned in 2018 will act as an additional important driver of the demand in the United States. In the years 2018-2019 corporate investment growth will be relatively strong, due to the lower fiscal burdens, weakening of the US dollar, recovery in industry and improvement in the outlook for the global economy. In 2018 enterprises are expected to increase also their inventories. Economic growth in the projection horizon will be curbed by the US economy reaching the full employment. This process, combined with the ageing of society, will result in a gradual reduction in the contribution of employment to the growth of potential GDP .

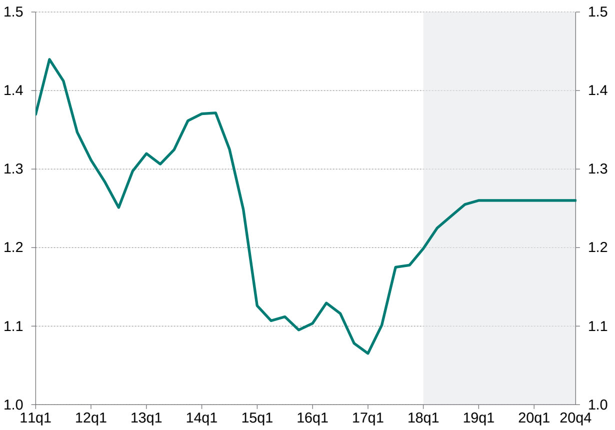
Against the background of GDP growth in the euro area and the United States, economic activity

Figure 4.4 Interest rate abroad (%)



Source: Bloomberg data, NBP calculations.

Figure 4.5 EUR/USD exchange rate



Source: Bloomberg data, NBP calculations.

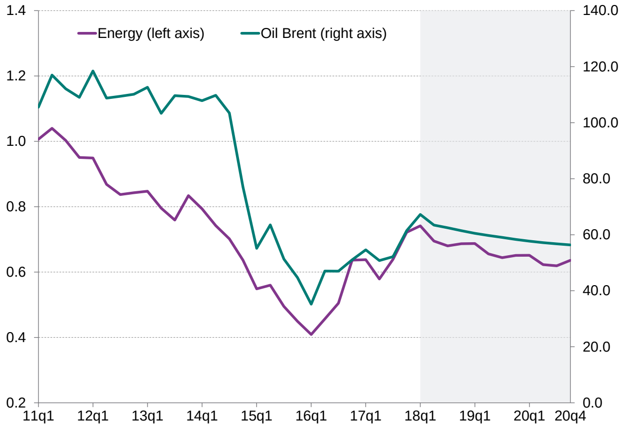
in the United Kingdom will remain weaker in the coming years. The uncertainty related to the terms of the UK's exit from the European Union will continue to have a dampening effect on investment of enterprises. Consequently, GDP growth in the UK is expected to remain at a moderate level in the projection horizon, despite a significant increase in exports in 2017 Q4 and an improvement in the global economic outlook.

In the March projection it is assumed, in line with market expectations, that the euro will appreciate against the US dollar in the coming quarters, reflecting the improvement in the economic and political situation in the euro area. This trend will wane in 2019 (Figure 4.5), driven by the good outlook for the US economy and the expected stronger tightening of monetary policy by Fed (Figure 4.4).

Following increases in oil, coal and natural gas prices in the second half of 2017, the energy commodity prices index expressed in US dollars reached a higher level at the beginning of 2018 than assumed in the previous forecast round. In the projection horizon there will be a gradual decline in the prices of these commodities (Figure 4.6), bringing the index close to the level assumed in the November round.

The observed increase in oil prices was driven by a fall in global stocks of this commodity, which was caused by the reduction in output implemented by OPEC and by numerous disruptions in oil production and transport in recent months, among others in the United States, Iraq, Libya, and the United Kingdom. The significant increase in demand for oil on the part of US refineries in 2017 Q4 also contributed to the decline in stocks. In the projection horizon oil prices will gradually decline, which will be supported by the expected significant increase in oil extraction in the United States. The increase in oil prices and higher profitability of oil extraction

Figure 4.6 Energy commodities price index (in USD, 2011=1) in global markets and Brent oil prices (USD/b)

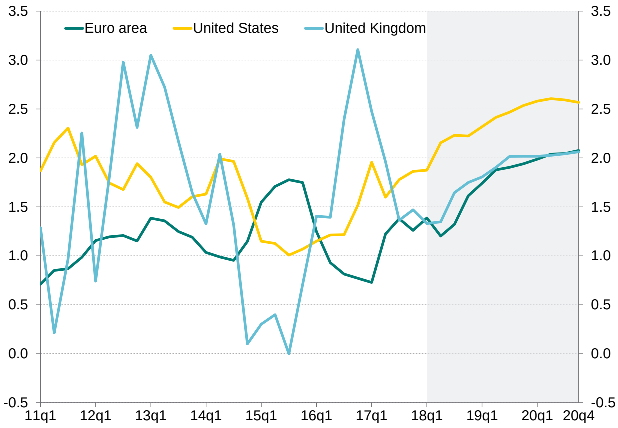


Source: Bloomberg data, NBP calculations will serve as incentives for US oil companies to increase investment activity. The path of natural gas prices assumed in the projection will develop in a similar way due to the high correlation in the fluctuations of prices of both commodities.

As a result of the exceptionally cold winter in China and significant decline in coal stocks in this country, as well as disruptions in the supply of coal from Indonesia, coal prices have also risen in recent months, running at a level higher than assumed in the previous forecasting round. In the projection horizon coal prices will gradually decline due to the weakening demand in countries that are the biggest coal consumers, above all in China. The climate policy implemented by the developed economies will also contribute to a fall in demand for coal.

The current forecast assumes that there will be a moderate rise in inflation in the economic environment of Poland (Figure 4.7). In the coming years price growth in the euro area will be increased by rising margins of enterprises and faster wage growth. In the United States inflation will be running at a slightly higher level due to the depreciation of the US dollar and the economy reaching full employment. In the United Kingdom the inflation rate is also expected to rise, but by the end of the projection horizon it will not exceed the level seen at the turn of 2016 and 2017, when the weak pound boosted consumer price growth.

Figure 4.7 Inflation abroad (y/y, %)



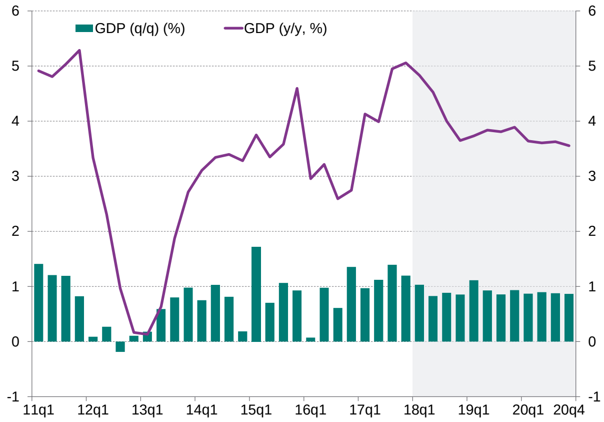
Source: Bloomberg, Eurostat data, NBP calculations.
Inflation as measured by the value added deflator.

4.3 Polish economy in 2018-2020

Following the decline in economic growth in the euro area in the projection horizon, domestic GDP growth will also gradually slow down from the high levels observed in the second half of 2017 (Figure 4.8). Private consumption will continue to be the main driver of domestic demand growth, due to the continued improvement in the labour market and positive sentiment of households (Figure 4.9). At the same time, in the years 2018-2020 the contribution of investment will increase, together with the rebuilding of the productive potential of the Polish economy and the inflow of EU funds from the current financial framework 2014-2020.

As demand and cost pressure mount over in 2018-2020, core inflation will gradually pick up (Figure 4.10). Growing demand pressure is reflected in the widening of the positive output gap in the projection horizon together with the growth of consumer and investment spending. At the same time, the growing problems of enterprises related to the shortage of labour supply will translate into wage growth exceeding the growth of labour productivity. However, the scale of inflation growth will be limited by the low import prices growth connected with an appreciation of the effective exchange rate of the zloty, low inflation abroad and expected decline in energy commodity prices. In addition, in the coming quarters the impact of temporary factors boosting the food price inflation will fade (Figure 4.10).

Figure 4.8 Economic growth

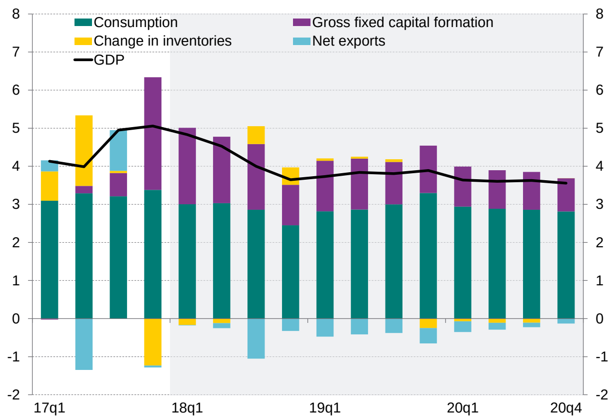


Source: GUS data, NBP calculations.

Domestic demand

In 2018-2020 private consumption growth will run close to 4%, remaining the key component of economic growth (see Figure 4.9, Figure 4.11). Developments in the labour market will have a positive impact on the level of household expenditure – a further fall in the unemployment rate and the maintenance of relatively high wage growth are expected. The optimistic sentiment of economic agents, reflected in the record-high results of consumer surveys, should also strengthen consumption.[30] In particular, the declarations of households indicate positive

Figure 4.9 GDP growth (y/y,%) – breakdown



Source: GUS data, NBP calculations.

[30] *Consumer sentiment survey January 2018*, GUS, January 2018.

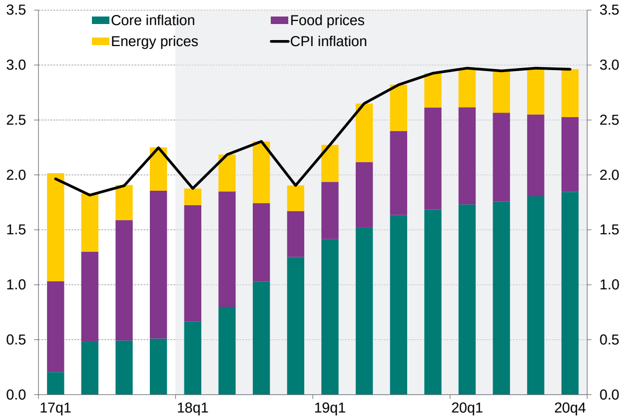
trends regarding important purchases, as well as diminishing concerns about the future economic situation of the country and the threat of unemployment. In the projection horizon, consumption growth will also be supported by the low level of interest rates having a favourable impact on the cost of financing consumer spending with loans.

Despite the positive conditions for consumption, consumer demand growth will gradually slow down in the years 2018-2020. This is primarily due to the fading impact of the "Family 500 plus" child benefit scheme introduced in 2016[31] and higher inflation, which will curtail households' purchasing power.

After almost two years of decline, in 2017 Q4 gross fixed capital formation of enterprises has probably picked up (Figure 4.13). Growing absorption of EU funds had a positive influence on corporate investment activity at the end of 2017, and a further increase in the number of projects part-financed from the EU budget is forecast in the projection horizon (Figure 4.12). This tendency is indicated by the improved firms' assessment of planned investments in sections with high absorption of EU funds, i.e. in construction, supply of water, transport, and the energy sector.[32]

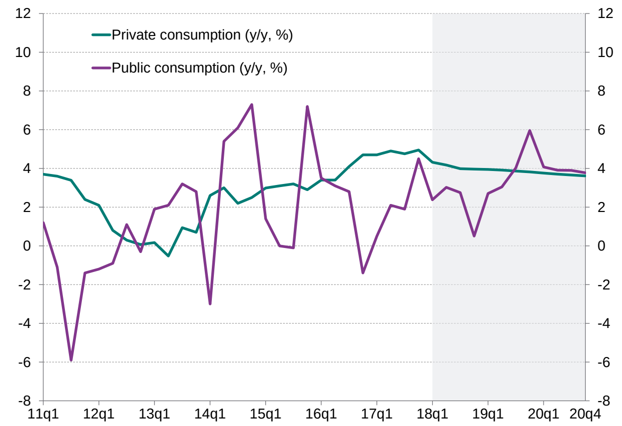
Domestically-funded corporate investment expenditure will also increase in the projection horizon (Figure 4.13). The currently low rate of investment, accompanied by a very high degree of corporate capacity utilisation (reported both in NBP and GUS studies) suggest the need to rebuild the fixed asset base. At the same time, the economic recovery has led to a marked improvement in demand and output forecasts as

Figure 4.10 CPI inflation (y/y, %) – breakdown



Source: GUS data, NBP calculations.

Figure 4.11 Private and public consumption



Source: GUS data, NBP calculations.

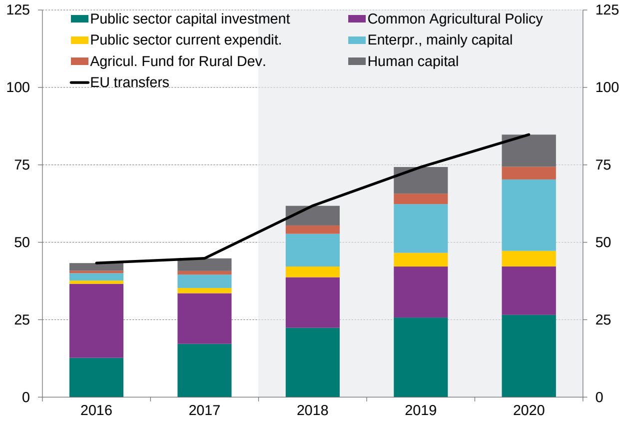
[31] Additional child benefit, due to the intertemporal consumption smoothing mechanism, increased consumption growth not only in 2016, but also significantly in 2017.

[32] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector*, NBP, January 2018.

voiced by enterprises.[33] Upbeat sentiment among companies is also reflected in the results of GUS surveys of business tendency in industry, construction and commerce.[34] The purchase of fixed assets financed by loans or leasing is facilitated, in turn, by the historically low interest rates, although own funds remain the main source of financing for corporate investment .[35] In view of these favourable conditions, according NBP surveys[36], the propensity to undertake new investments is clearly increasing among enterprises. At the same time, a large group of respondents is planning to expand the scale of investment projects already implemented.

After a sharp fall in 2016, public investment in 2017 picked up markedly, primarily due to an increase in expenditure of local government units. The rise resulted from a growing absorption of EU funds from the current financial framework. The development of investment expenditure in the public sector is much more closely related to the absorption of the funds from the EU budget than in the case of corporate expenditure. The Ministry of Development's data[37] on agreements for the use of funds under the individual operational programmes indicate that a further strong increase in capital expenditure of the general government sector can be expected in the coming quarters (Figure 4.12). In the years 2019-2020, the inflow of EU transfers will continue to rise, although at a slower pace than assumed for 2018, translating into a slower growth rate of public investment.

Figure 4.12 Expenditure financed with EU funds (in PLN billion) – breakdown



Source: NBP calculations.

[33] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector*, NBP, January 2018.

[34] *Koniunktura w przemyśle, budownictwie, handlu i usługach*, GUS, January 2018 (available in Polish only).

[35] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector*, NBP, January 2018. According to the results of these surveys, newly started investments are most often financed by own funds (50.5% of investors), and twice as rarely by bank loans.

[36] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector*, NBP, January 2018.

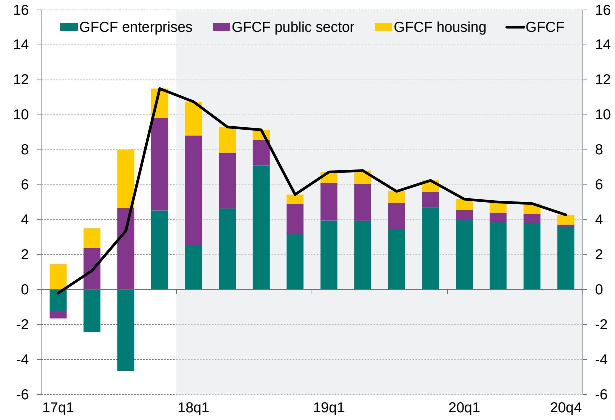
[37] *List of projects implemented from European funds in Poland in 2014-2020*, Ministry of Development, https://www.funduszeeuropejskie.gov.pl/strony/o-funduszach/projekty/lista-projektow/lista-projektow-realizowanych-z-funduszy-europejskich-w-polsce-w-latach-2014-2020/

The residential housing market is currently in an expansionary phase, which is reflected in the number of dwellings ready for occupancy, whose 12-month average has exceeded the highest value reached in the previous cycle in the years 2008-2009. Yet, unlike in 2006-2008, growing demand, is met to a large extent by a high supply of dwellings limiting price growth, which stems, among others, from the improved efficiency of this market. Moreover, in contrast to the previous expansion, despite the pickup in lending, the transactions continue to be financed with a significant contribution of households' own funds.[38]

In the projection horizon, housing investment will grow at a slightly faster pace than GDP. Household demand will be stimulated by a rising disposable income and low interest rates creating space to increase the financing of real estate purchases with loans. The scale of the recovery in this market may be reduced, however, by the effects of certain implemented regulatory changes. This concerns, in particular, the currently effective stricter rules for transactions in real estate forming Agricultural Property Stock of the State Treasury, including land for development, and the termination in 2018 of the "Flat for the Young" programme. On the other hand, the Individual Housing Accounts project, will have a positive impact on the housing supply, but due to a highly lagged effect of this programme, in the projection period they will have no influence on the development segment.

In the projection it is assumed that until the end of 2018 public consumption growth will remain much lower than the forecast GDP growth. This assumption results from the provisions of the *2018 Budget Act*, which envisage a relatively slow growth in the current expenditure of budgetary units and spending on targeted subsidies of other

Figure 4.13 Gross fixed capital formation (y/y, %) – breakdown



Source: GUS data, NBP calculations.

[38] *Information on home prices and the situation in the housing and commercial real estate market in Poland in 2017 Q3,* NBP, December 2017.

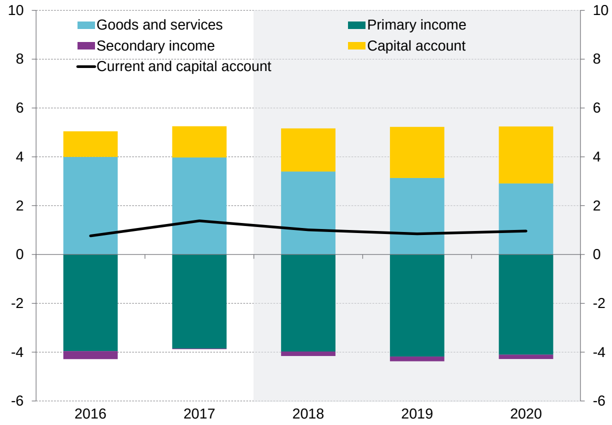
sector units. In particular, the *2018 Budget Act* provides for a further freeze on wages of some public sector employees. Due to the lack of detailed information on the continuation of measures aimed at limiting general government sector spending in the years 2019-2020, the growth rate of these expenditures has been set to be consistent with a neutral fiscal policy stance. This means that in this period public consumption growth will pick up and reach a level slightly higher than the GDP growth rate.

Current and capital account balance

The balance of payments statistics of the Polish economy are favourable – in 2017 the surplus in trade in goods and services reached a record high level, while the positive current and capital account balance improved (Figure 4.14). The achievement of a high trade surplus was supported by the relatively high competitiveness of the Polish economy and growing external demand related to the acceleration of global GDP growth. At the same time, the current and capital account surplus in 2017 was lowered by a persistent high primary income deficit. Higher earnings of foreign investors in Poland relative to that of Polish investors abroad result both from the higher amount of invested capital, and by its higher rate of return.

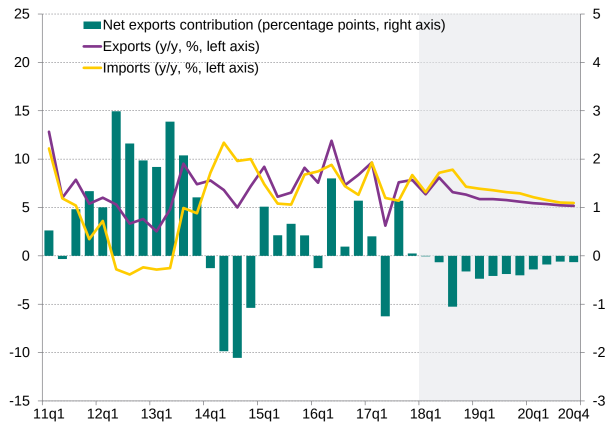
In the years 2018-2019, following the decrease in trade surplus, a fall in the total balance of the current and capital account is expected, although it will remain positive (Figure 4.14). Relatively high import volume growth related to the expected growth in investment demand in the Polish economy, including corporate investment characterised by relatively higher import intensity, will contribute to the deterioration of the trade surplus (Figure 4.15). The forecast slowdown in economic growth in the euro area and the expected appreciation trend of the real effective exchange rate of the zloty, limiting the

Figure 4.14 Current and capital account balance (percent of GDP) - breakdown



Source: GUS data, NBP calculations.

Figure 4.15 Foreign trade

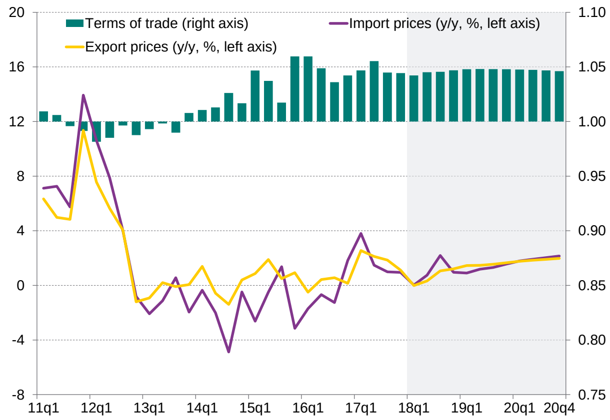


Source: GUS data, NBP calculations.

price competitiveness of Polish exports, will also have a negative impact on the balance of trade. The rising wages of immigrants working in Poland, related to the increased inflow of foreigners to Poland (primarily from Ukraine), will also contribute to a deterioration in the current and capital account balance. The fall in the current and capital account will be partly mitigated by the growth in the surplus in the capital account related to the growing inflow of EU investment funds under the EU financial framework 2014-2020.

In 2020 further growth in the inflow of EU investment funds is expected. At the same time, taking into account the slowdown in domestic demand growth, which will lower import growth and slow down the downward trend in the surplus in trade of goods and services, a further improvement in the ratio of the total current and capital account balance to GDP is expected in 2020.

Figure 4.16 Export and import prices

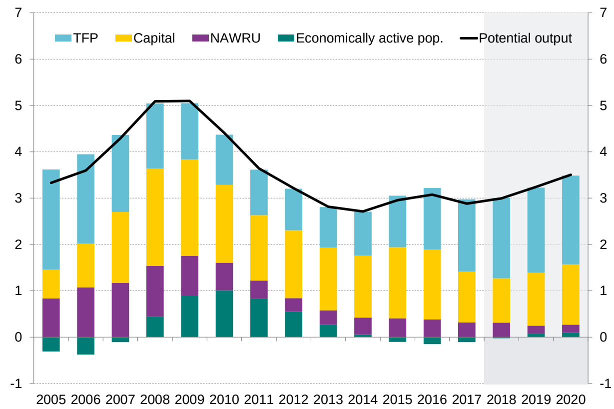


Source: GUS data, NBP calculations.

Potential output

Potential output growth will accelerate to 3.5% y/y over the projection horizon, while still remaining below the levels observed before the global financial crisis (Figure 4.17). Similarly to 2017, growth of Poland's economic potential will be primarily boosted by the rising total factor productivity (TFP), whereas the impact of productive capital accumulation will remain relatively smaller. The further decline in the equilibrium unemployment rate NAWRU and a rise in the number of economically active people will have a slightly positive effect on the forecast of potential output growth (Figure 4.17, Figure 4.18).

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



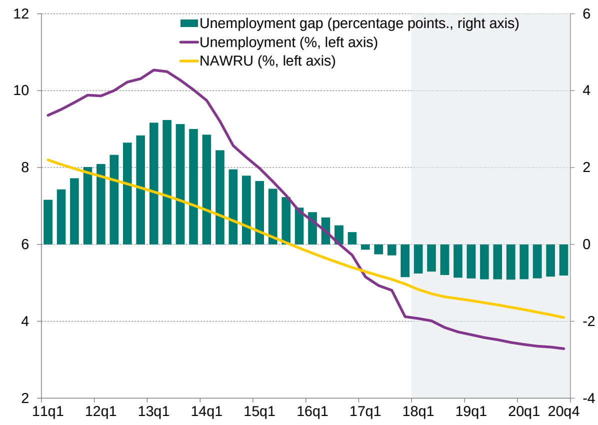
Source: NBP calculations.

The increase in total factor productivity has been the main driver of real convergence process of the Polish economy over the past twenty years. However, over the years TFP growth declined due to the gradual exhaustion of possible further increase in productivity via the improvement in production factor allocation, as well as the import of technology through foreign direct investment[39]. In recent years the downward trend of TFP growth in Poland has been reversed and the pickup in growth of total factor productivity is expected to continue over the projection horizon. The increase in TFP growth will be supported, among others, by the further improvement in the quality of human capital, expressed, among others, by the growing share of population with higher education in the age group 44 and over, as well as the increase in innovation performance of the Polish economy and improvement in its position in the global value chains.

The growing stock of productive capital will also boost potential product growth. However, due to the decline in investment rate as a result of a decrease in investment expenditure in the public sector in 2016 and in the corporate sector in 2016-2017, the growth rate of gross fixed capital formation over the projection horizon will be lower than in previous years.

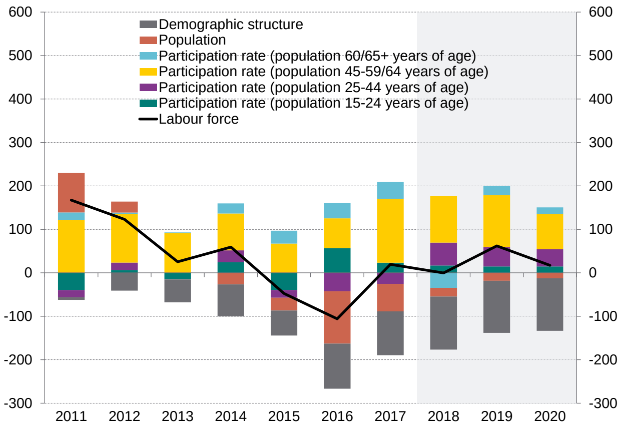
The growth of economic potential will be supported by the favourable situation in the labour market, which in turn will facilitate an increase in labour force participation (Figure 4.19). In particular, this effect will concern pre-retirees (50-59/64 years old), whose labour force participation is still significantly lower than in Western European countries. At the same time as a result of the lowering of the statutory retirement age as of 1 October 2017, the labour force participation rate in the oldest age group will probably decline. Moreover, potential output growth in the projection horizon will be limited by the continuation of negative demographic trends observed in Poland, i.e. the ageing and shrinking of the population. This trend is

Figure 4.18 Unemployment



Source: GUS data, NBP calculations.

Figure 4.19 Change in economically active population (thous., y/y)



Source: GUS data, NBP calculations.

[39] *Potencjał innowacyjny gospodarki: uwarunkowania, determinanty, perspektywy*, NBP, May 2016 (available in Polish only).

corroborated by the declining size of the cohorts entering the labour market and the increased share of persons in the post-productive age (LFS)[40]. However, the presence of immigrants, especially Ukrainian citizens, on the domestic labour market, has a positive impact on labour supply[41].

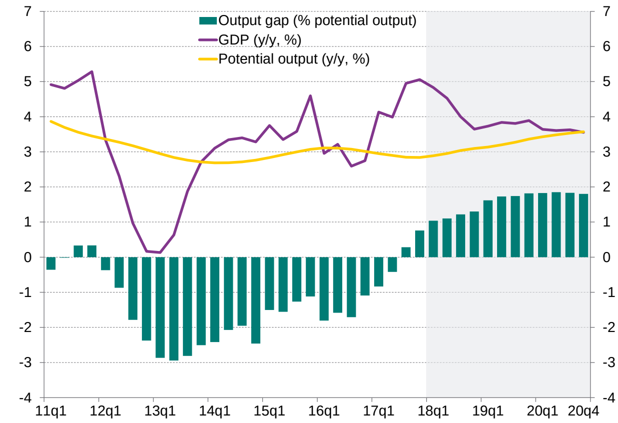
Output gap

In line with the current projection, the output gap which has been negative since 2012 closed in the second half of 2017. In the coming years the positive output gap will grow and at the end of the projection horizon will stand at 1.8% of potential output (Figure 4.20). Thus, production capacity growth will lag behind GDP growth. The increase in demand pressure in the economy as a whole, reflected in the rising output gap, will gradually translate into an increase in CPI inflation in the coming years.

Labour market

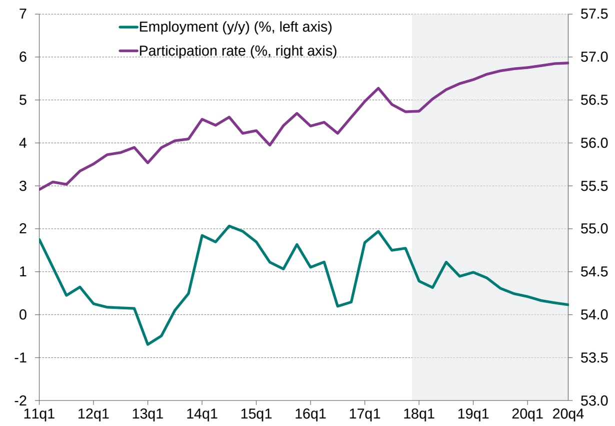
After a sharp increase in the number of employed persons in recent quarters (see Chapter 2.4 *Labour market*) employment growth is expected to slow down over the projection horizon (Figure 4.21). Although the determinants of demand for labour remain favourable, as suggested, among others, by the forecasts of the employment declared by the enterprises surveyed by NBP[42] reaching the highest level since 2007, along with the gradual slowdown in GDP growth, slower growth in demand for labour is expected in the coming years. Growth in the number of employed persons will also increasingly be held back by the limited supply of employees. The number of the

Figure 4.20 Output gap



Source: GUS data, NBP calculations.

Figure 4.21 Employment and labour force participation



Source: GUS data, NBP calculations.

[40] The NECMOD model distinguishes four age groups. The term "persons in the post-productive age" refers to the oldest group, covering women aged 60 and over, and men over 65. The boundaries of this age group do not change with the change in the retirement age.

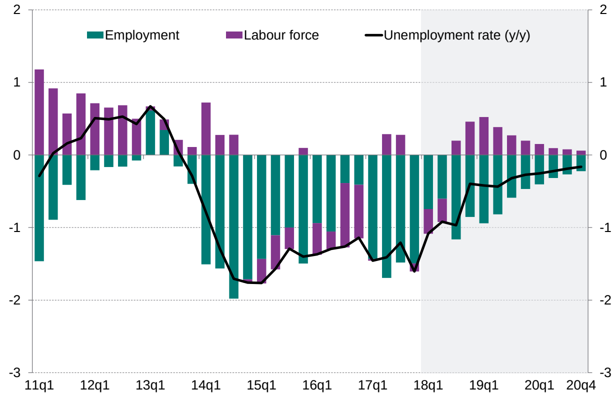
[41] Immigrants have a positive impact on the potential of the Polish economy, but due to the definition of Polish residents used in the LFS survey, they are included in the cohorts of the economically active and the employed only to a limited extent according to this methodology.

[42] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector*, NBP, January 2018.

unemployed who could undertake employment is small, which is reflected in the record low and declining LFS unemployment rate (Figure 4.18, Figure 4.22). As a result, enterprises face mounting difficulties with finding suitable employees, as reported by almost half of the surveyed companies[43]. Another sign of this trend is the growing number of job vacancies. Matching demand and supply in the labour market will therefore be achieved by higher intensity of labour utilisation, supported by an increase in expenditure on gross fixed capital formation leading to capital deepening. Activation of persons remaining outside the labour market will also continue.

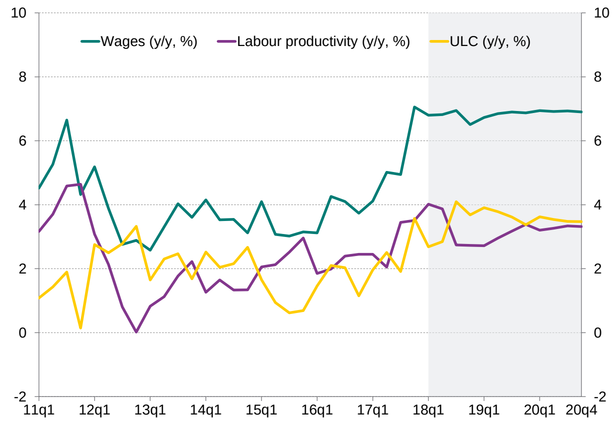
Falling unemployment, a large number of job offers, and diminishing probability of losing a job will result in the continuation of high wage growth over the projection horizon exceeding labour productivity growth (Figure 4.23). The projection scenario of continuing high wage growth is corroborated by the results of NBP surveys pointing to a rise in the share of companies forecasting wage increases[44]. At the same time, the share of employees to benefit from wage increases is at a relatively stable level, while the value of the average wage rise has decreased slightly[45]. The scale of future wage increases may be dampened by the still small number of companies declaring problems with finding employees as a barrier to development[46]. The presence of immigrants from Ukraine also mitigates the growing wage pressure in the economy.

Figure 4.22 Change in unemployment rate - decomposition



Source: GUS data, NBP calculations.

Figure 4.23 Unit labour costs



Source: GUS data, NBP calculations.

Exchange rate

The current exchange rate of the zloty is below the level resulting from fundamental factors. This

[43] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector*, NBP, January 2018.

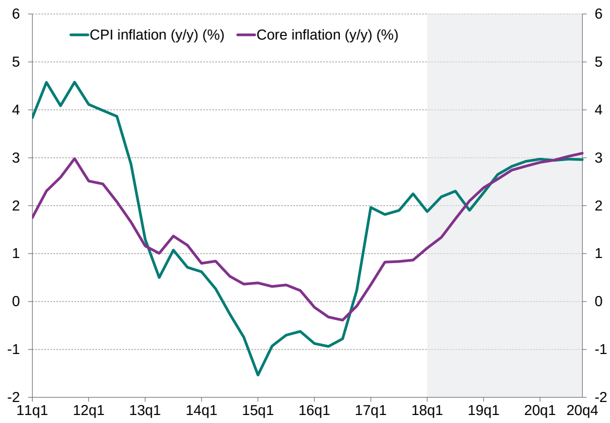
[44] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector*, NBP, January 2018.

[45] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector*, NBP, January 2018.

[46] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector*, NBP, January 2018.

is suggested, among other things, by the improvement in the surplus on the current and capital account in 2017. Despite the appreciation in recent months, the exchange rate is still not a barrier to export activity of Polish enterprises.[47] Over the projection horizon, the effective exchange rate of the zloty is expected to strengthen and gradually approach the equilibrium exchange rate. This is supported by the forecasted growing inflow of EU transfers and the high trade surplus, which will underpin the positive balance on the total current and capital account in 2018-2020. The appreciation of the zloty over the projection horizon will also be driven by the relatively low level of risk premium related to, among others, a significant decline in the general government deficit. The strengthening of the zloty is also driven by the ongoing process of real convergence of the Polish economy, reflected in higher growth of the domestic potential product relative to that of Poland's main trading partners. The scale of the expected zloty exchange rate appreciation is partly curbed by the declining interest rate disparity. This is a result of the assumption of unchanged NBP interest rates amid an expected increase in the cost of money in the environment of the Polish economy. In particular, over the projection horizon a normalisation of monetary policy is expected in the euro area as well as a continuation of the cycle of interest rate hikes in the United States and the United Kingdom. Due to the slight weakening of the US dollar against the euro expected over the projection horizon, the zloty will strengthen slightly more against the US currency than the single European currency.

Figure 4.24 CPI and core inflation



Source: GUS data, NBP calculations.

Components of CPI inflation

CPI inflation in the current forecasting round will follow a gradual upward trend and in the years

[47] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector*, NBP, January 2018.

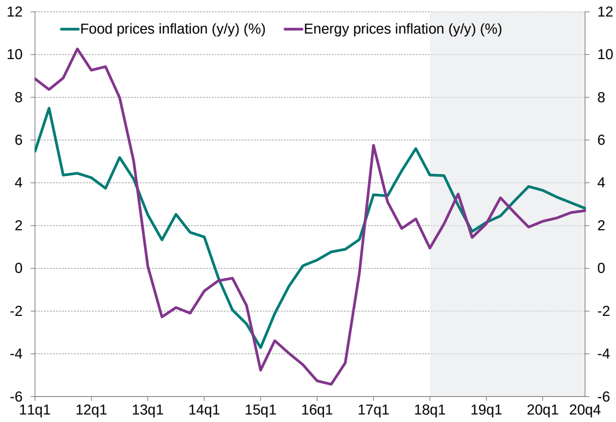
2019-2020 will run slightly above 2.5% (Figure 4.24).

The increase in CPI inflation in the years 2018-2020, and especially in core inflation, will be driven by rising cost and demand pressure in the Polish economy (Figure 4.24). Firms' difficulties of finding suitably qualified personnel due to insufficient labour supply will translate into wage growth exceeding labour productivity growth. As a result, unit labour cost growth will accelerate, approaching the level of 3.5% y/y in 2018-2020 (Figure 4.23). Higher inflation will also be the result of increasing demand pressure. Yet, the sensitivity of prices to changes in domestic economic conditions has decreased in recent years[48].

The impact of domestic factors on growth in CPI inflation will be partly mitigated by the low growth rate of import prices expected in the years 2018-2020, resulting from the persistence of moderate price growth in the euro area and the appreciation of the zloty. The rising costs for businesses will also be curbed by the forecast gradual decline in global energy commodity prices over the projection horizon. This decline will translate into lower growth of domestic energy prices in the years 2019-2020. However, low inflation of this category in 2018 will be the result of a lower increase in charges for electricity than in 2017 and the anticipated fall in natural gas prices for households due to the expected end of the arbitration proceedings between PGNiG and Gazprom in the first half of 2018.

Despite the pro-inflation impact of demand and cost factors, food price inflation in the years 2018-2020 will not exceed the level of 2017 (Figure 4.25). The significant increase in food prices in 2017 was the result of lower availability of certain

Figure 4.25 Food and energy price inflation



Source: GUS data, NBP calculations.

[48] Szafranek, Karol, 2017. Flattening of the New Keynesian Phillips curve: Evidence for an emerging, small open economy, *Economic Modelling*, Elsevier, vol. 63(C), s. 334-348.

agricultural commodities and products (among others, fruit, butter, milk, eggs), while the supply of these products will gradually improve in line with the assumptions in the projection. In addition, the end of the production quota system in the EU sugar market since October 2017 will constrain food price growth in the coming quarters.

4.4 Current versus previous projection

Data released after the cut-off date of the November projection contributed to an upward revision of the GDP growth forecast in 2018-2019 by 0.5-0.6 p.p., at the same time lowering slightly the inflation path in the coming quarters (Table 4.2, Figure 4.26, Figure 4.28).

GDP

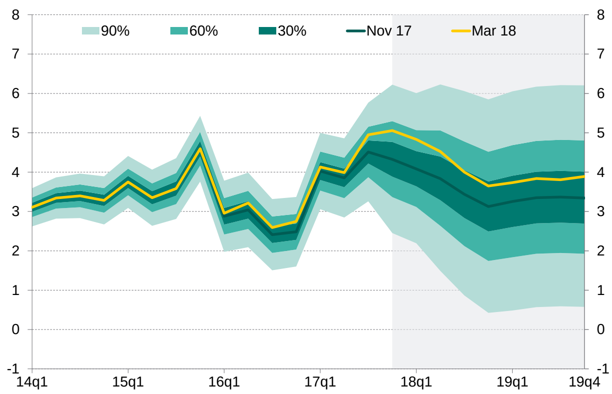
The upward revision of the GDP growth forecast in the March projection for the years 2018-2019 is driven by higher economic activity in 2017. In comparison to the November projection, in 2017 the situation in Poland's foreign trade was particularly favourable (Figure 4.27). The increase in sales of own products, combined with an upward revision of forecasts of economic activity in the euro area and the United States, translates into an improvement in the enterprises expectations for the future. This is confirmed by the results of the NBP Quick Monitoring Survey[49]. The enterprises participating in the survey have further raised their demand forecasts, at the same time assessing their level of capacity utilisation as close to full. At the same time, the percentage of enterprises intending to embark on new large investment projects in 2018 is growing, and the total amount of expenditures planned by them is also increasing. In addition, enterprises assess

Table 4.2 March projection versus November projection

	2017	2018	2019
GDP (y/y, %)			
March 2018	4.6	4.2	3.8
November 2017	4.2	3.6	3.3
CPI inflation (y/y, %)			
March 2018	2.0	2.1	2.7
November 2017	1.9	2.3	2.7

Source: NBP calculations.

Figure 4.26 March projection versus November projection: GDP growth (y/y, %)



Source: NBP calculations.

[49] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector*, NBP, January 2018.

their current level of inventories as too low - the scale of shortages of finished goods inventories exceeds that observed during the peak of the business cycle in 2007. Including this information has contributed to an upward revision of both the forecast path of investment and changes in inventories in the years 2018-2019.

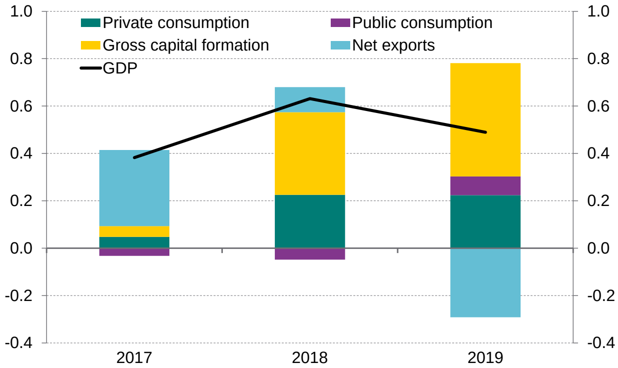
Private consumption is another GDP component, after gross capital formation, whose growth outlook is currently assessed better than in the November projection. In the years 2018-2019, along with an improvement in the economic situation, the forecast of the labour market situation is more favourable, what is reflected in faster growth in wage fund. In addition, the gradual improvement in household sentiment will have a favourable impact on the forecast of private consumption – consumer confidence indicators are still in the medium-term upward trend reaching historically high levels.

After a record trade surplus in 2017 the space for a further improvement in the contribution of net exports to growth is limited, especially given the expected appreciation trend of the zloty in the following years. In addition, along with the faster growth of import-intensive GDP components such as investment and private consumption, relatively strong import growth is expected, thus reducing the contribution of net exports to GDP. Therefore, in comparison to the November projection, higher economic growth in the years 2018-2019 will be driven to a greater extent by domestic demand and to a lesser extent by foreign trade (Figure 4.27).

Inflation

In 2017, CPI inflation was 0.1 p.p. above expectations from the November projection. This was due to stronger food price growth in 2017 Q4 as a result of the lower supply of certain agricultural commodities, primarily fruits,

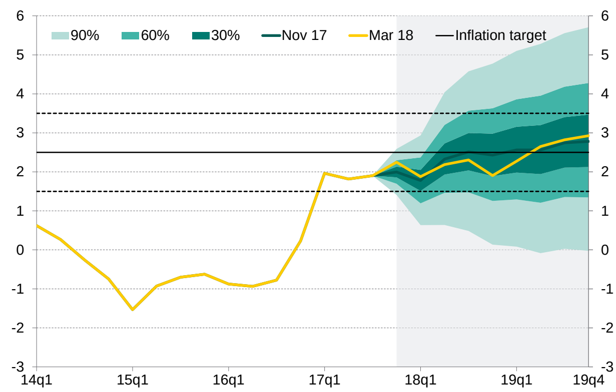
Figure 4.27 Decomposition of deviations between March and November projection: GDP growth (percentage points)



Source: NBP calculations.

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

Figure 4.28 March projection versus November projection: CPI inflation (y/y, %)



Source: GUS data, NBP calculations.

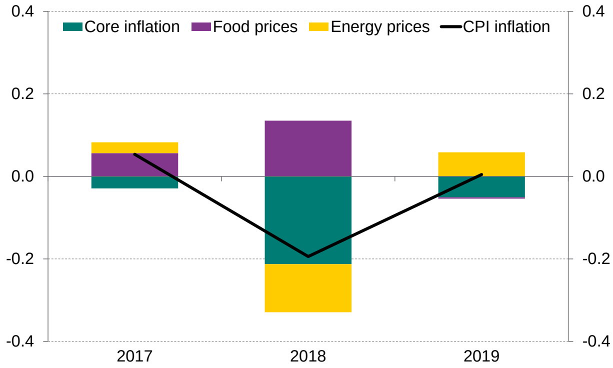
vegetables, as well as dairy and fat products (Figure 4.29). This effect will however gradually fade over the course of 2018.

At the same time, core inflation was lower than expected in 2017 Q4 and in January 2018. Weaker readings of this indicator, despite higher economic and wage growth, probably reflect a lower sensitivity of price changes to economic activity[50] and indicate strong competition in the domestic market. In addition, price growth was lowered by the strengthening of the exchange rate of the zloty, which translates into cheaper goods imported from abroad. These factors are behind the downward revision of the path of core inflation in the March projection, while the scale of the revision will diminish in 2019 as a result of growing demand pressure in the economy and the improving labour market situation.

Compared to the November projection, energy price forecasts in the years 2018-2019 did not change significantly. On the one hand, oil price increases translated into higher domestic fuel prices. On the other hand, this is mitigated by the relatively stronger appreciation of the zloty against the US dollar. Moreover, in January 2018 the increase in electricity prices, that was expected in the previous forecasting round, did not take place, which also contributed to the downward revision of the energy price forecasts.

Data released after the cut-off date of the November projection had the multidirectional impact on the inflation path. In total, the forecast for 2019 did not change compared to the previous forecasting round, however, price growth in 2018 declined slightly.

Figure 4.29 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.

[50] Szafranek, Karol, 2017. Flattening of the New Keynesian Phillips curve: Evidence for an emerging, small open economy, *Economic Modelling*, Elsevier, vol. 63(C), pp. 334-348.

4.5 Forecast uncertainty sources

The central scenario of the projection, presenting the most likely macroeconomic developments in Poland, is subject to uncertainty reflected in the fan charts (Figures 4.1 and 4.2). Its main source is the further developments in the external environment of the Polish economy as well as the labour supply prospects in Poland. The balance of sources of uncertainty points to a near-symmetrical distribution of risks to CPI inflation (Table 4.3). On the other hand, GDP growth may run lower than in the central scenario over the longer-term projection horizon. The asymmetry of the balance of risks associated with the GDP growth rate results from the higher probability of the labour force running below the central scenario's assumptions. Under the assumption of unchanged NBP reference rate, the probability of CPI inflation running within the symmetrical band for deviations from the NBP inflation target of 2.5% (+/- 1 percentage point) gradually declines from its current level of 86% to 41% at the end of the projection horizon (Table 4.3). The most significant uncertainty sources for the projection are discussed below.

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%)
18q1	0.14	0.97	1.00	0.50	0.86
18q2	0.16	0.69	0.98	0.50	0.82
18q3	0.21	0.58	0.89	0.50	0.67
18q4	0.37	0.69	0.91	0.51	0.54
19q1	0.29	0.57	0.82	0.51	0.53
19q2	0.23	0.47	0.72	0.51	0.50
19q3	0.21	0.43	0.67	0.51	0.46
19q4	0.20	0.41	0.65	0.51	0.45
20q1	0.20	0.40	0.63	0.51	0.43
20q2	0.21	0.41	0.63	0.51	0.42
20q3	0.21	0.40	0.63	0.51	0.41
20q4	0.21	0.40	0.62	0.51	0.41

Source: NBP calculations.

Deterioration in the prospects of growth in the global economy

The risk of a lower path of GDP growth in Poland than in the baseline scenario is to a large extent connected with the possibility of a weakening of the global economic conditions.

Among the global factors, including those related to an increase in geopolitical tensions, a significant source of uncertainty for the projection is future economic activity in the world's largest economy – the United States. Following the dynamic growth of asset prices on the US stock markets in 2017, the risk of their overvaluation has risen significantly. Although recently the asset prices have fallen, this does not rule out a stronger correction in the projection horizon. Combined with the low saving rate of households and high share of financial assets in their wealth, this could lead to a marked slowdown in growth of private consumption, and consequently, lower GDP growth in the US economy than assumed in the projection.

Future economic growth developments in the United States, as well as in other developed economies, are also fraught with uncertainty connected with the continuation of low productivity growth rate amid low investment growth.

A risk for the GDP growth outlook in certain European economies is also posed by the scale of the future adjustment in the housing market in response to the currently observed relatively high real estate prices. Particularly serious consequences for GDP growth would be observed in countries characterised by high levels of household debt.

The possibility of a downturn in global trade as a result of a slowdown in the integration processes of the global economy continues to be a source of risk for the current projection. The uncertainty of growth and inflation outlook is also related to the terms on which the United Kingdom leaves the European Union.

Improvement in global economic conditions

Should the risk factors strengthening the recovery in global economic conditions materialise, the GDP growth rate in Poland could reach a higher level than in the baseline scenario of the projection.

In particular, this would take place amid a stronger impact of the tax reform in the United States on the economic situation in this country compared to the projection assumptions. Higher GDP growth in the US economy may also be related to the more favourable supply conditions in this economy. Continuing relatively low inflation rate may indicate that the decline in growth of potential GDP in the United States following the financial crisis was less significant than assumed in the projection[51].

The possibility of higher growth in the euro area than assumed in the projection, is in turn connected with the more pronounced rebound in investment amid high internal and external demand accompanied by stronger corporate sentiment. In the longer projection horizon a higher GDP growth rate in the euro area may also result from a stronger improvement in its competitiveness due to structural reforms implemented in some of the member countries.

Labour supply in Poland

The future labour force in Poland remains the largest internal source of risk for the central projection scenario. This is connected with the difficulty in assessing how many people who are entitled to retire under the current law that lowers the retirement age become economically inactive. The projection assumes that the favourable situation in the labour market will encourage the majority of people who are currently economically active to stay in the labour market, but these estimates are subject to significant uncertainty. It is also difficult to assess to what extent the currently observed positive structural changes in the labour market, leading to an increase in economic activity in the age group 45-59/64, will continue in the projection horizon.

The materialisation of the above risk factors, resulting in lower labour supply, restricting the space to increase domestic production, would lead to a slowdown in the economic growth rate in the projection horizon.

Oil prices in the global markets

Changes in global prices of oil and of other energy commodities continue to be a source of uncertainty for the inflation path in the baseline scenario. The OPEC supply policy remains unspecified after the current restrictions on oil production expire at the end of 2018. The forecasts of the supply of shale oil in the United States are also fraught with uncertainty due to the short production history of the currently available formations and the dynamic improvement of drilling technology. Demand for oil in the

[51] Olivier Coibion, Yuriy Gorodnichenko, Mauricio Ulate, 2018. Real-Time Estimates of Potential GDP: Should the Fed Really Be Hitting the Brakes?, *Policy Futures*, Center on Budget and Policy Priorities.

emerging Asian economies also add to the uncertainty associated with the path of oil prices assumed in the baseline scenario.

Table 4.4 Central path of inflation and GDP projection

	2016	2017	2018	2019	2020
Consumer Price Index CPI (%, y/y)	-0.6	2.0	2.1	2.7	3.0
Core inflation net of food and energy prices (%, y/y)	-0.2	0.7	1.6	2.6	3.0
Food prices (%, y/y)	0.9	4.3	3.3	2.9	3.2
Energy prices (%, y/y)	-3.8	3.3	2.0	2.5	2.5
GDP (%, y/y)	2.9	4.6	4.2	3.8	3.6
Domestic demand (%, y/y)	2.2	4.7	4.7	4.3	3.8
Private consumption (%, y/y)	3.9	4.8	4.1	3.9	3.7
Public consumption (%, y/y)	1.7	2.4	2.2	3.9	3.9
Gross fixed capital formation (%, y/y)	-7.9	5.4	8.6	6.3	4.8
Contribution of net exports (percentage points y/y)	0.7	0.1	-0.4	-0.4	-0.2
Exports (%, y/y)	8.8	7.0	6.8	5.8	5.3
Imports (%, y/y)	7.9	7.4	7.8	6.7	5.7
Gross wages (%, y/y)	3.8	5.3	6.8	6.8	6.9
Total employment (%, y/y)	0.7	1.7	0.9	0.7	0.3
Unemployment rate (%)	6.2	4.8	3.9	3.5	3.3
NAWRU (%)	5.6	5.1	4.7	4.5	4.2
Labour force participation rate (%, y/y)	56.2	56.5	56.5	56.8	56.9
Labour productivity (%, y/y)	2.2	2.9	3.3	3.1	3.3
Unit labour cost (%, y/y)	1.7	2.5	3.3	3.7	3.5
Potential output (%, y/y)	3.1	2.9	3.0	3.2	3.5
Output gap (% potential GDP)	-1.5	0.0	1.2	1.7	1.8
Index of agricultural commodity prices (EUR; 2011=1.0)	0.90	0.90	0.81	0.85	0.85
Index of energy commodity prices (USD; 2011=1.0)	0.50	0.64	0.70	0.66	0.63
Inflation abroad (%, y/y)	1.1	1.3	1.4	1.9	2.1
GDP abroad (%, y/y)	1.8	2.4	2.3	1.8	1.6
Current and capital account balance (%, GDP)	0.8	1.4	1.0	0.8	1.0
WIBOR 3M (%)	1.70	1.73	1.73	1.73	1.73

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

5 The voting of the Monetary Policy Council members in October 2017 – January 2018

■ Date: 8 November 2017

Subject matter of motion or resolution:
Resolution No. 6/2017 of 8 November 2017 amending the resolution on the required reserve ratios for banks, cooperative savings and credit unions and the National Association of Cooperative Savings and Credit Unions and the remuneration of required reserves.

Voting of the MPC members:

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

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

■ Date: 5 December 2017

Subject matter of motion or resolution:
Resolution No. 7/2017 of 5 December 2017 amending the resolution on the required reserve ratios for banks, cooperative savings and credit unions and the National Association of Cooperative Savings and Credit Unions and the remuneration of required reserves.

Voting of the MPC members:

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

■ Date: 19 December 2017

Subject matter of motion or resolution:
Resolution No. 8/2017 of 19 December 2017 on approving the Financial Plan of the National Bank of Poland for 2018.

Voting of the MPC members:

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

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