NBP Narodowy Bank Polski

Monetary Policy Council

July 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 28 June 2018.

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

Contents

Summary

Global economic conditions remain favourable, despite weaker GDP growth in some advanced economies at the beginning of the year. Besides rising consumer demand, sound economic conditions in many countries are also supported by stronger investment activity. World trade growth, in turn, has eased slightly, yet it remains higher than in previous years. Risk factors to the global GDP growth include higher oil prices than a year ago and changes in the United States trade policy.

Despite favourable global economic conditions, inflation in the external environment of the Polish economy remains moderate. This is supported by relatively low core inflation in some of the major economies. In turn, global energy commodity prices, including oil prices, which are higher than a year ago, are gradually translating into stronger growth of energy prices.

The European Central Bank (ECB) keeps interest rates close to zero, including the deposit rate below zero. At the same time, the ECB continues its asset purchase programme, and anticipates that it will last until the end of 2018, though monthly purchases will be lowered since September 2018. Moreover, the ECB expects its interest rates to remain at their present levels at least through the summer of 2019. Meanwhile, in the United States gradual tightening of monetary policy continues through increases in interest rates by the Federal Reserve (Fed) as well as gradual reduction of its balance sheet.

Sentiment in the global financial markets has worsened in recent months, since it was adversely affected by geopolitical factors, including those related to the foreign and trade policy of the United States, and also a temporary rise in political risk in Italy. Amid deteriorating sentiment in global financial markets, global equity prices stopped rising. At the same time, government bond yields in most of economies rose, albeit to a various extent. In particular, the increase in political risk in Italy caused a surge of yields on government bonds in this country and temporarily also in other highly indebted euro area economies. In turn, in countries typically perceived as the most stable, including Germany, the yields on government bonds declined. Against this backdrop, the euro and the currencies of Central and Eastern European countries, as well as the currencies of emerging market economies, weakened against the US dollar.

Consumer price growth in Poland remains moderate (it stood at 1.5% in 2018 Q1, 1.6% in April, and 1.7% y/y in May)[1] on the back of stabilisation in domestic demand pressure and moderate inflation in Poland's most important trading partners. As a result, core inflation stays low. At the same time, following a decline at the turn of 2017 and 2018, energy price growth rose, while food price growth weakened. The survey opinions of both consumers and enterprises on future inflation have not changed markedly over recent months. Slightly lower are currently inflation expectations of economists surveyed by NBP, who continue to expect inflation running close to the NBP target in the coming quarters.

Economic conditions in Poland remain favourable. In 2018 Q1, GDP growth was close to that in the second half of 2017 (5.2% y/y in 2018 Q1 against 4.9% in 2017 Q4 and 5.2% in 2017 Q3). It continues to be driven

[1] In June 2018, according to the flash estimate by GUS, inflation stood at 1.9% y/y.

primarily by expanding consumer demand, which is supported by rising employment and wages combined with very high consumer confidence. At the same time, investment growth is gathering speed, though largely on the back of public investment co-financed from EU funds. Net exports contributed negatively to GDP growth in 2018 Q1, which was likely to reflect a temporary slowdown in the euro area economic activity at the beginning of the year. In turn, change in inventories had a significantly positive contribution to GDP growth.

The steadily rising demand in the economy is driving up the demand for labour, which translates into a further increase in employment and decline in unemployment. As a consequence, bargaining position of employees in wage negotiations is strengthening which is reflected in a faster than in previous years growth in wages in the economy. At the same time, non-wage working conditions are improving. The stronger than in previous years wage growth is, however, accompanied by higher labour productivity growth resulting from an acceleration in economic activity. Consequently, unit labour cost growth remains moderate.

Taking into consideration macroeconomic conditions, the Monetary Policy Council keeps NBP interest rates unchanged, including the reference rate at 1.50%. In the recent period, market expectations on NBP interest rates have lowered and indicate a stabilisation of interest rates in the coming quarters.

In recent months, government bond yields in Poland have been relatively stable, while equity prices have declined, following a marked fall in stock indices in other emerging markets. The decline in equity prices took place despite favourable signals regarding economic conditions in Poland. Amid deteriorating sentiment in global financial markets, the exchange rate of the zloty weakened, after an earlier strenghtening. In turn, the expansion phase in the residential real estate market continued. This has not generated any major tensions thus far. Growing activity in the market was accompanied by slight increases in home prices.

In 2018 Q1, growth of the broad money aggregate (M3) picked up slightly compared to 2017 Q4. Growth in the value of household deposits still made the largest contribution to the M3 growth, while the increases in corporate deposits and cash in circulation were of minor importance. Stable growth of loans to the non-financial sector, which for several quarters has been running somewhat lower than nominal GDP growth, continued to be the main driver behind the creation of broad money. Consequently, the ratio of non-financial sector debt to GDP remained broadly stable and at the end of 2018 Q1 stood at around 51%.

In 2018 Q1, the current account balance decreased slightly compared to 2017 Q4 (it stood at -0.2% of GDP in terms of a 4-quarter rolling sum). This reflected a decline in the balance of trade in goods, as exports decelerated more than imports, which probably resulted in part from temporary factors. The capital account remained in surplus, supported by further inflow of funds under the Cohesion Fund and the European Regional Development Fund. As a consequence, the combined current and capital account balance stood at 1.2% of GDP. In 2018 Q1, the financial account balance was close to that in the previous quarter, and amounted to 0.1% of GDP (in terms of a 4-quarter rolling sum). The balanced financial account was accompanied by a reduction in Poland's foreign debt. Also other indicators of external stability evidence that Polish economy is well balanced.

The *Report* is structured as follows: Chapter 1 presents the analysis of economic conditions in the external environment of the Polish economy in terms of their impact on inflation developments in Poland. These developments and the domestic factors that might affect them have been described in Chapter 2. *Minutes* *of the Monetary Policy Council decision-making meetings* held in February – June 2018, together with the *Information from the meeting of the Monetary Policy Council* in July 2018 are presented in Chapter 3. *Minutes* of the MPC meeting held in July will be published on 23 August 2018 and so will be included in the next *Report*. The Monetary Policy Council voting records from the meetings held between February and mid-May 2018 can be found in Chapter 5.

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 22 June 2018 – there is a 50-percent probability that the annual price growth will be in the range of 1.5–2.1% in 2018 (against 1.6–2.5% in the March 2018 projection), 1.9–3.5% in 2019 (compared to 1.7–3.6%) and 1.7–3.9% in 2020 (against 1.9–4.1%). At the same time, the annual GDP growth – according to this projection – will be with a 50-percent probability in the range of 4.0–5.2% in 2018 (against 3.5–5.0% in the March 2018 projection), 2.8–4.7% in 2019 (compared to 2.8–4.8%) and 2.4–4.3% in 2020 (against 2.6–4.6%).

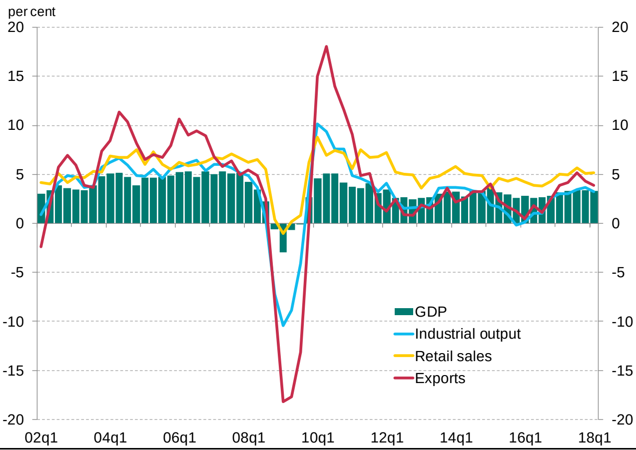
1. External developments

1.1 Economic activity abroad

Global economic conditions remain favourable, despite weaker GDP growth in some advanced economies at the beginning of the year. Besides rising consumer demand, sound economic conditions in many countries are also supported by stronger investment activity. World trade growth, in turn, has eased slightly, yet it remains higher than in previous years (Figure 1.1) Risk factors to the global GDP growth include higher oil prices than a year ago and changes in the United States trade policy.

Favourable economic conditions continue, in particular, in Poland's major trading partners, although in the euro area annual GDP growth declined in 2018 Q1 as compared to the second half of 2017, when it was the highest since the beginning of the decade (Figure 1.2). The slowdown (to 2.5% y/y in 2018 Q1) was partly due to unfavourable one-off factors[2], but could also have been related to reaching the mature phase of the business cycle by some euro area economies. Economic growth in the euro area continues to be driven primarily by domestic demand, particularly private consumption, with a positive contribution from investment outlays. Further increase in domestic demand is backed by the gradual rise in employment and wages, as well as the continued expansionary monetary policy of the European Central Bank (see Chapter 1.4

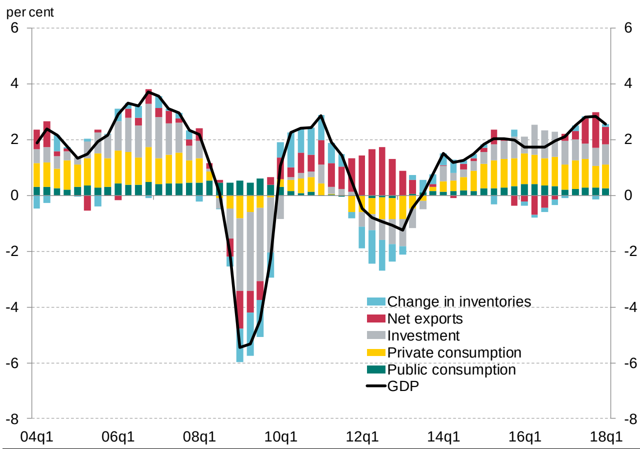
Figure 1.1 GDP growth and global economic activity indicators (y/y)



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)



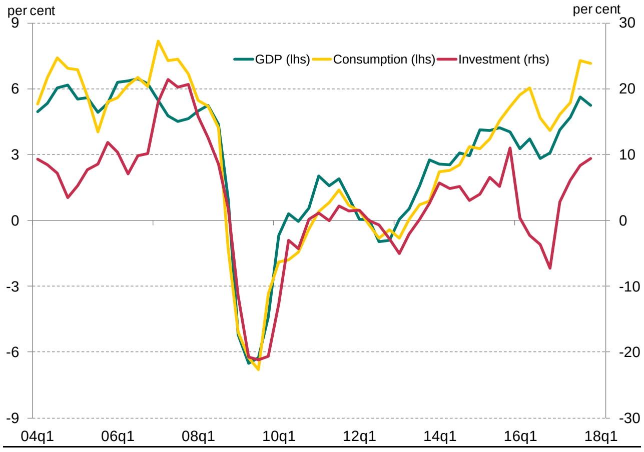
Source: Eurostat data.

[2] Factors negatively affecting economic activity in the euro area in Q1 included, among others, unfavourable weather conditions and strikes in Germany and France.

Monetary policy abroad).The pickup in the euro area economic activity is also strongly supported by growing exports, whose outlook might be, however, negatively impacted by the changes in the United States trade policy.

Some easing in economic activity in the euro area, including in Germany, has probably contributed to a decline in export growth of Central and Eastern European economies in 2018 Q1. Yet it is domestic demand that continues to be the main driver of the relatively fast GDP growth in these economies (Figure 1.3). A strong rise in consumption, underpinned by high wage growth and further increase in employment, is accompanied by a marked recovery in investment demand.

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

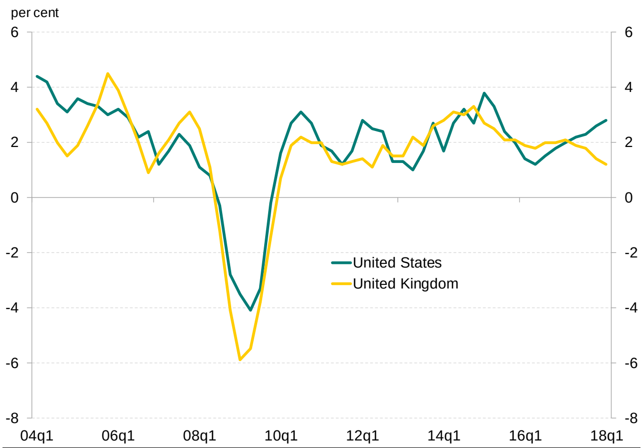


Source: Eurostat data, NBP calculations.

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).

The United States continue to see sound economic conditions, although in 2018 Q1 GDP growth in quarter-on-quarter terms (SAAR – seasonally adjusted annual rate) weakened, which was largely driven by one-off factors.[3] Annual GDP growth, however, increased to 2.8% y/y (Figure 1.4). Consumer demand continues to be the main driver of growth in this economy, supported by robust labour market conditions, amid rising employment and wages, as well as increasing wealth of households, mainly due to growth in the prices of financial assets (see Chapter 1.5 *International financial markets*). At the same time, growth in economic activity is increasingly backed by rising corporate investment. The pickup in corporate investment in 2018 Q1 was also accompanied by continued increase in exports, mainly of goods. The consequences of changes in the United States trade policy pose a risk to growth in this country.

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



Source: Bloomberg data.

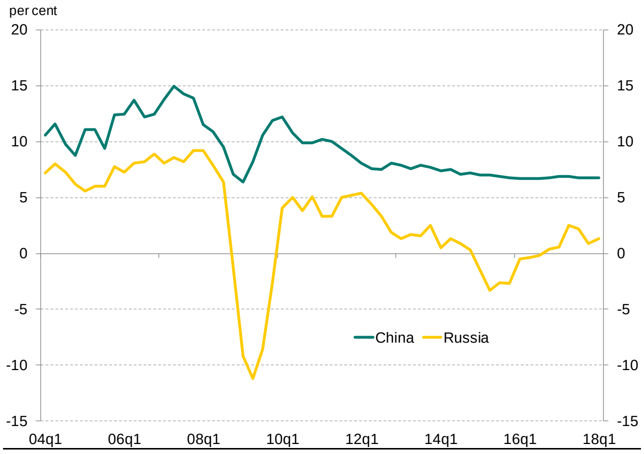
In the United Kingdom, annual GDP growth declined again in 2018 Q1 (to 1.2% y/y; Figure 1.4). This was mainly accounted for by stock depletion. Private consumption growth was also lower than in the second half of 2017 as – despite rising

[3] The one-off factors curbing GDP growth in the United States in Q1 included the fading impact of the reconstruction works after the devastation caused by the hurricanes and delays in the refund of overpaid taxes.

employment and wages – subdued consumer sentiment prevailed and growth in consumer loans decreased. The relatively high export growth is driven by rising global trade, while the positive effects of the 2016 depreciation of the British pound on price competitiveness of British exports are gradually fading.

At the beginning of 2018, economic conditions in the major emerging market economies stabilized (Figure 1.5). In China, GDP growth remained at the level recorded in the second half of 2017. Strong rise in private consumption was accompanied by some easing in infrastructure investment related to tighter regulations on financing local government investments. Alongside that, growing investment in the real estate sector was a driver of economic growth in China, together with exports which continued to rise at a stable rate in 2018 Q1. At that time, growing tensions in China's trade relations with the United States did not translate into a decline in trade volumes between the two countries, although concerns about a further deterioration in mutual economic relations could also accelerate planned deliveries. In turn, economic conditions in Russia have seen a moderate improvement, following a substantial slowdown in 2017 Q4. Economic activity in the Russian economy is underpinned by higher commodity prices, favourable global economic conditions and monetary policy easing by the central bank.

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



Source: Bloomberg data.

1.2 Inflationary developments abroad

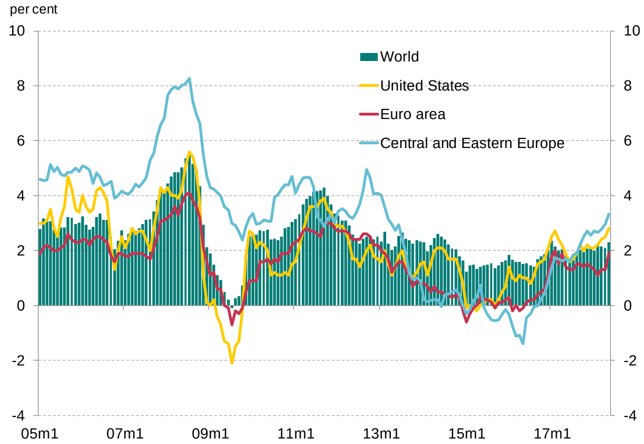
Despite favourable global economic conditions, inflation in the external environment of the Polish economy remains moderate (Figure 1.6). This is supported by relatively low core inflation in some of the major economies. In turn, global energy commodity prices, including oil prices, which are higher than a year ago, are gradually translating into a higher growth of energy prices (see Chapter 1.3 *Global commodity markets*).

In the euro area, despite a rise in inflation in May 2018 to 1.9%, according to ECB forecasts inflation will remain below the ECB definition of price stability in 2018 (Figure 1.6). This is the effect of the persistently low core inflation, whose growth has been contained by the still weak wage growth (Figure 1.7). The relatively slow wage growth is driven by low wage pressure in the majority of the euro area countries and low inflation expectations of employees. Consumer price growth is additionally limited by the stronger exchange rate of the euro.

In the United States inflation is still higher than in most other advanced economies and is on a steady upward trend (CPI inflation in May 2018 stood at 2.8%, while PCE inflation, to which the Fed's long-term inflation goal refers to, stood at 2.0% in April 2018; Figure 1.6). This is backed by the economic recovery observed there over the past few years and reflected in good labour market conditions and higher wage pressure. As a result, core inflation is on the rise as well. Growing energy prices are currently also contributing to higher inflation.

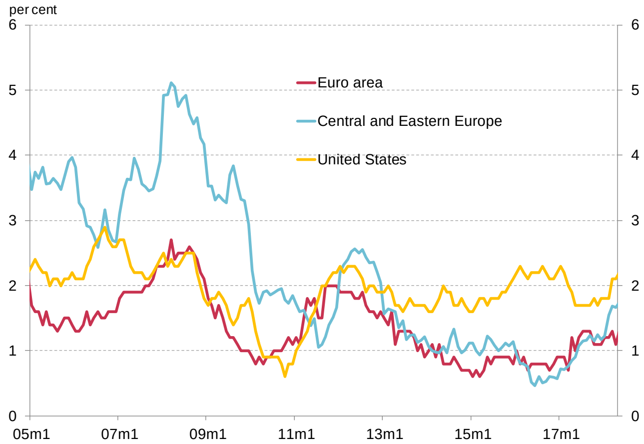
In the first months of 2018 in most countries of Central and Eastern Europe inflation remained relatively stable, albeit higher than in 2017. Romania was the only country to see a marked pick-up in inflation.[4] The gradual rise in inflation in the countries of the region was driven by growing wages translating into higher core inflation in some of those countries, as well as further increase in food prices mainly related to temporary supply constraints in the markets of some agricultural products. However, despite the gradual increase in price growth, inflation rates in the countries of the region still remain below their long-term averages (Figure 1.7).

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).

[4] The considerable rise in inflation in Romania in the first half of 2018 is mainly the result of the fading base effects connected with the earlier VAT cuts and increases in administered prices of gas and electricity in 2018.

1.3 Global commodity markets

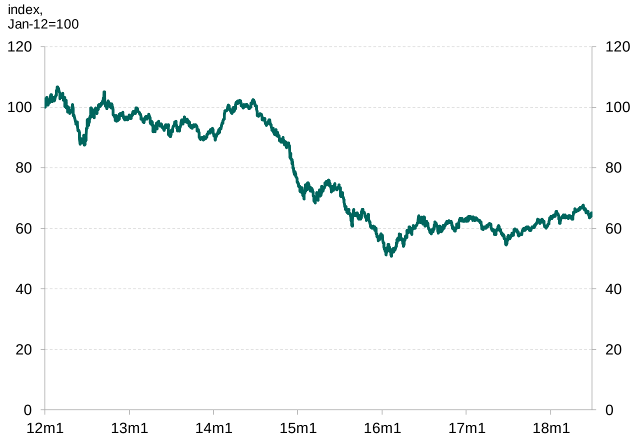
The prices of the majority of energy commodities are currently higher than a year ago. In recent months, agricultural commodity prices have also risen, although they remain relatively low (Figure 1.8, Figure 1.9, Figure 1.10).

The relatively high level of oil prices is to a large extent the result of the restrictions on its production introduced by the members of the Organization of the Petroleum Exporting Countries (OPEC) and some other oil exporters. The increase in prices of this commodity was also supported by the decline in oil production in Venezuela as a result of unstable political and economic situation in that country and the United States announcement of sanctions against Iran. In view of the simultaneous rise in demand for this commodity amid the continued favourable global economic conditions, world oil inventories have systematically declined, also boosting oil prices (Figure 1.9). The fall in inventories has additionally increased the sensitivity of oil prices to geopolitical tensions. This has been shown by a further rise in oil prices, despite the announcement of the decision by OPEC and some other exporters to increase oil production limits.

In the recent period, coal prices have also risen (Figure 1.9), mainly due to continued strong demand for this commodity on the part of Asian countries. In particular, demand from China rose, accompanied by the simultaneous decline in coal production by some Chinese producers.

Natural gas prices rose in 2018 Q1 after having declined at the turn of 2017 and 2018. Apart from changes in oil prices, the increase was the result of higher gas consumption for heating purposes and the low level of natural gas inventories in Europe, both factors resulting largely from low temperatures in March 2018.

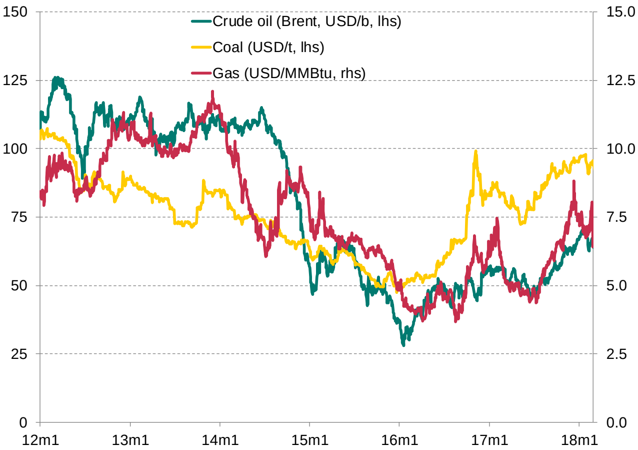
Figure 1.8 Commodity price index



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.

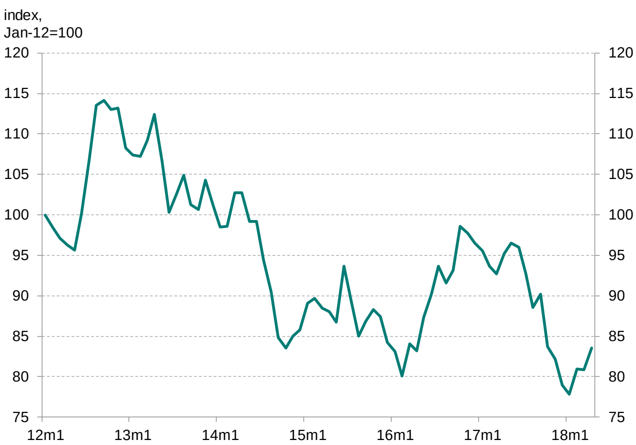
Figure 1.9 Energy commodity prices



Source: Bloomberg data, NBP calculations.

USD/b – price expressed in US dollar per barrel of oil. USD/t – price expressed in US dollar per metric tonne. 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.

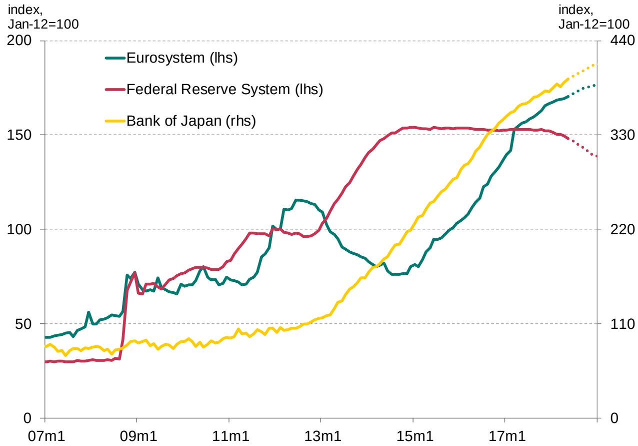
The prices of most agricultural commodities have also risen in recent months (Figure 1.10). In particular, increased production costs (particularly oil prices) and the expected slightly lower supply in selected markets in the new harvest season contributed to rising food prices. However, the still high level of stocks of the main agricultural products curbs the growth of their prices.

1.4 Monetary policy abroad

The European Central Bank (ECB) keeps interest rates close to zero, including the deposit rate below zero. As a result, the short-term interbank interest rates in the euro area remain negative. At the same time, the ECB continues its asset purchase programme, and currently anticipates that it will last until the end of 2018, with monthly purchases amounting to EUR 30 billion until the end of September, and EUR 15 billion in the following months (Figure 1.11). Moreover, the ECB expects its interest rates to remain at their present levels at least through the summer of 2019. Consequently, market participants also do not expect changes in interest rates in the coming quarters (Figure 1.12). In addition, the ECB intends to 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 to maintain accommodative monetary conditions in the euro area.

Meanwhile, in the United States gradual tightening of monetary policy continues. In 2018, the Fed raised the target range for the fed funds rate twice, each time by 0.25 percentage points, to 1.75-2.00%. The median of the June 2018 economic projections by the Federal Open Market Committee (FOMC) members indicates two more interest rate hikes in 2018 (each by 0.25 percentage points). Market participants also expect a similar scenario (Figure 1.13). At the same time, the Fed is gradually reducing its balance sheet by limiting the reinvestment of assets, which additionally

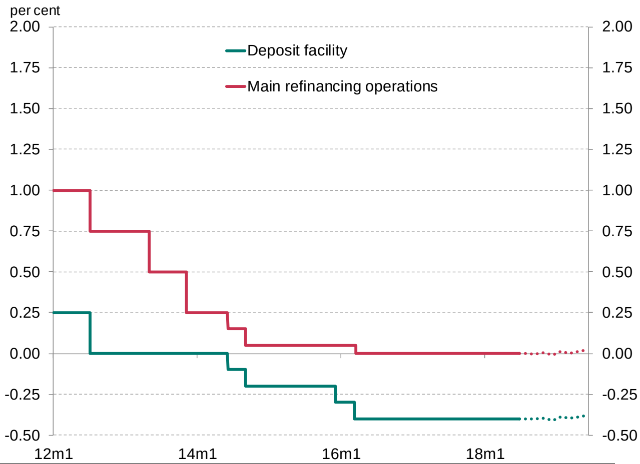
Figure 1.11 Total assets of the major central banks with a forecast



Source: FRED data, NBP calculations.

Forecast until December 2018: for the Eurosystem under an assumption of monthly growth by 30 billion EUR until September, and by 15 billion EUR in the following months, for the Bank of Japan under an assumption of extrapolation of the growth rate observed in period from June 2017 to May 2018, 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.

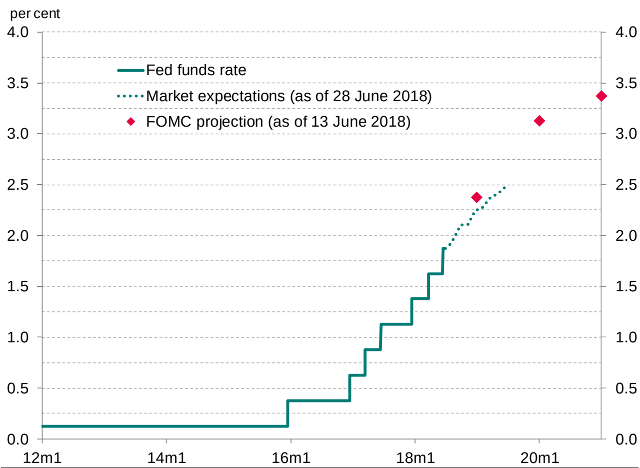
Figure 1.12 Historical and expected interest rates of the ECB



Source: Bloomberg data.

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

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.

contributes to the tightening of monetary conditions in the United States (Figure 1.11).

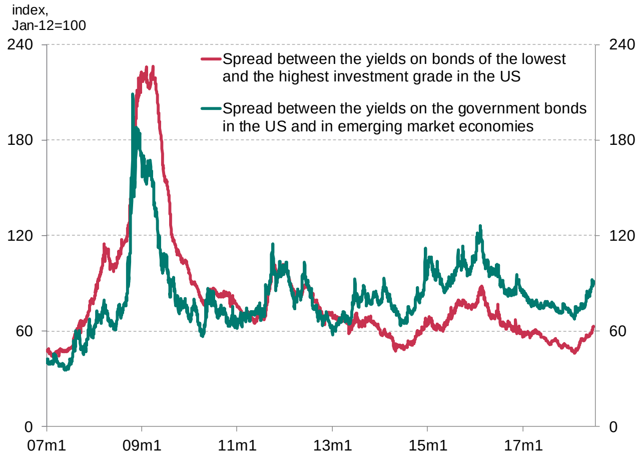
Most of the other central banks in advanced economies keep interest rates close to zero. Additionally, the Bank of Japan continues its asset purchase programme, while the Swiss National Bank declares its readiness to carry out currency interventions in order to prevent an excessive appreciation of the Swiss franc. Alongside this, in some of the remaining advanced economies, central banks are pointing to the possibility of a gradual reduction in the scale of monetary accommodation.

In turn, in some emerging market economies, central banks tighten monetary policy in response to rising inflation (e.g. in Romania and the Czech Republic) or a marked depreciation of local currencies (e.g. in Turkey).

1.5 International financial markets

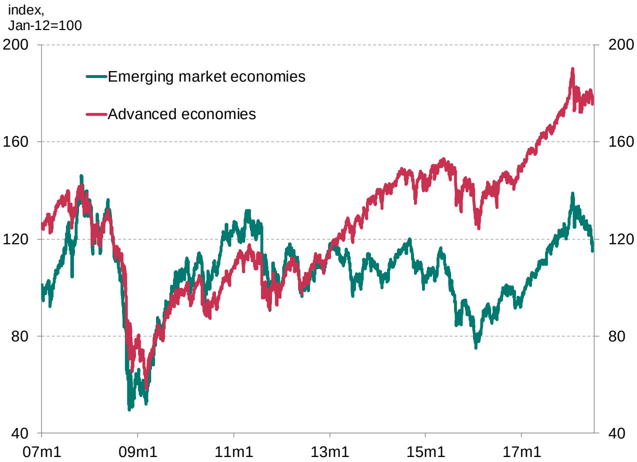
Sentiment in the global financial markets has worsened in recent months, which is evidenced by a rise in risk assessment measures (Figure 1.14). The sentiment was adversely affected by geopolitical factors, including those related to the foreign and trade policy of the United States, and also a temporary rise in political risk in Italy.[5] The expected further tightening of monetary policy by the Federal Reserve also had an adverse impact on sentiment in the global financial markets (see Chapter 1.4 *Monetary policy abroad*). Alongside that, continued favourable economic conditions in the global economy (see Chapter 1.1 *Economic activity abroad*), together with still accommodative monetary conditions in a number of major economies, including the euro area and Japan, had a stabilizing effect on sentiment.

Figure 1.14 Risk assessment measures in global financial markets



Source: Bloomberg data.

Figure 1.15 Global equity prices



Source: Bloomberg data.

Advanced economies – MSCI World Equity Index, emerging market economies – MSCI Emerging Markets Equity Index.

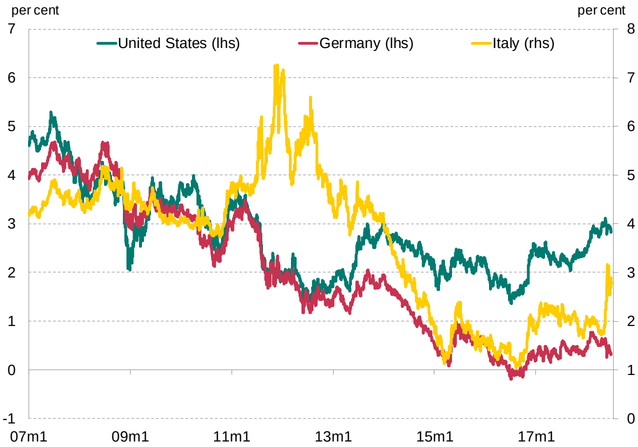
[5] The formation of the government in Italy, following the parliamentary elections held in early March 2018, took three months. Towards the end of May, the Five Star Movement and the Northern League coalition proposed a cabinet. The Italian President did not, however, approve the finance minister nominee. This led to a growth in risk of a political crisis in the country and the threat of snap elections, which triggered a negative response of the financial markets. The new coalition government of the Five Star Movement and the Northern League led by Giuseppe Conte was ultimately sworn in on 1 June.

Amid deteriorating sentiment in global financial markets, global equity prices stopped rising. In advanced economies, stock indices stabilized at a high level, while in emerging market economies they declined (Figure 1.15).

At the same time, government bond yields in most of economies rose, albeit to a various extent. Yields on US Treasuries were growing steadily in anticipation of a further tightening of monetary policy by the Fed. This growth was accompanied by a significant rise in yields in emerging markets, especially in economies with significant external imbalances or unfavorable fiscal situation. In turn, the yields on government bonds within the euro area diverged mainly due to the increase in political risk in Italy. The yields on government bonds in this country – and temporarily also in other highly indebted euro area countries – surged, while in countries typically perceived as the most stable, including Germany, government bond yields declined (Figure 1.16).

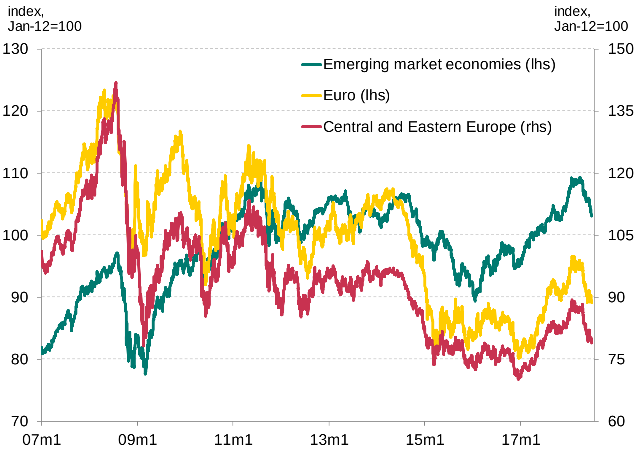
Against this backdrop, the euro and the currencies of Central and Eastern European countries, as well as the currencies of emerging market economies, weakened against the US dollar (by 5.6%, 9.1% and 4.7%, respectively, since early March 2018; Figure 1.17).

Figure 1.16 Global 10Y government bond yields



Source: Bloomberg data.

Figure 1.17 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

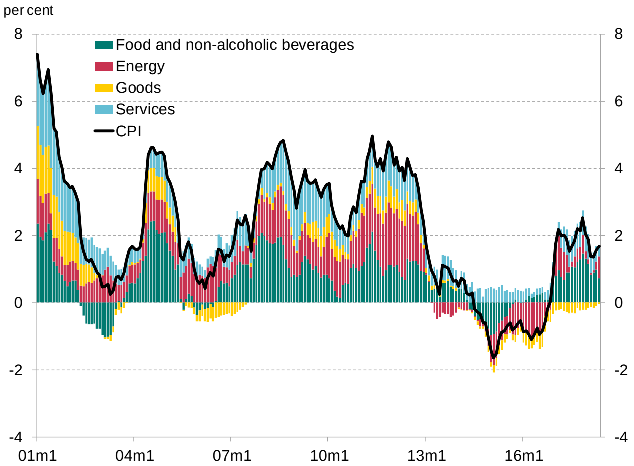
2.1 Consumer prices

Consumer price growth in Poland remains moderate (it stood at 1.5% in 2018 Q1, 1.6% in April, and 1.7% y/y in May;[6] Figure 2.1) on the back of stabilisation in domestic demand pressure (Figure 2.3) and moderate inflation in Poland's most important trading partners.[7] As a result, core inflation stays low. At the same time, following a decline at the turn of 2017 and 2018, energy price growth increased, while food price growth weakened.

Core inflation is still low (Figure 2.2). In particular, inflation net of food and energy prices is running significantly below 1%, driven by a marked decline in growth in services prices (to 1.2% y/y in May). In recent months, weaker growth in services prices resulted primarily from one-off factors (promotions for some satellite television and mobile phone services) and the gradual decline in insurance premiums for motor vehicles.[8] This is accompanied by only slightly stronger, yet still negative growth in the prices of non-food goods (to -0.1% y/y in May).

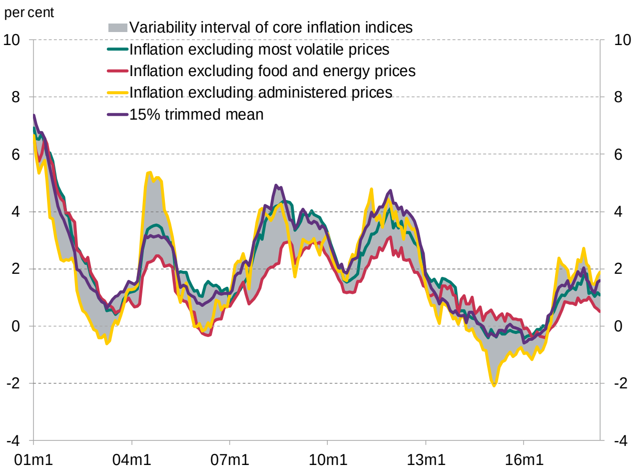
Food price growth slowed (to 3.0% y/y in May), which was mainly due to a gradual deceleration in growth of meat, dairy products and butter prices. This was related to the increase in their production in Poland and abroad. Annual growth in prices of

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.

[6] In June 2018, according to the flash estimate by GUS, inflation stood at 1.9% y/y.
[7] In 2018 Q1, import price growth amounted to -0.4% y/y compared to -0.7 in 2017 Q4.
[8] The decline in annual growth in services prices was also accounted for by the statistical base effects related to considerably weaker growth than in the previous year in the prices of telecommunication services.

fruit, mainly imported fruit, also declined, particularly in May. However, in some sectors, in particular in the baking industry and the production of non-alcoholic beverages, price growth rose reflecting the increase in energy prices and labour costs.

Annual growth of energy prices – following a decline at the beginning of the year – picked up over the recent past (to 4.1% y/y in May). The fall in annual growth of energy prices at the turn of 2017 and 2018 was primarily attributable to the fading of statistical base effects related to the high growth in fuel prices at the beginning of 2017. In turn, the significant increase in energy price growth in April and May was driven by rising oil prices in global markets and the resulting higher fuel prices in the domestic market.

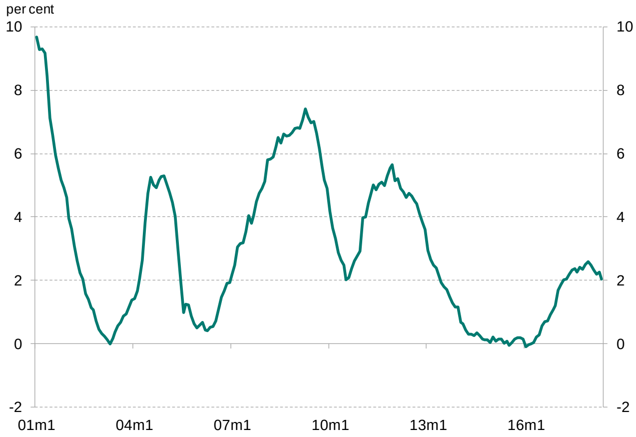
After a sharp fall at the turn of 2017 and 2018, also annual producer price growth rose in the recent period (to 2.8% y/y in May; Figure 2.4). This was mainly accounted for by the increase in oil prices in global markets, combined with some depreciation of the zloty.[9] The rise in domestic producer prices was accompanied by a further, although somewhat weaker fall in producer prices for exports (according to data up to April).

The survey opinions of both consumers and enterprises on future inflation have not changed markedly over recent months (Figure 2.5). Slightly lower are current inflation expectations of economists surveyed by NBP, who continue to expect inflation running close to the NBP target in the coming quarters (Table 2.1).

2.2 Demand and output

Economic conditions in Poland remain favourable. In 2018 Q1, GDP growth was close to that in the second half of 2017 (5.2% y/y in 2018 Q1 against 4.9% in 2017 Q4 and 5.2% in 2017 Q3; Figure 2.6). It

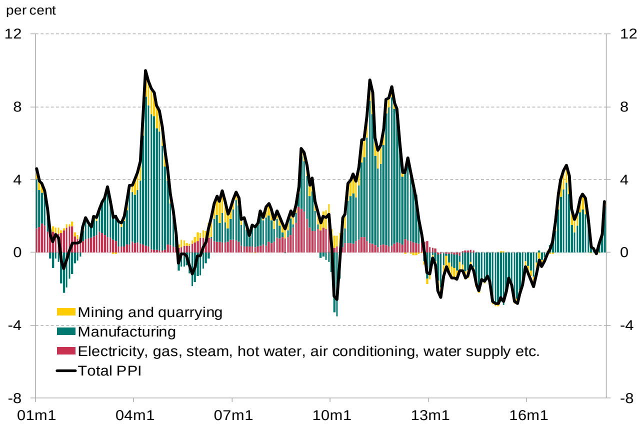
Figure 2.3 Inflation index of goods sensitive to domestic economic conditions (y/y)



Source: GUS data, NBP calculations.

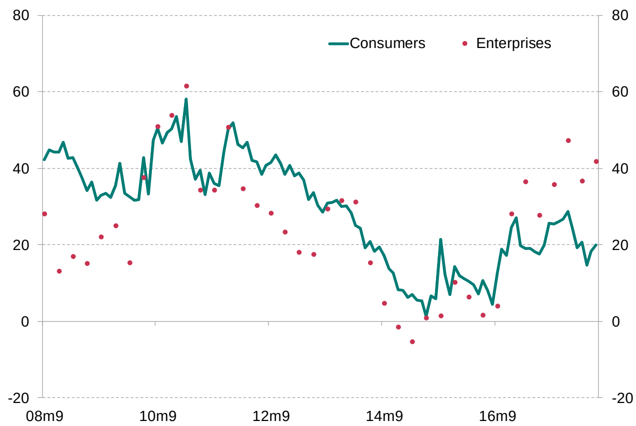
The aggregate of the CPI components sensitive to changes in domestic economic conditions. For more on the index calculation methodology, see: Hałka, A., Kotłowski, J. (2014), Does the domestic Output Gap Matter for Inflation in a Small Open Economy, Eastern European Economics, vol. 52.

Figure 2.4 Composition of PPI inflation (y/y)



Source: GUS data, Eurostat.

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.

[9] The increase in annual growth in producer prices was additionally supported by the statistical base effects related to a decline in these prices in 2017 Q2.

continues to be driven primarily by expanding consumer demand, which is supported by rising employment and wages combined with very high consumer confidence. At the same time, investment growth is gathering speed, though primarily on the back of public investment co-financed from EU funds.

Net exports, in turn, contributed negatively to GDP growth in 2018 Q1, as export growth decelerated more than import growth. In particular, export growth to the euro area weakened, which was likely to reflect a temporary slowdown in the euro area economic activity at the beginning of the year. At the same time, import growth continued to be underpinned by rising domestic demand.

By contrast, change in inventories had a significantly positive contribution to GDP growth. On the one hand, by accumulating stocks, companies could have replenished previously reported shortages of tangible current assets; on the other, the increase in inventories might have partially reflected lower than expected external demand.

2.2.1 Consumption

Conditions for consumer demand growth in Poland are very favourable. Consequently, private consumption growth remains resilient, standing at 4.8% y/y in 2018 Q1 (Figure 2.7).

Growth in consumer demand continues to be an important driver of GDP growth. Private consumption growth is supported by still favourable labour market conditions for employees as evidenced by rising employment, low unemployment rate and growing wages (see Chapter 2.4 *Labour market*). It is also underpinned by the disbursement of benefits under the "Family 500 plus" programme and the moderate growth in consumer prices, which is lower than in the previous quarters.

The above factors contribute to a gradual improvement in consumer sentiment. Indicators of

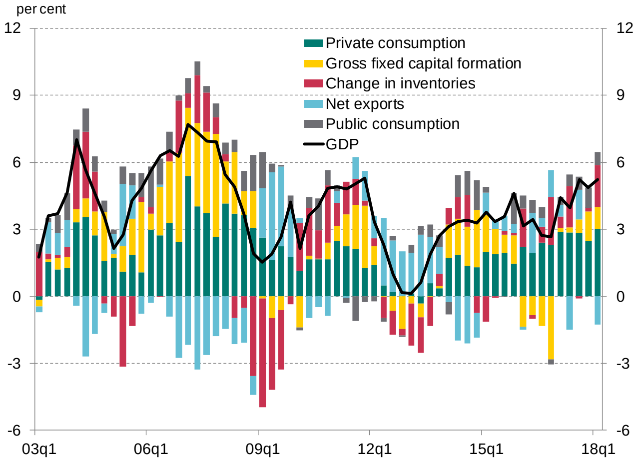
Table 2.1 Inflation expectations of bank analysts and participants to the *NBP Survey of Professional Forecasters*.

	Survey conducted in:				
	17q2	17q3	17q4	18q1	18q2
Thomson Reuters Survey, inflation expected in 4 quarters	1.8	2.2	2.4	2.2	2.1
NBP Survey, inflation expected in 4 quarters	2.0	2.3	2.4	2.1	-
NBP Survey, inflation expected in 8 quarters	2.2	2.4	2.6	2.4	-

Source: NBP and Reuters data.

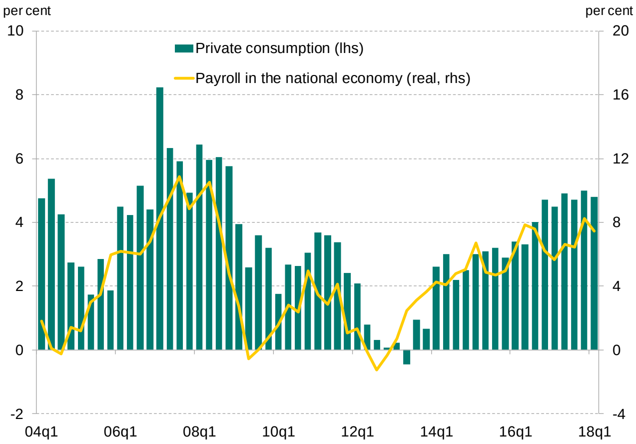
Inflation expectations of the financial sector analysts are proxied by the median forecast of the analysts surveyed by Thomson Reuters in the last month of a given quarter. Inflation expectations of the participants to the *NBP Survey of Professional Forecasters* reflect the median probability distribution obtained from the aggregation of probability forecasts of the experts surveyed by NBP.

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



Source: GUS data, NBP calculations

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



Source: GUS data, NBP calculations.

consumer confidence are running at historically high levels (Figure 2.8).

2.2.2 Investment

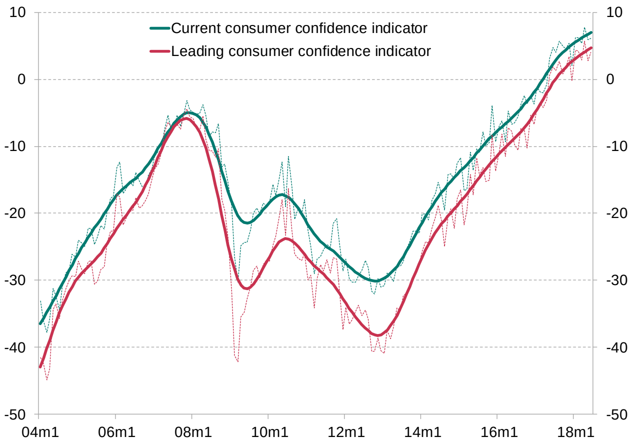
The investment recovery continues. In 2018 Q1, growth of gross fixed capital formation increased to 8.1% y/y (Figure 2.9). According to NBP estimates, public investment remains the main driver of investment growth.

In 2018 Q1, public investment increased primarily due to the rising absorption of EU funds. Investment outlays of local government units, which recorded nominal growth of 83.1% y/y (in cash terms), made the largest contribution to the continued investment recovery in this sector. However, due to seasonal restrictions on construction works during winter, the contribution of public investment to GDP growth was lower than in the previous quarter.

Real investment growth in the non-financial corporate sector (in enterprises employing at least 50 employees) stood at 6.1% y/y in 2018 Q1. Within that, investment outlays of trading and transport companies increased strongly, while there was a sharp reduction in investment outlays in the energy sector. Transport equipment as well as buildings and structures continued to be the fastest growing areas of investment activity, with weaker investment growth in machinery and equipment.

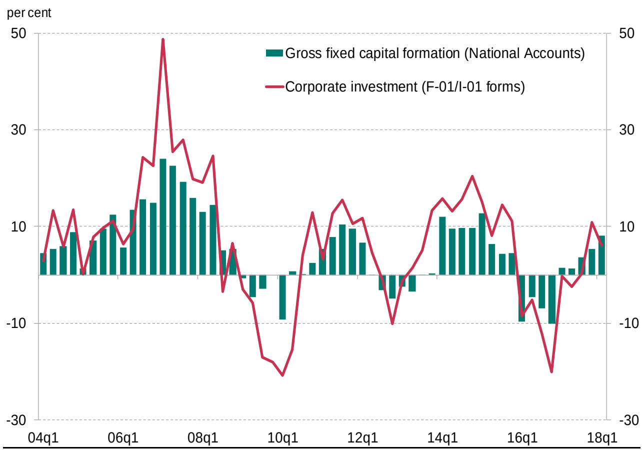
The corporate investment activity is backed by sound economic conditions, limited spare capacity, relatively low cost and high availability of bank loans, as well as high ability to self-finance investments[10]. The acceleration in the absorption of EU funds also increased gross fixed capital formation of enterprises. However, due to the lower share of EU funds in the financing of corporate investment compared to public investment, their impact on the growth of gross fixed capital formation of enterprises remained moderate.

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.

Figure 2.9 Growth in investment (y/y)



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

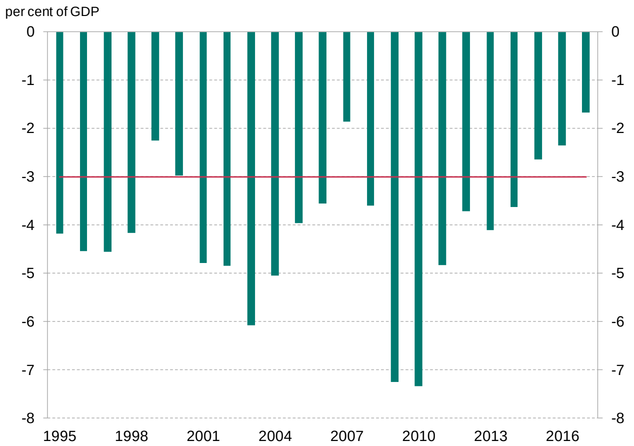
[10] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector*, NBP, April 2018.

Housing investment growth remains relatively high due to favourable labour market conditions, which support growth in household disposable income (see 2.5.2 *Real estate market*). Recovery in housing investment is also reflected in rising demand for housing loans in 2018 Q1 (see Chapter 2.6 *Money and credit*).

2.2.3 Public finance

The deficit of the general government sector amounted to 1.7% of GDP in 2017, compared with 2.3% in 2016 (in ESA2010 terms) – thus running at a historically low level[11] (Figure 2.10). Significant improvement in the outturn of the general government sector occurred mainly due to higher inflows of tax revenues and social insurance contributions.[12] These resulted, above all, from favourable economic conditions, rising employment and wages as well as improvement achieved in tax collection, mainly VAT.[13] The considerable increase in public investment in 2017 (amounting to 0.7% of GDP) was related to accelerated implementation of projects partially financed from EU funds, which, according to ESA, are neutral to the sector's deficit.

Figure 2.10 Result of general government sector (ESA 2010)



Source: Eurostat data.

Available data suggest that in 2018 Q1, like in the corresponding period of the previous year, the general government sector generated a surplus in ESA2010 terms. This was supported primarily by sound financial performance of the state budget and the local government units, especially on the revenue side, amid continuously favourable economic conditions.

The fiscal policy pursued in 2018 is broadly similar to that in 2017. The assumed further increase in public investment (including projects co-financed from EU funds under the 2014-2020 EU framework) and the annual cost of the reduced statutory retirement age (from October 2017) will be largely

[11] Data on the performance of the general government sector in ESA terms are available from 1995.
[12] The income of the general government sector (ESA2010) in relation to GDP rose by 0.8 percantage points of GDP in 2017.
[13] Estimates of the Ministry of Finance (drawn up according to the methodology applied by the European Commission) show that the improvement in VAT collection amounted to 0.5% of GDP, which caused the so-called VAT gap to diminish considerably in 2017 (from 20% to 14% of the potential VAT revenue). See: *Convergence Programme. 2018 Update*, Republic of Poland, April 2018.

compensated for by continued decline in public consumption growth, resulting particularly from the freeze on the wages of most budget sector employees. At the same time, activities on the revenue side relate primarily to further improvement in tax collection (VAT,[14] income taxes[15]).

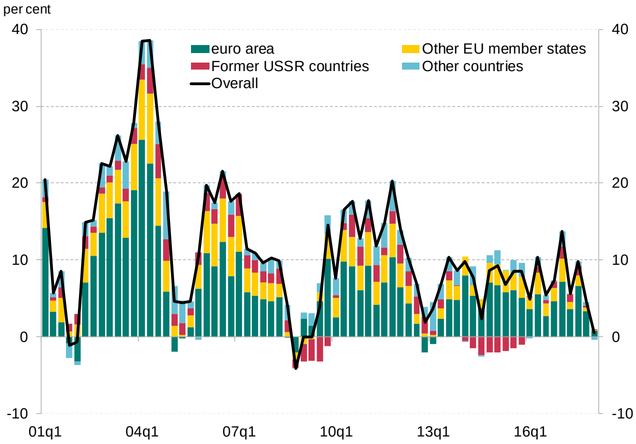
In the *Convergence Programme. 2018 Update* (of April 2018) the government envisages the general government sector deficit at 2.1% of GDP in 2018 (in ESA2010 terms). Taking into account the conservative assumption of the *Programme* that the actual government expenditure will be at the level of expenditure limits,[16] the 2018 deficit can be in fact similar to that of 2017. The outturn of the general government sector will be supported by rising consumption and the consistently strong position of employees in the labour market, along with the expected waning of one-off factors on the expenditure side which deteriorated budget result in 2017.[17]

2.2.4 External trade[18]

Despite continued favourable conditions in global trade in 2018 Q1, Poland's export and import growth decelerated significantly. The slowdown in the country's external trade resulted probably in part from temporary factors and was recorded for most destinations and commodity groups.

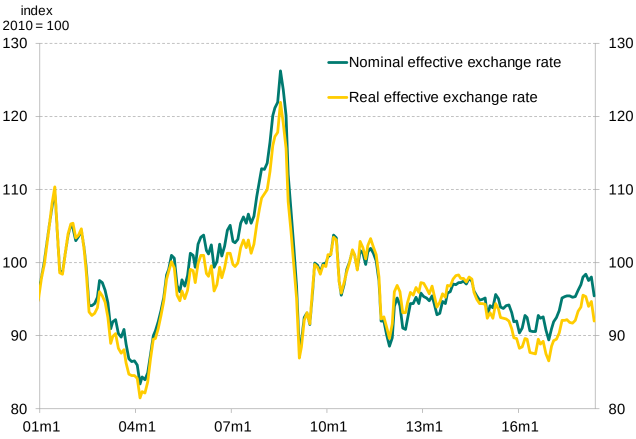
The deceleration in Poland's export growth was driven by a slowdown in the euro area imports, including those of Germany – Poland's main trading partner (Figure 2.11). In 2018 Q1, Germany saw its foreign trade momentum weaken, which probably largely reflected the impact of one-off factors (see

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.

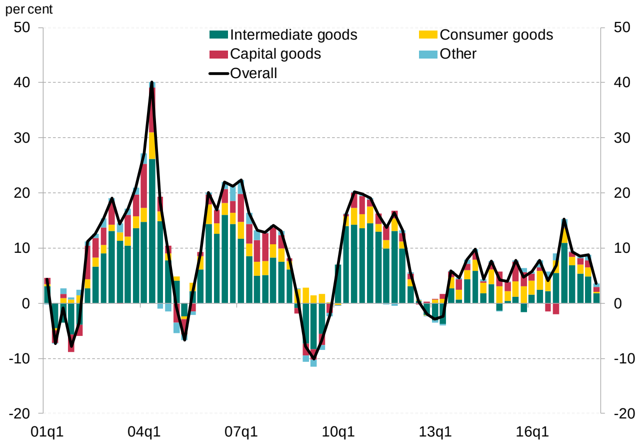
[14] Measures aimed at improving tax collection include, among others, the implementation of the STIR system and on-line fiscal cash registers, the introduction of so-called split payment and the extended monitoring of transport of goods by road.
[15] The government also plans a range of changes designed to limit aggressive tax optimisation.
[16] In previous years, the state budget expenditure was 0.3-0.7% of GDP lower than the expenditure limits envisaged in the budget acts.
[17] These factors comprised, among others, compensation for the loss of entitlement to free coal, compensation to public broadcasters for the forgone income from license fees, as well as recapitalisation of some entities. Their total amount approximated 0.4% of GDP.
[18] 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 this trade by the type of service and its destination is available.

also Chapter 1.1 *Economic activity abroad*). The weaker euro area import growth also had an adverse effect on Poland's trade under global value chains.

Poland's export growth slowed in 2018 Q1 amid stronger zloty than a year before, even though the level of the exchange rate did not pose a barrier to the price competitiveness of Polish goods[19] (Figure 2.12). However, the gradual appreciation of the zloty in the first months of the year led to some decline in export profitability. In particular, at the turn of the year the average exchange rate of the zloty against the US dollar approached the borderline export profitability exchange rate as declared by enterprises. Yet the impact of profitability of exports in USD terms on total export profitability was negligible, whereas profitability of exports in euro terms remained high.

In 2018 Q1, import was further supported by domestic demand, although its growth decelerated. However, it remained stronger than export growth (Figure 2.13). The most pronounced was a decline in import growth of intermediate goods, including supply goods and vehicle parts. Taking into account the considerable import intensity of exports, this could have been largely driven by a weakening in trade under global value chains.

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



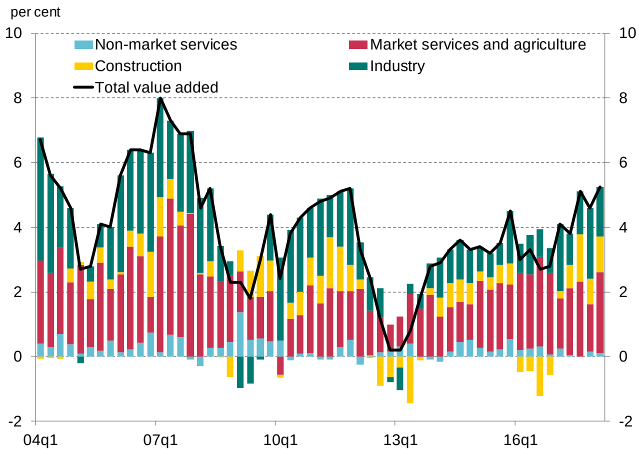
Source: GUS data, NBP calculations.

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.

2.2.5 Output

Sectoral decomposition of GDP growth indicates that economic growth has been broad-based across all sectors. Compared to the second half of 2017, in 2018 Q1 the contribution of services to the value added growth increased, while those of industry and construction did not change significantly (Figure 2.14).

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



Source: GUS data, NBP calculations.

Business conditions in industry continue to be favourable. In 2018 Q1, output growth was slightly lower than in the second half of 2017, yet data for

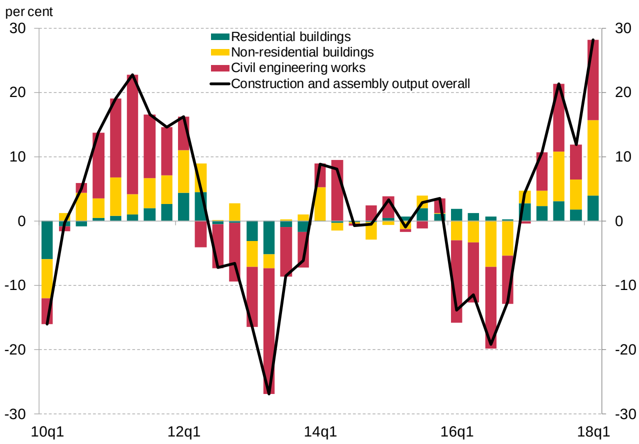
[19] In 2018 Q1, the proportion of enterprises declaring the exchange rate as a barrier to growth declined to a historically low level.

April and May indicate a renewed pickup in activity growth in 2018 Q2.[20] The slowdown in output growth in industry in 2018 Q1 reflected a decline in the growth of exports to the euro area in all the main categories of goods. This was related to a probably temporary deterioration in economic conditions in the euro area at the beginning of the year (see Chapter 1.1 *Economic activity abroad*). At the same time, growth in industrial output continues to be supported by the stable growth of domestic demand.

Following a slowdown in 2017 Q4, construction output growth picked up at the beginning of 2018 to reach the highest level since 2007 in 2018 Q1 (Figure 2.15). In April and May, construction and assembly output growth remained high, although it was somewhat lower than in 2018 Q1.[21] The recovery in output growth encompassed all the main categories of construction objects. The growth in road, railway and energy construction is related to a gradual increase in the absorption of EU funds under the 2014-2020 EU financial framework. In turn, business conditions in residential housing construction are supported by good financial situation of households and stable interest rates (see Chapter 2.5.2 *Real estate market*). Along with high capacity utilisation, stable interest rates also underpin the activity in commercial construction as reflected in the high growth of office and industrial construction.

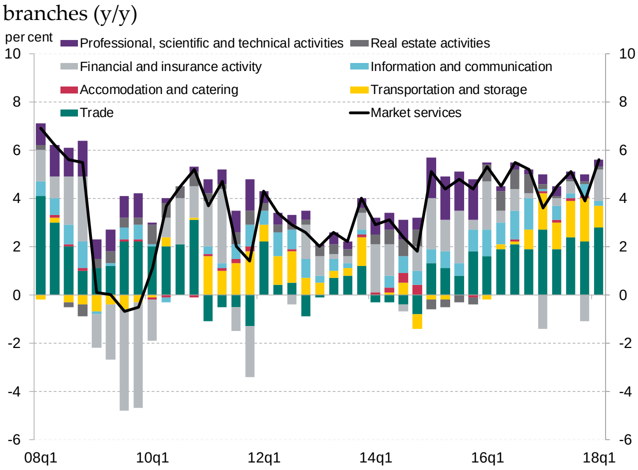
Likewise, business conditions in market services remain sound. Value added in this sector is growing at a rate slightly higher than its multi-year average. Particularly favourable are business conditions in trade,[22] supported by strong growth in household disposable income, as well as in transportation, which is related to rising global trade. In the

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



Source: GUS data, NBP calculations.

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



Source: GUS data, NBP calculations.

[20] On average, in April and May, growth of industrial output amounted to 7.4% y/y compared to 5.9% y/y in 2018 Q1 and 7.2% y/y in the second half of 2017.

[21] On average, construction and assembly output rose by 20.3% y/y in April and May, compared to 27.4% y/y in 2018 Q1.

[22] The decline in average growth of retail sales to 5.1% y/y in April and May from 8.1% y/y in 2018 Q1 may, however, indicate a certain deterioration in business conditions in trade in 2018 Q2.

remaining services branches value added is growing at a moderate pace (Figure 2.16).[23]

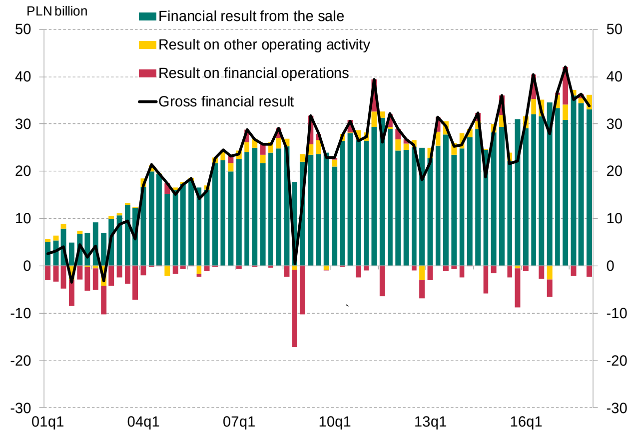
2.3 Financial situation in the enterprise sector

The high economic growth is conducive to maintaining sound financial performance of the enterprise sector. The gross financial result of enterprises remains high, although it declined by 7.7% y/y in 2018 Q1 (after increasing by 29.5% in 2017 Q4; Figure 2.17) and continues to vary considerably across sectors.

In 2018 Q1, growth in sales revenues slowed down. This was mainly driven by a strong – albeit probably temporary – decline in growth of foreign sales (see Chapter 2.2.4 *External trade*). Along with the slowdown in revenues, the growth in sales costs also declined. However, these costs rose faster than revenues, mainly on account of growing costs of labour and commodities. As a result, as compared to the corresponding period of 2017, profit from sales decreased, yet only slightly. This was accompanied by a lower result on other business activities mainly due to unfavourable foreign exchange differences. Consequently, net turnover profitability in 2018 Q1 was lower than a year ago

Sales profitability remained relatively high in 2018 Q1, despite having declined as compared with the corresponding period of 2017 (Table 2.2) and the surveyed enterprises' assessments of their own economic situation stood at historically high levels. Also the liquidity position of enterprises stayed high, although it declined somewhat due to the increase in operating costs. At the same time, the share of enterprises maintaining a safe liquidity level rose, which was accompanied by a slight increase in the share of profitable firms.

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).

Table 2.2 Selected financial efficiency ratios in the enterprise sector

percent	2016				2017				2018
	q1	q2	q3	q4	q1	q2	q3	q4	q1
Sales profitability ratio	4.9	5.1	5.0	5.0	5.1	4.6	5.2	4.6	4.8
Net turnover profitability	4.2	5.5	4.2	3.1	4.4	5.3	4.1	3.9	3.9
Percentage of profitable enterprises (sa)	76.3	76.4	75.8	75.2	75.0	74.4	74.5	74.7	75.8
1st degree liquidity ratio	37.4	37.2	38.5	38.8	37.4	35.3	36.3	38.4	37.0

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

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. This data does not include temporary immigration. 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 contracts. In addition, data on average employment in the enterprise sector does not cover the public sector and sole proprietors.

[23] Except for financial and insurance activities where growth of value added is highly volatile (an increase of 14.9% y/y in 2018 Q1 against a fall of 12.4% y/y in 2017 Q4).

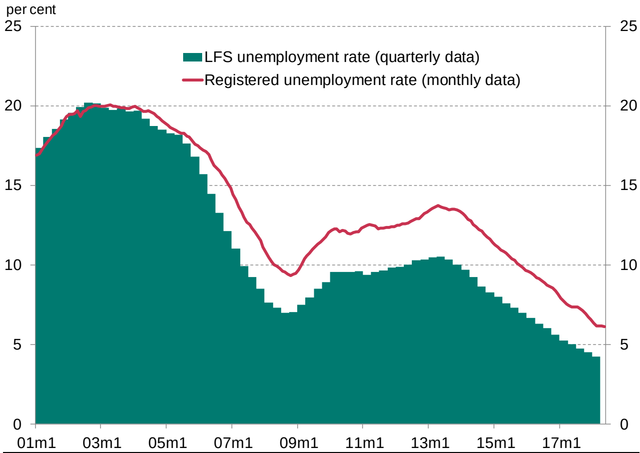
2.4 Labour market

The steadily rising demand in the economy is driving up the demand for labour, which translates into a further increase in employment (Figure 2.18).[24] This is confirmed by data from both the enterprise sector (a rise in employment of 3.7% y/y in May 2018) and the Labour Force Survey (LFS; an increase of 0.4% in the number of working persons in 2018 Q1).[25]

Employment continues to grow amid a relatively stable, though slightly declining, supply of labour. The impact of a falling working age population (aged 15-64; a decrease of 1.5% y/y in 2018 Q1) on labour supply is being mitigated, to a great extent, by increasing labour force participation among the young (aged 20-24). High demand for employees and faster wage growth than in previous years encourage to enter and remain in the labour market.

The rise in employment amid steady labour supply leads to a further decline in unemployment. The LFS unemployment rate amounted to 4.2% in 2018 Q1, and the May data from labour offices indicates a seasonally adjusted registered unemployment rate of 6.1% (Figure 2.19). However, the speed of the decline in unemployment has diminished somewhat in recent months, which may point to mounting recruitment difficulties due to a mismatch between candidates' qualifications and employers' requirements. At the same time, a considerable number of employers continue to report vacancies (42.3% of enterprises in 2018 Q2), yet only 8.8% of

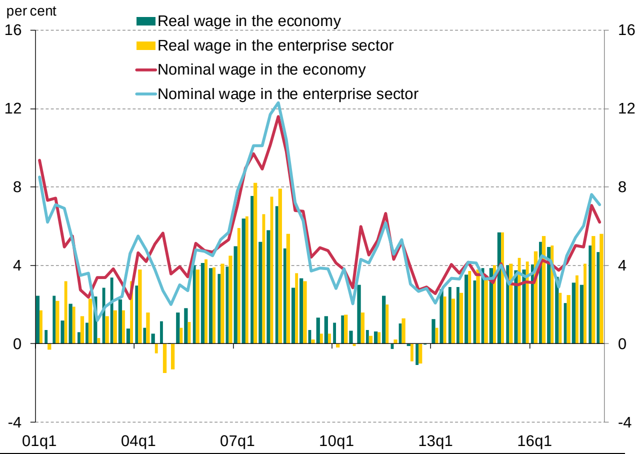
Figure 2.19 Unemployment rate, seasonally adjusted data



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.

[24] In May, the Job Offer Barometer, measuring the number of vacancies posted online, increased by 17.9% y/y. At the same time, the number of vacancies at labour offices fell by 8.4% y/y. However, the decline most likely stemmed from the withdrawal of regulations requiring employers to post vacancies at labour offices when planning to employ a foreigner with seasonal work permit.

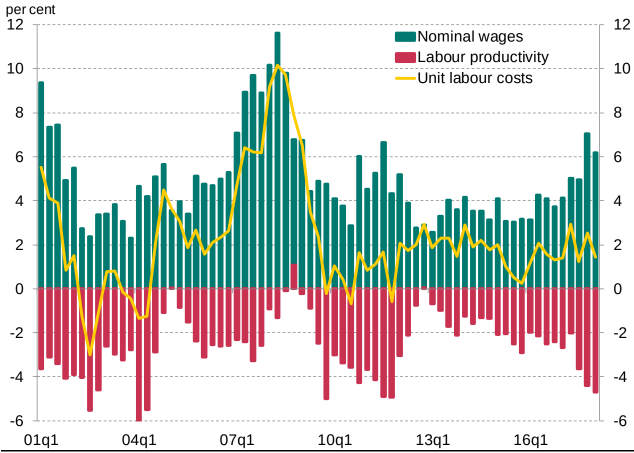
[25] In 2018 Q1, the annual growth in the number of working persons according to the LFS was lower than employment growth in the enterprise sector. This was partially due to a decline in the number of individual farmers (by 9.2% y/y) and the assisting family members (by 13.2% y/y), which may be related to the entry into force of the act lowering the statutory retirement age. Moreover, the LFS does not take into account temporary immigration. At the same time, employment growth in the enterprise sector is increased by the annual update by GUS of the sample of firms employing more than 9 people.

them consider problems with finding employees as a barrier to their firms' development.[26]

As a consequence of improving bargaining position of employees in wage negotiations, the proportions of companies reporting rising wage pressure (21.9% in 2018 Q2) and forecasting pay rises (26.4% in 2018 Q2) remain considerable.[27] This is reflected in a faster than in previous years growth in wages in the economy, even though in 2018 Q1 it slowed down somewhat in comparison with 2017 Q4 (to 6.2% y/y from 7.1% y/y; Figure 2.20).[28] At the same time, non-wage working conditions are improving. In particular, the number of people employed on permanent contracts is rising (by 2.8% y/y in 2018 Q1) at the expense of those employed on temporary contracts (a fall of 2.3% y/y). Similarly, the number of people forced to work part time is falling (by 20.2% y/y in 2018 Q1).

The stronger than in previous years wage growth is accompanied by higher labour productivity growth resulting from an acceleration in GDP growth. Consequently, unit labour cost growth remains moderate (Figure 2.21).

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



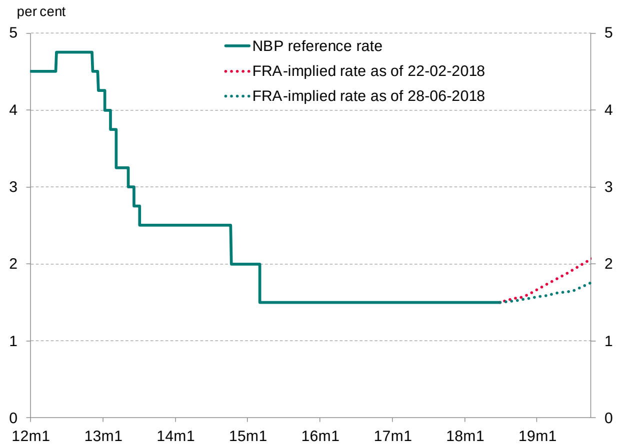
Source: GUS data, NBP calculations

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

2.5 Monetary policy and asset markets

The Monetary Policy Council keeps NBP interest rates unchanged, including the reference rate at 1.50%. In the recent period, market expectations on NBP interest rates have lowered and indicate a stabilisation of interest rates in the coming quarters (Figure 2.22).

Figure 2.22 NBP reference rate and 3M FRA-implied interest rate



Source: NBP and Bloomberg data, NBP calculations.

2.5.1 Financial market

In recent months, government bond yields in Poland have been relatively stable. This resulted from, on the one hand, the decline in market expectations on NBP interest rates, and on the other hand, the deterioration of sentiment in the global

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

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

[28] In April and May, wage growth in the enterprise sector remained similar to that in 2018 Q1 (7.4% y/y on average in April-May compared with 7.1% y/y on average in 2018 Q1).

financial markets, translating into an increase in bond yields in many economies around the world (see Chapter 1.5 *International financial markets*). Yields on 10-year government bonds currently stand at 3.2% (Figure 2.23).

In turn, equity prices in Poland have declined in the recent period, following a marked fall in stock indices in other emerging markets. The decline in equity prices took place despite favourable signals regarding economic conditions in Poland (Figure 2.24).

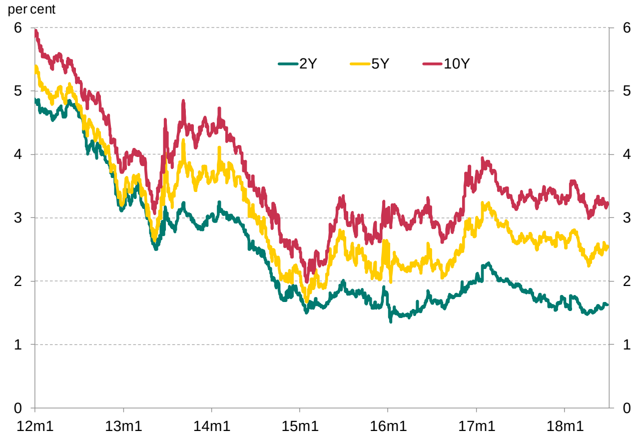
Amid deteriorating sentiment in global financial markets, the exchange rate of the zloty weakened, after an earlier strenghtening (Figure 2.25). The zloty exchange rate weakened the most in relation to the US dollar (since the beginning of March by 9.5%) due to the appreciation of this currency against other main currencies, while the scale of the depreciation of the zloty against the euro was limited (4.1%).

2.5.2 Real estate market[29]

In 2018 Q1, the expansion phase in the residential real estate market continued, with high levels of demand for and supply of new housing in the major markets (Figure 2.26; Figure 2.27). This has not generated any major tensions thus far. Growing activity in the residential real estate market was accompanied by slight increases in home prices, partly driven by rising production costs.

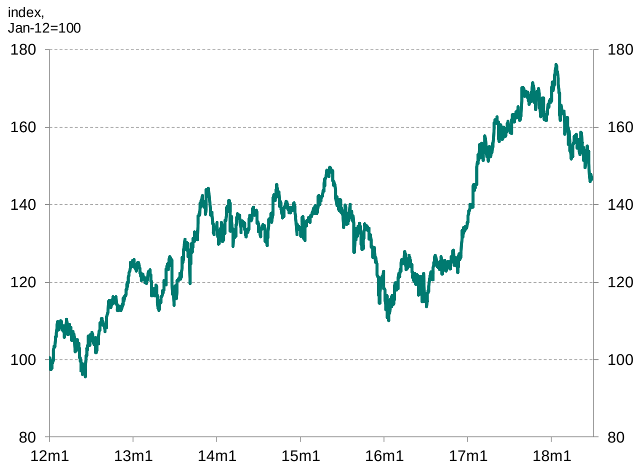
High demand for dwellings is underpinned by favourable labour market conditions (see Chapter 2.4 *Labour market*) and very strong consumer sentiment. Other factors behind the increase in home sales include the stable interest rates on mortgage loans and the relatively high profitability of home rental as compared with other forms of household investment. Demand for housing in the

Figure 2.23 Polish government bond yields



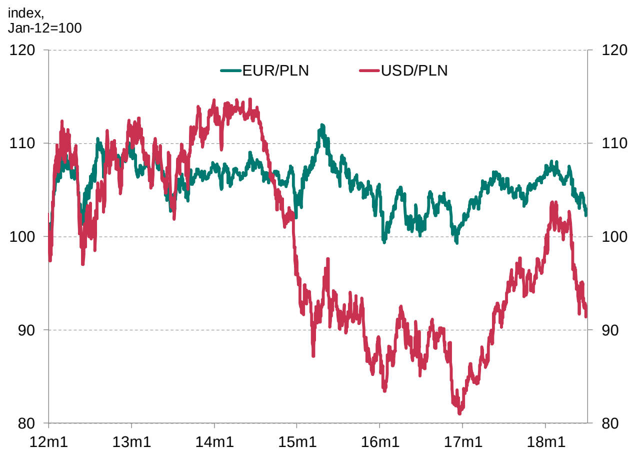
Source: Bloomberg data.

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



Source: Bloomberg data.

Figure 2.25 Zloty exchange rate (rise indicates appreciation of zloty)



Source: Bloomberg data.

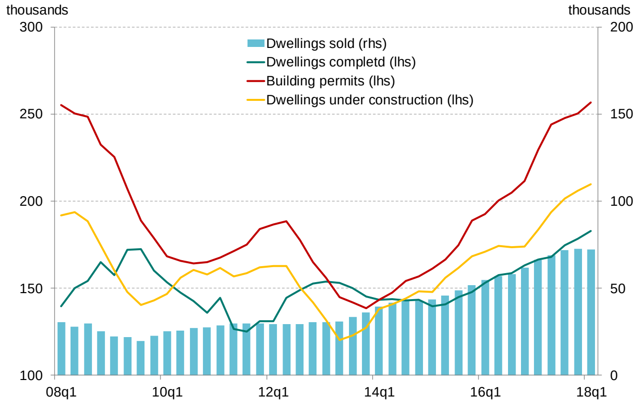
[29] For more information on the situation in the real estate market in Poland see the NBP report: *Information on home prices and the situation in the housing and commercial real estate market in Poland in 2018 Q1*, NBP, June 2018.

recent quarters was also supported by the government scheme "Flat for the Young", although its impact was marginal.[30]

The estimated profitability of investment in the housing projects continues to be high. The high estimated profit margins of real estate developers and rates of return on housing projects, together with strong demand led to a rise in the number of both building permits for housing issued[31] and completed housing made ready for occupancy.[32] At the end of 2018 Q1, the stock of unsold dwellings[33] in the 6 major primary housing markets in Poland declined by approx. 3.5 thousand as compared with the previous quarter. Although supply of dwellings has so far been flexible, the production level reached may make it difficult to expand it further, especially given growing supply limitations faced by real estate developers. Changes in production factors include rises in the prices of building materials and estimated land prices, as well as shortages of labour and some materials faced by construction companies.

Alongside that, imbalances persisting for a long time in the office markets, accounted for by an oversupply of rental space relative to demand, continued to decline for two consecutive quarters. This is largely driven by favourable economic conditions and the resulting elevated demand for modern office space, which may pose a competition threat to owners of older office buildings in poorer locations. The real estate for retail and service premises continued to see a slight oversupply, with the vacancy rate in the whole of Poland running at approx. 4%. Rents in both retail and office real estate

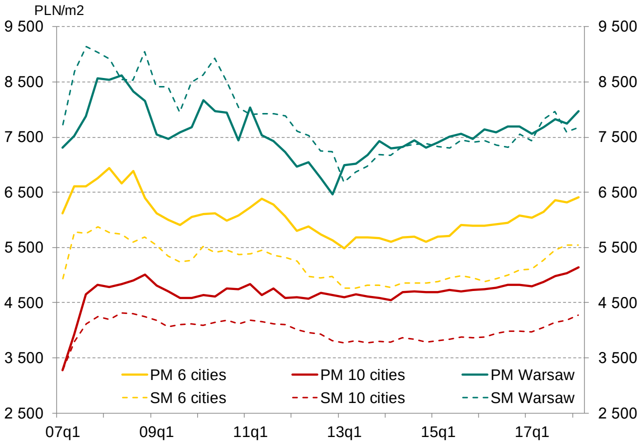
Figure 2.26 Residential construction in Poland (4-quarter rolling sum)



Source: GUS and REAS data, NBP calculations.

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

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 and Zielona Góra.

[30] 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).

[31] According to GUS data, in 2018 Q1 a total of 66.8 thousand building permits for dwellings were issued, i.e. approx. 6.5 thousand more than in 2017 Q1 and approx. 7.1 thousand more than in the previous quarter. In the past four quarters a total of 256.8 thousand building permits were issued, i.e. 27.1 thousand more than in the corresponding period of 2017 (a rise of 11.8% y/y).

[32] According to GUS data, in 2018 Q1 a total of 44.9 thousand dwellings were completed and made ready for occupancy, i.e. approx. 4.6 thousand more than in 2017 Q1, but approx. 9.5 thousand fewer than in the previous quarter. In the past four quarters a total of 182.8 thousand dwellings were completed, i.e. 16.5 thousand more than in the corresponding period of 2017 (a rise of 9.9% y/y).

[33] According to the REAS report: „Rynek mieszkaniowy w Polsce, I kwartał 2018 r." (available in Polish only).

markets, were declining slightly. Growing supply in the commercial real estate market is underpinned by low profitability of comparable investments in the external environment of the Polish economy, sound economic conditions in Poland and high availability of external funding amidst very low interest rates abroad, including in the euro area (see Chapter 1.4 *Monetary policy abroad*).

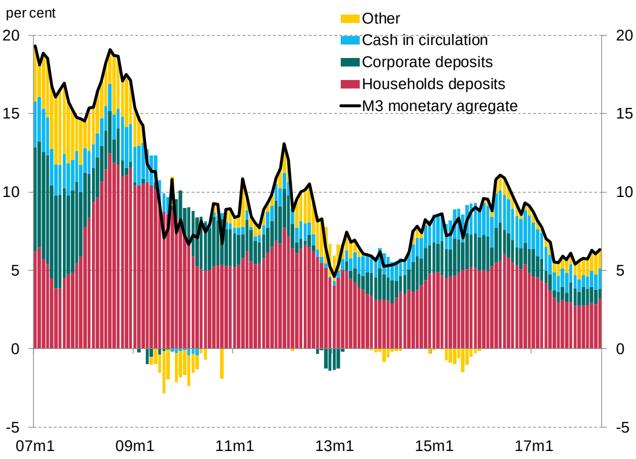
2.6 Money and credit

In 2018 Q1, growth of the broad money aggregate (M3) picked up slightly compared to 2017 Q4 (and stood at 5.9% y/y[34]; Figure 2.28).[35] Growth in the value of household deposits still made the largest contribution to the M3 growth, while the increases in corporate deposits and cash in circulation were of minor importance.

Stable growth of loans to the non-financial sector[36], which for several quarters has been running somewhat lower than nominal GDP growth, continued to be the main driver behind the creation of broad money in 2018 Q1. Consequently, the ratio of non-financial sector debt to GDP remained broadly stable and at the end of 2018 Q1 it stood at around 51%.

Household loans have still been the most important source of lending growth to the non-financial sector. For several years, growth of these loans has stabilised, and in 2018 Q1 stood at 5.2% y/y (Figure 2.29). It was determined to a similar degree by growth in housing and consumer loans. However, consumer loan growth (8.7% y/y in 2018 Q1) continued to be significantly higher than housing loan growth (3.5% y/y)[37]. At the same time, the growth of zloty housing loans remained relatively

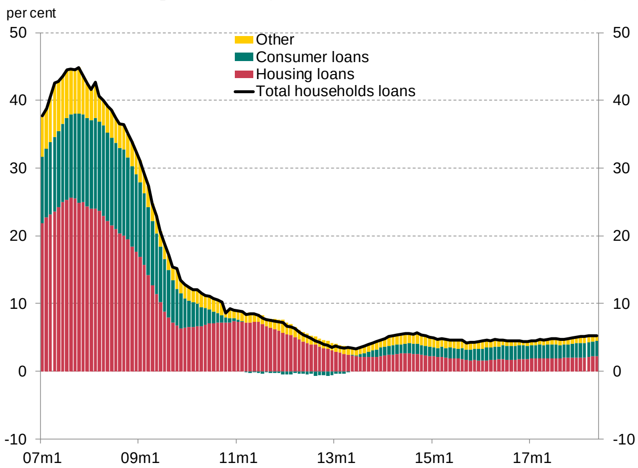
Figure 2.28 Composition of M3 growth (y/y)



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.

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



Source: NBP data.

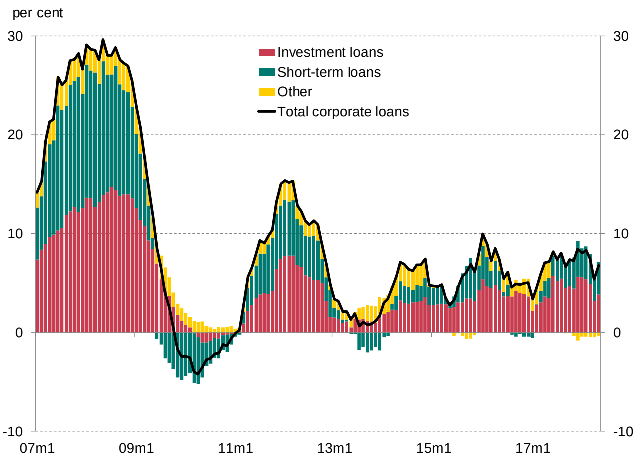
The category *Other* covers loans connected with credit cards, loans to individual entrepreneurs, loans to individual farmers and other receivables.

[34] In April and May 2018, the average growth of M3 aggregate amounted to 6.2%.
[35] In this chapter, growth in the broad money aggregate M3 and loans is defined as the three-month average of the annual growth in the stock of the given category resulting from transaction changes in the given quarter.
[36] In this chapter, lending growth for a given sector is defined as the annual growth of transaction changes in the stock of receivables of the monetary financial institutions from this sector.
[37] In April and May 2018, household loans grew by 5.3% on average, including consumer loan growth of 8.7% and housing loan growth of 3.8%.

high (10.5% y/y), while the rate of decline of FX housing loans continued to deepen (-8.0% y/y). The growth in household loans is supported by stable interest rates on loans and favourable labour market conditions. The lowering of credit margins and the "Flat for the Young" scheme were additional factors driving demand for housing loans in 2018 Q1.[38] The increase in the non-interest consumer loan costs, as declared by some banks, had the opposite effect.

Corporate loans also made a significant contribution to the growth of loans to the non-financial sector. For several quarters, growth of these loans has been relatively stable, and in 2018 Q1 it stood at 7.9% y/y[39] (Figure 2.30). Corporate loan growth is supported by sound economic conditions and high loan availability, although the percentage of approved loan applications was lower than in the previous quarters.[40] However, the tightening of some conditions in the loan policy of banks, including raising of margins and non-interest loan costs, acted in opposite direction.

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



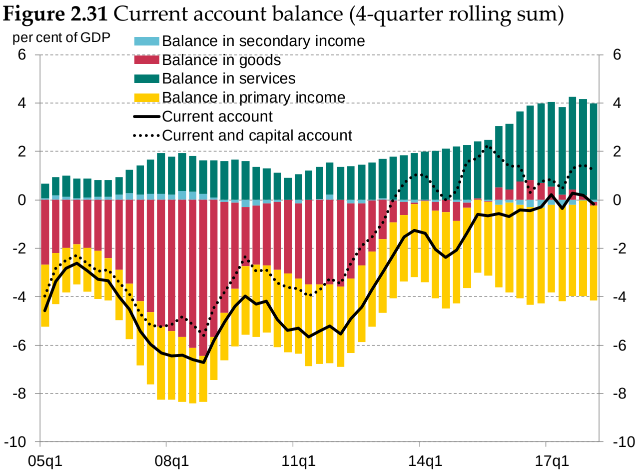
Source: NBP data.

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

2.7 Balance of payments

In 2018 Q1, the current account balance decreased slightly compared to 2017 Q4 (it stood at -0.2% of GDP in terms of a 4-quarter rolling sum; Figure 2.31). This reflected a decline in the balance of trade in goods, as exports decelerated more than imports, which probably resulted in part from temporary factors (see Chapter 2.2.4 *Foreign trade).* At the same time, a large surplus in trade in services persisted. Alongside that, the income of direct investors in Poland translated into a significantly negative balance in primary income.

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



Source: NBP data.

The capital account remained in surplus, supported by further inflow of funds under the Cohesion Fund and the European Regional Development Fund. As

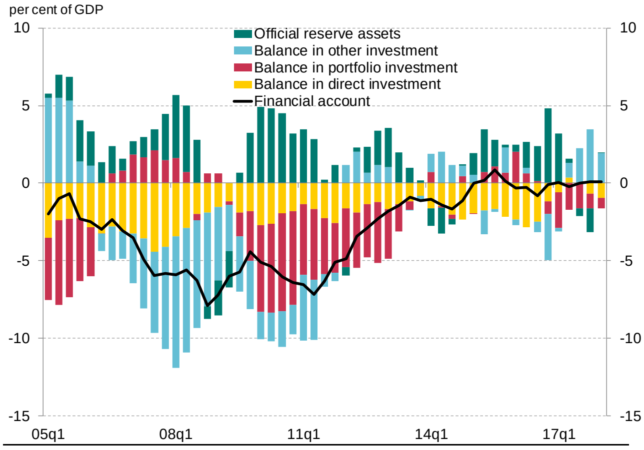
[38] *Senior loan officer opinion survey on bank lending practices and credit conditions – 2nd quarter 2018*, NBP, April 2018. In 2018 Q1, banks observed a significant increase in demand for housing loans. In their assessment, it was related to the use of the last tranche of the housing loan subsidy as part of the "Flat for the Young" scheme (see Chapter 2.5.2 *Real estate market*).
[39] In April and May 2018, corporate loans grew by 6.1% on average.
[40] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector*, NBP, April 2018.

a consequence, the combined current and capital account balance stood at 1.2% of GDP.

In 2018 Q1, the financial account balance was close to that in the previous quarter, and amounted to 0.1% of GDP (in terms of a 4-quarter rolling sum; Figure 2.32). Both direct and portfolio investment saw prevailing inflows of capital to Poland. Yet the greatest change in the financial account related to the balance of transactions in other investment and official reserve assets. This was due to transactions carried out by NBP (*repo* and *reverse repo*), which increased the value of other foreign investment and foreign exchange reserves in 2018 Q1.[41] In turn, transactions of the Polish banking sector, which continued to pay off foreign debt at a faster rate than it incurred new loans, contained the inflow of other investment.

The balanced financial account was accompanied by a reduction in Poland's foreign debt (Table 2.3). Also other indicators of external stability evidence that Polish economy is well balanced.

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).

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

	2016				2017				2018
	q1	q2	q3	q4	q1	q2	q3	q4	q1
Current account balance/GDP	-0.7	-0.4	-0.5	-0.3	0.2	-0.4	0.3	0.2	-0.2
Current and capital balance/GDP	1.4	1.4	0.3	0.8	0.8	0.5	1.3	1.5	1.2
Trade balance/GDP	3.1	3.7	3.9	4.0	4.0	3.8	4.2	4.2	3.8
Official reserve assets (in monthly imports of goods and services)	5.3	6.1	5.9	6.4	5.7	5.3	5.1	4.8	4.9
Foreign debt/GDP	71	75	74	76	72	71	69	67	67
Net international investment position/GDP	-63	-62	-62	-61	-62	-63	-62	-61	-59
Official reserve assets/short-term foreign debt and forecast current account balance)	108	114	115	117	114	108	103	107	110
Official reserve assets/short-term foreign debt	107	116	114	116	115	108	103	106	110

Source: NBP data.

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

[41] By contrast, in 2017, NBP transactions (*repo* and *reverse repo*) resulted in a decrease in the value of other foreign investment and foreign exchange reserves.

3. Monetary policy in March – July 2018

At the meetings between March and July 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 March and June 2018 as well as the *Information from the meeting of the Monetary Policy Council* in July 2018. *Minutes* of the MPC meeting held in July 2018 will be published on 23 August, and thus included in the next *Report*.

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

Members of the Monetary Policy Council discussed macroeconomic developments abroad, analysing their impact on the Polish economy. It was observed that a recovery continued in the global economy. It was emphasised that economic growth in the euro area remained stronger than in previous years. Current forecasts expect the favourable economic conditions to continue in the euro area in the coming years, although they will be accompanied by a gradual slowing in GDP growth. Attention was also drawn to the favourable economic conditions in the United States – despite some slowdown in economic activity in this country in 2017 Q4 –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, due to the persistently weak domestic inflationary pressure across many countries and lower global agricultural commodity prices than a year ago.

While analysing developments in commodity prices, attention was drawn to the increased volatility of oil prices and other energy commodities in the recent period. It was pointed out that the restrictions on oil production under the agreement between some of the oil exporting countries continued to affect oil supply. However, the impact of this factor was mitigated by the growing production of shale oil in the United States, which is becoming an increasingly important producer and exporter of this commodity. It was emphasised that high demand for oil persisted, supported by favourable economic conditions in the global economy and increased demand for oil from China related, among others, to its policy of reducing coal consumption. In the opinion of some Council members, in the coming quarters oil prices should however be stable.

Regarding monetary policy abroad, it was underlined that the European Central Bank was keeping interest rates close to zero, including the deposit rate below zero, and was continuing financial asset purchases. At the same time, the ECB stood by its announcement that interest rates would remain at their current levels, even after the end of the asset purchase programme. Certain Council members assessed inflation developments in some of the EU economies, including in Southern European countries, as an uncertainty factor for future ECB decisions. It was pointed out that the Federal Reserve continued to reduce its balance sheet, while signalling further interest rate increases in the future. It was stressed that the situation in the US labour market was a significant factor impacting the decisions of the Fed. Certain Council members assessed that the gradual tightening of monetary conditions by the Fed would lower GDP growth in the United States and lead to a deterioration of the global economic conditions. Other Council members pointed out that the impact of monetary policy tightening in the United States on the economic conditions would be contained by the loosening of fiscal policy in this country.

While discussing the developments in Poland's real economy, it was underlined that GDP growth rate in 2017 Q4 had remained close to that recorded in the previous quarter, however with the structure of growth changed. It was pointed out that the continued significant growth in consumption had been accompanied by a marked recovery in investment. It was emphasised that the pick-up in investment had taken place mainly in the public sector, although gross fixed capital formation in the corporate sector had probably increased as well. At the same time, the further growth of domestic demand boosted import growth. In turn, annual export growth – despite persistently strong external demand – decreased somewhat, partly due to seasonal factors. It was stressed that although the balance of trade had deteriorated slightly, the current account balance had remained close to zero. It was also underlined that there were no signs of rising imbalances in the domestic economy.

With reference to the economic growth outlook, it was pointed out that according to the March projection, GDP growth in 2018 and 2019 would be higher than expected in November. It was emphasized that economic growth in 2018 Q1 would probably remain close to 5%, with a further recovery in investment signalled by robust growth in construction and assembly output and a rise in production of machinery and equipment in January this year. It was underlined that according to the projection, in the whole of 2018 investment growth would be faster than in the previous year. This would result from a significant increase in public investment and the expected pick-up in corporate investment, amid a favourable outlook for demand. Certain Council members emphasised that private investment was of key importance for increasing productivity and improving the competitiveness of the Polish economy. The Council members underlined that despite faster investment growth in 2018, the results of the projection had indicated a gradual decline in GDP growth in the years 2018-2020. Factors that will drag on GDP growth include the slowdown in economic activity in the environment of the Polish economy and the slightly lower domestic private consumption growth than in 2017. The Council members expressed the opinion that the external conditions of the Polish economy and labour supply developments in Poland were risk factors for the GDP growth forecast. Certain Council members assessed that GDP growth this year could be slightly lower than projected. They expressed the opinion that economic growth rate could be contained by a slowdown in exports and a decline in profitability of foreign sales related to stronger zloty than in 2017.

Regarding the current developments in the labour market, attention was drawn to continued – although slower than in previous quarters – growth in employment in the economy in 2017 Q4. Some Council members underlined that the slowdown in employment growth had been mainly caused by the deepening decline of employment in agriculture, accompanied by still relatively high growth of the number of people employed in the remaining sectors of the economy. These Council members also pointed out that despite the recruitment difficulties reported by companies, employment growth in the enterprise sector had been high in 2017. They emphasised that the ability of companies to increase employment and production amid reported problems with labour supply had also been confirmed by the experience of other economies of Central and Eastern Europe. It was pointed out that rising employment in Poland was accompanied by faster wage growth in the economy, although data from the enterprise sector for January might – in the opinion of some Council members – signal a stabilisation of wage growth. Moreover, certain Council members assessed that the increase in wage growth could partly result from the rising percentage of persons employed under permanent contracts. Despite higher wage growth, the majority of the Council members judged that the labour market was not, so far, generating substantial inflationary pressure.

Referring to the prospects for wage growth, attention was drawn to the stabilisation of wage growth forecast in the projection. Certain Council members emphasised that despite the expected stabilisation of wage growth, unit labour cost growth would increase in the years 2018-2019. Some Council members judged that wage growth in the coming quarters could be higher than forecast, particularly in the case of demands for wage rises in the public sector. These Council members expressed the opinion that wage growth could be increased by rising demand for labour due to the expected further recovery in investment. However, other Council members underlined that in the longer term growth in investment would lead to labour productivity growth, which would limit inflationary pressure.

While discussing inflation developments in Poland, it was pointed out that annual consumer price growth had decreased at the beginning of 2018, and that core inflation net of food and energy prices remained low. In the recent period, growth of producer prices also came to a halt. Some Council members underlined that recent data confirmed that the pick-up in wage growth had no impact on price developments. Certain Council members also emphasised that price growth took place amid continued moderate lending growth.

While discussing the outlook for inflation, it was indicated that according to the March projection, inflation in 2018 would be lower than earlier expected and would amount to 2.1%. In the coming years it is expected to grow gradually – to 2.7% in 2019 and 3.0% in 2020. The majority of the Council members judged that the results of the March projection indicated that in the monetary policy transmission horizon inflation would remain close to the target. However, certain Council members emphasised that the expected increase in consumer price growth resulted to a large extent from the gradual rise in core inflation. Certain Council members assessed that inflation could be higher than forecast. According to these Council members, faster price growth could be driven by higher than expected wage growth and – in view of the decreasing ability of companies to absorb rising labour costs without changing the prices of their goods – its stronger transmission to inflation. In turn, other Council members expressed the opinion that the impact of wage growth on price developments could be limited and – as a result – core inflation could be lower than forecast. Moreover, these Council members emphasised that price growth in the coming years would continue to be contained by low inflation in the environment of the Polish economy and significantly weaker forecast growth of energy prices than in previous years.

While discussing NBP monetary policy, the Council decided that currently interest rates should remain unchanged. The Council judged that current data and the results of the projection indicated a favourable outlook for growth in economic activity in Poland, despite an expected slight slowdown in GDP growth in the years to come. At the same time, in line with the projection, in the monetary policy transmission horizon inflation will remain close to the target. As a result, the Council judged that the current level of interest rates was conducive to keeping the Polish economy on a sustainable growth path and maintaining macroeconomic stability.

The majority of the Council members expressed the opinion that, taking into account current information, interest rates were also likely to remain stable in the coming quarters. These Council members judged that the stabilisation of interest rates would continue to help meet the inflation target, while supporting the maintenance of balanced economic growth. Moreover, they 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 incoming data and forecasts suggest a further increase in wage growth and 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 coming quarters.

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%.

Minutes of the Monetary Policy Council decision-making meeting held on 11 April 2018

Members of the Monetary Policy Council discussed macroeconomic developments abroad, analysing their impact on the Polish economy. It was observed that global economic conditions remained favourable. It was assessed that in the euro area – despite some deterioration in corporate sentiment – economic activity growth remained relatively robust. It was pointed out that according to current forecasts, GDP growth in 2018 would remain close to its 2017 level, to slow down gradually over the coming years. In the United States – notwithstanding a temporary weakening in economic activity growth in 2018 Q1 – economic conditions are still favourable, and GDP growth in 2018 will probably be higher than in 2017. It was noted that the changes in the international trade policy posed a downside risk to both economic growth in the United States and global economic conditions. However, some Council members expressed the opinion that the scale of the impact of the tightening in the US trade policy on global economic conditions, including those of individual countries, was currently difficult to assess. With reference to economic conditions in emerging market economies, it was underlined that GDP growth in China remained relatively stable.

While discussing price developments in the world economy, it was noted that despite the global recovery, inflation abroad remained moderate due to the persistently weak domestic inflationary pressure in many countries. It was also observed that global agricultural commodity prices were still lower than a year ago. It was emphasised that, notwithstanding favourable economic conditions and the strengthening outlook for economic activity, inflation in the immediate environment of the Polish economy stayed low. Furthermore, attention was drawn to the recent lowering of the inflation forecasts by the European Central Bank and its expectations that price growth in 2018-2019 would remain below the inflation target.

While analysing developments in commodity prices, the recent slight rise in oil prices was pointed out. It was observed that oil prices were driven by both the current and the expected relationship between supply and demand for this commodity. It was pointed out that the key determinants of global oil supply included restrictions on oil production under the agreement between some of the oil exporting countries and growing production of shale oil in the United States. It was indicated that the production of shale oil in the medium term would be affected, on the one hand, by technological changes reducing the cost of its production, and on the other hand, by the decreasing investment propensity of American oil producers. It was emphasised that high demand for oil persisted, supported by favourable economic conditions in the global economy and increased demand for oil from China, related, among others, to its policy of reducing coal consumption.

Regarding monetary policy abroad, it was underlined that the ECB was keeping interest rates close to zero, including the deposit rate below zero, and was continuing financial asset purchases. At the same time, the ECB stood by its announcement that interest rates would remain at their current levels even after the end of the asset purchases programme. It was pointed out that – although at its recent meeting the ECB discontinued the direct signalling of a potential increase in the size of asset purchases – it did not rule out an extension of the programme. Certain Council members underlined that after keeping interest rates at low levels for a long period, the ECB may start to raise them next year. It was observed that the Federal Reserve had increased interest rates in March and continued to gradually reduce its balance sheet. Certain Council members assessed that the tightening of monetary conditions by the Fed could lower GDP growth in the United States and lead to a deterioration in global economic conditions. Other Council members pointed out that the monetary tightening in the United States was accompanied by a marked easing of fiscal policy in this country.

While discussing the developments in Poland's real economy, it was pointed out that GDP growth in 2018 Q1 had probably remained close to that recorded in the previous quarter. It was observed that output growth was supported by two main factors: consumption demand and investment. The sustained consumption growth is underpinned by rising employment and wages, disbursement of benefits and very strong consumer sentiment. At the same time, the increasing absorption of EU funds, a favourable demand outlook and a high capacity utilization are conducive to a recovery in investment. It was pointed out that while public investment, especially local government investment, continued to be the key driver of investment growth, in 2017 Q4 this was accompanied by a rise in gross fixed capital formation in the corporate sector.

In some Council members' opinion, robust rise in the construction and assembly output in recent months was indicative of a further relatively fast growth of gross fixed capital formation in the economy in 2018 Q1. It was observed that the recovery in investment coupled with the continued rise in consumption, had contributed to accelerated import growth. At the same time, export growth – despite a recent weakening – remains relatively stable. Some Council members underlined that incoming information suggest that economic growth this year might be higher than previously expected. Certain Council members assessed that economic activity in the coming years may be exposed to risk related to the decrease in corporate profit margins, driven by rising labour costs amid the limited – given strong competition in many industries – capacity of firms to raise prices.

When analysing the current developments in the labour market, further employment growth and declining unemployment rate were indicated. Some Council members underlined that while employment growth was somewhat slower than at the end of 2017, the number of persons working in the corporate sector remained relatively high in the first months of 2018. Yet other Council members argued that although the number of persons working in the entire corporate sector was still rising markedly, in some industries the possibility of increasing employment were limited. It was pointed out that while wage growth was higher than in previous years, it had not accelerated further at the beginning of the year. Some Council members emphasised that the January and February rise in wages in the corporate sector was weaker than in 2017 Q4. However, other Council members indicated that wage growth continued to exceed labour productivity growth, which was conducive to unit labour cost growth. Furthermore, certain Council members believed that following a temporary levelling, wage growth might pick up again in the coming quarters. In the opinion of those Council members, factors with a potential upward impact on wage growth included the possibility of pay rise demands in the government sector and the increasing demand for labour due to the expected further investment recovery. Other Council members, in turn, considered strong wage pressure in the government sector unlikely, since the employees in this sector attached more weight to job stability than pay level. Some Council members additionally pointed out that in the longer term investment growth would probably lead to higher labour productivity, thus weakening inflationary pressure.

While discussing inflation developments in Poland, it was observed that annual consumer price growth had decreased lately and had been weaker than expected. Some Council members underlined that despite persisting good economic conditions and wage growth higher than in previous years, inflation excluding food and energy prices had declined and service price growth had slowed down. They also pointed out the near-zero growth in producer prices, and emphasised that slower price growth was accompanied by slightly lower inflation expectations, both among households and enterprises.

While discussing the outlook for inflation, it was indicated that according to current forecasts, inflation in 2018 might be lower than in the March NBP projection. Yet certain Council members pointed out that the expected increase in consumer price growth was still to result largely from a gradual rise in core inflation. Certain Council members assessed that inflation in 2018 could be higher than forecast due to acceleration in wage growth expected by them. In turn, other Council members expressed the opinion that the impact of wage growth on price developments could remain limited.

It was emphasised that the current rate and structure of economic growth did not lead to rising imbalances in the economy. It was pointed out that the lack of strong inflationary pressure was accompanied by the sustained trade surplus and current account balance running close to zero. It was also indicated that the annual total lending growth was still lower than the nominal GDP growth. A very good performance of the general government sector in 2017, including its decreasing deficit and debt to GDP ratio, was emphasised as well.

While discussing NBP monetary policy, the Council decided that currently interest rates should remain unchanged. The Council judged that current information indicated a favourable outlook for growth in economic activity in Poland, despite an expected slight slowdown in GDP growth in the years to come. At the same time, in line with the forecasts, in the monetary policy transmission horizon inflation will remain close to the target. As a result, the Council judged that the current level of interest rates was conducive to keeping the Polish economy on a sustainable growth path and maintaining macroeconomic stability.

The majority of the Council members expressed the opinion that, taking into account current information, the probability of interest rates remaining stable in the coming quarters had increased, and the period in which they would remain at the current level might be longer than previously expected. These Council members judged that the stabilization of interest rates would continue to help meet the inflation target, while supporting the maintenance of balanced economic growth. Moreover, they 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.

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 16 May 2018

During the meeting, the Council discussed the impact of macroeconomic developments abroad on monetary policy in Poland. In the discussion it was pointed out that global economic conditions remained favourable, even though GDP growth in major developed economies weakened somewhat at the beginning of the year. Yet, in the assessment of the Council, this most probably was due to temporary factors.

In particular, it was emphasised that GDP growth in 2018 Q1 had slowed down in the euro area. It was indicated that economic conditions had deteriorated in Germany, Poland's key trading partner, which had been partly attributable to a number of one-off factors, such as strikes related to pay negotiations or unfavourable weather conditions. In April, however, business confidence indicators in the German economy stabilised. The Council members noted that the 2018 GDP growth in the euro area as a whole should be similar to that of the previous year, while in the coming years it would gradually weaken. Likewise in the United States economic conditions remain strong, notwithstanding the fact that GDP growth in this economy also lost some momentum in 2018 Q1. In the opinion of the Council members, this was probably caused by temporary factors – like in the euro area. With reference to economic conditions in emerging economies, it was emphasised that GDP growth in China had been running at a relatively stable rate for several quarters. It was noted that uncertainty related to the United States' trade policy and the impact of geopolitical tensions were the primary risk factors to global economic growth.

While analysing developments in commodity prices, a further increase in oil prices was noted. It was assessed that prices of this commodity were affected by geopolitical tensions, the current relationship between supply and demand for oil, as well as changes in the US dollar exchange rate. The expected extension of the agreement on the cap on oil production by some oil-exporting countries (so called OPEC+) was pointed out as an important factor limiting the supply of oil. In turn, a further rise in shale oil production in the United States should increase the supply of this commodity. At the same time, it was noted that high demand for oil persisted, supported by favourable global economic conditions. Certain Council members also highlighted the fact that the increasing emphasis on the protection of the natural environment in many countries added to a rise in the costs of production and transportation of oil.

When discussing inflation developments in the global economy, it was observed that despite favourable global economic conditions and the rise in oil prices, inflation abroad remained moderate. It was pointed out that this reflected the continuously weak domestic inflationary pressure in many countries, as well as still lower prices of agricultural commodities than the year before. In particular, attention was drawn to a renewed decline in the euro area inflation, which despite the favourable economic conditions in Europe and the highly accommodative monetary policy of the European Central Bank, still remained well below the level compatible with the ECB's definition of price stability.

In the discussion it was emphasised that the EBC was keeping interest rates close to zero, including the deposit rate below zero, and continued to purchase financial assets. At the same time, the ECB also reaffirmed its guidance to maintain interest rates at the present level even after the end of the asset purchases. The US Federal Reserve, in turn, continues to gradually reduce its balance sheet, hinting at further interest rate increases in the future. At this point, certain Council members noted that some members of the Federal Open Market Committee were concerned that the slowdown in the US economy in response to the tightening of monetary policy could be too pronounced. Other Council members emphasised that the tightening of monetary policy in the United States was accompanied by a marked easing of fiscal policy in this country.

Discussing the developments in Poland’s real economy, it was observed that in line with GUS flash estimate, GDP growth amounted to 5.1% in 2018 Q1. It was pointed out that currently economic growth was supported both by increasing consumption and a recovery in investment. The continued consumption growth is supported by rising employment and wages, disbursement of benefits and very strong consumer sentiment. In turn, the increasing absorption of EU funds, favourable demand outlook as well as high capacity utilisation were conducive to the recovery in investment. At the same time, the Council members stressed that the growth rate of gross fixed capital formation was increasing steadily from quarter to quarter and that data on investment in larger enterprises showed that in 2017 expenditure on buildings and structures and on machinery, technical equipment and tools, as well as on means of transport, was higher compared to the previous year. However, certain Council members noted that the investment rate was still lower than before the global financial crisis. Some Council members judged that the stabilisation of interest rates at the current level was an important factor conducing to further growth in gross fixed capital formation in the corporate sector. Other Council members indicated that currently the cost of money is not the key factor affecting investment growth.

When assessing the outlook for GDP growth, it was emphasised that economic conditions in the Polish economy remain favourable, despite the slightly weaker data on industrial and construction-assembly output in March. At the same time, it was underlined that a slight weakening in GDP growth should be expected in Poland in the coming years.

While analysing the current developments in the labour market, further rise in employment and historically low level of unemployment rate were pointed out. Some Council members stressed that while wage growth was higher than in previous years, it slowed down in 2018 Q1 compared to the preceding quarter. However, other Council members emphasised that wage growth continued to exceed labour productivity growth, which was conducive to an increase in unit labour costs. Moreover, certain Council members judged that wage growth, having weakened temporarily, might pick up again in the subsequent quarters. In their opinion, this could be driven by factors such as the possible pay rise demands in the government sector and the growing shortage of qualified labour. Other Council members stressed that unit labour cost growth was moderate. These Council members were also of the opinion that the likelihood of a strong wage pressure in the government sector was small, and that the planned legal changes facilitating hiring Ukrainian citizens in Poland should support a further inflow of workers from Eastern Europe.

Discussing inflation developments in Poland, it was observed that the annual consumer price growth had increased to 1.6% in April, in line with expectations. Some Council members underlined that despite favourable economic conditions and faster wage growth than in previous years, the moderate consumer price inflation was still accompanied by low inflation net of food and energy prices. These Council members also highlighted the persistently very low producer price inflation, despite the rise in global oil prices and some weakening of the zloty exchange rate over the recent past. At the same time, it was indicated that currently petrol prices were rising faster than oil prices, which – to some extent – could result from the structure of the Polish fuel market. In turn, certain Council members judged that slower price growth was supported by the ongoing shift in the structure of retail sales, involving an increasing role of discount and online stores, which enhanced price competition in this market.

While discussing the outlook for price growth, it was indicated that inflation in the coming months might pick up, yet it's yearly average would probably stand below the level envisaged in the March NBP projection. However, certain Council members pointed out that the expected pick-up in consumer price growth was to result largely from a gradual rise in core inflation, which – in their opinion – might mean a more persistent growth in inflationary pressure. These Council members also observed that the current wage growth added to a decline in profit margins, which might lead to price rises in the future. Other Council members argued that core inflation was still running below expectations, and growth in service prices, its important component, had slowed down recently.

With reference to risks to the future inflation path, certain Council members observed that – besides the possible, in their opinion, rise in wage pressure – these risks included the speed and scale of pass-through of the increase in oil prices to the prices of energy carriers, as well as the impact of introducing the emission charge on fuel prices. These Council members judged that should the resulting consumer price growth prove significant, this might lead to higher inflation expectations. Other Council members pointed out that the pick-up in inflation due to oil price growth might prove temporary, so it should have neither significant nor lasting impact on inflation expectations. At the same time, some Council members emphasised that the latest central inflation forecast in Poland prepared by professional forecasters showed no risk of inflation exceeding the target in the coming years. The recent slight decline in inflation expectations of households and enterprises was also highlighted.

While discussing NBP monetary policy, the Council decided that currently interest rates should remain unchanged. The Council judged that current information indicated a favourable outlook for economic activity growth in Poland, despite the expected slight slowdown in GDP growth in the subsequent years. At the same time, in line with available forecasts, in the monetary policy transmission horizon inflation will remain close to the target. As a result, the Council judged that the current level of interest rates was conducive to keeping the Polish economy on a sustainable growth path and maintaining macroeconomic stability.

The majority of the Council members expressed the opinion that, taking into account current information, the stabilisation of interest rates would continue to help meet the inflation target, while supporting the maintenance of balanced economic growth, including a 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 incoming data and forecasts suggest a further increase in wage growth and 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 coming quarters.

A view was also 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%.

Minutes of the Monetary Policy Council decision-making meeting held on 6 June 2018

During the meeting, the Council noted that global economic conditions remained good. The weakening in the GDP growth in the euro area in 2018 Q1 was in part due to one-off factors, and the outlook for growth in this economy continues to be favourable. In line with current forecasts, in 2018 GDP growth in this region will remain close to its level in the previous year and will be gradually slowing down in the following years. It was indicated that risks around this scenario included changes in the trade policy between the euro area and the United States as well as the political situation in Italy. Yet some Council members judged that the current situation in Italy did not pose a significant risk to economic conditions in the euro area, although it might contribute to heightened volatility in the financial markets. At the same time, it was pointed out that the weaker than expected slowing in economic activity in the United States in 2018 Q1 had also been of a temporary nature. According to available forecasts, GDP growth in 2018 Q2 would probably pick up considerably, and in the entire 2018 it would be higher than in the previous year. It was noted that besides the changes in international trade policy, a potential sharp correction in the US equity market might present a threat to both economic growth in the United States and global economic conditions. It was indicated that developments in oil prices were another source of uncertainty for global growth. With regard to economic conditions in emerging economies, it was emphasised that GDP growth in China remained stable.

When analysing changes in commodity prices, it was noted that while oil prices had decreased in the recent period, they were still markedly higher than in the previous year. It was assessed that the decline in oil prices was in part caused by a possible increase in the production of this commodity by some of its exporters (the so-called OPEC+), as signalled by Saudi Arabia and Russia. In turn, factors containing the decline in oil prices included the imposition of sanctions on oil imports from Iran announced by the United States, as well as the unfavourable economic and political situation in Venezuela. Certain Council members judged that, against this background, oil prices would probably remain relatively high in the coming months, albeit slightly below their current level.

While discussing inflation developments in the global economy, it was observed that despite good global economic conditions and higher oil prices than in the previous year, inflation abroad remained moderate. It was pointed out that this was driven by the persistently weak domestic inflationary pressures in many countries.

Referring to monetary policy in the external environment of the Polish economy, it was noted that the EBC was keeping interest rates close to zero, including the deposit rate below zero, and continued to purchase financial assets. At the same time, the ECB reaffirms its guidance to maintain interest rates at the present levels, even after the end of the asset purchases. The US Federal Reserve, in turn, continues to gradually reduce its balance sheet, hinting at further interest rate increases in the future. Certain Council members judged that the tightening of monetary conditions by the Fed might hamper GDP growth in the United States as well as having an adverse effect on global economic conditions.

Discussing the developments in Poland's real economy, it was pointed out that GDP growth in 2018 Q1 was probably close to that in the second half of 2017. It was pointed out that economic growth was supported by rising consumption, benefiting from the ongoing improvement in households' financial situation. It was emphasised that households' real disposable income had risen considerably in 2017, while income inequalities had narrowed down. As a result, consumers have better assessed their living standards, and their confidence remains very high. At the same time, the increasing absorption of EU funds, favourable demand outlook and high capacity utilisation support the recovery in investment. It was observed that public investment remained the main component of growth in gross fixed capital formation, while corporate investment rose at a moderate pace. Certain Council members pointed out that growth in public investment may be conducive to further recovery in corporate investment activity. These members also indicated that it could not be ruled out that as the structure of corporate investment had changed– among others, due to a rise in expenditure on intangible assets – the rate of investment conducive to robust and sustainable economic growth in the longer term might be lower at present than in the past. The Council members underlined a considerable contribution from change in inventories to GDP growth in 2018 Q1. It was noted that although changes in this category seemed ambiguous, yet they probably resulted from companies' activities aimed at stock replenishment in anticipation of high demand for their products in the quarters to come. However, it cannot be ruled out that the increase in stocks was due to the accumulation of unsold goods as a result of a weakening of foreign sales in 2018 Q1. At the same time, it was underlined that export sales growth in 2018 Q1 was significantly slower than in the previous quarters, most likely due to the slowdown in economic activity in the euro area.

While assessing the outlook for economic growth in Poland, it was emphasised that according to current forecasts, GDP growth would remain relatively high in 2018. Yet, it could decline slightly in the following years. Certain Council members judged that the short term economic outlook was currently better than expected in NBP's March projection. It was underlined that the main source of risk for GDP growth in the future were developments in the external environment of the Polish economy.

While analysing the current developments in the labour market, a further rise in employment and a fall in the unemployment rate in 2018 Q1 were highlighted. It was emphasised that in such conditions part of enterprises reported recruitment difficulties. However, some Council members pointed out that in the recent period the share of companies with job vacancies had stabilised, and the number of enterprises considering staff shortages as a barrier to their development had declined. In the opinion of these Council members, this could be due to companies adjusting to more difficult conditions in the labour market, among others, by employing foreigners. It was underlined that this was accompanied by higher wage growth than in the previous year. Yet some Council members emphasised that according to data from the national economy, wage growth in 2018 Q1 decreased somewhat. Certain Council members judged that wage growth would most likely pick up again in the remaining part of the year as a result of – besides the limited supply of skilled labour – the possible pay rise demands in the public sector. In turn, other Council members pointed out that average wages in this sector between 2010-2017 had grown on average at a rate similar to that in the corporate sector, and currently wages in both sectors were comparable. It was indicated that wage growth in the public sector might result from, among others, pay rises of the lowest earners and people employed on civil law contracts. Some Council members were of the opinion that wage growth in the following quarters should not accelerate significantly and emphasised that the available forecasts indicated it would stabilise at around 7%.

Discussing inflation developments in Poland, it was observed that the annual consumer price growth had increased to 1.7% in May, which was lower than expected. Some Council members underlined that inflation remained moderate despite a significant rise in fuel prices. In the assessment of these Council members, this results from the still weak domestic inflationary pressures, as indicated by the persistence of low inflation net of food and energy prices and the slowdown in the prices of services.

While discussing the outlook for price growth, it was indicated that due to the earlier increase in oil prices in the global markets and a certain depreciation of the zloty in the recent period, inflation might rise in the following months. Certain Council members judged that the transmission of higher oil prices – through increasing transport costs – to the prices of consumer goods might mean that in several months inflation could already be higher than under the current forecasts. These members also expressed the opinion that the current wage growth, which was lowering the profitability of enterprises, could lead to more marked price growth in the future. However, other Council members emphasised that according to current forecasts, core inflation would rise slower than expected earlier. These Council members also underlined that sales margins of enterprises had declined only slightly, and their possible recovery would be – according to the declarations of companies – achieved by price rises only to a limited degree.

While analysing the situation in the credit market, it was underlined that loans to the non-financial sector were growing at a moderate rate. According to certain Council members, this indicated a lack of excessive demand for external financing on the part of economic entities. However, other Council members judged that credit growth might be limited by the declining propensity of banks to increase lending to the private sector.

While discussing NBP monetary policy, the Council decided that currently interest rates should remain unchanged. The Council judged that current information indicated a favourable outlook for economic activity growth in Poland, despite the expected slight slowdown in GDP growth in the subsequent years. At the same time, in line with available forecasts, in the monetary policy transmission horizon inflation will remain close to the target. As a result, the Council judged that the current level of interest rates was conducive to keeping the Polish economy on a sustainable growth path and maintaining macroeconomic stability.

The majority of the Council members expressed the opinion that, taking into account current information, the stabilisation of interest rates would continue to help meet the inflation target, while supporting the maintenance of balanced economic growth, including a 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 incoming data and forecasts suggest a further increase in wage growth and 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 coming quarters.

A view was also 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 10-11 July 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%.

Global economic conditions remain favourable. In the euro area, incoming data suggest continued favourable economic situation, despite a slightly slower GDP growth than in 2017. Similarly, in the United States, economic conditions remain sound, while incoming data suggest GDP growth in 2018 Q2 picked up. In China, in turn, economic activity has continued at stable rates for the past few quarters.

Despite favourable global economic conditions, inflation abroad remains moderate on the back of persistently low domestic inflationary pressure across many countries and a decline in some agricultural commodity prices. At the same time, significantly higher oil prices than a year ago are increasing inflation rates.

The European Central Bank keeps interest rates close to zero, including the deposit rate below zero. At the same time, the ECB continues to purchase financial assets, although it has announced a reduction in the scale of purchases from October 2018 and the termination of the programme by the end of the year. The Federal Reserve raised interest rates in June and continues to gradually reduce its balance sheet.

In Poland, economic growth remains relatively high. It is driven by rising consumption, fuelled by increasing employment and wages, disbursement of benefits and very strong consumer sentiment. This is probably accompanied by a further recovery in investment.

Notwithstanding relatively high economic growth and wages rising faster than in the previous year, consumer price growth remains moderate. The slightly higher annual CPI rate than in the previous months reflects the growth in fuel prices. At the same time, inflation net of food and energy prices stays low.

The Council became acquainted with the results of the July projection of inflation and GDP, prepared under the assumption of unchanged NBP interest rates. In line with the July projection based on the NECMOD model, there is a 50-percent probability that annual price growth will be in the range of 1.5-2.1% in 2018 (against 1.6-2.5% in the March 2018 projection), 1.9-3.5% in 2019 (compared to 1.7-3.6%) and 1.7-3.9% in 2020 (compared to 1.9-4.1%). At the same time, annual GDP growth – in line with this projection – will be with a 50-percent probability in the range of 4.0-5.2% in 2018 (against 3.5-5.0% in the March 2018 projection), 2.8-4.7% in 2019 (compared to 2.8-4.8%) and 2.4–4.3% in 2020 (compared to 2.6–4.6%).

In the Council's assessment, current information and the results of the projection point to a favourable outlook for economic activity growth in Poland, despite the expected slowdown in GDP growth in the coming years. In line with the results of the projection, inflation will remain close to the target in the monetary policy transmission horizon. 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 – July 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[42], 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 July projection based on the NECMOD model covers the period from 2018 Q2 to 2020 Q4. The starting point for the projection is 2018 Q1.

The cut-off date for the data used in this Projection is 22 June 2018.

[42] 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

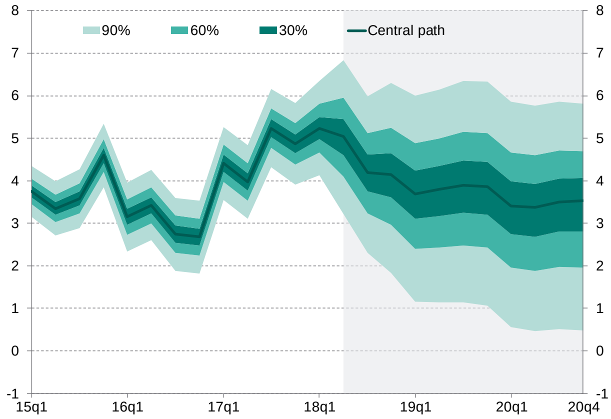
In the first half of 2018, the Polish economy remained in the expansion phase – GDP growth stabilized at a high level close to 5% y/y, with continued relatively high private consumption growth. Gross fixed capital formation also picked up significantly. The central and local government sector continued to be the main driver of growth in this category, while corporate investment remained low.

In the projection horizon GDP growth will gradually slow down. Private consumption will remain an important factor 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 household sentiment. In the years 2019-2020 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 under 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 which is forecast for 2018-2020.

In the period March-May 2018 core inflation, despite a marked recovery in business conditions in Poland, was running below the March projection expectations, which was largely driven by one-off factors. The relatively low rise in inflation in the current business cycle was largely the result of high competition in the domestic market and lower than in the past sensitivity of price changes to fluctuations in economic growth. This is connected with the ongoing globalisation and growing extent and popularity of electronically supplied services.

Yet, in the projection horizon CPI inflation will gradually pick up as a result of growing demand

Figure 4.1 GDP (y/y %)

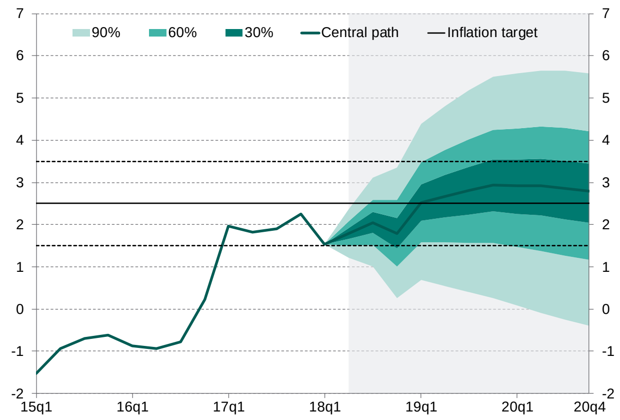


Source: GUS data, NBP calculations.

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

and cost pressure in the Polish economy having a lagged effect. With the absence of changes in NBP interest rates assumed in the projection, consumer price inflation in the years 2019-2020 will slightly exceed the level of 2.5%. Corporate costs will be boosted by heightened wage growth, persisting over the projection horizon, which will exceed the rise in labour productivity in real terms. Increased demand pressure will also contribute to higher inflation, which will be reflected in the positive output gap persisting in the years 2018-2020. However, inflation in Poland will be curbed by moderate inflation abroad.

Figure 4.2 CPI inflation (y/y, %)



Source: GUS data, NBP calculations

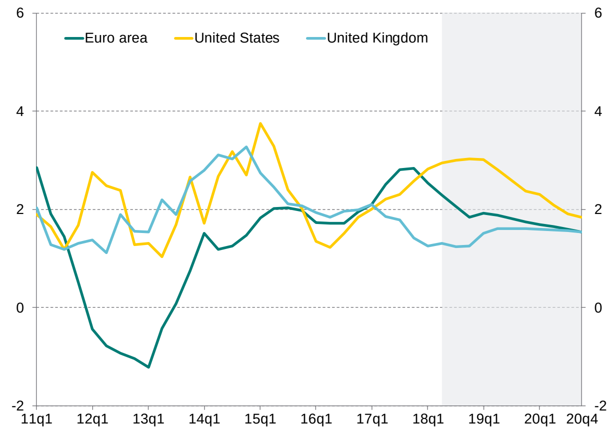
The methodology of construction of fan charts is discussed in the note under Figure 4.1

The expected projection scenario will be greatly impacted by future conditions in the global economy. Potential risk factors include a worsening of current trade conflicts and a further rise in protectionism in global trade as well as the risk connected with a potential sovereign debt crisis in Italy. Besides economic activity abroad, oil prices on the global market are also a risk factor for domestic inflation. The materialisation of the abovementioned risks would contribute to a lower path of GDP growth than assumed in the central scenario, amid the symmetrical distribution of risks for CPI inflation, as reflected in fan charts for those variables (Figure 4.1, Figure 4.2).

4.2 External environment

Similarly to the March round, the current projection assumes that economic recovery in the euro area will continue in the projection horizon, while its scale will gradually decline (Figure 4.3, Table 4.1). Lower economic activity will result from diminishing external demand driven by a slow-down in global trade and persisting supply barriers in the labour market as well as low productivity growth. The scale of slowdown in GDP growth in the euro area will be mitigated by the expansionary fiscal policy of the German government involving,

Figure 4.3 GDP abroad (y/y, %)



Source: Bloomberg, Eurostat data, NBP calculations.

apart from tax cuts and higher social benefits, a marked rise in public investment[43].

In the years 2018-2020 economic activity in the United States will be more robust than in the euro area. A gradual recovery in private investment, observed since 2017, has supported labour productivity which posted a rise in 2017 after a long period of declines. An additional factor boosting investment and consumption in 2018-2019 will be the tax reform introduced by the US administration, reducing tax burdens of entrepreneurs and households. Despite an expected further rise in labour productivity, GDP growth in the United States, similarly to the euro area, will gradually decline over the projection horizon, which will be driven by the achievement of full employment by this economy.

As compared to GDP growth in the United States and in the euro area, economic activity in the United Kingdom in the coming years will be at a relatively low level, largely on account of uncertainty connected with the UK leaving the European Union.

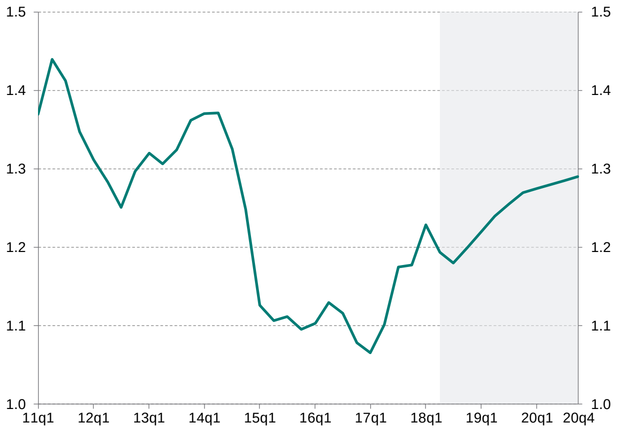
The assumptions concerning business conditions in Poland's major trading partners are fraught with uncertainty, with prevailing risk of slower growth. Potential uncertainty factors include mounting trade conflicts and a further rise in protectionism in global trade. The possible escalation of retaliation actions between the United States and Europe, Canada and China could lead to major disturbances in global trade, tensions in the financial markets and a more pronounced economic slowdown in Poland's external environment. An additional risk factor in the long-term projection horizon is the likelihood of a sovereign debt crisis in Italy. A considerable rise in public debt interest, combined with structural

Table 4.1 GDP abroad-July projection versus March projection

	2018	2019	2020
GDP in Euro Area (y/y, %)			
July 2018	2.2	1.8	1.6
March 2018	2.3	1.8	1.5
GDP in United States (y/y, %)			
July 2018	2.9	2.7	2.0
March 2018	2.6	2.5	2.0
GDP in United Kingdom (y/y, %)			
July 2018	1.3	1.6	1.6
March 2018	1.7	1.6	1.6

Source: NBP calculations.

Figure 4.4 EUR/USD exchange rate



Source: Bloomberg data, NBP calculations.

[43] According to the final coalition agreement treaty between CDU, CSU and SPD, the expansionary fiscal policy planned for years 2018-2021 will involve increasing general government expenditure and tax cuts, costing ca. 1.8% of GDP. In particular, the fiscal impulse will consist of growing pensions and family allowances, phasing-out of re-unification tax, abolition of capital gains tax and indexation of income tax brackets, as well as a financial support for regional policy, social housing, education, research and digitalisation.

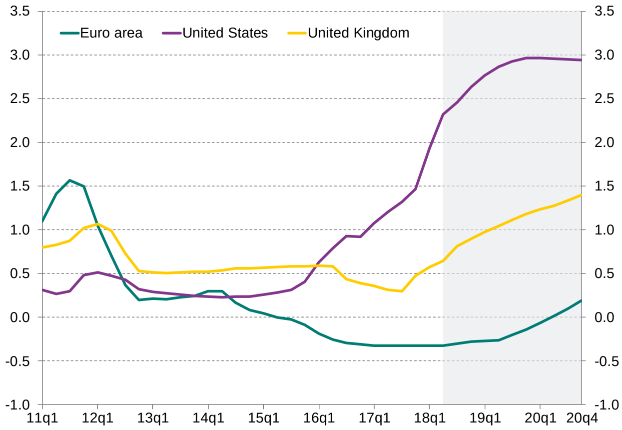
weaknesses of the banking sector might undermine the macroeconomic and financial stability of the Italian economy, posing a major risk for other euro area economies.

It has been assumed in the July projection that in line with market expectations the depreciation of the US dollar against the euro observed in 2017 will also continue in the subsequent years (Figure 4.4). The weakening of the US dollar will reflect relatively higher risks of growing imbalances in the US economy. At the same time, lower economic activity in the euro area and faster tightening of monetary policy by the Federal Reserve will curb the scale of this weakening (Figure 4.5).

Due to growing prices of crude oil, coal and natural gas, the energy commodity price index in 2018 Q2 was higher than in the previous forecasting round. In the current forecast horizon, prices of these commodities are expected to gradually decline, yet they will remain above the level assumed in the March projection.

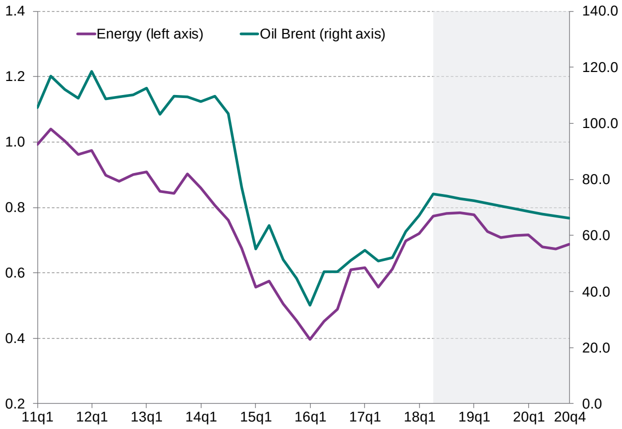
The rise in crude oil prices observed since mid-2017 reflected a decline in global oil stocks. The major factor behind the decline in oil stocks were oil production cuts by OPEC in agreement with Russia and other oil exporters, as well as a reduction of oil production in Venezuela, as a result of the unstable political and economic situation in this country. The rapidly growing global oil demand, in particular from the Asian countries and the USA, also worked in the same direction. In 2018 oil prices have also been strongly affected by political factors. The most important of these included the declarations of the further extension of OPEC's agreement with non-OPEC oil producers, fears about oil supplies from the Middle East due to the military conflict in Syria and the US's breach of their nuclear deal with Iran. As a result, both in 2018 Q2 and in the long-term projection horizon, crude oil prices are higher than assumed in the March projection. At the same time, until the end of 2020 prices of this commodity will gradually decline as compared to the current heightened

Figure 4.5 Interest rate abroad (%)



Source: Bloomberg data, NBP calculations.

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



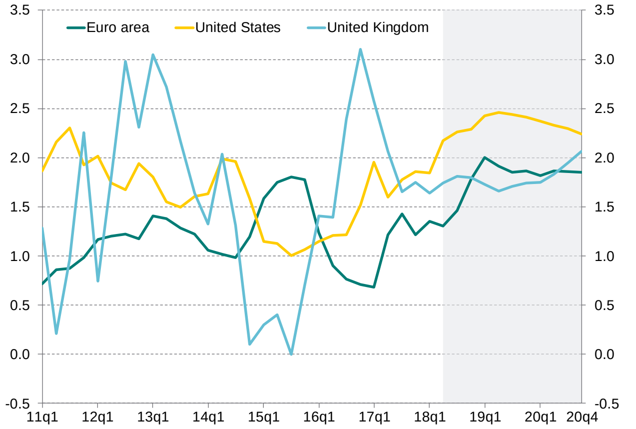
Source: Bloomberg data, NBP calculations level (Figure 4.6) which will be supported by further growth in oil production in the United States. Similar price developments are assumed in the projection for natural gas, which results from a strong correlation of prices of both commodities.

In 2018 Q2 a marked rise in coal prices was seen, which was largely driven by China's intentional reduction in coal mining. This reduction resulted from the attempts of the Chinese administration to gradually minimize the importance of the most environmentally hazardous branches of industry. At the same time, as in the case of oil, the rise in coal prices was driven by growing demand for this commodity from the rapidly developing Asian economies. In the projection horizon coal prices will gradually decline under the influence of the deteriorating outlook for global trade and the climate policy implemented by the developed countries, providing for reduced consumption of coal as a source of energy.

After a marked fall observed in 2017, the agricultural commodity price index increased in the first half of 2018 and stood above the expectations from the March projection, albeit at a relatively low level as compared with recent years. Lower supplies of wheat, cocoa and butter than in 2017 contribute to higher commodity prices in 2018. Yet, the rise in the prices of these commodities is most probably a temporary process, and in the years 2019-2020 the aggregate agricultural commodity price index will stabilize due to safe levels of global stocks and relatively low production costs.

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 boosted by rising margins of enterprises and faster wage growth. As compared with this economy, 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, inflation will continue at a

Figure 4.7 Inflation abroad (y/y, %)



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

moderate level in the projection horizon, not exceeding the level seen at the turn of 2016-2017, when the weakening of the British pound boosted consumer price growth.

4.3 Polish economy in 2018-2020

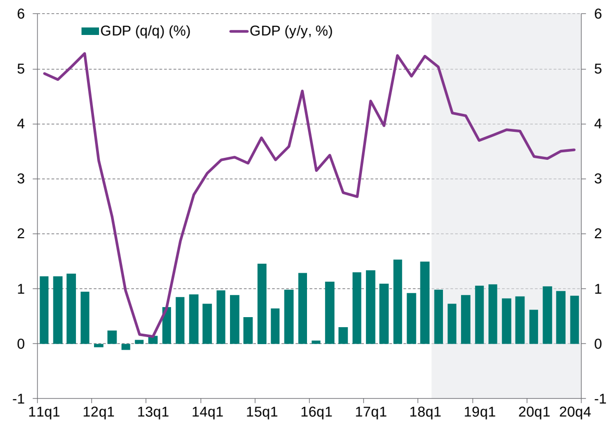
Following the decline in economic growth in the euro area, domestic GDP growth will also gradually slow from the high levels observed at the turn of 2017 and 2018 (Figure 4.8). Although household consumption will continue to be the main driver of GDP growth, in the years 2018-2019 the contribution of investment to GDP will increase, as a result of the need to rebuild the production potential of the Polish economy and the inflow of EU funds from the EU budget (Figure 4.9).

In the years 2018-2020 CPI inflation will gradually pick up as a result of the delayed effect of growing demand and cost pressure in the Polish economy (Figure 4.10). The increased demand pressure will be reflected in the positive output gap persisting in the projection horizon. At the same time, problems of enterprises related to the shortage of labour supply will contribute to a growth in unit labour costs (Figure 4.10).

Domestic demand

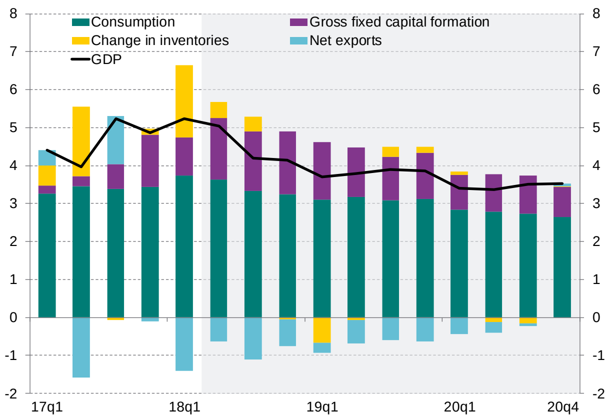
Amid the record high level of household optimism[44], private consumption will remain the main driver of economic growth in the coming years (Figure 4.9, Figure 4.11). The relatively high consumption will be supported by labour market developments which will be favourable for employees. In the projection horizon, a further decline in the unemployment rate and relatively high wage growth are expected to continue. Household consumption will also be backed by low level of interest rates having a favourable

Figure 4.8 Economic growth



Source: GUS data, NBP calculations.

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



Source: GUS data, NBP calculations.

[44] *Consumer sentiment survey. May 2018*, GUS, May 2018.

impact on the cost of financing consumer spending with loans.

At the same time, the "Family 500 plus" programme, which boosted consumption growth in the years 2016-2017, will have a merely limited impact on its growth in 2018. Additionally, higher inflation will curtail the rise in household purchasing power. Taking into account these determinants, consumption growth will gradually slow down from its current high level over the projection horizon.

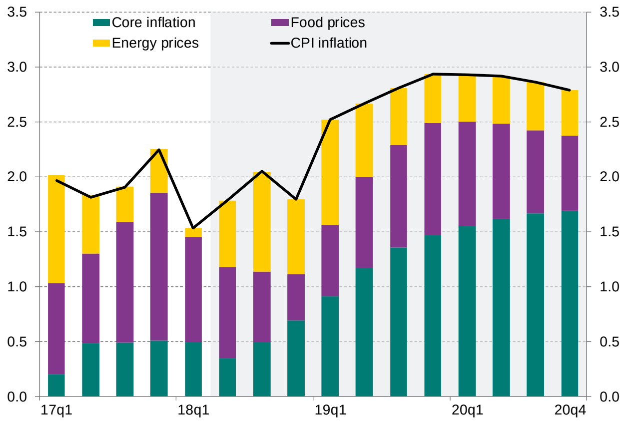
In 2018 investment growth will reach its peak in the current cycle with the central and local government sector being the main driver of growth (Figure 4.12). In the subsequent years, gross fixed capital formation growth will decline with a growing share of corporate investment and declining share of housing investment.

The high public investment growth in 2017 and at the beginning of 2018 was mainly driven by higher expenditure of local government units co-financed by EU funds. The Ministry of Development's data[45] on agreements signed for the use of funds under the individual operational programmes indicate that a further strong rise in capital expenditure of the general government sector can be expected in the coming quarters (Figure 4.13). In the years 2019-2020, the annual 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.

Both data from corporate financial statements (F-01/I-01) as well as data from national accounts indicate that enterprises are increasing their investment activity to a moderate extent (Figure 4.12).

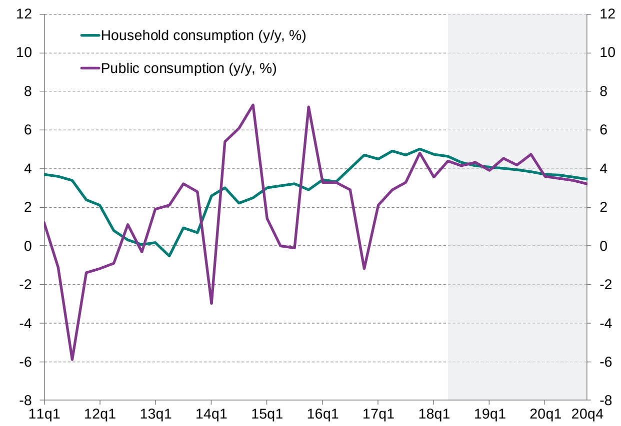
The current investment growth of those entities remains relatively low, despite a very high level of

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



Source: GUS data, NBP calculations.

Figure 4.11 Household and public consumption

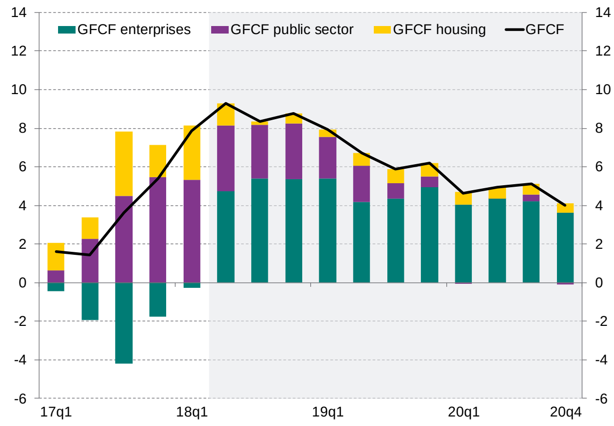


Source: GUS data, NBP calculations.

[45] 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-zfunduszy-europejskich-w-polsce-w-latach-2014-2020/.

capacity utilisation (declared both in NBP and GUS reports), with the transport sector having the largest contribution to expenditure growth. In particular, companies operating in this sector with a majority share of public ownership, relying on EU funds in their activity, have increased investment. At the same time, the scale of investment in certain sectors is limited by the growing shortage of labour supply. The share of enterprises declaring job vacancies is high, and this problem is mainly reported by enterprises undertaking investment aimed at increasing productive potential.[46] Additionally, the possibility of replacing labour with capital seems – at least in the short-term horizon – to be perceived as limited by enterprises. In particular, in the industrial manufacturing sector the share of enterprises pointing to the shortage of machinery as a barrier to activity is approaching the historically low level amid a large share of companies reporting problems with finding suitable employees.[47]

Figure 4.12 Gross fixed capital formation (y/y, %) – breakdown

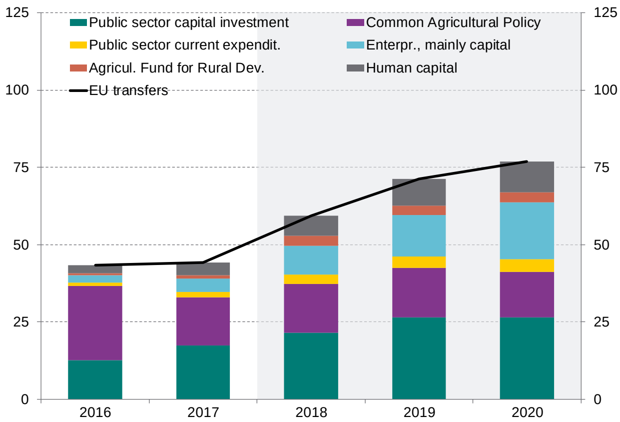


Source: GUS data, NBP calculations.

Due to the lack of availability of housing investments series (as well as other components) expressed in fixed prices in accordance with national accounts data, for the needs of the "Inflation and GDP projection", the EAD of NBP prepares its own estimates of this category. These estimates are based on a set of indicators on the situation in housing construction. Corporate investment presented in the graph is defined as non-housing investments outside the general government sector. Therefore, besides gross fixed capital formation of non-financial enterprises, they also include investments of financial and insurance institutions, non-housing investments of households, and investments of non-commercial institutions acting on behalf of households. For the needs of the "Inflation and GDP projection", corporate investment is calculated residually, taking into account series of total investment, data on investment of the general government sector and own estimates of housing investment.

However, considering the favourable demand conditions, enterprises may be expected to start to rebuild their investment in the coming quarters. This is suggested by NBP surveys[48], according to which the companies' propensity to undertake new investment is clearly on the rise. At the same time, a large number of surveyed investors are planning to expand the scale of the already commenced investment projects. The purchase of fixed assets - financed by loans or leasing will be facilitated by the historically low interest rates, although own funds remain the main source of financing for corporate investment.[49] In the long-term projection horizon, corporate investment growth will slow down following a decline in domestic and external

Figure 4.13 Expenditure financed by EU funds (in PLN billion) – breakdown



Source: NBP calculations.

[46] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector*, NBP, April 2018.
[47] *Koniunktura w przemyśle, budownictwie, handlu i usługach 2000-2018 – maj 2018*, GUS, May 2018 (available in Polish only). Data available in English; *Business tendency survey in industry, construction, trade and services 2000-2017*, GUS, http://stat.gov.pl/en/topics/business-tendency/business-tendency/business-tendency-in-industry-construction-trade-and-services-2000-2018-may-2018,1,6.html.
[48] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector*, NBP, April 2018.
[49] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector*, NBP, April 2018. According to the results of these surveys, newly started investments are most often financed by own funds (51.9% of investors), and twice as rarely by bank loans.

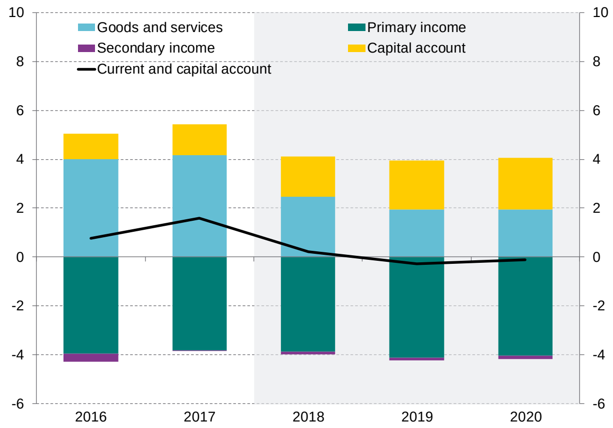
demand growth and a slower absorption of EU funds.

Growth in investment expenditure in the national economy over the projection horizon will be boosted by households' housing investment. The residential housing market continues its expansionary phase, whereas demand, which has been on the rise until now, is met to a large extent by a high supply of dwellings limiting price growth. At the same time, transactions continue to be financed with a significant contribution of households' own funds.[50]

Over the projection horizon, housing investment will gradually decline, combined with a declining growth rate of household disposable income, and will stand at a level close to GDP growth. In terms of supply, housing investment will be curbed by the shortage of labour in construction industry, rising prices of construction materials and land, driven, among others, by stricter rules for transactions in real estate forming Agricultural Property Stock of the State Treasury.

In the projection it is assumed that public consumption growth in 2018 will be 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 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.

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



Source: GUS data, NBP calculations.

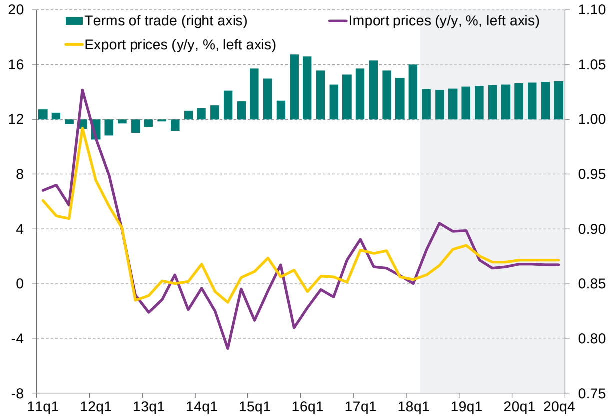
[50] *Information on home prices and the situation in the housing and commercial real estate market in Poland in 2017 Q4*, NBP, March 2018.

Current and capital account balance

In 2017 the current and capital account balance was positive and stood at 1.6% of GDP, which was largely driven by the record high surplus in trade in goods and services (Figure 4.14). The achievement of a high trade surplus was supported by growing external demand related to the acceleration of global GDP growth and continuing favourable terms of trade (Figure 4.15). 2017 also saw an improvement in the surplus in the capital account, encompassing a significant part of EU funds. At the same time, the current and capital account surplus in 2017 was lowered by a persistent high primary income deficit. This deficit was driven by higher earnings of foreign investors in Poland relative to that of Polish investors abroad, resulting both from the higher amount of invested capital, and by its higher rate of return.

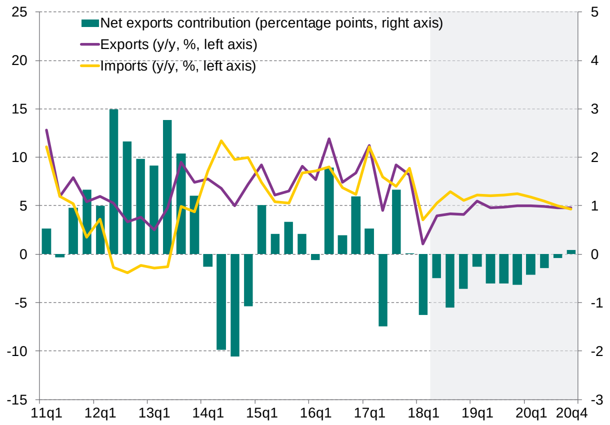
In the years 2018-2020, following the decrease in trade surplus, it is expected that the total balance of the current and capital account will decline, to run on average at a slightly negative level in the years 2018-2020 (Figure 4.14). The expected higher growth in the volume of imports than exports will contribute to the deterioration of the trade surplus (Figure 4.16). The future path of exports will be largely impacted by declining economic growth in the euro area, including in Germany. At the same time, the relatively higher import growth will be driven by growing investment demand in the Polish economy, including rising corporate expenditure which is characterized by a relatively high import intensity. The decline in the trade surplus will also be driven by a less favourable terms of trade (Figure 4.15), mostly related to rising prices of energy commodities in the global markets. Rising wages of immigrants (primarily from Ukraine) working on a temporary and seasonal basis in Poland, will also contribute to a deterioration in the current and capital account balance. The fall in the current and capital account in the years 2018-2020 will be partly mitigated by the growth in the surplus in the capital account

Figure 4.15 Export and import prices



Source: GUS data, NBP calculations.

Figure 4.16 Foreign trade



Source: GUS data, NBP calculations.

related to the growing inflow of EU investment funds under the EU financial framework 2014-2020.

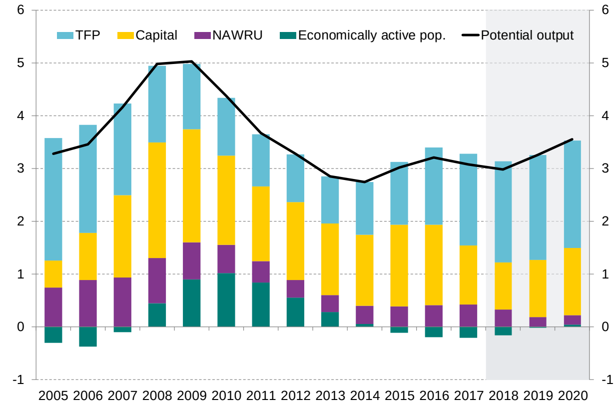
Potential output

Potential output growth will accelerate to 3.5% y/y over the projection horizon (Figure 4.17). This will be driven by the continued acceleration of total factor productivity (TFP) and of the pick-up in productive capital growth due to the increase in the investment rate. The effective labour supply (taking into account the number of economically active people and the equilibrium unemployment rate; Figure 4.17, Figure 4.18) will make a slightly positive contribution to potential output growth.

Higher TFP growth over the projection horizon will be supported by a further improvement in the quality of human capital. This is reflected, among others, in the growing percentage of people with higher education in the group aged over 44, along with the entry into this group of younger cohorts characterised by a higher ratio of higher education. The increasing innovation performance of the Polish economy and the improvement of its position in the global value chains will also have a positive impact on total factor productivity growth.

The favourable situation in the labour market will encourage growth 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. The presence of immigrants, especially Ukrainian citizens, on the domestic labour market, also has a positive impact on the labour supply[51]. At the same time, the lowering of the statutory retirement age as of 1 October 2017 will most likely reduce the scale of growth in the labour force participation rate in the

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



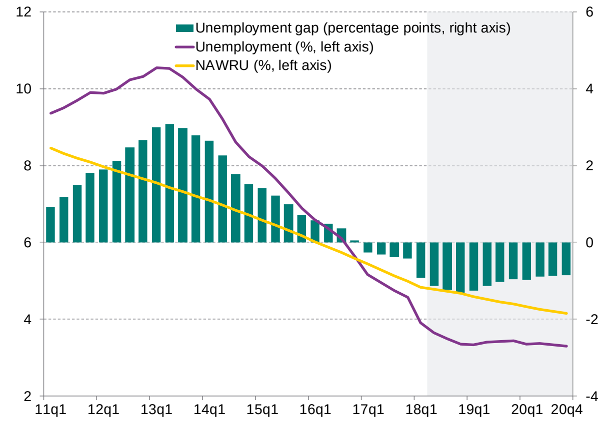
Source: NBP calculations.

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

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

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

Figure 4.18 Unemployment



Source: GUS data, NBP calculations.

[51] 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. In the NECMOD model, immigrants not included in the LFS population do not, therefore, increase the labour supply, but they affect the potential output through their positive impact on total factor productivity (TFP).

oldest age group (60/65+). Potential output growth in the projection horizon will be also limited by the continuation of negative demographic trends leading to a fall in the working age population in Poland.

Output gap

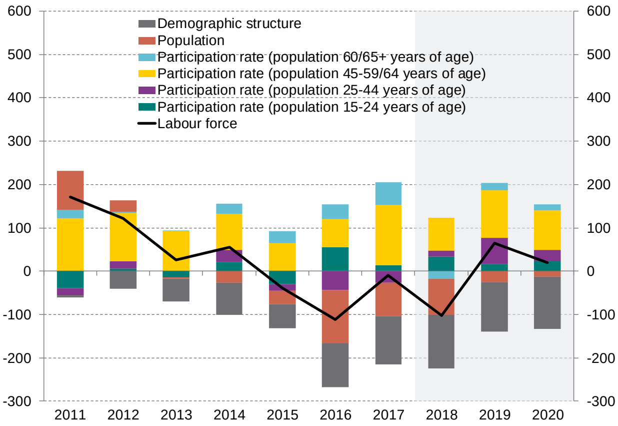
The output gap, which had been negative since 2012, closed in the second half of 2017. In 2018 real GDP will continue to grow faster than capacity utilisation, causing a further widening of the positive output gap. In the years 2019-2020, along with the slowdown in economic growth, the output gap will stabilise, and then decline slightly to the level of 1.8% of potential output (Figure 4.20). The growth in demand pressure in the economy over the projection horizon will gradually translate into a pick-up in CPI inflation in the coming years.

Labour market

Growth in the number of employed persons will gradually slow down over the projection horizon (Figure 4.21). Currently the determinants of demand for labour remain favourable; however, along with the slowdown in GDP growth, slower growth in demand for labour is also expected in the coming years. Growth in the number of employed persons will also be held back increasingly by the supply of employees. The number of the unemployed who could undertake employment is small, which is reflected in the record low and declining unemployment rate (Figure 4.18, Figure 4.22). Consequently, enterprises will continue to have problems finding suitable workers. This is reflected in the record high percentage of firms reporting staff shortages as a barrier to activity[52] and declaring vacant positions.[53]

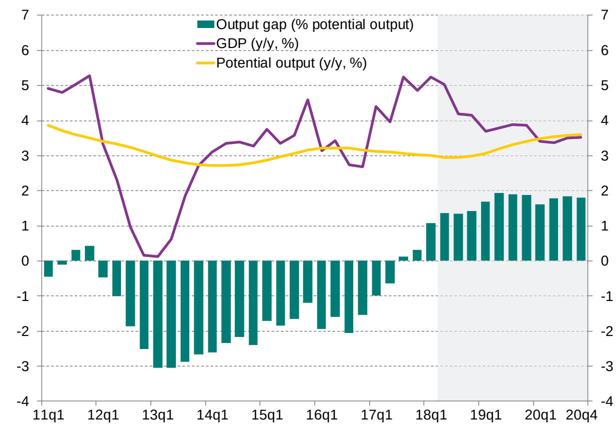
Wage growth in the years 2018-2020 will remain at an elevated level, exceeding the growth rate of labour productivity in real terms (Figure 4.23). On

Figure 4.19 Change in the labour force (thous., y/y)



Source: GUS data, NBP calculations.

Figure 4.20 Output gap

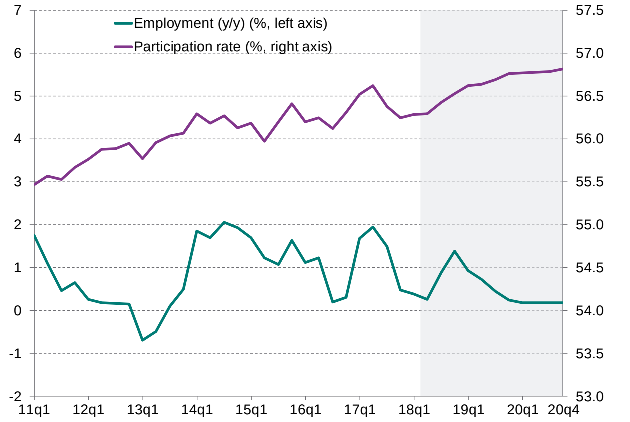


Source: GUS data, NBP calculations.
The output gap is a synthetic measure of demand pressure in the economy. It is expressed as a percentage of the deviation of the actual real level of GDP from the level of potential output.

[52] *Koniunktura w przemyśle, budownictwie, handlu i usługach*, GUS, April 2018 (available in Polish only).
[53] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector*, NBP, April 2018.

the one hand, wage growth will be boosted by the further decrease in the unemployment rate and the rise in consumer price inflation. On the other hand, over the projection horizon growth in demand for labour on the part of enterprises will decline, and wage pressure in the economy will be additionally alleviated by the presence of immigrants from Ukraine. The results of NBP surveys also point to a stabilisation of wage growth in the coming quarters. According to the survey results, although the share of employees that will benefit from wage rises has increased and the value of the average wage rise has increased slightly[54], at the same time the percentage of firms forecasting wage rises has declined.

Figure 4.21 Employment and labour force participation

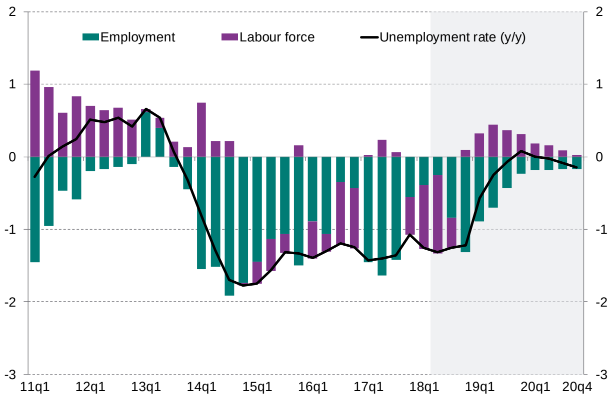


Source: GUS data, NBP calculations.

Exchange rate

Under the impact of global factors, the zloty exchange rate in 2018 Q2 weakened against the currencies of Poland's major trading partners, particularly against the US dollar. The current level of real effective exchange rate of the domestic currency is below the level resulting from fundamental factors. In particular, the current exchange rate of the zloty is significantly weaker than the level that would constitute a barrier for export activity of Polish enterprises.[55] Over the projection horizon, the effective exchange rate of the zloty is expected to strengthen and gradually approach the equilibrium exchange rate. The scale of the expected zloty exchange rate appreciation is partly curbed by the declining interest rate disparity. The declining interest rate disparity is a result of the assumed lack of changes in NBP interest rates over the projection amid an expected increase in the cost of money in the environment of the Polish economy.

Figure 4.22 Change in unemployment rate - decomposition



Source: GUS data, NBP calculations.

[54] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector*, NBP, April 2018.
[55] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector*, NBP, April 2018.

CPI inflation

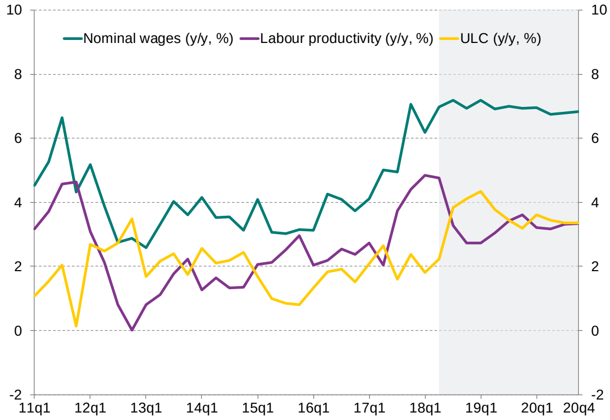
CPI inflation in the current forecasting round will increase and will run slightly above 2.5% in the years 2019-2020 (Figure 4.24).

The increase in CPI inflation will be driven by rising cost and demand pressure in the Polish economy, which will have a delayed impact on prices (Figure 4.24). Costs of enterprises are raised over the projection horizon in particular by the elevated level of wage growth, exceeding labour productivity growth in real terms (Figure 4.23). Core inflation will also be boosted by higher demand pressure, reflected by the positive output gap persisting in the years 2018-2020. However, the sensitivity of price growth to changes in the domestic economic conditions has decreased in recent years[56], which is one of the reasons for the relatively slow growth in inflation in the current business cycle.

Apart from the circumstances mentioned above, the inflation path over the projection horizon will also depend on the factors accelerating energy price growth in 2018-19 (Figure 4.25). At the same time, with the easing of the unfavourable supply conditions in 2018, food price inflation will decline compared to 2017 (Figure 4.25).

Domestic energy price inflation in 2018-2019 will be boosted by the delayed impact of the increase in energy commodity prices in the global markets recorded in 2018 Q2, accompanied by a depreciation of the złoty. From January 2019, energy prices will also be pushed up by the electricity bill hike resulting from higher costs of ensuring energy security and the support for renewable energy sources. The introduction of emission fee will, in turn, result in an additional increase in fuel prices next year. However, the expected end of the arbitration proceedings between PGNiG and Gazprom, which will lower

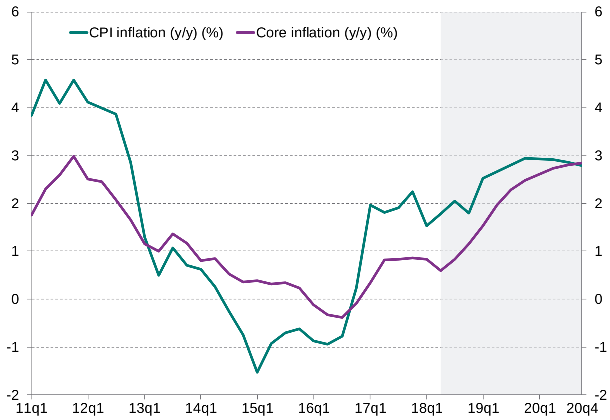
Figure 4.23 Unit labour costs



Source: GUS data, NBP calculations.

Unit labour costs are defined as the average cost of labour per unit of output produced. They are calculated by dividing the total remuneration in the economy by the total GDP. Alternatively, they can be expressed as the quotient of the average wage and labour productivity, in other words, the relation of GDP to the number of the employed persons.

Figure 4.24 CPI and core inflation



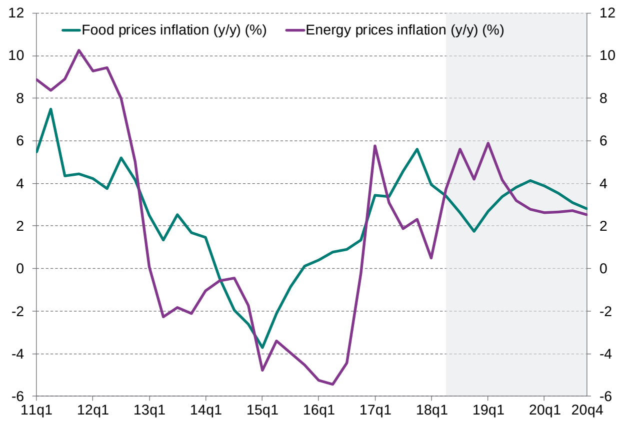
Source: GUS data, NBP calculations.

[56] 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.

the price of natural gas for households, will be a factor holding back energy price inflation

Despite the inflationary impact of demand and cost factors, food price inflation will run below the level of 2017 over the projection horizon (Figure 4.25). This will be caused by the fading impact of the unfavourable supply conditions and the limitation of shortages in the markets of certain agricultural commodities and products, which led to an increase in the prices of fruit, vegetables, meat and dairy products last year.

Figure 4.25 Food and energy price inflation



Source: GUS data, NBP calculations.

4.4 Current versus previous projection

Data released after the cut-off date of the March projection contributed to an upward revision of the GDP growth forecast in 2018. At the same time, with the exception of 2019, new information indicates a lower inflation path (Table 4.2, Figure 4.26, Figure 4.28).

Table 4.2 July projection versus March projection

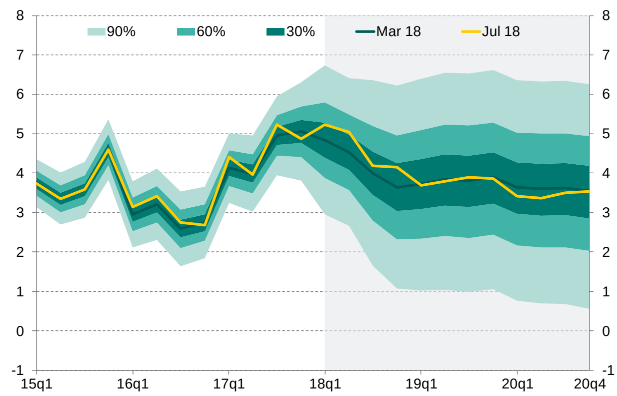
	2018	2019	2020
GDP (y/y, %)			
July 2018	4.6	3.8	3.5
March 2018	4.2	3.8	3.6
CPI inflation (y/y, %)			
July 2018	1.8	2.7	2.9
March 2018	2.1	2.7	3.0

Source: NBP calculations.

GDP

The significant upward revision of GDP growth in 2018 was driven by higher than expected reading of GDP for 2018 Q1. As a result, in 2018 private consumption, which will owe its high level to the optimistic household sentiment reported in GUS consumer surveys, runs above the expectations of the previous forecasting round. In 2018 public consumption growth was also revised upwards, including growth in the value of intermediate consumption. The inclusion of data for 2018 Q1 also had an impact on the revision of the path of inventories in 2018, reflecting a stronger-than-expected cyclical adjustment of their level by enterprises. At the same time, in 2018 Q1 the situation in Poland's foreign trade and gross fixed capital formation was less favourable than was assumed in the March projection. These data, combined with a slightly sharper slowdown in the growth rate in the euro area, particularly in the

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



Source: NBP calculations.

German economy, will negatively impact GDP growth throughout 2018 (Figure 4.27).

In the years 2019-2020, along with the fading of factors raising the forecast in the current year, the GDP growth rate will decline and return to the level close to that expected in the March projection.

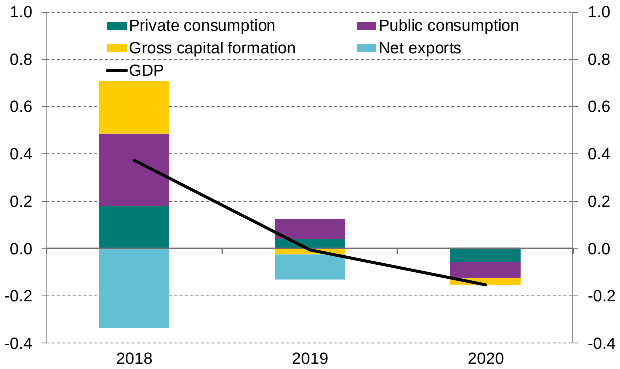
Inflation

In relation to the results of the March projection throughout the horizon the core inflation path has been lowered, along with a simultaneous upward revision in energy price growth. As a result of these changes, the forecast growth of prices of consumer goods and services decreased slightly in 2018 and 2020 (Figure 4.29).

Despite a marked recovery in the Polish economy, between March and May 2018 core inflation ran significantly below the level expected in the March projection. Although one-off factors impacted on the development of core inflation in this period, its low level reflects the strong competition in the domestic market. The May core inflation reading confirmed the further weakening of growth in the price of services, which may be related to the growing scope and popularity of electronically provided services currently observed in the market. In conditions of globalisation and the relatively easy customisation of services, this translates into, on the one hand, an increase in competition, and on the other hand, a reduction of operating costs of enterprises of this sector.

Despite higher economic growth, lower readings of core inflation than the forecasts may also reflect lower sensitivity of price growth to economic activity than in the past. As a result, stronger demand pressure than in the previous forecasting round will boost core inflation, but its return to the path of the March projection will be delayed. The developments in the labour market are an additional argument in favour of such a scenario. In 2018 Q1, along with higher GDP growth than expectations, both wage growth and the number of

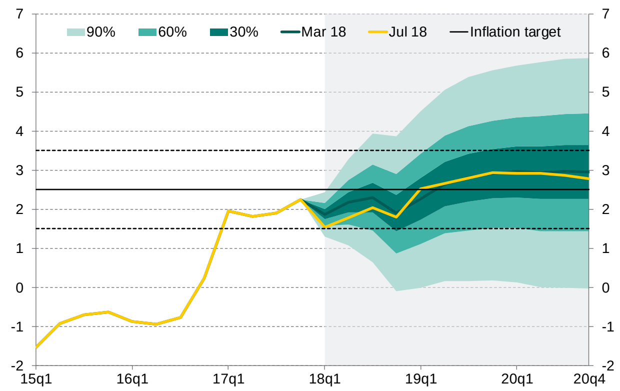
Figure 4.27 Decomposition of deviations between March and July projection: GDP growth (percentage points)



Source: NBP calculations.

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

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

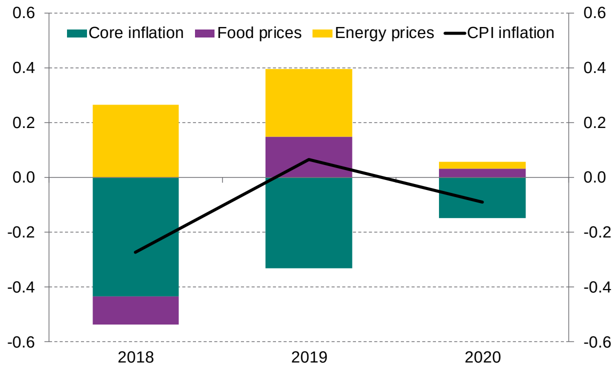


Source: GUS data, NBP calculations.

employed persons (LFS) were slightly below the results of the March projection. Under the assumption of this trend being continued, cost pressure on the part of the labour market (measured by unit labour cost growth) will develop over the July projection horizon below the assumptions of the previous forecasting round.

Compared to the March projection, energy prices were revised upwards in the years 2018-2019. Stronger than expected growth of oil prices in the global market, combined with a weakening of the złoty against the US dollar, translated into higher domestic fuel prices. Next year fuel prices will additionally be raised as a result of emission charges, to be introduced as of January 2019, being accounted for in the July projection. Moreover expected increase in electricity tariffs due to higher coast of coal will also contribute to upward revision of energy prices in 2019.

Figure 4.29 Decomposition of deviations between March and July projection: CPI inflation (percentage points)



Source: NBP calculations.

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

4.5 Forecast uncertainty sources

The central scenario of the projection, presenting the most likely macroeconomic developments in Poland, is subject to uncertainty reflected in the fan charts (Figure 4.1 and Figure 4.2). The global economic conditions are currently the major source of risk for economic activity in Poland. In turn, the main risk for domestic inflation, apart from GDP growth abroad, are oil price developments in the global markets. The balance of sources of uncertainty points to a near-symmetrical distribution of risks to CPI inflation and the possibility of a lower path of GDP growth than in the central scenario (Table 4.3). With the assumption of no change in the NBP reference rate, the probability of CPI inflation running within the symmetrical band of deviations from the NBP inflation target of 2.5% (with a width of +/- 1 p.p.) gradually declines from its current level of 80% to 42% at the end of the projection horizon (Table 4.3).

Table 4.3 Probability of inflation running:

	Below 1.50%	Below 2.50%	Below 3.50%	Below the central projection	In the range (1.5-3.5%)
18q2	0.20	0.98	1.00	0.50	0.80
18q3	0.19	0.76	0.99	0.50	0.80
18q4	0.37	0.77	0.96	0.50	0.59
19q1	0.18	0.49	0.81	0.50	0.63
19q2	0.18	0.45	0.74	0.50	0.56
19q3	0.19	0.42	0.69	0.50	0.50
19q4	0.19	0.40	0.65	0.51	0.46
20q1	0.21	0.42	0.65	0.52	0.44
20q2	0.23	0.43	0.65	0.52	0.42
20q3	0.25	0.45	0.67	0.53	0.42
20q4	0.27	0.47	0.68	0.53	0.42

Source: NBP calculations.

Growth prospects in the global economy

The assumptions to the central projection path regarding the developments in the external environment of Poland do not take into account the impact of events, both positive and negative, which my occur, but whose probability is assessed as low. In the current forecasting round it is estimated that among these events, the majority are those that could slow down GDP growth abroad. The most important risk factors for the central path are connected with the mounting trade disputes between the world's major economies and the likelihood of a sovereign debt crisis in Italy.

In the recent period in the United States the level of protectionist rhetoric has surged. The actions taken so far – the introduction of customs duty on the import of steel, aluminium, solar panels and washing machines, as well as the imposition of a 25-percent duty on imports from China valued at USD 50 billion – have been met with retaliation by the USA's trading partners, although its scale has not had a significant impact on the global business climate. However, further actions announced, on a wider scale (among others, duty on cars and spare parts, on imports from China to the value of USD 200 billion, and the protection of sensitive technology), and above all the escalation of the retaliatory measures, may prove more dangerous. This could result in disturbances in the global supply chains, and could therefore restrict global trade and international ties. The growing uncertainty about further developments and conditions for conducting activity in the future would reduce domestic and international investment and would also lead to tensions in the financial markets.

The effects of the escalating trade disputes would adversely impact all parties to the conflict, including the United States, where the risk of lower growth is additionally driven by slower growth of consumer spending. In particular, the possible fall in share prices on US stock markets is a risk for the growth of consumer spending assumed for this economy, particularly combined with the low household saving rate, high share of financial assets in household assets, growing energy prices and uncertain impact of the introduced tax reforms.

An additional source of risk for GDP growth in Poland is the likelihood of a sovereign debt crisis in Italy. If the new Italian government lowers income tax to the extent announced during the election campaign without adjusting expenditures, the fiscal position of the country will deteriorate significantly. This in turn would result in a rise in Italian bond yields, especially since the ECB would have limited – due to the capital key – possibility of responding under the asset purchase programme (APP).

In recent years the public debt in Italy stabilised at the level of approx. 130% of GDP, mainly thanks to low financing costs. The high level of debt of the general government sector in Italy translates into high sensitivity of Italian economy to changes in the costs of financing the debt. The vulnerability of Italy to adverse shocks is also increased by the situation in the banking sector, which is fraught with structural weaknesses – low profitability and balance sheets with poor quality assets. At the same time, the Italian banking sector has a significant exposure to the domestic public debt. At the end of 2017 Italian banks held 26.5% of the public finance sector’s debt, of which over half was government bonds. The debt crisis in Italy, which would be accompanied by a banking crisis, would therefore cause an escalation of tensions in the European financial markets. A the same time Italy generates 15% of GDP of the euro area and is its third largest economy. A crisis in Italy, through its strong trade links with the remaining countries of the euro area, would therefore adversely impact economic growth of the whole of Europe, and also – although to a lesser extent – non-European economies.

Oil prices in the global markets

A significant source of uncertainty for the inflation path in the baseline scenario continues to be changes in the global prices of oil and of other energy commodities. The assumptions of the supply policy of OPEC still represents a risk for future oil price developments. The forecasts of the supply of shale oil in the United States are also fraught with uncertainty due to the short history of exploitation and the dynamic developments of technology for its production. Additional uncertainty is connected with the state of the infrastructure transporting this commodity. The existing pipeline infrastructure is insufficient in relation to the growing production and its expansion is necessary in order to reduce oil transportation costs to the refineries. A risk factor for the path of oil prices assumed in the baseline scenario is also the development of demand for this commodity as well as the geopolitical situation. Among others, the consequences of the United States reinstating sanctions on Iran are unknown, as well as the further development of the economic and political crisis in Venezuela, which up to now has translated into a fall in production in this country of 1 million barrels a day compared to 2015.

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	1.8	2.7	2.9
Core inflation net of food and energy prices (%, y/y)	-0.2	0.7	0.8	2.1	2.7
Food prices (%, y/y)	0.8	4.2	2.9	3.5	3.3
Energy prices (%, y/y)	-3.9	3.2	3.6	4.0	2.6
GDP (%, y/y)	3.0	4.6	4.6	3.8	3.5
Domestic demand (%, y/y)	2.2	4.7	5.4	4.4	3.6
Household consumption (%, y/y)	3.9	4.8	4.4	4.0	3.6
Public consumption (%, y/y)	1.8	3.4	3.9	4.3	3.4
Gross fixed capital formation (%, y/y)	-8.2	3.4	8.4	6.7	4.7
Contribution of net exports (percentage points, y/y)	0.8	0.1	-0.7	-0.5	-0.2
Exports (%, y/y)	8.8	8.2	4.0	5.0	4.9
Imports (%, y/y)	7.6	8.7	5.5	6.1	5.3
Gross wages (%, y/y)	3.8	5.3	6.9	7.0	6.8
Total employment (%, y/y)	0.7	1.4	0.7	0.6	0.2
Unemployment rate (%)	6.2	4.9	3.6	3.4	3.3
NAWRU (%)	5.8	5.2	4.8	4.5	4.2
Labour force participation rate (%, y/y)	56.2	56.4	56.4	56.7	56.8
Labour productivity (%, y/y)	2.3	3.2	3.9	3.2	3.3
Unit labour cost (%, y/y)	1.6	2.2	3.0	3.7	3.4
Potential output (%, y/y)	3.2	3.1	3.0	3.2	3.5
Output gap (% potential GDP)	-1.8	-0.3	1.3	1.9	1.8
Index of agricultural commodity prices (EUR; 2011=1.0)	0.90	0.90	0.85	0.87	0.86
Index of energy commodity prices (USD; 2011=1.0)	0.49	0.62	0.76	0.73	0.69
Inflation abroad (%, y/y)	0.9	1.3	1.7	2.0	2.0
GDP abroad (%, y/y)	1.8	2.4	2.1	1.9	1.7
Current and capital account balance (% GDP)	0.8	1.6	0.2	-0.3	-0.1
WIBOR 3M (%)	1.70	1.73	1.72	1.72	1.72

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 February – mid-May 2018

■ Date: 10 April 2018

Subject matter of motion or resolution:
Resolution No. 1/2018 of 10 April 2018 on approving the Annual Financial Report of Narodowy Bank Polski prepared as of 31 December 2017.

Voting of the MPC members:

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

■ Date: 15 May 2018

Subject matter of motion or resolution:
Resolution No. 2/2018 of 15 May 2018 on approving the Report on monetary policy in 2017.

Voting of the MPC members:

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

■ Date: 15 May 2018

Subject matter of motion or resolution:

Resolution No. 3/2018 of 15 May 2018 on the evaluation of the activities of the NBP Management Board as regards the implementation of monetary policy guidelines for 2017.

Voting of the MPC members:

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

Against: K. Zubelewicz

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