NBP Narodowy Bank Polski

Monetary Policy Council

July 2016

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 Institute of Narodowy Bank Polski. In terms of the contents, works on the projection were supervised by Andrzej Sławiński, General Director of the Economic Institute. 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 27 June 2016.

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

Contents

Summary

Despite weaker global economic conditions, in the euro area, which is Poland's main trading partner, annual GDP growth has stabilised at the highest level since the European sovereign debt crisis. This notwithstanding, weak global economic conditions weigh on growth in this economy. In the United States, GDP growth is lower than in previous years, while in China it continues to gradually slow down. At the same time, uncertainty about the economic outlook for these countries prevails. Along with the prospect of the United Kingdom leaving the European Union, this poses a downside risk to euro area and global economic growth.

Uncertainty regarding the global economic outlook and high inventories of crude oil dampen the prices of this commodity. In spite of some increase in recent months, they are still lower than in 2015. Prices of other energy commodities as well as agricultural commodities are also low. In consequence, inflation worldwide is very low and in most major advanced economies, including the euro area, it remains close to zero.

Against this background, the European Central Bank (ECB) is keeping its interest rates near zero, with a negative deposit rate. At the same time, it continues financial asset purchases, whose scale and scope have been recently expanded. Market participants expect that very accommodative monetary policy of the ECB will continue over longer term or might be further eased in the coming quarters. The Federal Reserve (Fed) has left its interest rates unchanged since their increase in December 2015.

Stock indices worldwide have fallen of late. Emerging market exchange rates have weakened and safe haven currencies have appreciated. Government bond yields have fallen in major advanced economies. Deterioration in market sentiment was caused by an increase in uncertainty following the announcement of results of the United Kingdom's European Union membership referendum. Weaker sentiment in the international financial markets resulted also from the uncertainty about the global economic outlook.

In Poland, annual growth in consumer prices remains negative. Deflation in Poland is caused mainly by external factors, most notably the earlier sharp fall in global energy commodity prices, which dampens domestic energy prices. Lower energy prices translate into a decline in prices of other goods and services, and, in consequence, into negative core inflation indices. CPI growth in Poland is also limited by low inflation abroad, as well as by the lack of demand and cost pressures in the domestic economy. Consumer price growth in the first half of 2016 was supported, in turn, by developments in food prices, which were higher than a year before.

Economic activity growth in Poland is stable in spite of some fluctuations in GDP growth in recent quarters. Following a sharp acceleration in 2015 Q4, output growth slowed down in 2016 Q1 due to a decline in investment, as the EU financial framework 2007-2013 had come to an end. Export growth also slowed down slightly amid deteriorating economic conditions abroad. The main driver of economic growth in 2016 Q1 was consumer demand growth, accelerating amid good labour market conditions and improving household sentiment. Growth in consumer expenditures is expected to accelerate further in the coming quarters, on the back of a rise in child benefits from the "Family 500 plus" programme. Therefore, the slowdown in 2016 Q1 was most probably only temporary, and the GDP growth rate should rebound in the following quarters.

Credit growth remains stable. It is supported by favourable economic conditions, most notably improving labour market and good financial standing of enterprises, as well as the current level of interest rates, which is lower than in previous years.

Monetary Policy Council has been keeping NBP interest rates unchanged since March 2015. The expectations about a future decrease in the NBP interest rates have diminished over recent months. This, along with the deterioration in sentiment in the international financial markets, resulted in a slight rise in government bond yields in Poland. This was accompanied by a depreciation of the zloty and a fall in stock market indices on the Warsaw Stock Exchange.

Positive developments continue in the external sector of the Polish economy. The trade account and the capital account both remained in surplus in 2016 Q1, in spite of lower inflow of EU funds from the financial framework 2007-2013, which weighed on the capital. As a result, the ratio of the joint current and capital account balances to GDP remained significantly positive, close to record highs since 1995. Due to a surplus in these accounts, in 2016 Q1 a net capital outflow was recorded. More specifically, the participation of non-residents in the domestic government bond market declined, which was however accompanied by a rise in foreign direct investments.

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 March – June 2016, together with the *Information from the meeting of the Monetary Policy Council* in July 2016 are presented in Chapter 3. *Minutes* of the MPC meeting held in July will be published on 25 August 2016 and so will be included in the next *Report*. The MPC voting records in meetings held in February – May 2016 can be found in Chapter 5. This *Report* also includes four boxes: *Inflation forecast revisions by selected central banks*, *The policy of negative interest rates: implications and risks for the economy*, *Impact of the Brexit vote on the Polish economy*, *Monetary policy transmission mechanism in Poland: the latest research*.

Chapter 4 of the Report presents the projection of 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 July projection – prepared under the assumption of unchanged NBP interest rates and taking into account data available until 24 June 2016 – there is a 50-per cent probability that the annual price growth will be in the range of -0.9 ÷ -0.3% in 2016 (compared to -0.9÷0.2% in the March 2016 projection), 0.3 ÷ 2.2% in 2017 (as against 0.2 ÷ 2.3%) and 0.3 ÷ 2.6% in 2018 (versus 0.4 ÷ 2.8%). At the same time, the annual GDP growth – in line with this projection – will be, with a 50-per cent probability, in the range of 2.6 ÷ 3.8% in 2016 (as compared to 3.0 ÷ 4.5% in the March 2016 projection), 2.4 ÷ 4.5% in 2017 (as against 2.6 ÷ 4.8%) and 2.1 ÷ 4.3% in 2018 (versus 2.1 ÷ 4.4%).

1 External developments

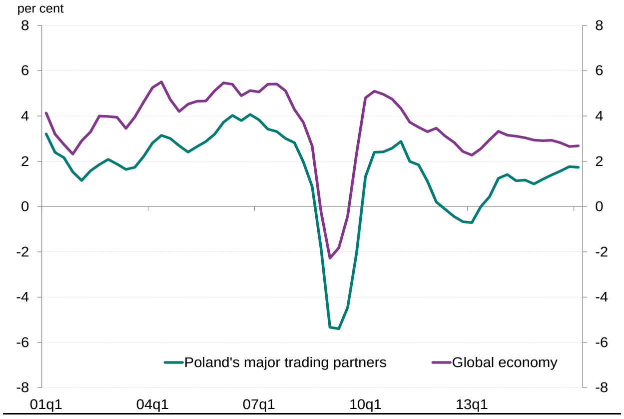
1.1 Economic activity abroad

Despite weaker global economic conditions, economic growth in Poland's main trading partners is higher than in the previous years (Figure 1.1; Figure 1.2). Yet economic conditions vary across individual countries.

In the euro area, Poland's main trading partner, annual GDP growth has stabilised at the highest level since the European debt crisis (Figure 1.3). Growth in the euro area has been driven mainly by consumer demand, supported by improving labour market conditions, which translate into higher disposable income. The additional boost for household disposable income in real terms, and hence consumption, comes from low energy prices (see Chapter 1.2 *Inflation developments abroad*). Moreover, economic growth in the euro area is benefiting from relatively robust growth in investment and public sector expenditure, also supported by a decline in the government bond yields related to the ECB's highly expansionary monetary policy (see Chapter 1.4 *Monetary policy abroad* and Chapter 1.5 *International financial markets*). The availability of credit to the non-financial sector is also increasing.

However, in some euro area member states, private debt is still high, which constrains investment activity, especially given the near-zero price growth and the uncertainty related to slowdown abroad. Weaker global economic conditions also drag on exports to the emerging market economies and the United States (Figure 1.4), and – along with the prospect of the United Kingdom withdrawing from the European Union – increases uncertainty about the euro area's

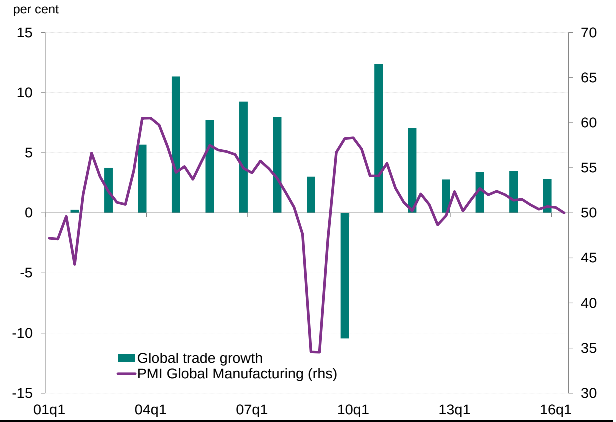
Figure 1.1 GDP growth in the environment of the Polish economy (y/y)



Source: NBP compilation based on data provided by national statistical offices, Eurostat and IMF.

Average annual GDP growth in Poland's major trading partners, which comprise 80 per cent of Polish exports, weighed by share in Polish exports in 2015. Average annual GDP growth in global economy – GDP-weighted average annual GDP growth in economies constituting 80 per cent of global GDP.

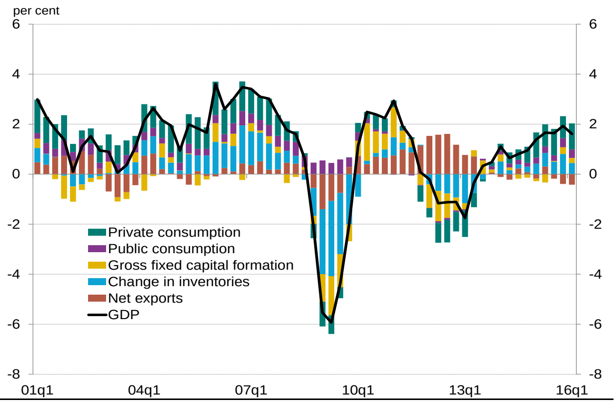
Figure 1.2 Global trade growth (y/y) and the PMI Global Manufacturing index



Source: IMF, Bloomberg and Reuters Datastream data.

Global trade growth from the IMF's World Economic Outlook database, April 2016.

Figure 1.3 GDP growth in the euro area and its components (y/y)



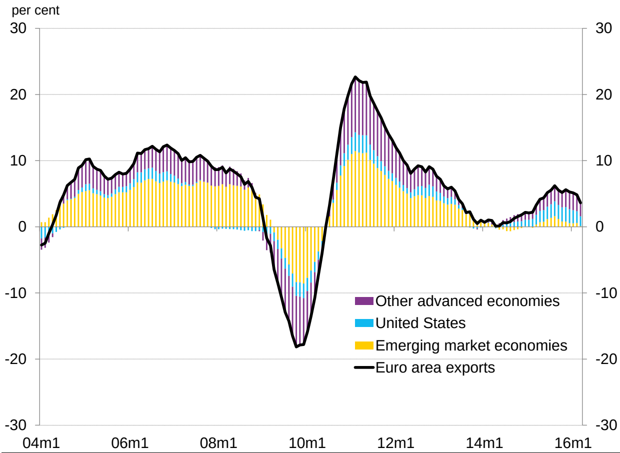
Source: Eurostat data.

economic outlook in the coming quarters.

In the largest emerging market economies, economic conditions are still weak, although a recent rise in commodity prices has stimulated growth in net commodity exporters (see Chapter 1.3 *Global commodity markets*; Figure 1.5). In China, economic growth continues to slow down gradually on the back of a slower increase in investment and exports, and – most recently – also in private consumption. In early 2016, there were signs that economic conditions might be temporarily stabilizing. In particular, property prices rose and lending activity picked up. Despite this, given high public and private debt, the potential for faster growth in the coming years is limited. High debt also poses a risk to the stability of the Chinese financial system.

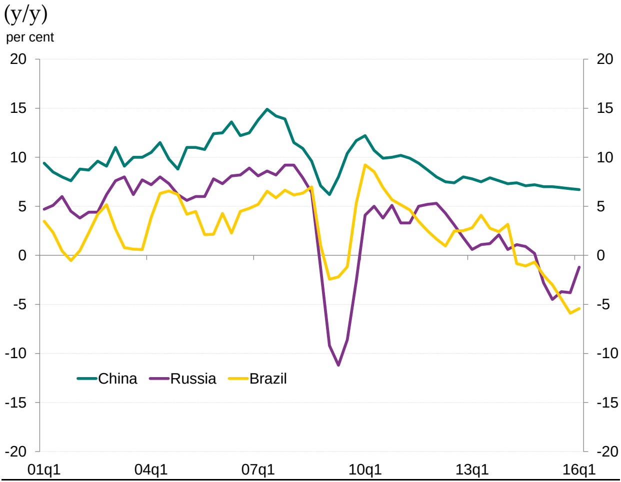
Economic growth in the United States is lower than in the previous years, and uncertainty about its outlook has increased. Weaker GDP growth in the United States is primarily related to a slower increase in corporate investment amidst a sharp decline in oil prices in late 2015 and a marked fall in corporate profits over past six months. Weaker output growth results also from deceleration in exports caused by both the weak economic conditions in the main trading partners of the United States and relatively strong US dollar. At the same time, the labour market conditions are improving, albeit at a slower pace than in the previous quarters. Along with good household sentiment and the low cost of credit amid still expansionary monetary policy of the Federal Reserve, this supports an acceleration in housing investment and a steady rise in private consumption, which continues to be the key driver of economic growth in the United States (Figure 1.6). Expanding employment coupled with weaker economic growth results in a deceleration in labour productivity growth.

Figure 1.4 Contribution of countries and country groups to the euro area export growth (y/y)



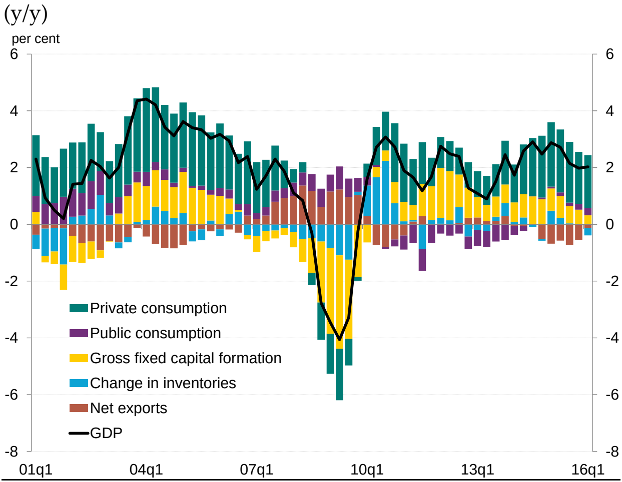
Source: Eurostat data, NBP calculations.

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



Source: Bloomberg data.

Figure 1.6 GDP growth in the United States and its components (y/y)



Source: Bureau of Economic Analysis data.

Economic conditions in Central and Eastern Europe (CEE) have also weakened recently. In 2016 Q1, GDP growth decelerated in most CEE countries on the back of lower investment outlays financed from the EU funds and slower export growth related to lower exports to the euro area resulting from a deterioration in economic conditions in the emerging market economies.

1.2 Inflation developments abroad

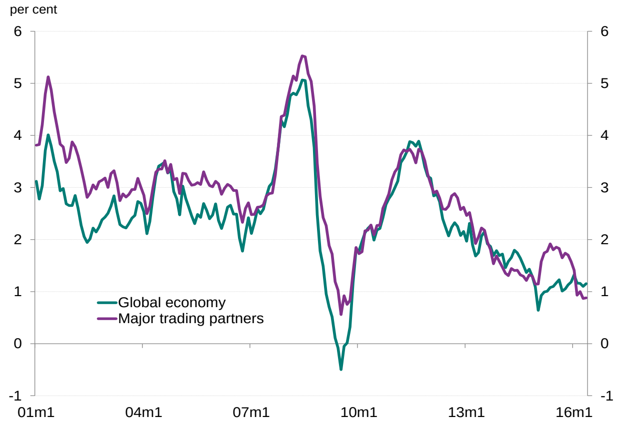
Price growth in the external environment of the Polish economy remains very weak (Figure 1.7). The exception to this are the United States, where inflation has been significantly positive for a number of months, and some emerging market economies which had experienced a sharp depreciation of their currencies last year.

The slow price growth in the external environment of the Polish economy results mainly from a previous sharp fall in commodity prices (see Chapter 1.3 *Global commodity prices*), which led to lower energy prices and a deceleration in food price growth in many countries (see also Box 1 *Inflation forecast revisions by selected central banks*). Core inflation indices are also historically low due to second-round effects of the fall in commodity prices and slower global growth (see Chapter 1.1 *Economic activity abroad*; Figure 1.8).

In the euro area, price growth has been close to zero since the second half of 2014, with core inflation at all-time lows. Very low inflation in this economy has been containing price growth in other European economies, including Central and Eastern Europe, where price growth is negative in most countries (Figure 1.9).

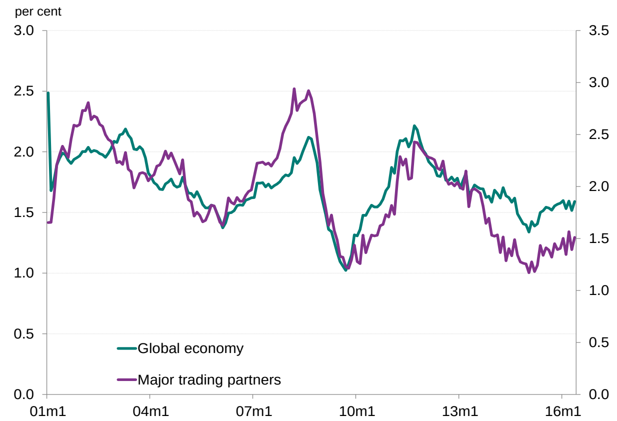
Among other Poland's major trading partners, in Russia inflation is declining but remains high as a result of a previous depreciation of the rouble, and

Figure 1.7 CPI inflation in the environment of the Polish economy (y/y)



Source: Bloomberg data, NBP calculations.

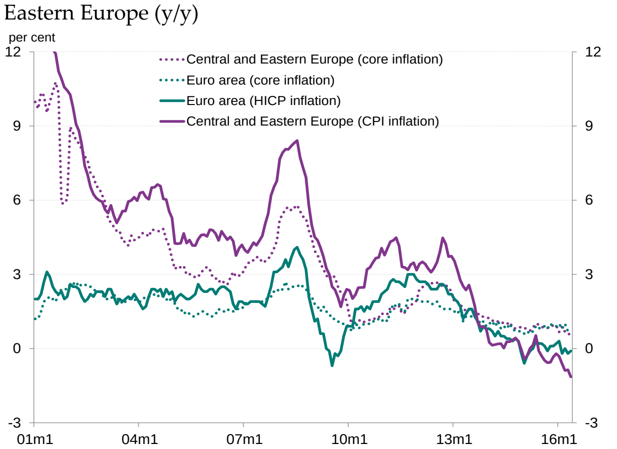
Figure 1.8 Core inflation in the environment of the Polish economy (y/y)



Source: Bloomberg data, NBP calculations.

The above two charts present the average CPI inflation and the CPI inflation excluding food and energy prices in Poland's major trading partners that comprise 80 per cent of Polish imports, weighted by share of these economies in Polish imports in 2015, along with the GDP-weighted average inflation in economies constituting 80 per cent of global GDP.

Figure 1.9 CPI inflation indices in the euro area and Central and Eastern Europe (y/y)

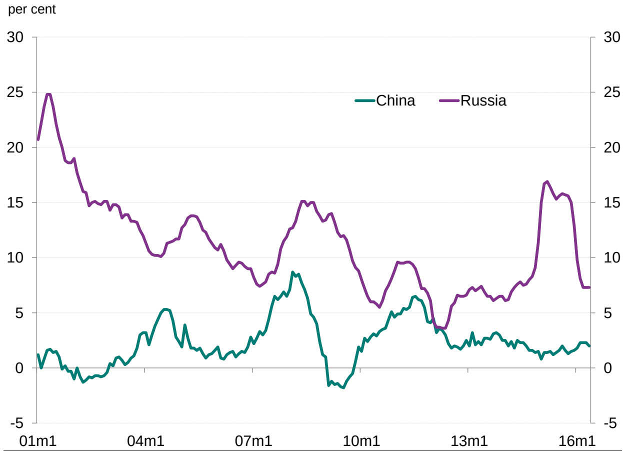


Source: Bloomberg data, NBP calculations.

For Central and Eastern Europe, GDP-weighted average inflation in Bulgaria, Croatia, Czech Republic, Estonia, Lithuania, Latvia, Romania, Slovakia, Slovenia and Hungary.

in China it is below its long-term average amid the ongoing economic slowdown (Figure 1.10).

Figure 1.10 CPI inflation in the Poland's major emerging market trading partners (y/y)



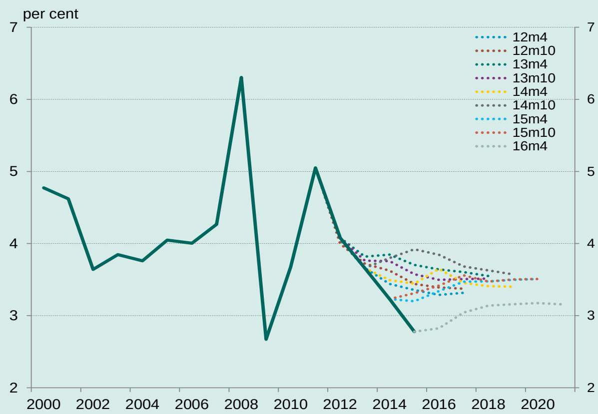
Source: Bloomberg data.

Box 1: Inflation forecast revisions by selected central banks

Over past three years, global price growth followed a steady downward path, hitting in 2015 the lowest level in half a century (except for 2009 when price growth was slashed by the global recession). This was driven by a strong and unexpected fall in global commodity prices in 2014-2015, combined with a persistently moderate global economic growth following the global financial crisis. As a result, inflation forecasts for the global economy have been revised down (Figure B.1.1). Against this background, also central banks have been cutting their forecasts (Figure B.1.2). This box sets out the scale of revisions and errors in forecasts published since 2012 by selected central banks,[1] including Narodowy Bank Polski.

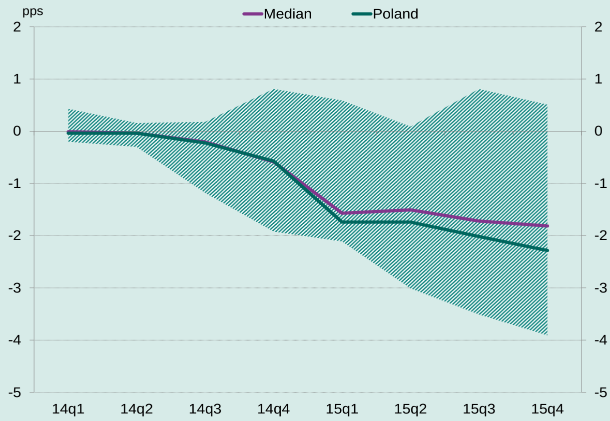
The scale of revisions to the central banks' inflation forecasts was the largest in the second half of 2014 and in 2015 Q1, i.e. in the period of a sharp fall in commodity prices, which were the main reason for revisions by majority of central banks. In this period, central banks revised their point inflation forecasts for the end of 2015 by an average of 1.3 percentage points (Figure B.1.2).

Figure B.1.1 Global inflation and its forecasts issued by the International Monetary Fund



Source: IMF.

Figure B.1.2 Aggregate revisions of central path of inflation projections for 2015 Q4 in selected central banks published in 2014-2015.



Source: Central banks' data, NBP calculations.

For the euro area, Switzerland and the US the revisions of forecasts for 2015 were taken; the shaded area indicates the interval between minimum and maximum values

The scale of revisions differed across countries. For example, the total revision of inflation forecasts for 2015 in the euro area and in the United States was -1.2 and -1.5 percentage points respectively, whereas in Romania it reached -3.9 percentage points, in Hungary and Sweden -2.4 percentage points and in Poland

[1] The analysis presented in this box is based on inflation forecasts issued by central banks of the euro area, the United States, the United Kingdom, Sweden, Norway, Switzerland, Poland, the Czech Republic, Romania and Hungary.

-2.3 percentage points. The differences in the scale of the revisions may be partly attributed to the volatility of domestic inflation rates. In particular, the average change in forecasts of price growth in countries with historically lower standard deviation of the inflation rate (e.g. in the euro area or the United States) was smaller than in those with higher standard deviation (such as Romania, Hungary or Poland). Higher inflation volatility, and consequently also larger scale of revisions to inflation forecasts, was additionally related to a significant share of energy prices in the baskets of domestic consumer goods and services. In the case of the Central and Eastern European (CEE) countries it averaged to 14.6% in 2015 and was markedly higher than in other economies considered in this box, where it averaged 8.5%. A larger share of energy prices in domestic consumer inflation baskets in the CEE countries translated into a higher – by an average of 1 percentage point – scale of revisions to inflation forecasts for 2015 Q4 than in the remaining countries under examination. In Poland, the total revision to inflation forecasts for 2015 Q4, formulated in 2014-2015, was close to the median for the central banks considered (Figure B.1.2) and moderate against the background of other CEE countries.[2]

The unexpected slump in commodity prices not only made it necessary to revise inflation forecasts, but also undermined their accuracy. The mean absolute error of inflation forecasts for 2015 in the central banks under consideration increased from 2014 by 0.4 percentage points and reached 1.5 percentage points. At the same time, also the dispersion of forecast quality among central banks rose significantly.

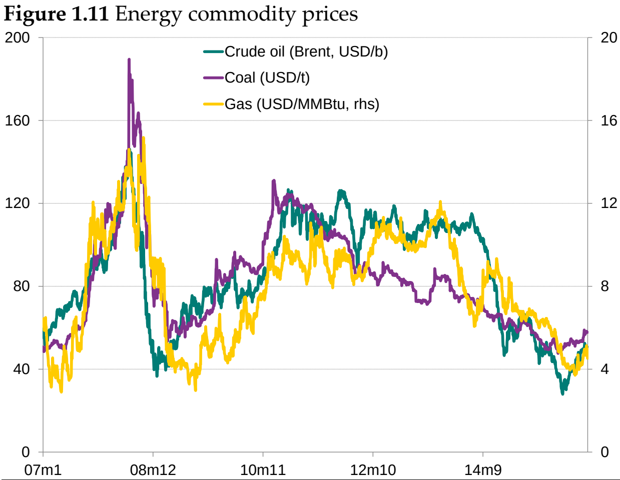
To sum up, the unexpected fall in commodity prices in the second half of 2014 and in 2015 translated into a considerable decline in inflation worldwide. Consequently, many central banks revised downwards the forecasted price growth paths and their forecast errors increased. The scale of revisions and errors of those forecasts was significant, particularly in countries with a high share of energy in their consumer baskets.

1.3 Global commodity markets

Oil prices have risen in recent months, yet they are still markedly lower than in previous years. The prices of other energy commodities, as well as agricultural commodities, also remain low (Figure 1.11, Figure 1.12).

The recent increase in oil prices was largely caused by a fall in oil extraction in the United States and supply disruptions in some major oil-producing countries (Nigeria, Kuwait, Canada, Venezuela and Libya). The rise in oil prices was also supported by the subsiding concerns about the outlook for economic growth in emerging market economies (see Chapter 1.1 *Economic activity abroad*). For several years, however, the slowdown in China has been containing growth in demand for energy commodities, including oil. This, together with still historically high oil supply – despite recent disruptions – constrains oil price

Figure 1.11 Energy commodity prices



Source: Bloomberg data, NBP calculations.

MMBtu – Million British thermal unit, 1 Btu is the amount of energy needed to raise the temperature of 1 lb of water by 1°F. Price of gas originally quoted in the British pounds, converted into the US dollars at the closing rate.

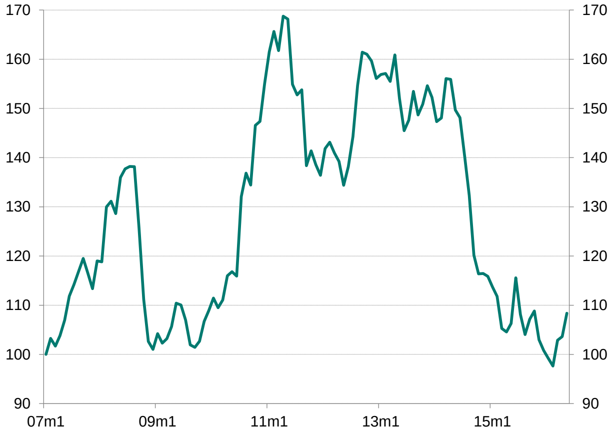
[2] The scale of revisions to forecasts for a particular period may depend on how much in advance the forecast is made. As the inflation forecast horizons differ between the central banks considered here, in order to ensure their comparability, Figure B.1.2 presents revisions to forecasts issued in a chosen period only, i.e. in 2014-2015.

growth.

High supply also continues in the coal and gas markets, which translates into low prices of these commodities. In addition, growth in gas prices is contained by the liberalisation of granting licences for exports of this commodity from the United States, coupled with the launch of the first LNG export terminals in this country.

The prices of agricultural commodities, whose weight in the Polish CPI basket is relatively high, remain very low, despite a recent slight rise. Low agricultural commodity prices are supported by high supply, related mainly to favourable weather conditions in the countries producing agricultural commodities.

Figure 1.12 Index of agricultural commodity prices in the global markets in USD (index, January 2007=100)



Source: Bloomberg data, NBP calculations.
The index comprises prices for wheat, rape, pork, potatoes, sugar, cocoa, coffee, skimmed milk powder, butter, frozen orange juice concentrate. Weights reflect the consumption structure of Polish households.

1.4 Monetary policy abroad

Since the December 2015 increase, the Federal Reserve (Fed) has left its policy interest rates unchanged, i.e. between 0.25 and 0.50%. At the same time, the U.S. central bank is reinvesting the principal payments from its holdings of securities purchased during the successive rounds of quantitative easing. The implied probability of keeping the policy rate unchanged until the end of 2016 has recently increased (Figure 1.13). This shift in expectations was mostly due to weaker data on economic activity in the United States and a rise in uncertainty about the global economic outlook (see Chapter 1.1 *Economic activity abroad*).

The European Central Bank (ECB) is keeping interest rates close to zero, with a slightly negative deposit rate (see Box 2: *The policy of negative interest rates: implications and risks for the economy*). At the same time, the ECB continues financial asset purchases. Since April 2016, the ECB has increased the scale of these purchases (to 80 billion euro a month), supplementing them with bonds issued by

Figure 1.13 Probability of Fed keeping the interest rate unchanged until the end of 2016

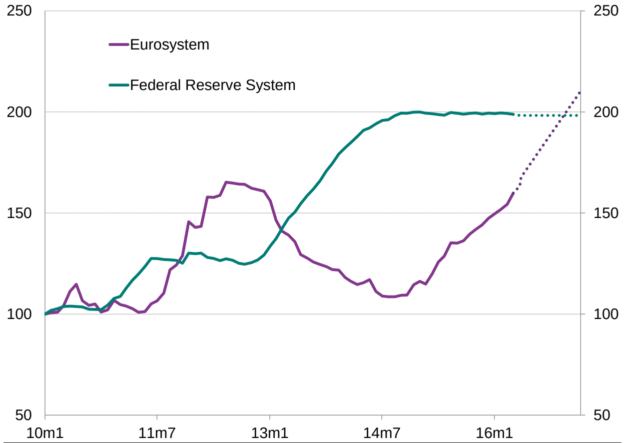
Source: Bloomberg data.
Probability implied from fed funds futures.

non-financial corporations in June 2016 (Figure 1.14). Recently, the ECB has also launched a new series of targeted longer-term refinancing operations (TLTRO II). Market participants expect that the ECB's monetary policy will continue to be highly expansionary over a longer period of time, and do not rule out further easing in the coming quarters (Figure 1.15). Such expectations are primarily related to very low inflation in the euro area, which remains markedly below the level considered by the ECB as compatible with the definition of price stability (below, but close to, 2%; see Chapter 1.2 *Price developments abroad*).

Most central banks in Europe are keeping their interest rates at historical lows, while some of them are additionally employing unconventional monetary policy measures. In particular, the central banks of Switzerland and the Czech Republic are intervening in the foreign exchange market in order to prevent an excess appreciation of domestic currency.[3] The Riksbank is continuing its asset purchase programme, which was expanded in April 2016. The Magyar Nemzeti Bank (MNB) has recently lowered its policy interest rates. MNB's overnight deposit rate was cut slightly below zero.

Also the People's Bank of China is easing its monetary policy amid slowing growth of the Chinese economy (see Chapter 1.1 *Economic activity abroad*). In particular, it has recently lowered the required reserve ratio again and is providing commercial banks with liquidity. At the same time, the level of China's foreign exchange reserves has stabilised following a sharp decline in the previous quarters. This was related to a temporary diminishment of downward pressure on the yuan.

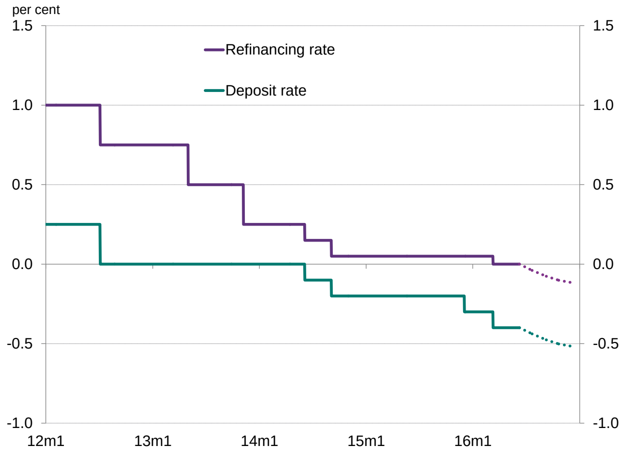
Figure 1.14 Assets of the major central banks (index, January 2010=100)



Source: Bloomberg data, NBP calculations.

Forecasts prepared under an assumption of constant Fed's assets, the Eurosystem's assets growing by 80 billion euro a month.

Figure 1.15 ECB's interest rates, current and expected



Source: Bloomberg data.

Future interest rates calculated from the overnight index swaps for deposit and refinancing rate.

[3] The Czech National Bank is maintaining its commitment to intervene in the foreign exchange market to prevent an appreciation of the Czech koruna to less than 27 EUR/CZK. The Swiss National Bank, in turn, withdrew from a similar commitment in January 2015 declaring, however, that it would intervene in order to prevent an excessive appreciation of the Swiss franc, without quoting the threshold level of the exchange rate of its currency.

Box 2: The policy of negative interest rates: implications and risks for the economy

Since mid-2014 six central banks (Danmarks Natonalbank, the Swiss National Bank, the Bank of Japan, Magyar Nemzeti Bank, Riksbank and the European Central Bank, ECB) have reduced their interest rates below zero, thus challenging the consensus that nominal interest rates should be in positive territory (the so-called *zero lower bound* constraint)[4].

The main reason for taking interest rates negative was to ease monetary policy further in order to contain risks associated with persistently negative price growth that could materialize in an event of low global economic growth. Yet, the types of negative interest rates and the decision context varied across the central banks (see Table B.2.1). These differences may affect both the efficiency of negative interest rates in stimulating economic growth and the probability that the risks associated with negative interest rates could materialise.

Table B.2.1 Key criteria for applying negative interest rates in selected central banks

	Bank of Japan	Swiss National Bank	Riksbank	Danmarks Nationalbank	ECB	Magyar Nemzeti Bank
Date of introduction	29 January 2016	18 December 2014	11 February 2015	4 September 2014	5 June 2014	22 March 2016
Inflation rate (per cent)	0.2	-0.1	-0.2	0.5	0.5	0.3
Deviation of inflation from target (pps)	-1.2	-2.2	-2.2	n/a	-1.1	-2.8
Exchange rate appreciation (per cent)	5.2	0.9	-8.9	0.7	5.9	0.7
Private and public debt (per cent of GDP)	429.3	217.2	172.4	224.0	185.7	121.0
Type of negative interest rate	O/N deposit rate	Target for 3M LIBOR CHF; O/N deposit rate	7D repo rate, O/N deposit rate	7D deposit certificate rate	O/N deposit rate	O/N deposit rate
Current level of negative interest rates (per cent)	-0.10	-1.25 - -0.25; -0.75	-0.50	-0.65	-0.40	-0.05
Other non-standard central bank measures	Financial asset purchases	Decision to introduce negative interest rates made at the point of withdrawal from asymmetric exchange rate targeting	Government bond purchases; announcement of discretionary interventions in FX market	Discontinuation of government bond issuance (January 2014 - October 2015, government in agreement with central bank)	Financial asset purchases, lending support programme	Growth Supporting Programme
Scope of negative interest rates application to central bank instruments	Deposits in excess of reserve requirement and funds accumulated under asset purchase programme, or granted to commercial banks under lending support programmes	Deposits exceeding reserve requirement 20-fold, or CHF 10bn	Deposits and certificates of deposit	Certificates of deposit convertible to deposits exceeding a certain ceiling	Deposits in excess of reserve requirement	Solely O/N deposits

Source: Bloomberg, central banks, Bank for International Settlements, IMF, World Bank data.

Inflation rate – annual inflation rate at the moment of decision to introduce negative interest rates.
Deviation of inflation from the target - average CPI deviation from the target, or a value representing the central bank's definition of price stability, in the 12 months preceding the decision to introduce negative interest rates; for Danmarks Nationalbank, this level was not determined, as this bank pursues the exchange rate targeting strategy and hence no inflation target or corresponding indicator had been set.
The scale of exchange rate appreciation – the scale of the NEER appreciation in the 12 months preceding the decision to introduce negative interest rates. Public and private debt - the sum of the private and public debt-to-GDP ratios in 2015.

Direct consequences of negative interest rates

In the case of almost all the central banks pursuing negative interest rate policy, the short-term market interest rates fell below zero (Figure B.2.1). In the euro area, Sweden and Switzerland, money market rates are negative across all maturities, while in Japan and Denmark – up to six months. The exception is Hungary, where the BUBOR rates is around 1% for all maturities. In almost all countries where central banks have introduced negative interest rates, government bond yields are also negative (Figure B.2.2); in some cases, the main reason for that is, however, quantitative easing that was initiated earlier. At the same time, central banks intend to limit the impact of negative interest rates on retail deposit rates. Therefore, they have established a number of exemptions from the negative interest rates or applied them only to some funds held by commercial banks with the central bank (Table B.2.1). In consequence, the effective interest on deposits is higher than central bank

[4] The Norges Bank's excess reserve rate has been also negative since September 2015. However, the stock of commercial banks' reserves in Norway is below the limit above which negative interest would apply. In consequence, commercial banks are not charged for keeping their reserves with the Norwegian central bank.

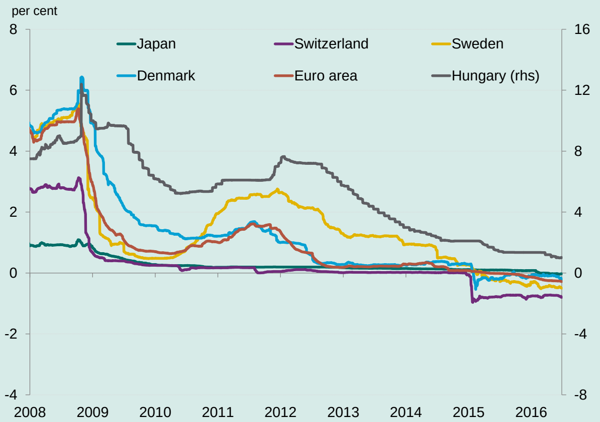
deposit interest rates.

Transmission channels of negative interest rates to the economy

In principle, reducing central bank interest rates to a negative level should translate into the economy through the same channels as cutting them to a low, yet positive level would. More specifically, it stimulates economic activity and boosts price growth through two channels:

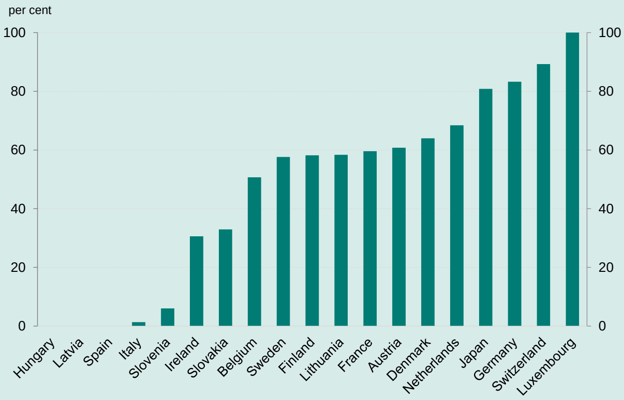
- the exchange rate channel: the adjustment in central bank interest rate – even at below-zero levels – is passed on to short-term interest rates in the money market; therefore, the central bank keeps control over the spread between market interest rates in Poland and in key benchmark markets; this spread, in turn, influences investment strategies in foreign exchange markets: a decrease in interest rates, affecting risk-weighted rate of return on investment in domestic assets, inclines investors to relocate capital to other markets, which results in a downward pressure on the exchange rate; a weaker currency, on the one hand, boosts exports by raising their price competitiveness, and on the other, raises the import prices, increasing the contribution of net exports to GDP;
- the interest rate channel: the decrease in the central bank interest rate lowers interest on corporate and household loans and deposits, and – through lower cost of incurring new loans and servicing the existing ones – drives up investment and consumption in the economy. Moreover, lower central bank interest rates may translate into lower government bond yields, thereby containing the public debt service costs, which creates more space for fiscal easing.

Figure B.2.1 3-month interbank rates



Source: Bloomberg data.

Figure B.2.2 Share of government bonds with negative yields in selected countries



Source: Bloomberg data, NBP calculations

Risks associated with negative interest rates

Apart from desirable macroeconomic effects, the introduction of negative interest rates is associated with some risks. The main one – though very hard to quantify – is a threat that agents might be inclined to exchange deposits for cash on a massive scale, causing a significant disruption to the monetary policy transmission mechanism. This risk could materialise if the negative interest rates paid by depositors were lower than the actual or perceived cost of holding cash balances.[5]

At the same time, the introduction of negative interest rates amplifies threats normally associated with low interest rates.

Firstly, a negative level of interest rates increases the risk of a deterioration in the financial performance of the banking sector. This is because commercial banks might prefer to keep household deposit rates at non-negative levels (these deposits constitute roughly half of all deposits in countries whose central banks apply negative interest rates), while interest rates on loans are more adjustable. In turn, the reduced profitability of their core activity may prompt commercial banks to tighten credit policies – for instance, by raising net interest margins –

[5] According to investment banks' estimates, cost of holding cash balances equals 0.2% in Switzerland, 0.4% in Germany, 1.2% in Denmark and 1.3% in Sweden.

which in effect would restrict the availability of credit and tightening the financing conditions for households and corporates.

Secondly, negative interest rates pose threats to pension funds, which guarantee a minimum rate of return for their clients (the so-called defined benefit pension funds that date back to 70s and 80s). When the interest rates are negative, these insurance companies might be unable to fully meet their financial commitments. This may give rise to concerns about the future financial position of households and induce them to increase savings at the cost of current consumption. This would enhance stagnation tendencies in the advanced economies.

Besides, negative interest rates may result in speculative bubbles building up in the financial markets, or banks getting involved in riskier and less liquid instruments. It might also lower the efficiency of capital allocation and reduce productivity in the corporate sector.

Central banks' experience with negative interest rates so far

The central banks have various experiences with negative interest rates, depending largely on factors specific to the individual economies.

While reducing interest rates below zero helped prevent exchange rate appreciation in Denmark, in other economies, notably Switzerland, the role of negative interest rates was limited compared to sizeable currency interventions.

The negative interest rates had also mixed results regarding their impact of loan affordability of households and enterprises. In Denmark and Sweden, commercial banks attempt to keep the deposit interest rates above zero. While they have reduced the interest on loans when the central bank interest rate was cut only slightly below zero (in 2012-2014 in Denmark, starting from 2014 in the euro area and in 2009-2010 and in 2015 in Sweden), more radical central bank interest rate cuts – such as those in Denmark and Switzerland in early 2015 – have contributed to a relative rise in interest on some loans[6].

Interest rate reductions below zero – together with the purchase of financial assets by the ECB – have resulted in a marked decline in the public debt service costs, notably in the euro area. In consequence, the room for fiscal easing has increased. According to the estimates of the European Commission, the average interest expenses in the euro area countries in 2016 will amount to 2.3% of GDP, i.e. 0.5 percentage points less than in 2013, a year before the ECB introduced the negative deposit rate.[7]

In the economies where the central banks have reduced interest rates below zero, few undesirable effects of such monetary policy have materialised so far. Above all, none of these countries have experienced a significant increase in the use of cash. This owes to the fact that in many countries whose central banks have resorted to negative interest rates, the interest on household and corporate deposits is still non-negative.[8] At the same time, negative interest rates weigh on the profitability of the banking sector. In their financial stability reports, the central banks in the European Union note a decrease in net interest rate margins in recent years, and expect this tendency to continue into immediate future. In addition, as a result of low interest rates, the financial conditions of pension funds are deteriorating, particularly in the euro area. Some of them were forced to reduce their guaranteed benefits in 2014, owing to a substantial decline in their coverage ratios.

In sum, central banks' experience with negative interest rates to date varies across individual countries. It needs to be emphasised, however, that the assessment presented in this box is preliminary and that there is still substantial uncertainty about the scale of both desirable and unintended consequences of negative interest rates.

[6] In Denmark interest rates on some loans have increased, yet individual cases of negative rates on short-term mortgages have been recorded.

[7] Data from the AMECO base

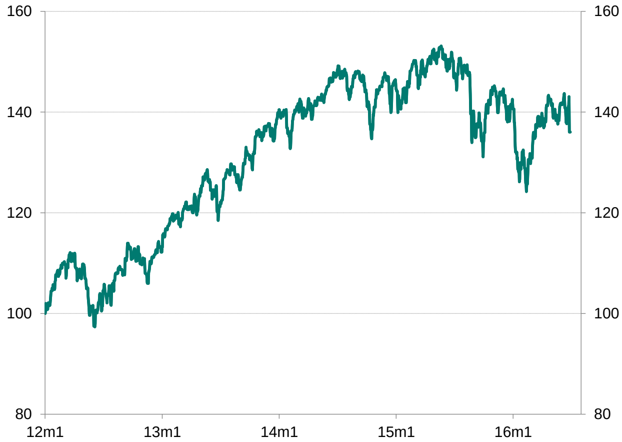
[8] Two exceptions to this are Denmark and Switzerland, where the interest on deposits is only marginally negative (not below -0.4%) and applies solely to the companies which manifest good robustness to negative interest on deposits.

1.5 International financial markets

Sentiment in the global financial markets has deteriorated recently. This was mainly driven by the uncertainty about global economic outlook, related to weak economic conditions in the emerging market economies and the result of the United Kingdom's European Union membership referendum. The negative market sentiment was partially offset by growing expectations that expansionary monetary policy of the major central banks will continue over an extended period of time (see Chapter 1.4 *Monetary policy abroad*).

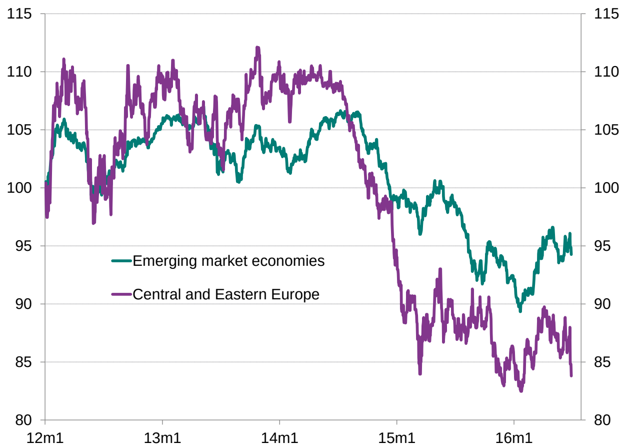
Against this background, global share prices have decreased slightly (Figure 1.16). Emerging market currencies have deprecated somewhat (Figure 1.17). Alongside that, the safe haven currencies, such as the US dollar, the Swiss franc, and the Japanese yen, have appreciated. At the same time, the fall in government bond yields in the major advanced economies has deepened. In some countries, including Germany, government bond yields are negative, even for long maturities (Figure 1.18; see Box 2 *The policy of negative interest rates: implications and risks for the economy*). Also yields on corporate bonds in the euro area have decreased, as the ECB started to purchase them in June (see Chapter 1.4 *Monetary policy abroad*).

Figure 1.16 MSCI global stock index (January 2012=100)



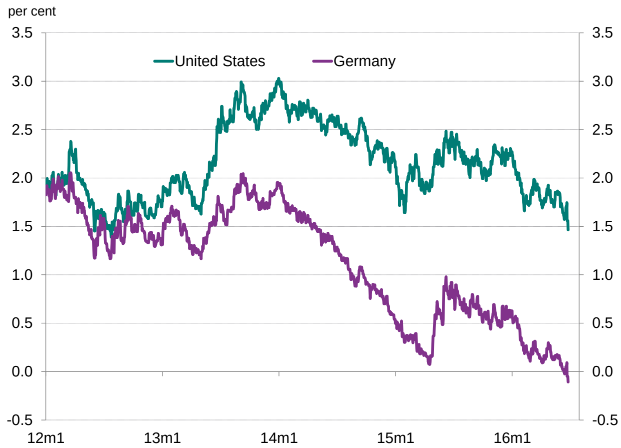
Source: Bloomberg data.

Figure 1.17 Emerging market exchange rates in relation to the United States dollar (index, January 2012=100, rise indicates appreciation)



Source: Bloomberg data, NBP calculations.
MSCI emerging markets currency index and GDP-weighted average of exchange rates of the Czech koruna, Polish zloty and Hungarian forint against the U.S. dollar.

Figure 1.18 10-year government bond yields in the United States and Germany



Source: Bloomberg data.

2 Domestic economy

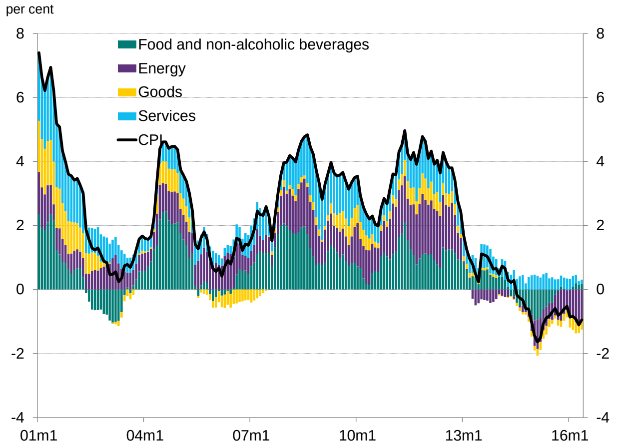
2.1 Consumer prices

Price growth in Poland has been negative for the past few quarters (Figure 2.1). Deflation in Poland is driven mainly by external factors, notably the significant fall in global commodity prices, which was particularly sharp in the second half of 2015. The fall in global energy commodity prices drags on domestic energy prices, both those of fuels and the administered prices of electrical energy and natural gas charged to households. Lower energy prices, in turn, lead to lower prices of other goods and services, translating into negative core inflation indices (Figure 2.2). The persistently slow consumer price growth in Poland is attributable to weak price growth in the external environment of the Polish economy, which translates into a near-zero growth in import prices. Slow consumer price growth is additionally supported by a lack of demand pressure in the Polish economy, and the absence of cost pressure, as evidenced by falling producer prices (Figure 2.3).

In turn, for several months price growth has been increased by food prices, which are higher than a year ago due to a reduced supply of some agricultural products following the last year's drought in Poland.

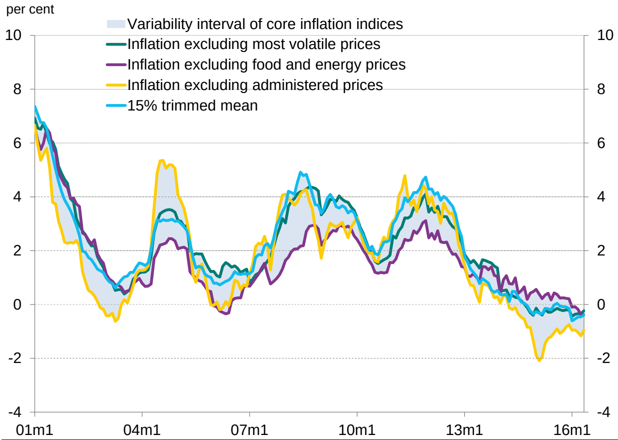
In the coming months, deflation should gradually recede owing to the continued stable economic growth and improving labour market conditions. The consumer price growth will be also supported by an ongoing increase in the cost pressure, as indicated by the steady rise in the PPI, particularly excluding energy-related goods (Figure 2.3). Moreover, consumer price growth will be further boosted as the drag from the previous fall in the prices of energy commodities wanes.

Figure 2.1 Changes in CPI and main price categories (y/y)



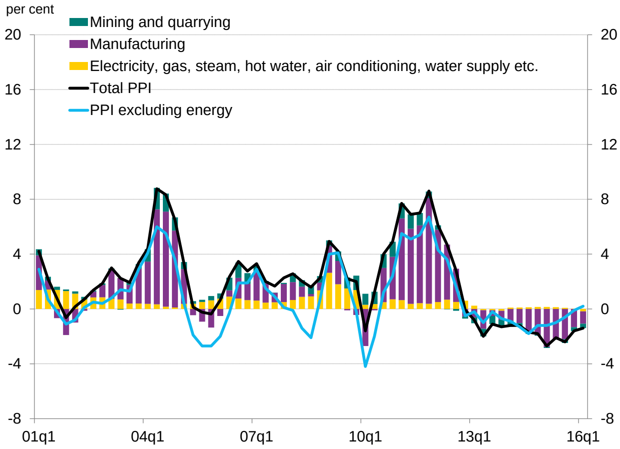
Source: GUS data, NBP calculations.

Figure 2.2 Core inflation indices (y/y)



Source: GUS data, NBP calculations.

Figure 2.3 Composition of total PPI growth by sections of industry, growth in domestic PPI and PPI for exports (y/y)



Source: GUS, Eurostat data.

Negative price growth in Poland is accompanied by low, yet positive inflation expectations (Table 2.1). Four-to-eight-quarter forecasts of the financial sector analysts and the economists surveyed by NBP are close to the lower bound for deviations from inflation target. At the same time, corporate inflation expectations have been stable at close to zero for a few months.

2.2 Demand and output

Economic activity growth in Poland is stable in spite of some fluctuations in GDP growth in recent quarters (Figure 2.4). Following a sharp acceleration in 2015 Q4, output growth slowed down in 2016 Q1 (to 3.0% y/y) due to a decline in investment. Yet, incoming information suggests that this slowdown was probably temporary. In the following quarters, GDP growth will likely rebound supported by an acceleration in consumer demand growth.

2.2.1 Consumption

Over the recent few months, consumer demand has been rising at close to 3% (Figure 2.5). The rise has been supported by robust labour market, including high employment, declining unemployment and stable wage growth, which, together with the persistent deflation, is boosting households' real disposable income (see Chapter 2.4 *Labour market*). Consumption growth is also underpinned by ongoing improvement in household sentiment (Figure 2.6), and the easing of banks' credit policy with respect to consumer loans (see Chapter 2.6 *Lending and money supply*).

In the following quarters, consumer demand growth can be expected to accelerate slightly. Apart from factors already at work, an increase in households' disposable income resulting from the disbursement of child benefits under the "Family 500 plus" programme will add to consumption growth.

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

	Survey conducted in:				
	15q2	**15q3**	**15q4**	**16q1**	**16q2**
CPI inflation (y/y) expected by enterprises					
in 12 months	0.2	0.2	0.2	0.2	0.2
CPI inflation (y/y) expected by external forecasters					
Thomson Reuters' Survey, in 4 quarters	1.5	1.5	1.6	1.3	1.6
NBP Survey of Professional Forecasters, in 4 quarters	1.4	1.2	1.2	1.3	-
NBP Survey of Professional Forecasters, in 8 quarters	1.9	1.7	1.9	1.7	-

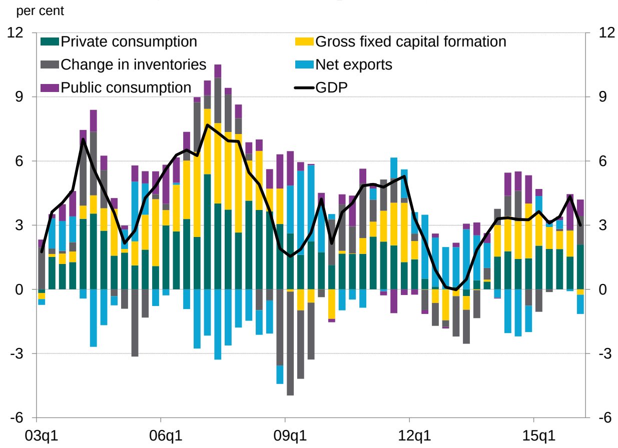
Source: NBP, Thomson Reuters data.

Inflation expectations of enterprises are quantified based on qualitative survey data obtained through the NBP Quick Monitoring.

Inflation expectations of the financial sector analysts are proxied by the median forecast of the analysts surveyed by Reuters in the last month of a given quarter.

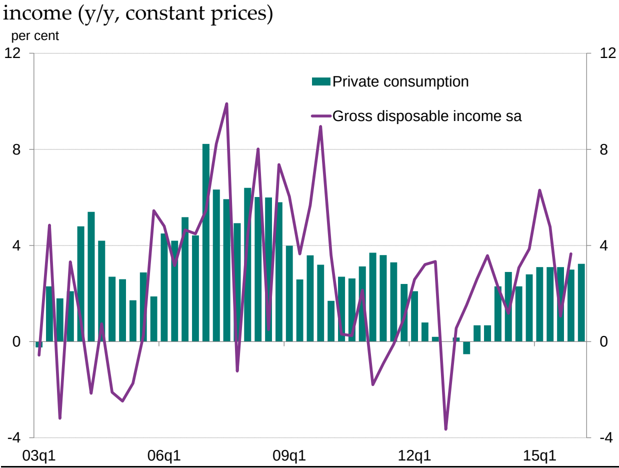
Inflation expectations of the participants to the NBP Survey of Professional Forecasters reflect the median probability distribution obtained from the aggregation of probability forecasts of the experts surveyed by NBP.

Figure 2.4 GDP growth and its components (y/y)



Source: GUS data.

Figure 2.5 Growth of private consumption and gross disposable income (y/y, constant prices)



Source: GUS data, NBP calculations.

2.2.2 Investment

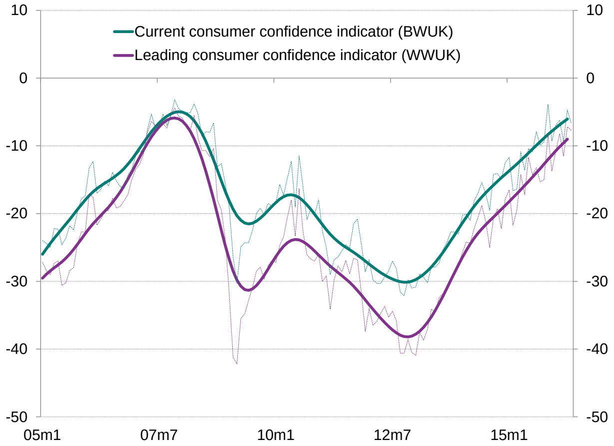
Investment growth in the economy decelerated over recent quarters (Figure 2.7), mainly due to a decrease in public investment as the previous EU financial framework had come to an end.

A fall in public investment was accompanied by weaker growth in corporate investment, which was growing slower than suggested by above-average capacity utilisation in the corporate sector (Figure 2.8) Corporate investment activity had been undermined by lower EU fund inflows and uncertainty, i.a. regarding economic outlook in the environment of the Polish economy. The decline in investment was limited to several sectors (i.e. energy, transport and water utilities), while corporate investment in industry and services continued to rise.

This notwithstanding, corporate investment is supported by favourable financial standing of enterprises, allowing them to finance investment projects with their own funds. It is also fuelled by relatively high loan availability and lower interest on loans compared to previous years. These factors are likely to stimulate investment activity also in the coming quarters, which – together with the inflow of funds from the new EU financial framework and growing consumer demand (see Chapter 2.2.1 *Consumption*) – should translate into faster growth in corporate investment. Improving outlook for investment outlays is confirmed by surveys, which indicate that a share of enterprises planning to increase their investment expenditures in 2016 Q2 was larger than in the previous quarter.

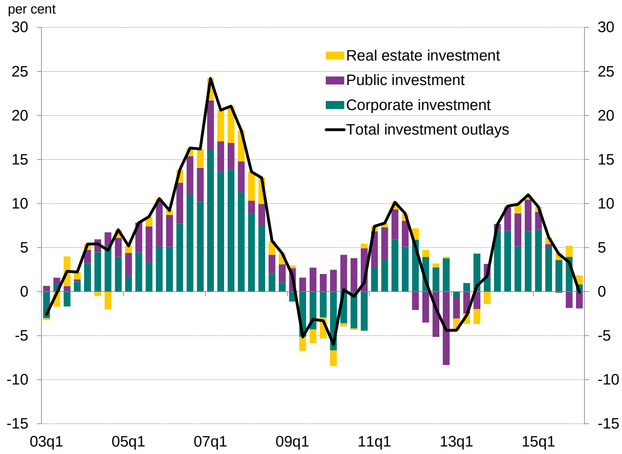
Real estate investment is rising steadily. It is supported by a stable growth in employment and real wages, which increases the home affordability of households. Home sales are also boosted by a relatively high rate of return on housing investment, which exceeds the long-term government bond yields or the interest on bank

Figure 2.6 Consumer confidence indicators



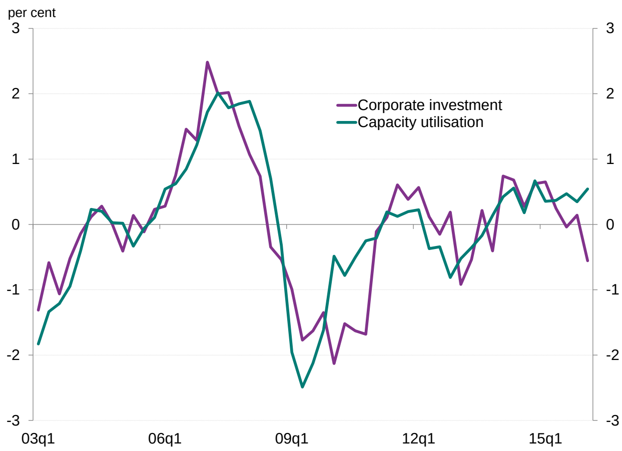
Source: GUS data.
A solid line denotes a trend, while a dotted – raw data.

Figure 2.7 Investment in the economy and its major components (y/y)



Source: GUS data, NBP calculations.
NBP estimates for the NECMOD model (seasonally adjusted).

Figure 2.8 Investment outlays of enterprises and production capacity utilisation



Source: GUS data, NBP calculations.
Deviations of annual investment and production capacity utilisation growth from long-term averages (divided by standard deviations).

deposits.[9] At the same time, there are some downside risks building up for housing investment, as the annual limit of funds dedicated for the "Flat for the Young" programme has already been reached this year, and the banks have tightened their lending policies with respect to housing loans (see Chapter 2.6 *Lending and money supply*).

2.2.3 Public finance

The general government deficit decreased to 2.6% of GDP in 2015, from the 3.3% in the previous year, and the impact of fiscal policy on aggregate demand remained close to neutral.[10] Like in 2014, the reduction in the deficit was primarily due to higher revenue from social insurance contributions, related to changes in the pension system,[11] coupled with a decline in debt service payments.

In 2016 Q1, real growth in general government expenditure was close to potential output growth. The decline in public investment, notably in the capital expenditure of local governments co-financed from the EU funds,[12] was accompanied by the rise in social expenditure.[13] Similarly, no significant change was observed in the degree of

[9] *Information on home prices and the situation in the residential and commercial real estate market in Poland in 2016 Q1* (available on NBP's website: www.nbp.pl).

[10] The improvement in the financial position of the entire general government in 2015 occurred despite a significant increase in the central budget deficit. The deterioration in the central budget balance resulted primarily from a one-off expenditure (settlement of the purchase of the F-16 multi-purpose aircraft) and an increase in the subsidies to other sub-sectors (Social Insurance Fund, FUS), i.e. factors which do not affect the general government balance in ESA-2010 terms.

[11] The revenue from social insurance contributions increased mainly due to limitations in transfer of contributions to the Open Pension Funds (OFE) in July 2014. At present, the OFEs receive solely the contributions of those members who submitted applications for further transferring them to OFE's account (approx. 18% of those entitled).

[12] In 2016 Q1, the capital expenditure of local governments on projects co-financed from the EU funds declined by 84.5% y/y (i.e. approx. PLN 1.8 billion). The decline was due to the completion of projects under the 2007-2013 EU financial framework amidst low, as so far, use of financing under the following framework.

[13] The increase in spending on social benefits resulted from higher disbursement of parental benefits in connection with the extended scope of minimum maternity allowance entitlement from January 2016 and a one-off payment of allowances granted to some pensioners in March 2016.

fiscal policy restriction on the revenue side, as assessed in terms of the impact of legislative changes on tax revenue. In sum, the impact of fiscal policy on the economy continued to be close to neutral.

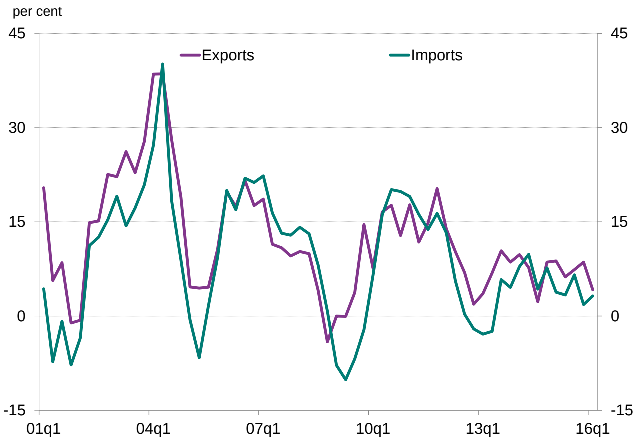
In the coming quarters, fiscal policy is expected to boost the aggregate demand. This will be driven, above all, by the increased expenditure on child benefits related to the launch of the "Family 500 plus" programme.[14] Despite less restrictive fiscal policy in 2016, the general government deficit will probably remain under 3%, contained by further stable economic growth, one-off factors[15] and revenue from sector taxes.[16]

2.2.4 External trade

External trade turnover is growing at a moderate rate, with merchandise export growth in zloty terms slowing down somewhat in 2016 Q1 (to 4.2% y/y as compared with 8.6% y/y in 2015 Q4), amid a slight pick-up in import growth in this category (to 3.2% y/y compared with 1.8% in 2015 Q4; Figure 2.9).[17]

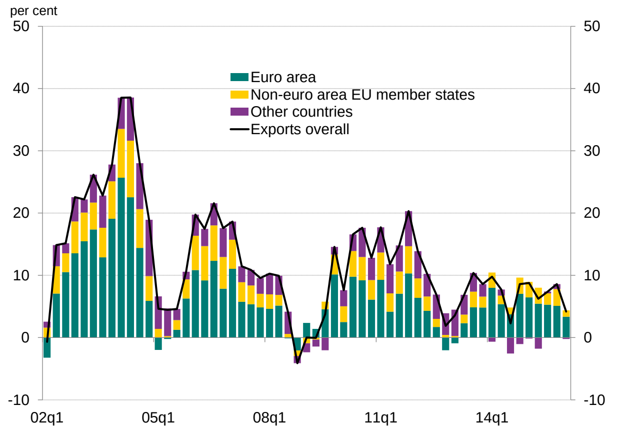
Weaker export growth in 2016 Q1 was associated with a deceleration in exports to EU countries, especially to the euro area (Figure 2.10). Slower growth in exports to European countries might have been related to a slowdown in economic growth in the emerging market economies, containing export growth in the EU, and weaker

Figure 2.9 Polish exports and imports growth (y/y)



Source: GUS data.

Figure 2.10 Polish export growth by destination (y/y)



Source: GUS data, NBP calculations.

[14] The *2016 Budget Act* assigns an amount in excess of PLN 17 billion (approx. 0.9% of GDP) for the implementation of this programme. Applications for the child care benefit have been accepted since April 2016. According to the information of the Ministry of the Family, Labour and Social Policy, during the first two months of the programme, approx. 2.5 million applications were received, the communes issued approx. 1.6 million decisions, and beneficiaries received approx. PLN 2.2 billion (approx. 0.1% of GDP).

[15] Besides the proceeds from the sale of telecommunication frequencies of February 2016, the most important one-off factor compensating for the increase in the general government sector expenditure was the payment from the NBP profit, amounting to PLN 7.9 billion (0.4% of GDP). Yet the payment from the central bank will be recorded as a financing transaction in ESA 2010 terms, with no effect on the general government sector position.

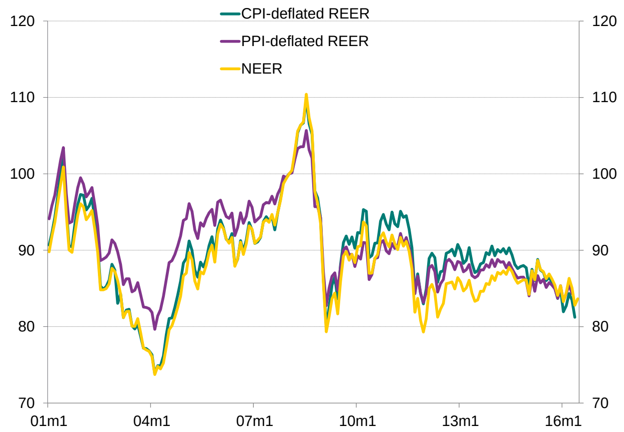
[16] Revenue from the tax on certain financial institutions and retail sales tax (which has not been introduced yet). Income from the tax on certain financial institutions may be lower than provided for in the *2016 Budget Act*, as indicated by the revenue thereof in March and April 2016.

[17] The data analysed in this chapter are GUS data on merchandise exports and imports. Data on trade in services are not discussed here in detail as their breakdowns allowing for geographical decomposition or decomposition by groups of goods are not available. According to NBP data, the rise in the value of external trade in services, in particular of their exports, remained fairly robust in 2016 Q1, despite temporary problems with the provision of transportation services by Polish firms in Russia.

demand for goods produced in Poland under global value chains (see Chapter 1.1 *Economic activity abroad*). At the same time, exports in 2016 Q1 were increased by the depreciation in the zloty exchange rate against the currencies of many of Poland's trading partners (Figure 2.11), including the euro, which supported high profitability of Polish exports.[18]

A slightly faster growth in the value of imports in 2016 Q1 was probably driven by a rise in the prices of imported goods, as indicated by increased costs of intermediate goods imports declared by firms. Higher import prices in this period may have resulted from some depreciation of the zloty.[19] At the same time, growth in the value of imports was still contained by factors such as significantly lower than in the previous year prices of imported energy commodities, slower exports of goods manufactured under global value chains and a deceleration in GDP growth in 2016 Q1.

Figure 2.11 Zloty real and nominal effective exchange rate (index, increase denotes appreciation, January 2008=100)



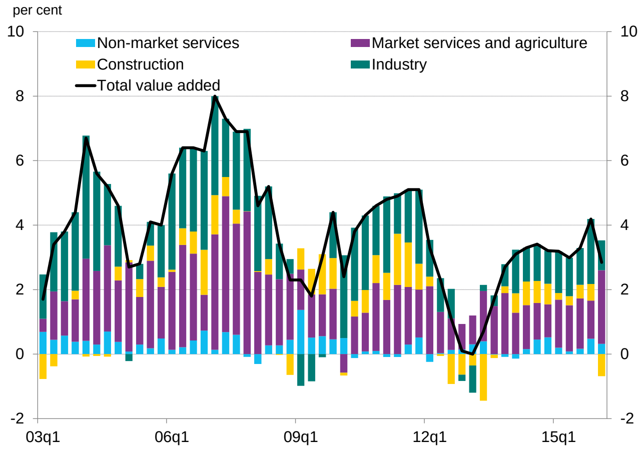
Source: NBP, European Commission data, NBP calculations.

2.2.5 Output

Decomposition of the GDP growth by sectors of the economy indicates that the main driver of economic growth is rising activity in services and industry. The contribution from construction sector turned negative in 2016 Q1 for the first time in over two years (Figure 2.12).

Favourable economic conditions in services are largely related to a steady rise in retail sales (Figure 2.13), supported by further recovery in the labour market. In 2016 Q1, gross value added growth in the service sector accelerated significantly, fuelled by higher activity in almost all branches in this sector. The positive sentiment of service sector companies and the strong consumer demand outlook (see 2.2.1 *Consumption*) should increase the sector's activity also in the following quarters.

Figure 2.12 Sector contribution to gross value added growth (y/y)



Source: GUS data, NBP calculations.

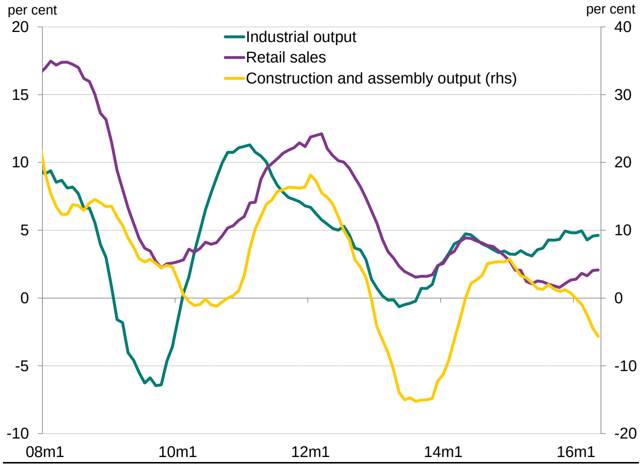
[18] High profitability of Polish exports is indicated by a low share of firms declaring their exports to be unprofitable, and a high share of export revenues in total revenues of exporters. *NBP Quick Monitoring Survey Information on the condition of the enterprise sector with a particular focus on business conditions in 2016 Q1 and the forecast for 2016 Q2*, NBP, April 2016.

[19] The zloty depreciation may raise the value of imports, as in the short term the imported goods are hard to substitute with domestic goods.

Industrial output data point to a decline in the contribution of industry to gross value added growth, which is noticeable in the national accounts. The slowdown in industrial output growth in 2016 Q1 was related to lower export growth amidst weaker global economic and industrial output growth (see Chapter 1.1 *Economic activity abroad*), as well as a fall in the production of transportation equipment for the domestic market, following its substantial rise at the end of 2015. At the same time, the increasing orders and the zloty depreciation, adding to competitiveness of Polish products, are likely to support the improvement in the activity of the industry sector in the quarters to come.

In construction, in turn, economic conditions remain weak, as indicated by the persistent decline in construction and assembly output and a fall in the sector's order book. In recent months, weak conditions in construction have been also driven by a decline in public investment following the termination of the previous EU financial framework. However, the fall in output is not observed in housing construction, which continues to recover (see Chapter 2.5.2 *Residential real estate market*).

Figure 2.13 Indicators of economic conditions (y/y, 12-month moving average)



Source: Bloomberg data.

Box 3: Impact of the Brexit vote on the Polish economy

On 23 June 2016, a majority of voters in the United Kingdom's European Union (EU) membership referendum voted for their country to withdraw from the EU, or for a so-called Brexit. Consequently, it is highly likely that the UK will cease to be an EU member state in the coming years. Not only the UK leaving the EU, but also the uncertainty building up during negotiations preceding the withdrawal, may have a negative impact on the British economy, both in the short and long term. Brexit may also have significant consequences for the environment of the British economy, in particular for the euro area member states and other European countries.

The most important short-term effect of the Brexit vote is an increase in uncertainty, as an act of withdrawal from the EU has no precedence. For this reason, the political, geopolitical and economic processes that it may trigger are hard to predict.

The spike in uncertainty led to a deterioration in the financial market sentiment immediately following the announcement of the referendum results. This was reflected in a significant depreciation of the British pound as well as weakening of the euro and emerging market currencies, including the zloty. At the same time, the safe-haven currencies, such as the US dollar and the Swiss franc, strengthened. Stock indices also fell significantly (see

Chapter 1.5 *International financial markets,* Chapter 2.5 *Asset markets*). Following that, the sentiment on international financial markets improved slightly. This notwithstanding, renewed deterioration in financial market conditions cannot be ruled out during the process of the UK's withdrawal from the EU.[20]

The increased uncertainty had weighed on the sentiment of economic agents in the UK already before the referendum, and thereby had contributed to slower growth in economic activity, most notably with respect to investment. Greater uncertainty may also adversely affect private consumption and as a result it will probably lead to a weaker activity in the British economy also in the coming quarters, especially since negotiations of the agreement on the terms of the withdrawal and implementing the negotiated arrangements may be prolonged.

The deterioration in the UK's economic outlook and uncertainty related with Brexit will have a negative impact on the economic activity of its trading partners, including the euro area, Poland's main trading partner. The impact of Brexit on GDP growth in Poland this year as well as in the coming years will probably be limited and might result mainly from weaker growth in the euro area (see Chapter 4 *Inflation forecast and GDP*). In the longer term, when the arrangements agreed during the negotiations between the UK and the EU have already entered into force, the uncertainty should be receding. At the same time, the arrangements, particularly regarding trade, free movement of people and capital, and the potential further financial obligations of the UK towards the EU and individual EU member states, might start to affect Poland's economic situation.

The long-run impact of the UK leaving the EU on Polish foreign trade will depend on the outcome of trade negotiations with the EU, which – in accordance with Article 50 of the Treaty on European Union – may take two years.[21] Following this period, a certain increase in non-tariff trade barriers cannot be ruled out. However, the direct impact of a potential decline in trade with the United Kingdom on the total turnover of Polish foreign trade should be limited. Although the UK is Poland's second largest trading partner after the euro area (with respect to exports), its shares in Polish exports and imports are relatively low (6.8% and 2.9% in 2015, respectively). In addition, the indirect effects of a possible reduction in the scale of trade with the United Kingdom – via the global value chains – should also be limited, because the value added produced in Poland is of a relatively small significance in other countries' exports to the United Kingdom.

Depending on the outcome of the negotiations, Brexit may result in a return of some of the Polish immigrants who currently reside in the United Kingdom. However, during the next two years at least 2/3 of 685,000 Polish citizens currently working in the United Kingdom (GUS data for 2014) will be eligible for permanent residency. Moreover, the scale of new migration from Poland would have declined in the coming years regardless of the outcome of the referendum because the EU agreed to some restrictions of the rights of new immigrants in the UK labour market.[22]

The resignation of the UK from EU membership might have implications also for financial flows. Firstly, remittances from Polish citizens in the UK might decline. In 2015, they amounted to 0.25% of the Polish GDP. However, the scale of the remittances is lower than shortly after Poland joined the EU, which reflects an increasingly long-term character of migration. Therefore, the remittances would probably decrease regardless of the referendum results. Secondly, Brexit might have an impact on financial flows between Poland and the EU budget, although the scale of this effect is hard to assess because of the uncertainty about the terms agreed in this area of negotiations. Depending on their outcome, the contributions paid by other member states – including

[20] The Bank of England and the main central banks announced that they would take actions to stabilise the financial sector. They affirmed that the adequate level of liquidity on the financial markets, including the foreign exchange market, would be maintained. The Bank of Switzerland intervened in the foreign exchange market to relieve the appreciation pressure on the Swiss franc.

[21] According to Article 50 of the Treaty on European Union, the country ceases to be an EU member from the date of entry into force of the withdrawal agreement or, failing that, two years after the notification of the intention of the country's withdrawal from the EU. This period might be however extended.

[22] The settlement for the United Kingdom within the EU, adopted at the summit of the European Council on 18-19 February 2016, provides, among others, for a seven-year period of restricted access to social security benefits for newly-arriving EU, starting from 2020 (the so-called emergency brake). This agreement would have been effective on the day the government of the United Kingdom had informed the Council that it would remain in the EU.

Poland – could increase or the EU budget under the next financial framework (2021-2027) could be lower, and the structural funds reduced.[23,24]

To summarise, the impact of the UK's decision to withdraw from the EU on the Polish economy – both in the short and long term – should be limited. However, given the unprecedented nature of this event, any assessment of its consequences is subject to considerable uncertainty at this stage

2.3 Financial situation in the enterprise sector

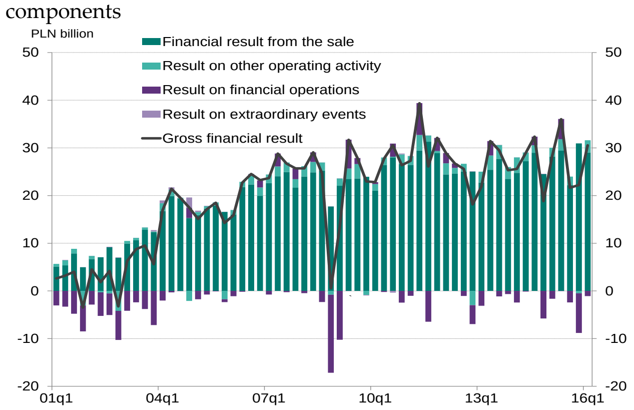
The financial performance of the corporate sector is strong, despite the deflation persisting for several quarters. Yet, the situation continues to vary across industries.

In 2015 Q4 and 2016 Q1, the gross financial result of the corporate sector was higher than a year before (Figure 2.14). The improvement in firms' financial performance was particularly pronounced in 2016 Q4 due to a substantial rise in profit from sales. This was related to slower growth in costs than in sales, as producer prices had declined more sharply than consumer ones (see Chapter 2.1 *Consumer prices*).

Strong financial performance of enterprises is reflected in their high profitability ratios (Table 2.2). The percentages of profitable and highly profitable firms – which both have been on a rise since 2013 – reached in 2016 Q1 levels close to their historical highs recorded in 2007. (Figure 2.15).

Yet, in some industries profitability has been falling. In the energy sector the profitability ratio is lower than a year ago, while in mining it is negative, which is partially driven by the earlier fall in the prices of energy commodities. At the same time, there has been a decline in the profitability of firms in the construction sector, which has been in stagnation for the past few years.

Figure 2.14 Gross financial result of enterprises and its components



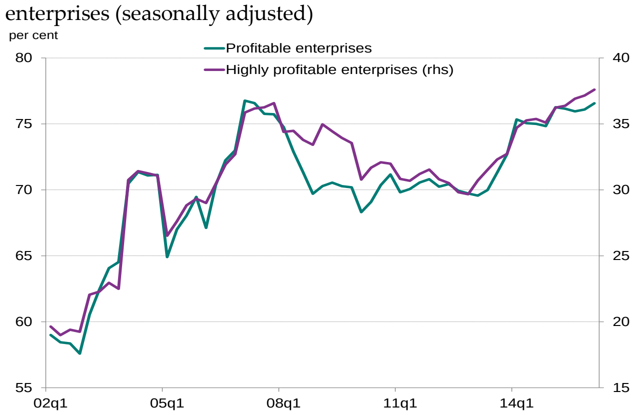
Source: GUS data based on F-01/I-01 forms, NBP calculations.

Table 2.2 Selected financial efficiency ratios in the enterprise sector

	2013	2014				2015				2016
		q1	q2	q3	q4	q1	q2	q3	q4	q1
Period average data (per cent)										
Sales profitability ratio	4.3	4.5	4.7	4.8	3.9	4.9	4.9	3.6	4.8	4.9
Net turnover profitability	3.8	3.8	4.1	4.5	2.4	3.9	5.0	2.9	2.8	4.2
End of period data										
1st degree liquidity ratio	0.35	0.34	0.35	0.36	0.39	0.38	0.36	0.37	0.38	0.37

Source: GUS data.

Figure 2.15 Percentage of profitable and highly profitable enterprises (seasonally adjusted)



Source: GUS data based on F-01/I-01 forms, NBP calculations.
Highly profitable enterprises – companies whose net turnover profitability ratio exceeds 5%.

[23] It cannot be ruled out that the United Kingdom – despite formally leaving the structures of the EU – will contribute to the EU budget under initiatives in which it will continue to participate, similarly to Switzerland and Norway. In addition, the United Kingdom, like the current European Economic Area members, may provide non-refundable aid to new member states outside the EU budget.

[24] In 2014, the difference between the membership fee paid by the United Kingdom and the funds received from the EU budget was approx. 3.6% of the expenditure of the budget directed to the remaining member states.

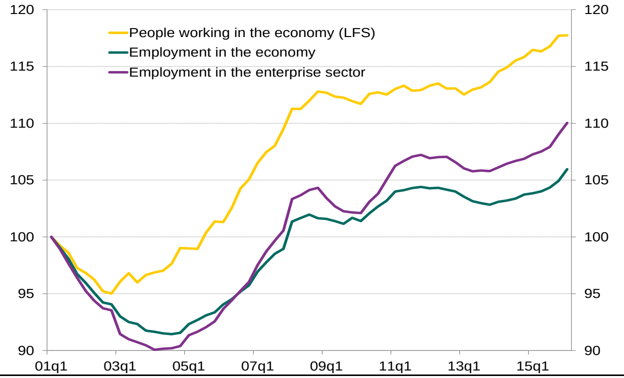
2.4 Labour market

Labour market conditions continue to improve. Employment in the economy is on a steady rise, reaching record highs since the economic transformation (Figure 2.16).[25,26] Over the past few months, particularly strong was a rise in employment in the corporate sector. Apart from stable economic growth, it was probably caused by imposition of social insurance contributions on civil law contracts as of the beginning of 2016, translating into growing number of employment contracts.

Growing employment is accompanied by a rising number of job offers and more optimistic employment forecasts by enterprises.[27] The expanding number of employees in the economy translates into a further decline in the unemployment rate, which, according to the LFS data,[28] reached the lowest level in the Survey's history (Figure 2.17).[29]

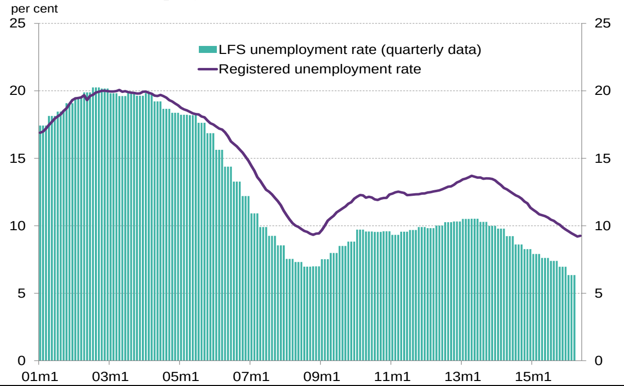
Falling unemployment and high labour demand improve the bargaining position of employees and job seekers in wage negotiations. This is reflected in some upward pressure on wages, which – though still markedly weaker than in 2008[30] – is supportive of wage growth. At the same time, wage growth is constrained by deflation, which increases the real value of wages. As a result, nominal wage growth in the economy remains moderate (Figure 2.18).[31] Consequently, amid

Figure 2.16 Employment growth (index, 2001 Q1=100)



Source: GUS data, NBP calculations.

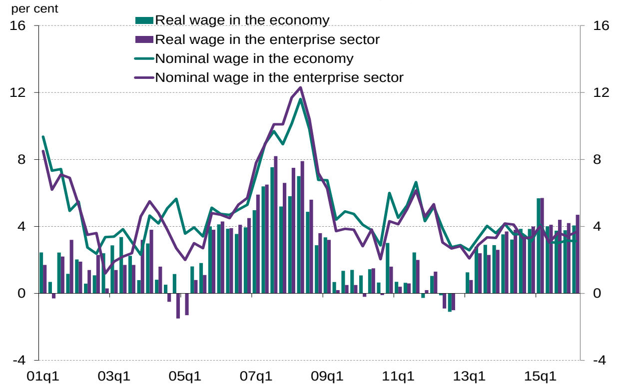
Figure 2.17 Unemployment rates



Source: GUS data (seasonally adjusted).

There are two reasons for the differences between the registered unemployment rate and the LFS unemployment rate: (1) the definition of an unemployed person is different, (2) the definition of population to which the number of unemployed persons is referred is different.

Figure 2.18 Nominal and real annual wage growth



Source: GUS data.

[25] In April and May 2016, employment in the enterprise sector was rising at a stable pace of 2.8% y/y.

[26] The employed in the economy (LFS) is the (averaged for a given reference period) number of persons, who, in the week preceding the Labour Force Survey, did at least one hour of work for pay, had a job but did not work (due to, for example, holiday or illness) or contributed to a family business without payment. Employment in the national economy denotes the average number of persons performing work against pay in the reference period, in all sectors of the economy excluding agriculture, national defence and public safety, as well as persons contributing to a family business without pay, converted to the number of full-time jobs. Employment in the corporate sector is defined as the average number of working persons in the reference period in enterprises employing more than 9 people, also converted to full-time positions.

[27] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector in 2016 Q1 and forecasts for 2016 Q2,* NBP, April 2016

[28] The seasonally adjusted unemployment rate according to the Labour Force Survey.

[29] Following a further decline in April 2016, the registered unemployment rate (seasonally adjusted) stabilised in May.

[30] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector in 2016 Q1 and forecasts for 2016 Q2,* NBP, April 2016.

[31] In the enterprise sector,, the nominal wage growth increased slightly in April and May 2016 to reach 4.6% y/y on average (as compared to 3.7% y/y in 2016 Q1).

rising productivity, growth in unit labour costs is relatively low. Cost pressure generated by the labour market still limited (Figure 2.19), yet it might rise slightly in the coming quarters. NBP survey studies indicate that the number of enterprises where wage growth significantly outpaced that of labour productivity has slightly increased in the past two quarters.[32]

2.5 Asset markets

The Monetary Policy Council has been keeping the NBP interest rates unchanged since March 2015. The expectations about a future decrease in the NBP rates have diminished over recent months (Figure 2.20).

2.5.1 Financial market

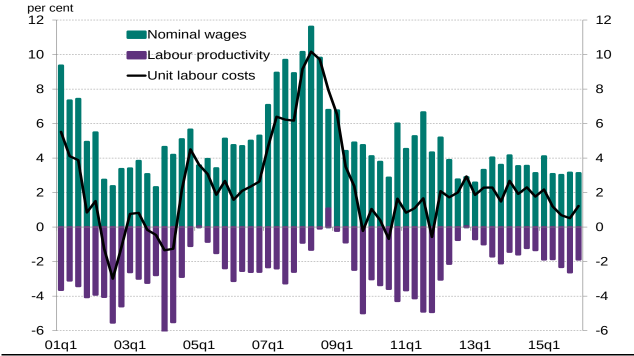
Sentiment in the international financial markets has deteriorated of late (see Chapter 1.5 *International financial markets*), which has adversely affected financial market conditions in Poland.

Worse sentiment in the international financial markets led to a depreciation of emerging market currencies. The exchange rate of the zloty against the major currencies has also weakened (Figure 2.21).

Deteriorating financial market conditions abroad contributed to a fall in share prices (Figure 2.22). At the same time, the steady economic growth in Poland (see Chapter 2.2 *Demand and output*) and the sound performance of Polish enterprises (see Chapter 2.3 *Financial situation in the enterprise sector*) had a positive impact on share prices.

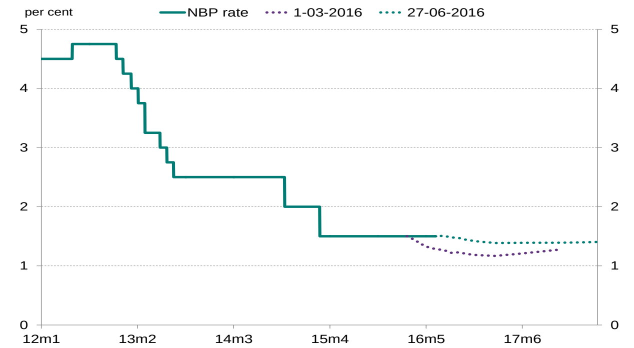
Amid weaker sentiment in the international financial markets, Polish government bond yields have slightly increased in recent months, partly due to higher than previously expected future NBP

Figure 2.19 Labour productivity, wages and ULC growth



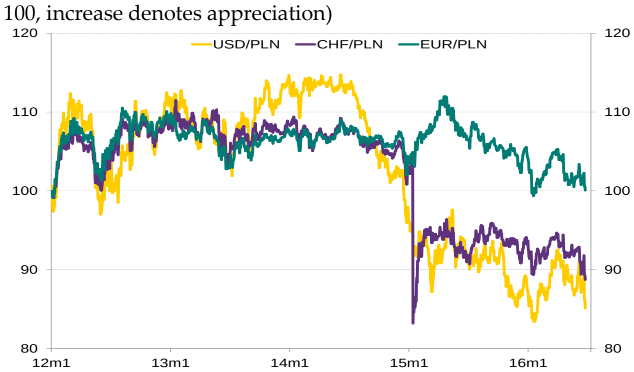
Source: GUS data, NBP calculations.

Figure 2.20 NBP reference rate and FRA-implied 3M interest rate



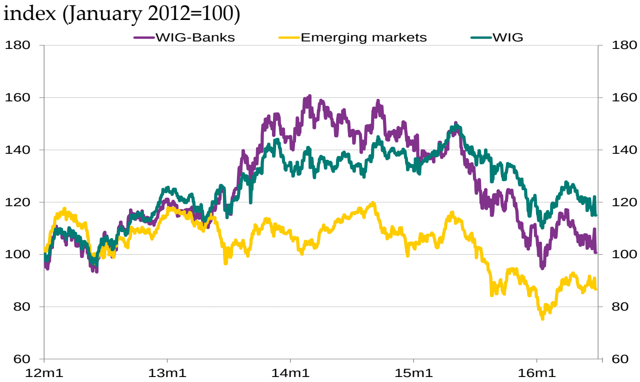
Source: NBP, Bloomberg data, NBP calculations.

Figure 2.21 Exchange rate of the Polish zloty (index, January 2012 = 100, increase denotes appreciation)



Source: Bloomberg data.

Figure 2.22 Stock indices in Poland and MSCI emerging market index (January 2012=100)



Source: Bloomberg data.

[32] *NBP Quick Monitoring Survey. Economic climate in the enterprise sector in 2016 Q1 and forecasts for 2016 Q2*, NBP, April 2016.

interest rates in the future (Figure 2.23; Figure 2.20).

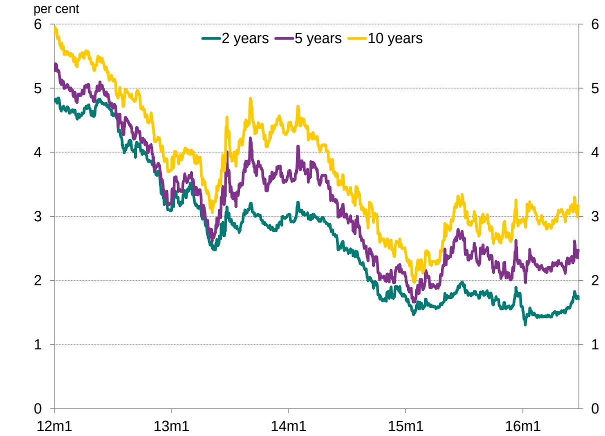
2.5.2 Residential real estate market[33]

The housing market recovery continues, as reflected in a further rise in the number of dwellings sold. Yet, sales growth is not accompanied by a marked increase in residential real estate prices (Figure 2.23), which is related to the high supply of housing.

High housing demand is fuelled by the growing affordability of mortgages on the back of the improving labour market conditions (see Chapter 2.4 *Labour market*), lower interest rates on housing loans than in the previous years, and the extended government-subsidized housing programme "Flat for the Young" as of September 2015 (see Chapter 2.6 *Lending and money supply*). Growth in home sales is also driven by the relatively high profitability of rental housing as compared to interest rates on bank deposits (see Chapter 2.2.2 *Investment*).[34] In the coming quarters, however, demand for housing might be curbed by both termination of funds for 2016 under the "Flat for the Young" programme and tightening in banks' lending policy (see Chapter 2.6 *Lending and money supply*).

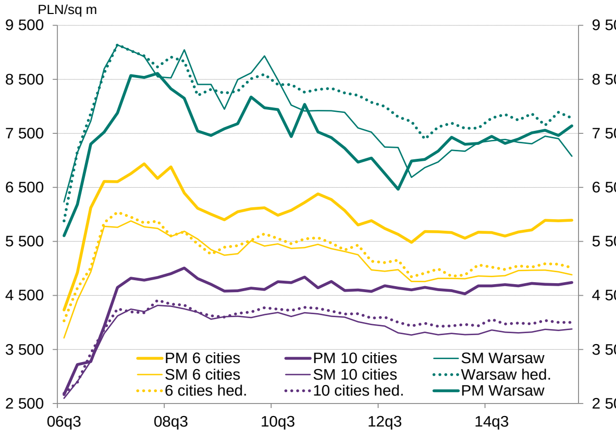
The persistently high supply of housing is reflected in the number of dwellings offered in the primary market, which is close to historical highs (Figure 2.25). This is the result of the growing number of dwellings completed in recent quarters. Moreover, due to the historically high profitability of real estate investment, the number of building permits

Figure 2.23 Polish government bonds yields



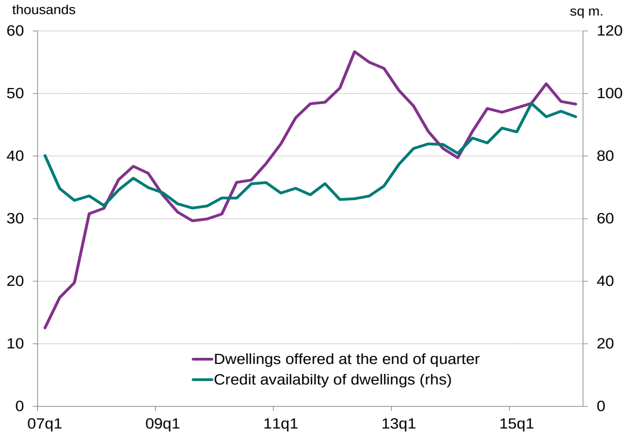
Source: Bloomberg data.

Figure 2.24 Average prices of flats in six and ten major cities[35]



Source: NBP calculations based on the NBP survey

Figure 2.25 Housing market offer and credit affordability [36]

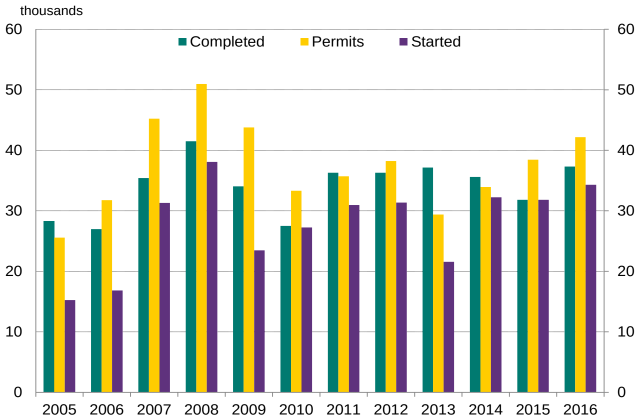


Source: GUS data, NBP calculations.

[33] For more information on the situation in the housing 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 2015 Q2* (available on NBP's website: www.nbp.pl, in Polish only).
[34] Profitability of home rental exceeds almost threefold the average yield on 10-year government bonds and almost twofold the average interest rate on housing loans. See: *Information on home prices and the situation in the housing and commercial real estate market in Poland in 2016 Q1.*
[35] PM – primary market, SM – secondary market, hed. – hedonic price index. Transaction prices in the primary and secondary market – the average weighted with the share of the housing stock in a given city in the total housing stock of all cities. The index for six cities includes: Gdańsk, Gdynia, Kraków, Łódź, Poznań and Wrocław, and the index for ten cities – Białystok, Bydgoszcz, Katowice, Kielce, Lublin, Olsztyn, Opole, Rzeszów, Szczecin and Zielona Góra.
[36] The number of dwellings offered in the market denotes the total number of dwellings available at the end of a particular quarter.

issued and homes under construction is on the rise (Figure 2.26), which should contain growth of house prices in the coming quarters.

Figure 2.26 Housing construction in Poland in first quarters



Source: GUS data, NBP calculations.

Box 4: Monetary policy transmission mechanism in Poland: the latest research

Economists of the Economic Institute at NBP have prepared the third edition of a study on the monetary policy transmission in Poland.[37] This box reports its main results – the strength and lags of the monetary transmission as well as operation of the most important channels i.e. the interest rate channel, the exchange rate channel and the credit channel.

Strength and lags in the monetary policy transmission mechanism

The maximum response of the annual growth in GDP and core HICP inflation[38] to a 1 percentage point increase in the interest rate for four quarters occurs in the fifth and the sixth quarter after the impulse, respectively, and amounts to approx. -0.2 and -0.6 percentage points (Figure B.4.1). The monetary policy transmission has slightly different characteristics across the business cycle. In the recovery, the response of inflation to changes in the short-term interest rate is stronger and faster than during the recession.

Estimates of the effectiveness of the main transmission channels show a noticeable, steady decline of the role of the exchange rate channel in 2001-2011 and rising importance of the credit channel in 2011-2012 (Figure B.4.2). In recent years, the significance of the individual transmission channels has remained relatively stable.

Interest rate transmission

Money market rates adjust fairly well and quickly to changes in the NBP interest rates. The average spread between money market rates and the NBP reference rate remains close to zero. The shortest-term money market rates are significantly affected not only by the NBP reference rate, but also by liquidity management by NBP.

Changes in short-term money market interest rates are fully transmitted to the interest rate on total household deposits, with the most pronounced adjustments observed in the case of deposits with 1 to 3 month maturity (this is the effect of the financial crisis, during which banks demanded funds of this particular maturity). In contrast, interest rates on corporate deposits do not fully adjust to changes in money market rates. In turn, interest on total loans, both household and corporate ones, adjusts fully to changes in money market rates.

[37] Kapuściński et al. (2016). The former two studies on this subject can be found at http://www.nbp.pl/publikacje/materialy_i_studia/180_en.pdf and http://www.nbp.pl/publikacje/materialy_i_studia/116_en.pdf

[38] The use of HICP instead of CPI for the purposes of the study had no greater impact on its results, as the correlation of core HICP and CPI is 0.94. Thus, the responses of the two indices to a change in the interest rates would have been very similar.

Figure B.4.1 Response of GDP and inflation to the monetary tightening (interest rate increase by 1 percentage point for four quarters)

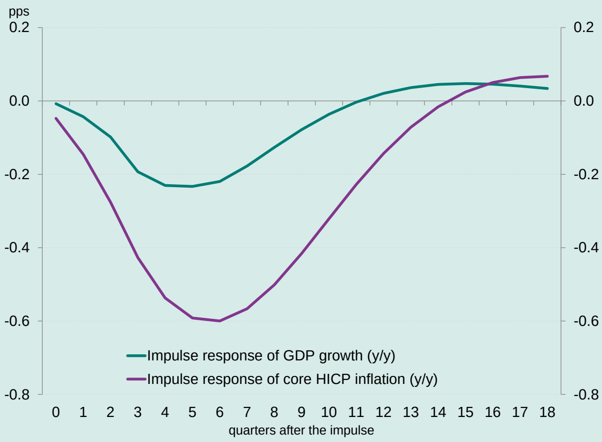
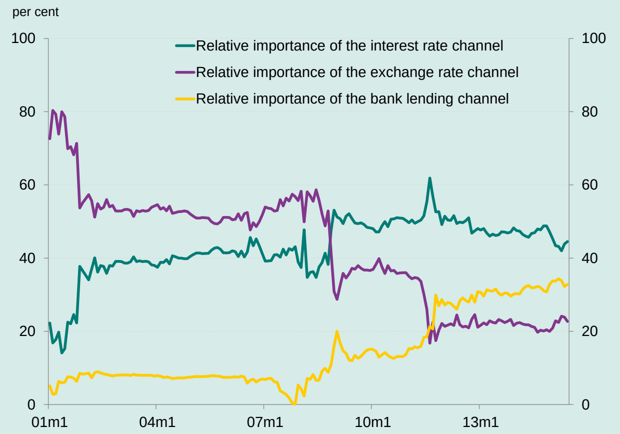


Figure B.4.2 Relative significance of selected channels of the monetary transmission



Source: NBP calculations.

The impact of exchange rate on economic activity and inflation

The impact of exchange rate on economic activity and inflation in Poland is nowadays significantly weaker than before the country's accession to the EU. Exchange rate changes account for 6% and 8%, respectively, of the changes in the volume of Polish imports and exports. Before the accession these figures stood at approx. 16 and 30%. The decline in GDP growth following a 1-per-cent appreciation of the nominal effective exchange rate of the zloty lasting one quarter is short-lived, peaking at 0.04 percentage points (Figure B.4.3). The impact of the exchange rate on the annual CPI inflation amounts to approx. 0.07-0.08 percentage points, while in the sample covering the years 1998-2010 it was approx. 0.2 percentage points.

These results reflect the rising importance of both international corporations making settlements within a capital group and the expansion of trade under global value chains (GVC).[39] Moreover, the reduced exchange rate pass-through to consumer prices may be attributed to the decline in inflation and a rise in credibility of monetary policy under the inflation targeting framework.

The scale of weakening of the exchange rate pass-through to consumer prices due to structural and institutional factors differs across the business cycle. During the prosperity, the pass-through effect amounts to approx. 0.14 percentage points, while during the slump stands at approx. 0.02 percentage points.

Monetary policy transmission through the credit channel

According to theories of credit channels of the monetary transmission, a monetary policy tightening triggers an adjustment in the supply of loans offered by banks. This results from the impact of interest rates on banks' balance sheets (Disyatat, 2010). The bank lending channel enhances the impact of monetary policy in Poland: monetary policy tightening increases a share of non-performing loans (NPLs), reduces banks' profitability and their capital buffers. It also rises external financing premium. As a result, banks raise their spreads to offset higher risk, and accept fewer loan applications to keep capital ratios unchanged. This is even more pronounced when capital buffers are low. If capital buffers decline, banks may increase spreads. In Poland, the strength of the bank lending channel operating this way is relatively weak – it accounts for approx. 15 % of the credit's response to a monetary policy shock (Figure B.4.4).

Analyses of the effectiveness of various channels of the monetary policy transmission have also shown a growing importance of the credit channel since 2011 (Figure B.4.2). This may result from, above all, an introduction of prudential regulations, especially those restricting availability of foreign currency loans to households, thus reducing substitutability between zloty-denominated loans and foreign currency-denominated loans. Another

[39] Ahmed *et al.* (2015) show that trade under global value chains considerably reduces the exchange rate elasticity of exports.

factor behind the rising importance of the credit channel may be the receding of the crisis-related disturbances in the interest rate transmission.

Figure B.4.3 Responses of the volume of exports, imports and GDP growth to zloty appreciation

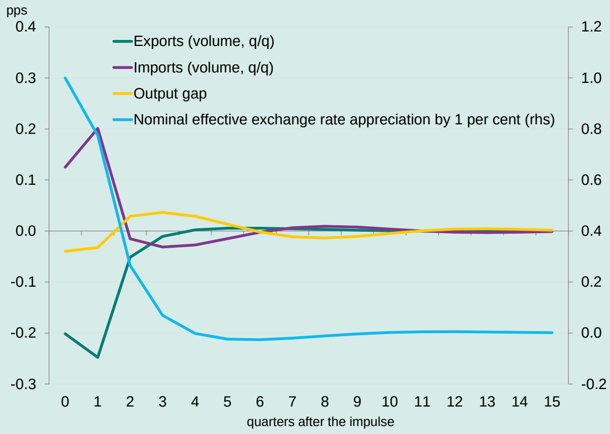
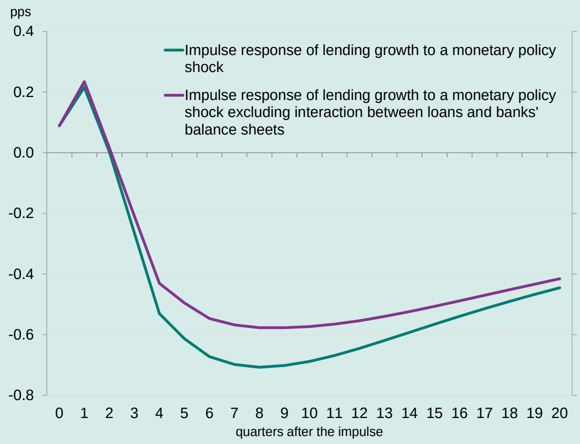


Figure B.4.4 The role of the bank lending channel



Source: NBP calculations.

To sum up, the results of the latest research indicate that the responses of economic activity and inflation to changes in the short-term interest rate remain relatively stable in Poland. However, over the past few years, the relative strength of the individual transmission channels has changed. The exchange rate pass-through to consumer prices has decreased, whereas the importance of credit channel has risen.

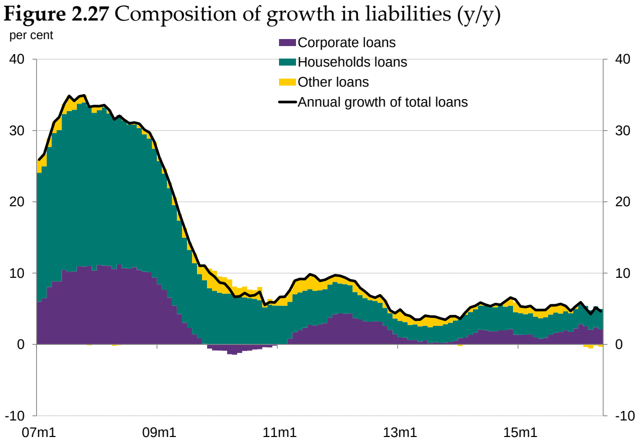
References:
Ahmed S., Appendino M., Ruta M. (2015), *Global value chains and the exchange rate elasticity of exports*, IMF Working Paper, 15252, International Monetary Fund.
Disyatat, P. (2010), *The bank lending channel revisited*, BIS Working Paper, 297.
Kapuściński M., Kocięcki A., Kowalczyk H., Łyziak T., Przystupa J., Stanisławska E., Sznajderska A., Wróbel E. (2016), *Monetary policy transmission mechanism in Poland. What do we know in 2015?*, Materials and Studies NBP, 323.

2.6 Lending and money supply

The annual growth in total lending to the non-financial sector has been stable at around 5% for the past few quarters. Lending activity is supported by favourable macroeconomic conditions and lower interest rates on loans than in previous years (Figure 2.27; Figure 2.30).[40]

Loans to households continues to be main driver of total lending growth. Household credit has been on a steady rise (4.5% y/y in 2016 Q1) for the last two years, supported by good labour market conditions. At the same time, the structure of

Figure 2.27 Composition of growth in liabilities (y/y)



Source: NBP data.

[40] In the present chapter, growth in lending to a given sector of the economy is defined as growth in receivables of monetary financial institutions from this sector.

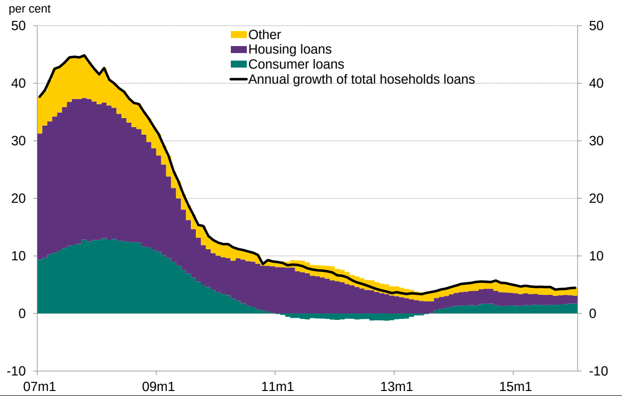
household credit growth is gradually changing the share of consumer loans is rising, while that of housing loans is diminishing (Figure 2.28).

In 2016 Q1, consumer loan growth accelerated to 7.6% y/y (as compared to 6.9% y/y in 2015 Q4.) which was supported – besides good labour market conditions – by an easing in banks' lending criteria.[41]

Alongside that, growth in housing loans has further slowed down slightly (to 2.3% y/y in 2016 Q1 as compared with 2.6% y/y in 2015 Q4) due to steadily declining stock of foreign currency loans. As a result the share of these loans in banks' portfolios is diminishing, which reduces the risk related to this credit category. The PLN-denominated housing loans, in turn, are growing at a stable pace (of 10.2% y/y as in 2016 Q1). According to banks, this is due to a surge in borrowers' interest in the government programme "Flat for the Young", following its expansion in September 2015, as well as favourable labour market conditions and positive sentiment of households. However, the limit of funds for 2016 under the "Flat for the Young" programme has already been reached in 2016 Q1.[42] In addition, banks have tightened their credit policies by raising the margins on mortgage loans[43] and also by further lowering the loan-to-value ratio, in line with Recommendation S.[44] These factors may curb the growth in housing loans in the coming quarters.

Lending to the corporate sector slightly accelerated

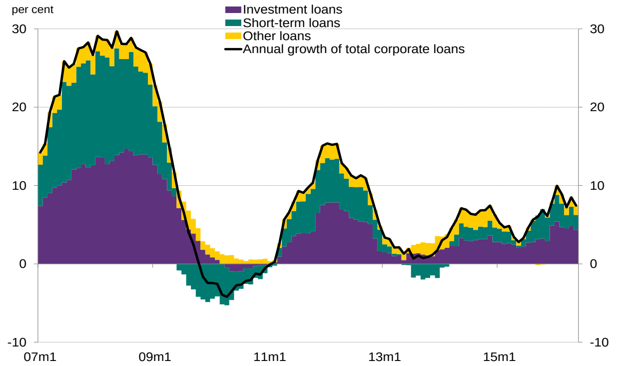
Figure 2.28 Composition of growth in loans to households (y/y)



Source: NBP data.

Other loans to households denotes operation and investment loans to small entrepreneurs.

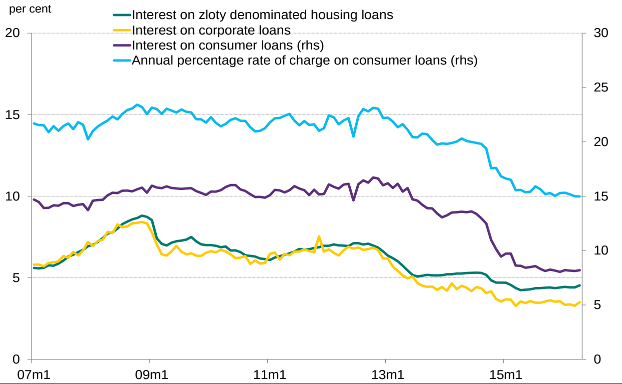
Figure 2.29 Composition of growth in loans to companies (y/y)



Source: NBP data.

Other loans to companies denotes loans granted for securities purchases, export credits or purchased receivables

Figure 2.30 Interest rates on main loan categories



Source: NBP data.

[41] See *Senior loan officer opinion survey on banking lending practices and conditions, 2016 Q2*, NBP.
[42] The receipt of applications for the 2016 financing under the scheme was ceased in March 2016.
[43] Average margins of mortgage loans have risen since the beginning of 2016 by 0.24 percentage points, reaching 2.03% in March 2016. (See: *AMRON-SARFiN Report: 1/2016. Report on housing loans and real estate transaction prices*, Polish Bank Association, May 2015.) At the same time, average interest rate on new housing loans increased by 0.13 percentage points in this period, to reach 4.53%.
[44] In line with the requirements of the Recommendation S issued by the Polish Financial Supervision Authority, the maximum admissible level of the loan-to-value (LtV) ratio has been lowered steadily over the past few years. It amounted to 90% in 2015, 85% in 2016, and for 2017 it is set at 80%.

in 2016 Q1 (to 8.7% y/y as against 7.0% y/y in 2015 Q4; Figure 2.29),[45] fuelled mostly by a rise in investment loans (9.4% y/y). Yet, at the same time, firms increasingly often point to uncertainty as a barrier to their growth, which translates into weaker declared interest in bank loans.[46] Moreover, banks have recently tightened their corporate lending terms somewhat,[47] which may hamper lending growth in this segment in the next quarters.

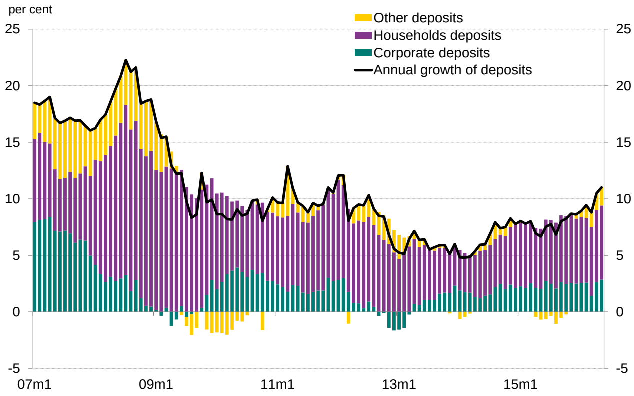
The rising value of credit in the economy is accompanied by a gradual increase in deposits, given good labour market conditions, mainly household deposits (Figure 2.31).[48] At the same time, amid lower interest on deposits than in the previous years,[49] the term structure of broad money growth continues to change: the share of cash and current deposits is rising, while that of time deposits is declining (Figure 2.32). Alongside that, the share of equities and participation units of investment funds in households' financial assets is diminishing, possibly still driven by deterioration in financial market sentiment (see 2.5.1 *Financial market*).

2.7 Balance of payments

Favourable trends in balance of payments developments have continued. The balance of goods and services account is in surplus, which is accompanied by stable external financing (the EU funds and foreign direct investment). Foreign portfolio investors' holdings of domestic debt securities have recently declined.

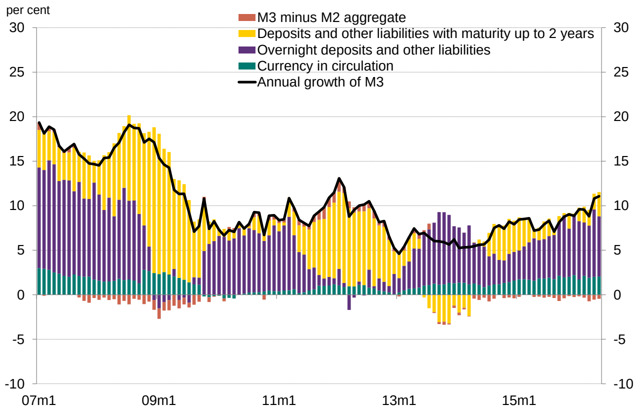
The trade account remained in surplus in 2016 Q1

Figure 2.31 Composition of growth in bank deposits



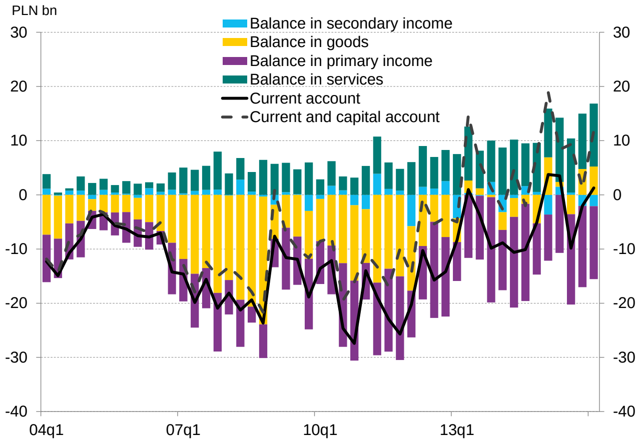
Source: NBP data.

Figure 2.32 Composition of growth in M3 (y/y)



Source: NBP data.

Figure 2.33 Current account balance



Source: NBP data.

[45] In April 2016, corporate lending growth picked up against the previous month (to 8.5% y/y), while remaining close to the average for this category of credit in 2016 Q1. The acceleration was primarily driven by a slight pick-up in short-term lending growth in comparison with the previous month.
[46] The share of enterprises seeking a loan dropped in 2016 Q1, to 14%, compared to 18% in 2015 Q4 and a 3-year of 19%. *NBP Quick Monitoring Survey. Information on the condition of the enterprise sector with a particular focus on business conditions in 201 Q1 and the forecast for 2016 Q2*, NBP, April 2016.
[47] Recently banks have tightened lending criteria for large corporates, while easing them somewhat for SMEs. Most lending terms have been tightened in both segments. According to banks' declarations, the tightening of their lending policy reflected uncertainty about their capital position resulting from changes in their regulatory environment. *Senior loan officer opinion survey on banking lending practices and conditions, 2016 Q2*, NBP, April 2016.
[48] In April 2016 there was also a pick-up in corporate deposit growth (to 11.4% y/y compared with 9.4% y/y in 2016 Q1), leading to higher growth in overall deposits and broad money in that month.
[49] The interest on new deposit agreements has decreased since the beginning of 2016, both in the corporate sector (by 0.26 percentage points) and the household sector (by 0.10 percentage points).

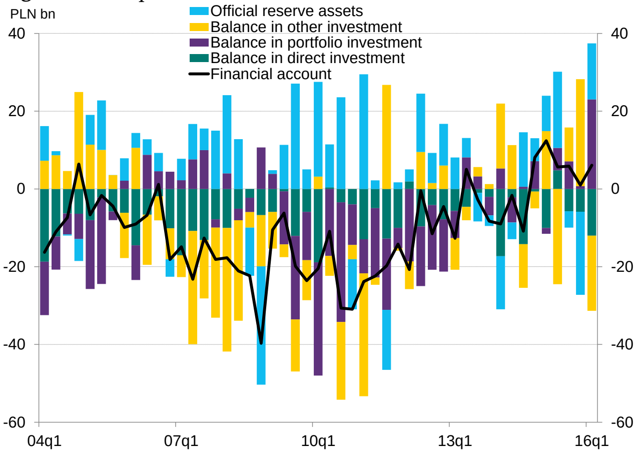
(see Chapter 2.2.5 *External trade*). However, Poland's sound economic conditions continue to support the rise in profits of foreign direct investors, which generates a deficit on primary income narrowing the current account balance. In consequence, the current account balance was close to zero in 2016 Q1 (Figure 2.33).

Due to the inflow of the EU funds a surplus on capital account balance was maintained in 2016 Q1, although it was smaller than in the corresponding period of the previous year. The decrease in this balance was attributable to lower inflow of the funds under the 2007-2013 EU framework[50] coupled with their only limited inflow under the 2014-2020 framework.

As a result of a surplus on the combined current and capital account, a net capital outflow was observed in 2016 Q1 (Figure 2.34). In particular, the participation of non-residents in the domestic Treasury bond market declined. Yet the scale of capital outflow was contained by an increase in direct foreign investment in Poland.[51]

Owing to a significant surplus on current and capital account, the ratio of this balance to GDP is high (in four-quarter moving terms; Table 1.3). The ratio of the joint balance of current and account balances to GDP ratio is close to record highs since 1995. The remaining indicators of Poland's external imbalance are also favourable.

Figure 2.34 Capital account balance



Source: NBP data.

Positive values indicate an increase in Polish net assets (net capital outflows).

Table 2.3 Selected external stability indicators

	2012	2013	2014	2015 q1	2015 q2	2015 q3	2015 q4	2016 q1
Current account balance (CAB)/GDP	-3.7	-1.3	-2.0	-1.3	-0.5	-0.4	-0.3	-0.4
Current and capital account balance/ GDP	-1.5	1.0	0.4	1.7	1.9	2.5	2.1	1.7
Trade balance/GDP	-2.1	-0.1	-0.8	-0.2	0.1	-0.1	0.5	0.4
Official reserve assets in monthly imports of goods and services	5.5	5.2	5.3	5.5	5.8	5.6	5.3	5.4
Foreign debt/GDP	70	70	72	73	74	74	72	71
Net international investment position/GDP	-65	-69	-68	-67	-66	-64	-62	-62
Official reserve assets/foreign debt (up to 1Y) plus estimated CAB (per cent)	100	85	109	105	102	103	107	106
Official reserve assets/foreign debt (up to 1Y) (per cent)	106	94	110	107	104	105	108	108

Source: NBP, Ministry of Finance data.

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

[50] The investments financed from the previous EU framework (2007-2013) were completed in December 2015. However, as settlement of invoices related to projects financed from this framework will continue into 2017, inflows of funds from this EU budget will be increasing capital account this and the following year

[51] Moreover, on the financial account the NBP foreign exchange reserves rose markedly, while other investment declined. These changes resulted largely from the repo transactions conducted by NBP as a part of foreign exchange reserve management, which simultaneously increased the value of foreign exchange reserves and NBP's other investment liabilities.

3 Monetary policy in March – July 2016

At the meetings between March and July 2016 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 2016 as well as the *Information from the meeting of the Monetary Policy Council* in July 2016. *Minutes of the Monetary Policy Council decision-making meeting* in July 2016 will be published on 25 August, and thus included in the next *Report*.

Minutes of the Monetary Policy Council decision-making meeting held on 11 March 2016

At the meeting, the Council members discussed monetary policy against the background of macroeconomic developments in Poland and abroad as well as the results of the March projection of inflation and GDP.

When discussing economic activity abroad, the Council members recognized that global economic activity remained moderate and that the uncertainty about its outlook had recently increased. It was noted that in the major advanced economies, i.e. in the United States and the euro area, consumer expenditure growth remained stable, as labour market conditions continued to improve. It was pointed out, however, that GDP growth in both economies was constrained by low investment growth and a slowdown in exports. It was underlined that slower export growth, particularly in the case of the euro area, resulted from weaker conditions in the major emerging market economies, particularly China. It was added that conditions in global industry were very volatile and deteriorating. Exports had weakened also in Germany, and – in association with this – conditions in German industry had ebbed. This might be conducive to lower growth in Polish exports and industrial production, as Polish and German industries cooperate closely within global supply chains. At the same time, it was stressed that in spite of weaker exports, German economy continued to recover, supported by ongoing domestic demand growth, partly stimulated by increased public expenditures.

The Council members judged that the uncertainty about the global economic outlook had particularly increased in recent months. This uncertainty results from the risk of a stronger deterioration in economic conditions in China and other emerging market economies, as well as the extent to which this weakening would translate into activity in the advanced economies. In this context, it was pointed out that many international institutions had revised their forecasts for global economic growth downwards. Certain Council members expressed the opinion that these revisions could be associated with the downtrend in financial asset prices in the advanced and emerging market economies which had been observed for several months.

The Council members stressed that energy and agricultural commodity prices – in spite of their recent rebound – were still low, which is the main reason for low consumer and producer price growth worldwide. Certain Council members pointed to factors which could contribute to lower commodity prices over the longer run. It was noted i.a. that gas prices might decline further, as several producers of this commodity suggested an increase in its exports. Some Council members, in turn, drew attention to geopolitical tensions, arguing that their increase could lead to higher prices of commodities, particularly of crude oil.

It was highlighted that the uncertainty about the global economy was affecting financial market sentiment, which in recent months had been reflected by capital outflows from many emerging market economies and the resultant fall in financial asset prices in these countries as well as the depreciation of their currencies. Attention was drawn to the significant depreciation of the zloty, the fall in share prices on the Polish stock exchange and the outflow of capital from the government bond market. This notwithstanding, the Council members underlined that investor sentiment had improved in recent weeks, which resulted i.a. in an appreciation of the zloty.

It was pointed out that the likelihood of the major central banks maintaining their expansionary monetary policy for longer than previously expected had increased over recent months. It was noted that the ECB had again expanded its monetary policy, in particular by lowering the deposit rate to a more negative level and significantly increasing the scale of its monthly asset purchases. It was also outlined that in the United States, in spite of an increase in interest rates in December 2015, the uncertainty about the direction of the Fed's monetary policy had risen of late.

The Council members pointed to likely consequences of further monetary easing by the ECB on the Polish economy. It was highlighted that it might be conducive to a decline in Polish government bond yields and an appreciation of the zloty. However, as certain members pointed out, the zloty was broadly stable over the course of the ECB's asset purchase programme. Some Council members expressed the opinion that the reduction in the ECB deposit rate to a more negative level might create a risk of higher foreign capital inflow to the Polish banking sector, although the extent of the risks associated with this is hard to assess for the time being.

While analysing the current domestic economic conditions, it was highlighted that – in spite of the rise in external risks – stable economic growth in Poland continued and in 2015 Q4 GDP growth had even accelerated slightly. It was also stressed that domestic demand continued to be the key driver of GDP growth. It was highlighted that investment expenditure had accelerated in 2015 Q4, which had been accompanied by stable growth in consumption. Consumer expenditures are supported by improving labour market conditions, reflected particularly in rising employment and a fall in the unemployment rate, which had reached the lowest level since 2008. Moreover, as certain Council members underlined, consumer demand growth was also supported by an improvement in consumer sentiment. Investment demand, in turn, is propped up by sound financial standing of enterprises and the capacity utilization above the long-run average. It was also outlined that Polish exports continued to grow and sentiment in Polish industry remained positive, even though German exports and industrial conditions had weakened of late. It was also pointed out that moderate loan growth also contributed to stable domestic demand growth. Certain Council members noted in addition that surveys of the Polish enterprise sector did not point to limited access to external financing as a major hurdle for corporate investment.

Discussing the economic outlook for Poland, it was highlighted that in line with the March GDP projection, GDP growth should remain stable in the coming years. It was noted that consumer demand growth was forecasted to accelerate, propped up by rising employment and an increase in wage growth, as well as a boost to government transfers to households resulting from the introduction of the "Family 500+" programme. Certain Council members expressed the opinion that higher consumer demand growth could translate also into an acceleration in investment. Rising investment, in turn, should increase the productive capacity of the Polish economy, which could alleviate inflationary pressure that might appear in the medium term due to an increase in consumer demand growth. These members also outlined that an acceleration in domestic demand might lead to wider current account deficit and greater external imbalances, particularly given moderate growth in economic activity abroad.

Reviewing price developments in Poland, attention was drawn to still negative price growth, which – similarly to other countries – was mainly due to the fall in commodity prices in recent quarters. Low inflation in Poland's major trading partners is another factor behind lower consumer price growth. It was highlighted that consumer price growth in the Polish economy was also lowered by a lack of wage pressure, which persists in spite of a notable improvement in the labour market. In this context, some Council members noted that unit labour cost growth had been slow for some time. In addition, certain Council members expressed the opinion that embargo imposed by Russia on Polish food products had been conducive to lower food prices in Poland. These members also pointed to an ongoing fall in apparel prices, which – in their opinion – might be further exacerbated by softer demand of foreign consumers caused by i.a. recession in Russia and Ukraine as well as a sharp depreciation of their currencies.

During the discussion on the results of the March inflation projection, it was highlighted that, according to this projection, price growth should turn positive in 2016 Q4 and return to the tolerance band within two years. At the same time, it was noted that core inflation was projected to gradually increase, supported by an acceleration in domestic demand, an expected rise in wage growth as well as higher consumer expenditure of households resulting from the introduction of the "Family 500+" programme. Certain Council members underlined in addition that the negative impact of the fall in commodity prices should be fading out, which would be conducive to higher CPI inflation later in the projection horizon. According to some Council members, an acceleration in price growth, stemming from faster growth in consumer demand and good labour market conditions, might prove faster than forecasted in the projection.

Discussing the effects of negative price growth in Poland, some Council members emphasized that no negative developments associated with deflation had been observed so far. In particular, households and enterprises do not hold off their consumption and investment expenditures. Certain members outlined that the risk of a prolonged period of deflation in Poland was low due to very good labour market conditions, which result in stable nominal price growth. Other Council members assessed in turn that the risk that economic agents will start to postpone their expenditures increases as the period of negative price growth extends. Therefore, the Council members decided that the impact of low price growth on the behaviour of economic agents in Poland should be monitored further.

Referring to the interest rates in the context of direct inflation targeting, the Council decided that they should remain unchanged at the current meeting. The Council members indicated that the currently observed low price growth was mainly due to factors beyond the influence of domestic monetary policy. However, in the coming quarters, CPI growth would be supported by a steady increase in domestic economic activity. This assessment is backed by the results of the March projection of inflation and GDP.

The Council members confirmed their assessment that – given the available data and forecasts – the current level of interest rates helped to keep the Polish economy on a sustainable growth path and to maintain macroeconomic stability. The Council members stressed that the elevated uncertainty regarding external conditions, more notably persisting risks to global economic activity and volatile financial market sentiment, also spoke in favour of a stabilization of the interest rates. Other important monetary policy determinant was the uncertainty about the outlook for fiscal policy beyond 2016. The Council members also judged that decisions on the interest rates should take into account their potential impact on the stability of the domestic financial sector.

The majority of the Council members expressed the opinion that under these conditions keeping interest rates at the current level ensured room for monetary policy easing in the event of negative shocks, which would result in a deterioration in economic conditions and lower price growth. Certain Council members did not rule out a necessity for lowering the interest rates should indications of negative developments associated with deflationary processes occur, even though they assessed their probability as low.

Certain Council members indicated in turn that in the coming quarters it might be justified to consider the circumstances under which the monetary policy stance could be reexamined. This could be justified if inflationary pressure appeared as a result of favourable labour market conditions and expected acceleration in consumer demand.

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 6 April 2016

At the meeting, the Council members discussed monetary policy against the background of macroeconomic developments in Poland and abroad.

While discussing economic situation abroad, Council members recognised that global economic activity remained moderate. At the same time, it was stressed that uncertainty regarding the global economic outlook was still elevated. Council members pointed to continued economic recovery in the euro area. It was judged that growth in employment and wages in the euro area, as well as rising industrial output and some improvement in economic indicators, signalled further moderate growth in the coming quarters. It was pointed out that in the United States economic situation remained relatively favourable. However, it was underlined that recent incoming data made an accurate assessment of the economic prospects of the US economy difficult. It was emphasised that a source of uncertainty for the economic outlook in developed countries – both in the United States and in the euro area – was the scale of economic slowdown in the emerging economies and its impact on the developed economies. In this context, attention was drawn to the further deceleration in economic activity in China, indicated by slower growth in industrial output and retail sales as well as a sharp fall in exports. This notwithstanding, certain Council members drew attention to a slight recovery in investment in the Chinese economy in the recent period, which may be connected with an easing of economic policy and might signal lower risk of a significant economic slowdown in China in the coming quarters. Referring to the economic situation in other emerging economies, Council members underlined that Russia and Brazil remained in recession. The possibility of a further fall in energy commodity prices and the cessation of imports of these commodities by some countries was cited by certain members of the Council as a possible risk factor for the improvement in the economic situation in Russia and for the stability of Russia's public finances. In Brazil the economic outlook could be negatively affected by the deepening political crisis.

When discussing global commodity prices, Council members pointed out that despite a slight increase in the last two months, they remained at a low level. It was judged that low commodity prices were the key factor behind very low price growth worldwide. At the same time, attention was drawn to the significant volatility of commodity prices in the recent period and uncertainty regarding their future developments. Certain Council members expressed the opinion that in the coming months energy commodity prices, including oil, could once again decline. The factors conducive to possible decrease in prices of these commodities include increased supply of oil associated with the lifting of sanctions on Iranian oil exports in the absence of a significant reduction in oil production in the United States and the possible increase in energy commodity exports from Russia. However, other Council members were of the opinion that oil prices might increase in the near future, should the OPEC countries and Russia reach an agreement on oil production limits.

It was noted that the increase in commodity prices and some weakening of concerns about global economic situation had improved the sentiment in the global financial markets in the recent period. As a result, the prices of many financial assets had risen, including share prices and exchange rates of emerging markets currencies. However, certain Council members judged that the improvement in market sentiment was temporary and that renewed decline in share prices in the global stock markets could not be ruled out in the coming quarters.

When discussing monetary policy abroad, it was pointed out that some central banks in Europe had lowered their interest rates in the recent period. Certain Council members underlined that currently it was difficult to assess the effectiveness of a further easing of monetary policy, especially considering the external nature of the shocks causing deflation. At the same time, it was judged that in the United States there was continued uncertainty regarding the future decisions of the Federal Reserve, although in the opinion of the Fed and the financial markets, interest rate hikes were likely in the coming quarters. In this context, attention was drawn to the risks associated with the withdrawal of the strong monetary expansion.

When discussing the economic situation in Poland, attention was drawn to the continuing stable economic growth in last several quarters. Some Council members judged that incoming data on industrial production and construction output signaled that GDP growth in 2016 Q1 might have been slightly lower than in the previous quarter, but still remained relatively high. It was pointed out that economic growth continued to be supported mainly by domestic demand. The growth of consumer demand was fuelled by rising employment and improving household sentiment. In turn, investment demand was supported by the sound financial standing of enterprises, their high capacity utilization and the relatively favourable prospects for demand. Certain Council members emphasized that despite the weakening of foreign demand, Poland had a surplus in trade of goods, which was supported by the high – despite a certain appreciation of the zloty in the recent period – price competitiveness of Polish exports. However, other Council members stressed that the trade surplus was partly the result of the falling commodity prices in the global markets. It was noted that the continuing good situation in the real economy was accompanied by a stable growth in lending, including a certain pick-up in growth in corporate credit.

While discussing the situation in the labour market, Council members pointed to the steady growth in employment and the falling unemployment rate, which was close to the pre-crisis level. It was underlined that despite this, the growth of average nominal wages in the economy was moderate. This led to continued low growth of unit labour costs. In addition, certain Council members pointed out that the level of wages most commonly earned by employees was significantly below the average and in the last several years its growth had been slower than that of average wages. However, other Council members pointed out that the good situation in the labour market was reflected in the relatively high growth of the total wage bill, which was essential for growth of aggregate demand.

While discussing the economic outlook in Poland, Council members judged that the coming quarters were likely to see further stable and relatively fast economic growth. Certain Council members were of the opinion that GDP growth could even accelerate. It was pointed out that a factor supporting consumer demand growth would be the further increase in household disposable income resulting from both growing employment and nominal wages and the launch of the “Family 500+” programme. In turn, growing consumption, which improves the sales outlook of firms, could – according to certain Council members – lead to an acceleration in corporate investment growth. However, certain Council members pointed out that the propensity of firms to invest could be limited by the continued uncertainty regarding the economic outlook and business conditions. Certain Council members judged that the stable economic growth and improving labour market situation would lead to a gradual closure of the output gap and the approach of the unemployment rate to the equilibrium rate (NAWRU), which could lead to an increase in domestic demand pressure.

While analysing price developments in Poland, Council members discussed the methods of calculation and properties of particular measures of inflation, analysing, in particular, the influence of changes in the structure of the CPI basket on consumer price growth. Council members also analysed price developments in particular categories of goods and services and discussed the possible causes of the long-term fall in prices of some of those categories.

Referring to the current data, Council members pointed out that price growth remained negative. However, Council members emphasised that the continued deflation was still mainly driven by external factors – including the earlier fall in global commodity prices – which were beyond the direct impact of Poland's monetary policy. It was pointed out that the negative impact of external factors on domestic prices was so strong that it caused the core inflation indicators to fall below zero. However, it was underlined that these factors mainly reduced the prices of goods, while price growth of services remained positive. At the same time, it was stressed that there was still no wage pressure in the economy.

Some Council members pointed out that the continued deflation had not so far adversely affected the decisions of economic agents. In particular, it was underlined that it did not lead to the postponement of purchases by households or deferral of corporate investment. Certain Council members also pointed out that although inflation expectations of economic agents were running at a very low level, households failed to notice the fall in the general level of consumer prices. However, other Council members judged that the prolonged period of deflation might increase the risk of a permanent deanchoring of inflation expectations, which might in turn have an adverse impact on the effectiveness of monetary policy in the future.

Council members underlined that at the end of 2016 price growth was expected to become positive. It was pointed out that growing consumer demand, supported by the "Family 500+" programme, as well as the expected increase in growth of unit labour costs resulting from the improvement in the labour market situation would contribute to increase in price growth. However, other Council members pointed out that the further fall in global energy commodity prices expected by these Council members and a reduction in the price of imported goods caused by appreciation of the zloty might have a negative effect on price growth in the coming quarters. In this context, attention was drawn to a certain strengthening of the zloty in recent months caused, among others, by the ECB's easing of monetary policy. Certain Council members stressed that in the medium term the increase in price growth might also be curtailed by growth in production capacity in the economy resulting from rising investment.

Referring to the level of interest rates in the economy, some Council members judged that the interest rate on corporate loans was currently relatively low. Certain Council members expressed the opinion that the cost of credit was not a factor curbing lending growth. In turn, other Council members pointed out that the low level of interest rates might reduce household demand for long-term savings instruments and thus limit the development of the domestic financial market.

While discussing the level of NBP interest rates, Council members decided that they should remain unchanged at the current meeting. Council members stressed that the continued negative price growth was mainly caused by external factors and deflation had no adverse effects on the decisions of economic agents. As a result, low price growth was accompanied by stable and relatively fast economic growth and steady tightening of the labour market. Certain Council members also underlined that the stabilisation of nominal interest rates amidst expected increase in price growth over the coming year would lead to a decline in real interest rates. Council members judged that in these conditions a stabilisation of interest rates helped to keep the Polish economy on a sustainable growth path. In addition, some Council members drew attention to the need to take into account the impact of the level of interest rates on the risk to financial stability.

Council members judged that the increased uncertainty regarding the domestic and external developments also spoke in favour of a stabilisation of interest rates. In this context, attention was drawn to the uncertainty regarding the outlook for fiscal policy in 2017, fears about a global economic slowdown and the risk of financial turmoil caused, among others, by the possible decision of the United Kingdom to leave the European Union. In the opinion of certain Council members, stabilisation of interest rates, which – in the face of monetary policy easing by central banks in the environment of the Polish economy – causes an increased differential between domestic and foreign rates, might reduce the vulnerability of both Polish assets and the exchange rate to a possible increase in risk aversion in the financial markets and a deterioration of investor sentiment.

Council members also argued that the stabilisation of interest rates ensured the room for their adjustment in the case of shocks adversely affecting the domestic economic situation and price developments. The majority of Council members did not rule out the possibility of interest rate cuts in the case of an economic slowdown in Poland and deepening deflation. Certain Council members argued that given the current level of interest rates – should interest rate cuts turned out to be necessary – a sharper interest rate adjustment would be possible.

In turn, certain Council members expressed the opinion that taking into account the relatively high GDP growth and the favourable outlook for economic growth, additionally supported by the reduced restrictiveness of fiscal policy, it would be justified to keep interest rates unchanged in the coming quarters. This assessment might even require considering the circumstances for a change in the monetary policy stance.

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 6 May 2016

At the meeting, the members of the Monetary Policy Council discussed monetary policy against the background of macroeconomic developments in Poland and abroad.

While discussing the economic conditions in the environment of the Polish economy, Council members recognised that global economic activity remained moderate, amid continuing uncertainty about its outlook. It was highlighted that forecasts for global growth had been revised down by some international institutions. Attention was drawn to a renewed slowdown in GDP growth in the United States in 2016 Q1, which was assessed as an important factor that could have both direct and indirect impact on economic activity globally and in Poland. It was stressed, though, that GDP growth in the euro area, Poland's main trading partner, had remained stable. This notwithstanding, downside risks to growth in the euro area were mentioned. It was noted that household sentiment had recently deteriorated and exports of the euro area fell in early 2016 due to weaker economic conditions in emerging market economies, most notably China. These factors were assessed as downside risks to growth in the euro area. It was underlined that GDP growth forecasts for China – in spite of their recent minor upward revisions – were still pointing to continued gradual economic slowdown in this country in the coming years.

While discussing price developments abroad, it was pointed out that price growth was still weak in many countries, and in some economies, including in the euro area, it was negative. It was stressed that this was mainly due to global commodity prices, which remained low despite some pick-up in recent months, as well as the moderate growth of global economic activity. It was also indicated that inflation forecasts in many countries had been revised down in the recent period.

When discussing the economic conditions in Poland, attention was drawn to a revision of national accounts data for 2014-2015, which pointed to higher than previously estimated GDP growth in 2015 Q4. However, it was emphasised that the economic growth estimates for the previous quarters had been revised down, and that GDP growth in the whole of 2015 had remained unchanged. It was judged that in 2016 Q1 GDP growth had probably declined. It was argued that in March 2016 industrial production and retail sales growth had both decelerated markedly, and the fall in construction output had deepened. Certain Council members noted, however, that these indicators could have been affected by calendar factors. It was also highlighted that sentiment in the industrial sector, also relating to new export orders, was deteriorating, which could indicate the persistence of low industrial production growth in Poland in the following months.

Council members judged that the economic slowdown in early 2016 was probably temporary. In next quarters, GDP growth should pick up slightly, although – as some Council members emphasised – given only moderate economic growth abroad the space for strong GDP growth is limited.

In the coming quarters, GDP growth in Poland should be driven mainly by increasing consumption growth, supported by ongoing recovery in the labour market, further improvement in household sentiment, stable growth in consumer loans and an increase in family benefits resulting from a launch of the "Family 500+" programme. Growing corporate investment will probably also contribute to higher GDP growth, as it would be supported by sound financial standing of enterprises, their high capacity utilization and growing investment loans. It was noted, however, that the pace of absorption of funds from the new EU financial perspective was a factor of uncertainty for investment growth.

While discussing price developments in Poland, attention was drawn to ongoing deflation, which resulted to a large extent from the earlier sharp fall in global commodity prices, amid low price growth in the environment of the Polish economy and continued negative output gap. It was noted that low energy prices stemming from the earlier fall in commodity prices reduced the prices of other goods and services, translating into negative core inflation indicators. It was pointed out that currently there were no cost pressures in the economy. It was highlighted that wage growth remained moderate in spite of improving labour market conditions and PPI growth had been negative for four years. However, some Council members noted that PPI growth excluding energy-related goods was higher than growth in total PPI and close to zero.

Council members judged that although price growth in Poland had been negative for a long time, it had not adversely affected the decisions of economic agents so far. In particular, available data do not indicate the postponement of purchases by households or a reduction in corporate investment resulting from low price growth. However, some Council members expressed an opinion that currently observed investment growth was relatively low, given the high capacity utilisation and the expected improvement in economic conditions in Poland. This could suggest that deflation might reduce expected profitability of companies. Council members concluded that the impact of deflation on the financial standing and the behaviour of economic agents, in particular enterprises, should be still closely monitored.

Referring to the outlook for consumer price growth, Council members assessed that it would remain negative in the coming quarters, mainly due to the continued fall in energy prices. However, as this factor abates, consumer price growth should gradually increase, supported by ongoing stable economic growth and improving labour market conditions. Some Council members also argued that persistently limited wage growth, despite falling unemployment, was an additional downside risk to price growth in Poland. Another downside risk to price growth named by some Council members was a possible deterioration in the economic conditions abroad, which could adversely affect domestic economic growth and domestic demand pressure. In the opinion of certain Council members, a significant increase in global commodity prices could not be ruled out in the coming quarters, which could lead to a notable increase in inflation in Poland, even if accompanied with a decline in economic growth.

While discussing the level of NBP interest rates, Council members decided that they should remain unchanged at the current meeting. Council members stressed that the continued negative price growth was mainly caused by external factors and deflation had no adverse effects on the decisions of economic agents. Council members confirmed their assessment that the stabilisation of interest rates helped to keep the Polish economy on a sustainable growth path and maintain macroeconomic balance. In addition, some Council members pointed out the need to take into account the impact of the level of interest rates on financial stability, drawing attention to heightened volatility in domestic financial markets. Certain Council members also expressed an opinion that fiscal loosening in 2016 was another significant factor which should be taken into account in the decisions on interest rates.

Council members judged that the increased uncertainty regarding the domestic and external developments also spoke in favour of a stabilisation of interest rates. In this context, attention was drawn to concerns about a global slowdown and the risk of financial turmoil caused, among others, by the possible decision of the United Kingdom to leave the European Union. Council members also argued that a stabilisation of interest rates ensured room for their adjustment in the case of shocks adversely affecting domestic economic situation and price developments. Some Council members did not rule out the possibility of interest rate cuts in the case of an economic slowdown in Poland, deepening deflation or signs that behaviour of economic agents was adversely affected by negative price growth. Certain Council members argued that interest rate cuts would stimulate economic growth in Poland, including investment expenditure. At the same time, other Council members were of the opinion that given heightened uncertainty, the impact of lower interest rates on investment growth might be limited.

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 8 June 2016

At the meeting, the members of the Monetary Policy Council discussed monetary policy against the background of macroeconomic developments in Poland and abroad.

While discussing the economic conditions abroad, Council members recognised that global economic growth remained moderate, amid continuing uncertainty about its outlook. GDP growth in the euro area picked up in 2016 Q1, although it was judged that this acceleration was likely to be temporary because of a further drag from weak economic conditions in emerging economies. At the same time, it was stressed that despite these unfavourable external developments, in recent months there had been a marked improvement in the export sector in Germany, Poland's main trading partner. This improvement – along with a further recovery of German domestic demand – resulted in a pick-up in economic growth in Germany.

Council members drew attention to the persisting sources of uncertainty for economic conditions and political situation in the euro area countries and the remaining EU economies. Among these, they mentioned the possible decision of the United Kingdom to leave the European Union, political developments in France and Spain, the possible re-intensification of Greece's debt problem and the immigration crisis. Certain Council members also pointed to the uncertainty regarding the effectiveness of the ECB's measures undertaken to stimulate economic activity in the euro area.

Council members indicated that the United States expected to see further moderate economic growth, supported mainly by rising consumption. At the same time, attention was drawn to recent information from the labour market and services market, which might indicate that the outlook for the US economy was worse than previously anticipated. As a result, uncertainty remains about the timing of further interest rate cuts by the Federal Reserve.

Referring to the economic conditions in the major emerging economies, it was pointed out that in China recent data on industrial output, retail sales and investment indicated a further slowdown in economic activity. In turn, in Russia – according to the national accounts data – the fall in GDP was weaker in 2016 Q1. Certain Council members stressed that the higher global energy commodity prices had a positive impact on the outlook for the Russian economy, although this might be limited by the reduction in imports of energy commodities from Russia announced by some European countries.

Council members underlined that energy commodity prices – despite some increase in recent months – were still markedly lower than in previous years. Low commodity prices, combined with moderate global economic activity, were the main factors behind very low consumer price growth in many economies.

When analysing the economic conditions in Poland, Council members drew attention to the slowdown in GDP growth in 2016 Q1. Council members noted that it was mainly driven by the fall in total investment outlays, including weaker corporate investment activity. The decline in investment was partly related to the completion of projects cofinanced with EU funds under the previous financial framework as well as statistical effects related to the implementation of large investments in the energy sector in 2016 Q1. Some Council members judged that uncertainty regarding future business conditions, persuading firms to postpone investment projects, might have contributed to the slowdown in corporate investment. Certain Council members also pointed out that a certain weakening in export growth had a negative impact on GDP growth in 2016 Q1. Other Council members judged that the slowdown in GDP might have partly reflected the relatively low growth in economic activity in March 2016, which was related to fewer working days than in the corresponding month a year before.

It was underlined that GDP growth in 2016 Q1 was mainly driven by stable growth in consumer demand and an increase in stocks. Rising consumption was supported, in particular, by robust labour market with record high employment and historically low unemployment rate. In this context, some Council members judged that the level of employment might be even higher than indicated by official statistics, which do not include a significant number of employees from Ukraine. Certain Council members underlined that the growth in employment was supported by increased economic activity of older people and longer period in which people at retirement age continue their employment. In turn, other Council members judged that the growth in employment in recent months could partly result from the imposition of social security contributions on civil law contracts, leading to changes in the forms of employment of some employees. Certain Council members expressed the opinion that although the average unemployment rate in Poland was low, in certain parts of the country it remained relatively high.

While discussing the outlook for economic activity, the majority of Council members judged that the fall in GDP growth in 2016 Q1 was temporary. Some Council members pointed out that GDP growth should pick up in the coming quarters, although it would probably be somewhat lower than expected in the March projection. In the opinion of certain Council members, in the following quarters GDP growth might be curbed by the low growth in investment, partly related to the uncertainty regarding the future economic developments. Other Council members were of the opinion that GDP growth could increase markedly and exceed the forecast as early as in 2016 Q2. In this context, they pointed to the significant acceleration in industrial output and the further improvement in labour market conditions in April. At the same time, it was pointed out that the relatively high GDP growth in the coming quarters should be supported by increasing consumption growth amidst ongoing strengthening in the labour market, favourable household sentiment, and the start of family benefit payments under the "Family 500+" programme. Some Council members judged that the investment outlook also remained relatively favourable. They pointed to the high capacity utilisation of companies and their sound financial standing, as well as the possible disbursement of funds under the new EU financial framework in the second half of 2016. It was underlined that the possible launch of the recently announced government programme supporting investment might have boosted investment growth, although its form and timing were uncertain. Taking into account the above-mentioned factors, it was indicated that the output gap would close within the monetary policy transmission horizon. However, certain Council members underlined that an exact assessment of the economic outlook for the coming quarters was made more difficult due to the heightened uncertainty regarding the environment of the Polish economy and the investment outlook.

When analysing price developments in Poland, attention was drawn to ongoing deflation. However, Council members stressed that continued negative price growth was mainly due to external factors, including the earlier sharp fall in global commodity prices and low price growth in the environment of the Polish economy. Certain Council members were of the opinion that structural changes in retail trade, i.e. the growing market share of discount stores, might also limit consumer price growth. It was pointed out that currently there were no cost pressures in the economy. It was noted that PPI growth remained negative, although producer prices excluding energy-related goods were higher than a year before. The persistence of low PPI growth was supported by the still moderate wage growth, despite very good labour market conditions. In the opinion of certain Council members, the relatively large number of employees from Ukraine – probably earning relatively low wages – employed in the Polish labour market was a factor that curbed wage growth in the Polish economy. However, certain Council members pointed out that despite moderate wage growth, the share of wages in the operating costs of enterprises was rising.

The majority of Council members judged that the persisting deflation had not adversely affected decisions of economic agents so far. Certain Council members pointed out that although inflation expectations of economic agents were running very low, households failed to notice the fall in the general level of consumer prices and were not postponing purchases. It was also underlined that the fall in prices had not led to a decrease in profitability of enterprises so far. However, certain Council members expressed the opinion that the continued deflation could be one of the factors behind the decline in corporate investment growth. These Council members judged that given falling prices, there was growing uncertainty about the future profitability of sales, which curbed firms' propensity to embark on investment projects. Council members believed that it was necessary to continue to monitor the impact of deflation on the financial standing and the decisions of economic agents, in particular enterprises.

Referring to the outlook for price growth, Council members judged that in the coming quarters CPI growth would remain negative, while at the end of 2016 it should be positive, and in the monetary policy transmission horizon it would probably return close to the lower limit of deviations from the inflation target. It was indicated that, apart from the fading effects of the previous sharp falls in global commodity prices, the forecasted rise in wage growth and the increase in social benefits would boost price growth. Certain Council members underlined that a marked acceleration in wage growth in April could signal a certain wage pressure emerging in the economy. They also expressed the opinion that the pick-up in consumer growth and increase in its contribution to GDP growth could lead to a stronger reaction of prices to the changes in real economy and faster than expected growth in CPI. However, other Council members drew attention to the fact that the increase in wage growth in April could stem from the postponement of the payment of bonuses in the mining sector, and 2016 Q1 data for the whole economy did not indicate a rise in wage pressure.

While analysing the credit market conditions, Council members pointed to stable growth in household and corporate loans. Some Council members indicated that despite the stabilisation of NBP interest rates, the interest on housing loans and corporate loans had risen slightly last month. In turn, the interest on deposits offered to these entities had decreased somewhat in previous months. Certain Council members stressed that this notwithstanding, the growth of corporate deposits remained relatively high, which – in the opinion of these Council members – could be related to the firms' preference for the safe forms of investment amid heightened uncertainty. At the same time, the growth of household deposits had picked up. However, it was underlined that this was accompanied by a slower rise in the more risky forms of investment and – altogether – a slowdown in growth of total household assets.

While discussing the level of NBP interest rates, Council members decided that they should remain unchanged. Negative price growth was mainly driven by external factors. At the same time, deflation had no adverse effects on the decisions of economic agents. Moreover, negative price growth continued to be accompanied by relatively good economic conditions and a gradual improvement in labour market situation. Council members confirmed their assessment that against this background the stabilisation of interest rates helped to keep the Polish economy on a sustainable growth path and maintain macroeconomic stability.

Council members judged that the increased uncertainty regarding the domestic and external developments also spoke in favour of a stabilisation of interest rates. In addition, Council members argued that a stabilisation of interest rates ensured room for their adjustment in the case of shocks adversely affecting domestic economic situation and price developments. Some Council members did not rule out the possibility of interest rate cuts in the case of an economic slowdown in Poland, deepening deflation or signs of its negative impact on the behaviour of economic agents. Certain Council members pointed out that interest rate cut would be conducive to an increase in GDP growth, in particular by stimulating investment activity. However, other Council members judged that interest rate cut could have a limited impact on investment recovery, and any possible increase in investment could lead to launching projects with low expected profitability. Some Council members underlined that the decision of the Council should also take into account the impact of the level of interest rates on the stability of domestic financial sector.

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

Information from the meeting of the Monetary Policy Council held on 5-6 July 2016

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 growth remains moderate. At the same time, uncertainty remains about future economic conditions in the global economy, associated additionally with the implications of the referendum on the United Kingdom's membership in the European Union. The result of the referendum has increased risk aversion in the global financial markets, which was reflected in a depreciation of currencies and a decline in asset prices in many countries.

A modest recovery continues in the euro area, despite the negative impact of weak economic conditions in developing countries. The expected slowdown in growth in the United Kingdom is a risk factor for economic conditions in the euro area. In the United States economic growth remains moderate. However, weaker data from the labour market impedes clear assessment of future economic conditions in the US. In China the economic growth has probably decelerated further, while Russia and Brazil remain in a recession.

Despite some increase in recent months, prices of oil and many other commodities in the global markets remain markedly lower than in the previous years. This development – combined with moderate global economic activity – is the main driver behind very low consumer price growth in a number of economies.

The European Central Bank is keeping its interest rates close to zero, including the deposit rate below zero, and continues financial asset purchases. In the United States, data from financial markets suggests a delay of further interest rate increases. At the same time, uncertainty about further decisions of the Federal Reserve has increased.

In Poland, incoming data shows that economic activity has accelerated after a GDP slowdown in 2016 Q1. A relatively strong increase in the wage bill and favourable consumer sentiment as well as a sound financial position of enterprises and their high capacity utilisation have a positive influence on domestic economic conditions. This is accompanied by a stable growth of credit to the non-financial sector. An increase in disposal income of households resulting from the "Family 500+" programme will contribute to GDP growth in the coming quarters. Yet, the uncertainty about economic conditions abroad, including the effects of the UK referendum, is a risk factor for domestic economic activity.

With negative output gap and a moderate growth of average nominal wages, currently there is no inflationary pressure in the economy. Annual consumer price growth and producer price growth remain negative. External factors – particularly the earlier sharp fall in the global commodity prices and the low price growth in the environment of the Polish economy – continue to be the main sources of deflation. This is accompanied by low inflation expectations. The persisting deflation has not adversely affected decisions taken by economic agents so far.

The Council became acquainted with the projections of inflation and GDP prepared by the Economic Institute, which is one of the inputs to the Council's decisions on the NBP interest rates. In line with the July projection based on the NECMOD model – prepared under the assumption of unchanged NBP interest rates and taking into account data available until the projection cut-off date of 24 June 2016 – there is a 50-percent probability that the annual price growth will be in the range of -0.9 ÷ -0.3% in 2016 (compared to -0.9 ÷ 0.2% in the March 2016 projection), 0.3 – 2.2% in 2017 (compared to 0.2 – 2.3%) and 0.3 – 2.6% in 2018 (compared to 0.4 – 2.8%). In turn, the annual GDP growth rate – in line with this projection – will be with a 50-percent probability in the range of 2.6 – 3.8% in 2016 (compared to 3.0 – 4.5% in the March 2016 projection), 2.4 – 4.5% in 2017 (compared to 2.6 – 4.8%) and 2.1 – 4.3% in 2018 (compared to 2.1 – 4.4%).

In the Council's assessment, the CPI growth will remain negative in the coming quarters due to the earlier substantial decline in the global commodity prices. At the same time, GDP growth is expected to remain stable in the coming quarters, following a temporary deceleration at the beginning of the year. Consumer demand will continue to be the main driver of economic growth, supported by rising employment, the forecasted acceleration of wage growth and an increase in social benefits. This notwithstanding, the downside risks to the global economic conditions, aggravated by the uncertainty about the effects of the UK's EU referendum, and the volatility of commodity prices, remain the sources of uncertainty for the economy and the price developments.

The Council confirms its assessment that – given the available data and forecasts – the current level of interest rates is conducive to keeping the Polish economy on the sustainable growth path and maintaining macroeconomic balance.

The Council adopted *Inflation Report – July 2016*.

4 Projection of inflation and GDP

This inflation and GDP projection was prepared by the Economic Institute of Narodowy Bank Polski and presents a forecast of economic developments under the assumption of the constant NBP interest rates. In terms of the contents, work involved in the creation of this projection was supervised by Andrzej Sławiński, General Director of the Economic Institute. The process was coordinated by the Bureau of Macroeconomic Forecasts of the Economic Institute. Using the macroeconomic model NECMOD,[52] 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 2016 Q2 to 2018 Q4. The starting point for the projection is 2016 Q1.

The projection was prepared under the assumption of the constant NBP interest rates taking into account the data available until 24 June 2016.

[52] 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

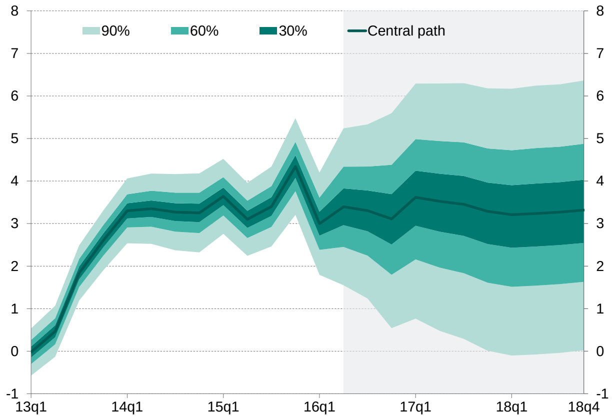
After a significant slowdown in GDP growth in Poland observed in 2016 Q1, the subsequent quarters will bring a gradual acceleration of growth, which will be driven by higher household spending. Yet, the scale of the recovery will be curbed by slowly growing demand in the European economy.

Growing private consumption throughout the projection horizon will be driven by a further improvement in the labour market, as reflected in the pick-up in wage growth and a further gradual decline in the unemployment rate. In 2016-2017, growth in household disposable income will also be supported by growth in child benefits resulting from the "Family 500 plus" programme. Growth in consumer demand will also be fuelled by the low level of interest rates and more optimistic expectations of households.

Downgraded economic growth forecasts in the European Union, among others related to the results of the referendum in the UK, will weaken investment demand in Poland and foreign trade turnover. However, the contribution of net exports to GDP growth should not change considerably. In contrast, investment growth will also be reduced by the declining inflow of the EU funds as the spending of the EU funds under the 2007-2013 financial framework ceases (on the other hand, the absorption of funds under the 2014-2020 financial framework will be expended gradually).

Under the economic growth path assumed in the projection, the currently negative output gap will gradually close, reaching -0.1% of potential GDP at the end of the projection horizon. Such a development of the output gap points to the absence of demand pressure in the economy in

Figure 4.1 GDP (y/y, %)



Source: GUS data, NBP calculations.

the coming years, and consequently the limited impact of the recovery in Poland on changes in inflation.

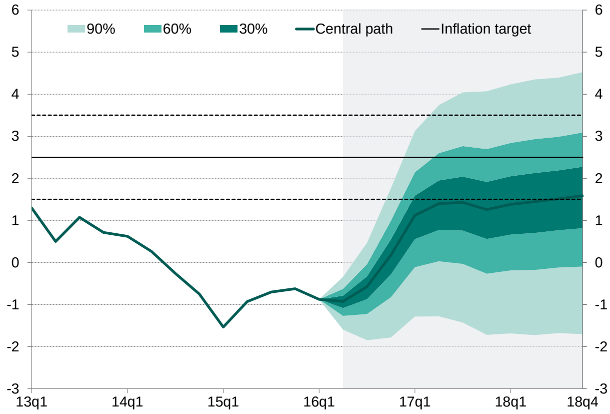
A merely moderate increase in import prices is expected in the projection horizon, which is indicated in the forecasted low level of commodity prices in the global markets and limited inflationary pressures in the euro area. The scale of the increase in cost pressure in the economy will also be curbed by the forecasted low growth in unit labour costs. Such developments of demand and cost determinants of consumer prices indicate a merely gradual rise in inflation, which by the end of 2018 will remain below the NBP inflation target.

The uncertainty of the current projection is to the greatest extent determined by macroeconomic developments in the environment of the Polish economy. Heightened uncertainty in the global financial markets observed for a prolonged period, among others associated with the decision of the UK voters to withdraw from the European Union, could have a negative impact on consumer and corporate sentiment, contributing to the slowdown in the global economy.

On the other hand, it cannot be excluded that the ECB's bond purchase programme and the implementation of the European Commission's Investment Plan for Europe will have a stronger impact on the euro area economy than currently anticipated. In such a scenario, especially assuming that the withdrawal of the United Kingdom from the European Union proceeds in a controlled manner, investment demand could support economic growth in the euro area to a greater extent than currently, which would help the euro area economy to enter the recovery phase sooner.

An significant source of uncertainty for the projection is also the future shape of fiscal policy.

Figure 4.2 CPI inflation (y/y, %)



Source: GUS data, NBP calculations.

Should the government undertake measures aimed at reducing deficit growth in 2017-2018 as a result, among others, of the implementation of the "Family 500 plus" programme, both an increase in tax burdens and spending cuts might be expected. Although the scenario of fiscal adjustments is unknown, in the case of an increase in the tax burden, in particular the abandonment of plans to lower the VAT rate, these changes would bring about higher consumer prices and lower GDP growth than assumed in the baseline scenario.

The possible developments in the environment of the Polish economy point to a slightly greater risk of CPI inflation and GDP growth running below the paths adopted in the central projection scenario, which is reflected in the fan charts (Figure 4.1, Figure 4.2).

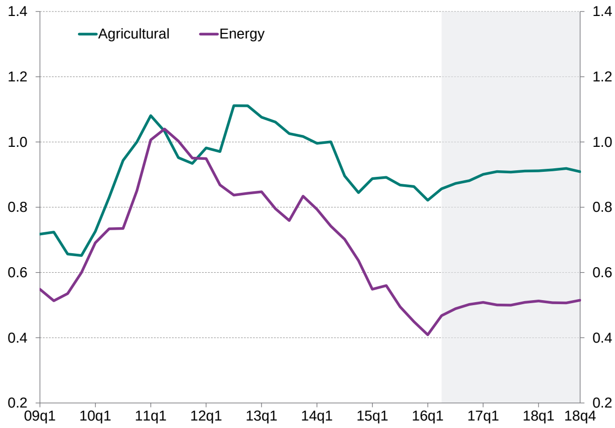
4.2 External environment

The outcome of the UK's referendum has caused a slight downward revision of economic growth forecasts in Poland's external environment.

The decision of the UK citizens to withdraw from the European Union (the so-called Brexit) has led to heightened uncertainty in the global financial markets and deteriorated expectations of households and businesses. As a result, growth forecasts for the UK economy have been revised downwards. GDP growth path for the euro area have been revised to a lesser extent. The negative shock caused by the result of the referendum in the UK will be mitigated by the depreciation of the British pound, which will improve the price competitiveness of British exports.

Taking into account the impact of the outcome of the British referendum, the current projection assumes that in the coming years GDP growth in the euro area will run slightly lower than last year (Figure 4.5). Domestic demand continues to be the

Figure 4.3 Index of agricultural prices (EUR, 2011=1) and index of energy prices (USD, 2011=1) in the global markets



Source: Bloomberg data, NBP calculations.

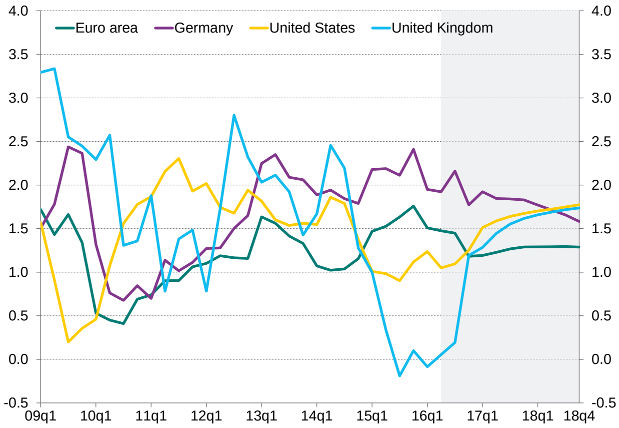
main source of growth, and it will also be supported by the gradual relaxation of fiscal policy in the euro area countries. The rise in household spending will be driven by the improving labour market situation, increasing household disposable income, and consumer lending growth. Nevertheless, a gradual increase in inflation might hamper growth in private consumption in 2017-2018. At the same time, moderate investment growth in the euro area is expected to continue over the projection horizon.

The continuation of the accommodative monetary policy pursued by the ECB will be a factor fuelling the European economy. GDP growth in the euro area in 2016 will also be boosted by fiscal policy becoming gradually more expansionary, among other things, through cuts in direct taxes and social security contributions in certain euro area countries as well as increased spending due to the inflow of refugees, as is the case of Germany.

Consumer demand will remain the main source of economic growth in the United States and will be boosted by a further rise in employment (Figure 4.5). An additional factor supporting domestic demand will be the improved financial situation of households and the robust real estate market. However, rising employment is accompanied by low growth in labour productivity, which will curb growth of the US economy in the long run. Also, the further appreciation of the US dollar as well as the materialisation of the risk of a slump in asset prices, which would dampen the sentiment of households and enterprises, may turn out to be another growth curbing factor (Figure 4.6).

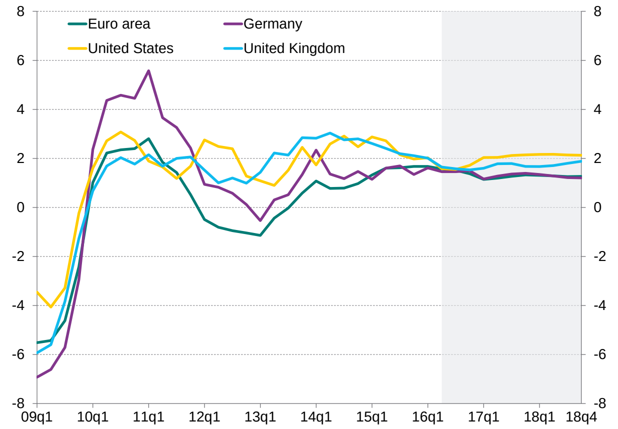
After a sharp increase since the beginning of the year, oil prices in the global markets are expected to stabilise. This scenario is supported mainly by oil supply factors, amid a merely gradual recovery in global demand.

Figure 4.4 Inflation abroad (y/y, %)



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

Figure 4.5 GDP abroad (y/y, %)



Source: Bloomberg, Eurostat data, NBP calculations.

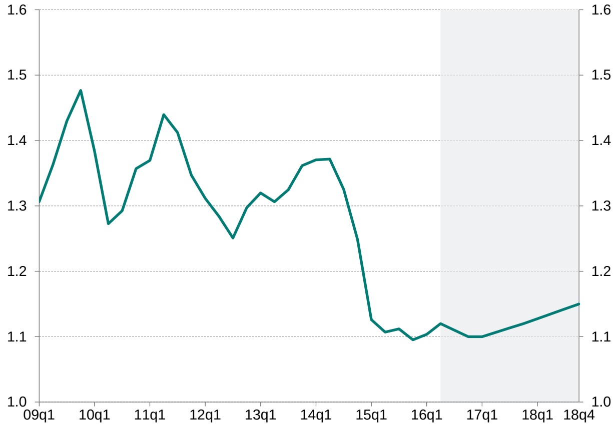
Disruptions in oil production, which affected the price of oil in the recent period, are temporary and will fade away over the projection horizon. The policy of the OPEC countries is also of particular importance for oil price developments. In the absence of agreement as to the measures aimed at increasing oil prices, high oil production in the OPEC countries should be expected. The lifting of sanctions imposed by the US and the EU on oil exports from Iran will also affect oil prices.

Oil production growth in the OPEC countries will, however, be largely offset by deepening declines in oil production in the United States. This will be manifested in reduced shale oil extraction from deposits with short investment periods and in higher operating costs. As a result, global oil reserves, which are currently at historically high levels, will continue to grow in the coming quarters, albeit more slowly than in the recent period.

Relatively low oil prices drag down the growth of prices of other energy commodities which are largely substitutes in energy production. As a result, in the coming years the price of energy commodities in the global markets will remain at a moderate level (albeit above the levels assumed in the previous forecasting round, Figure 4.3), while continuing to be a factor limiting the rise in inflation in the global economy.

Supply factors and the downturn in some of the emerging market economies underlie the forecast of the prices of agricultural commodities in the world markets remaining at a relatively low level, close to the expectations of the previous forecasting round (Figure 4.3). In particular, there are expectations of heavy crops of cereals, including wheat, benefiting from favourable meteorological conditions in most regions of the world. Moreover, the European market will see persistently high supply of pork, despite the low profitability of its production. In the years 2017-

Figure 4.6 EUR/USD exchange rate

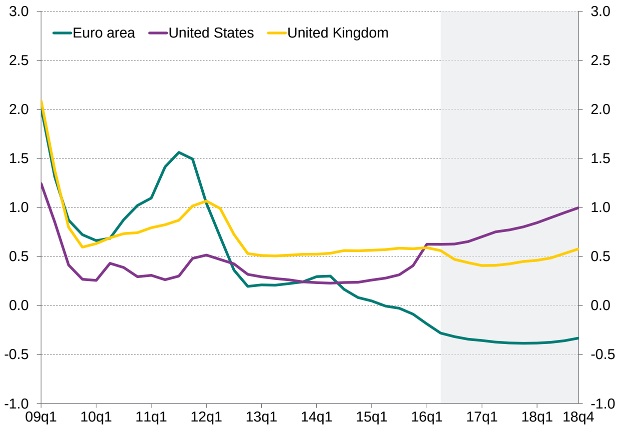


Source: Bloomberg data, NBP calculations.

2018, with a gradual matching of supply and demand for agricultural products, a slight increase in agricultural commodity prices in the world markets may be expected.

Persistently low level of energy commodity prices will be the main factor limiting the rise in inflation in the economies that are Poland's main trading partners (Figure 4.4). At the same time, slightly deteriorated growth prospects for the world economy, might further postpone interest rate hikes by central banks. Financial markets expect that this year the Federal Reserve will not raise its interest rates and the Bank of England will cut interest rates by 25 bp, while the ECB will keep interest rates at their current level at least until the end of the current projection horizon (Figure 4.7).

Figure 4.7 Interest rate abroad (%)

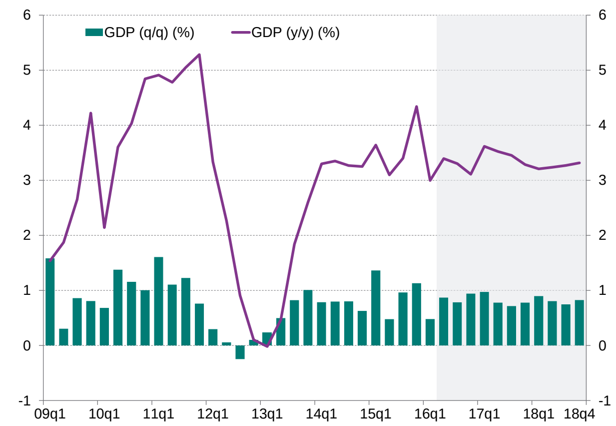


Source: Bloomberg data, NBP calculations.

4.3 Polish economy in 2016-2018

GDP growth in Poland, after a significant decrease in 2016 Q1, will follow a gradual upward trend in subsequent quarters, which will be driven by expanding household consumption related to the introduction of child benefits from the "Family 500 plus" programme. From the second half of 2017, after the impact of this factor on the private consumption path has faded away, economic growth will decline and stabilise at a level close to 3.3% y/y (Figure 4.8). Consumption will remain the main driver of GDP growth over the projection horizon while the positive contribution of gross fixed capital formation will decline comparing to the previous years' levels. Domestic economic growth, apart from child benefits, will be supported by growth in disposable income due to higher wages, low prices of energy commodities and historically low interest rates. Capital expenditures will be limited by a decline in the inflow of the EU funds earmarked for investment in the coming years.

Figure 4.8 Economic growth



Source: GUS data, NBP calculations.

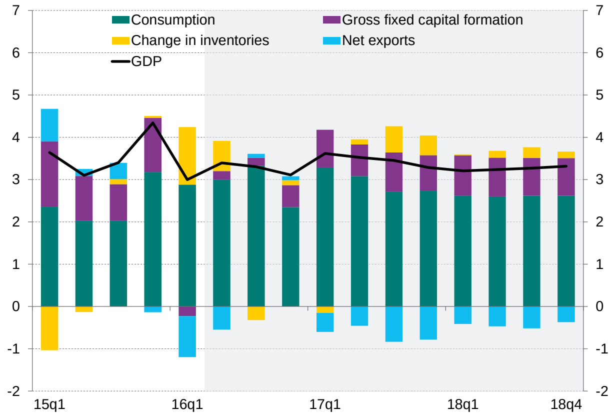
The concerns about the downturn in the global economy will have a curbing effect on growth.

The decline in consumer prices, dating back to 2014 Q3, will come to an end in 2016 Q4 and the subsequent quarters are expected to bring a gradual increase in inflation (Figure 4.10). The development of cost inflation determinants, as well as the continued absence of demand pressures, indicate that until the end of 2018 CPI dynamics will run below NBP's inflation target. The scale of the increase in inflation will be limited by only the gradual narrowing of the negative output gap. In addition, import prices will rise at a moderate pace, which is suggested by the forecasted low level of commodity prices in the global markets and limited inflationary pressures in the euro area. The scale of the increase in the cost pressure in the economy will also be limited by the slow growth of unit labour costs.

Domestic demand

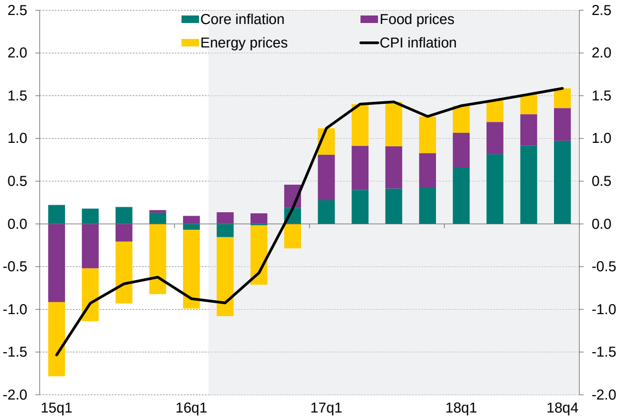
Growth in private consumption (Figure 4.11) throughout the projection horizon will be fuelled by the forecasted acceleration in wage growth and a falling unemployment rate. Since April 2016, there has been the introduction of child benefits from the "Family 500 plus" programme which additionally increases household disposable income. These benefits, due to intertemporal consumption smoothing mechanism, will with a certain delay support the growth in household spending. As a result of the above factors, private consumption growth over the projection horizon will run at an average level of 3.8%. Thus, it will outpace the long-term average to the greatest extent in the years 2016-2017, when consumption growth will be largely impacted by increased transfers. Along with growing household disposable income, a further improvement in consumer sentiment is also expected – GUS surveys point to steadily

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



Source: GUS data, NBP calculations.

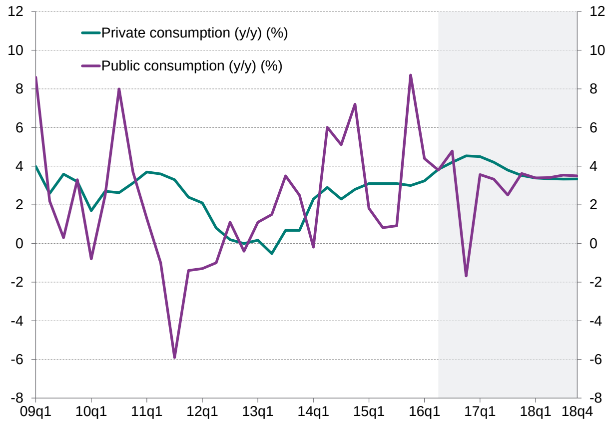
Figure 4.10 CPI inflation (y/y, %) – breakdown



Source: GUS data, NBP calculations.

declining quarter-on-quarter concerns about unemployment growth and optimistic assessments of the future financial situation.[53] Thus, households may be to a greater extent than previously inclined to finance consumer spending with loans which will be additionally supported by low interest rates having a favourable impact on the cost of household debt. The findings of the NBP survey on the credit market[54] also point out that the tax imposed on certain financial institutions has not significantly affected the availability of consumer loans – 2016 Q1 even brought a certain easing in loan granting criteria, and 2016 Q2 was expected to post a further improvement. The data on new loan contracts available until April 2016 also indicates that banks have fed the cost of the tax through to clients to a slight degree only, while at the same time cutting average interest on deposits. Thus, this data suggests that at least in the short-term projection horizon the negative impact of the tax burden imposed on certain financial institutions on household consumption will be limited.

Figure 4.11 Private and public consumption



Source: GUS data, NBP calculations.

Corporate investment growth in the projection horizon will slow down as compared to the level recorded in the years 2014-2015 (Figure 4.12). In 2016, investment is mostly affected by smaller inflow of funds under the EU financial framework 2007-2013, whereas the funds under the EU financial framework 2014-2020 are transferred only gradually. This is reflected in the number of newly signed contracts for the utilisation of the EU funds – only 1.7% of all the funds earmarked for corporate investment in the years 2014-2020 were signed until the end of May 2016.

Companies point to a significant uncertainty about the scale of the expected rise in taxes.[55] Also growth forecasts for the European economies

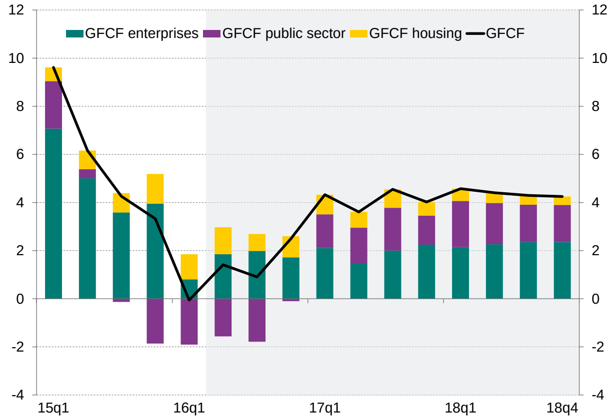
[53] *Consumer sentiment survey – June 2016*, GUS.
[54] *Situation on credit market – opinion survey of credit committees' chairmen – 2016 Q2*, NBP.
[55] *Economic climate in the enterprise sector in 2016 Q1 and forecasts for 2016 Q2*, NBP.

have been revised downwards, negatively affecting the outlook for demand for Polish exports. These factors may lead to the postponement of decisions to embark on new investment, despite a high level of capacity utilisation.

On the other hand, the available data on average interest of bank contracts until April 2016 indicate that after the introduction of the tax on certain financial institutions from February 2016, banks try to offset their financial losses rather by reducing interest on corporate deposits. Thus, this tax has so far been reflected in loan availability to corporates to a limited extent only. At the same time, almost half of the investors finance their new projects with own funds[56], which is enabled by their sound financial position.[57] It is expected that over the projection horizon the favourable financial situation in the corporate sector will continue, supported by low energy commodity prices, which reduce operating costs and enable businesses to maintain relatively high profitability of production, despite persistently low price dynamics.

Over the projection horizon housing investment will be supported by the robust labour market. This has a positive impact on consumer sentiment, boosting consumers' propensity to undertake long-term liabilities. Also, the government scheme "Flat for the Young" helps to finance home purchases, although its impact on investment has declined since the scheme also began to cover the secondary housing market. The positive impact of growing household income on housing investment is curbed by institutional changes limiting loan availability. Since the beginning of 2016, housing loan granting criteria have been tightened another time as the result of the amendment of Recommendation S introduced in 2014.

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



Source: GUS data, NBP calculations.

[56] *Economic climate in the enterprise sector in 2016 Q1 and forecasts for 2016 Q2*, NBP.
[57] *Financial situation in the enterprise sector in 2015 Q4*, NBP.

Additionally, unlike other loan categories, banks have already partially included the tax imposed on certain financial institutions in interest on newly offered mortgage loans, which may be related to a relatively lower margin on this product.

Public consumption growth is expected to decline in 2016. This results from the provisions of the 2016 Budget Act, which assumes low growth in current expenditure of general government units and the absence of pay rises for school and academic teachers. Since no detailed information has been released to date about a likely continuation, beyond 2016, of measures aimed at reducing public sector expenditure, in the long-term projection horizon a neutral fiscal policy is expected, which means an acceleration in public consumption growth as compared with 2016.

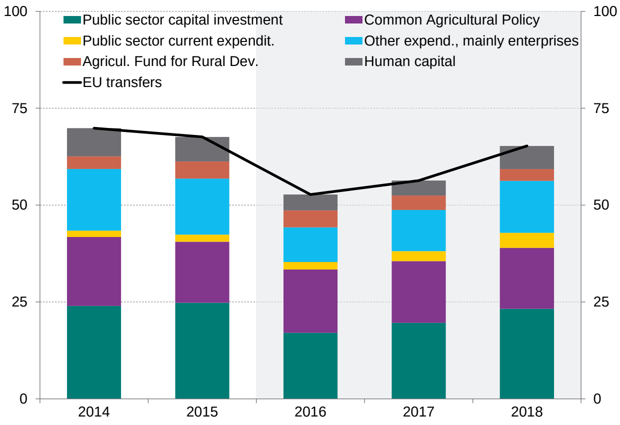
The level of public sector investment spending is, in turn, related to absorption of EU capital funds. In 2016, the outlays will decline as a result of the termination of the EU financial framework 2007-2013. The experience so far shows that the funds under the 2014-2020 financial framework will be absorbed gradually (Figure 4.13). This is confirmed by the detailed data on contracts singed for the use of funds under particular operational programmes and beneficiaries' applications for certification payments, as recently published by the Ministry of Development. The marked decline in public investment co-financed with the EU funds expected in 2016 is also visible in the data on the expenditure of local government units in 2016 Q1. The subsequent years are expected to bring an increase in public investment which will be driven, in particular, by projects implemented by local government units under regional programmes as well as investments in transportation.

Current and capital account balance

Polish export growth is expected to slow down in the projection horizon (Figure 4.14). This will be driven by the probable downward revision of growth forecasts for the European economies, which – among others – is a consequence of the outcome of the referendum in the United Kingdom. In addition, weak business conditions in the emerging market economies (the continuing slowdown in China and recession in Russia and Brazil) will have an adverse impact on the export forecast. However, due to the relatively small share of these countries in Poland's trade turnover (both direct and indirect, through Poland's participation in the global value chains), this impact will not be significant. The negative effect of lower external demand will be mitigated by high price competitiveness and profitability of Polish exports, which helps exporters maintain high profit margins. At the same time, due to the expected growth of consumption at a rate exceeding its long-term average, a relatively strong growth of imports can be expected in the projection horizon. As a result, the contribution of net exports to growth will continue to hamper GDP growth.

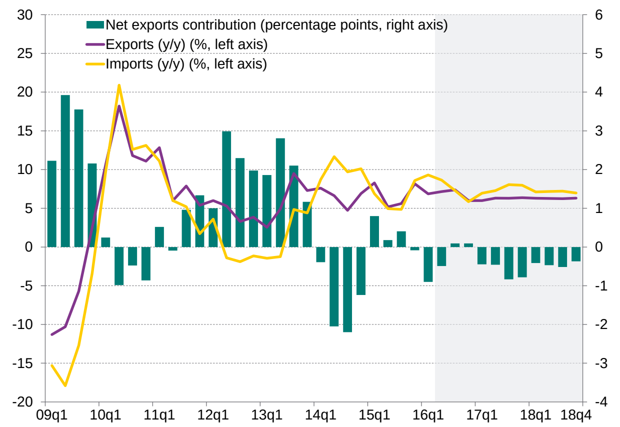
In 2015, the balance of current and capital accounts hit a record 2.1% of GDP, which was supported by an improvement in the terms of trade (Figure 4.15) resulting, to a large extent from the slump in energy commodity prices. Besides the positive balance of trade, in 2015 the secondary income and the capital account showed a surplus, encompassing a significant part of the EU funds and workers' remittances. The balance of the current and capital accounts is adversely affected by the negative balance of primary income, which partly reduces the positive contribution of the remaining components (both in 2015 and in the projection horizon). The negative balance of primary income is driven by high yields on foreign capital invested in Poland, both in the form of direct and portfolio

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



Source: NBP calculations.

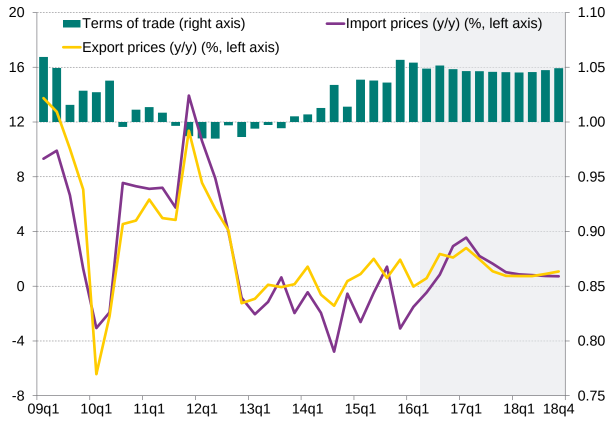
Figure 4.14 Foreign trade



Source: GUS data, NBP calculations.

investment (debt instruments and equity securities). A gradual decrease in the current and capital accounts from the currently observed record high level is expected in the projection horizon as a result of a decline in the positive balance of trade. However, the balance will remain positive until the end of 2018. In the coming years, the value of remittances from Poles working abroad may also decline – although the scale of the decline will probably be small – as a result of Polish migrants returning from the United Kingdom due to its intended exit from the European Union.

Figure 4.15 Export and import prices



Source: GUS data, NBP calculations.

Potential output

There will be a slight increase in potential output growth over the projection horizon, from 2.8% y/y to 3.1% y/y. Therefore, until the end of 2018 it will run below the long-term average, as a result of a significant fall in the wake of the global financial crisis. With continually shrinking labour force and a decline in capital formation, the growth of total factor productivity (TFP) and the fall in the equilibrium unemployment rate will contribute to a slight increase in potential GDP growth (Figure 4.16).

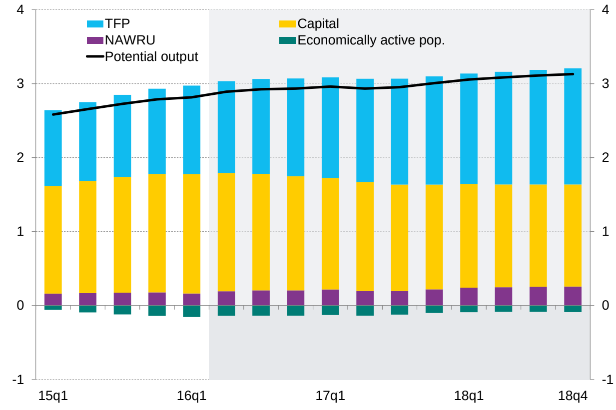
TFP growth is a result of real convergence of the Polish economy continuing over the projection horizon. For, from the second half of 2013 a moderate upward trend in the currently low TFP growth can be observed. However, by the end of the projection horizon TFP growth will not return to the level observed before the onset of the global financial crisis.

The falling equilibrium unemployment rate NAWRU will have a positive impact on potential GDP throughout the projection horizon (Figure 4.19). This stems from the weakening of the earlier hysteresis effect, observed amid the gradual decline in the unemployment rate. The decline in the equilibrium unemployment rate will also be driven by relatively high flexibility of the domestic labour market. NBP surveys indicate that in recent years the sensitivity of employment to demand shocks is greater than in the past.[58] The steadily increasing number of immigrants from Ukraine is most likely another factor behind a fall in the equilibrium unemployment rate.

The positive impact of the above developments on the potential GDP over the projection horizon is partly offset by the decline in the labour force (Figure 4.16). This stems from the continuation of negative demographic trends observed in Poland, i.e. the decrease in the size of cohorts entering the labour market and the rising share of the post-productive age group. A factor that may to some extent limit these unfavourable demographic trends could be the return to Poland of those migrants who do not declare their willingness to remain in the United Kingdom permanently as a result of the UK's Brexit vote. The negative impact of demographic trends on labour supply will also be mitigated by the increased activity of the pre-retirement age group, attributable to the pension system reform and the related systematic rise in the retirement age since 2013.[59] On the other hand, activity might decline as a result of the increase in child benefits related to the "Family 500 plus" programme. This is because higher benefits increase the opportunity cost of employment, thus discouraging low-income people from searching for work and taking up employment. Therefore, in the short run this contributes to a decline in the labour force participation rate and an increase in the natural rate of unemployment.

The slowdown in the capital formation, which is the result of weaker growth of investment in the private and public sector, in particular in 2016, will have a slightly negative impact on potential output growth of the Polish economy over the

Figure 4.16 Potential product (y/y, %) – breakdown



Source: NBP calculations.

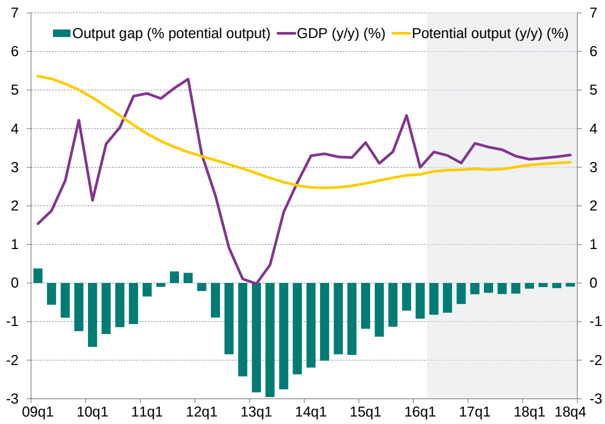
[58] *Labour market survey. Report 2015*, NBP.
[59] *Quarterly Labour Market Report 2015 Q4*, NBP.

projection horizon.

Output gap

Starting from the second half of 2013, when the Polish economy entered the recovery phase while the potential output growth was relatively slow, the negative output gap started to narrow down (Figure 4.17). After a temporary widening of the output gap in 2016 Q1 as a result of the slowdown in GDP growth, this process will continue. It will be fuelled by the fiscal stimulus related to the increase in child benefits under the "Family 500 plus" programme. However, due to the slightly slower growth rate abroad, the output gap will remain negative until the end of 2018, reaching -0.1% of potential GDP at the end of the projection horizon. Such a path of the output gap indicates the absence of demand pressure in the economy in the coming years, and thus the limited influence of economic conditions on the inflation rate.

Figure 4.17 Output gap



Source: GUS data, NBP calculations.

Labour market

Growth in the number of the employed is expected to follow a further downward trend over the projection horizon (Figure 4.18). Such employment developments are driven by the forecasted pickup in the total TFP, supporting labour productivity. This trend is also supported by mounting problems with matching employer requirements with workforce qualifications, and the prolonged time necessary for firms to fill a vacancy stemming from historically low unemployment rate.[60] Given these factors, a further increase can be expected in the average number of hours worked, which is currently at a lower level than the one observed in the period before the outbreak of the global financial crisis.[61]

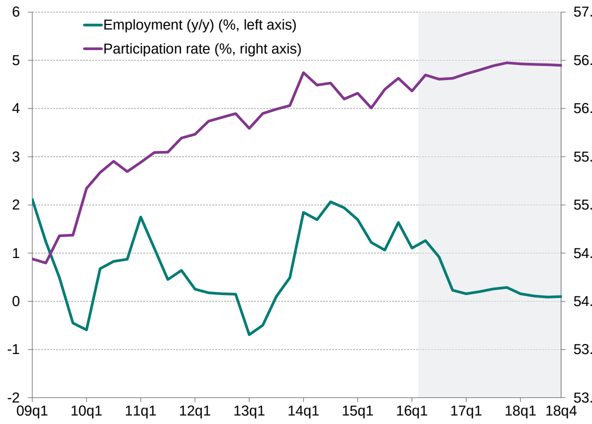
[60] *Quarterly Labour Market Report 2015 Q4*, NBP.
[61] *Quarterly Labour Market Report 2015 Q4*, NBP.

With the positive growth in employment and falling number of the economically active population, the LFS unemployment rate will fall (Figure 4.19). The decline in the unemployment rate will help to boost growth in nominal wages, which will, however, remain at a relatively low level, below the one observed in the period before the outbreak of the global financial crisis, until the end of the projection horizon (Figure 4.20). Wage pressure will be muted by the declining equilibrium unemployment rate (Figure 4.19), and low CPI inflation, reducing the scale of employees' wage demands. The scenario of moderate wage growth is indicated by a relatively low percentage of companies declaring in the NBP surveys[62] mounting upward pressures on wages, despite a decline in the LFS unemployment rate in 2016 Q1 (after seasonal adjustments) to a historical low. With relatively stable labour productivity growth, low wage growth translates into a limited increase in unit labour costs, which at the end of the projection horizon will grow by 2.1% y/y.

Exchange rate

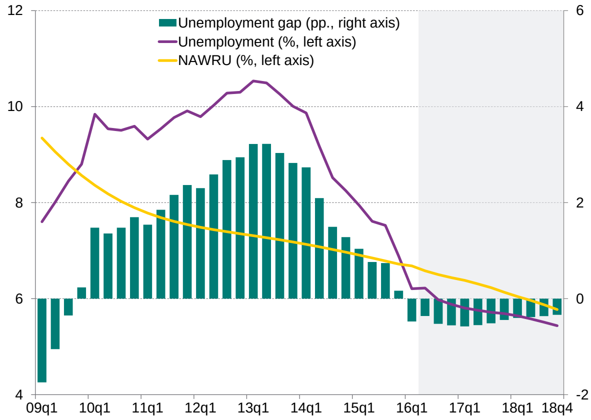
Since the beginning of 2016, the exchange rate of the zloty has been subject to significant fluctuations under the influence of changing factors, both domestic and global. Consequently, the exchange rate was substantially below the level resulting from fundamental factors. This is evidenced in particular by the depreciation of the exchange rate despite the exceptionally favourable balance of the current and capital accounts. Additional one-off factors likely to affect the exchange rate have not been taken into account in the projection horizon. It is expected that along with the stabilisation of the situation in the financial markets the zloty will gradually appreciate, bringing its effective exchange rate

Figure 4.18 Employment and labour force participation



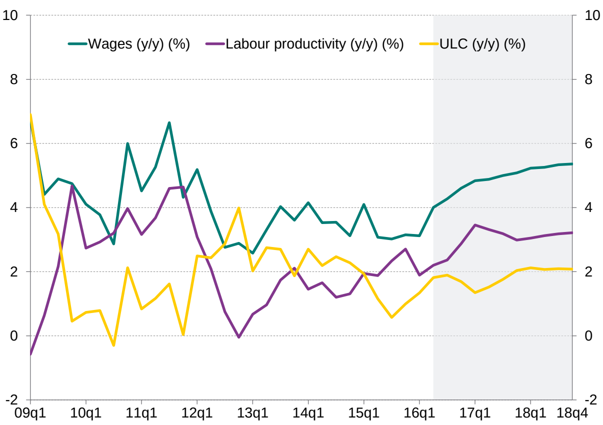
Source: GUS data, NBP calculations.

Figure 4.19 Unemployment



Source: GUS data, NBP calculations.

Figure 4.20 Unit labour costs



Source: GUS data, NBP calculations.

[62] *Economic climate in the enterprise sector in 2016 Q1 and forecasts for 2016 Q2*, NBP.

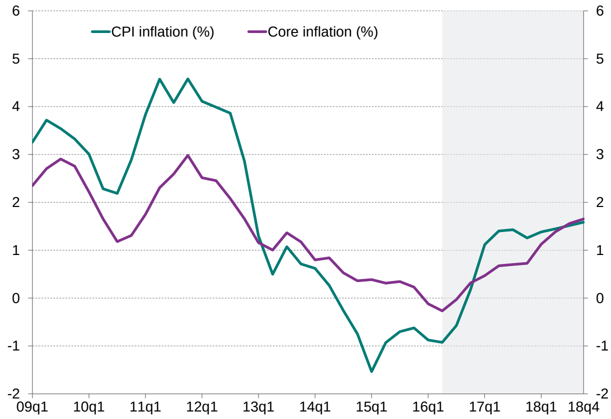
close to the equilibrium exchange rate. Further real convergence of the Polish economy, reflected in Poland's domestic potential output growth outpacing that of Poland's main trading partners', will work in the same direction.

Components of CPI inflation

In recent years, the Polish economy has seen a very low level of cost and demand pressures. This situation was reflected in the negative output gap, falling prices of imports and industrial production sold, and low growth in unit labour costs. Over the projection horizon, these developments will gradually fade away and, consequently, core inflation will increase from the currently observed negative level, although the scale of this rise will be moderate (Figure 4.21). In the coming years the output gap will narrow only slightly and will remain negative. It is also expected that after a temporary acceleration in import price growth caused by the depreciation of the zloty, the growth rate of import prices will be moderate (which is indicated by the forecasted low inflation in the euro area and the appreciation trend of the zloty assumed in the projection). Growth in cost pressure in the economy will also be hampered by slow growth in unit labour costs forecasted for the coming years (Figure 4.20). In 2017, the reinstatement of lower VAT rates will additionally curb core inflation growth.

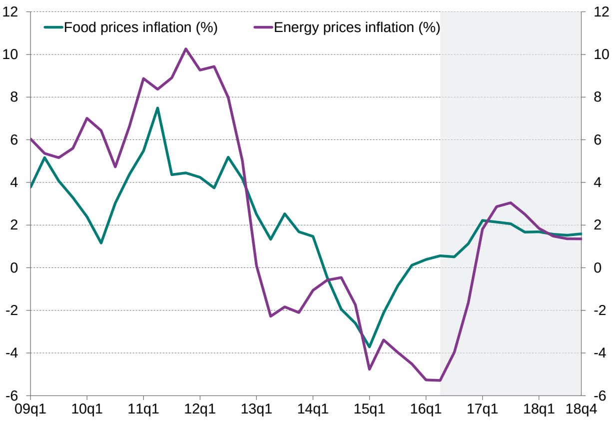
The scale of the fall in energy prices in 2016 is likely to be close to that recorded in 2015 (Figure 4.22). This will be driven by the lower prices of fuels than a year ago and the entry into force of new, lower tariffs for the sale and distribution of electricity and natural gas. In the subsequent years, energy prices will grow, which is associated with the gradually fading impact of the positive supply shock in the oil market. Yet, the increase in energy prices will remain moderate as it is curbed by persisting low level of energy commodity prices in the global markets over the

Figure 4.21 CPI and core inflation



Source: GUS data, NBP calculations.

Figure 4.22 Food and energy price inflation



Source: GUS data, NBP calculations.

projection horizon. A factor behind a temporary acceleration in energy price inflation will be the increase of the average electricity bill for households as of January 2017, and in consequence a likely increase in the cost of renewable energy sources, energy efficiency and electricity generation capacity. However, the increase in energy prices will be limited by the reduction in VAT rates.

After sharp declines in food prices observed in 2014-2015, a moderate growth in food prices is expected over the projection horizon. On the one hand, the impact of high supply of agricultural commodities recorded in the recent growing seasons on food price inflation in year-on-year terms will gradually fade away. The rise in food prices will also be supported by steadily increasing consumer demand. On the other hand, the growth of food prices will be limited by low agricultural commodity prices in the global markets (Figure 4.3). As in the case of other CPI components, the scale of food price rises in 2017 will be further limited, although to a lesser extent, by the reduction in VAT rates.

4.4 Current versus previous projection

The most important sources of revision of the GDP growth forecast in the current projection are the lower than expected GDP readings for 2016 Q1 and heightened uncertainty related to the decision of the United Kingdom to withdraw from the European Union, which has more medium-term implications (see Box 3: *Impact of the Brexit vote on the Polish economy*). The growth path is lowered in the short term projection by unfavourable data on the domestic economic situation in 2016 Q1. On the other hand, the expected weakening of economic activity in countries which are Poland's main trading partners revises downward the forecast of

Table 4.1 July projection versus March projection

	2016	2017	2018
GDP (y/y, %)			
July 2016	3.2	3.5	3.3
March 2016	3.8	3.8	3.4
CPI inflation (y/y, %)			
July 2016	-0.5	1.3	1.5
March 2016	-0.4	1.3	1.7

Source: NBP calculations.

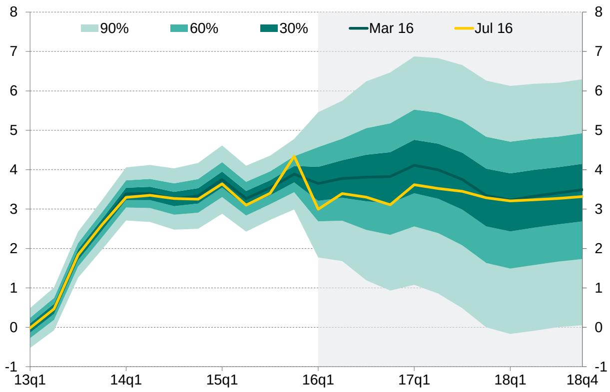
domestic growth also in 2017-2018 (Table 4.1, Figure 4.23). The impact of lower domestic and external demand on CPI inflation is largely offset in the current projection by the weak exchange rate of the zloty. As a result, the consumer price growth forecast is only slightly lower than in the previous projection (Table 4.1, Figure 4.25).

GDP

In line with the initial estimate of the Central Statistical Office, GDP growth in 2016 Q1 stood at 3.0% y/y, thus running below the expectations of the March projection. This downward revision is mainly the result of lower readings of gross fixed capital formation than in previous quarters (Figure 4.24), which is associated with the end of the inflow of the EU funds under the 2007-2013 financial perspective, with only a limited absorption of transfers under the 2014-2020 perspective. Data on signed agreements on the use of funds under the 2014-2020 financial perspective indicate a possibly lower than expected inflow of capital transfers from the EU in the coming quarters. This information led to a revision in the level of investment expenditure and GDP growth in the short-term. The higher contribution of net exports to growth works in the opposite direction. An upward revision in this category is suggested by the higher than expected export growth in 2016 Q1, depreciation of the zloty observed in recent months, and lower investment growth resulting in lower imports.

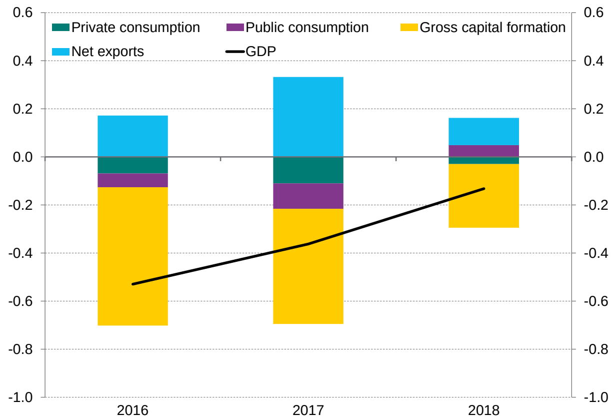
The revision of the GDP path in the forecast horizon is also an outcome of the slower growth abroad, related – among others – to the weaker growth in the US economy and heightened uncertainty associated with the results of the UK's European Union membership referendum (see Box 3: *Impact of the Brexit vote on the Polish economy*). In particular, the current projection anticipates lower foreign demand for Polish

Figure 4.23 July projection versus March projection: GDP growth (y/y, %)



Source: NBP calculations.

Figure 4.24 Decomposition of deviations between July and March projection: GDP growth (percentage points)[63]



Source: NBP calculations.

[63] The data presented in the chart may vary slightly from those in Table 4.1, due to rounding of numbers to one decimal place.

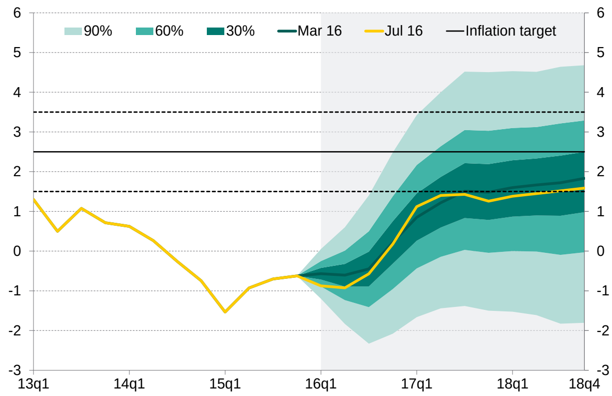
goods and services and heightened uncertainty in the international financial markets. Brexit might affect the Polish economy mainly through its impact on the trade turnover, which – indirectly – might also have an influence on gross fixed capital formation and private consumption. However, the scale of this effect is relatively limited. Additionally, the weaker exchange rate of the zloty and the slowdown of imports in response to lower domestic demand somewhat curb the impact of negative external factors.

Inflation

Information released after the cut-off date of the March projection contributed to a slight lowering of the inflation path. Lower growth of the consumer price index is a result of the downward revision of the core inflation path, partly compensated by the higher growth in energy prices (Figure 4.26).

Core inflation growth was lower than expected in the previous projection and is associated in the short term with the low reading of this category in 2016 Q1 and the deeper than expected fall of the import deflator at the end of 2015 and beginning of 2016, in accordance with the data on the national accounts for 2015 Q4 and 2016 Q1 published by the Central Statistical Office. However, in 2017-2018, lower demand pressure in the projection horizon (reflected in the more negative output gap), translating with a delay into price formation in the economy, is responsible for the lower core inflation path. At the same time, despite the lower unemployment rate forecast than in the previous projection, the expected growth rate of wages has not changed significantly. This scenario is indicated, among others, by the results of NBP economic climate surveys, according to which enterprises, despite the fall in the unemployment rate to a record low level, are declaring only a limited increase in

Figure 4.25 July projection versus March projection: CPI inflation (y/y, %)



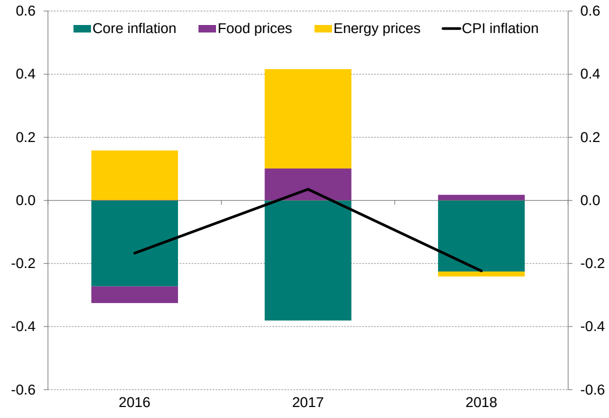
Source: GUS data, NBP calculations.

wage pressure.[64] The potential increase in domestic labour supply as a result of the return of some of the migrants, currently residing in the United Kingdom, may also limit wage pressure.

The revision of the forecasts for energy prices results from the delayed impact of the upward revision of the path of global energy commodity prices on domestic prices. The weaker exchange rate of the zloty is another factor behind this revision. In addition, energy prices push up the forecasted electricity prices due to the likely increase in costs of renewable energy subsidies, higher energy efficiency and electricity generation capacity, since January 2017.

Taking into account the weaker exchange rate of the zloty in the current projection and the lower demand pressure, with growth of agricultural commodity prices in the global markets being close to that assumed in the previous projection, the forecast of domestic food prices has not changed significantly.

Figure 4.26 Decomposition of deviations between July and March projection: CPI inflation (percentage points)[65]



Source: NBP calculations.

[64] *Economic climate in the enterprise sector in 2016 Q1 and the forecast for 2016 Q2*, NBP.
[65] The data presented in the chart may vary slightly from those in Table 4.1, due to rounding of numbers to one decimal place.

4.5 Forecast uncertainty sources

The central scenario of the July projection, presenting the most likely macroeconomic developments in Poland, is subject to significant uncertainty. The balance of its factors – related to the economic situation in Poland, potential changes in fiscal policy and also the economic situation in the global economy – indicate a slightly greater risk of CPI inflation and GDP growth running below the path of these categories in the central projection scenario (Table 4.2). With the assumption of no change in the NBP reference rate, the probability of CPI inflation running within the tolerance band of the NBP inflation target (1.5%-3.5%), which is currently close to zero, gradually increases in the coming quarters, while in 2017-2018 it stabilises at around 36% (Table 4.2). The most significant forecast uncertainty sources for the July projection are presented below.

Table 4.2 Probability of inflation running:

	Below 1.50%	Below 2.50%	Below 3.50%	Below the central projection	In the range (1.5-3.5%)
16q2	1.00	1.00	1.00	0.53	0.00
16q3	1.00	1.00	1.00	0.55	0.00
16q4	0.92	0.99	1.00	0.55	0.08
17q1	0.66	0.88	0.98	0.55	0.32
17q2	0.56	0.80	0.93	0.53	0.37
17q3	0.54	0.76	0.91	0.52	0.37
17q4	0.57	0.77	0.91	0.51	0.34
18q1	0.54	0.75	0.89	0.52	0.35
18q2	0.53	0.74	0.88	0.52	0.35
18q3	0.52	0.73	0.88	0.53	0.36
18q4	0.51	0.71	0.87	0.53	0.36

Source: NBP calculations.

Deterioration in the prospects of growth in the external environment of the Polish economy

The significant source of uncertainty for the baseline scenario of the July projection is associated with the decision of the United Kingdom to withdraw from the European Union (the so-called Brexit). The unprecedented character of this event and the complexity of the potential repercussions, which are not only of economic nature, hinder the quantitative and qualitative analysis of the impact of Brexit on the prospects of economic growth and inflation developments in Poland. Due to the impossibility of defining the shape of the future agreement between the United Kingdom and the EU (and therefore the *de facto* uncertainty regarding the long-term effects of this event) and the likely prolonged negotiation period, the analysis of the uncertainty includes primarily the risk factors that have short- and medium-term impact.

The most significant source of risk to the central scenario arising from the planned withdrawal of the United Kingdom from the European Union is the persistence for a prolonged period of heightened uncertainty in the global financial markets adversely impacting the sentiment of consumers and enterprises, not only in the United Kingdom, but in the whole global economy. Due to trade links and the financial channel, the European Union could be affected by a relatively sharper slowdown. However, a stronger than assumed in the baseline scenario fall in economic activity in the United Kingdom and the euro area would somewhat be mitigated by a stronger depreciation of the pound and the euro against other currencies Furthermore, the scale of the weakening of global economic conditions would most likely be alleviated by an accommodative monetary policy and other measures aimed at stabilising the financial markets.

A deeper slowdown in the United Kingdom and the euro area than assumed in the central scenario would have some repercussions for economic growth in Poland. Apart from a possible impact of deteriorating household and corporate sentiment on consumption and investment (resulting in their lower growth), deeper slowdown in GDP growth could also be driven by shrinking Polish exports.

Polish exports to the United Kingdom were among the fastest growing since Poland's accession to the European Union and if this trend were to change, amid a stronger than expected slowdown in import demand from the euro area, exporters operating in Poland would limit employment and investment expenditure.

There is also a risk to the central projection scenario associated with the scale of remittances sent to Poland by Polish migrant workers. A deterioration of the outlook for the labour market in the United Kingdom and the euro area could reduce the scale of economic migration of Polish citizens abroad, which would result in lower disposable income of households.

While the balance of risk factors associated with the planned withdrawal of the United Kingdom from the European Union for short- and medium-term economic growth is negative, it remains unclear for the longer-term perspective: an improvement in the potential of the Polish economy may have a positive impact on growth in Poland. This would result from the return of some of the migrants from the United Kingdom and the possible shifting to Poland of production by certain international corporations operating within global value chains. However, the above-mentioned effects would most likely be felt beyond the current projection horizon.

Another source of uncertainty to the July projection related this time to the economic situation in non-European countries, which would also have an impact on the Polish economy through the expectations channel and trade links, is the risk of slower than assumed in the projection growth in China and the United States.

The risk of a strong deterioration in business conditions in the Chinese economy is largely driven by the threats to the stability of China's financial system. Should the effects of excessive investment in the housing and manufacturing sectors prove larger than currently assessed, firms' problems with debt servicing might trigger a surge in uncertainty about the stability of the Chinese banking and shadow banking sector. Another source of risk to financial stability in China is the considerable debt of local government units resulting from heavy spending on infrastructure projects. The excessive debt of the private sector and Chinese local government units as well as the resulting problems in the banking sector may further dampen growth in investment and consumer expenditure.

A stronger slowdown in China, which is one of the major trading partners of the United States, would contribute to a significant downward revision of growth in the US economy as compared to the projection assumptions. Weakening Chinese demand would further deepen the currently observed slowdown in the US industry, especially in the situation of a stronger than assumed US dollar. Further declines in oil prices in the global markets would in turn curb investment and activity of the US mining sector.

Another factor which increases uncertainty about US economic growth is the currently observed decline in corporate profits and the accompanying rise in enterprises' debt. Should this trend continue, it would become much more difficult for the corporate sector to settle its liabilities, which could push the United States into recession, especially amid deteriorating situation in the US labour market.

A downturn in China and the United States would bring about turmoil in the global financial markets and a slowdown in the global economy, both through the trade channel and as a result of deteriorating consumer and corporate sentiment.

The risk of slower growth in China and advanced economies, particularly in the long term, is also linked to the slower productivity growth observed in these economies. Should these processes continue and productivity growth prove to be slower than assumed in the central scenario, this would be an additional factor hampering the return of the global economy to the growth path observed before the global financial crisis.

Continued uncertainty in the global financial markets and a downturn in Poland and abroad would also increase the risk of a higher budget deficit than assumed in the baseline scenario of the July projection. In such a situation, financial markets could revise downwards their assessment of the country's creditworthiness, which would translate into rising Treasury bond yields. As a result of possible difficulties with financing public sector spending, the government would probably undertake measures aimed at tightening fiscal policy. A reduced appetite for risk in the financial markets would contribute also to a depreciation of the zloty as compared to its exchange rate assumed in the July baseline, which would be an additional factor increasing the public debt to GDP ratio (part of the bonds are issued in foreign currency). However, at the same time the weak zloty would mitigate the scale of Poland's slowdown by improving price competitiveness of Poland's exports and growing import prices which would partly limit the scale of Poland's slowdown.

A lower business activity in Poland and abroad would curb demand pressure, which, along with falling prices of agricultural and energy commodities in the global markets, would prolong the period of deflation in Poland. However, the impact of these factors would be partially limited by the depreciation of the zloty, contributing to higher prices of imported goods and services and a possible decline in labour productivity in Poland, driven by developments abroad.

Growth of domestic demand supported by recovering business activity in the euro area

A source of uncertainty for the July projection contributing this time to higher GDP growth in Poland is the possibility of faster economic growth abroad than assumed in the central scenario: particularly, in the euro area and the United Kingdom. On the one hand, this could be caused by lower uncertainty regarding growth prospects in the euro area should the process of the United Kingdom's withdrawal from the European Union proceed in a controlled way. On the other hand, higher growth in the euro area than assumed in the baseline scenario could be a result of a stronger impact of the ECB's government bond purchasing programme, which has been prolonged at least to March 2017 and extended to include other classes of assets. In the case of a greater than expected depreciation of the euro against the US dollar, the euro area countries would record a stronger increase in exports, which could result in a more rapid recovery of fixed capital in the euro area economy, especially amid easier access to credit. Low borrowing costs along with the improving labour market would give a boost to households' purchasing power. Faster growth in the euro area would also be driven by the greater loosening of fiscal policy than assumed in the projection.

An improvement in business conditions in the euro area economy would result in higher demand for Polish exports and a pick-up in corporate investment. The robust domestic labour market coupled with the low level of NBP interest rates could prompt households to use their higher real wages to boost consumption at the expense of lower saving rate than assumed in the baseline projection scenario. Higher growth of domestic demand compared to the July projection would translate into significantly faster GDP growth and consumer prices.

Further in the projection horizon, faster economic growth in Poland could be supported by the effect of the implementation of the European Commission's Investment Plan for Europe in 2015-2017. According to the European Commission estimates, the full implementation of the plan may boost the European Union GDP by 330-410 billion euro, resulting in the creation of 1-1.3 million new jobs. Should the envisaged risk factors materialise, GDP and CPI inflation would run above the path assumed in the baseline scenario of the projection.

Oil prices in the global markets

Another source of uncertainty for the baseline scenario are prices of oil and of other energy commodities in the global markets over the projection horizon. The risk of significant fluctuations in oil prices is primarily driven by factors changing the global oil supply. They include the volume of supplies of Iranian oil as a result of the lifting of sanctions in January 2016 by the European Union and the United States and the scale of disruption of production in some OPEC countries and in Canada. Uncertainty regarding the supply of oil in the global markets also applies to the scale of resilience of non-OPEC producers, in particular American enterprises, to the deepening decline in oil prices. Demand factors related to growth prospects in the global economy, in particular in the Asian emerging market economies, also add (although to a lesser extent) to the risks associated with the path of oil prices assumed in the baseline scenario.

Fiscal policy

A risk for the current projection also results from the possible government's measures aimed at limiting the deficit in the years 2017-2018. They would be connected with the tightening of fiscal policy as compared to the scenario of the central projection, which could include the withdrawal of the planned reduction of the basic VAT rate as of 2017. On the other hand, measures aimed at boosting the budget revenue could include an increase in the excise duty on fuel and the imposition of the planned tax on retail sales. The reduction in expenditure would entail, among others, a likely slowdown in wage growth in the public sector. These changes would boost consumer prices above the baseline scenario and contribute to lower GDP growth.

Table 4.3 Central path of inflation and GDP projection

	2014	2015	2016	2017	2018
Consumer Price Index (y/y, %)	0.0	-1.0	-0.5	1.3	1.5
Core inflation net of food and energy prices (y/y, %)	0.6	0.3	0.0	0.6	1.4
Food prices (y/y, %)	-0.9	-1.6	0.7	2.0	1.6
Energy prices (y/y, %)	-1.0	-4.2	-4.0	2.6	1.5
Gross domestic product (y/y, %)	3.3	3.6	3.2	3.5	3.3
Domestic demand (y/y, %)	4.9	3.4	3.6	4.1	3.7
Private consumption (y/y, %)	2.6	3.1	4.0	4.0	3.4
Public consumption (y/y, %)	4.7	3.4	2.6	3.3	3.5
Gross fixed capital formation (y/y, %)	10.0	5.8	1.2	4.1	4.4
Contribution of net exports (y/y, percentage points)	-1.5	0.3	-0.3	-0.6	-0.4
Exports (y/y, %)	6.4	6.8	6.9	6.2	6.3
Imports (y/y, %)	10.0	6.3	7.6	7.6	7.1
Gross wages (y/y, %)	3.6	3.3	4.0	5.0	5.3
Total employment (y/y, %)	1.9	1.4	0.9	0.2	0.1
Unemployment rate (%)	9.0	7.5	6.1	5.7	5.5
NAWRU (%)	7.1	6.8	6.6	6.3	5.9
Labour force participation rate (y/y, %)	56.2	56.2	56.3	56.4	56.5
Labour productivity (y/y, %)	1.4	2.2	2.3	3.2	3.1
Unit labour cost (y/y, %)	2.4	1.2	1.7	1.7	2.1
Potential output (y/y, %)	2.5	2.7	2.9	3.0	3.1
Output gap (% of potential GDP)	-2.0	-1.1	-0.8	-0.3	-0.1
Index of agricultural commodity prices (EUR, 2011=1.0)	0.93	0.88	0.86	0.91	0.91
Index of energy commodity prices (USD, 2011=1.0)	0.72	0.51	0.47	0.50	0.51
Inflation abroad (y/y, %)	1.1	1.4	1.2	1.2	1.3
GDP abroad (y/y, %)	1.4	1.7	1.6	1.4	1.4
Current and capital account balance (% of GDP)	0.4	2.1	1.8	0.8	0.7
WIBOR 3M (%)	2.52	1.75	1.69	1.69	1.69

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 – May 2016

■ Date: 5 April 2016

Subject matter of motion or resolution:
Resolution No. 1/2016 of 5 April 2016 on approving the Annual Financial Report of Narodowy Bank Polski prepared as of 31 December 2015.

Voting of the MPC members:

For:		**Against:**
	M. Belka	
	G. M. Ancyparowicz	
	M. Chrzanowski	
	E. Gatnar	
	Ł. J. Hardt	
	J. J. Kropiwnicki	
	E. M. Łon	
	E. J. Osiatyński	
	K. Zubelewicz	
	J. Żyżyński	

■ Date: 5 May 2016

Subject matter of motion or resolution:
Resolution No. 2/2016 of 5 May 2016 on approving the report on monetary policy implementation in 2015.

Voting of the MPC members:

For:		**Against:**
	M. Belka	
	G. M. Ancyparowicz	
	M. Chrzanowski	
	E. Gatnar	
	Ł. J. Hardt	
	J. J. Kropiwnicki	
	E. M. Łon	
	K. Zubelewicz	
	J. Żyżyński	

E. J. Osiatyński was absent.

Date: 5 May 2016

Subject matter of motion or resolution:
Resolution No. 3/2016 of 5 May 2016 on the evaluation of the activities of the NBP Management Board as regards the implementation of monetary policy guidelines in 2015.

Voting of the MPC members:

For:		**Against:**
	M. Belka	
	G. M. Ancyparowicz	
	M. Chrzanowski	
	E. Gatnar	
	Ł. J. Hardt	
	J. J. Kropiwnicki	
	E. M. Łon	
	K. Zubelewicz	
	J. Żyżyński	

E. J. Osiatyński was absent.

Date: 24 May 2016

Subject matter of motion or resolution:
Resolution No. 4/2016 of 24 May 2016 on approving the report on the operations of Narodowy Bank Polski in 2015.

Voting of the MPC members:

For:		**Against:**
	M. Belka	
	G. M. Ancyparowicz	
	E. Gatnar	
	Ł. J. Hardt	
	J. J. Kropiwnicki	
	E. M. Łon	
	K. Zubelewicz	
	J. Żyżyński	

M. Chrzanowski and E. J. Osiatyński were absent.

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