NBP Narodowy Bank Polski

Monetary Policy Council

November 2013

Inflation Report

The Inflation Report presents the Monetary Policy Council's assessment of the current and future macroeconomic developments influencing inflation. The projection of inflation and GDP presented in Chapter 4 was prepared at the Economic Institute of the National Bank of Poland. 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 horizon 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 24 October 2013.

This *Inflation Report* is a translation of the National Bank of Poland's *Raport o inflacji* in Polish. In case of discrepancies, the original prevails.

Contents

Summary

Global economic activity growth accelerated in 2013 Q2, but remained below its long-term average. Improved business conditions were primarily observed in advanced economies. In particular, GDP growth picked up in the United States, and in the euro area it turned positive after six quarters of decline. In contrast, output growth in major emerging economies continued to ease running at historically low levels. Global business climate indicators released in recent months indicate an improvement in economic activity in 2013 Q3.

In recent months, global inflation rose slightly which can be primarily attributed to supply-side factors. In the United States and in the euro area inflation continued to run below its long-term average despite some pick-up related to acceleration in energy price growth. In the United States core inflation also increased slightly, whereas in the euro area it remained moderate. Major emerging economies saw a rise in inflation in spite of relatively low demand growth. Factors conducive to inflation in some of these economies included accelerated food price growth, and, in others, also the depreciation of the local currency.

Since the publication of the previous *Report,* monetary policy of major central banks remained expansionary. At the same time, these banks either reaffirmed or announced that they would maintain a highly accommodative monetary policy stance for a longer period. In particular, the European Central Bank declared to keep interest rates at the present or lower level for a longer period and confirmed it was ready to launch a bond purchase programme for countries most severely hit by the sovereign debt crisis. The Bank of England announced that – under certain conditions – it would not raise interest rates from the present level of 0.50% as long as the unemployment rate in Great Britain was at least 7%. The Fed reaffirmed that short-term interest rates would be kept close to zero on some conditions. In mid-September, against market expectations, the Fed decided to continue asset purchases unchanged at USD 85 billion a month. However, the Fed still indicated that it could scale them back should the incoming data confirm that expansion of the US economy was sustainable. Due to weak growth in economic activity most central banks in emerging economies kept interest rates at a low level.

In recent months, volatility of global asset prices stayed elevated as a result of monetary and fiscal policy uncertainty in the United States. Until mid-September quantitative easing (QE) tapering expectations contributed to the outflow of capital from riskier markets, depreciation of many emerging market currencies and growing government bond yields globally. In September, following the Fed's decision not to reduce the scale of QE, the capital inflows to emerging markets resumed and their exchange rates appreciated, which was temporarily disturbed by growing uncertainty related to the rise in the US federal debt ceiling.

In Poland, from June 2012, the annual growth in consumer goods and services prices slowed down steadily, hitting 0.2% in June 2013. In the subsequent months inflation rebounded (to 1.0% in September 2013), however, it remained below the lower limit for deviations from the NBP inflation target. The hike in inflation observed in recent months (vis-à-vis the June level) was mainly driven by rising prices of unprocessed food, mostly vegetables. Another factor with a boosting effect on inflation was of regulatory nature and consisted in a substantial rise in waste disposal charges. At the same time, inflation was curbed – if to an increasingly smaller degree – by a slump in energy prices. Demand

and cost pressures in the economy remained weak, as exhibited by slow private consumption and wage growth and a further fall in producer prices in industry.

Economic activity in Poland, following a period of strong slowdown, picked up slightly in 2013 Q2: annual GDP growth amounted to 0.8% (as against 0.5% in 2013 Q1) and remained significantly below potential output growth. Stronger annual rise in GDP in 2013 Q2 was the effect of higher – versus its 2013 Q1 level – contribution of net exports. Yet, on the other hand, output growth was dampened by declining domestic demand mainly associated with negative contribution of change in inventories to GDP growth and, to a lesser extent, with a further drop in investment. In turn, private consumption and – to a slightly larger degree – public consumption added positively to GDP growth.

Due to sluggish economic activity, the annual growth in the number of working persons in the economy remained negative in 2013 Q2. However, data on employment in the economy in 2013 Q2, as well as in the corporate sector in 2013 Q3, pointed to a gradual weakening of the downward employment trend. At the same time, after a period of growth, the unemployment rate stabilised at an elevated level in recent months. Data on wages and unit labour costs have shown no wage pressure in the economy in the recent period.

In July, the Monetary Policy Council cut interest rates by 0.25 percentage points, including the reference rate to 2.50 percentage points, and concluded the monetary policy easing cycle. In September, the Council indicated that interest rates would remain unchanged at least until the end of 2013.[1] In recent months, yields on Polish sovereign bonds, and long-term bonds in particular, have been increasing. This can be attributed primarily to QE tapering signalling by the Fed, which translated into declining share of non-residents in the Polish sovereign bond market. Since the publication of the previous *Report*, stock indices also rose, which was due to improved sentiment in the global markets and signs of recovery in Poland.

Having depreciated due to an emergence of the Fed's QE tapering expectations, the zloty has been on a gradually strengthening since July. Apart from improving sentiment in the emerging markets, the appreciation was driven by fading expectations of further cuts in NBP interest rates and improving Polish economic outlook as well as Poland's current account balance.

In recent months, lending growth has remained relatively sluggish. A slowdown in lending to corporates persisted and was primarily related to low demand for loans from enterprises. In turn, growth in household debt accelerated slightly in 2013 Q3, mainly in the segment of consumer loans and – to a lesser extent – in housing loans. In 2013 Q3, growth in broad money remained relatively low, while growth in M1 continued to increase strongly. The M1 acceleration was connected with a change in term structure of household assets, specifically, with the rise in cash in circulation and the shift from term to current deposits.

2013 Q2 was the first quarter since 2000 (i.e. since transaction-based quarterly balance of payments data were first published) to see the current account balance turn positive. That was underpinned by

[1] At the November meeting (at which this *Report* was adopted), the MPC assessed that NBP interest rates should be kept unchanged at least until the end of 2014 H1.

a surplus in the balance of trade in goods, resulting from a continued downward trend in imports against the background of moderately rising exports. As current account balance had run up a surplus in 2013 Q2, the indicators of Poland's external imbalance improved substantially, in particular the current account to GDP ratio. In 2013 Q2, surplus in the capital account increased comparing to the level recorded a year before, which was related to higher inflow of investment-designated EU funds. At the same time, the financial account posted the first deficit since 2004, mainly reflecting the outflow of portfolio capital from the domestic Treasury bond market after the realisation of profits by some foreign investors (following prior heavy inflow of capital to that market).

The *Inflation Report* is structured as follows: in Chapter 1 economic developments in the external environment of the Polish economy are presented in the context of their impact on inflationary developments in Poland. Those developments as well as domestic factors affecting them are discussed in Chapter 2. *Minutes of the Monetary Policy Council decision-making meetings* held in July-October 2013 together with the *Information from the meeting of the Monetary Policy Council* in November 2013 are presented in Chapter 3. Minutes from the MPC meeting held in November will be published on 21 November 2013 and so will be included in the next *Report*. MPC voting records in the period June-September 2013 can be found in Chapter 5. Moreover, Chapters 1 and 2 of this *Report* include three boxes: "The impact of the Fed's QE tapering communication on the valuation of financial assets", "Sticky prices – macroeconomic consequences and research findings on Poland" and "*Forward guidance* – new monetary policy communication tool".

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 November projection based on data available up to 21 October 2013 (cut-off date for the projection) – under the assumption of constant NBP interest rates – there is a 50-percent probability of inflation running in the range of 0.9-1.0% in 2013 (compared to 0.6-1.1% in the July projection) and 1.1-2.2% in 2014 (as against 0.4-2.0%) and 1.1-2.6% in 2015 (as against 0.7-2.4%). In turn, with a 50-percent probability the November projection sees the annual GDP growth in the range of 1.0-1.5% in 2013 (compared to 0.5-1.7% in the July projection), 2.0-3.9% in 2014 (as against 1.2-3.5%) and 2.1-4.5% in 2015 (as against 1.6-4.2%).

1 External environment of the Polish economy

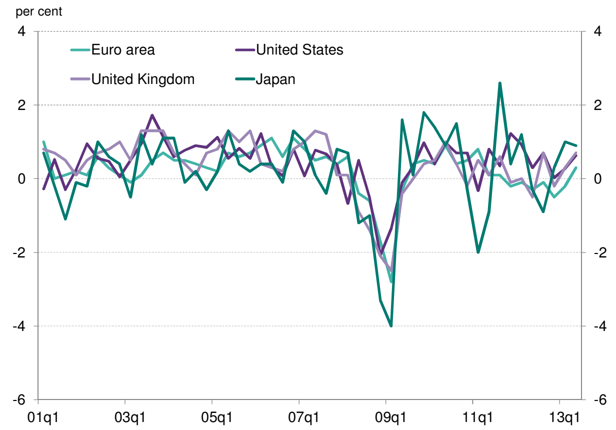
1.1 Global economic activity

Global economic activity growth accelerated in 2013 Q2, although it remained below its long-term average (Figure 1.1). Improved business conditions were primarily observed in advanced economies. In particular, GDP growth picked up in the United States and in the euro area it turned positive after six quarters of decline. In contrast, output growth in major emerging economies continued to ease running at historically low levels. Global business climate indicators released in recent months indicate an improvement in economic activity in 2013 Q3 (Figure 1.2).

In 2013 Q2, GDP growth in the United States accelerated to 0.6% q/q (as compared with 0.3% q/q in 2013 Q1; Figure 1.1).[2] Output expanded on the back of rising consumption (including consumption of durable goods) and investment (including housing investment) as well as, to a lesser degree, change in inventory. The contribution of net exports to GDP growth was zero. On the other hand, output growth was adversely affected by a fall in public spending, which can be put down to the fiscal tightening currently under way.

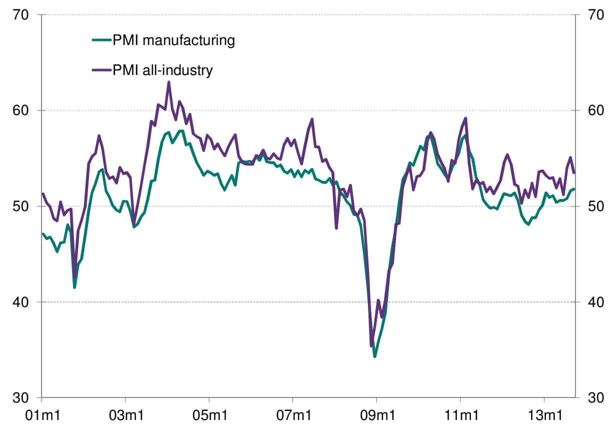
Recent data (quoting slower retail sales growth and slipping consumer confidence) indicate a likely slight deceleration of GDP growth in 2013 Q3. However, the medium-term outlook for economic growth in the United States continues to be relatively favourable. This is indicated by improved industrial output performance observed in recent months and a substantial rise in corporate sentiment, amidst further gradual improvement in

Figure 1.1 Economic growth in selected advanced economies (q/q)



Source: Bloomberg data.

Figure 1.2 Global PMI index



Source: Bloomberg data.

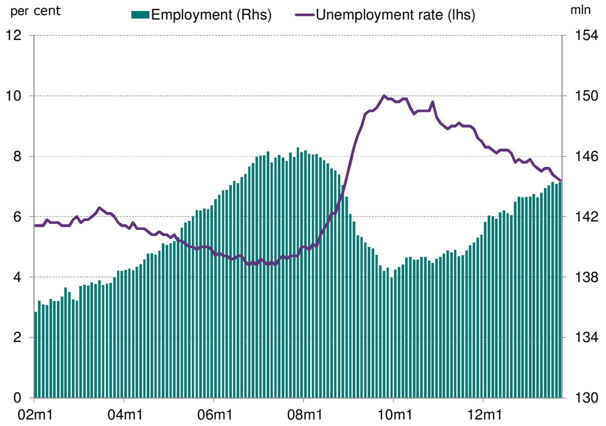
[2] The quarterly GDP growth figures presented in this chapter are seasonally adjusted.

labour market conditions (Figure 1.3).[3] At the same time, prices in the real property market have continued to increase. Yet rising interest on mortgage loans, triggered by the Federal Reserve's hints at a possibility of the Quantitative Easing programme being tapered, poses a risk to further improvement in this market.

In the euro area, GDP growth in 2013 Q2 – following six quarters of decline – was positive at 0.3% q/q (as compared to -0.2% q/q in 2013 Q1). Stronger output performance can be primarily attributed to higher external demand resulting from a moderate recovery in the remaining advanced economies and improved competitiveness of some of the economies (including, in particular, Spain and Portugal). GDP growth in 2013 Q2 was also supported by expanding public consumption related to slower pace of fiscal tightening. At the same time, investment – after a marked slump in 2013 Q1 caused by weather conditions – rose in 2013 Q2. In 2013 Q2, output growth was also fuelled – if to a minor degree – by private consumption, which was rising as the decline in households' real income had become flatter.[4]

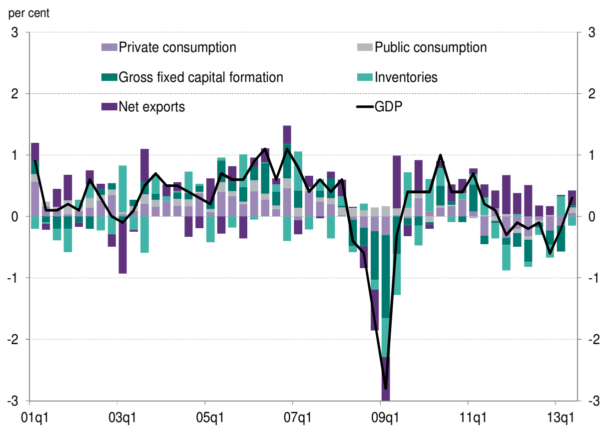
In the largest economy of the euro area, i.e. Germany, GDP growth accelerated to 0.7% q/q in 2013 Q2 (as against 0.0% q/q in 2013 Q1). Stronger output growth was mainly driven by expanding domestic demand – partially the effect of one-off factors – and by expanding external demand.[5] Economic activity in Germany was also underpinned by favourable labour market conditions (low unemployment rate and higher employment), contributing to a rise in real disposable income. Economic activity also

Figure 1.3 The registered unemployment rate and employment levels in the United States



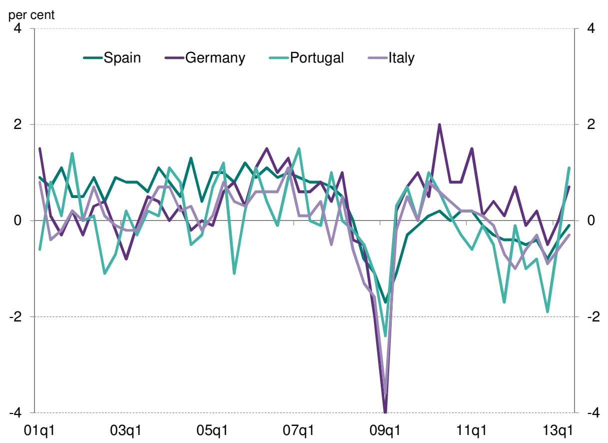
Source: BLS data.

Figure 1.4 GDP growth in the euro area (q/q)



Source: Eurostat data.

Figure 1.5 GDP growth in selected euro area economies (q/q)



Source: Eurostat data.

[3] The gradual improvement in the labour market situation has manifested itself in a further unemployment rate decline and rising employment, while negative trends included falling labour participation rate.

[4] Households' real income shrank by 1.0% in 2013 Q1 (as against a decline of 2.5% a quarter before).

[5] One-off factors included a shift in the construction sector activity from 2013 Q1 to Q2, resulting from weather conditions.

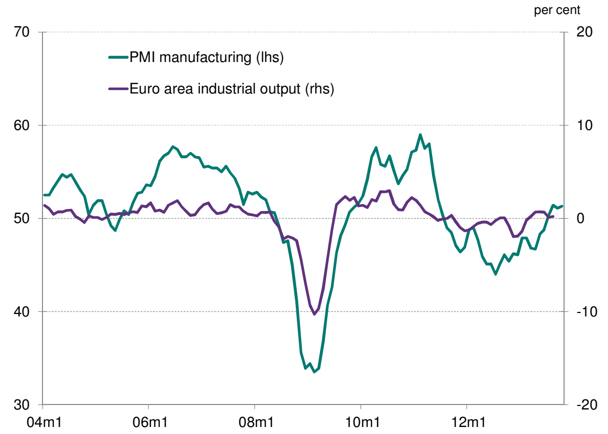
benefited from stronger demand in the real property market, related to rising consumer confidence and low interest rates.

At the same time, GDP growth accelerated in the countries most severely affected by the debt crisis and previous loss of competitiveness. Acceleration in GDP growth rate was particularly marked in Spain, Italy and Portugal, and was driven by robust export performance (Figure 1.5). Nonetheless, output in Italy and Spain continued to contract, dragged by a further decline in domestic demand.

Despite signs of a rebound, including improved corporate confidence and rising retail sales in July and August, the outlook for GDP growth in the euro area remains moderate. This is confirmed by stagnation in industrial output in the discussed period (Figure 1.6). Demand in the euro area remains limited due to high indebtedness of the private and public sector in some economies, coupled with more restrictive lending standards by commercial banks and persistently unfavourable labour conditions (as demonstrated by high unemployment rate and a further fall in employment; Figure 1.7).

In the new EU member states, GDP growth in 2013 Q2 also accelerated (Figure 1.8). Economic recovery in these countries was driven by rising external demand resulting from accelerated GDP growth in the euro area. In most of those economies – despite the persistently elevated, vis-à-vis the previous years, unemployment rate – consumer demand also strengthened. This development may owe to falling inflation levels, which supported consumers' purchasing power. In some economies (most specifically Estonia and Lithuania) GDP growth was also propped up by stronger investment growth.

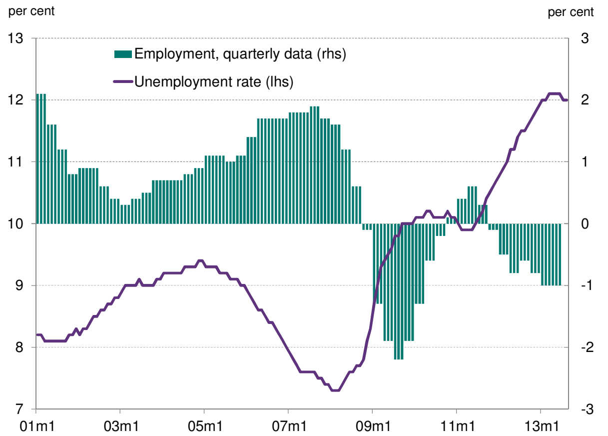
Figure 1.6 Industrial output growth* and PMI index in manufacturing in the euro area



Source: Eurostat data, Markit.

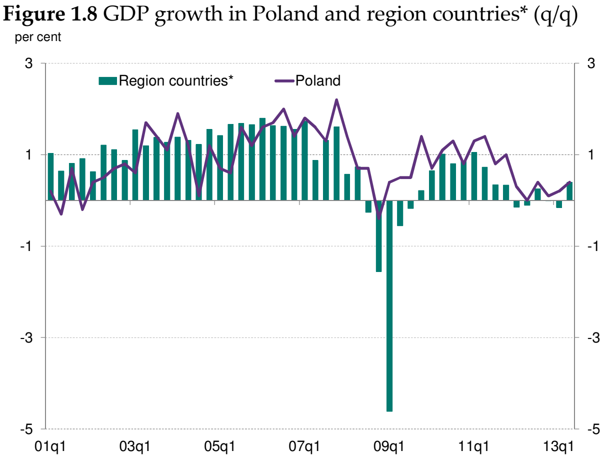
* Change in the 3-month moving average of the industrial output as against the average of three months before.

Figure 1.7 Employment (y/y) and unemployment rate in the euro area



Source: Eurostat data.

Figure 1.8 GDP growth in Poland and region countries* (q/q)



Source: Eurostat data.

* Region countries include: Czech Republic, Slovakia, Hungary, Lithuania, Romania, Latvia, Estonia, Bulgaria. Indicator was calculated as weighted average with weights based on each country share in Polish exports.

In most of the largest emerging economies, GDP growth continued to lose momentum in 2013 Q2 (Figure 1.9). In China, after the slowdown observed in 2013 Q2, output growth recovered somewhat in Q3. Accelerated GDP growth in this economy was driven by some revival in both external and domestic demand.

1.2 Inflation developments abroad

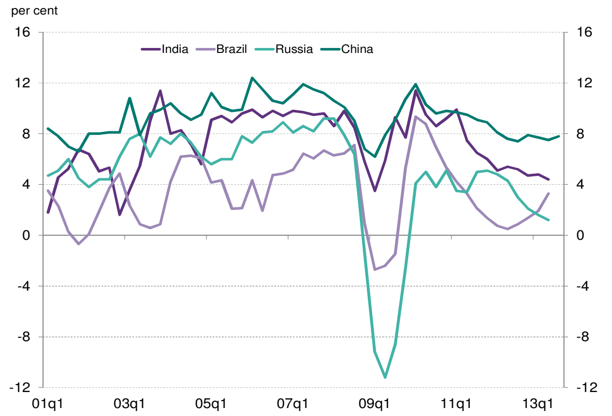
In recent months, inflation in both advanced and emerging economies rose slightly (Figure 1.10) which can be primarily attributed to supply-side factors.

Despite some rise, inflation in advanced countries continued to run below its long-term average. The pick-up in inflation in these economies in June and July resulted mainly from accelerated energy price growth. In the subsequent months, price growth lost momentum, bringing the annual CPI index down (Figure 1.11). In the United States, accelerated demand growth in the economy was accompanied by a slight rise in core inflation. In turn, core inflation in the euro area remained moderate, which can be put down to weak economic activity and persistently high unemployment.[6]

In recent months, inflation in emerging economies climbed to a level close to its long-term average, which occurred in spite of the relatively low demand growth in these economies. Factors conducive to inflation in these countries included accelerated food price growth (in China), and, in some of them, also the depreciation of the local currency (e.g. in India).

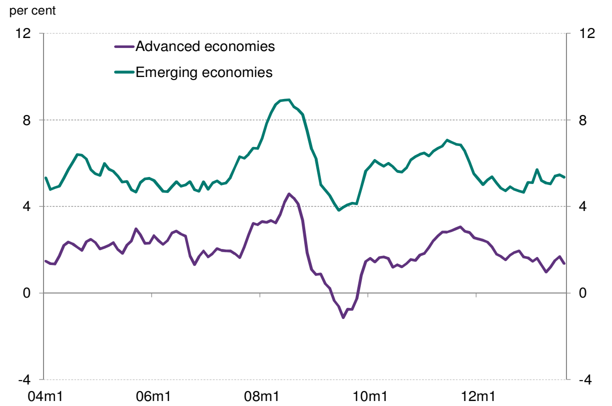
In Central and Eastern Europe, inflation has followed a marked downward trend in recent

Figure 1.9 GDP growth in China, India, Brazil and Russia (y/y)



Source: Bloomberg data.

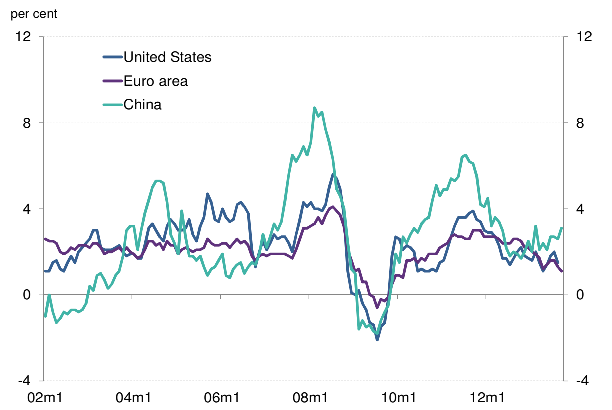
Figure 1.10 Inflation in major advanced and emerging* economies (y/y)



Source: Bloomberg data, NBP calculations.

* Weighted average inflation in the developed and the largest emerging economies (accounting for 80% of the GDP in this group of countries in 2011). Country groups in accordance with the IMF division. Weights adopted for the respective countries are based on their GDPs.

Figure 1.11 CPI inflation in the United States and China and HICP inflation in the euro area (y/y)



Source: Bloomberg data.

[6] In the United States, core inflation rose from 1.6% in June to 1.8% in August 2013, while in the euro area it eased down slightly, from 1.3% y/y in June to 1.2% y/y in September 2013.

months (Figure 1.12). In most of the countries of the region, weaker food price growth has contributed to lower inflation, in some of them also combined with slower rise in regulated energy prices (in Hungary and Bulgaria). Amidst continued weak economic activity, including a higher than in the previous years unemployment rate, core inflation in the region also decreased.

1.3 Monetary policy abroad and international financial markets

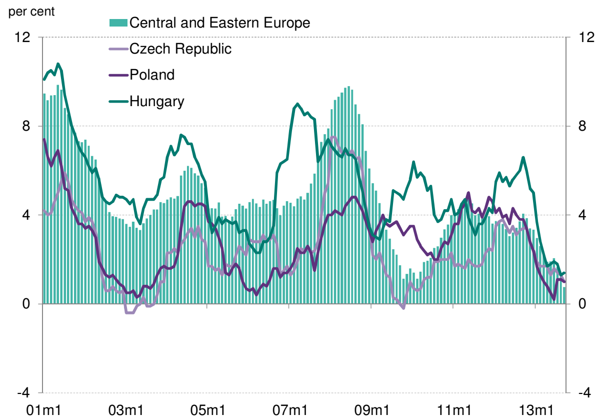
In recent months, volatility of global asset prices stayed elevated as a result of monetary and fiscal policy uncertainty in the United States.

Since the publication of the previous *Report,* monetary policy of major central banks (including the Fed, the ECB and the Bank of England) remained expansionary (Figure 1.13, Figure 1.14). At the same time, these banks either reaffirmed or announced that they would maintain a highly accommodative monetary policy stance for a longer period (see Box 3 *Forward guidance – new monetary policy communication tool*).

In particular, the European Central Bank, declared to keep interest rates at the present or lower level for a longer period, including the repo and the deposit rate not higher than 0.50% and 0.00%, respectively. Moreover, the ECB confirmed it was ready to launch a bond purchase programme for countries most severely hit by the sovereign debt crisis and indicated that an introduction of the new liquidity-providing scheme for banks could be considered in the future.

The Bank of England announced it would not raise interest rates from the present level of 0.50% as long as the unemployment rate in Great Britain was at least 7%, unless the annual CPI inflation index forecasted by the Monetary Policy

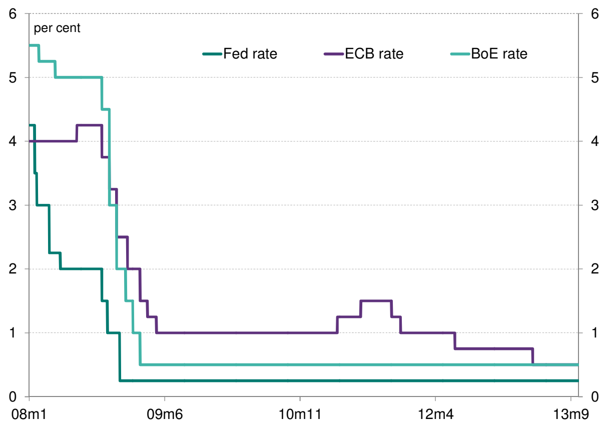
Figure 1.12 CPI inflation in the Central and Eastern Europe region* and its major economies (y/y)



Source: Bloomberg data.

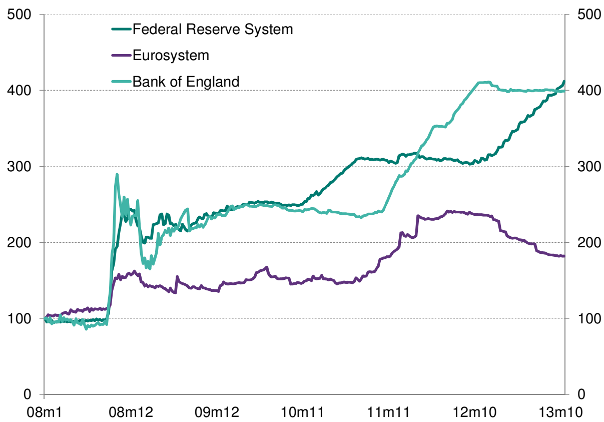
* The average of inflation indices in Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania and Slovakia.

Figure 1.13 Interest rates of major central banks



Source: Bloomberg data.

Figure 1.14 Balance sheets of major central banks, January 2008 = 100



Source: NBP calculations based on Bloomberg data.

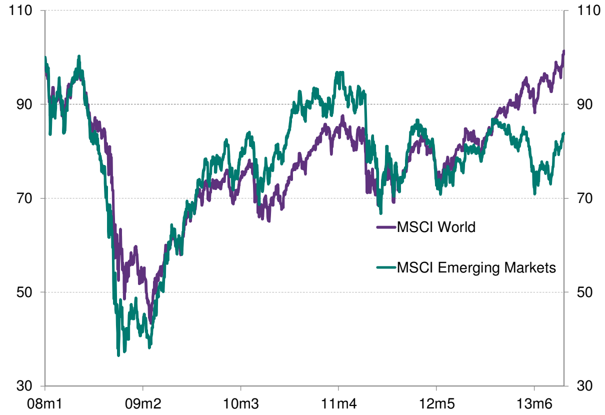
Committee[7] exceed 2.5% in the 18-24-month horizon, medium-term inflation expectations rose significantly above the inflation target or financial system stability was under threat.

The Fed reaffirmed that short-term interest rates would be kept close to zero (0.00-0.25%) as long as the unemployment rate was above 6.5%, inflation forecast for the next 1-2 years did not exceed 2.5% and long-term inflation expectations remain well anchored. In mid-September, against market expectations (see Box 1 *The impact of the Fed's QE tapering communication on the valuation of financial assets*) the Fed decided to keep asset purchases unchanged at USD 85 billion a month, while announcing it could scale them back should the incoming data confirm that expansion of the US economy was sustainable.

Expectations on quantitative easing (QE) tapering continued until mid-September, which contributed to the outflow of capital from riskier markets and the growth of government bond yields globally. Rise in German government bond yields was muted compared to US Treasury yields, which was due to a stable general government position in Germany as well as the ECB's announcement that it would continue expansionary monetary policy for a longer time.

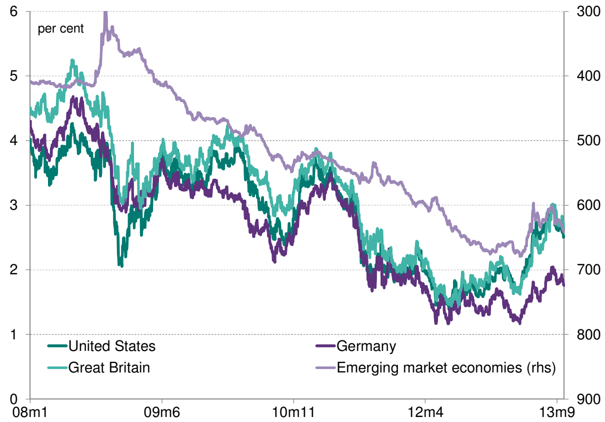
Yet, the Fed's September decision not to embark on QE tapering brought growth in government bond yields to a halt and caused a climb in stock exchange indices globally. Also data pointing to an improvement in global economic conditions were conducive to a rise in global asset prices. In October, growing uncertainty related to negotiations on raising the federal debt ceiling in the US contributed to a decline in global asset prices in the global markets. As soon as the

Figure 1.15 Global stock indices, January 2008 = 100



Source: NBP calculations based on Bloomberg data.

Figure 1.16 10-year German, British and United States bond yields and emerging market bond price index (inverted)



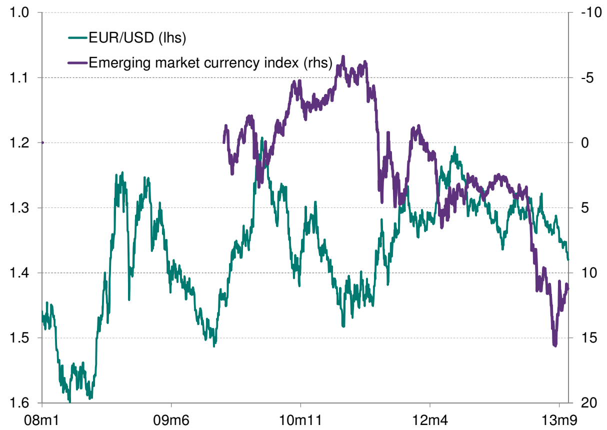
Source: Bloomberg data.

[7] Monetary Policy Committee is the counterpart of the Polish Monetary Policy Council.

agreement was reached the asset prices rebounded (Figure 1.15, Figure 1.16).

QE tapering expectations as well as economic growth in emerging economies and small open developed economies (e.g. Australia and Norway) remaining lower than in previous years were reflected in further weakening of their exchange rates. In order to curb the scale of exchange rate depreciation, some central banks increased interest rates or intervened in the foreign exchange market. However, due to weak economic activity most central banks in emerging economies kept interest rates low and some of them continued interest rate cuts. In September, following the Fed's decision not to reduce the scale of QE, the capital inflows to emerging markets resumed and their exchange rates appreciated, which was temporarily disturbed by growing uncertainty related to the rise in the US federal debt ceiling (Figure 1.17).

Figure 1.17 The euro and emerging market currencies exchange rates versus dollar (increase denotes an appreciation of the currency)



Source: NBP calculations based on Bloomberg data.

Note: The EM currency index comprises the currencies of the following countries: Argentina, Brazil, Chile, Colombia, Mexico, Peru, Korea, Thailand, Indonesia, the Philippines, South Africa, Russia, Israel and Turkey.

Box 1: The impact of the Fed's QE tapering communication on the valuation of financial assets

Since the beginning of 2009, the Federal Reserve (the Fed) has been purchasing assets under quantitative easing of monetary policy comprising four programmes. All of those programmes consisted in the exchange of US longer-maturity debt instruments (MBSs and Treasury bonds) for shorter-term assets (i.e. central bank reserves). By changing the relative supply of securities in the respective market segments and decreasing the risk of balance sheet loss, the purchase of Treasury bonds contributed to reducing the total interest rate risk in the US bond market. As a result, the term premium, which rewards investors for taking on the risk contained in longer-term securities narrowed considerably (Figure B.1.1).[8]

A sharp decrease in the term premium and a drop in yields on US Treasury securities triggered a global process of relative asset price adjustment. This entailed a fall in the risk premium in the rates of return on the most risky assets. The fall was particularly pronounced in the case of emerging market (EM) assets, as those markets had experienced strong capital inflows during QE, particularly with respect to their Treasury bond markets, where the term premium also dropped considerably (Figure B.1.2). At the same time, heavy capital inflows to the emerging markets drove up share prices and fuelled appreciation of some currencies (Figure R.1.3).[9]

[8] The literature lists three key channels of QE transmission: (i) the signalling or expectations channel, a mechanism under which the scale of asset purchases may reveal additional information about the monetary policy stance, thus affecting the path of expected short-term interest rates and the entire yield curve; (ii) the preferred habitat channel, under which asset purchases change the relative supply of securities in different parts of the yield curve, causing prices to deviate from the levels implied by the expected interest rate path; (iii) the interest rate risk channel, based on the expectation that asset purchases reduce the interest rate risk in the market by reducing the term premium embedded in that rate.

[9] The overall scale of appreciation of emerging market currencies was relatively small compared to the rise in asset prices; this was owing to, among others, the curbing measures taken by central banks, fixed exchange rate regimes adopted by some emerging countries and the economic slowdown in many of those countries.

Figure B.1.1. Term premium* and real bond yields for US Treasuries

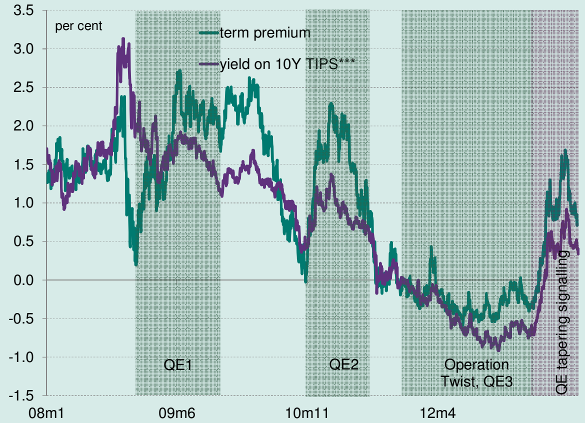
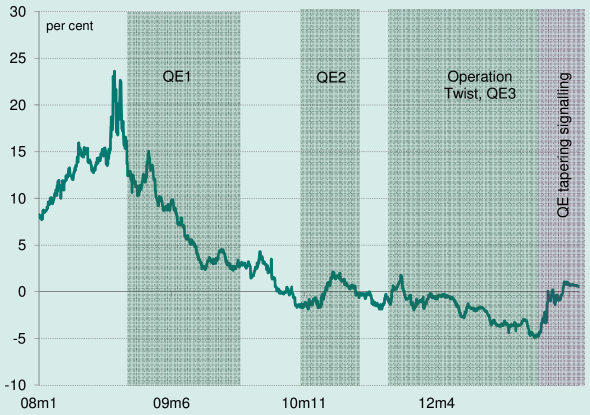


Figure B.1.2. Term premium* for sovereign bonds in emerging markets**

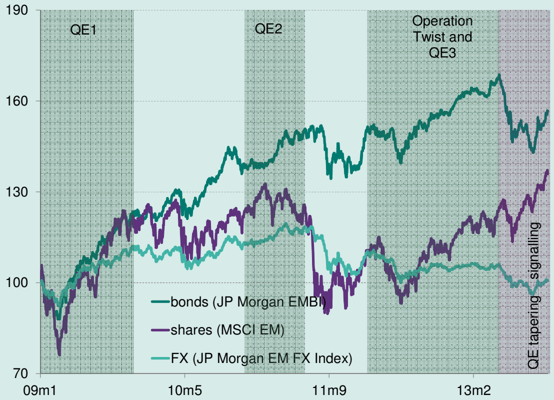


Source: NBP calculations based on Bloomberg data.

*Term premium calculated based on Cochrane and Piazzesi (2005). **Average weighted by market size for Brazil, Mexico, Poland, Turkey, Indonesia and Malaysia.

*** Yields on Treasury Inflation-Protected Securities (TIPS).

Figure B.1.3. Financial asset prices in emerging markets (January 2009 = 100)



Source: NBP calculations based on Bloomberg data.

However, substantial QE-related changes in asset prices, particularly in emerging economies, did not always reflect the macroeconomic fundamentals of these economies, a fact which raised concerns about the consequences of the Fed's withdrawal from unconventional measures. All the more so as, unlike the first three rounds of quantitative easing (QE1, QE2, *Operation Twist*), the programme currently in place (QE3) does not have any fixed target amount or term; only the monthly amounts of purchases are known (USD 85bn; see *Box 2 Quantitative easing of major central banks, Inflation Report – March 2012, Box 2 Quantitative easing programmes of the major central banks, Inflation Report – November 2012*). The announcement of QE3 only stated that the termination date of the programme will depend on the improvement in the US macroeconomic indicators.

In response to the gradual macroeconomic recovery in the United States, since May 2013 the Fed has been hinting at the possibility of reducing the pace of monthly asset purchases (the so-called *QE tapering*), and at subsequent conferences, the the FOMC Chairman, B. Bernanke suggested that QE tapering might start already this year.[10] Amidst incoming above-expectations data, market participants concluded that the scale of asset purchases might be reduced as early as in September 2013, which was subsequently reflected in asset valuation and led to a sharp reversal of trends observed during the operation of the quantitative easing programmes.

The rising term premium on US Treasury bonds translated into higher real long-term interest rates in the United States, amidst relatively minor changes in the expectations of short-term interest rate increases. Adjustment in

[10] These suggestions were due to U.S. unemployment rate approaching 7%, which was at the same time announced by chairman B. Bernanke as the threshold for asset purchases cessation. However, the Fed’s communications emphasised that the tapering and later termination of asset purchases was not tantamount to launching a cycle of interest rate increases, which still postponed until distant future. According to the Fed’s declarations, the first interest rate increases were to take place when the unemployment rate had dropped below 6.5%, which – according to the central path of the FOMC forecasts – is likely to happen in mid-2014 at the earliest.

risk premiums on other assets was also observed.[11] Global adjustment of risk premiums triggered, in turn, a fall in asset prices and an outflow of capital from certain markets, particularly those perceived as more risky, which contributed to a depreciation of many currencies in the EM space. At the same time, the scale of the impact of the change in the global risk valuation on the prices of assets in emerging economies was clearly dependent on country-specific factors. In particular, exchange rate changes depended, to some extent, on the size of the current account deficit (Figure B.1.4). Moreover, it seems that asset price adjustments were the largest in countries where asset prices had risen most sharply during the operation of the QE programmes (Figure R.1.5).

Figure B.1.4. Change in emerging market exchange rates since the QE tapering announcement against current account balance (% of GDP)

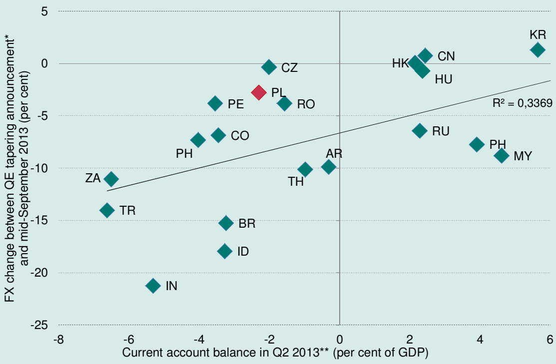
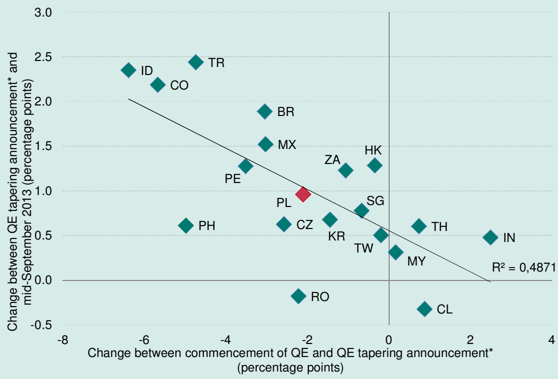


Figure B.1.5. Impact of QE on 10-year sovereign bond yields in selected emerging market economies



Source: NBP calculations based on Bloomberg.
* I.e. since first QE tapering signalling in early May 2013.
** For Hungary, Peru and Philippines current account balance for Q1 2013.

In September, contrary to the expectations of market participants the Fed did not embark on QE tapering, thus indicating that asset price adjustments had been too sharp and sudden in relation to the planned scaling down of quantitative easing. Higher term premium and higher yields on US securities had translated into a rise in interest charged on mortgage loans (between May 2013 and mid-September 2013, by more than 100 basis points) and tighter monetary conditions in the US economy, which – in the Fed's opinion – could have hampered economic recovery. After its September meeting the Fed indicated that asset purchases would be scaled down until the recovery was sustained enough to withstand the likely tightening of the monetary conditions. The fact that QE tapering had not been launched, which came as a surprise to market participants, led to a temporary rise in the prices of the riskiest assets. However, since the term premium is still at levels below those observed after the Fed's withdrawal from earlier quantitative easing programmes, further normalisation of asset prices in subsequent months cannot be excluded. Like before, the extent and pace of these adjustments in the financial markets will depend primarily on expected measures and communications of the Fed and in individual economies - also on local factors.

References:

Cahill, Michael, Stefania D'Amico, Canlin Li and John S. Sears (2013), *Duration Risk versus Local Supply Channel in Treasury Yields: Evidence from the Federal Reserve's Asset Purchase Announcements*, Presentation at the ECB conference *Non-standard monetary policy measures*, 17 June 2013.

Cochrane, John, and Monika Piazzesi (2005), *Bond Risk Premia*, American Economic Review, vol. 95 no. 1.

D'Amico, Stefania, William English, David Lopez-Salido, and Edward Nelson (2012), *The Federal Reserve's Large-Scale Asset Purchase Programs: Rationale and Effects*, Federal Reserve Board Finance and Economics Discussion Series: 2012-85.

Gagnon, Joseph, Matthew Raskin, Julie Remache, and Brian Sack (2011), *Large-Scale Asset Purchases by the Federal Reserve: Did They Work?*, FRBNY Economic Policy Review, May.

[11] The fact that the hints about QE tapering were the main factor behind the global asset price decline is evidenced by a sharp rise in the correlation between the risk premium on the emerging country Treasury bond yields and the term premium on US bonds, from 62% between January 2009 to the end of April 2013 to 96% between May 2013 and the end of August 2013.

1.4 Global commodity markets

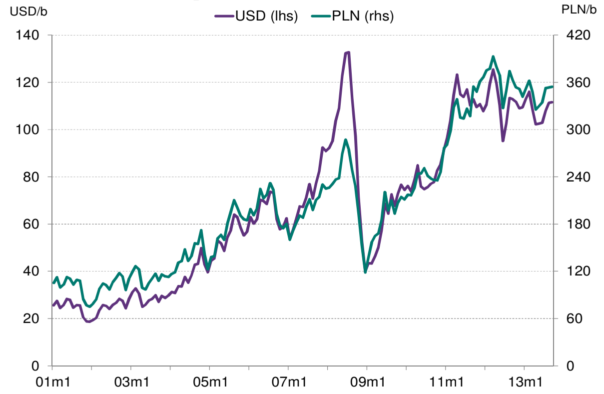
In recent months, global oil prices have increased, while those of most other commodities have declined.

The rise in oil prices, following a fall observed at the beginning of the year, occurred mainly in the wake of the OPEC countries (mainly Libya) scaling back output; it was also fuelled by mounting concerns about possible disruptions in deliveries related to the political strains in Egypt and Syria (Figure 1.18). Some economic recovery in the developed countries, especially in the United States, also added to oil price growth. In September, as the situation in Syria had stabilised somewhat, oil prices embarked on a downward trend while persisting above their July and August 2013 averages.

Coal and gas prices declined in July 2013, to remain stable in the subsequent months (Figure 1.19).[12]

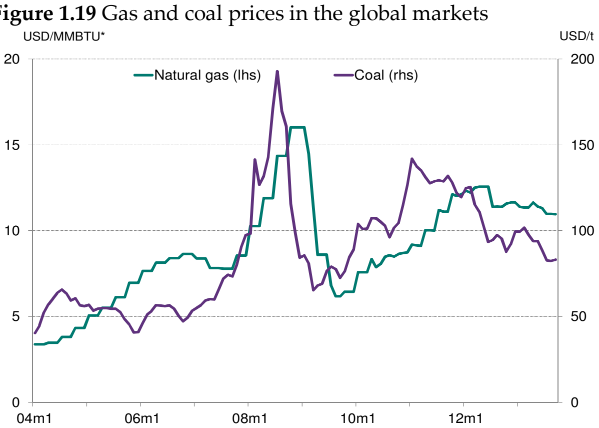
Global food prices have fallen in recent months, supported by favourable agro-meteorological conditions and the resulting good crops of some basic agricultural products (Figure 1.20). On the other hand, throughout most of the period under discussion, decrease in agricultural commodity prices has been partially offset by rising meat prices.[13]

Figure 1.18 Brent oil prices in USD and PLN



Source: US Energy Department data, NBP calculations.

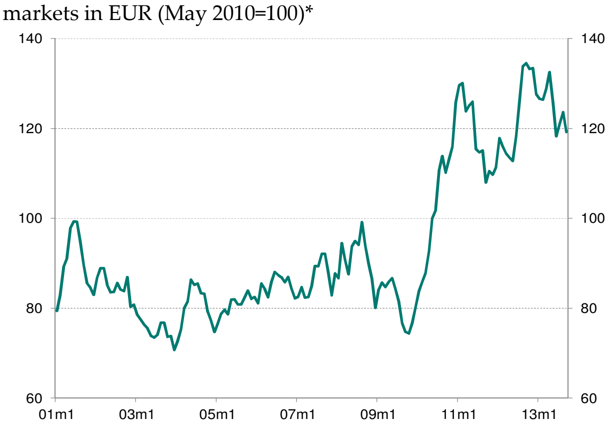
Figure 1.19 Gas and coal prices in the global markets



Source: IMF data.

* MMBTU - Million British Thermal Unit; 1 BTU is the amount of energy needed to raise the temperature of one pound of water by one degree Fahrenheit.

Figure 1.20 Index of agricultural commodity prices in the global markets in EUR (May 2010=100)*



Source: Bloomberg, Reuters data, NBP calculations.

* The index comprises prices of: wheat, rape, pork, potatoes, sugar, cocoa, coffee, skimmed milk powder, butter, frozen orange juice concentrate. The system of weights used in the IACP reflects the consumption structure of Polish households.

[12] In the absence of data on wholesale gas prices in Poland, gas prices presented in this chapter refer to the prices of Russian natural gas in the German market.

[13] The rise in meat prices stemmed mainly from increasing production costs (related to an increase in feed prices).

2 Domestic economy

2.1 Inflation developments

2.1.1 Consumer prices

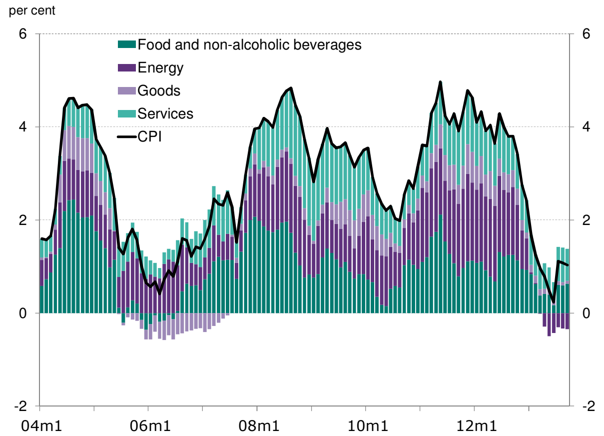
From June 2012, the annual growth in consumer goods and services prices slowed down steadily, hitting 0.2% in June 2013, to rebound in the subsequent months (to 1.0% in September 2013). However, it remained below the lower limit for deviations from the NBP inflation target (Figure 2.1, Table 2.1).

The hike in inflation observed in recent months (vis-à-vis the June level) was mainly driven by rising prices of unprocessed food, mostly vegetables. That was in turn due to unfavourable weather conditions (protracted winter and the resultant shorter vegetation period), which reduced the domestic supply of vegetables.[14] Higher inflation levels recorded were also attributable to the change in the seasonality pattern applied by the Central Statistical Office (GUS) to vegetable prices in computing the consumer price index. Yet another factor with a boosting effect on inflation was of regulatory nature and consisted in a substantial rise in waste disposal charges (see Chapter 2.1.2 *Core inflation*).

At the same time, inflation was curbed – if to an increasingly smaller degree – by a slump in energy prices, a combined effect of a decline in fuel prices, in administered prices of natural gas (following the tariff reduction in January 2013) and of electricity prices (after the reduction in July 2013).

Low inflation was also supported by only a sluggish growth in the prices of unprocessed food and non-food goods. That was related to persistently weak demand and cost pressures in

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



Source: GUS data, NBP calculations.

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

	2013								
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
CPI (%)	1.7	1.3	1.0	0.8	0.5	0.2	1.1	1.1	1.0
Food and non-alcohol beverages (pp)	0.8	0.6	0.4	0.4	0.4	0.2	0.6	0.6	0.6
Energy (pp)	0.0	0.0	0.0	-0.3	-0.5	-0.4	-0.3	-0.3	-0.3
Goods (pp)	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Services (pp)	0.6	0.4	0.5	0.6	0.5	0.4	0.7	0.7	0.7

Source: GUS data, NBP calculations.
Due to rounding off, contribution of changes in the prices of particular goods and services categories to the CPI may not sum up to the total consumer price growth.

[14] Another consequence of the prolonged winter was the removal of part of vegetable production to greenhouses, which boosted the cost of this production.

the economy, as exhibited by slow private consumption and wage growth and a further fall in producer prices in industry (see Chapter 2.2.1 *Consumption demand*, 2.4 *Labour market* and 2.1.3 *Producer prices in industry*).

2.1.2 Core inflation

Since the July *Report*, core inflation measures edged up, yet remained at low levels. (Figure 2.4). Inflation net of food and energy prices rose from 1.0% in May 2013 to 1.3% in September 2013.

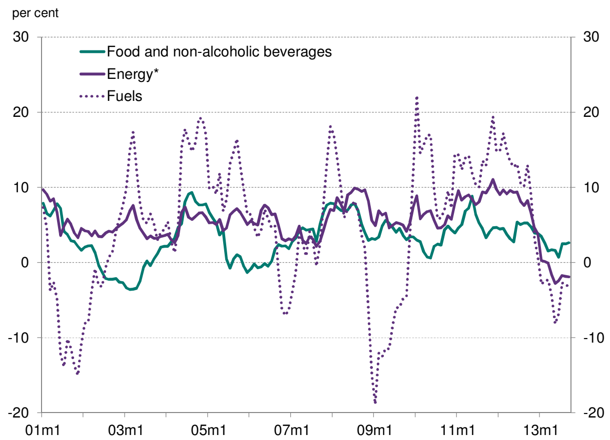
The rise in core inflation observed in recent months has been mainly fuelled by growing service prices, including, most specifically, administered prices of utility services. The factor almost solely responsible for this increase was a substantial rise in waste disposal charges related to the act changing the principles for municipal waste management which took effect in July 2013 (Figure 2.5). At the same time, as demand pressure stayed low, growth in prices of non-food goods kept weakening.

2.1.3 Producer prices in industry

In 2013 Q3, producer prices in industry (PPI) continued to decline (posting a growth rate of -1.1% y/y as against -2.0% y/y in 2013 Q2), which indicates weak cost pressure in the economy (Figure 2.6). The fact that the PPI decline levelled off somewhat in 2013 Q3 was underpinned by the halting of the downward trend in global energy commodity prices and the halting of zloty appreciation in annual terms.

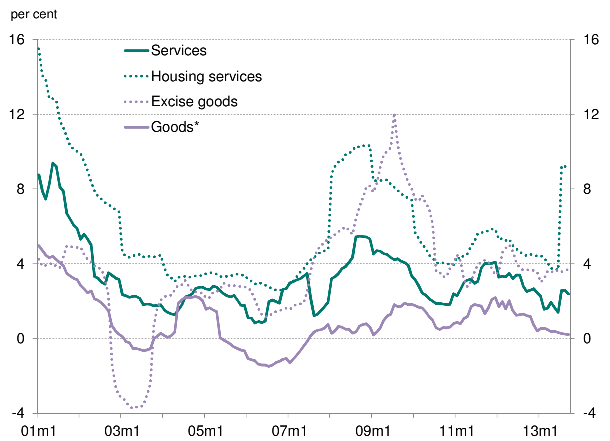
The annual producer price growth in the domestic market strengthened during July and August 2013, up to, on average, -1.2% (as against -1.8% in 2013 Q2), and in the export goods market to -0.8% (as against -2.5% in 2013 Q2). Stronger price growth in the export sector was related to its higher import

Figure 2.2 Changes in food and energy prices (y/y)



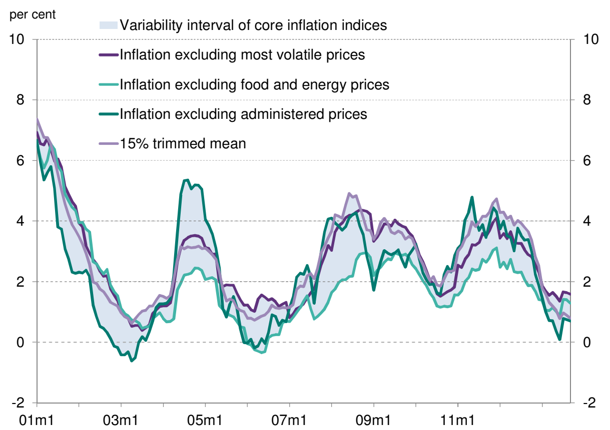
Source: GUS data, NBP calculations.
* The category of energy includes energy products (electricity, gas, heating, fuel) and engine fuels (for private means of transport).

Figure 2.3 Changes in the prices of services and goods (y/y)



Source: GUS data, NBP calculations.
* The category of goods does not include food, non-alcoholic beverages or energy.

Figure 2.4 Core inflation measures (y/y)



Source: GUS data, NBP calculations.

intensity, and thus greater sensitivity to exchange rate fluctuations.

2.1.4 Import prices

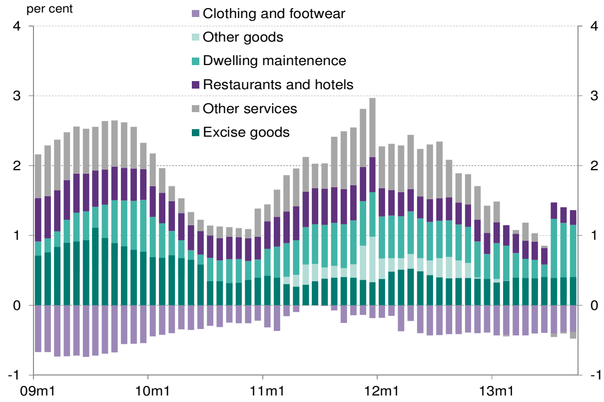
The prices of import goods decreased in zloty terms by 1.5% y/y in 2013 Q2 (as against a fall of 1.9% in 2013 Q1, Figure 2.7). The continuation of the downward trend in import prices was supported by the zloty having appreciated on a year before amidst sluggish price growth in global trade.

2.1.5 Inflation expectations

In recent months, 12-month inflation expectations of financial sector analysts have remained close to the inflation target and stood at 2.2% y/y in October 2013 (Figure 2.8). Their forecasts of 2014 annual average inflation, following a slight fall (to 1.8% in August 2013), in October 2013 returned to the level of 2.1% quoted in June 2013. In turn, the 2015 average annual inflation forecasts have persisted at 2.6% since April 2013.

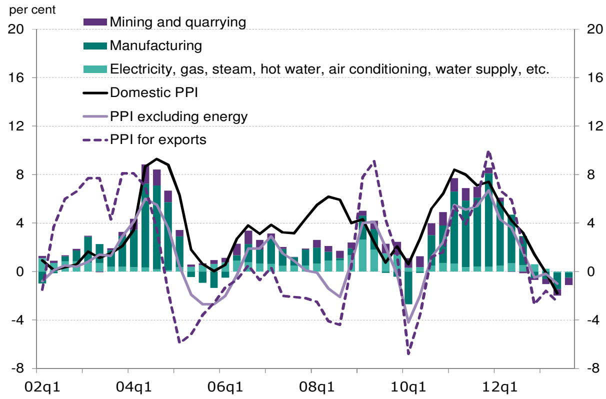
This is close to the expectations of average annual inflation in the years 2013-2015 indicated by the findings of the *NBP Macroeconomic Survey* of September 2013.[15] The median of the 2014 aggregated probabilistic forecast amounts to 2.1%, and of the 2015 forecast, 2.5%.[16] The likelihood of average annual inflation running within the band for deviations from the inflation target, i.e. 1.5%-3.5% in 2013 and 2015 remained virtually unchanged on the levels indicated by the 2013 June survey and amounts to 11% and 73% respectively.[17] In contrast to that, the probability of inflation staying within this band in 2014 has risen

Figure 2.5 Composition of core inflation (y/y)



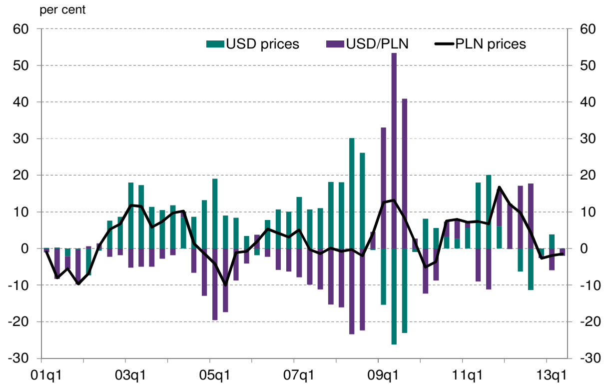
Source: GUS data, NBP calculations.

Figure 2.6 Composition of annual growth of total PPI by sections of industry, domestic PPI, PPI for exports and PPI excluding energy



Source: GUS data

Figure 2.7 Composition of annual growth of import prices in PLN terms



Source: GUS data, NBP calculations.

[15] The *NBP Macroeconomic Survey* is conducted on a quarterly basis. It comprises experts from financial institutions, research centres and employer and employee organisations. Their forecasts are formulated in probabilistic terms, which enables to take account of various economic development scenarios and assess the compatibility of forecasts. For a detailed description of the survey results, see http://amakro.nbp.pl

[16] The median of aggregated forecasts of probability is derived from the aggregation of individual interval forecasts of the surveyed experts.

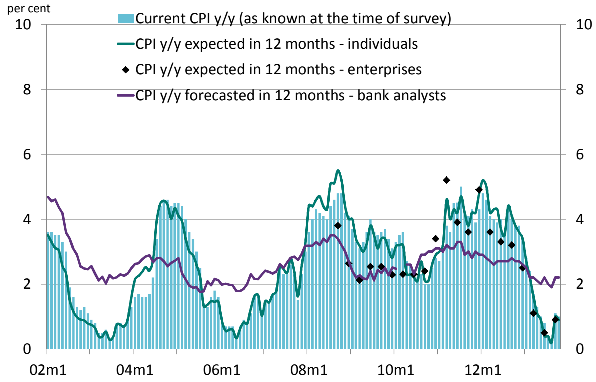
[17] As compared to 12% and 70% respectively in the June round.

to 80% (versus the 68% recorded in the June round) (Table 2.2).

Enterprises' 12-month inflation expectations, having hit an all-time low of 0.5% in 2013 Q2, rebounded to 0.9% in 2013 Q3. The increase in inflation expectations was driven by both a change in the current inflation, known to enterprises at the time of the survey, and by a change in the structure of responses to the survey question.[18]

Following a substantial decline in the inflation expectations of individuals (from 0.9% in May to 0.2% in August 2013), in October those expectations rose to 0.9%. Both the initial decline and the subsequent rise in the expectations resulted exclusively from changes in current inflation, known to the respondents at the time of the survey.

Figure 2.8 Inflation expectations of individuals and enterprises and inflation forecasts of bank analysts



Source: Ipsos, Reuters and GUS data, NBP.
For individuals and enterprises – objectified measure.

Table 2.2 Forecasts of CPI inflation derived from individual interval forecasts (in %)

Horizon	Median	50% probability	90% probability	Probability of 1.5-3.5% range
2013	1.1	1.0-1.2	0.6-2.5	11%
2014	2.1	1.7-2.6	0.5-3.5	80%
2015	2.5	2.0-3.1	0.7-4.5	73%

Source: NBP Survey of Professional Forecasters, September 2013.

Box 2: Sticky prices – macroeconomic consequences and research findings on Poland

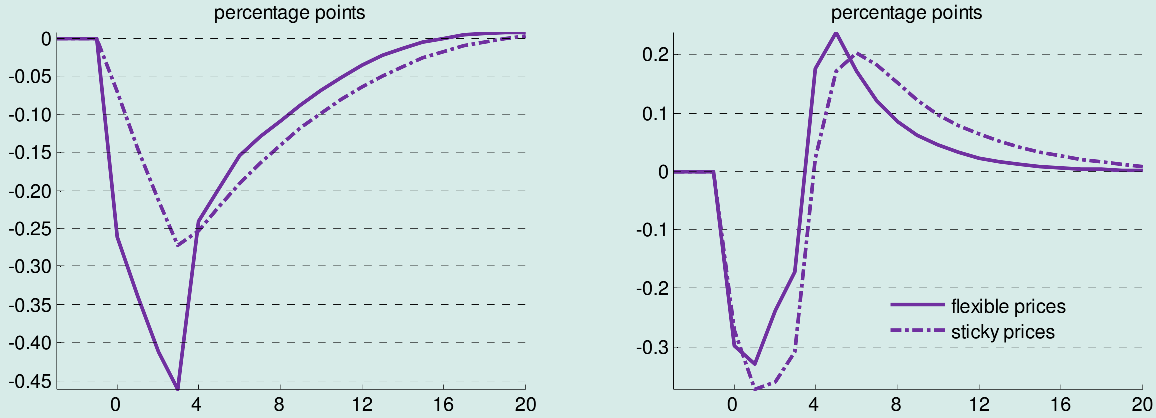
Price rigidities are essential in accounting for the properties of the business cycle and the impact of monetary policy on the economy. Economic literature points to a number of the sources of price rigidity (see e.g. Fabiani et al., 2006, Blinder et al., 1998). Among possible reasons quoted by the numerous theories as to why price setters withhold price adjustments, empirical studies identify the following four as the most important: (1) coordination failure (fear of losing market share to competitors who do not follow suit); (2) explicit contracts with customers (guaranteeing constant prices); (3) implicit contracts with customers (aiming at relationship building), and (4) cost-based pricing (prices do not change as long as costs stay the same). Jankiewicz and Kołodziejczyk (2008) show that these reasons are quoted the most frequently also by Polish entrepreneurs.

To gain a better understanding of the key role of price rigidities in shaping the business cycle and the monetary policy transmission mechanism, one might visualise the problem faced by an entrepreneur who witnesses a decline in demand for his product. The entrepreneur can either cut back production or decrease the price (thus boosting demand). Hence, the stickier the prices, the greater the extent to which changes in demand will translate into changes in output. The impact of price stickiness on the effectiveness of monetary policy can be demonstrated by the use of the general equilibrium model SOEPL estimated on the Polish data (Grabek and Kłos, 2013). It is worth to note that in the following demonstration of the importance of price stickiness all other rigidities (like wage stickiness or the adjustment costs of investment) remained at their estimated levels. Figure B.2.1 shows the impulse response of inflation and GDP to a 0.5 percentage point rise in the central bank interest rate in the case of sticky prices (prices change every 5 quarters, dashed line) and perfectly elastic prices (prices

[18] The survey question addressed to enterprises refers to current inflation. In the latest survey it was as follows: "In July 2013 the CPI inflation index amounted to 1.1% in year-on-year terms. In the opinion of your enterprise, within the nearest 12 months prices will: (1) rise faster than hitherto; (2) rise at the same pace; (3) rise more slowly; (4) remain unchanged; (5) fall; (6) I don't know."

change freely from one period to another, solid line). The response of inflation to a monetary policy shock is weaker, and that of GDP stronger in the case of rigid prices in comparison with the elastic ones. At the same time, the response of both inflation and GDP is more permanent under sticky prices. This phenomenon can be explained as follows: a rise in the interest rate lowers demand and if prices are allowed to fall, the resulting decline in sales (and, consequently, production) can be reduced.

Figure B.2.1 Impact of central bank interest rate cut on inflation (lhs) and GDP (rhs).



Source: Model SOEPL described in Grabek and Kłos (2013).

The economists of the Narodowy Bank Polski P. Macias and K. Makarski have completed an extensive study on consumer price rigidities in Poland (Macias and Makarski, 2013). They have identified the following crucial - in terms of the shape of the economic cycle and the impact of monetary policy on the economy - features of the price determination mechanism:

- In the Polish economy, consumer prices change relatively seldom. On average, 18.8% of all prices change every month, which means that the average implied price duration equals 10.9 months. By comparison, a study conducted within the Inflation Persistence Network (IPN) of the European Central Bank (see Dhyne et al., 2006) shows that in the euro area on average 15.3% of prices change within month (the average implied price duration is 13 months). In turn, Bils and Klenow (2004) show that in the United States each month 26.1% of prices change (average implied duration of a price is 6.7 months). This shows prices in Poland to be more elastic than in the euro area, and more rigid than in the USA. Thus, due to price rigidities, the impact of the monetary policy of the Narodowy Bank Polski on inflation is greater than in the euro area, while the response of GDP and lags in inflation's response to a monetary policy impulse are smaller. At the same time, comparing to the situation in the USA, price rigidities impede control of inflation, increase the extent of GDP adjustment and the lag in inflation's response to monetary policy shock.
- Price elasticity varies considerably across the sectors of the economy. Prices of services change very seldom (only 6.6% of them change within month), prices of processed foods and goods are modified more frequently (20% and 15.1%, respectively), while the most frequent changes are observed in unprocessed food and energy prices (39.2 % and 25.8%, respectively). Sectoral heterogeneity in price stickiness translates into monetary policy transmission mechanism, leading to its different effects in different sectors.
- There is no asymmetry between upward and downward price rigidities. As many as 40% of all price changes were declines (except for services, with 30% of price changes being declines), which means that price reductions were frequent (considering that in the discussed period average inflation was positive at 2.7%). The above number is close to the corresponding figure both in the euro area, which - according to Dhyne et al. (2005) - amounts to 42% and to the share seen in the USA, where - as Klenow and Kryvtsov (2008) report - 45% of price changes are declines. This fact is relatively important from the point of view of monetary policy, because it means that price rigidities do not generate asymmetry of monetary policy transmission mechanism.

Summarizing, the study on consumer prices in Poland has identified the following essential properties of the price setting process: prices change relatively seldom, price stickiness vary across the sectors of the economy and there is no asymmetry between upward and downward price rigidities. Thus, owing to price rigidities, the impact of monetary policy on the economy is greater in Poland than in the United States, but smaller than in the euro area. At the same time, the impact is heterogeneous across the sectors of the economy. Moreover, price rigidities do not create asymmetry of the monetary policy transmission mechanism.

References:

Bils, Mark, and Peter J. Klenow (2004), *Some evidence on the importance of sticky prices*, Journal of Political Economy 112 (5), pp. 947-985.

Blinder A.S., Canetti E., Lebow D.E., and Rudd J.B. (1998), *Asking about prices:, A new approach to understanding price stickiness*, Russell Sage Foundation, New York.

Dhyne, Emmanuel, Luis J. Álvarez, Hervé Le Bihan, Giovanni Veronese, Daniel Dias, Johannes Homann, Nicole Jonker, Patrick Lünnemann, Fabio Rumler and Jouko Vilmunen (2006), *Price changes in the euro area and the United States: Some facts from individual consumer price data*, Journal of Economic Perspectives 20 (2), pp. 171-192.

Fabiani, Silvia, Martine Druant, Ignacio Hernando, Claudia Kwapil, Bettina Landau, Claire Loupias, Fernando Martins, Thomas Mathä, Roberto Sabbatini, Harald Stahl and Ad Stokman (2006), *What Firms' Surveys Tell Us about Price-Setting Behavior in the Euro Area*, International Journal of Central Banking, vol. 2 (3), pp. 3-47.

Grabek, Grzegorz and Bohdan Kłos (2013), *Unemployment in the Estimated New Keynesian SoePL-2012 DSGE Model*, National Bank of Poland Working Papers 144.

Jankiewicz, Zofia and Danuta Kołodziejczyk (2008), *Mechanizmy kształtowania cen w przedsiębiorstwach polskich na tle zachowań firm ze strefy euro*, Bank i Kredyt 39 (2), 19-42.

Klenow, Peter J. and Benjamin A. Malin (2010), *Microeconomic evidence on price-setting*, w *Handbook of Monetary Economics*, ed. Benjamin M. Friedman and Michael Woodford, vol. 3 of Handbook of Monetary Economics (Elsevier), Chapter 6, pp. 231-284.

Klenow, Peter J. and Oleksiy Kryvtsov (2008), *State-dependent or time-dependent pricing: Does it matter for recent U.S. inflation?*, The Quarterly Journal of Economics 123 (3), pp. 863-904.

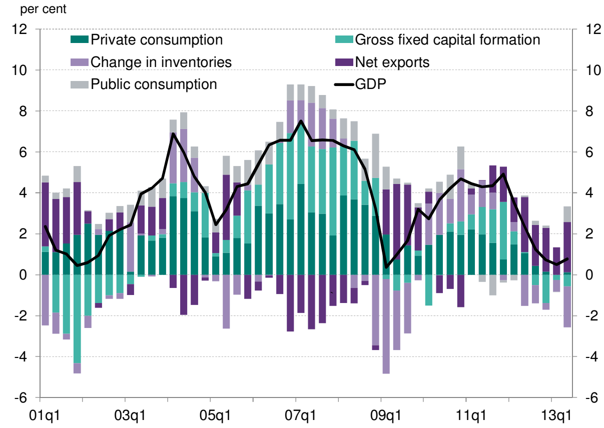
Macias, Paweł and Krzysztof Makarski (2013), *Stylizowane fakty o cenach konsumenta w Polsce*, mimeo, Narodowy Bank Polski.

2.2 Demand and output

In 2013 Q2, economic activity in Poland picked up slightly, following a period of strong slowdown. Annual GDP growth in the discussed period amounted to 0.8% (as against 0.5% in 2013 Q1; Figure 2.9, Table 2.3) and remained significantly below potential output growth. According to NBP estimates, also in quarter-on-quarter terms GDP growth accelerated a little, reaching 0.3% q/q (as against 0.1% q/q in 2013 Q1; seasonally adjusted data).

Stronger annual rise in GDP in 2013 Q2 was the effect of higher - versus its 2013 Q1 level - contribution of net exports. Yet, on the other hand, output growth was dampened by declining domestic demand associated mainly with a negative

Figure 2.9 GDP growth and its components



Source: GUS data.

contribution of inventories to GDP and to a lesser extent with a further drop in investment. In turn, private consumption and – to a slightly larger degree – public consumption added positive contribution to GDP growth.

2.2.1 Consumption demand

In 2013 Q2, consumption demand rose slightly as measured in annual terms, while private consumption growth continued to be weak (0.2% y/y in 2013 Q2 as against 0.0% in 2013 Q1; Figure 2.10). According to NBP estimates, the quarter-on-quarter private consumption growth was also negligible (posting an increase of 0.1% q/q in 2013 Q2, from 0.0% in the previous quarter; data seasonally adjusted).

In 2013 Q2 and Q3, consumption demand was dampened by shrinking employment and the persistently high unemployment rate (see Chapter *2.4 Labour market*). On the other hand, factors supporting consumption growth included lower inflation, which was conducive to rise in real income growth, as well as improved consumer confidence and easing of consumer credit conditions.

In 2013 Q3, retail sales growth continued to strengthen, particularly in the car and motorcycle segment - which may be a sign of further consumer demand recovery.[19] In step with that, consumer confidence kept improving, accompanied by further expansion in consumer credit (see Chapter *2.6 Credit and money*).

2.2.2 Investment demand

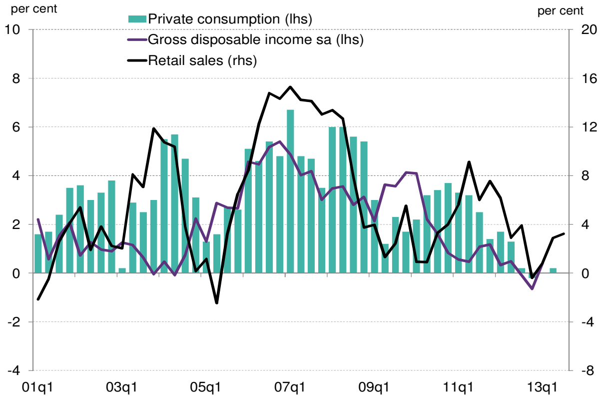
Over the recent past, investment demand has remained low and signs for its prospects in the coming quarters have been ambiguous.

Table 2.3. Growth of GDP and its selected components (y/y) and contribution of inventories and net export to GDP

	2008	2009	2010	2011	2012				2013	
					q1	q2	q3	q4	q1	q2
GDP (%)	5.1	1.6	3.9	4.5	3.5	2.4	1.3	0.7	0.5	0.8
Private consumption (%)	5.7	2.1	3.2	2.6	2.2	1.7	0.7	0.3	0.0	0.2
Public consumption (%)	7.4	2.1	4.1	-1.7	-1.4	0.4	1.2	0.6	-0.1	4.3
Gross fixed capital formation	9.6	-1.2	-0.4	8.5	5.2	0.3	-2.6	-4.7	-2.1	-3.2
Inventory increase (percentage) points)	-1.1	-2.4	2.0	0.6	0.5	-1.5	-0.8	-0.2	-0.5	-2.0
Net exports (percentage) points)	-0.6	2.7	-0.7	0.9	1.2	2.7	2.0	2.0	1.3	2.5

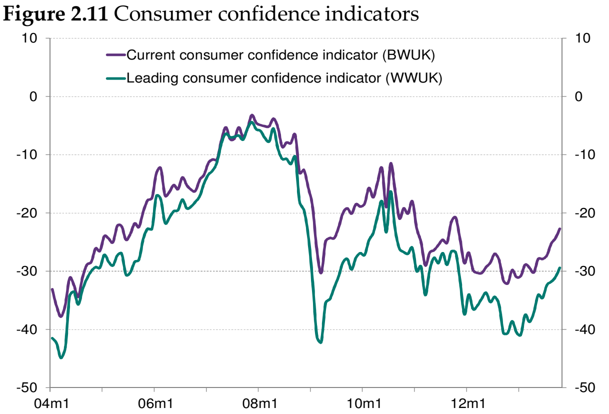
Source: GUS data.

Figure 2.10 Growth of private consumption, gross disposable income and retail sales (y/y, constant prices)



Source: GUS data, NBP calculations.

Figure 2.11 Consumer confidence indicators



Source: GUS data.

[19] The data on retail sales published on a monthly basis refer to sales by firms with a workforce of more than 9 persons. Total retail sales data (which also include sales by firms employing 9 persons or less) are published only on an annual basis. Data available on a monthly basis also include those on turnover in retail trade, comprising the entire population of enterprises. Yet these data are less correlated with consumption than retail sales. Hence, this *Report* refers to the monthly retail sales data.

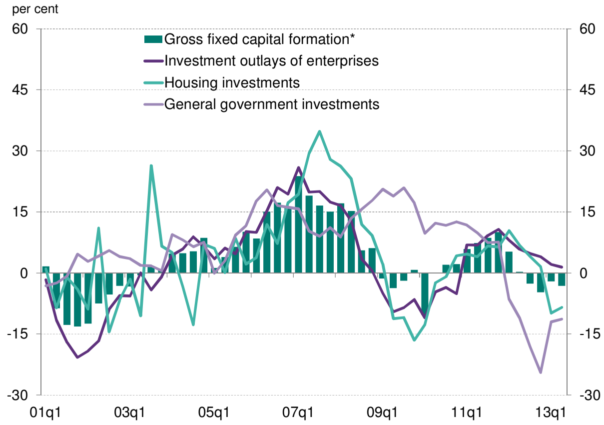
In 2013 Q2, investment decline in the economy deepened further. Annual growth in the gross fixed capital formation amounted to -3.2% y/y (as compared to -2.1% y/y in 2013 Q1). According to NBP estimates, quarter-on-quarter investment growth also fell off substantially (to -1.1% q/q in 2013 Q2, from 0.0% q/q in 2013 Q1; seasonally adjusted data).

According to NBP estimates, the deepening of investment decline in 2013 Q2 was driven by weaker corporate investment (Figure 2.12).[20] The fall in corporate investment growth was probably related to relatively week business conditions in the first half of 2013 and uncertainty about the scale of the possible demand recovery in the subsequent quarters. This, despite low domestic interest rates, discouraged enterprises from embarking on new investment projects.

Moreover, also investments of the public finance sector, as well as of households, continued to decline sharply in 2013 Q2. The continued significant slump of public investment outlays was the consequence of completion, last year, of some of large infrastructure projects and further fiscal tightening. In turn, the fall in housing investment could have been related to the lack of visible improvement in the financial situation of households.

At the same time, signs of corporate investment activity in the coming quarters have been ambiguous. On the one hand, the total cost estimate value of newly launched investment projects has been rising since the beginning of 2013 and capacity utilisation has been running at high levels – considering the present stage of the business cycle

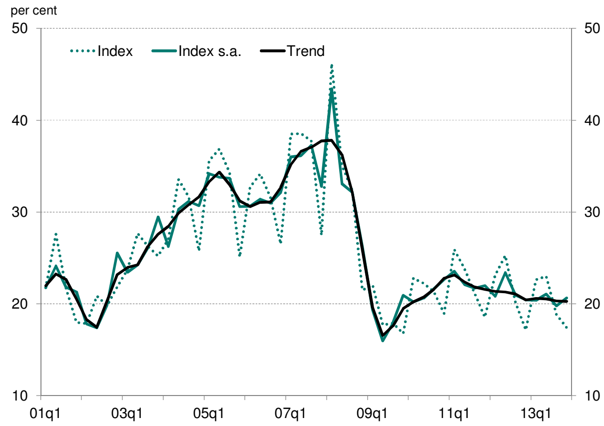
Figure 2.12 Investment in the economy (y/y, NBP estimates for the benefit of the NECMOD model; data seasonally adjusted)



Source: NBP data.

*GUS data (seasonally adjusted).

Figure 2.13 Index of new investments (percentage of enterprises planning to start new investments within the coming quarter)



Source: NBP economic climate survey.

[20] Meanwhile, the results of GUS F-01/I-01 survey pointed to some revival in corporate investment in 2013 Q2, following its decline over the previous three quarters. According to GUS data, a slight rise in corporate investment outlays in 2013 Q2 was driven by a strong upsurge in spending on transportation equipment (the most variable category among investment outlays). At the same time, the share of enterprises increasing investment remained low.
The differences in the corporate investment trends observed between GUS data and NBP estimates (based on national accounts data) may stem from a number of reasons. Above all, GUS surveys – unlike NBP estimates – do not cover all the firms (in particular, they do not account for the financial sector enterprises and those employing less than 50 people)..

(Figure 2.14). However, on the other hand, NBP business climate surveys show that in 2013 Q3, despite a slight improvement in business sentiment, enterprises still did not expect any significant rebound in investment.[21] The index of new investments (percentage of firms planning to launch new investments within the coming quarter) remained low (Figure 2.13).[22]

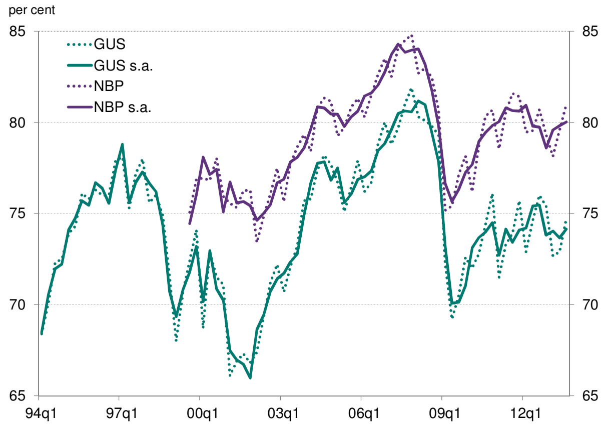
2.2.3 Government demand

The first half of 2013 saw a continued restraint on the growth of the general government sector expenditure, in particular outside the state budget[23]. At the same time, slow economic activity significantly reduced the sector's revenue growth, hampering the process of curbing the fiscal imbalance (Figure 2.15). As a result, the government deficit increased both in nominal terms and in relation to GDP (Figure 2.16).

In the first nine months of 2013, state budget tax revenue declined by 4.7% y/y (as against the assumed increase of 7.5% on an annual basis, envisaged by the 2013 *Budget Act*), which was related to both weaker than expected macroeconomic performance, including, in particular, sluggish real private consumption growth in the first half of 2013 (0.1% y/y), and improvement in net exports.

Due to a sizeable drop in tax revenue, state budget deficit after September was higher than the year before, standing at PLN 29.6 billion (as against PLN 21.1 billion in the period January – September 2012). In September 2013, the Parliament adopted the

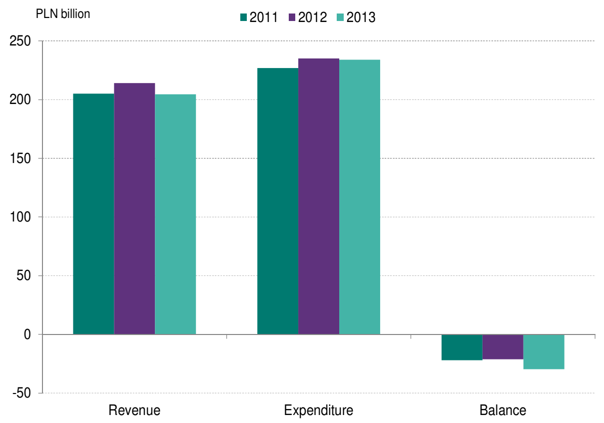
Figure 2.14 Production capacity utilisation in industry (GUS) and in the corporate sector (NBP)



Source: GUS data, NBP economic climate survey.

The degree of capacity utilisation based on GUS business tendency survey is significantly lower that quoted in NBP surveys. However, trends in both indicators are similar in both surveys. The difference in the data results from the difference in the enterprise sample on which surveys are based on. The difference may also stem from the fact that large enterprises are overrepresented in the NBP sample, while the GUS sample is representative in terms of the enterprise size.

Figure 2.15 State budget performance in the period January-September



Source: Ministry of Finance.

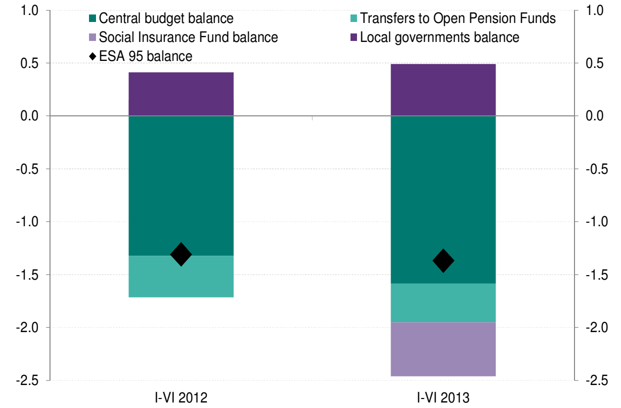
[21] *Economic climate in the enterprise sector in 2013 Q3 and forecasts for 2013 Q4.*

[22] At the same time, among firms planning new investment projects, the number of those declaring they would finance investment with bank credit has risen. This may mean that enterprises are to embark on larger-scale investment projects. This hypothesis can be additionally supported by the fact that investment forecasts remain favourable particularly in the group of the largest enterprises (those employing more than 2000 people), which contribute the most to the total investment of the sector (in 2013 Q2, 100 largest investors accounted for more than 58% of the total corporate sector outlays).

[23] According to Eurostat data, primary expenditure of the central and local government sector in the first half of 2013 increased by 1.9% y/y in nominal terms.

amended 2013 *Budget Act*, bringing the budget in line with the observed realisation of tax revenue. The amendment provided for a PLN 23.7 billion reduction in the planned government revenue, a PLN 16 billion increase in the deficit limit and a PLN 7.7 billion cutback in expenditure. The implementation of measures aimed at reducing the growth of central budget expenditure had begun before the amendment was adopted, which is reflected in the lower than budgeted current expenditure of central government units in the period January-August 2013.[24]

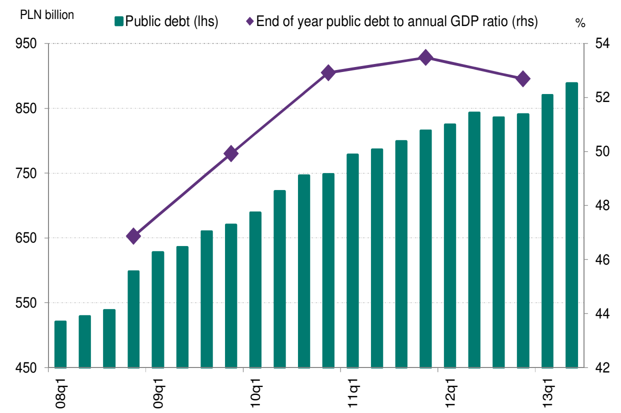
Figure 2.16 Selected components of general government balance in the first half of 2012 and 2013 (to annual GDP)



Source: Ministry of Finance, ZUS (Social Insurance Institution), Eurostat.

The relation of state budget deficit as recorded after September to the limit set in the *Budget Act* amounted to 57.4% and was lower than that observed between the deficit after nine months of 2012 and the deficit generated in the whole of the preceding year (69.5%). The maintenance of this year's deficit at this level had been made possible by a reduction in the Social Insurance Fund (FUS) subsidy. In the period January-September, this subsidy amounted to PLN 24.8 billion, i.e. PLN 7.5 billion less than a year ago. Lower FUS subsidy was offset with loans from the budget and a transfer of funds from the Demographic Reserve Fund to the FUS.

Figure 2.17 Public debt as defined according to Public Finance Act



Source: Ministry of Finance.

Local governments recorded a surplus of PLN 8.0 billion in the first half of 2013, i.e. PLN 1.4 billion more than in 2012, which was underpinned, in particular, by the sustained tendency to curb local government spending growth. In the first half of 2013, this expenditure rose nominally by a mere 1.5%, with capital spending down by 14.3%.

A decline was also seen in investment spending by the National Road Fund: according to the amended *Budget Act*, the Fund's spending under the 2011-2015 National Road Construction Programme is to

[24] Between January and August 2013, this expenditure rose by 4.5% as compared to the 9.1% increase planned in the original version of the 2013 *Budget Act* and the 5.7% increase envisaged by the amended *Act*.

amount to PLN 12.6 billion this year, as compared with an outturn of PLN 18.6 billion in 2012.

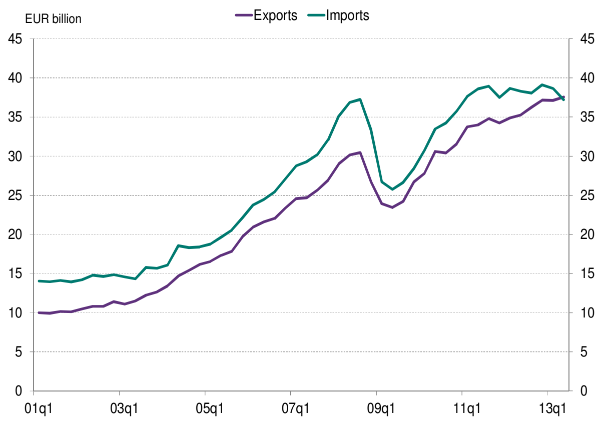
In the first half of 2013, the Social Insurance Fund recorded a deficit of PLN 8.4 billion, as against a surplus of PLN 2.4 billion seen in the first half of 2012. The higher deficit resulted primarily from lower government subsidy. Also the financial position of the Labour Fund in the first half of 2013 deteriorated against the performance seen in the previous year, which was attributable to higher spending on unemployment benefits and active forms of unemployment prevention.[25]

According to government forecasts, contained in the autumn fiscal notification, the general government deficit (in ESA 95 terms) in 2013 will rise to 4.8% of GDP form 3.9% of GDP in 2012.[26] An improvement of the deficit is planned for 2014, largely on the back of changes to the pension system. In accordance with the EU Council recommendation of 21 June 2013, adopted under the excessive deficit procedure (EDP), the general government deficit should be brought down below 3% GDP by 2014. A detailed discussion of the fiscal outlook for the next year will be presented in the *Opinion of the Monetary Policy Council on the Draft Budget Act for the Year 2014.*

2.2.4 Exports and imports

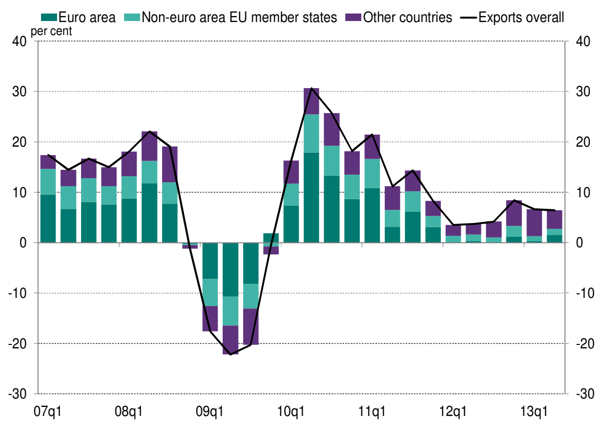
In 2013 Q2 – for the first time since the beginning of the 1990s – the value of Polish exports exceeded that of imports (Figure 2.18). This development resulted, on the one hand, from a decline in domestic demand, which had a dampening effect on imports, and from the steadily growing demand for Polish products – mainly from countries outside the EU – on the other. One of the factors conducive to a trade

Figure 2.18 Value of Polish exports and imports (in EUR billion)



Source: NBP calculations based on GUS data.

Figure 2.19 Geographic composition of Polish export growth



Source: NBP calculations based on GUS data.

[25] Moreover, in the first half of 2012 the Labour Fund received revenue of PLN 952m from the unused balances from the Guaranteed Employee Benefit Fund. This one-off transaction between units of the general government sector has no impact on the balance of the sector.

[26] The autumn modification was published by Eurostat on 21 October 2013.

balance turning into surplus was the sustained high price competitiveness of Polish products.

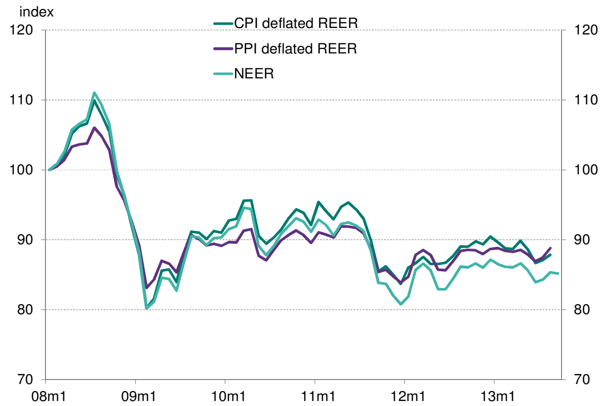
In 2013 Q2, exports continued to grow at a similar pace as in the previous quarter (6.4% y/y as against 6.6% y/y in 2013 Q1), while imports contracted (by 2.8% y/y as against a rise of 0.1% y/y in 2013 Q1).[27]

Despite a certain slowing, growth in exports to countries outside the EU continued to be the key driver of Poland's external sales (15.6% y/y as against 24.6% y/y in 2013 Q1). Exports to the euro area accelerated as well (up to 2.9% y/y from 0.6% y/y in 2013 Q1) as did, if only to a slight degree, exports to non-euro area EU countries (up to 4.9% y/y from 4.0% in 2013 Q1). Rising exports to the euro area could have been fuelled by a moderate revival in the exports of the area itself, as reflected in higher growth in exports of Polish intermediate goods.

Turning to imports, their decline in 2013 Q2 stemmed from further contraction in domestic demand (see Chapter 2.2. *Demand and output*), as well as – amidst a substantial import intensity of exports – slower export growth.

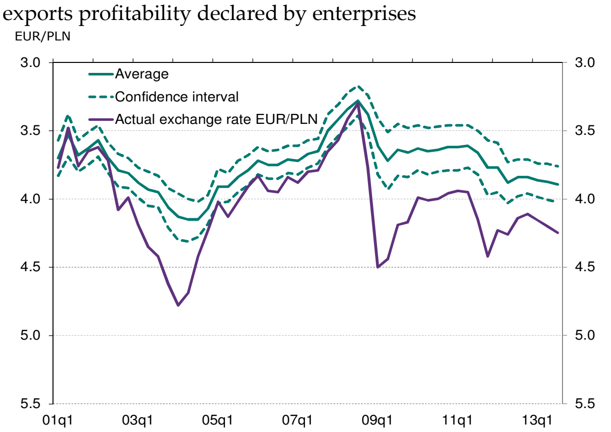
In 2013 Q2, the real effective exchange rate of the zloty was somewhat stronger than the year before, yet the scale of the appreciation in annual terms was smaller than in the previous quarter (Figure 2.20). At the same time, according to NBP economic climate surveys, in 2013 Q2 and Q3 the market exchange rate of the zloty remained well below the export profitability threshold rate as quoted by businesses. The percentage of businesses pointing to the exchange rate as a barrier to their growth remained at historically low levels (Figure 2.21).[28]

Figure 2.20 Zloty real and nominal effective exchange rate (increase denotes appreciation; January 2008=100)



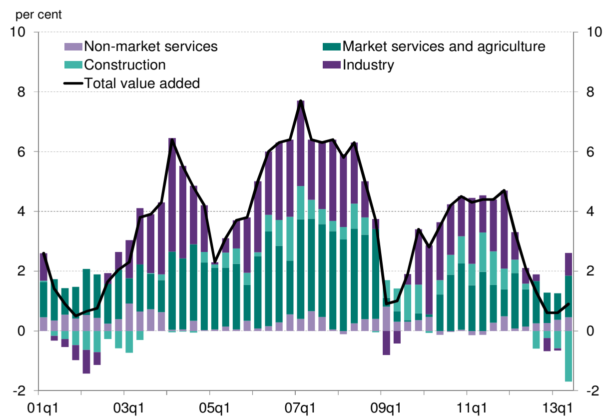
Source: NBP and the European Commission data.

Figure 2.21 Average threshold exchange rate (EUR/PLN) of exports profitability declared by enterprises



Source: NBP data and estimates.

Figure 2.22 Sector contribution to annual growth of gross value added



Source: GUS data, NBP calculations.

[27] The quarterly growth figures presented in this chapter are based on GUS data not adjusted for seasonal variations.

[28] The export profitability threshold exchange rate is determined as the average of values quoted in response to the relevant question of the NBP business climate survey (Information on the condition of the enterprise sector with a particular focus on business conditions). The survey question is as follows: "What is the threshold exchange rate, in terms of PLN, at which exports are (will be) unprofitable?" *Economic climate in the enterprise sector in 2013 Q3 and forecasts for 2013*, NBP.

2.2.5 Output

In 2013 Q2, the annual growth in gross value added accelerated to 0.9% (from 0.6% registered in 2013 Q1), driven by stronger growth of value added in industry and services, amidst a decline in construction (Figure 2.22).[29]

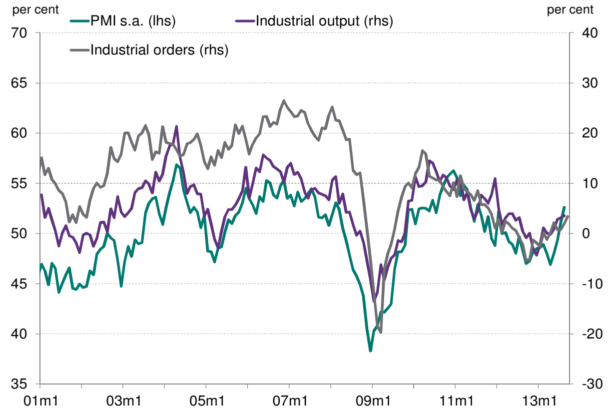
In 2013 Q3, industrial output increased, which, together with a rise in the PMI index and the index of new orders in industry, suggests further gradual improvement in business conditions in this sector (Figure 2.23).

Also construction data indicate possible improvement in activity in this sector in 2013 Q3, following its sharp decline in the first half of the year. Growth in both construction and assembly output as well as in construction orders accelerated, though remained negative (Figure 2.24).

The service sector has also exhibited signs of moderate activity improvement. Wholesale sales growth in nominal terms has been on the rise, reaching 5.3% y/y in 2013 Q3 (as compared with 2.8% y/y in 2013 Q2 and 0.3% y/y in 2013 Q1). At the same time, retail sales growth in businesses employing more than 9 people picked up (see *2.2.2 Consumption demand*).[30] In turn, growth in total sales of services in transport entities has remained moderate compared with the previous year (in real terms), and amounted to 3.7% y/y in the first three quarters of 2013 (as against 10.2% y/y in the corresponding period of 2012).

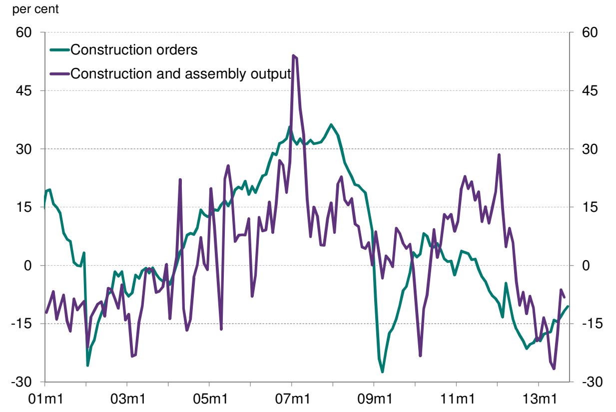
In 2013 Q3, most leading business climate indicators published by GUS point to a certain improvement in the businesses' assessment of future economic situation, with most indicators of forecasts of the economic situation in the respective sections continuing to run below their long-term averages (Figure 2.25).

Figure 2.23 PMI and annual growth of sold production of industry and of industrial orders



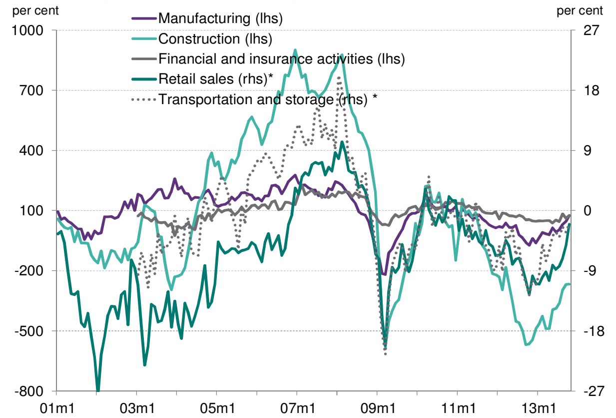
Source: GUS data (seasonally adjusted), NBP calculations.

Figure 2.24 Annual growth of construction and assembly output and construction orders



Source: GUS data. NBP calculations (seasonally adjusted).

Figure 2.25 Forecast of economic situation in relation to the long-term average (long-term average=100)



Source: GUS business tendency survey, NBP calculations.
*As the value of the indicators of transportation and storage and retail sales are close to zero, the Figure presents their level instead of its changes against its long-term average.

[29] Data on industrial output, orders, the PMI index, construction and assembly output and orders are based on seasonally adjusted data (NBP calculations).
[30] Monthly data on retail sales do not fully reflect total retail sales growth. See footnote 19.

2.3 Financial situation in the enterprise sector

Despite low economic activity in Poland in 2013 Q2, the financial situation of enterprises continued to improve gradually. This is indicated, in particular, by improved financial results and profitability of enterprises in annual terms as well as persistently sound liquidity level (Table 2.4).

Stronger financial performance was primarily driven by further improvement in results unrelated to core business operations, associated with growing corporate income on shares held in other companies (Figure 2.26).

The financial result was additionally supported by higher result on sales, achieved despite lower sales revenue, i.e. by cost reduction.

In 2013 Q2 and Q3, liquidity position of companies improved slightly and remained sound. As suggested by the results of NBP surveys, increased liquidity in 2013 Q3 was mainly posted by SME sector business which typically demonstrate much worse liquidity position than the large enterprises.[31]

2.4 Labour market

2.4.1 Employment and unemployment

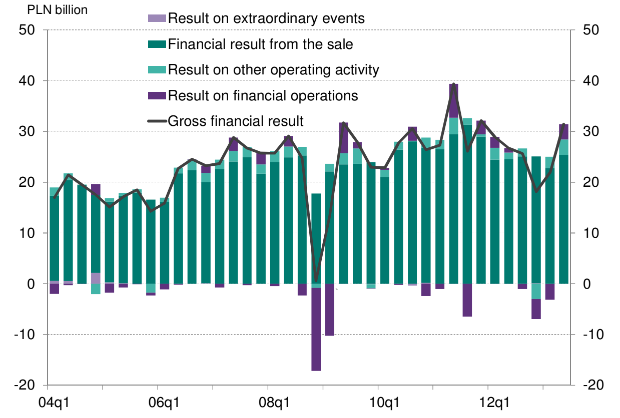
Due to sluggish economic activity, the annual growth in the number of persons employed in the economy remained negative in 2013 Q2, in similarity to the previous quarter. However, data on employment in the economy in 2013 Q2, as well as in corporate sector in 2013 Q3, pointed to a gradual weakening of the downward employment trend

Table 2.4. Selected financial efficiency ratios in the enterprise sector

per cent	2008	2009	2010	2011	2012 q1	2012 q2	2012 q3	2012 q4	2013 q1	2013 q2
Sales profitability ratio	5.0	5.0	5.2	5.3	4.4	4.3	4.3	4.2	4.3	4.5
Net turnover profitability ratio	3.3	4.1	4.4	4.5	4.1	3.9	3.5	2.4	3.2	4.7
Total debt ratio (s.a.)	47.5	46.9	47.1	48.8	48.5	48.6	48.6	48.4	48.3	48.6
Gross profit to interest ratio (s.a.)	5.9	7.1	7.8	7.4	6.9	5.8	5.7	5.5	5.5	5.6
	end of period data									
Liquidity ratio of the first degree	0.34	0.39	0.40	0.38	0.34	0.32	0.31	0.34	0.33	0.34

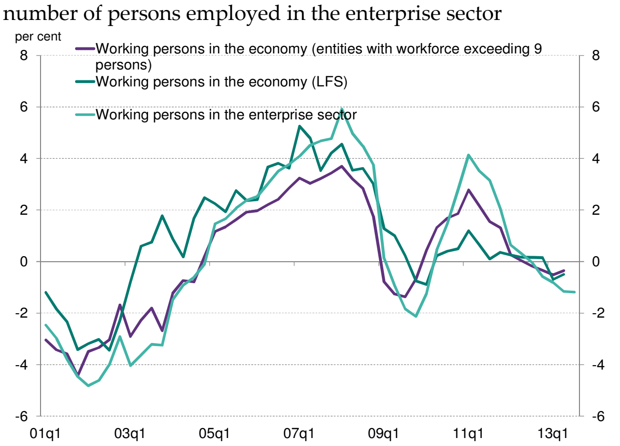
Source: GUS data.

Figure 2.26 Gross financial result of enterprises and its components



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

Figure 2.27 Change (y/y) in the number of persons working in the economy according to the LFS data and reports of entities with a workforce of over 9 employees (GN); change in the number of persons employed in the enterprise sector



Source: GUS data, NBP calculations.

*LFS data adjustment for the findings of the 2011 National Census in GUS publications refers to the period starting in 2010 Q1. In order to preserve data comparability, earlier data in the graphs presented in this Chapter have been corrected by the NBP.

[31] *Economic climate in the enterprise sector in 2013 Q3 and forecasts for 2013 Q4.*

(Figure 2.27, Figure 2.28). At the same time, after a period of growth, the unemployment rate stabilised at an elevated level in the recent months.

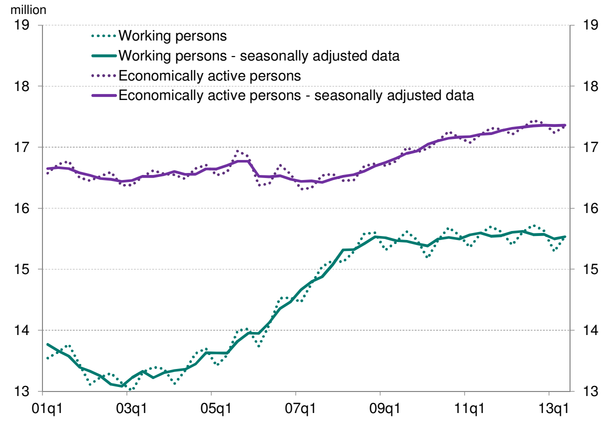
According to LFS data, the number of working persons fell by 0.5% y/y in 2013 Q2 (as against a decline of 0.7% y/y in 2013 Q1). The continuation of the downward employment trend was largely attributable to a deepening decline in the number of working persons in agriculture (-6.4% y/y as against -4.5% y/y in 2013 Q1). Against this background, a positive sign was provided by the halting of the fall in the number of working persons in industry (0.0% y/y as against -2.0% y/y in 2013 Q1) which can be put down to a rebound in economic activity in this sector. At the same time, the number of working persons in services continued to increase, albeit at a slower rate than in the previous quarter (0.6% y/y as against 0.8% y/y in 2013 Q1).

Although in 2013 Q2 the decline in corporate sector employment deepened in annual terms (it was running at 1.2% y/y against 0.8% in 2013 Q1), data on 2013 Q3 showed the extent of the fall stabilised at 1.2 y/y.

Apart from decelerating fall in employment in corporate sector, positive labour market signs included the rising indicator of employment forecast in the NBP business climate surveys. Yet, according to the indicator, the number of enterprises planning to reduce employment in 2013 Q4 continues to exceed the number of enterprises planning to expand it.[32]

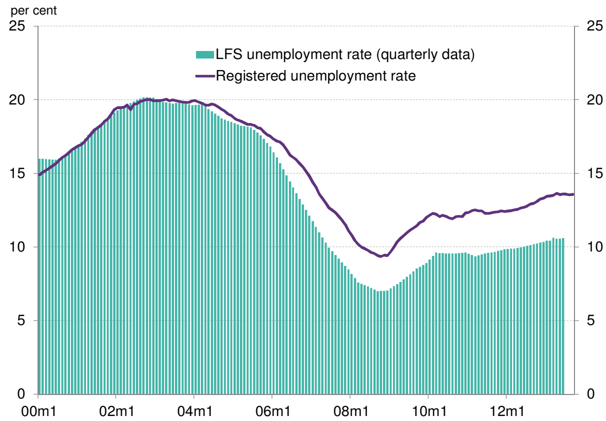
The LFS unemployment rate did not change in 2013 Q2 on the previous quarter's level, amounting to 10.6% (data seasonally adjusted), and remained higher than a year before (Figure 2.29). The rise in unemployment rate on the corresponding period of 2012 stemmed mainly from a decrease in employment (Figure 2.30). At the same time, labour

Figure 2.28 Number of working persons and of the economically active in the economy according to LFS



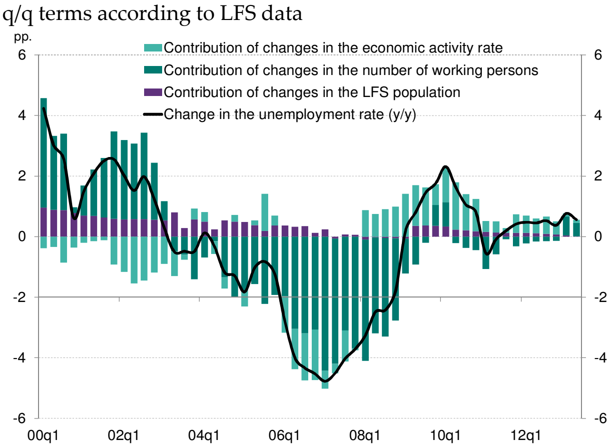
Source: GUS data, NBP calculations.

Figure 2.29 Registered unemployment rate and unemployment rate according to the Labour Force Survey



Source: GUS data (seasonally adjusted).

Figure 2.30 Breakdown of change in the unemployment rate in q/q terms according to LFS data



Source: GUS data, NBP calculations.
Change in the unemployment rate can be further broken down into changes resulting from: 1) change in the size of working age population (in the graph, change in the population in LFS terms), 2) change in economic activity of productive-age persons (change in the economic activity rate, 3) change in labour demand in LFS terms). Change in the population in LFS terms may depend on demographic trends or migration.

[32] *Economic climate in the enterprise sector in 2013 Q3 and forecasts for 2013 Q4.*

supply increased only slightly and added little to unemployment rate growth.

Monthly data from labour offices also suggest that in the recent months, the registered unemployment rate (seasonally adjusted) has remained heightened (reaching 13.6% in September).[33]

2.4.2 Wages and labour productivity

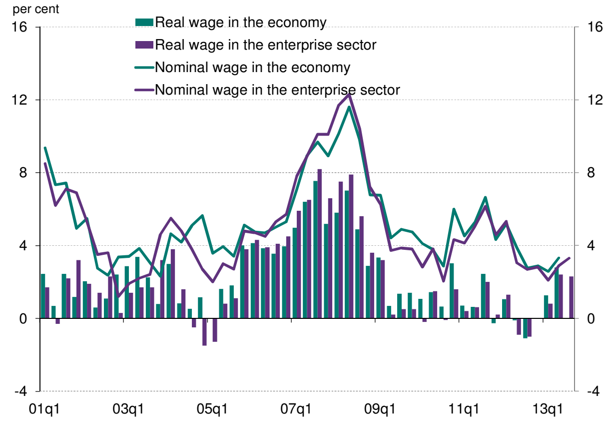
Data on wages and unit labour costs have shown no wage pressure in the economy in the recent period.

Due to the persistently sluggish economic activity, translating into limited demand for labour, wage growth in the economy and in the corporate sector rose somewhat in 2013 Q2 while remaining low. It reached 3.3% y/y (as against 2.6% y/y in 2013 Q1) and 2.9% y/y (as against 2.1% y/y in 2013 Q1) respectively (Figure 2.31). 2013 Q3 corporate data suggest the continuation of weak wage growth. At the same time, falling inflation strengthened real-terms wage growth.

The absence of wage pressure is also indicated by NBP business climate surveys. According to them, the share of enterprises planning to rise wages in 2013 Q4 as well as the scale of the average rise remained below the long-term averages.[34] In the recent period, the index of labour market tensions (calculated as the number of unsubsidised job offers per one unemployed) has increased slightly. Yet, its level has remained close to the long-term average, which indicates a moderate risk of mounting pay demands (Figure 2.32).

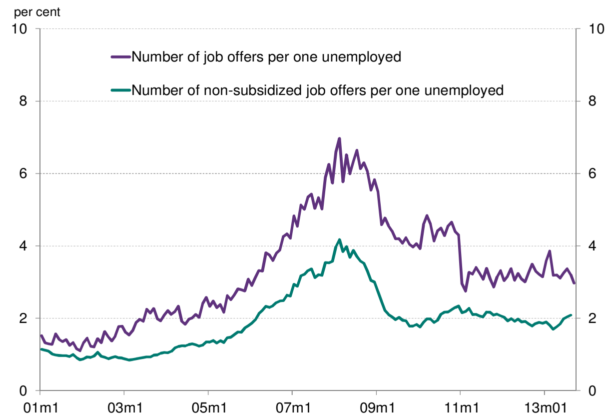
Along with some acceleration in GDP growth in 2013 Q2, labour productivity picked up somewhat. However, the pace of the increase was slower than the increase in wages. As a result, unit labour cost

Figure 2.31 Annual wage growth in the economy and in the enterprise sector (in nominal and real terms)



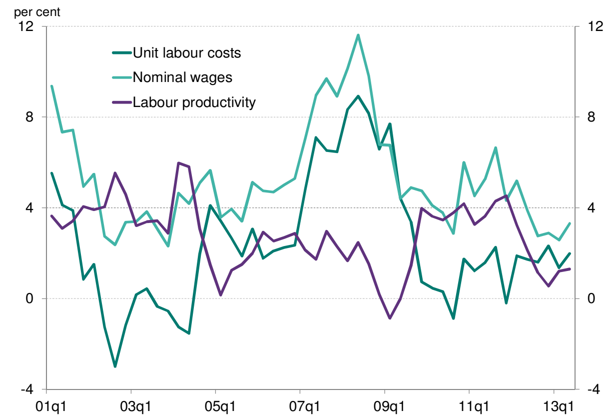
Source: GUS data.

Figure 2.32 Market tension index (number of vacancies per one unemployed)



Source: GUS data, NBP calculations.

Figure 2.33 Annual growth in labour productivity, wages and unit labour costs in the economy



Source: GUS data, NBP calculations.

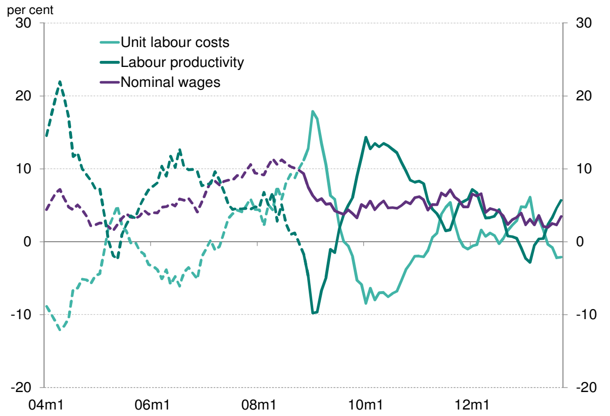
[33] There are two reasons for the differences between the unemployment rate according to LFS and the registered unemployment rate: 1) different definition of an unemployed person, 2) different definition of the population to which the number of the unemployed is referred.

[34] *Information on the condition of the enterprise sector with a particular focus on business conditions in and the forecast of business conditions in 2013 Q4*. 2013, NBP.

growth in the economy gained some momentum, yet remained close to the average observed in the past quarters (Figure 2.33).

Monthly data on industrial enterprises show a substantial decline in unit labour cost growth over the recent months (Figure 2.34). Slower unit labour cost growth in industry resulted from robust labour productivity growth (occurring together with a rebound in output growth and the reduction in the number of employed persons), amidst still slow wage growth.

Figure 2.34 Annual growth in labour productivity, wages and unit labour costs in industry (moving 3M averages)



Source: GUS data, NBP calculations.
Since January 2009, new PKD classification (PKD 2007) has been used, due to which the growth rates of wages and employment in industry from December 2008 (dashed line in the graph) are not fully comparable with the subsequently recorded rates.

2.5 Financial markets and asset prices

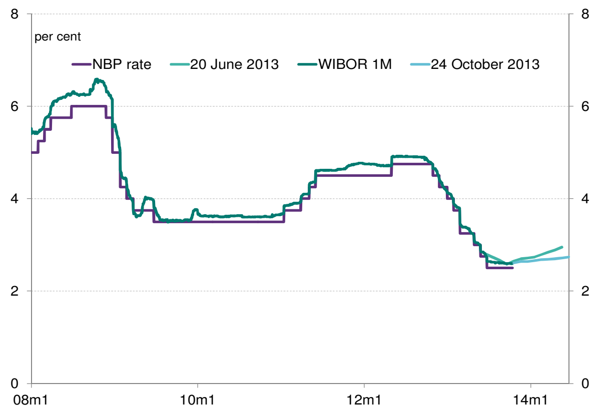
Since the publication of the previous Report, financial asset prices in Poland have been considerably volatile. That was mainly due to uncertainty about the scale of the Fed's QE tapering, but also to domestic factors. At the same time, heightened fiscal uncertainty stemming from negotiations on the federal debt ceiling rise in the United States has only had a limited impact on stock and bond prices in Poland and the zloty exchange rate.

The residential market has seen signs of some recovery, mainly on the higher end of the market.

2.5.1 Interest rates and financial asset prices

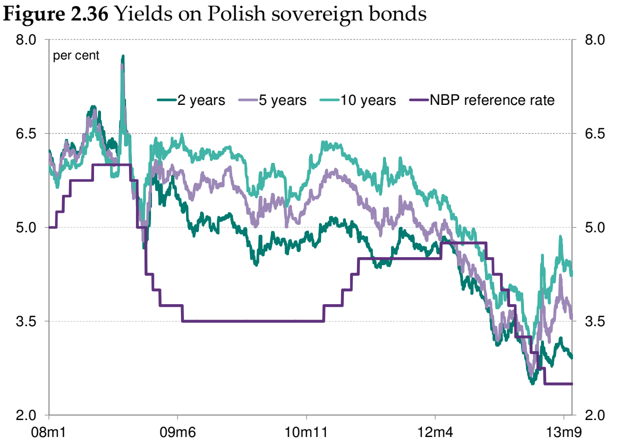
In July, the Monetary Policy Council cut interest rates by 0.25 percentage points, including the reference rate to 2.50 percentage points, and concluded the monetary policy easing cycle. Following that, the Council indicated that interest rates should remain unchanged at least until the end of 2013 (see Box 3 *Forward guidance – new monetary policy communication tool*).[35] This assessment has

Figure 2.35 NBP reference rate, WIBOR 1M and 1M interest rate implied by FRAs



Source: Based on Bloomberg data.

Figure 2.36 Yields on Polish sovereign bonds



Source: Bloomberg data.

[35] At the November meeting (at which this *Report* was adopted), the MPC assessed that NBP interest rates should be kept unchanged at least until the end of 2014 H1.

strengthened the market consensus on the NBP interest rates being kept at current levels until the end of 2013 in spite of slightly more optimistic incoming dataflow of late (see 2.2. *Demand and output*) and higher-than-expected inflation in July (see 2.1. *Inflation developments*). As a result, at present most analysts and market participants do not expect that NBP interest rate will increase before the second half of the year (Figure 2.35).

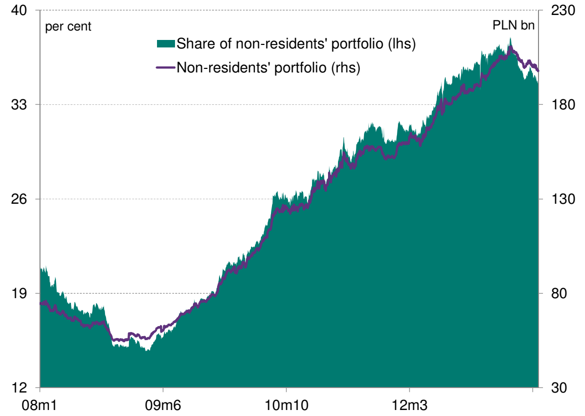
In recent months, yields on Polish sovereign bonds, and long-term bonds in particular, have been rising (Figure 2.36). This can be attributed primarily to QE tapering signalling by the Fed (see 1.3. *Monetary policy abroad and international financial markets*), which translated into declining share of non-residents in the Polish sovereign bond market (Figure 2.37). In addition, the announcement of pension fund (OFE) reform put a temporary upward pressure on sovereign bond yields. Short-term sovereign bond yields remained relatively stable as the market expected that NBP interest rates would stay unchanged in the following quarters. At the same time, Poland's credit risk has been staying low, which contained growth in bond yields. In the recent months, the Poland's credit default swap remained stable at a relatively low level.

Since the publication of the previous Report, stock indices rose, which was driven by improved sentiment in the global markets and signs of recovery in Poland. During this period, however, the announcement of pension reform and growing risk aversion in the global markets due to the escalating conflict in Syria pushed share prices temporarily down (Figure 2.38).

2.5.2 Exchange rate

Having depreciated due to an emergence of the Fed's QE tapering expectations, the zloty has been on a gradually strengthening since July. Apart from sentiment calming down in the emerging markets,

Figure 2.37 Non-resident exposure in the Polish sovereign bond market



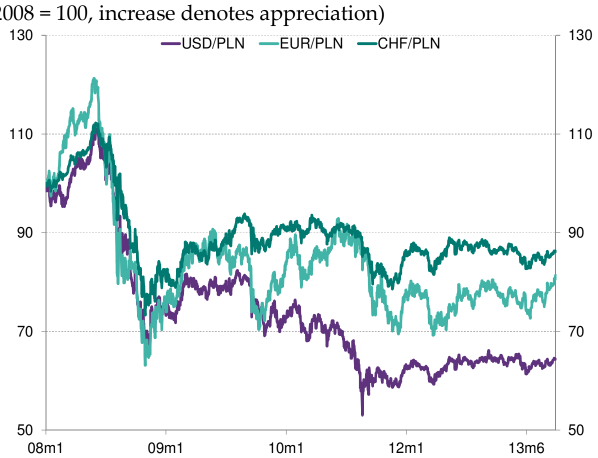
Source: National Depository for Securities (KDPW) data.

Figure 2.38 WIG, WIG 20 and WIG 30 stock exchange indices

Source: Bloomberg data.

*Introduced on September 23, 2013, WIG30 compounds shares of 30 largest and most liquid companies in the main market on the Warsaw Stock Exchange. Till the end of 2015, when WIG30 is to replace WIG20, both indices will be released parallelly.

Figure 2.39 Nominal exchange rate of the Polish zloty (January 2008 = 100, increase denotes appreciation)



Source: Bloomberg data.

the appreciation was driven by fading expectations of further cuts in NBP interest rates and improving Polish economic outlook as well as Poland's current account balance. Between late August and early September the zloty depreciated slighty, which was associated with the announcement of pension reform in Poland and growing risk aversion due to escalating conflict in Syria. In contrast to many emerging market currencies, the zloty was also appreciating when fiscal uncertainty in the United States was rising (Figure 2.39).

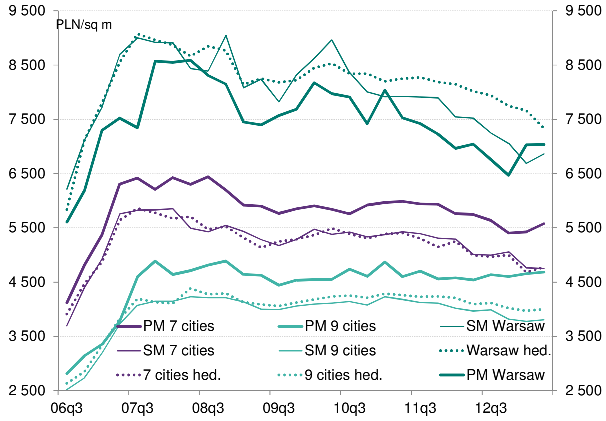
2.5.3 Housing prices

The housing market in 2013 Q2 – as in the previous quarter – continued to see certain signs of recovery. This was reflected in increasing number of transactions. Stronger activity in housing market was, however, largely due to a rise in demand for higher-end apartments for investment purposes. In contrast, in other segments of the market demand remained subdued. The hedonic price index, indicating prices of secondary market apartments of similar quality, continued to trend slightly downwards (Figure 2.40).

An important factor supporting housing demand in 2013 Q2 was growing mortgage affordability as a result of decreases in interest rates in previous quarters and some easing of mortgage lending policy by the banks.

The rebound in demand in the housing market was accompanied by falling number of construction starts, which, over longer run, should support house price growth (Figure 2.41). In turn, a large number of dwellings remaining to be sold should be conducive to stabilization of house prices in the coming quarters.

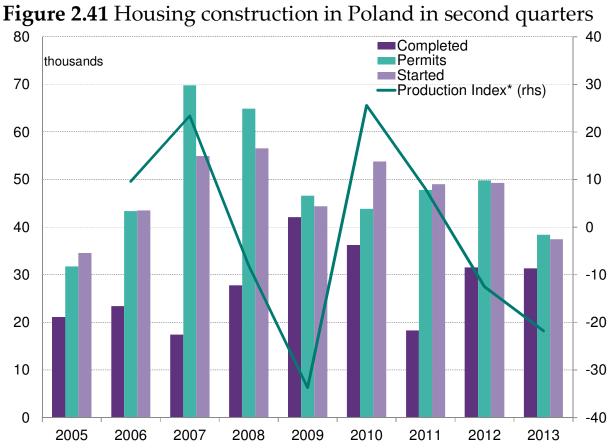
Figure 2.40 Average* prices of flats in Poland's 7 and 9 big cities [36]



Source: NBP calculations on the basis of sale price data from the NBP survey and PONT Info Nieruchomości asking price data.

* Asking prices – average weighted by the number of offers; sale prices in the primary market – average weighted by the share of the housing stock in a given city in the total housing stock of all cities; sale prices in the secondary market – average adjusted for differences in the qualities of flats. PM – primary market, SM – secondary market, hed. – hedonic price index.

Figure 2.41 Housing construction in Poland in second quarters



Source: GUS data, NBP calculations

* Production index is a synthetic measure reflecting the condition of construction companies in the housing sector it is a twelve-month moving value of work in progress, i.e. the number of flats whose production was commenced net of completed flats introduced to the market. The index includes single-family housing. Increase in work in progress assets may point to future problems for the construction sector when investors will not be able to meet commitments with regard to the already completed facilities. This may translate into investment freeze and irregular payments.

[36] The aggregate of seven cities encompasses: Gdańsk, Gdynia, Kraków, Łódź, Poznań, Szczecin and Wrocław, while the aggregate of nine cities involves: Białystok, Bydgoszcz, Katowice, Kielce, Lublin, Olsztyn, Opole, Rzeszów and Zielona Góra.

Box 3: Forward guidance – new monetary policy communication tool

In response to global financial crisis and the subsequent economic slowdown, many central banks considerably eased their monetary policy, decreasing nominal interest rates to historically low levels. Monetary policy easing was particularly pronounced in the major developed economies, where interest rates had been cut to close-to-zero levels. As a result, the capacity of some central banks to further use standard monetary policy instruments (i.e. cuts in short-term interest rates) to stimulate economic activity had been practically exhausted. This prompted the banks to seek new ways to fuel the economy. One of them were substantial purchases of financial assets by those banks, entailing considerable issue of reserve currency. The other involved the central bank's enhanced communication regarding the interest rate policy.

What is forward guidance?

One of the new communication tools – increasingly used by central banks – is the so-called forward guidance. *Forward guidance* is communication about monetary policy central bank intends to pursue within a horizon beyond the next meeting of its decision-making body. *Forward guidance* involves, in the first place, the likely future path of the central bank's interest rate, but may also inform about other parameters of monetary policy (e.g. the scale of quantitative easing).[37]

In present situation, forward guidance is used by central banks mainly to affect the expectations about the horizon in which a very accommodative monetary policy stance will be continued. Banks using forward guidance usually resort to this tool to extend the period during which the public can expect the central bank's interest rates to be kept at historically low levels. These measures are designed to anchor medium-and long-term expectations of economic agents on interest rates at low levels, which – by supporting investment and consumption growth - is to be conducive to economic recovery. The effectiveness of forward guidance is dependent, in particular, on two factors: the public's understanding of the central bank's intentions and credibility of these intentions.

Types of *forward guidance*

The form of *forward guidance* can be of great significance to the effectiveness of this communication tool as it impacts its clarity and credibility. Currently, there are three types of *forward guidance* in central bank communication, which differ in the method of determining the period during which the bank intends to keep interest rates unchanged: qualitative, fixed-date and conditional *forward guidance*.

- In the case of **qualitative *forward guidance*** the period during which the central bank intends to maintain a very loose monetary policy stance is defined in rather general terms (e.g. "for a considerable period", "for an extended period"). On the one hand, it enables central bank a flexibility of response to unexpected changes in the economy. On the other hand, however, it leaves a lot of room for interpretation; thus the informative value of such *forward guidance* for the public may be limited.

  Qualitative *forward guidance* was the first form of this communication tool. It was used by the Fed in 2003, and is now used by the ECB (since July 2013).

  - Fed – August 2003

    "*... the Committee believes that* ***the policy can remain accommodative for a considerable period***."
  - ECB – July 2013

    "*The Governing Board expects* ***the key ECB interest rates to remain at the current or lower level for an extended period of time***."

[37] Publication of future interest rate path may also be considered a form of *forward guidance*. However, banks using this communication tool emphasize that interest rate paths should not be construed as their commitment to take specified decisions on interest rate in the future, which distinguishes this form of communication from the currently used *forward guidance*. At the same time, banks applying *forward guidance* also avoid using the term "commitment", although through their communication they attempt to shape market expectations.

- When using **fixed-date** ***forward guidance*** the central bank indicates the date until which it will probably not raise interest rates (for example, "at least until mid-2015”). This form of *forward guidance* is relatively straightforward and therefore easy to interpret; yet, should the economic situation change significantly, forcing the declared or the actual date of rising interest rates to be changed, the credibility of central bank’s communication can be undermined. This is because the bank using fixed-date *forward guidance* does not inform how it intends to respond to unexpected changes in economic situation. As a result, the interest rate path communicated in this way can be questioned.

  This form of *forward guidance* was used by the Fed in 2011-2012.
  - Fed – August 2011

    „The Committee now expects the economic environment (...) possibly justifies ***maintaining the federal funds rate at an exceptionally low level at least until mid-2013.***"
  - Fed – September 2012

    ”... the Committee has decided today to maintain the federal funds rate at 0 - 0.25% and currently expects ***it might be justified to maintain an exceptionally low level of the federal funds rate at least until mid-2015.”***
- In the case of **conditional** ***forward guidance*** the central bank determines economic conditions that must be met to justify a change in interest rates or a consideration of such a change (e.g. the Fed currently declares to keep interest rates close to zero until the unemployment rate falls below 6.5%, inflation projected for the period between one and two years ahead stays below 2.5% and long-term inflation expectations remain well anchored). Moreover, the grounds for justifying a withdrawal from the declaration to maintain low interest rates may form a part of the conditional *forward guidance.*

  The conditional *forward guidance* allows banks to reduce the risk of the "tied hands" trap, as it gives the public a better understanding of the circumstances in which a bank may depart from the declared path of interest rates in response to changes in economic conditions. At the same time, however, the conditional *forward guidance* is intended primarily for the public who are aware of the current levels of economic variables on which the bank rests its decisions and have a view on how these variables will change in the future.[38] The conditional *forward guidance* may therefore be difficult for the bank's environment to interpret, especially when compared with the fixed-date *forward guidance*.

  Another potential problem associated with this form of communication is that it requires the bank to determine which variables and at which value will have a decisive impact on the change of the monetary policy pursued, which is especially difficult amidst heightened uncertainty persisting after the global economic crisis. It should also be remembered that no single economic indicator fully reflects the condition of the economy. As a result, it is impossible to rule out a situation in which - notwithstanding the fulfilment of the conditions set forth in the *forward guidance* - the bank will not raise interest rates because of its assessment of the general economic situation.[39] In order to minimize reputational risk, central banks – apart from including in *forward guidance* the caveats allowing them to withdraw from the preannounced decision - indicate that a rise in interest rates does not have to be "automatically" implemented after the said conditions have been fulfilled. The bank may merely consider legitimacy of such a measure.

  The conditional *forward guidance* is now used by two central banks: the Fed - since December 2012, and the Bank of England - since August 2013.
  - Fed - December 2012

    “…, the Committee decided to keep the target range for the federal funds rate at 0 to 1/4 percent and currently

[38] In practice, this means that in the case of households and businesses, which monitor the development of macroeconomic variables to a lesser extent, the effectiveness of the conditional *forward guidance* may be limited.

[39] It is also possible that a change in interest rates is justified although the conditions set forth in the forward guidance are not met.

anticipates that ***this exceptionally low range for the federal funds rate will be appropriate at least as long as the unemployment rate remains above 6-1/2 percent, inflation between one and two years ahead is projected to be no more than a half percentage point above the Committee's 2 percent longer-run goal, and longer-term inflation expectations continue to be well anchored."***

- The Bank of England - August 2013

  "… the MPC intends ***not to raise Bank Rate from its current level of 0.5% at least until the Labour Force Survey headline measure of the unemployment rate has fallen to a threshold of 7%,*** *subject to the conditions below. (…) The guidance linking Bank Rate and asset sales to the unemployment threshold would cease to hold if any of the following three 'knockouts' were breached:*
  - *in the MPC's view, it is more likely than not, that CPI* ***inflation 18 to 24 months ahead will be 0.5 percentage points or more above the 2% target;***
  - ***medium-term inflation expectations no longer remain sufficiently well anchored****;*
  - *the* ***Financial Policy Committee (FPC) judges that the stance of monetary policy poses a significant threat to financial stability*** *that cannot be contained by the substantial range of mitigating policy actions available to the FPC, the Financial Conduct Authority and the Prudential Regulation Authority in a way consistent with their objectives."*

Operation and effectiveness of *forward guidance*

Forward guidance may influence economic activity through different channels. Yet, most central banks using this communication tool, strive to influence, more strongly than before, the medium- and long-term interest rates, which - apart from short-term rates - are important for investment and consumption decisions, especially the long-term ones. The rationale behind the central bank's measures is that expectations concerning development of short-term rates are among major factors determining long-term interest rates. The bank's declaration to maintain short-term interest rates at historically low levels may thus contribute to a certain reduction in long-term interest rates. Moreover, reduced uncertainty about the future monetary policy, which may lead to a decline in the expected average level of central bank interest rates and a fall in the risk premium required for long term fund investment, may also contribute to lower long-term interest rates.[40]

Empirical research on *forward guidance* is scarce so far and does not allow to formulate clear conclusions as to its effectiveness. Although most of the studies suggest that *forward guidance* affects the expectations about interest rates, the estimated magnitude of its impact varies across the studies.[41] At the same time, the results of the analyses signal that with the expanding horizon of *forward guidance*, its credibility diminishes, which is probably related to rising uncertainty about future economic conditions, reducing the accuracy of the forecasts which are the prerequisite to *forward guidance* formulation.

***Forward guidance* in Poland**

After the July 2013 cut in the NBP interest rates to the historically low level, the Monetary Policy Council decided to implement a *forward guidance*. At the July press conference after the decision-making meeting of the Council, and subsequently in *Informations from the meeting of the Monetary Policy Council* in September and October, it was indicated that interest rates should be kept unchanged at least until the end of 2013.[42]

[40] Limited uncertainty about the future monetary policy can contribute to a reduction in the average expected level of central bank interest rates since if short-term interest rates run around zero, the financial markets consider interest rate rises in the future to be more likely than interest rate cuts.

[41] A detailed overview of empirical research on the effectiveness of *forward guidance* is presented in *Monetary policy trade-offs and forward guidance*, Bank of England, August 2013.

[42] At the November meeting (at which this *Report* was adopted), the Council extended the horizon of *forward guidance* assessing that interest rates should be kept unchanged at least until the end of 2014 H1 (see *Information from the meeting of the Monetary Policy Council held on 5-6 November 2013* in Chapter 3 *Monetary policy in July-November 2013*).

The Council decided to use a time-contingent *forward guidance* with a declared relatively short horizon (in July 2013 these were two quarters) of maintaining interest rates unchanged, considering this form of *forward guidance* – on the one hand - the most transparent and, on the other, the most credible. Credibility of *forward guidance* for a much longer period could be limited not only due to the inevitably greater uncertainty about economic developments in the distant perspective, but also for two other reasons.

- First, the Polish economy is now probably at the turning point of the economic cycle, at a time when the economic slowdown has come to an end and the recovery has begun. However, the scale and the structure of the recovery – both crucial for determining the appropriate response of monetary policy - are difficult to predict, particularly given the significant uncertainty associated with the external environment.
- Second, in order to formulate a credible *forward guidance* policy, the decision-making body whose members may differ both in the evaluation of the expected macro-economic processes and the appropriate monetary policy response to changes in the economy, should reach a binding agreement.

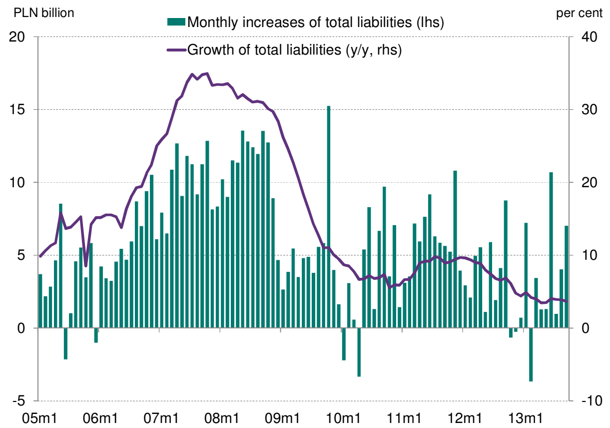
Changes in the expectations about future interest rates indicate that *forward guidance* implemented by the Council in July 2013 proved effective and helped to support the market consensus on the NBP interest rates to be kept at historically low levels at least until the end of 2013. The yield curve in the money market in Poland remains flat within the horizon until the end of 2013 as intended by the Council.

2.6 Credit and money

Since the previous *Report*, lending growth has remained relatively sluggish (Figure 2.42).[43]

In 2013 Q3, total debt of the non-financial sector, non-monetary financial institutions, local government units and social insurance funds increased by an average of PLN 4.0 billion monthly, i.e. slower than in the corresponding period of 2012 (when its average monthly increase amounted to PLN 4.9 billion).

Figure 2.42 Total liabilities of non-financial sector, non-monetary financial institutions, local government units and social insurance funds



Source: NBP data.

[43] Data concerning growth in assets and liabilities presented in this chapter refer to transactional changes. In the case of corporates, the size of both lending and deposits are subject to strong seasonal variations (in December and January, in particular), therefore average monthly increases in corporate loans and deposits are compared against corresponding periods of subsequent years.

A slowdown in lending to corporates persisted and was primarily driven by low demand for loans from enterprises. In turn, growth in household debt accelerated slightly in 2013 Q3, mainly in the segment of consumer loans and – to a lesser extent – in housing loans (Figure 2.46).

The relatively low debt increase in 2013 Q3 was reflected in rather low growth of money aggregates.

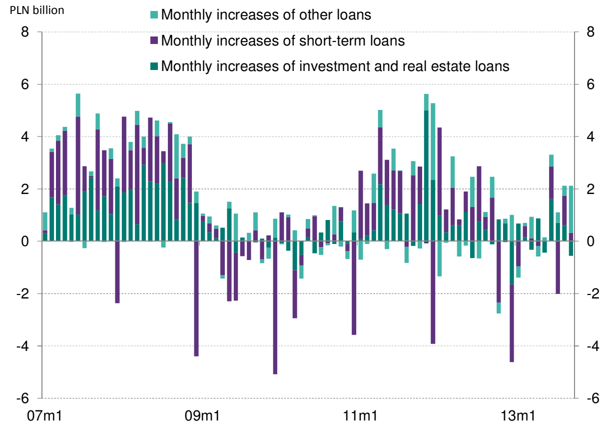
2.6.1 Corporate lending

Slowdown in lending to the corporate sector continued in 2013 Q3 as a result of fall in short-term loans and only a slight increase in lending for investment purposes (Figure 2.43).[44] Corporate debt growth was significantly lower than in the corresponding period of 2012 (average monthly debt increase amounted to PLN 0.9 billion as against PLN 1.9 billion in 2012 Q3; Figure 2.44).

Weakening in corporate lending may have been driven by – on the one hand – constraints in loan supply resulting from banks' relatively restrictive lending policy, and – on the other hand – low investment activity of enterprises. At the same time, the slowdown in corporate lending was mitigated by the NBP interest rate cuts which translated into a further decline in the cost of credit (in August 2013, the interest rate on corporate loans was 0.6 percentage points lower than the average in 2013 Q2; Figure 2.44).

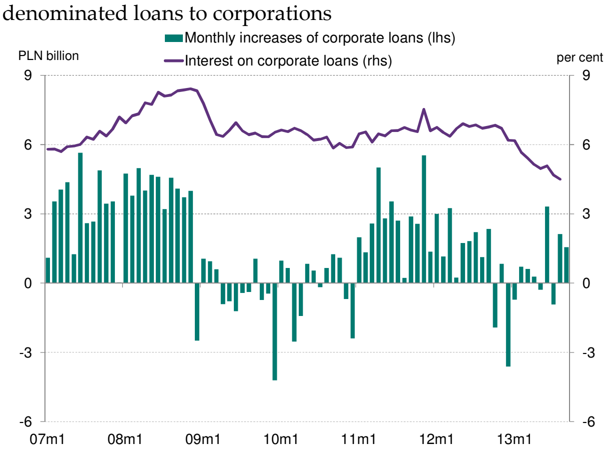
As reported by banks, demand for loans from the SME sector slightly increased in 2013 Q3, while demand from large enterprises remained relatively stable. Despite higher demand from SMEs, banks' broadly unchanged lending policy in this segment contributed to a further deceleration of lending to SMEs. On the other hand, the easing of lending

Figure 2.43 Break-down of increases in loans to corporations



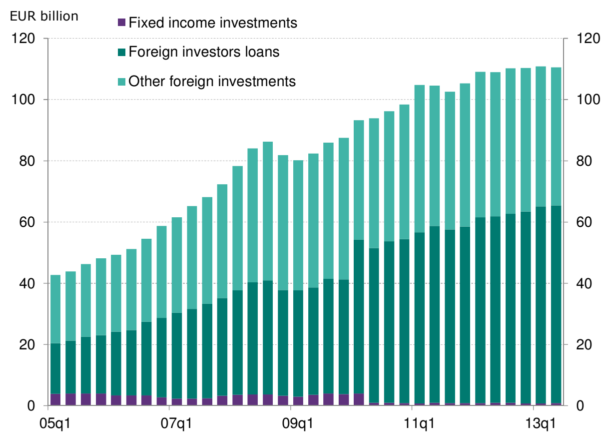
Source: NBP data.

Figure 2.44 Monthly increases and average interest on new zloty denominated loans to corporations



Source: NBP data.

Figure 2.45 Foreign debt of enterprises



Source: NBP data.

[44] In this period, there was only a slight increase in corporate debt which amounted to PLN 263.0 billion in September 2013.

standards for large enterprises led to somewhat higher growth in lending to large corporations.

Foreign debt of enterprises has not changed significantly for several quarters (Figure 2.45).[45] A slight increase in direct foreign investors' exposure to corporate debt instruments was accompanied by the absence of recovery in the segment of commercial loans.

2.6.2 Loans to households

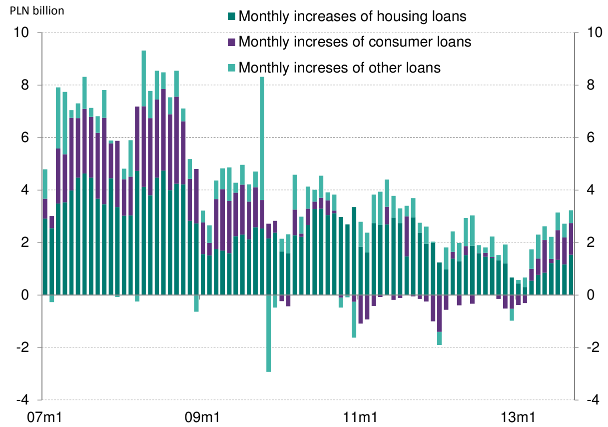
Following a period of weaker growth in the first half of 2013, monthly increases in housing loans picked up significantly in 2013 Q3, although remained slightly lower than a year earlier (average monthly increase amounted to PLN 1.3 billion against PLN 1.5 billion in 2012 Q3; Figure 2.47).

The growth in housing loans was supported by some easing of banks' lending standards and a further cut in interest rates (in August 2013, the interest rate on housing loans was 0.3 percentage points lower than the average in 2013 Q2; Figure 2.47). At the same time, no clear improvement in the financial situation of households, the discontinuation of the government programme of subsidised housing loans (*Family on its Own*), as well as a deterioration in some lending terms (including a rise in credit spreads) curbed growth in demand for housing loans.

The situation in the segment of consumer loans has steadily improved since the first months of 2013. Their value rose for the second consecutive quarter (average monthly increase amounted to PLN 1.1 billion in 2013 Q3, compared to PLN 0.1 billion in 2012 Q3; Figure 2.48).

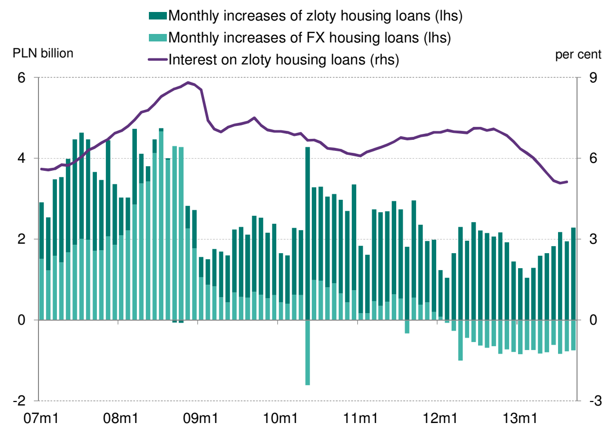
The revival in consumer loans was driven by a significant easing of banks' lending policy in this market segment connected with implementation of

Figure 2.46 Break-down of increases in loans to households



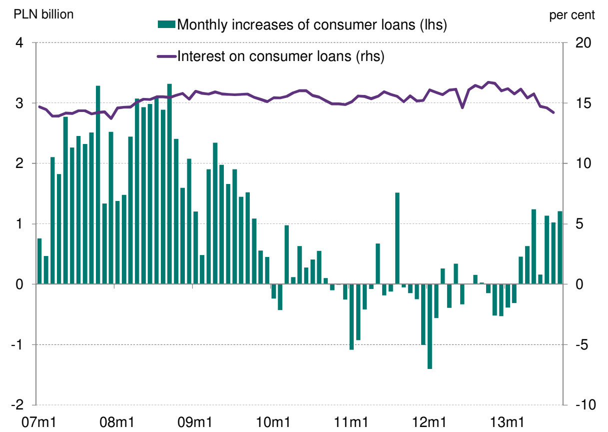
Source: NBP data.

Figure 2.47 Monthly increases and average interest on new housing loans to households



Source: NBP data.

Figure 2.48 Monthly increases and average interest on new consumer loans to households



Source: NBP data.

[45] In 2013 Q2, the total foreign debt of enterprises amounted to EUR 110.6 billion.

the amended provisions of Recommendation T. Specifically, the lowering of credit spreads, coupled with NBP interest rate cuts, translated into lower cost of credit, which positively affected household demand for loans (in August 2013, interest rate on consumer loans was 1.1 percentage points lower than the average in 2013 Q2; Figure 2.48).

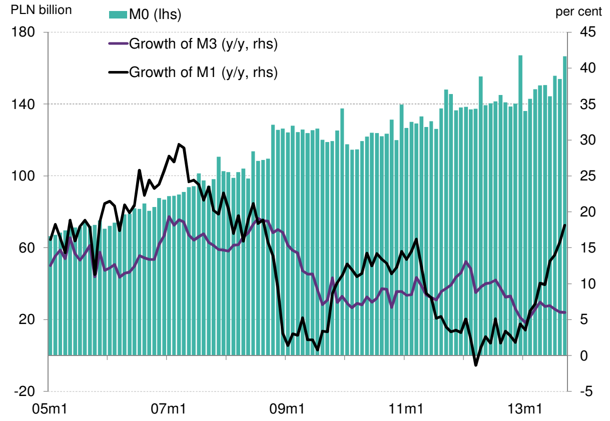
2.6.3 Deposits and monetary aggregates

In 2013 Q3, growth in broad money remained rather low, while growth in M1 continued to increase strongly. The M1 acceleration was connected with a change in term structure of household assets, specifically, with the rise in cash in circulation and the shift from term to current deposits (Figure 2.49).

Since the publication of the previous *Report*, corporate deposits have not changed significantly, which may be related to the persistently low economic activity (Figure 2.50).[46]

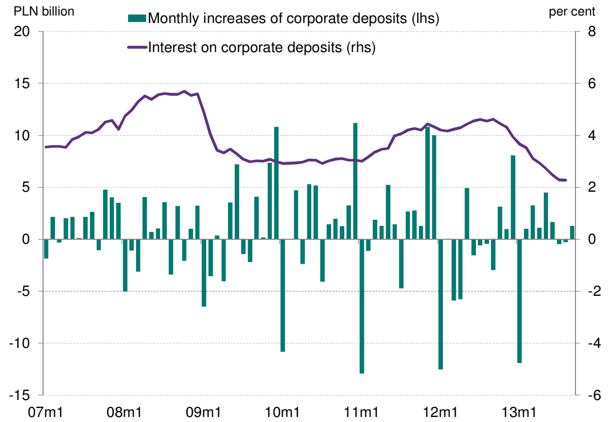
Similarly, the value of household deposits has not changed markedly in recent months.[47] At the same time, a clear shift has still been observed in household preference as to the maturity of their deposits in the financial system: the value of term deposits has been declining and the value of current deposits and investment funds has been rising. This has been supported by a relatively low interest rates on deposits (Figure 2.51).

Figure 2.49 Monetary aggregates



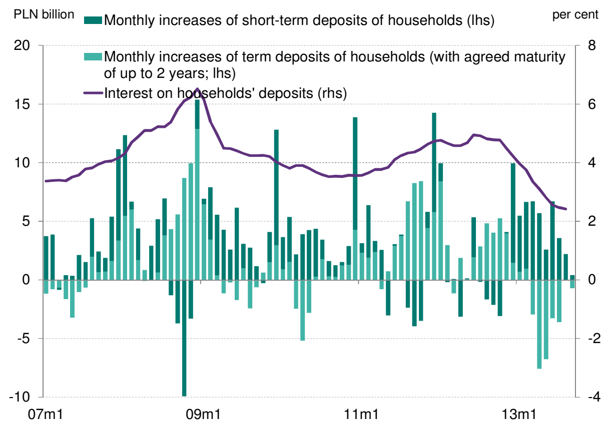
Source: NBP data.

Figure 2.50 Monthly increases and average interest on deposits of corporations



Source: NBP data.

Figure 2.51 Monthly increases and average interest on deposits of households



Source: NBP data.

[46] In 2013 Q3, a very slight increase in bank assets of enterprises was registered – by PLN 2.0 billion against a fall of PLN 1.3 billion in 2012 Q3. In September 2013, the value of corporate deposits stood at PLN 188.8 billion.

[47] In 2013 Q3, monthly increases of household deposits were lower than in 2012 and averaged PLN 0.6 billion, compared to PLN 2.6 billion in 2012 Q3. In September 2013, the value of household deposits amounted to PLN 530.8 billion. Deposits account for the largest share in household asset structure (63%). The total value of household assets increased to PLN 857.4 billion in August 2013.

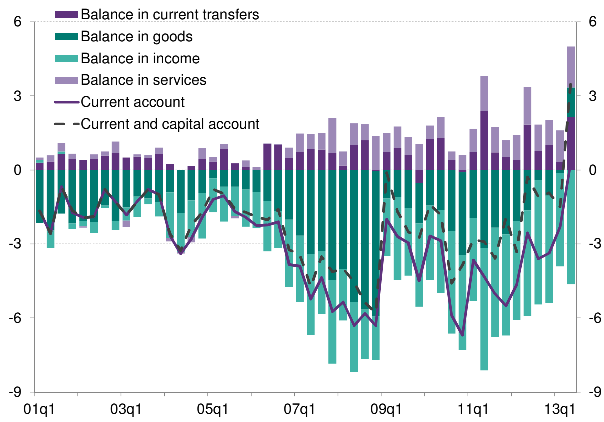
2.7 Balance of payments

2013 Q2 was the first quarter since 2000 (i.e. since transaction-based quarterly balance of payments data were first published) to see the current account balance turn positive at EUR 0.4 billion. This was underpinned by a surplus in the balance of trade in goods, resulting from a continued downward trend in imports against the background of moderately rising exports (see Chapter 2.2.4 Exports and Imports; Figure 2.52).[48] At the same time, the 2013 Q2 surplus in the capital account increased comparing to the level recorded a year before, while the financial account posted the first deficit since 2004.[49]

Factors behind the improved current account balance included - apart from the positive balance of trade in goods - higher surpluses in services and current transfers. At the same time, the deficit in the income balance widened. This persistently high deficit reflected primarily high income of direct foreign investors resulting from strong financial performance of Polish companies in 2013 Q2.

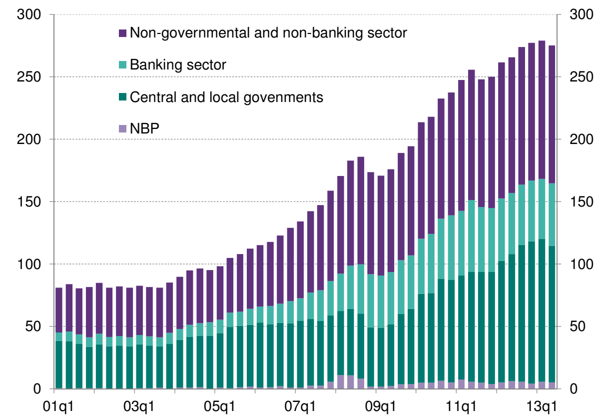
The rise in the surplus in the capital account was related to higher inflow of investment-designated EU funds. The negative balance in the financial account (EUR 0.8 billion, against a surplus of EUR 3.6 billion in 2012 Q2) resulted, in turn, from the outflow of portfolio capital from the domestic Treasury bond market following prior heavy inflow to this market, and a realisation of profits by some foreign investors. Under the heading of foreign direct investment comes also a capital outflow related to a single transaction involving an investor's withdrawal from a special purpose entity.

Figure 2.52 Current account balance (EUR billion)



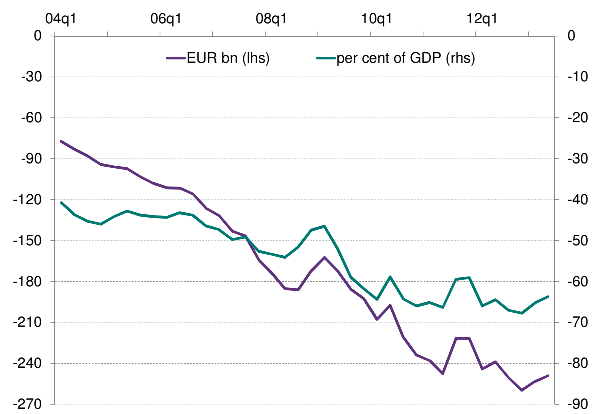
Source: NBP data and estimates

Figure 2.53 Poland's external debt (EUR billion)



Source: NBP data

Figure 2.54 Poland's net international investment position



Source: NBP data

48 According to the NBP monthly estimates of the balance of payments, the current account balance in July and August this year was negative and amounted to EUR -0.5 bln and EUR -0.7 bln respectively (as against EUR -1.9 bln and EUR -0.5 bln in July and August 2012).

49 According to the NBP monthly estimates of the balance of payments, in July and September this year surpluses in the capital account also increased (comparing to the corresponding period in 2012) and financial account registered surpluses.

As current account balance had run up a surplus in 2013 Q2, the indicators of Poland's external imbalance improved substantially, in particular in terms of the current account- and current-and-capital account balance as related to GDP (Table 2.5).

Table 2.5. Selected external stability indicators (4-quarter moving average)

	2008	2009	2010	2011	2012				2013	
					q1	q2	q3	q4	q1	q2
Current account balance/GDP(%)	-6.6	-3.9	-5.1	-5.0	-5.3	-4.8	-4.4	-3.7	-3.1	-2.3
Current and capital account balance/GDP (%).	-5.4	-2.3	-3.3	-3.0	-3.2	-2.5	-1.8	-1.5	-1.0	0.0
Trade balance/GDP(%)	-5.8	-1.7	-2.5	-2.7	-2.8	-2.4	-1.8	-1.4	-0.8	-0.1
Official reserve assets expressed in terms of monthly imports of goods and services	3.3	5.3	5.4	5.2	5.1	5.5	5.6	5.6	5.7	5.6
Foreign debt/GDP (%)	48	62	67	67	71	72	74	73	73	70
Short-term foreign debt/official reserve assets (%)	106	88	83	73	76	71	69	65	65	70
Net international investment position/GDP (%)	-48	-62	-66	-59	-66	-65	-67	-68	-65	-64
Foreign debt maturing in up to 1 year plus the current account balance/official reserve assets (%)*	167	152	123	120	-	146	124	119	117	110

Source: NBP data

*Data available on a quarterly basis since 2012 Q2.

3 Monetary policy in July – November 2013

At the meeting in July 2013 the Monetary Policy Council decreased NBP interest rates by 0.25 percentage points to the level: reference rate to 2.50% on an annual basis, lombard rate to 4.00% on an annual basis, deposit rate to 1.00% on an annual basis, rediscount rate to 2.75% on an annual basis. At the meetings in September, October and November the Council decided to keep the NBP interest rates unchanged.

What follows in the next part of the chapter are the previously published M*inutes of the Monetary Policy Council decision-making meetings* held in July, September and October 2013 as well as the *Information from the meeting of the Monetary Policy Council* in November 2013. *Minutes of the MPC decision-making meeting in* November will be published on 21 November, and after that included in the next *Report*.

Minutes of the Monetary Policy Council decision-making meeting held on 3 July 2013

At its meeting, members of the Monetary Policy Council discussed the current and future monetary policy decisions in the context of macroeconomic developments in Poland and abroad.

While assessing economic conditions abroad, some members of the Council emphasised that although the situation in the United States was improving steadily, even though slowly, (as evidenced, in particular, by growing employment), global economic growth remained weak. In this context, it was pointed out that the euro area recession – which probably persisted in the first half of 2013 – had been accompanied by further downward revision of GDP growth forecasts for this economy and postponement of its recovery. Moreover, some members of the Council pointed to the signs of deteriorating economic climate in some major developing countries, including China, which negatively affected activity in the euro area, and, indirectly, also in Poland. At the same time, members of the Council observed that the second half of 2013 was expected to bring a gradual improvement in the global economic conditions and, in particular, an end to the euro area recession. A few members of the Council assessed that even amidst low GDP growth in the euro area, a relatively fast growth in Polish exports to that economy was possible, especially if economic activity in Germany remained considerably higher than in other euro area countries.

It was pointed out that the recent signals from the Federal Reserve that it might start QE tapering caused a deterioration of the financial market sentiment. The deterioration of the global financial sentiment resulted in some outflow of capital from the emerging markets and a depreciation of their currencies. When assessing the impact of the situation in the international markets on the domestic financial market, some members of the Council emphasized that, as compared to other emerging economies, the change in prices of Polish assets (including an increase of yields on Treasury bonds and zloty depreciation) was limited. In the opinion of those Council members, this might be a sign of favourable perception by investors of the Polish economy fundamentals. Yet, a few Council members assessed that the risk of renewed rise in financial market uncertainty in emerging markets, including Poland, should be taken into account. They also pointed to the recent outflow of portfolio capital from Poland, related to lower relative attractiveness of investing in Polish Treasury bonds.

Referring to the July NBP projection, some members of the Council emphasized that the central paths of GDP and inflation in Poland were slightly lower than those in the March projection; yet, this was mainly visible for the coming quarters. In the medium term, both projections were very similar and pointed to a gradual recovery in economic growth and a slow rise in inflation.

When analysing the current economic situation in Poland, some Council members pointed to the signs of persistently weak domestic conditions, including further fall in industrial output in May 2013 and deepening decline in construction output, as well as continued slow growth in retail sales. Those members of the Council stressed that economic climate indicators did not clearly signal trends in economic activity, and the continued low level of lending to the private sector suggested that the possible strengthening of GDP growth in the coming quarters was likely to be gradual and moderate.

Some members of the Council argued that the significant decrease in the NBP interest rates implemented since November 2012 supported economic recovery, although it cannot completely offset the negative impact of external conditions, fiscal tightening and deteriorating corporate sentiment on domestic GDP growth. According to those members of the Council, economic growth is negatively influenced, in particular, by concerns about a prolonged recession or stagnation in the euro area, discouraging enterprises from investing. In such a situation, if the outlook for demand cease to deteriorate and if enterprises start to expect economic recovery in the coming quarters, lower cost of financing could become a significant factor supporting investment. In the opinion of a few Council members, increasing production capacity utilization and some rise in the total cost estimate value of newly launched investment were among signs of a possible recovery in investment activity in the near future. Low interest rates also encourage consumption, in particular by reducing households' loan repayment burden of zloty denominated loans.

In the opinion of some Council members, in the longer term, domestic demand might also be supported by the launch of the new EU Financial Perspective for 2014-2020. At the same time, the expected recovery in consumption would reduce the contribution of net exports to GDP growth. A few Council members also pointed to the uncertainty about the scale of further fiscal tightening, which might be significantly smaller than currently declared.

When addressing the situation in the labour market, attention was paid to slower decline in employment in the enterprise sector in May 2013, as expressed in annual terms. Yet, it was emphasised that, at that moment, it was difficult to assess the sustainability of the observed changes. At the same time, it was pointed out that unemployment continued at a relatively high level, further supporting low wage growth.

While discussing inflation developments in Poland, attention was drawn to a further decline in inflation in May 2013, down to 0.5%, i.e. a level significantly below the NBP's inflation target of 2.5%. Some members of the Council emphasized that the available forecasts pointed to the possibility of inflation running at a very low level in the coming months. Those Council members argued that also in the coming quarters inflation was likely to continue well below the NBP target. In their opinion, this was evidenced by the deepening decline in producer prices and low wage growth, indicating the absence of cost pressure in the economy, as well as stagnation in consumption in the 2013 Q1 and only a minor increase in retail sales in 2013 Q2, signalling the lack of demand pressure.

When analysing the July inflation projection, some members of the Council emphasized that such factors as the gradual acceleration of economic growth and the probable persistently negative output gap until the end of the projection horizon would curb price growth in the coming quarters. Similarly, slow growth in unit labour costs and the expected – amidst low global demand – stabilization of commodity prices in the world markets should be conducive to low inflation. That meant, in the opinion of those Council members, that the return of inflation to the target would be gradual. Yet, other members of the Council pointed out that according to the July projection growth in food and energy prices, including oil prices, as well as growth in wages would remain below the level recorded in past, while zloty exchange rate was anticipated to be slightly stronger than currently observed. According to those Council members, should these variables develop more in line with previously observed values, it is likely that the rise in inflation will be faster than indicated by the July projection. In this context, a few members of the Council emphasized that some of the available forecasts, including forecasts by financial analysts, indicate the possibility of inflation returning to the target already in 2014. Those Council members also emphasized that the estimates of the current output gap, as being a non-observable variable, were always uncertain. According to the opinion of those Council members output gap may be less negative than indicated in the July projection.

While discussing monetary policy decisions, some members of the Council assessed that interest rates were at very low levels, and their further reduction might discourage households from holding funds on bank accounts. A few Council members also emphasized that excessive interest rates cuts would create an incentive to accept greater risks, e.g. by undertaking low-productivity projects that eventually may prove unprofitable, and would lead to changes in the structure of bank lending (rising role of mortgage lending amidst reduced lending to companies). According to those Council members, for the above reasons it would be justified to keep the interest rates unchanged.

Most of the Council members assessed, however, that the prolonged economic slowdown and the lack of inflationary pressure, together with the medium term outlook for the economy, as indicated, among others, by the July projection of inflation and GDP – spoke in favour of lowering interest rates at the current meeting. Further monetary policy easing was expected to support economic recovery and the return of inflation to the target.

Most of the Council members agreed that the decision to cut interest rate taken in July should mark the end of the loosening cycle of monetary policy started in November 2012. Members of the Council pointed out that the gradual recovery in demand expected in the second half of the year should translate into a slightly stronger economic growth. However, in their opinion, in view of the persistently negative output gap, inflation was likely to remain at very low levels for several quarters ahead. Yet, according to those members of the Council, economic activity should steadily improve, which – combined with the effects of a significant monetary policy easing – would encourage the return of inflation to the target in the medium term. In the opinion of the majority of the Council members, the current level of interest rates, including the July cut, would support economic recovery and the return of inflation to the target, while, at the same time, it would reduce the risk of adverse effects of excessive interest rates cuts for the financial system and the economy. In addition, those Council members pointed out that signalling the end of the loosening cycle would contribute to reducing the uncertainty about monetary policy in the future.

A few Council members pointed out, however, that no declarations as to probable future course of monetary policy should be made. They claimed that at present it was difficult to assess the impact of the government's planned changes in public expenditure and revenue on economic activity and inflation in Poland. In the opinion of those Council members, another reason against declaring probable future course of monetary policy was the persistent uncertainty about financial markets' response to the signals of limiting monetary expansion in the United States and to the assessment of the economic and institutional reforms in the euro area.

At the meeting, a motion was submitted to lower the NBP basic interest rates by 0.25 percentage points. The motion passed. The Council decided to lower the NBP basic interest rates by 0.25 percentage points to the following levels: reference rate to 2.50%, lombard rate to 4.00%, deposit rate to 1.00%, rediscount rate to 2.75%.

Minutes of the Monetary Policy Council decision-making meeting held on 4 September 2013

At its meeting, members of the Monetary Policy Council discussed the current and future monetary policy decisions in the context of macroeconomic developments in Poland and abroad.

While referring to economic conditions abroad, Council members drew attention, on the one hand, to a gradual economic recovery in the United States and in the euro area, and, on the other hand, to a certain weakening of economic activity in the major emerging markets. At the same time, according to a few Council members, looking ahead, global economic growth might be supported in particular by recovery in the developed economies, as without institutional reforms, a number of emerging economies would not be able to grow at the rate observed so far. Yet, other Council members argued that GDP growth in such countries as China would be driven by low – comparing to productivity – labour cost for still a long time to come.

With reference to the United States it was emphasized that GDP growth had accelerated in that economy in 2013 Q2, as well as that the incoming monthly data for Q3 pointed to a further improvement in business sentiments and declining unemployment rate, which should support the recovery also in the second half of the year. It was emphasized that forecasts indicated a further slight increase in GDP growth in the American economy in 2014. Some Council members believed, however, that the anticipated phasing out of the Federal Reserve from the quantitative easing programmes might put the US recovery into question as the increase in interest on mortgage loans might curb the real estate market revival.

While discussing economic climate in the euro area it was emphasized that whereas GDP growth in that economy remained negative in annual terms, it grew in quarterly terms in 2013 Q2. It was pointed out that economic growth accelerated in particular in Germany – Poland's main trading partner – and the decline in GDP continued to slow down both in Italy and in Spain. Attention was also paid to the continuous improvement in business climate indicators in the euro area in Q3 signaling further recovery in the euro area economy. A few Council members also emphasized the decreasing external imbalances in some euro area countries as to a factor having a positive effect on the economic prospects of that economy. Some Council members assessed, however, that the subsequent quarters would most likely see a gradual recovery and GDP growth in the euro area would be markedly lower than in the United States. Those Council members viewed the persistently high debt in both public and private sector, low competitiveness of the economy, high unemployment rate and restrictive lending policies of commercial banks as inhibitors of economic growth in some euro area countries. Moreover, a few Council members assessed that the incomplete restructuring of the banking sector posed additional risk to recovery in some euro area countries.

Some Council members pointed out that the recent hikes in global oil prices might contribute to higher inflation worldwide. Meanwhile, other members of the Council emphasized that recently observed hikes in oil prices reflected political tensions stemming form the civil war in Syria, whereas a slowdown in global demand growth, primarily attributed to lower growth in activity in major emerging economies, had a dampening effect on oil prices. In effect – as argued by those Council members – oil price hikes might prove to be a temporary phenomenon. At the same time, a few Council members pointed out that hikes in commodity prices might be supported by a certain recovery in the advanced economies.

While assessing the global economic situation, Council members also pointed to the fact that the Federal Reserve had announced its intention to limit the scale of quantitative easing. As a result, in the recent months the capital had fled from the emerging economies and most of their currencies had suffered a marked depreciation. It was assessed that the Federal Reserve's withdrawal would most likely remain the source of tensions in the global financial market also in the quarters to come.

While examining the impact of tensions in the global financial markets on the Polish economy, the Council members noted a significant growth in yields on Polish bonds, following their previous considerable decline, as well as change in the share of non-residents holdings. At the same time, a few Council members assessed that there was persistently high – in their opinion – risk of global economic shocks, likely to cause fluctuations in yields on Polish bonds. In that context it was also indicated that most of the government's borrowing requirements for 2013 had already been met. This moderates the impact of higher secondary market bond yields on debt servicing costs. Some Council members also declared that the increase in yields in the secondary market did not have to translate, in its entirety, into a rise in yields in the primary market.

At the same time, it was stressed that mounting tensions in the global financial markets had not contributed to a considerable – as compared to the exchange rates of other currencies of the emerging markets – depreciation of the zloty. In the opinion of the Council members this primarily reflected the lack of significant imbalances in the Polish economy and a positive current account balance.

While addressing the situation in the real sphere of the Polish economy, the Council members pointed out that 2013 Q2 had seen a certain acceleration in GDP growth, this resulting however from higher contribution of net exports to GDP growth, coupled with steeper decline in domestic demand. It was noticed that the recently incoming monthly data indicated the continuation of economic recovery in 2013 Q3. While discussing the economic outlook for Poland, Council members agreed that the subsequent quarters would see further improvement in business conditions, yet they differed as to scale of the anticipated economic recovery. Some Council members believed that economic activity would be accelerating slowly, and that the nearest quarters would see GDP growth below its potential level.

At the same time, a few Council members anticipated that the economic recovery would be relatively rapid, and, in effect, the negative output gap would start to close gradually. The scale of further fiscal tightening was also indicated as a factor increasing uncertainty about GDP growth in 2014.

Members of the Council who expect moderate recovery in the economy, pointed to the deepening decline in investment and stagnation in private consumption in 2013 Q2. Some Council members underlined, however, that decline in investment is typical of the current phase of the business cycle. A few Council members also noted that GDP growth in the coming quarters might be negatively affected by the situation in the banking sector, which, on the one hand, had posted a weaker growth in household deposits, and, on the other hand, rising share of non-performing loans. They also drew attention to decrease in loans to enterprises growth.

Members of the Council expecting somewhat faster GDP growth in the coming quarters, however, pointed to rising retail sales and industrial production and weakening decline in construction in the recent months, as well as signs of a possible rebound in investment over the subsequent quarters (rise in the estimated cost and number of newly started investment). According to those Council members, further economic recovery will be driven by a growth in disposable income of households and improved performance of corporates, including a rise in their liquidity.

During the discussion attention was paid to the signs of labour market stabilization. In particular, it was noted that although employment in the economy in 2013 Q2, was falling in annual terms, the incoming data from the corporate sector showed slight increases in month-over-month employment. A few Council members argued, however, that despite the economic recovery no significant increase in employment should be expected as during the slowdown enterprises strove to limit layoffs. Council members also pointed out that despite a certain wage growth recorded in 2013 Q2, growth in unit labour costs remained stable due to a concurrent growth in labour productivity. Council members emphasized that persistently heightened unemployment rate was a factor limiting wage growth. A few Council members argued, however, that the strikes announced for the coming months might put further upward pressure on wages in the economy.

While discussing inflation developments, Council members emphasized that despite a significant rise in July, inflation continued to run below the lower limit for deviations from the target. At the same time, it was pointed out that the rise in inflation recorded in July resulted from increased waste disposal fees, changes in the seasonal pattern of potato prices as well as higher fuel prices, and therefore did not signal the emergence of demand pressures.

Most of the Council members assessed that inflation was likely to remain below the target in the coming quarters due to the lack of demand pressure. Some Council members pointed to the fact that base effect related to a significant rise in inflation in July 2013 would exert a downward pressure on inflation in the second half of 2014. Other members believed that even though inflation was likely to remain below the target, the increase in oil prices posted in the recent period and the previously observed moderate depreciation of the zloty could be driving inflation up. A few Council members in turn were of the opinion that as it was possible for GDP growth to rebound faster (above potential output growth) the subsequent quarters might see demand pressure, which would be an additional factor contributing to inflation acceleration.

In the context of the expected rise in inflation, a few Council members emphasized that higher inflation supported lower real interest rates. Other Council members, however, pointed out that the medium-term inflation forecasts of economists and bank analysts – despite fluctuations in inflation – remained relatively stable, which currently stabilized the ex-ante real interest rate.

Council members agreed that interest rates should be kept unchanged at the present meeting, and the current and expected economic situation spoke in favour of keeping interest rates unchanged until the end of 2013. In the opinion of the Council, further ahead the level of interest rates would depend on the scale and structure of recovery and the resulting inflationary pressure.

The Council decided to keep NBP's interest rates unchanged: the reference rate at 2.50%, the lombard rate at 4.00%, the deposit rate at 1.00% and the rediscount rate at 2.75%.

Minutes of the Monetary Policy Council decision-making meeting held on 2 October 2013

At its meeting, members of the Monetary Policy Council discussed the current and future monetary policy decisions in the context of macroeconomic developments in Poland and abroad.

Referring to external conditions, it was noted that the global economic growth is moderate and there are no clear signals – neither from developed nor from developing economies – pointing to its significant acceleration in the coming quarters.

Members of the Council discussed in particular the situation in the United States, where before the beginning of a fiscal year, the U.S. Congress did not adopt the budget law. According to some members of the Council this may negatively affect US economic activity, although other members of the Council assessed that the impact will probably be limited. Yet – according to the Council – difficulties with the adoption of the budget in the United States may have a negative impact on negotiations about increasing the US debt limit, and so on sentiments in the global financial markets. At the same time, it was pointed out that the fiscal situation can be a factor discouraging the Federal Reserve from QE tapering.

While analyzing the situation in the euro area, some Council members pointed out that the situation in that economy is a bit better than before. They emphasized in particular that the slightly positive – for the first time in six quarters – euro area GDP growth in 2013 Q2 was supported by an increase in external demand (especially from the United States and Japan), a relatively stable situation on the financial markets of the euro area and an improved sentiment of both consumers and producers. It was noted that the high level of PMI and an increase of most of other economic indicators signal a high probability of euro area GDP growth remaining positive in 2013 Q3. At the same time, members of the Council pointed out that euro area GDP growth in 2013 Q2 was also related to one-off factors. Moreover, a few Council members argued that the lack of prospects for a considerable revival in economic growth in major emerging economies may have a negative impact on economic activity in Europe.

Some Council members argued that, given moderate recovery in the global economic growth, pressure on commodity prices will probably remain low. A few Council members noted that also the end of a period of high prices in the long-term commodity cycle may contribute to lower commodity prices in the coming years. Other Council members, however, pointed to a recent rise in enterprises' concerns about the future path of commodity prices. If these concerns prove to be justified, i.e., if commodity prices actually increase, the growth – due to its strong impact on domestic prices – may have significantly increased inflation in Poland.

While analysing business conditions in Poland, some Council members noted that revival of economic growth is more gradual than in 2010. To a significant extent this is related to a persistently slower – as compared to the period prior to the global financial crisis – GDP growth abroad. According to a few Council members, economic activity might also be hampered by increased unemployment. In their view, unemployment – especially among young and low-skilled employees – is additionally raised by rising minimum wages in Poland, which exceeds average wage growth. Those Council member assessed, moreover, that both the persistently lower growth abroad and lower employment might negatively affect potential output growth in the medium term. Other Council members indicated, however, that the minimum wage in Poland was relatively low as compared to other EU countries and, in their opinion, it has no considerable impact on the levels of employment and unemployment in Poland.

While discussing the current business conditions, it was noted that some data on domestic economic activity proved worse than anticipated. In particular, the growth of industrial output and of construction output in August 2013 showed some deceleration of positive tendencies observed in the previous period – i.e. recently seen acceleration of industrial output was slower and decelerating fall in construction output was again somewhat more negative. At the same time it was emphasized that annual GDP growth would most likely be higher in Q3 as compared to Q2. In particular, favourable data on retail sales and improvement in leading business indicators, including a relatively high PMI, signalled steadily accelerating growth. Attention was also drawn to the signs of gradual improvement in the labour market. August saw a slight decline in the registered unemployment rate (in seasonal adjusted terms) and a further growth in employment in the corporate sector (in monthly terms). Moreover, a few Council members noted that activity is reviving in numerous sectors of the economy, which, in their opinion, reflects a broad-based and most likely robust economic recovery.

Some members of the Council argued, that despite gradually accelerating activity, output gap would continue to be negative in the subsequent quarters, hence, there was no substantial risk to price stability on the part of domestic factors. Those members – seeing also low risk of considerable increase in external inflationary pressures – expected that inflation would run below the target also in 2014. Members of the Council indicated that in line with forecast covering the next 4 quarters, inflation was expected to remain below the target. Also core inflation in a one year-horizon was about to run at a relatively low level, i.e. below the multi-year average.

Other Council members, however, pointed out that currently the potential output growth might be lower than implied by the available estimates, and thus, the negative output gap may get closed already in the near future. Furthermore – they believe – given the risk of inflation rising due to factors linked to food and energy prices, core inflation should run well below the currently forecasted values in order to expect that CPI inflation would remain within the tolerance band of deviations from the inflation target. In this context those Council members noted that inflationary expectations of enterprises recently increased somewhat, which was related in particular to their concerns about renewed rise in global commodity prices.

While analysing developments in monetary aggregates, a few Council members pointed to the change in term structure of households' assets. Primarily they stressed rising value of cash in circulation.

Council members agreed that interest rates should be kept unchanged at the present meeting, and the current and expected economic situation spoke in favour of keeping interest rates unchanged at least until the end of 2013. In the opinion of the Council, further ahead the level of interest rates would depend on the scale and structure of recovery and the resulting inflationary pressure. A few Council members indicated that the future monetary policy should also take account of the expected fiscal policy.

The Council decided to keep NBP's interest rates unchanged: the reference rate at 2.50%, the lombard rate at 4.00%, the deposit rate at 1.00%, and the rediscount rate at 2.75%.

Information from the meeting of the Monetary Policy Council held on 5-6 November 2013

The Council decided to keep NBP interest rates unchanged: reference rate at 2.50% on an annual basis, lombard rate at 4.00% on an annual basis, deposit rate at 1.00% on an annual basis, rediscount rate at 2.75% on an annual basis.

Global economic activity remains moderate. In 2013 Q3, GDP growth in the euro area was probably similar to a quarter before, while growth in the United States was negligibly slower. At the same time, in a few major emerging market economies, including China, economic growth stayed low as for these economies. Moderate global economic activity has been conducive to low inflation in many countries.

Following a temporal deterioration of sentiment due to uncertainty about fiscal policy in the United States, prices of some financial assets, including the zloty, have risen of late.

In Poland, industrial and construction output as well as on retail sales in 2013 Q3 confirm low, yet accelerating economic growth. At the same time, improving leading indicators point to gradual recovery continuing into quarters to come.

Gradual improvement in economic conditions is coupled with a minor increase in corporate employment, yet it is still lower than a year ago. Unemployment rate is still elevated, which contributes to slow wage growth.

Growth in lending to the private sector remains limited. In September, annual growth in loans to enterprises and households stayed low, while since mid-year consumer credit growth has been gradually gathering pace.

In September, CPI inflation edged down to 1.0% y/y, i.e. remaining markedly below the NBP inflation target (2.5%). At the same time, core inflation measures stabilized or declined slightly. Annual growth in producer prices in industry stayed negative. Recent developments of inflation indices along with low inflation expectations confirm that demand and cost pressures in the economy remain low.

The Council got acquainted with the inflation and GDP projection prepared by the Economic Institute, being one of the inputs to the Council's decisions on the NBP interest rates.

In line with the November projection based on the NECMOD model – prepared under the assumption of unchanged NBP interest rates and taking into account data available until 21 October 2013 (projection cut-off date) – there is a 50-per cent probability of inflation running in the range of 0.9-1.0% in 2013 (as compared to 0.6-1.1% in the July projection), 1.1-2.2% in 2014 (as against 0.4-2.0%) and 1.1-2.6% in 2015 (as against 0.7-2.4%). At the same time, the annual GDP growth – in line with the November projection – will be, with a 50-per cent probability, 1.0-1.5% in 2013 (as compared to 0.5-1.7% in the July projection), 2.0-3.9% in 2014 (as against 1.2-3.5%) and 2.1-4.5% in 2015 (as against 1.6-4.2%).

In the opinion of the Council, gradual economic recovery is likely to continue in the coming quarters, however, inflationary pressure will remain subdued. November projection of GDP and inflation confirms this assessment.

The Council decided to keep the NBP interest rates unchanged. In the opinion of the Council, lowering interest rates in the first half of 2013 and keeping them unchanged in the second half of the year supports recovery of the domestic economy, gradual return of inflation to the target and stabilisation in the financial markets.

Considering the current statistical data as well as the projection of GDP and inflation that confirm low inflationary pressure and the expected moderate economic recovery, the Council assesses that NBP interest rates should be kept unchanged at least until the end of the first half of 2014.

The Council adopted the *Inflation Report – November 2013*.

4 Projection of inflation and GDP

This inflation and GDP projection was prepared by the Economic Institute of the National Bank of Poland and presents a forecast of economic developments under the assumption of constant NBP interest rates. In terms of the contents, work involved in the creation of this projection was supervised by Andrzej Sławiński, Director of the Economic Institute. The process was coordinated by the Bureau of Macroeconomic Forecasts of the Economic Institute. Using the macroeconomic model NECMOD[50], 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 the 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 NBP interest rates.

The November projection based on the NECMOD model covers the period from 2013 Q4 to 2015 Q4. The starting point for the projection is 2013 Q3.

The cut-off date for the projection was 21 October 2013.

[50] Current version of the documentation of the model is available at the NBP website.

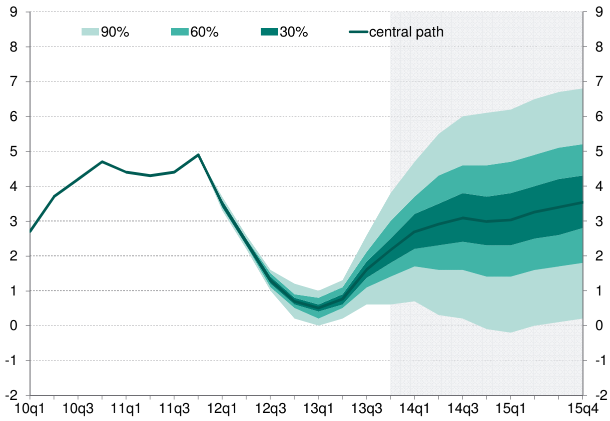
4.1 Summary

According to the current estimates of the quarterly national accounts, in 2013 Q1, the Polish economy hit the bottom of the cyclical economic slowdown, thus following the scenario presented in the previous *Projection of inflation and GDP*. The slowdown has resulted, in large part, from unfavourable conditions in the external environment: the euro area economy has remained in recession in 2013, as the debt problems and the loss of competitiveness by some of the area's countries have continued to weigh on the economies.

The current pace of the GDP growth is close to that observed at the beginning of 2009, albeit now occurring amidst a substantially milder recession abroad. Yet this time, Poland's GDP growth has been hampered by a different set of factors, which are not directly related to business conditions in the external environment of the Polish economy. These include a substantial slowing in the absorption of EU funds and the related public investment, connected with the expiry, in 2015, of the current EU financial framework. In addition, early in the projection horizon economic growth is expected to be curbed by the fiscal tightening in place. Domestic demand may also be hampered, to a greater extent than in 2008-2009, by the present historically slow consumption growth, dragged by sluggishly rising wages and shrinking employment, which both weigh on disposable income growth and weaken households' propensity to finance consumption from savings.

As a result of the above factors, economic growth in Poland will drop to 1.3% in 2013. Further ahead in the projection horizon, with improving conditions abroad and restored inflow of EU funds under the newly agreed 2014-2020 financial

Figure 4.1 GDP (y/y, %)



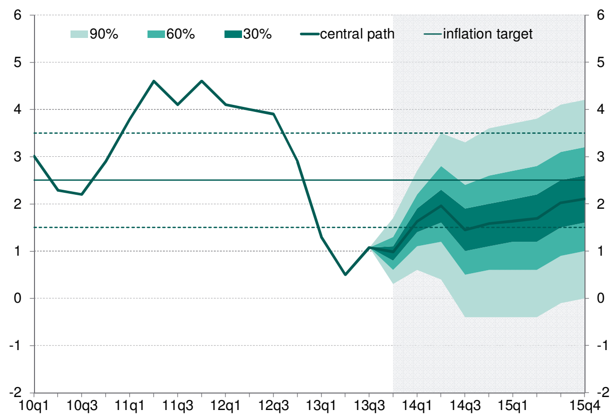
Source: NBP (if not otherwise stated, this concerns all the figures and tables in this Chapter).

framework, GDP growth will pick up and exceed potential output growth, at the beginning of 2014. As a result, output gap will gradually narrow down. However, amidst only a modest recovery in the euro area, it will remain negative over the entire projection horizon, standing at -0.7% of the potential GDP in 2015 Q4.

The 2013 inflation will run at levels considerably lower than in 2012, and, while rising gradually in the following years, it will remain below the NBP target over the entire projection horizon (Figure 4.2). Low inflation levels early in the projection horizon result from factors of regulatory nature (the reduction in the prices of gas, negligible increase in electric energy prices) and weaker economic growth at home, which - by easing the demand pressure - holds back the pace of wage growth, thus slowing down unit labour cost growth. In the middle- and long-term horizon inflation will rise[51] while remaining relatively low. Slow economic growth at home, with GDP continuing to run below the potential output, will keep inflation at moderate levels. Another factor responsible for inflation - most specifically for keeping the energy and food prices subdued - is the anticipated stability of global commodity prices on the back of the expected sluggish global demand growth and increased supply of oil and natural gas in the United States.

The main source of uncertainty surrounding this inflation and GDP projection are the possible developments in the euro area and the related trends in the zloty exchange rate. Both, the probability of the economic downturn continuing in the euro area and that of growth being higher than the projection's central path are deemed to be equal. As a result, for both GDP and inflation, the risk of those variables running above or below the central path is similar, which is reflected in the fan

Figure 4.2 CPI inflation (y/y, %)



[51] Apart from the factors listed in the *Summary*, from 2013 Q3 to 2014 Q2 annual CPI inflation will be temporarily affected by the rise in the prices of waste disposal and rising food prices, which explains its decline in 2014 Q3.

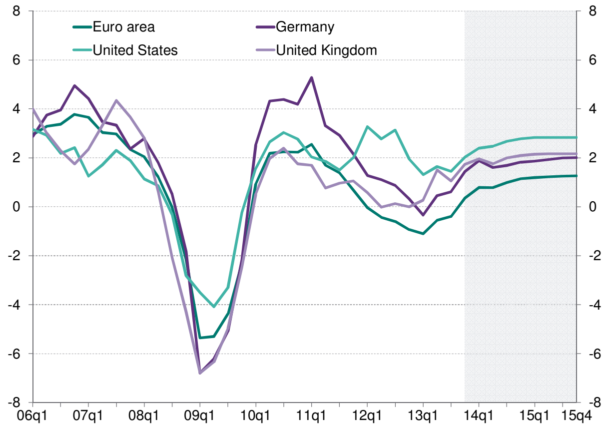
charts for both of those variables (Figure 4.1, Figure 4.2).

4.2 External environment

In the current projection round, the assumptions for economic growth abroad[52] in 2013 have been revised upwards on account of higher than expected global GDP growth in 2013 Q2. The forecasts for the years 2014-2015 have also been adjusted upwards slightly, though expectations about economic growth abroad continue at a relatively low level throughout the entire projection horizon (1.0% y/y on average).

Apart from the revision of the 2013 forecast following the release of stronger-than-expected 2013 Q2 data, the scenario for future economic developments in the euro area has not changed in comparison to the previous projection. Despite improving business climate indicators, economic growth in this group of countries continues to be hampered by the effects of fiscal tightening, persistent unfavourable situation in the labour market and continued process of private sector deleveraging (see Chapter 1.1 *Global economic activity*). Growth is also dampened by problems with access to credit experienced by enterprises in some euro area countries and relatively high market interest rates persistent in their economies (owing to, among other factors, higher risk premiums on Treasury bonds interest rates). Given the above premises, the current projection assumes that the euro area in 2013 will continue to contract, whereas positive, albeit still weak growth is expected in 2014, with fading impact of fiscal tightening and further recovery in the global economy (Figure 4.1).

Figure 4.3 GDP abroad (y/y %)



[52] In the NECMOD model, the external environment is represented by the euro area, the United Kingdom and the United States.

The outlook for the U.S. economy, with GDP growth of 2.3% y/y expected in 2013-2015, is better than for the euro area. Relatively more favourable prospects for the economic growth in the United States are suggested by the declining unemployment rate, accelerated industrial output growth as well as improving - despite certain fluctuations - situation in the real property market (see Chapter 1.1 *Global economic activity*).

The energy commodity price index (Figure 4.4) stabilises at a level lower than expected in the previous forecast round. This will mainly result from a downward revision of coal prices forecasts due to weaker demand for this commodity. Within the projection horizon, the moderate pace of global economic growth will curb the growth of energy commodity price index. Oil prices will decline also on account of increased supply of this commodity due to rising shale oil extraction in the United States (see Chapter 1.4 *Global commodity markets*).

The agricultural product price index in the current projection round is also running below the expectations of the previous round, as the effect of sharper – than envisaged in the July projection – declines in the prices of certain agricultural products, in particular cereals and oilseeds, due favourable current and forecasted (over the next few months) agrometeorological conditions. In the forecast horizon, due to moderate demand pressure in the global markets and assumption that weather condition will be similar to their long-term average, agricultural commodity prices are expected to increase slightly and then stabilise (Figure 4.4).

Moderate economic recovery abroad and relatively stable commodity prices over the projection horizon should prove conducive to maintain low inflation in the euro area and in the United States (Figure 4.5).

Figure 4.4 Index of commodity prices in the global markets (USD, 2011=1)

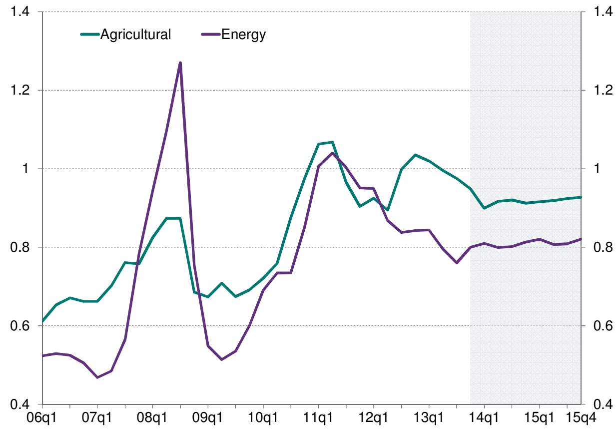


Figure 4.5 Inflation abroad (y/y, %)

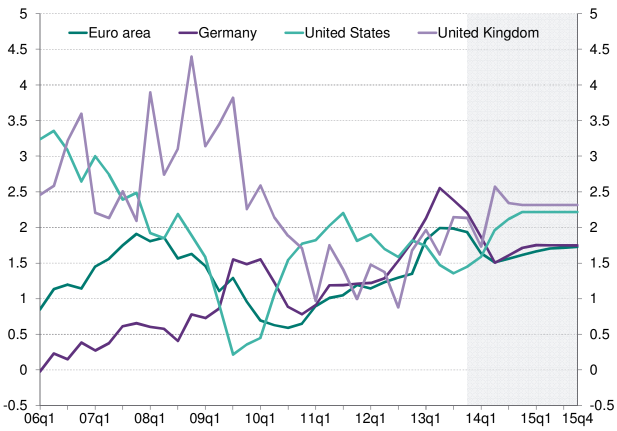
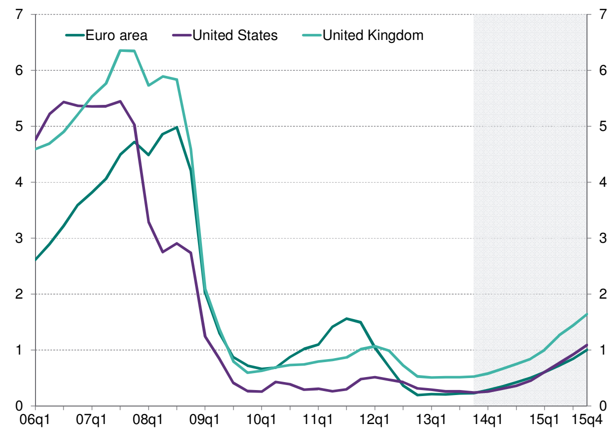


Figure 4.6 Interest rate abroad (%)



The forecast scenario assumes that the ECB will maintain the current level of interest rates in the coming quarters, with a possibility of interest increase as late as in 2015 (Figure 4.6). Also, the monetary policy in the United States is expected to remain accommodative, with interest rates anticipated to remain unchanged until the end of 2014 (see Chapter 1.3 *Monetary policy abroad and international financial markets*).

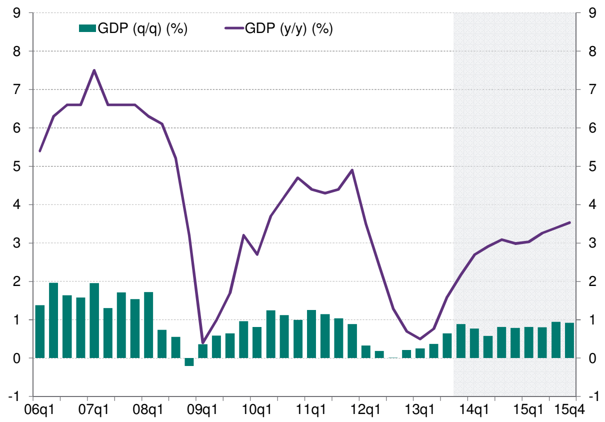
The prospect of economic growth being lower in the euro area than in the United States suggests that the euro may weaken against US dollar to a 1.26 level in 2014, and then, along with improving situation in the euro area, appreciate slightly.

4.3 Polish economy in the years 2013-2015

Aggregate demand

After a period of significant downturn in the Polish economy in late 2012 and early 2013, individual data for 2013 Q3 (including, among others, industrial production and retail sales data) point to a merely moderate improvement in GDP growth. As a result, economic growth in 2013 will amount to 1.3% y/y, the lowest figure since 2001. The years 2014-2015 are expected to bring a gradual recovery in business conditions, with the average GDP standing at 3.1% y/y.

Figure 4.7 Economic growth



Key factors behind weak GDP growth in 2013 include decreasing household consumption (driven by a difficult situation in the labour market and a gradual recovery in household savings), fiscal tightening and falling public investment financed with EU structural funds and unfavourable economic situation abroad, in particular, in the euro area. Amidst negative contribution of inventory to GDP growth and weak growth of gross fixed capital formation in the corporate sector, the contribution of net exports, still positive despite its decline as compared to 2012, will be a factor easing the scale of GDP downturn in 2013.

In the years 2014-2015, domestic demand will be the main driving force behind GDP growth, amidst negative contribution of net exports observed since 2014 Q2. The growing domestic demand amidst a merely moderate improvement in business conditions abroad, will support private consumption, corporate investment and rebuild of inventories. An additional factor supporting faster GDP growth will be the inflow of funds under the new EU financial framework for the years 2014-2020, in particular, capital transfers to the public finance sector (designed to finance public investment).

In 2013, the average annual private consumption growth will remain close to the 2012 level, that is considerably lower than its long-term average (Figure 4.9). The decline in consumption will be driven by slow growth of households' disposable income. The households' income, in turn, will be adversely affected by deteriorating situation in the labour market, reflected in slower wage growth and falling employment. Furthermore, after a series of cuts initiated at the end of 2012, the NBP reference rate is now at a historically low level, which indirectly results in falling households' yield on bank deposits and bonds. In the years 2014-2015, private consumption growth will rise, driven by the reversal in the negative trends in the labour market. This period is expected to see a gradual rise in wage growth amidst falling unemployment rate. As a result, growth in aggregate wages in real terms in 2015 will reach 3.1% y/y, a record high since the outbreak of the global financial crisis. Growing income from self-employment, accompanying the improvement in economic situation will be an important factor

Figure 4.8 GDP growth (y/y, %) – breakdown

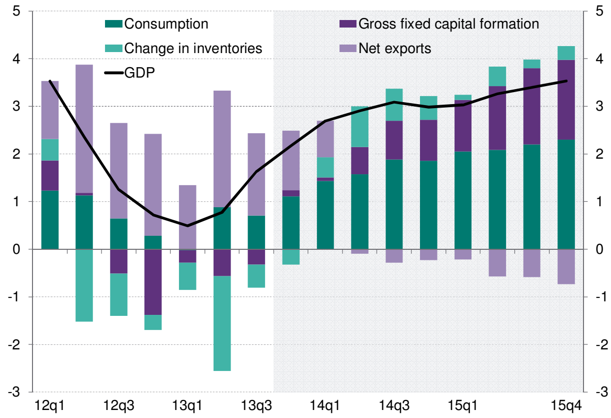
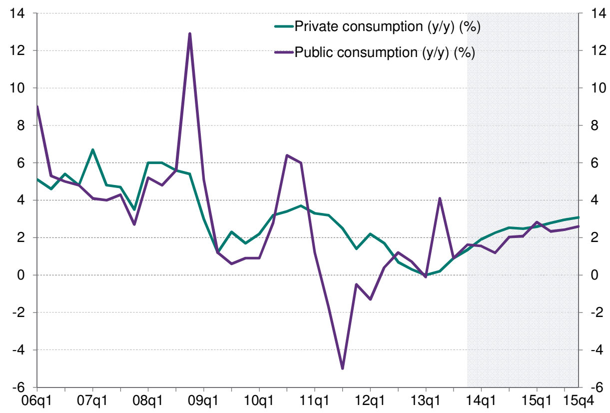


Figure 4.9 Private and public consumption



supporting the pick-up in household consumption demand.

As a result of consolidation measures in the public finance sector, including, in particular, the wage freeze in the public sector, public consumption growth will remain at a low level in the years 2013-2014. In the last year of the projection, public consumption growth will rise as no information is forthcoming about continuing consolidation measures. This will be in line with the rule under which only such changes in fiscal policy will be accounted for in this projection which result from the laws already passed by the Parliament or submitted in the draft budget law adopted by the Government. Also, in the long-term projection horizon fiscal adjustments in the local government units are expected to come to an end.

In the short-term projection horizon, the growth rate of the main components of gross fixed capital formation will remain at a low, close-to-zero level, due to decreasing public investment (until 2014 Q1) and housing investment (until 2014 Q2) combined with sluggish growth in corporate investment (Figure 4.10). Later, investment in the private and construction sectors will be supported by increasing domestic demand and gradual recovery abroad. An increase in public investments will be co-financed from the EU structural funds from the new financial perspective 2014-2020.

Following a slump in gross fixed capital formation in the corporate sector at the beginning of 2013, corporate investment is expected to rebound gradually over the projection horizon. The pick-up in corporate investment will be fuelled by economic recovery at home and abroad and persistently high absorption of EU funds used to finance private sector capital expenditures (Figure 4.11). This scenario is supported by growth in the estimated cost value of newly launched corporate

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

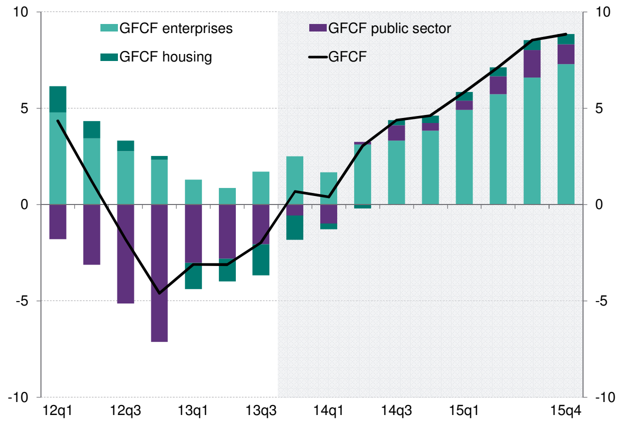
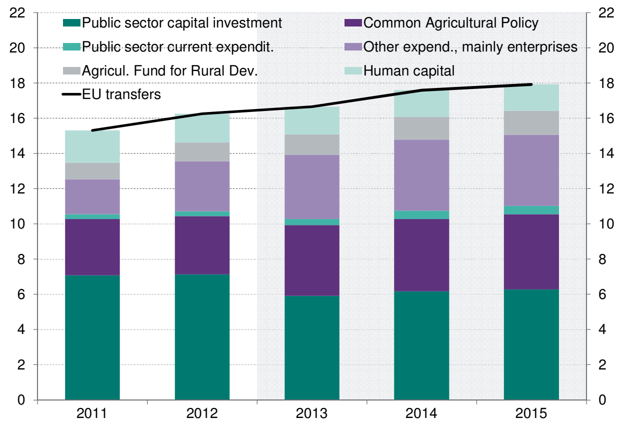


Figure 4.11 EU transfers (in bn. EUR) – breakdown



investment projects, recorded in 2013 Q2[53], despite persistently sharp decline in GDP growth. The anticipated growth in corporate investment will be fuelled by rising replacement investment. As a result of a reduction of corporate investment in the aftermath of the global financial crisis, the currently observed growth in asset replacement investments, measured by the ratio of investment to fixed assets, is the lowest since 2004.[54] A relatively high level of capacity utilization, close to its long-term average, will be an important factor boosting investment growth.[55] At the same time, a sound financial condition of enterprises allows them to finance investment projects with their own funds[56], especially in view of commercial banks tightening their criteria of granting long-term loans to businesses.[57]

Until 2014 Q1, public investment will continue to decrease significantly. This will be caused by falling absorption of EU structural funds used to finance investments of the general government sector under the National Cohesion Strategy 2007-2013, which ends in 2015 and reduced investment expenditure by local government units due to the fiscal rules adopted at the local government level. Since 2014 Q3, a positive rate of growth in public investment is expected as result of the newly agreed EU financial framework for 2014-2020 and subsequent inflow of EU funds to Poland as indicated by the government plans reflected in the *National Road Construction Programme for 2011-2015.*

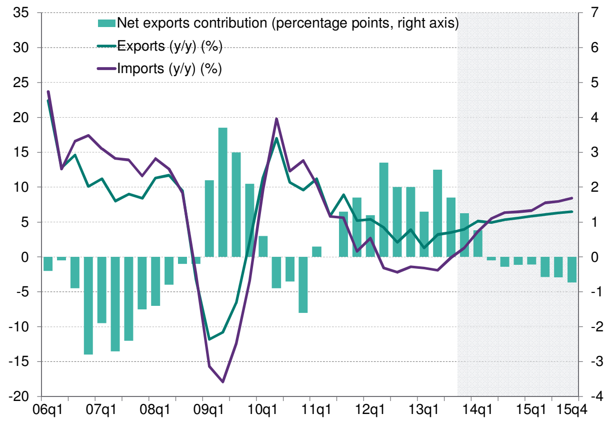
Spending on housing investment is on the decline until the first half of 2014, due to falling household demand. This results from persistently unfavourable conditions at home and abroad, curbing households' propensity to incur long-term obligations. An additional barrier for the

[53] *Financial situation of the corporate sector – 2013 Q2*, NBP.
[54] *Financial situation of the corporate sector – 2013 Q2*, NBP.
[55] *Economic climate in the enterprise sector in 2013 Q2 and forecasts for 2013 Q3*, NBP.
[56] *Financial situation of the corporate sector – 2013 Q2*, NBP.
[57] *Situation in the credit market. Results of the Senior Loan Officer Opinion Survey, 2013 Q3*, NBP.

households' attempt to finance investment from a banking credit are the credit criteria, tightened in the first half of 2013 and only slightly relaxed in 2013 Q3.[58] As a result, the value of new mortgage contracts, despite a slight growth in 2013 Q2, remains at a low level, similar to the one recorded after the onset of the global financial crisis.[59] Yet, in the longer projection horizon housing investment is expected to trend upward on the back of growing purchasing power of households and a positive impact of the Government-subsidized housing scheme *Home for the Young* launched in 2014. Such a scenario is supported by the fact that the number of building permits and construction starts rose in September 2013 for the first time in over a year.

Due to stagnating domestic demand, until the end of 2013 import growth will remain at a very low, close-to-zero level (Figure 4.12). Contribution of net exports to GDP growth will continue to be positive, which is due to a relatively good situation in Germany, Poland's main trading partner. In the longer projection horizon, along with improving business conditions abroad and growing domestic demand, trade volume will rise amidst declining contribution of net exports to GDP growth (being the result of higher sensitivity of Poland's imports than that of Poland's exports to improved business conditions in Poland and abroad).

Figure 4.12 Foreign trade



Macroeconomic equilibrium

Potential GDP growth, which slumped in the aftermath of the global financial crisis, will remain below its long-term average over the projection horizon, standing around 2.5% y/y in the years 2013-2014, to pick up slightly to 2.7% in 2015. At the same time, since the beginning of 2014 along with a rebound in the Polish economy, GDP growth will exceed potential GDP growth. As a

[58] *Situation in the credit market. Results of the Senior Loan Officer Opinion Survey, 2013 Q3*, NBP.
[59] *Information on home prices and situation in the residential and commercial real estate market in Poland, 2013 Q2*, NBP.

result, the output gap, negative since 2012 Q2, will gradually close. Yet, in 2015 Q4 it will be still negative at -0.7% of potential GDP (Figure 4.13).

Slow potential output growth in 2013-2014 will be driven by all of its key determinants: lower, due to economic slowdown, total factor productivity (TFP) growth, decline in capital growth and falling long-term labour supply (Figure 4.14). The decline in productive capital growth reflects the fall in public investment growth observed in the previous years.

Declining long-term labour supply is the result of unfavourable structural changes in the labour market in 2013-2014. Labour supply in this period will be negatively affected by the anticipated decline in population resulting from migration mostly of the economically active persons and adverse changes in the age structure of the population caused by higher share of persons of post-productive age.

At the same time, the years 2013-2014 are expected to bring an increase in the equilibrium unemployment rate (NAWRU), largely driven by hysteresis in unemployment. This phenomenon is manifested, among other things, by a gradual increase in the percentage of the long-term unemployed among the total unemployed, observed since mid-2010. The equilibrium unemployment rate will also be boosted by growth in the effective labour taxation in the recent period (growth in the disability contribution rate and freezing of personal income tax thresholds) and a rise in the minimum to average wage ratio, driven by the increases in the minimum wage in 2013 and 2014. On the other hand, higher retirement age (as of the beginning of 2013) will positively impact the labour force participation rate. The total estimated effect of this change is a rise in the number of the economically active of approx. 200 thousand persons over the projection horizon.

Figure 4.13 Output gap

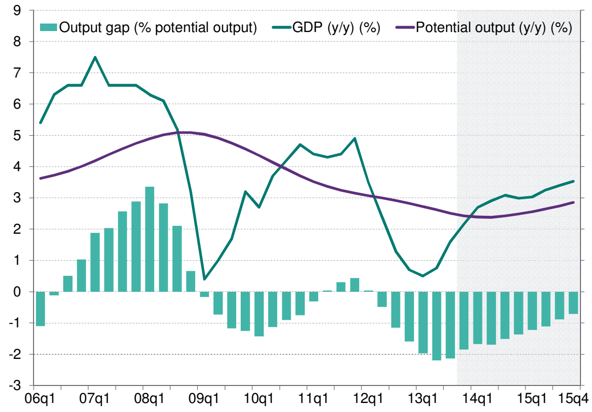
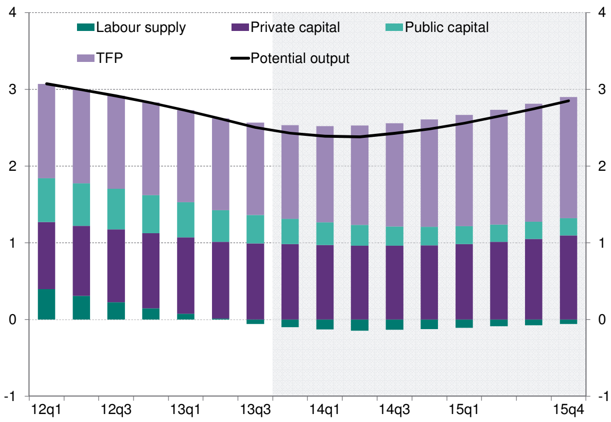


Figure 4.14 Potential output (y/y, %) – breakdown



Higher potential output growth in 2015 is the result of the fading impact of factors that negatively affected potential output in 2013-2014. The currently low total factor productivity (TFP) growth may be expected to gradually return to the level recorded before the global financial crisis. Growth in corporate investment and - to a smaller extent - public spending will result in a steady acceleration of productive capital growth. At the same time, following the deterioration in the current unemployment rate since the second half of 2014, the equilibrium unemployment rate (NAWRU) will stabilize, supported by a progressive fading of the negative impact of hysteresis.

Stabilization of the equilibrium unemployment rate will also be driven by growing flexibility of the domestic labour market, supported by a high share of flexible forms of employment, such as fixed-term contracts and low trade union participation rate as well as only occasional wage indexation in Poland, facilitating adjustments of wages to market conditions.[60] Economic recovery will have a positive effect on wages level and the number of the employed. Yet, due to labour market rigidity, at the beginning increasing production will mainly lead to a gradual wages growth. The rise in employment will be observed with some delay (Figure 4.15, Figure 4.16 , Figure 4.17).

The years 2013-2014 are expected to bring a decline in the number of working persons, which will re-embark on an upward trend in the last year of the projection, along with economic growth rate exceeding 3.0% y/y. The decreasing number of the economically active persons over the projection horizon will contribute to a decline in the unemployment rate starting already from 2014 Q3. As a result, the gap between the current and the equilibrium unemployment rate will gradually

Figure 4.15 Employment and activity in the labour market

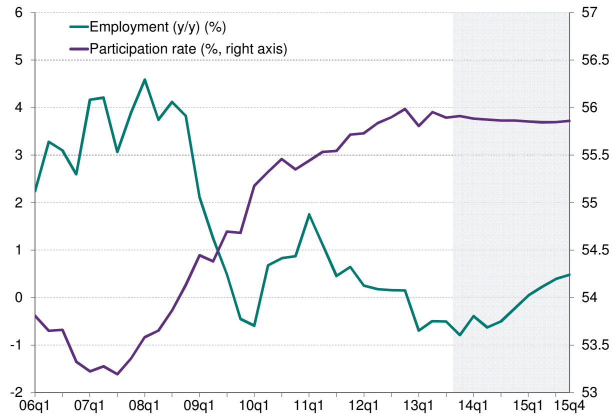


Figure 4.16 Unemployment

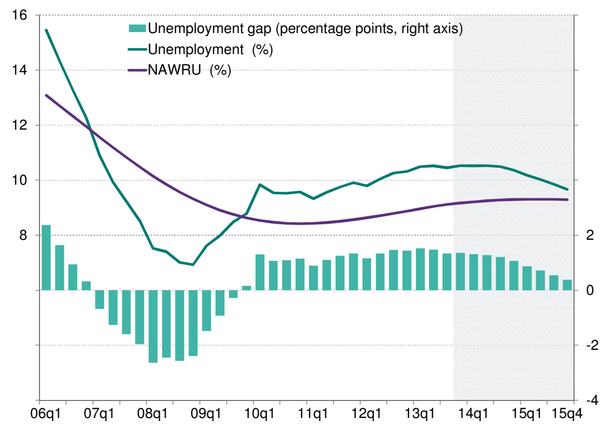
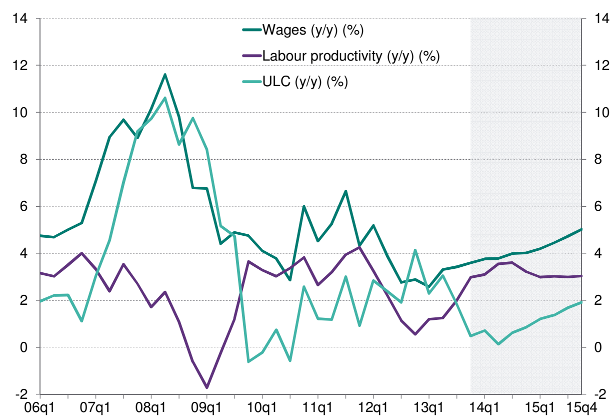


Figure 4.17 Unit labour costs



[60] *Labour market survey. Report 2013*, NBP.

narrow over the projection horizon, to go down close to zero by the end of 2015. The narrowing gap between the actual and the equilibrium unemployment will translate into steadily mounting wage pressure, reflected in faster wages growth. Consequently, the difference between real wage growth and labour productivity growth will diminish, while remaining negative throughout the projection horizon. At the same time, growth in unit labour costs will rise, although still continuing at a relatively low level.

The year 2013 is forecasted to post a surplus in the current and capital account at 1.0% of GDP, the record high since the mid-1990s when comparable statistics on the balance of payments started to be released. This surplus amidst high, negative balance of income, will be driven by surpluses on: EU transfers inflows, trade balance (due to the positive contribution of net exports to GDP growth in 2011-2013) and remittances from abroad. In the years 2014-2015 the current and capital account balance will gradually deteriorate as a result of diminishing balance of trade (the effect of negative contribution of net exports to GDP since the second half of 2014) and further deepening deficit in the balance of income. Yet, it will be partially limited by improving balance of transfers, supported by the inflow of EU funds under the new financial framework, amidst stable balance of remittances from abroad.

Foreign exchange rate and inflation

Following zloty depreciation in 2013 Q3, the factors strengthening and weakening the Polish currency will, to a large extent, offset each other in the long-term projection horizon. As a result, the nominal effective exchange rate of the zloty will remain relatively stable in the medium and long term. On the one hand, the zloty exchange rate continues to run below the level determined by fundamental factors, which supports gradual appreciation of the currency towards the equilibrium level in the projection horizon. On the other hand, weak economic growth in the domestic and foreign economies may limit the inflow of direct and portfolio investment into the Polish market. Additionally, the narrowing interest rate disparity, resulting from the assumption of a constant NBP reference rate adopted in the projection, will weaken the zloty exchange rate.

As a result of modest economic growth and stable exchange rate, core inflation will be driven down to 1.2% in 2013, to rise again, as the output gap closes, to the average level of 1.5% in the years 2014-2015 (Figure 4.18). Low core inflation over the projection horizon results largely from weak growth in unit labour costs, which is, in turn, the effect of declining employment in 2013 and 2014 and a relatively low wage growth. Low inflationary pressure is also supported by a stable nominal exchange rate of the zloty and moderate inflation abroad, and, consequently – lower growth in import prices (Figure 4.19). From 2013 Q3 to 2014 Q2 core inflation will temporarily increase on the back of growing waste disposal fees as of 1 July 2013 resulting from the amendments in the *Law on Maintaining Cleanliness and Order in Municipalities*.

The projection horizon will see continued low growth in food prices in Poland, running at an average of 2.0% y/y. Moderate rise in food prices will be supported by relatively stable prices of agricultural commodities in the world markets, curbing growth in food prices abroad, and a stable exchange rate (Figure 4.20). A temporary increase in food prices from 2013 Q3 to 2014 Q2 will additionally be driven by adverse weather conditions recorded in 2013. As a result, food price inflation in 2015, despite improvement in the domestic business conditions, will be close to the 2013-2014 average.

Energy price inflation in the short-term projection horizon sharply declines (from 7.9% in 2012 to -

Figure 4.18 CPI and core inflation (y/y, %)

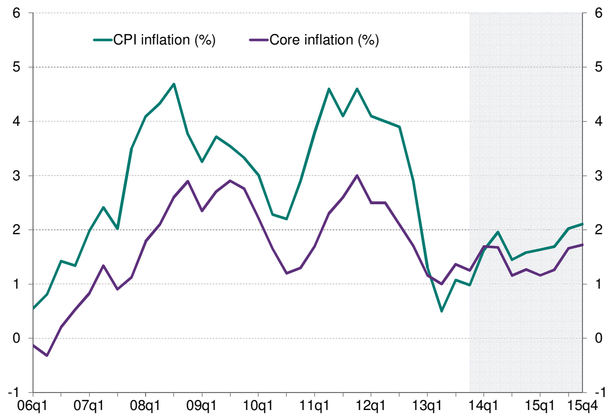
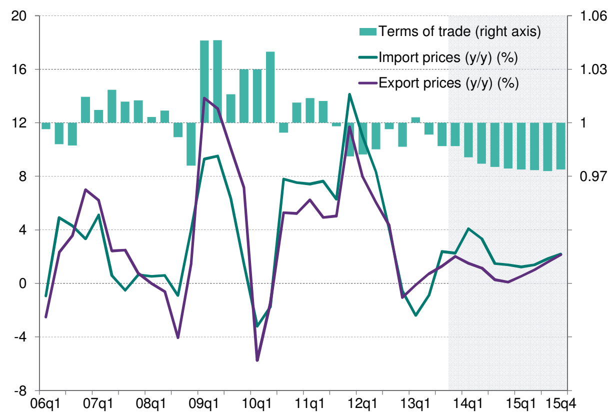


Figure 4.19 Terms-of-trade



1.3% in 2013), primarily as a result of decrease in the price of natural gas for households as of 1 January 2013, negative growth in fuel prices and lower electricity prices for households as of 1 July 2013. Energy prices will also be curbed by continuing very low prices of CO2 emission allowances, which only moderately increase the costs of the power sector. In the last year of the projection, energy price inflation will rise slightly, still remaining at a relatively low level. Gradually declining crude oil prices in the global markets and a relatively weak growth in the prices of other energy commodities will exert a downward pressure on energy price growth in the medium and long term projection horizon.

As a result of these developments, CPI growth in 2013 will run considerably below last year's level (1.0% y/y). The relatively low inflation level in 2013 is the consequence of regulatory factors (decrease in gas prices, close to zero increase in electricity prices) and low demand pressure. The temporary pick-up in inflation in annual terms from 2013 Q3 to 2014 Q2 will also be boosted by higher waste disposal fees and growing food prices.

In 2014-2015, CPI inflation will increase due to markedly higher, as compared to 2013, energy price inflation (Figure 4.21), still running below the NBP inflation target over the whole projection horizon. This will be largely driven by the fact that despite economic recovery, the output gap, being a synthetic measure of inflationary pressure in the economy, will remain negative until the end of 2015. Stable prices of commodities in the world markets, maintained due to slowly increasing global demand, will contribute to moderate inflationary pressure. Under the assumption of a constant NBP reference rate, the probability of the average annual inflation ranging from 1.5%-3.5% will gradually increase in the short-term projection horizon to reach an average of 55% in 2014-2015 (Table 4.2).

Figure 4.20 Inflation of food and energy carrier prices (y/y, %)

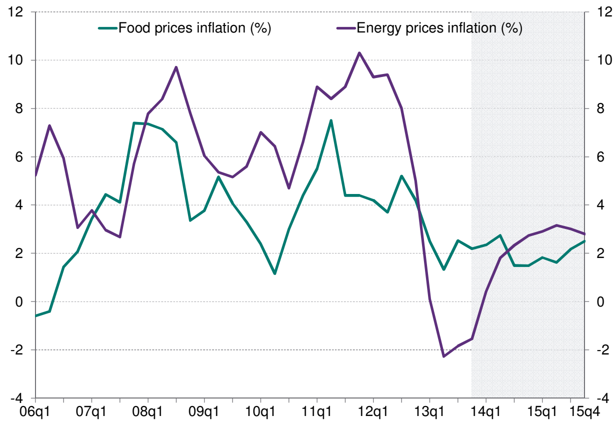
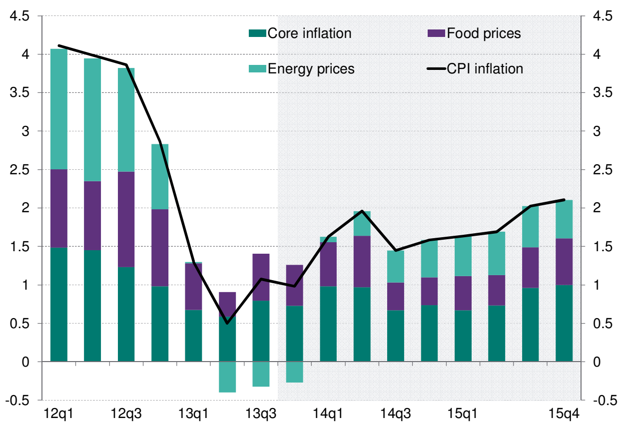


Figure 4.21 CPI inflation (y/y- %) – breakdown



4.4 Current versus previous projection

In the current prognostic round, GDP growth envisaged for the years 2013-2015 is higher on average by 0.3 percentage point relative to the July projection (Table 4.1). The factors that contributed to GDP growth path running above previous projection are the revision upwards of economic growth forecasts abroad and higher expected use of EU funds in 2014-2015 from the new financial framework 2014-2020. The revision upwards of GDP growth in short-term projection horizon is driven by current monthly data signalling slightly quicker than previously expected improvement in the domestic business conditions. A factor that will exert a positive impact on domestic economic activity will be the cut in NBP interest rates by 25 basis points, as compared to the previous forecast round (the projection is drawn up under the assumption of constant NBP reference rate).

Table 1.1 November projection versus July projection

	2013	2014	2015
GDP (y/y, %)			
XI 2013	1.3	2.9	3.3
VII 2013	1.1	2.4	3.0
CPI inflation (y/y, %)			
XI 2013	1.0	1.7	1.9
VII 2013	0.8	1.2	1.5

Improved economic activity leading to the reduction in negative output gap and acceleration of wage growth will translate into a moderate rise in inflationary pressure over the medium- and long-term projection horizon. Despite that, it will remain low throughout the forecast horizon. In 2013 and 2014, inflation will be affected by regulatory changes related to the higher cost of municipal waste management and a rise in excise duty on alcoholic beverages, as well as worsened conditions on certain food markets in Poland, coupled with the absence of significant changes in the prices of agricultural and energy products in global markets.

GDP

The GDP growth forecast for the current year has been revised on account of a higher, by 0.3

percentage point, forecast of GDP growth abroad and slightly better than expected GUS's GDP estimates for 2013 Q2. These estimates indicate, however, a lower domestic demand (due to the downward revision of inventories) compensated by higher net exports, as compared to the July projection assumptions. Furthermore, net exports forecasts for 2013 have been revised upwards as a result of a persistent rise in demand for Polish products from non-EU countries observed recently, and a weaker real effective zloty exchange rate than the rate assumed in the July projection (Figure 4.23). A higher growth rate of private investment is a result of positive current monthly data signalling a slightly quicker improvement in economic climate compared to the previous projection round, coupled with a persisting relatively high level of capacity utilisation.

In the long-term projection horizon, the scale of upwards revision of economic growth forecasts for Poland's key trading partners diminishes (GDP growth abroad in 2014-2015 increased by 0.1 percentage point). The expected growth in gross fixed capital formation in 2014 is the result of both higher growth in public investment, related to a higher projected use of funds from the new EU financial framework 2014-2020, and continued acceleration of investment in the private sector. The growth in exports and investment will lead to an improvement on the labour market and in the financial situation of households, and will be conducive to accelerated growth in private consumption. Domestic demand rebound in medium- and long-term projection horizon and the related growth of imports will lead to decreased net exports contribution to GDP growth. At the same time, further easing of monetary policy, as reflected in the reduction of the NBP reference rate by 25 basis points as compared to the previous projection, will have a positive impact on the domestic GDP growth.

Figure 4.22 November projection versus July projection: GDP growth (y/y, %)

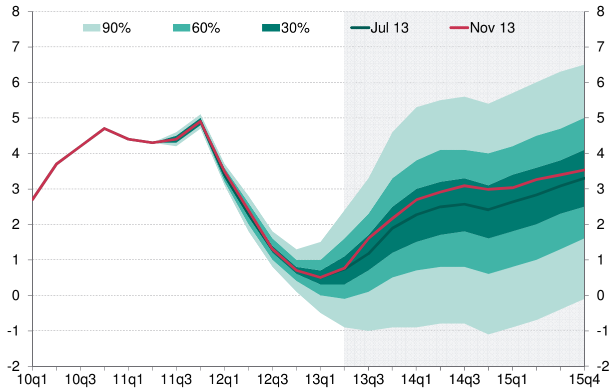
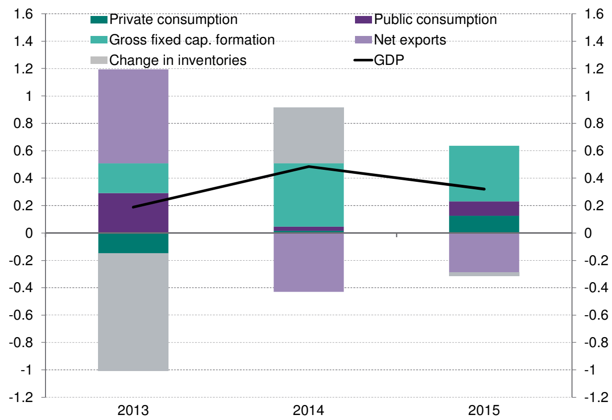


Figure 4.23 Decomposition of deviations between November and July projection: GDP growth (percentage points)



Inflation

Upward revision of CPI inflation in the current projection round is determined to the greatest extent by a rise in forecasted core inflation. Furthermore, food prices inflation throughout the projection horizon and energy prices inflation in the long-term horizon exert some positive impact (Figure 4.25).

The main reason for the rise in core inflation in the short-term projection horizon, as compared to the July projection, is the higher than projected rise in fees for municipal waste management that have been imposed by new legal provisions effective since July 2013. Core inflation is also heightened as a result of taking into account the growth in the rate of excise duty on alcoholic beverages from January 2014, assumed in the draft *Budget Act for 2014*. In the medium- and long-term projection horizon, a quicker rate of closing the negative output gap and acceleration in wage growth are conducive to the rise in core inflation as compared to the July projection.

A slight increase in energy prices in 2014-2015 is driven by the worsening conditions in the wholesale energy market (Polish Power Exchange), which have resulted in lower forecasted energy tariffs reduction for individual customers as of January 2014. Energy price growth in the long-term horizon is additionally increased by a slightly higher domestic demand pressure.

The rise in food price inflation in short- and medium-term projection horizon as compared to the July projection is mostly driven by higher fruit and vegetable prices resulting from unfavourable agricultural and weather conditions at the beginning of 2013, as well as a methodological change introduced by GUS resulting in a shift of the seasonality pattern for some vegetables. Moreover, the upwards revision of the forecast

Figure 4.24 November projection versus July projection: CPI inflation (y/y, %)

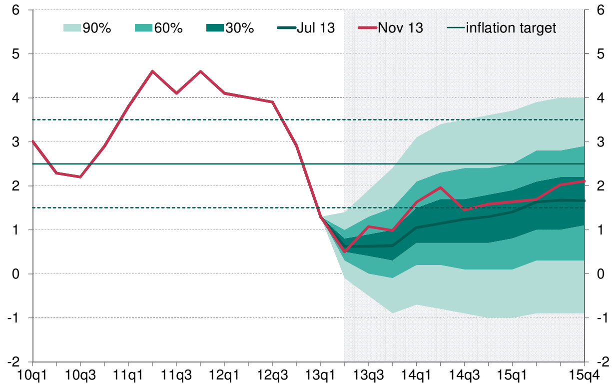
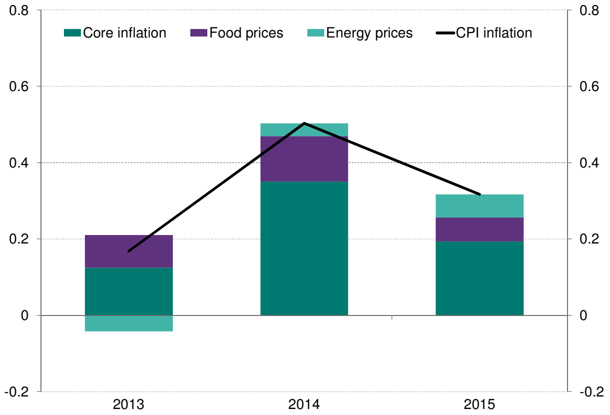


Figure 4.25 Decomposition of deviations between November and July projection: CPI inflation (percentage points)



food prices will be influenced in the short-term by slightly weaker zloty exchange rate vis-à vis euro, than assumed in the previous projection round. A higher demand pressure will be another factor contributing to a rise in food price inflation in the long-term forecast horizon.

4.5 Forecast uncertainty sources

It is deemed that within the projection horizon the balance of risk factors is distributed symmetrically around the central paths for both inflation and economic growth projection (Table 4.2). The key sources of projection uncertainty are presented below.

External environment and exchange rate

The external environment, in particular the scale and sustainability of the prospective recovery continues to pose the most important source of uncertainty for the inflation and GDP projection. On the one hand, the economic slowdown in China and other emerging economies, being graver than previously anticipated, may pose a serious threat to the recovery of European economies to the path of stable growth. Economic activity in the euro area may be impaired by a substantial and sustained appreciation of the euro as a result of a large surplus arising on the euro area trade account. A possible new increase in interest rates on the Treasury bonds of some euro area countries, which might raise the cost of their debt service, and, indirectly, corporate cost of financing in these countries, poses another risk factor to growth. In addition, future growth in the European economy may suffer from developments in the United States, in the absence of an agreement about the increase of the debt limit for this country. On the other hand, a scenario under which demand from the emerging markets expands faster than expected and triggers recovery in the export-oriented euro area economies, including, in

Table 4.2 Probability of inflation running

	below 1.5%	below 2.50%	below 3.50%	below the central projection	In the range (1.5-3.5%)
13q4	0.89	1.00	1.00	0.50	0.11
14q1	0.42	0.91	1.00	0.50	0.58
14q2	0.31	0.72	0.95	0.50	0.64
14q3	0.52	0.83	0.97	0.50	0.45
14q4	0.47	0.78	0.94	0.50	0.47
15q1	0.45	0.76	0.94	0.50	0.48
15q2	0.44	0.74	0.92	0.50	0.48
15q3	0.34	0.64	0.88	0.50	0.53
15q4	0.32	0.62	0.86	0.50	0.54

particular, Germany, cannot be excluded. Stronger trends in the German economy may also benefit from booming household consumption, financed by rising wages, amidst ECB interest rates persisting at low levels.

Domestic demand and the competitiveness of the Polish economy

A major source of uncertainty for the projection is the response of households and the corporate sector to developments abroad. Strong domestic performance may contribute to better perceptions of Poland by foreign investors, resulting in more capital inflows, including FDI. On the other hand, protracted recession in the euro area amidst the prevailing low savings rate and restricted access to credit may perpetuate sluggish trends in domestic consumption and investment. A major source of uncertainty for the projection is the response of exports and imports to the anticipated expansion in domestic and foreign demand. At present, Poland's trade account balance is at historically high levels due to the countercyclical character of the contribution of net exports to growth. It is expected that recovery will lead to lower net exports, yet uncertainty about the scale and pace of this decline is an important source of risk to GDP path in the projection horizon.

Food and energy prices in Poland

One source of uncertainty for the projection is the hard-to-predict impact of regulators' policies, and of the situation in the global commodity market, upon the level of domestic energy and food prices. In this respect, considerable uncertainty relates to the impact of future EU environmental policies, which is difficult to estimate. This concerns in particular the recently implemented Climate and Energy Package, whose aim is to reduce CO2 emissions. In particular, future prices of CO2 allowances are difficult to predict. These will depend on both the demand for these allowances - and hence on the economic activity in the EU countries - as well as a possible ceiling imposed on those entitlements. Uncertainty is further boosted by the absence of precise provisions concerning the designation of the proceeds from the sale of the entitlements and the size of investment in low-emission technologies and renewable energy sources. Substantial uncertainty relates to regulatory activities in the food and energy markets as well as future tariff policy by the Energy Regulatory Office.

An important factor with an impact on the path of energy and food prices is future global prices of energy and food commodities, determined by the relationship of supply and demand and thus subject to considerable uncertainty. Hence, on the one hand, uncertainty about commodity prices is related to growth prospects in major economies of the world. On the other, in terms of oil prices, possible disruptions to supply by its producers may pose an upward risk factor, with the scale of any hikes contingent on the reaction of the countries associated under OPEC to these developments. A factor with a potentially correcting influence on energy commodity prices is the rising extraction of shale oil and gas in the United States, which reduces imports of energy carriers by this country. In a different vein, future prices of agricultural commodities depend on the highly uncertain agrometeorological conditions in the coming years.

Table 4.3 Central path of inflation and GDP projection.

	2011	2012	2013	2014	2015
Consumer Price Index CPI (% y/y)	4.3	3.7	1.0	1.7	1.9
Food prices (% y/y)	5.4	4.3	2.1	2.0	2.0
Energy prices (% y/y)	9.1	7.9	-1.3	1.8	3.0
Core inflation net of food and energy prices (% y/y)	2.4	2.2	1.2	1.4	1.5
GDP (% y/y)	4.5	1.9	1.3	2.9	3.3
Domestic demand (% y/y)	3.6	-0.2	-0.5	3.0	3.9
Individual consumption (% y/y)	2.6	0.8	0.7	2.3	2.9
Public consumption (% y/y)	-1.5	0.1	1.5	1.7	2.5
Gross fixed capital formation (% y/y)	8.5	-0.8	-1.9	3.1	7.6
Contribution of net exports (percentage point y/y)	0.9	2.1	1.8	0.0	-0.5
Exports(% y/y)	7.7	2.8	3.1	5.2	6.2
Imports (% y/y)	5.5	-1.8	-0.8	5.5	7.7
Gross wages (% y/y)	5.2	3.7	3.2	3.9	4.6
Total employment (% y/y)	1.0	0.2	-0.6	-0.4	0.3
Unemployment rate (%)	9.6	10.1	10.5	10.5	9.9
NAWRU (%)	8.5	8.8	9.1	9.3	9.3
Labour force participation rate (%)	55.6	55.9	55.9	55.9	55.9
Labour productivity (% y/y)	3.5	1.8	1.9	3.4	3.0
Unit labour costs (% y/y)	1.6	2.8	1.9	0.6	1.5
Potential output (% y/y)	3.3	3.0	2.6	2.4	2.7
Output gap (% of potential GDP)	0.1	-0.8	-2.0	-1.6	-1.0
Index of agricultural commodity prices (USD; 2011=1.00)	1.00	0.96	0.98	0.91	0.92
Index of energy commodity prices (USD; 2010=1.00)	1.00	0.87	0.80	0.81	0.81
Price level abroad (% y/y)	1.1	1.3	1.9	1.7	1.8
GDP abroad (% y/y)	2.0	0.1	0.1	1.3	1.6
Current and capita account balance (% GDP)	-3.5	-2.2	1.0	0.5	-0.4
WIBOR 3M (%)	4.54	4.91	3.04	2.71	2.71

Source: LFS data is the data source for total employment, labour force participation rate and unemployment rate. Index of agricultural commodity 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 June – September 2013

■ Date: 5 June 2013

Subject matter of motion or resolution:
Motion to lower the NBP interest rates by 0.5 percentage points.

MPC decision:
Motion did not pass.

Voting of the MPC members:

For:		Against:	
	A. Bratkowski		M. Belka
	A. Zielińska-Głębocka		E. Chojna-Duch
			Z. Gilowska
			A. Glapiński
			J. Hausner
			A. Kaźmierczak
			A. Rzońca
			J. Winiecki

■ Date: 5 June 2013

Subject matter of motion or resolution:
Resolution No. 9/2013 on reference rate, refinancing credit rate, deposit rate and rediscount rate at the NBP.

MPC decision:
The MPC lowered NBP interest rates by 0.25 percentage points.

Voting of the MPC members:

For:		Against:	
	M. Belka		Z. Gilowska
	A. Bratkowski		A. Glapiński
	E. Chojna-Duch		A. Kaźmierczak
	J. Hausner		A. Rzońca
	A. Zielińska-Głębocka		J. Winiecki

Date: 5 June 2013

Subject matter of motion or resolution:

Resolution No. 10/2013 on interest rates on loans granted to the Bank Guarantee Fund, National Association of Cooperative Savings and Credit Unions and cooperative savings and credit unions by the NBP.

Voting of the MPC members:

For: M. Belka
A. Bratkowski
E. Chojna-Duch
Z. Gilowska
A. Glapiński
J. Hausner
A. Kaźmierczak
J. Winiecki
A. Zielińska-Głębocka

Against: A. Rzońca

Date: 2 July 2013

Subject matter of motion or resolution:

Resolution No. 1/DOR/2013 on the appointment of a registered auditor for the Annual Financial Statements of the National Bank of Poland for years 2013 and 2014.

Voting of the MPC members:

For: M. Belka
A. Bratkowski
E. Chojna-Duch
A. Glapiński
J. Hausner
A. Kaźmierczak
A. Rzońca
A. Zielińska-Głębocka

Against:

Z. Gilowska was absent.
J. Winiecki did not vote.

Date: 3 July 2013

Subject matter of motion or resolution:
Resolution No. 11/2013 on reference rate, refinancing credit rate, deposit rate and rediscount rate at the NBP.

MPC decision:
The MPC lowered NBP interest rates by 0.25 percentage points.

Voting of the MPC members:

For:	M. Belka	**Against:**	Z. Gilowska
	A. Bratkowski		A. Glapiński
	E. Chojna-Duch		A. Kaźmierczak
	J. Hausner		A. Rzońca
	A. Zielińska-Głębocka		J. Winiecki

Date: 3 September 2013

Subject matter of motion or resolution:
Resolution No. 12/2013 on adopting *Monetary Policy Guidelines for 2014*.

Voting of the MPC members:

For:	M. Belka	**Against:**	
	A. Bratkowski		
	E. Chojna-Duch		
	A. Glapiński		
	J. Hausner		
	A. Kaźmierczak		
	A. Rzońca		
	J. Winiecki		
	A. Zielińska-Głębocka		

Z. Gilowska was absent.

■ Date: 17 September 2013

Subject matter of motion or resolution:

Resolution No. 13/2013 on setting the ceiling for liabilities arising from loans and credits drawn by the NBP at foreign banking and financial institutions.

Voting of the MPC members:

For: M. Belka
A. Bratkowski
E. Chojna-Duch
A. Glapiński
J. Hausner
A. Rzońca
J. Winiecki
A. Zielińska-Głębocka

Against: A. Kaźmierczak

Z. Gilowska was absent.

www.nbp.pl