Inflation Report
July 2011

National Bank of Poland
Monetary Policy Council

Warsaw, July 2011

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. The projection was prepared with the use of the NECMOD macroeconomic model. Content-related supervision over the works on the projection was entrusted to a member of the NBP Management Board, Mr. Zbigniew Hockuba. 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 21 June 2011, however the *Report* also includes revised data on balance of payments released on 29 June 2011.

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 **5**
1. External developments **9**
1.1. Global economic activity 9
Box 1. Uncertainty concerning the estimates of unobservables: the example of the output gap 12
1.2. Inflation developments 14
1.3. International financial markets and monetary policy abroad 15
1.4. Global commodity markets 17
2. Domestic economy **21**
2.1. Inflation developments 21
2.1.1. Consumer prices 21
2.1.2. Core inflation 22
2.1.3. The Maastricht price stability criterion 23
2.1.4. Producer prices 23
2.1.5. Import prices 23
2.1.6. Inflation expectations 24
2.2. Demand and output 25
2.2.1. Consumption demand 26
2.2.2. Investment demand 27
2.2.3. Government demand 29
2.2.4. Exports and imports 30
2.2.5. Output 31
Box 2. Synchronisation of business cycles in Poland and Germany 32
2.3. Labour market 34
2.4. Financial markets 37
2.4.1. Financial asset prices and interest rates 37
2.4.2. Housing prices 38
2.4.3. Exchange rate 38
2.5. Credit and money 39
2.5.1. Loans 39
2.5.2. Deposits and monetary aggregates 41
2.6. Balance of payments 43
Box 3. Public and private sector debt in Poland 45
3. Monetary policy in March - July 2011 .... **49**
4. Projection of inflation and GDP **63**
Box 4. Changes in the methodology of constructing fan charts 77
5. The voting of the Monetary Policy Council members on motions and resolutions adopted in January - May 2011 .... **79**

Summary

In 2011 Q1 the recovery in the global economy continued. At the same time, economic conditions varied strongly across countries. Among major developed economies, fast growth was registered in Germany and France, whereas in the United States and Great Britain economic growth was weaker. Japan saw its GDP decline for the second consecutive quarter. In emerging economies, especially in Asia, strong GDP growth continued. Recent data indicate that global economic growth might have slowed down in 2011 Q2.

As relatively strong demand for crude oil, in particular from the emerging countries, continues amidst limited increase in its supply, prices of this commodity persist at a high level. However, since the publication of the previous *Report*, trends in oil prices have changed considerably. Until the beginning of April, there was a strong upward trend in oil prices which remained above 120 USD/b until the beginning of May. However, in May oil prices decreased significantly and in the first three weeks of June, oil prices fluctuated within a band of approx. 110-120 USD/b. In turn global prices of agricultural commodities continued to rise since the publication of the previous *Report* till April 2011, and stabilized at a high level in May, significantly exceeding the level recorded in August 2008. High global commodity prices translated into significant inflation acceleration across the global economy. Inflation rose in most developed as well as emerging economies.

Growing concerns about the situation of public finances in some peripheral countries of the euro area were reflected in subsequent downgrades of Greek, Irish and Portuguese bond ratings. Concerns about the long-term situation of public finances in the United States have also intensified, which was reflected in a downgrade of US long-term debt outlook. At the same time, mounting concerns about the condition of public finances in those euro area countries most severely affected by the sovereign debt crisis, led to lowering the yields of German and US bonds regarded as safe investments.

Since the publication of the previous *Report*, major central bank have continued expansionary monetary policy, although some differentiation between individual approaches could be observed. The Fed, the Bank of England and the Swiss National Bank maintained their policy rates at historically low levels. On the other hand, in April 2011 the European Central Bank raised - for the first time in almost three years - its interest rates by 0.25 percentage points and kept in unchanged since then, whereas the Bank of Japan engaged in further quantitative easing of its monetary policy following the natural disasters in this country. Whereas central banks in most emerging economies (including in Brazil, Chile, China, India, South Korea, Peru and Russia) continued to tighten their monetary policies. Monetary conditions were also tightened in some small open economies (including in Norway and Sweden).

The annual growth of prices of consumer goods and services in Poland in the period from January to May 2011 increased from 3.6% to 5.0%. As a result, it markedly exceeded the NBP inflation target of 2.5%. Accelerated rise in inflation in the analyzed period was observed in most categories of goods and services, which is reflected in a rise of all core inflation indices. The increase in inflation in the analyzed period was mainly driven by a steady rise in the growth of food prices, high growth in prices of energy, mainly fuels, and a rise in the VAT rates. The level of inflation in this period was partly affected by changes in treatment of prices of seasonal goods as introduced by GUS since the beginning of 2011.

In 2011 Q1 a growth in zloty-denominated import prices of goods remained relatively high and a growth in producer prices in industry accelerated. This was mainly supported by a further growth in the prices of commodities in the global markets in that period, which was not offset by changes in zloty exchange rates.

Inflation forecasts of financial sector analysts over the 12-month horizon since August 2010 have run at approx. 3%. In turn inflation expectation of individuals - after a significant increase in March - still ran at over 4%. Also inflation expectations of enterprises over the 12-month horizon - despite lowering to 3.9% in 2011 Q2 from 5.2% in 2011 Q1 - continued at high level.

In 2011 Q1, GDP growth remained relatively strong and amounted to 4.4% y/y, as compared with 4.5% y/y in 2010 Q4. On the demand side, growth continued to be driven mainly by domestic demand, whose strong growth was supported by accelerating investment, a steady upward trend in consumption and a further build-up of inventories. A significant driving force behind the rise in investment was a further boom in public investment. In 2011 Q1, due to stronger slowdown in imports growth that in exports, a negative contribution of net exports to GDP narrowed.

Relatively strong economic growth supported improvement in a situation of public finances. In the period January-May 2011, the central budget deficit was markedly lower than in the corresponding period of 2010. In 2011 Q1, local government units recorded a higher budget surplus than a year earlier. At the same time, in the period January-May 2011, the Social Security Fund needed a smaller budget subsidy than in the corresponding period of 2010 and the Labour Fund and the National Health Fund recorded somewhat higher surpluses than in the previous year.

Strengthening economic growth has been conducive to rising labour demand, which has translated into a rise in the growth rates of all employment indicators in 2011 Q1. Rise in employment was accompanied by a rise - although somewhat weaker - of labour supply. The unemployment rate according to the Labour Force Survey declined in 2011 Q1 and rate of registered unemployment has remained stable since the beginning of the year. After a considerable acceleration in 2010 Q4, growth in nominal wages in the economy declined in 2011 Q1, whereas wages in enterprises continued to rise at a moderate pace. Due to weaker growth in wages, unit labour costs increased more slowly than in 2010 Q4. Yet, growth in unit labour costs in 2011 Q1 was considerably higher than in the earlier four quarters. The data released at the beginning of 2011 Q2 indicate that growth of employment in the enterprise sector slowed down and nominal wage growth in enterprises - following a substantial increase in April 2011 (related mainly to the different timing of payment of bonuses in mining and in the energy sector compared to the previous year) - declined to the level observed in February and March.

Since the publication of the previous *Report* the Monetary Policy Council has increased the NBP's interest rates three times, by a total of 0.75 percentage points, including the increase in the reference rate to 4.50%. Interest rate hikes, each by 0.25 percentage points, took place in April, May and June 2011. Due to a weakening of investors' expectations of further interest rate increases yields on Polish government bonds have fallen in that period. Moreover, declines in yields on 5- and 10-year maturity bonds were driven by the announcements of a gradual limitation of debt supply, including the withholding till the second half of 2011 of the issue of 10-year-maturity bonds due to Poland's smaller borrowing needs. The inflow of non-residents to the Polish Treasury securities market and the accompanying markedly lower CDS rates on Polish bonds than on bonds of the peripheral countries of the euro area were also conducive to the decline in the yields on longer-term bonds. The WIG index has increased, amidst a slight rise in involvement of non-residents in the Polish equity market.

2011 Q1 saw no significant changes in the housing market in major Polish cities. Similarly to 2010 Q4, asking prices in the primary and secondary market declined slightly. A modest downward trend in 2010 Q4 and in 2011 Q1 was also observed in the case of sale prices in the primary market, while sale prices in the secondary market remained stable over this period.

Since the publication of the previous *Report*, the nominal exchange rate of the zloty has appreciated against the euro and against the US dollar, but it has depreciated against the Swiss franc. The Swiss franc, regarded as a safe and stable currency, has also gained in value against the US dollar and the euro.

In February-May 2011 corporate lending rebounded. The relatively fast growth in housing loans to households has continued, while in the recent period most newly granted housing loans were PLN loans. At the same time household debt due to consumer loans continued to decline. After a temporary increase in monetary aggregates in March 2011, which was largely driven by a one-off factor, their rates of growth returned to moderate levels in May 2011. The M1 liquid component rose at a slightly faster pace than broad money.

Further strengthening of economic activity in 2010 Q4 and 2011 Q1 was accompanied by a deepening of the current account deficit, which was largely driven by a growing deficit in the trade in goods. The observed increase in the foreign trade deficit is connected not only with a growing demand for imported goods amidst a surge in economic activity in Poland, but is also partly caused by deteriorating terms-of-trade (as a result of growing prices of imported commodities). Moreover, good financial results of enterprises translate into a rise in remittances from Poland to foreign company owners, which deepens the deficit in the income account. At the same time, increasing utilization of EU funds for financing investment projects is reflected in a large inflow of funds to the capital account, although the total deficit in the current and capital account also deepened. The deepening of Poland's external imbalance was however accompanied by still relatively high level of the ratio of reserve assets to imports.

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 processes in Poland. Those processes as well as the domestic factors affecting them are discussed in Chapter 2. *Minutes of the Monetary Policy Council decision-making meetings* held in March, April, May and June 2011 together with the *Information from the meeting of the Monetary Policy Council* in July 2011 are presented in Chapter 3. Minutes from the MPC meeting held in July will be published on 25 August 2011 and so will be included in the next *Report*. MPC voting records in the period January-May 2011 can be found in Chapter 5. Moreover, Chapters 1 and 2 of this *Report* include three boxes: "Uncertainty concerning the estimates of unobservables: the example of the output gap", "Synchronisation of business cycles in Poland and Germany" and "Public and private sector debt in Poland".

Chapter 4 of the *Report* presents the projection of inflation and GDP based on the NECMOD model, which is one of the inputs into the Council's decision-making process on the NBP interest rates. In line with the July projection – under the assumption of constant NBP interest rates – there is a 50-percent probability of inflation running in the range of 3.7-4.4% in 2011 (as compared to 2.8-3.7% in the March projection), 2.1- 3.4% in 2012 (as compared to 2.2-3.4%) and 1.8- 3.4% in 2013 (as compared to 2.1-3.7%). In turn, the July projection sees the annual GDP growth, with a 50-percent probability, in the range of 3.0-4.9% in 2011 (as compared to 3.3-5.1% in the March projection), 1.9-4.5% in 2012 (as compared to 2.3-4.8%) and 1.5-4.3% in 2013 (as compared to 1.7-4.4%). Chapter 4 includes a box on "Changes in the methodology of constructing fan charts".

Chapter 1.

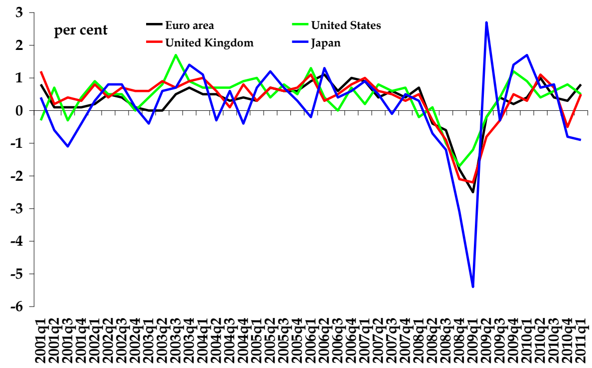
External developments

1.1. Global economic activity

In 2011 Q1 the recovery in the global economy continued. At the same time, economic conditions varied strongly across countries. Among major developed economies, strong growth was registered in Germany and France, whereas in the United States and Great Britain economic growth was slower. Japan saw its GDP decline for the second consecutive quarter (Figure 1.1). In emerging economies, especially in Asia, strong GDP growth continued.

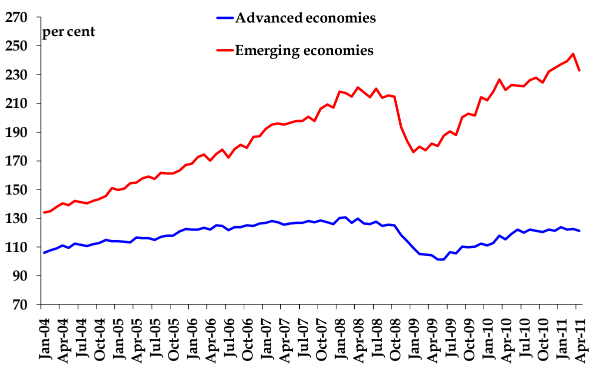
Recent data indicate that global economic growth might have slowed down in 2011 Q2. In particular, global activity indicators in manufacturing and services deteriorated[1] and the volume of world trade declined (Figure 1.2). The natural disasters that hit Japan in March 2011, high commodity prices and deep fiscal imbalances in many countries had a negative impact on economic growth. Economic growth was positively affected by a gradual recovery in private consumption in developed economies combined with continued strong domestic demand in emerging economies. The effects of monetary expansion, including the unconventional measures implemented by the major central banks[2] remain a crucial source of uncertainty for the global economic situation (see. Box 1. *Uncertainty concerning the estimates of unobservables: the example of the output gap*).

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



Source: Eurostat data (seasonally adjusted).

Figure 1.2
Volume of imports (2000=100).



Source: CPB Netherlands Bureau for Economic Policy Analysis data (seasonally adjusted).

[1] The JP Morgan Global Manufacturing & Services PMI fell from 59.1 in February 2011 to 51.8 in April, i.e. its lowest level since July 2009, and then rose to 52.6 in May 2011.

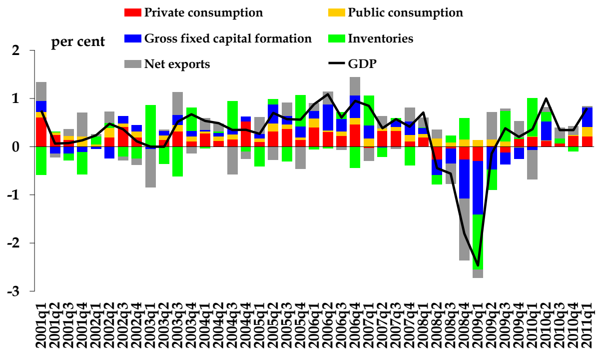
[2] The unconventional monetary policy measures consist in the active use of the central bank balance sheet with a view to directly influencing prices in the financial markets. The unconventional measures undertaken in the recent years by the major central banks included mainly conditional and unconditional purchases of private sector assets and well as government bonds.

In 2011 Q1, GDP growth in the United States slowed down to 0.5% q/q in seasonally adjusted terms (as compared to 0.8% q/q in 2010 Q4; Figure 1.1). GDP growth decelerated due to a smaller contribution of net exports and lower nonresidential fixed investment as well as a negative contribution of government expenditure. A sharp upturn in private inventory investment acted towards faster GDP growth. Private consumption in 2011 Q1 decelerated despite the announcement, in December 2010, President Obama's administration's decision to extend the tax relief period for 2011-2012.

Following a slowdown in the second half of 2010, GDP growth in the euro area accelerated markedly in 2011 Q1 (to 0.8% q/q in seasonally adjusted terms as compared to 0.3% q/q in 2011 Q4). Particularly fast economic growth was recorded in Germany, where it amounted to 1.5% q/q and to 4.8% y/y (seasonally-adjusted data). The acceleration in GDP growth in the euro area in 2011 Q1 resulted from an increase in the contribution of private investment and government expenditure (Figure 1.3). Private consumption also made a positive contribution to GDP growth while the effect of net exports and changes in inventories was broadly neutral. The acceleration in euro area economic activity in this period was particularly evident in manufacturing. Recent data, however, could point to a possible slowdown in manufacturing in 2011 Q2 (Figure 1.4). The situation in the labour market in the euro area has recently improved slightly. In particular, in 2010 Q4, for the first time since 2008 Q3, a rise in employment (in seasonally adjusted terms) was reported, and in 2011 Q1 the unemployment rate fell slightly, although it remains high (Figure 1.5). In 2011 Q1, the scale of economic recovery continued to differ significantly between core euro area economies (Germany, France) and those economies most severely affected by the debt crisis (Greece, Ireland, Portugal and Spain).

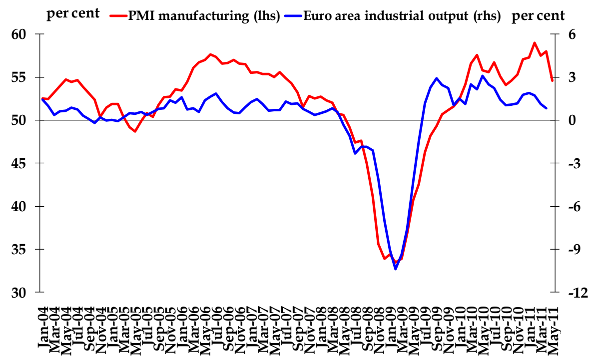
GDP growth in the UK amounted to 0.5% q/q in 2011 Q1, following a decline of 0.5% q/q in 2010 Q4 (seasonally adjusted data). Growth was

Figure 1.3
Euro area GDP growth (q/q).



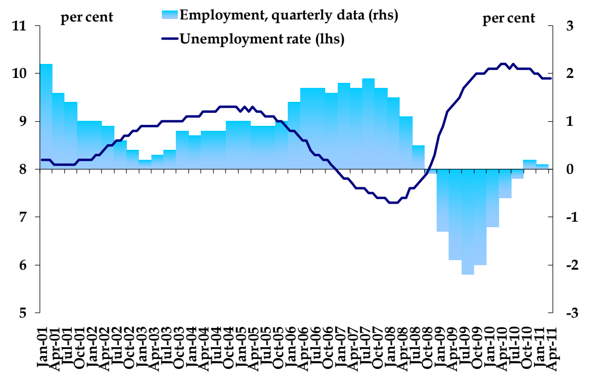
Source: Eurostat data (seasonally adjusted).

Figure 1.4
Euro area industrial production growth* and PMI for manufacturing.



Source: Eurostat, Markit data.
*Percentage change of the three-month moving average of the industrial production index against the corresponding average three months earlier.

Figure 1.5
Euro area employment (y/y) and unemployment rate.



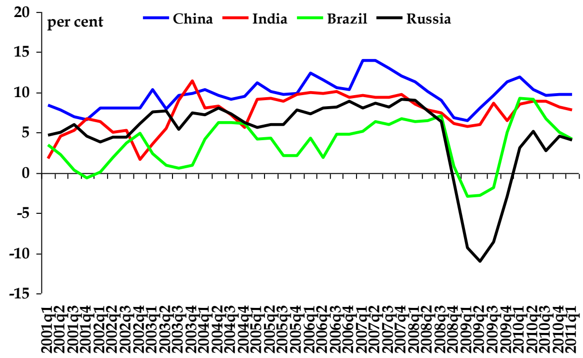
Source: Eurostat data

supported by external demand and government expenditure; however, private consumption and investment declined.

Economic growth remains buoyant in China and India, but has slowed down recently in Brazil (Figure 1.6). GDP growth in Russia has levelled off at ca. 4% y/y in the past few quarters and in China at close to 10% y/y (Figure 1.6).

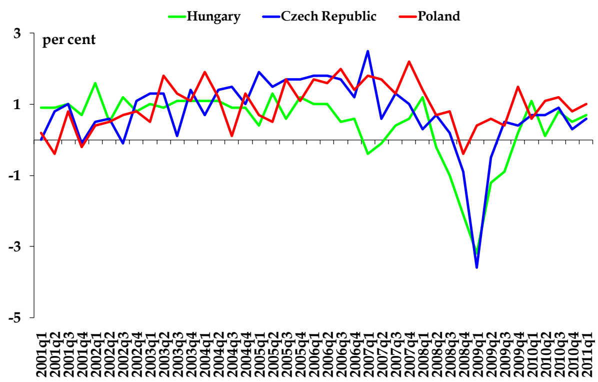
In most new EU Member States outside the euro area economic growth accelerated in 2011 Q1 but GDP growth continued to differ significantly across countries[3] (Figure 1.7, Figure 1.8). Significant acceleration in economic growth was recorded in Latvia (to 3.5% q/q as compared to 1.8% q/q in 2011 Q4). Growth also picked up in Romania (to 0.7% q/q as compared to 0.1% q/q in 2010 Q4) and in the Czech Republic (to 0.6% q/q as compared to 0.3% q/q in 2010 Q4), Hungary (to 0.7% q/q as compared to 0.5% q/q in 2010 Q4) and Bulgaria (to 0.6% q/q as compared to 0.5% q/q in 2010 Q4). GDP growth decelerated significantly in Latvia (to 0.2% q/q as compared to 0.9% q/q in 2011 Q4). Growth in the Czech Republic, Romania and in Hungary was driven mainly by external demand, whereas in Bulgaria, Lithuania and Latvia it was supported by domestic demand as well.

Figure 1.6
Economic growth in China, India, Brazil and Russia (y/y).



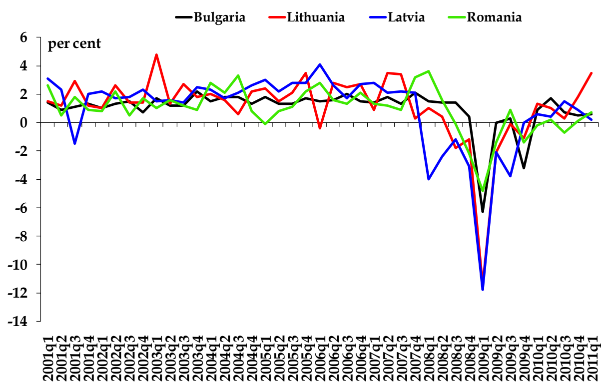
Source: Reuters and OECD data.

Figure 1.7
Economic growth in the Czech Republic, Hungary and in Poland (q/q).



Source: Eurostat data (seasonally adjusted).

Figure 1.8
Economic growth in Bulgaria, Lithuania, Latvia and and Romania (q/q).



Source: Eurostat data (seasonally adjusted).

[3] The data on economic growth in the new EU Member States outside the euro area have been seasonally adjusted.

Box 1. Uncertainty concerning the estimates of unobservables: the example of the output gap

In many macroeconomic models used in monetary policy, including models applied in analyses and forecasts of inflation, an important role is played by variables which are not directly observable. Such variables include, in particular, potential output, the natural rate of unemployment, the natural interest rate and the equilibrium exchange rate. Deviations (known as gaps, such as the output gap) of directly observable variables (real GDP, unemployment rate, interest rate of the central bank and foreign exchange rate) from unobservable variables constitute factors determining inflationary processes in macroeconomic models. They also provide information on the direction and scale of changes in central bank interest rates necessary to ensure inflation stabilization at the target level as well as information on the risks to macroeconomic stability.

However, the use of unobservable variables in macroeconomic analyses entails a risk related to the uncertainty about the estimates of these variables, in particular, real time estimates. This uncertainty stems from:

- differences in theoretical concepts on which definitions of unobservable variables may be based;

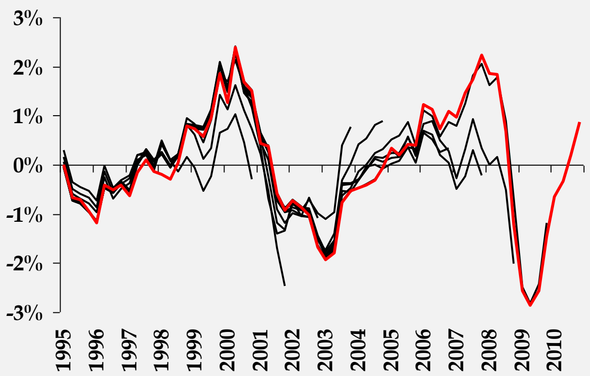
- differences in empirical methods which may be used to estimate unobservable variables;

- subsequent revisions of macroeconomic data on which current estimates of unobservable variables are based;

- changes in previously made estimates using a particular method of measuring an unobservable variable connected with the extension of the sample period on which these estimates are based (see: Figure R.1.1 presenting changes in the output gap in the United States estimated with the use of the Hodrick-Prescott filter, connected with the extension of the sample on the basis of which the output gap is estimated).

Among many unobservable variables, uncertainty about the estimates of the output gap and its consequences for the assessment of inflationary pressures and the outlook for inflation, as well as for the conduct of monetary policy, is the most frequently analysed in the economic literature. A number of empirical studies indicate that the scale of revisions to the estimates of the output gap connected with the extension of the sample to include new information and revisions of the already released data may be large (Orphanides and van Norden, 2002; Koske and Pain, 2008). At the same time, high uncertainty about real time estimates of the output gap may adversely affect the quality of inflation forecasts based on these estimates (Orphanides and van Norden, 2005).

Figure R.1.1
Estimates of the output gap in the United States using Hodrick-Prescott* filter



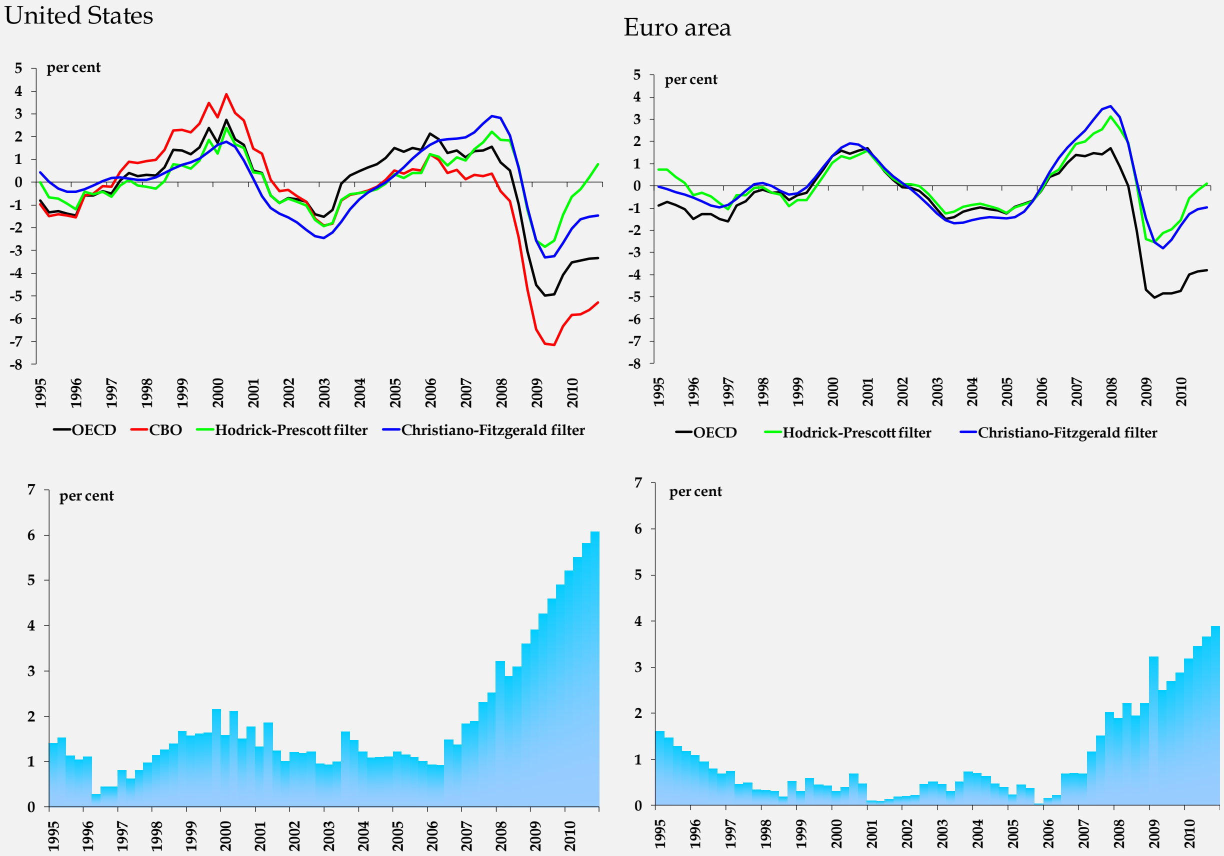
Source: BEA data, NBP calculations

* Estimate based on the whole available data sample is shown in red. Estimates based on shortened samples are shown in black.

Errors in estimating unobservable variables may have far-reaching consequences for monetary policy (Beck and Wieland, 2008). For example, in the opinion of some economists, errors in estimating the potential output or the natural rate of unemployment, and, consequently, in assessing the outlook for inflation, translated into inappropriate responses by US monetary policy in the 1970s, contributing significantly to high inflation (Orphanides, 2002 and 2003; Primiceri, 2005).

Strong structural changes in the economy and economic downturns may increase the uncertainty about the estimates of unobservable variables. Koske and Pain (2008) show for example that revisions of potential output estimates around turning points in the business cycle are stronger than in other periods. Heightened uncertainty about unobservable variables may, in turn, amplify ex post forecast errors of macroeconomic variables, including inflation.

Figure R.1.2
Current estimates of the output gap* for the United States and the euro area (upper panel) and their divergence (bottom panel)**



Source: BEA, OECD, Eurostat data, NBP calculations.

* Estimates of the output gap by the Organization for Economic Co-operation and Development (OECD) and the Congressional Budget Office (CBO) make use of methods based on the neo-classical production function.

** The gap is measurement of diversification in output gap estimates.

The global financial crisis resulted in heightened uncertainty about developments in potential output in many economies (see Annex 3. The impact of the financial crisis on potential output development in the Inflation Report. June 2010), which combined with the typically heightened uncertainty about the estimates of potential output at the end of the sample has resulted in a strong divergence in the current estimates of the output gap. Figure R.1.2 presents estimates of potential output for the United States and the euro area prepared by different institutions with the use of various empirical methods, including the scale of divergence between these estimates. In the case of both economies divergence between the estimates of the output gap is particularly high for 2008-2010. Estimates of the output gap in the United States in 2010 Q4 range between -5.3% and 0.9%, which implies divergent assessments of inflationary pressures. It follows from the analyses conducted at the NBP that based on the experience in recovering from previous recessions in the United States, it is impossible to conclude that any particular method of measuring the output gap provides consistently better estimates that other methods[4]. This experience does not allow one to determine whether real time estimates are regularly overstated or understated with respect to estimates taking into account data released at a later time.

High uncertainty about the estimates of unobservable variables in major developed economies, in particular the estimates of the output gap, increases the uncertainty about the outlook for inflation and the effects of strongly expansionary monetary policy in those countries.

References:

Beck, G.W., Wieland, V. (2008), „Central bank misperceptions and the role of money in interest-rate rules", Journal of Monetary Economics, Elsevier, Vol.55 (Supplement), pp. S1-S17.

Blanchard, O.J., Quah, D. (1989), "The Dynamic Effects of Aggregate Demand and Supply Disturbances", American Economic Review, Vol. 79(4), pp. 655-73.

Christiano, L.J., Fitzgerald, T.J. (2003), "The Band Pass Filter", International Economic Review, Vol. 44(2), pp. 435-465.

Hodrick, R. J., Prescott, E. C. (1997), "Postwar U.S. Business Cycles: An Empirical Investigation", Journal of Money, Credit and Banking, Vol. 29(1), pp. 1-16.

Koske, I., Pain, N. (2008), "The Usefulness of Output Gaps for Policy Analysis", OECD Economics Department Working Papers No. 621, OECD Publishing.

Orphanides, A. (2002), "Monetary-Policy Rules and the Great Inflation," American Economic Review, American Economic Association, Vol. 92(2), pp. 115-120.

Orphanides, A. (2003), "Historical Monetary Policy Analysis and the Taylor Rule", Journal of Monetary Economics, Vol. 50(5), pp. 983-1022.

Orphanides, A., van Norden, S. (2002), "The Unreliability of Output-Gap Estimates in Real Time", The Review of Economics and Statistics, Vol. 84(4), pp. 569-583.

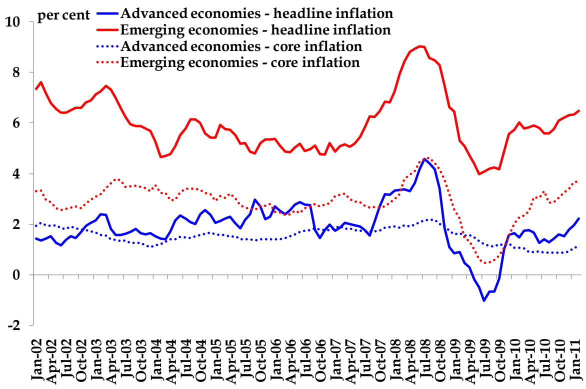
Primiceri, G.E. (2005), "Why Inflation Rose and Fell: Policymakers' Beliefs and US Postwar Stabilization Policy", NBER Working Papers No. 11147, National Bureau of Economic Research, Inc.

Watson, M.W. (1986), "Univariate detrending methods with stochastic trends", Journal of Monetary Economics, Vol. 18(1), pp. 49-75.

1.2. Inflation developments

After stabilising in the first three quarters of 2010, inflation accelerated significantly across the global economy - a development which was fuelled by a sharp rise in global commodity prices. Inflation rose in most developed as well as emerging economies (Figure 1.9).

Figure 1.9
Inflation in developed and emerging economies (y/y).



Source: IMF data.

The increase in inflation in major developed economies, i.e. in the United States and in the euro area (Figure 1.10) was accompanied by a rise in core inflation and a deterioration in short-term inflation expectations. However, core inflation in these economies was still moderate and long-term inflation expectations remained relatively stable. Inflationary pressure in major developed economies was

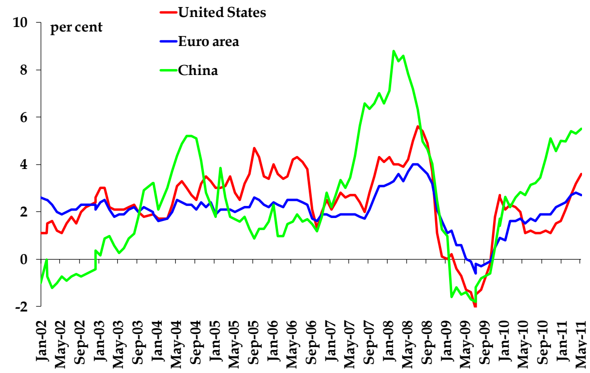
[4]Output gap was estimated with the use of the Hodrick-Prescott and Christiano-Fitzgerald filters, unobservable components model as proposed by Watson (1986) and structural vector autoregression model (SVAR) as proposed by Blanchard and Quah (1989). Estimates of the Congressional Budget Office (CBO) were also taken into account. The revisions to output gap estimates following recessions in 1981-82, 1990-91 and 2001 were analysed.

curbed by low capacity utilization, including high unemployment.

On the other hand, in many emerging economies, including, in particular, Asian and Latin American economies (Figure 1.10), the rise in inflation was additionally boosted by fast economic growth, which resulted in mounting wage and demand pressures. As a result, core inflation in emerging economies was relatively high.

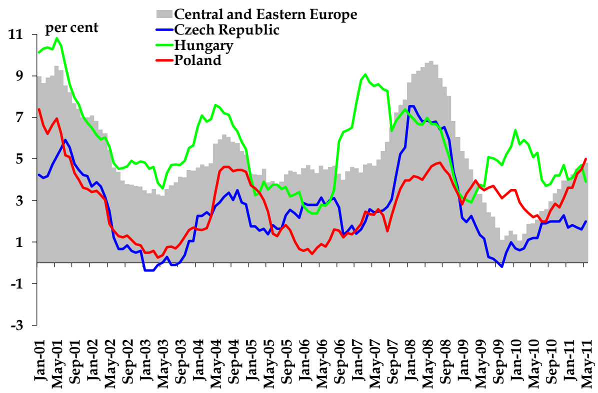
While inflation rose also in Central and Eastern Europe, there were significant differences across countries (Figure 1.11), related partly to the different timing of increases in administered prices and indirect taxes. At the beginning of 2011, indirect tax (VAT, excise tax) increases took place in Poland, Latvia and Slovakia. The scale of increases in administered prices was larger than in the corresponding period of 2010, which resulted in rising inflation indices in those countries. Similarly, the annual inflation index in Romania was significantly boosted by a VAT increase in July 2010. In most other countries of the region, increases in indirect tax rates or substantial increases in administered prices had taken place earlier (in January 2010 VAT rates were raised in the Czech Republic, in July 2009 - in Hungary; in January 2010 administered prices were raised significantly in Lithuania and the Czech Republic); the fading of the impact of these increases was conducive to a decline in annual inflation indices in these countries.

Figure 1.10
CPI inflation in major economies (y/y).



Source:: OECD, Eurostat, IMF data.

Figure 1.11
CPI inflation in Central and Eastern Europe* and its major economies (y/y).



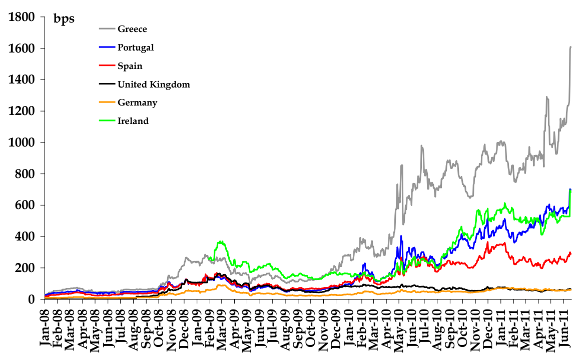
Source: Statistical offices' data.

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

1.3. International financial markets and monetary policy abroad

Since the publication of the previous *Report* developments in the global financial markets have been significantly affected by concerns about the stability of public finances in some developed countries, mainly the peripheral countries of the euro area. Some influence on the financial markets was exerted by concerns about the possible effects on the global economy of commodity price rises, the earthquake and tsunami in Japan and the political turmoil in the Arab countries.

Figure 1.12
CDS spreads in selected developed countries.



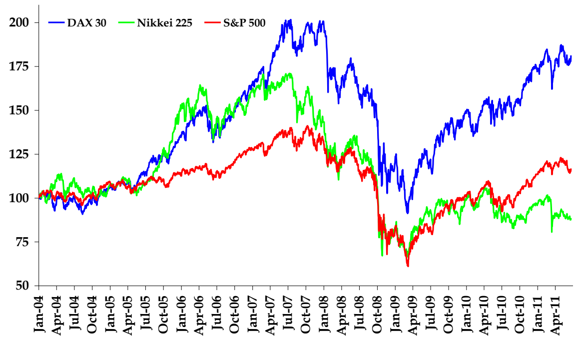
Source: Bloomberg data, NBP calculations.

Growing concerns about the situation of public finances in some peripheral countries of the euro area were reflected in subsequent downgrades of Greek, Irish and Portuguese bond ratings[5]. Moreover, the mounting problems of Portugal in satisfying its borrowing needs in the financial markets led it country to request financial aid from the European Union (within the European Financial Stability Fund) and from the International Monetary Fund. Recently Greece's problems with financing its debt have grown as well. As a result of the above developments, a further sharp rise has been observed in bond yields as well as CDS spreads for Treasury bonds of the countries most severely affected by the sovereign debt crisis (Figure 1.12). Concerns about the long-term situation of public finances in the United States have also intensified, reflected by a downgrade of US long-term debt outlook[6].

In the recent period, the situation on the world's major stock exchanges has been particularly volatile. Following the natural disasters in Japan in March 2011, share prices plummeted but rebounded quickly and rose till mid-May. However, in subsequent weeks share prices fell again due to macroeconomic data signalling the possibility of a global slowdown, and fears about the fiscal situation in some developed economies (Figure 1.13).

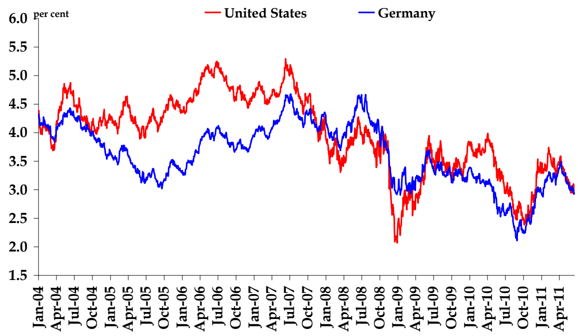
Since the publication of the previous *Report*, US and German bond yields have fallen (Figure 1.14). Initially, between mid-March and mid-April 2011, bond yields rose in connection with rising commodity prices, stronger inflation trends and increased expectations of interest rate increases by the European Central Bank (ECB). Subsequently, however, expectations of interest rates increases by the ECB weakened and gave way to mounting concerns about the condition of public finances in those euro area countries most severely affected by the

Figure 1.13
Stockmarket indices in Germany (DAX 30), Japan (Nikkei 225) and the United States (S&P 500), January 2004 = 100.



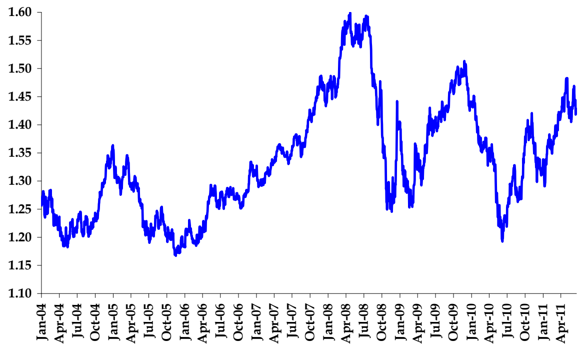
Source: Reuters data, NBP calculations.

Figure 1.14
Yields of 10-year US and German bonds.



Source: Bloomberg data.

Figure 1.15
The EUR/USD exchange rate (increase denotes appreciation of the euro).



Source: Bloomberg data.

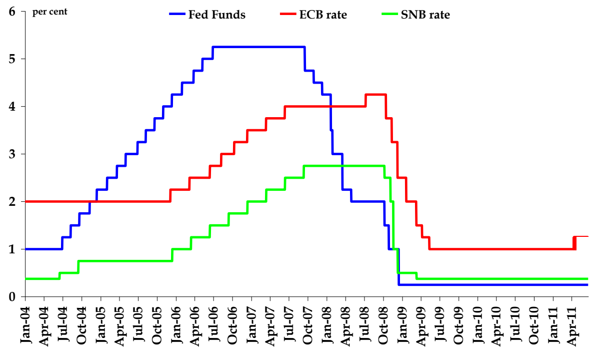
[5] The rating on Greek bonds was lowered by Moody's (on 7 March, from Ba1 to B1 and on 1 June from B1 to Caa1), Standard&Poor's (on 9 May from BB- to B and on 14 June from B to CCC) and Fitch (on 20 May from BB+ to B+). Irish bonds were downgraded by Standard&Poor's (on 1 April from A- to BBB+) and Moody's (on 15 April from Baa3 to Baa1). Portuguese bonds were downgraded by Moody's (on 16 March from A1 to A3 and on 5 April from A3 to Baa1) and by Standard&Poor's (on 25 March from A- to BBB).

[6] On 18 April 2011, Standard & Poor's lowered the long-term outlook on US bonds from "stable" to "negative". It was the first ever instance of a downgrade of the outlook on US long-term debt. In 1996, Moody's and Fitch warned about a possibility of a rating downgrade only with respect to those US bonds with coupon payments over the following three consecutive months, without questioning the long-term rating outlook.

sovereign debt crisis. These factors contributed to downward pressure on the yields of German and US bonds regarded as safe investments.

Expectations, and the subsequent increase of the ECB's policy rate, as well as the resulting wider interest-rate differential between the euro area and the United States contributed to the appreciation of the euro against the US dollar in March and in April 2011 (Figure 1.15). However, news of a possible restructuring of the Greek debt and a rising risk of a Greek default led to a depreciation of the euro against the US dollar in May and June 2011.

Figure 1.16
Fed Funds rate, ECB refinancing rate, and SNB rate.



Source: Central banks' data.

Since the publication of the previous *Report*, major central banks have continued expansionary monetary policy (Figure 1.16), although some differentiation between individual approaches could be observed. The Fed and the Bank of England maintained their policy rates at historically low levels, 0.00-0.25% and 0.50%, respectively. Likewise, the Swiss National Bank (SNB) has not changed the 0.00-0.75% band for the 3-month LIBOR rate, continuing its efforts to keep the rate close to 0.25%, i.e. in the lower region of the band. On the other hand, in April 2011 the European Central Bank raised - for the first time in almost three years - its interest rates by 0.25 percentage points after which it left them unchanged, whereas the Bank of Japan engaged in further quantitative easing of its monetary policy following the natural disasters in this country.

Amidst fast economic growth and rising inflation, central banks in most emerging economies (including Brazil, Chile, China, India, South Korea, Peru and Russia) continued to tighten their monetary policies. Monetary conditions were also tightened in some small open economies (including Norway and Sweden).

1.4. Global commodity markets

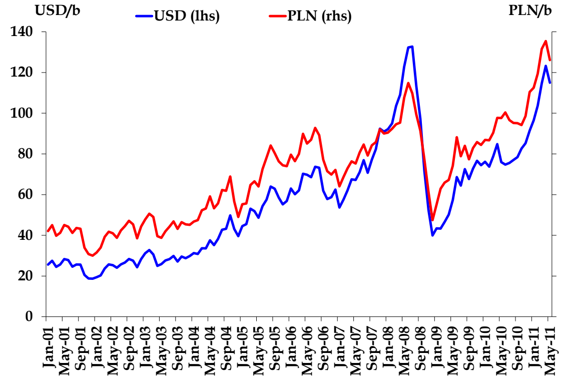
As relatively strong demand for crude oil, in particular from the emerging countries, continues amidst limited increase in its supply, high prices of the commodity persist. However, since the publication of the previous *Report*, trends in oil prices have changed considerably

(Figure 1.17). Until the beginning of April, there was a strong upward trend in oil prices (the price of Brent oil peaked at 127 USD/b, the highest level since August 2008) which remained above 120 USD/b until the beginning of May. The persistently high level of oil prices in that period was strongly related to the political turmoil in several countries in North Africa and the Middle East, regions of crucial importance to production and transportation of the commodity[7]. The spike in oil prices was also boosted by good American economic performance, which supported the optimistic outlook of investors in the futures markets, and by a depreciation of the US dollar. However, in May oil prices decreased significantly (by approx. 15 USD/b), following the release of slightly weaker data on the US economy and concerns that high oil prices might weaken global economic activity. In the first three weeks of June, oil prices fluctuated within a band of approx. 110-120 USD/b. In that period, upward pressure on oil prices was exerted by the OPEC decision not to increase output quotas, while concerns about world economic growth, amidst tensions in the financial markets related to the fiscal problems of Greece exerted downward pressure on the prices of oil.

Coal prices, after a sharp rise in January 2011 in response to Australian floods (to 125 USD/t), stabilized at approx. 120 USD/t in the period February-May (Figure 1.18)[8]. With regard to natural gas, its prices ran at approx. 330 USD/1000m3 till March 2011, and in the period April-May rose to approx. 360 USD/1000m3 (Figure 1.18). The rise in gas prices was related to the previous rise in oil prices, which translate with a lag into prices of natural gas. Higher gas prices could additionally have been supported by increased gas imports to the natural disaster-stricken Japan.

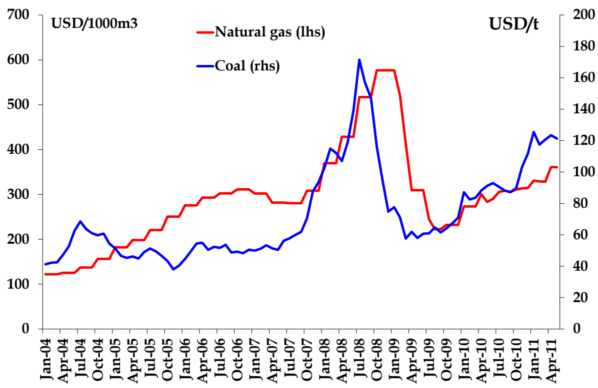
Since the publication of the previous *Report* till April 2011 global prices of agricultural commodities continued to rise, and stabilized at a high level in May (Figure 1.19), significantly exceeding the level recorded in August 2008. The increase in these prices was connected to

Figure 1.17
Brent crude oil prices in USD and PLN.



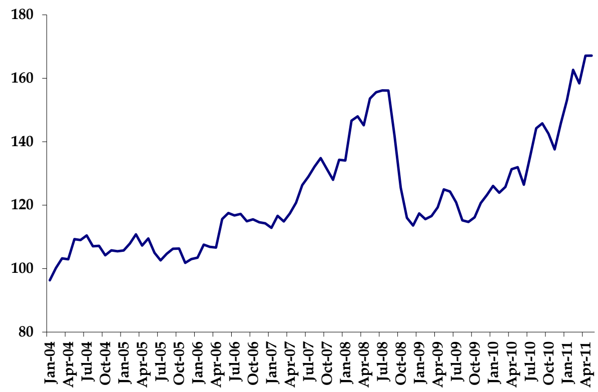
Source: The US Department of Energy data, NBP calculations.

Figure 1.18
Gas and coal prices in the global markets.



Source: IMF data.

Figure 1.19
Index of agricultural commodity prices in the global markets (2004Q1=100).



Source: IMF data, NBP calculations.
Index includes wheat, beef, pork, poultry, fish, sugar, banannas, oranges, canola oil and beverages

[7] A particularly significant impact on the oil market was exerted by a considerable reduction of output in Libya.
[8] The sharp rise in coal prices in January was connected with the flood in Australia, which resulted in reduction in coal output of this country.

the limited supply of those commodities due to unfavourable weather conditions in the 2010/2011 season and restrictions on exports of food from Russia and Ukraine. Trends in agricultural commodity prices were also strongly affected by ample liquidity supply in the global financial markets, which boosted the activity of investors in the futures market. A long-term factor contributing to the upward pressure on food prices is the rise in the demand for food, particularly in emerging economies, coupled with biofuel production, owing to which some arable land is designated to the cultivation of energy plants.

Developments in commodity prices in the global markets indicate that oil prices are most strongly affected by: political tensions in oil exporting countries, changes in economic activity in the US and OPEC decisions on output quotas; while food prices – which are related to agro-meteorological conditions – are most strongly affected by developments in the emerging economies' demand for food and by production of biofuels.

Chapter 2.

Domestic economy

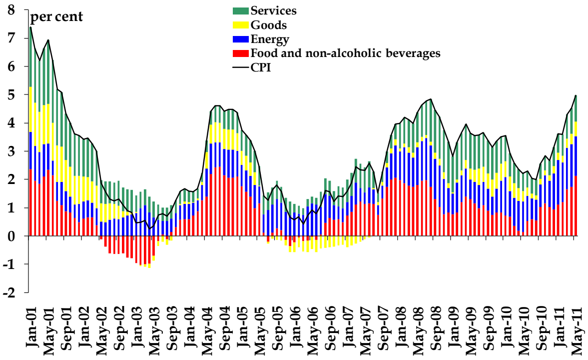
2.1. Inflation developments

2.1.1. Consumer prices

The annual growth of prices of consumer goods and services in Poland in the period from January to May 2011 increased from 3.6% to 5.0%[9]. As a result, it exceeded the NBP inflation target of 2.5% markedly (Figure 2.1). In the analyzed period higher inflation was observed in most categories of goods and services, as indicated by a rise in the share of prices growing above 2.5% y/y (Figure 2.2).

The increase in inflation was mainly driven by a steady rise in the growth of food prices (Figure 2.3), caused mainly by unfavourable supply conditions in the domestic market for fruit, vegetables and cereals and a strong upward trend in the prices of agricultural and energy commodities [10] in the global markets (see: Chapter 1.4. *Global commodity markets*).

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



Source: GUS data, NBP calculations.

---

[9] The level of inflation in this period was partly driven by changes in the treatment of prices of seasonal goods as implemented by GUS since 1 January 2011. The changes result, among others, in constant weights of *fruit* and *vegetables* in the CPI basket throughout the calendar year since the beginning of 2011 (in the previous years, weights of elementary groups included in *fruit* and *vegetables* aggregates changed in subsequent months, reflecting seasonal fluctuations in consumption of those products). At the same time, GUS changed the treatment of prices of newly introduced seasonal products, which is relevant with respect to *clothing* and *footwear* aggregates. According to NBP estimates, in January-April the impact of changes implemented in computing the CPI index was insignificant. However, in May it amounted to 0.2 percentage points. Estimates by GUS also indicate that the above changes raised the CPI index in May by 0.1-0.2 percentage points. According to NBP estimates – due to the seasonal pattern – this factor may significantly raise the CPI index also in the coming two months, probably by an even larger magnitude than in May. Thereafter, the changes' impact on CPI inflation should diminish. At the same time, it should be emphasized that available data make it impossible to distinguish between changes in the price index of *clothing* and *footwear* triggered by changes in the treatment of prices of seasonal goods and those resulting from the cost increase (the observed rise in the prices of commodities, among other things, cotton and crude oil as well as rising production costs in the countries exporting these goods). This means that the impact of changes in the treatment of prices of seasonal goods on inflation may be smaller than suggested by NBP estimates.

[10] The rise in the prices of energy commodities translates into growing food prices through higher costs of food production and transport.

The acceleration of inflation was also driven by an increase in the annual price growth of most services and goods categories, largely caused by a rise in the VAT rates in January 2011. The impact of this rise on the annual CPI is estimated by the NBP at 0.3-0.4 percentage points.

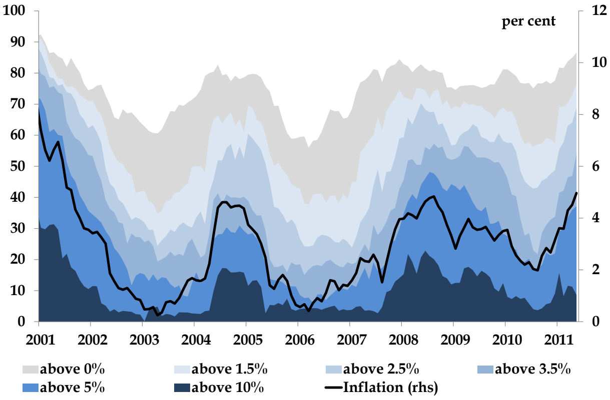
High growth in the prices of energy, mainly fuels, was another important factor that caused inflation to remain at elevated levels. This resulted mainly from a further increase in the prices of energy commodities in the global markets as well as hikes in administered prices of energy products for households.

On the other hand, the decline in the prices of goods imported from low cost countries damped the rise in inflation in the analysed period. Yet, since 2009 the impact of this factor - contrary to the situation observed in previous years - has been on a steady decline and is relatively insignificant at the moment.

2.1.2. Core inflation

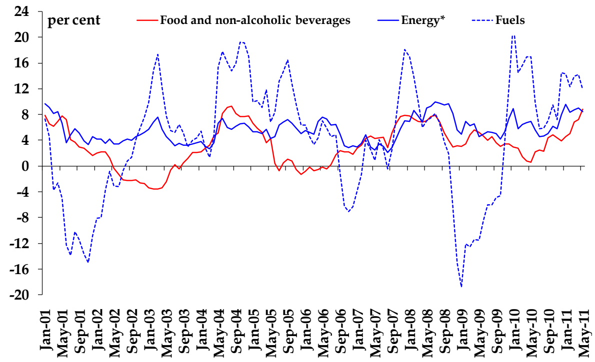
In January-May 2011, all core inflation measures increased (Figure 2.5). The index of core inflation net of food and energy prices rose from 1.6% y/y to 2.4% y/y. Its growth was driven by rising prices in most groups of goods and services. In January and February 2011 it was connected with a rise in the VAT rates and hikes in administered prices related to dwelling maintenance. In the subsequent months the acceleration in core inflation was largely fuelled by growth in the prices of clothing and footwear, rising prices of restaurants and hotels (resulting partly from food price growth) and prices of transportation services (resulting partly from higher fuel prices), and in May also by a rise in the prices of medical services. The increase in core inflation observed since 2010 Q4 may be indicative of growing demand pressure in the economy.

Figure 2.2
Frequencies of price changes.



Source: GUS data, NBP calculations.

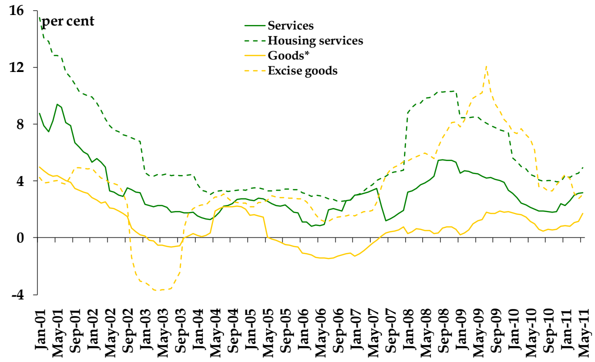
Figure 2.3
Changes in food and energy prices (y/y).



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 2.4
Changes in the prices of services and goods (y/y).



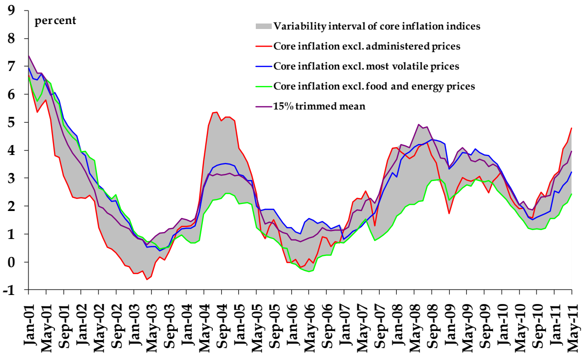
Source: GUS data, NBP calculations.

* The category of *goods* does not include food, non-alcoholic beverages or energy.

2.1.3. The Maastricht price stability criterion

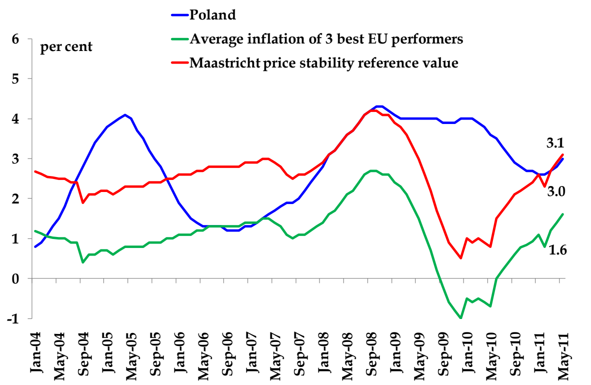
In January-May 2011, the 12-month average HICP inflation in Poland, considered in assessing the compliance with the Maastricht price stability criterion, went up from 2.6% to 3.0%. In the same period, according to NBP estimates, the reference value for the inflation criterion[11] increased from 2.6% to 3.1% (Figure 2.6). As a result, in the analysed period, the 12-month average HICP inflation in Poland was equal or close to the estimated reference value.

Figure 2.5
Core inflation measures (y/y).



Source: GUS data, NBP calculations.

Figure 2.6
HICP inflation in Poland (12-month moving average) and the Maastricht criterion.



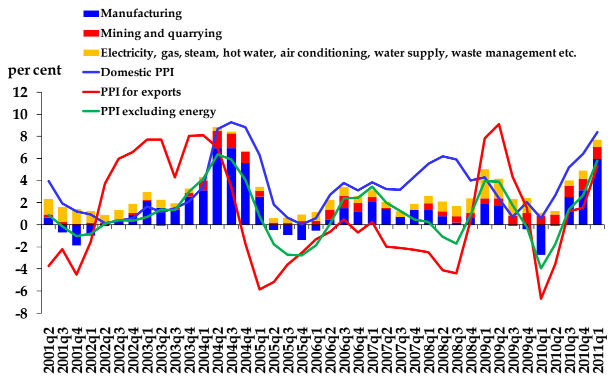
Source: Eurostat data, NBP calculations.

2.1.4. Producer prices

Producer prices in industry (PPI) grew in 2011 Q1 by 7.7% y/y (as compared to 4.9% y/y in the preceding quarter)[12]. This was largely driven by an acceleration in manufacturing price growth (Figure 2.7). The rise in PPI in the analysed period was mainly supported by further growth in the prices of commodities in the global markets, which was not offset by changes in the zloty exchange.

Growth in producer prices in the domestic market picked up to 8.4% y/y in 2011 Q1 as compared to 6.4% y/y in the preceding quarter (Figure 2.7), and in the exported goods market - to 5.3% y/y (as compared to 1.3% y/y in 2010 Q4).

Figure 2.7
Composition of annual growth of total PPI by sections of industry, domestic PPI, PPI for exports and PPI excluding energy.



Source: GUS data.

2.1.5. Import prices

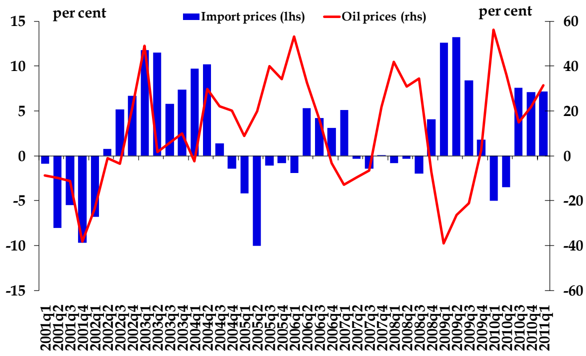
In 2011 Q1 the growth of zloty-denominated import prices of goods remained relatively high: 7.2% y/y as compared to 7.1% y/y in the preceding quarter (Figure 2.8), which was accompanied by a slight depreciation of the effective exchange rate of the zloty. The rise in these prices was driven, among other things, by a further surge in the prices of energy

[11] Those estimates are based on the assumption that in January 2011 the reference group for price stability criterion would include: Slovakia, the Netherlands and Germany, in February 2011 - Latvia, the Netherlands and Slovakia, in March 2011 - Latvia, the Netherlands and Germany, in April 2011 - Latvia, the Netherlads, Sweden and in May 2011 - Sweden, the Netherlads and Germany. Formal assessment whether a particular country complies with the price stability criterion is made by the European Commission and the European Central Bank in *Convergence Reports*, the latest issue of which was published in May 2010.

[12] From 9.5% y/y recorded in March 2011, PPI declined to 8.8% y/y in April 2011 and to 6.5% y/y in May 2011 as a result of a weaker price growth in manufacturing.

commodities, including crude oil and natural gas, metal ores and food products. On the other hand, the growth in the prices of investment products and the majority of consumption products (excluding foodstuffs) continued at relatively low rates in this period.

Figure 2.8
Changes in import prices and in oil prices in PLN terms.



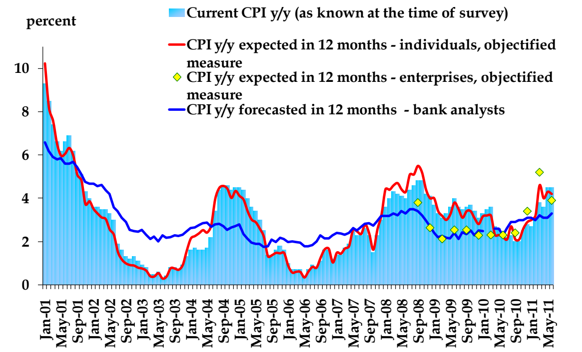
Source: GUS data.

2.1.6. Inflation expectations

Inflation forecasts of financial sector analysts over the 12-month horizon since August 2010 have run at approx. 3.0% (in June 2011, inflation expected by analysts was 3.3%; Figure 2.9).

Due to the adaptive nature of the expectations of individuals, the objectified measure of these expectations usually runs close to inflation observed at the moment of conducting the survey. In March 2011, a significant rise in inflation and a deteriorated structure of responses to the survey questions led to a considerable increase in inflation expectations in this group - to a level exceeding current inflation by 0.8 percentage points. In April 2011 this gap narrowed to 0.4 percentage points, and in May and June 2011 amounted to -0.2 percentage points and -0.3 percentage points, respectively, which was supported by the gradually improving structure of responses to the survey questions. However, inflation expectations of individuals still have been running at over 4.0%. The relatively high inflation expectations of individuals in the analysed period could to a large extent have been driven by the fact that the increase in the current price growth was particularly robust in the case of frequently purchased goods, strongly affecting the perception of inflation.

Figure 2.9
Inflation expectations of individuals and enterprises and inflation forecasts of bank analysts.



Source: Ipsos, Reuters and GUS data, NBP calculations.

Inflation expectations of enterprises over the 12-month horizon (objectified measure), declined to 3.9% in 2011 Q2 after a considerable rise to 5.2% in 2011 Q1 from 3.4% in the preceding quarter. Whereas the rise in inflation expectations in 2011 Q1 resulted to a larger extent from the increase in current inflation observed while conducting the survey than from the deterioration in the structure of responses to the survey questions, the fall in these expectations in 2011 Q2 was entirely the effect of an improved structure of responses.

High inflation expectations of individuals pose a risk of considerable wage demands. In turn, high inflation expectations of enterprises coupled with their good financial results (see chapter 2.2.2 *Investment demand*) may reduce their reluctance to increase wages. A substantial monetary policy tightening implemented this year should be helpful in curbing inflation expectations in the economy and reduce the risk of mounting wage pressure.

2.2. Demand and output

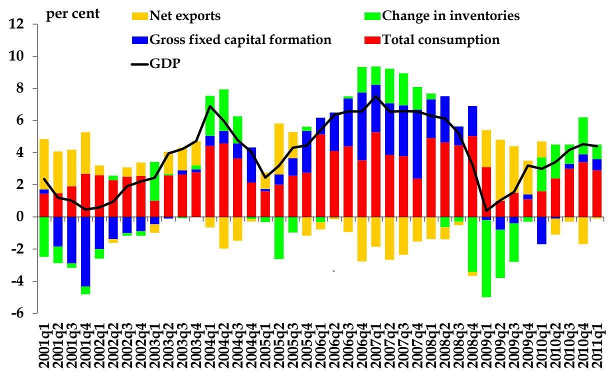
In 2011 Q1, GDP growth remained relatively strong and amounted to 4.4% y/y, as compared with 4.5% y/y in 2010 Q4 (Figure 2.10). In quarterly terms GDP growth weakened slightly (falling to 0.9% q/q, from 1.3% q/q in 2010 Q4, seasonally adjusted data).

On the demand side, growth continued to be driven mainly by domestic demand, which rose by 4.5% y/y in 2011 Q1, (as compared to 6.3% in 2010 Q4). Domestic demand was in turn supported by accelerating investment, a steady upward trend in consumption and a further build-up of inventories.

Individual consumption continued to expand at a relatively fast pace, which in 2011 Q1 continued to hover around its long-term average. Growth of individual consumption in 2011 Q1 stabilized, despite increased inflation, a decline in consumer credit, and a partial bringing forward of spending to the end of 2010 due to changes in VAT rates in 2011. This shows that the improvement in the labour market had a large impact on consumption growth (see Chapter 2.3. *Labour Market*). Public consumption, on the other hand, slowed down considerably, amounting to 1.5% y/y in 2011 Q1 (as compared with 7.6% in 2010 Q4).

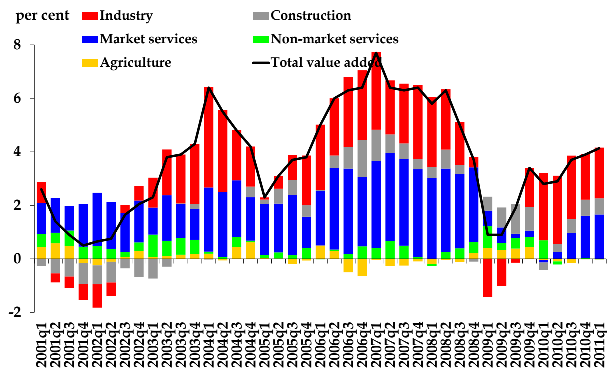
As regards investment, 2011 Q1 saw its further revival which had begun in 2010 Q3. At the same time, companies continued to rebuild

Figure 2.10
Contribution of aggregate demand components to GDP growth.



Source: GUS data

Figure 2.11
Sector contribution to annual growth of gross value added.



Source: GUS data, NBP calculations

stocks, which resulted in a positive contribution of this category to GDP.

In 2011 Q1, both exports and imports lost momentum, with imports slowing down more markedly than exports. As a result, the negative contribution of net exports to GDP narrowed (in 2011 Q1 it amounted to -0.1 percentage points as compared with -1.7 percentage points in 2010 Q4).

In 2011 Q1, contributions to gross value added growth increased somewhat from industry, market services and construction. Industry and market services continued to account for most of the growth in overall value added (Figure 2.11). The high contribution of industry resulted mainly from this sector's fast growth, whereas the high contribution of market services – from their high share in total value added.

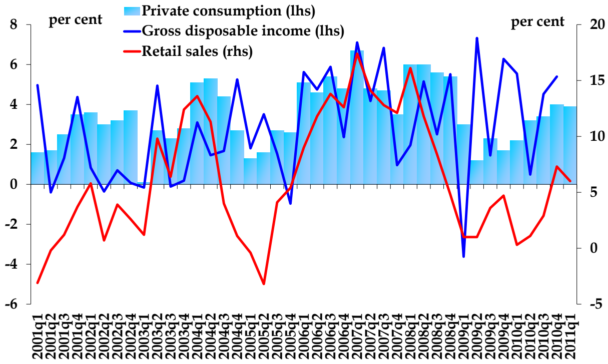
2.2.1. Consumption demand

After robust expansion in 2010 Q4, consumption demand continued to grow at a healthy rate in 2011 Q1. According to GUS estimates, individual consumption rose by 3.9% y/y in 2011 Q1 (as compared to 4.0% y/y in 2010 Q4 and 3.4% y/y in 2010 Q3; Figure 2.12). In seasonally adjusted quarterly terms, individual consumption rose by 0.9% in 2011 Q1 (as compared to 1.1% in 2010 Q4).

The recovery in consumption demand at the end of 2010 was supported by accelerating growth in households' disposable income. This rise in 2010 Q4 resulted to a great extent from an increase in sole traders' income, which was steeper than in the previous quarter, and continued strong growth in income from hired employment.[13] However, a relatively slow rise in social transfers worked in the opposite direction.

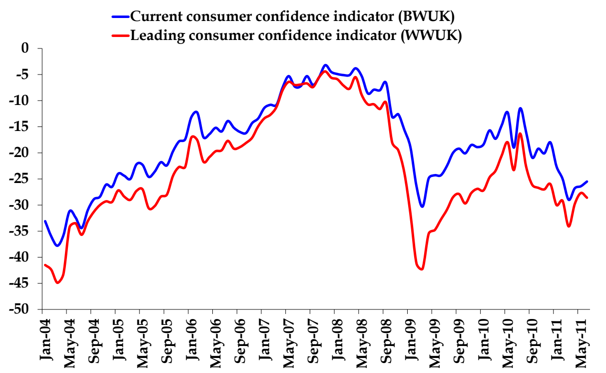
As disposable income once again rose faster than consumption, households' savings rate

Figure 2.12
Growth of private consumption, gross disposable income and retail sales (y/y, constant prices).



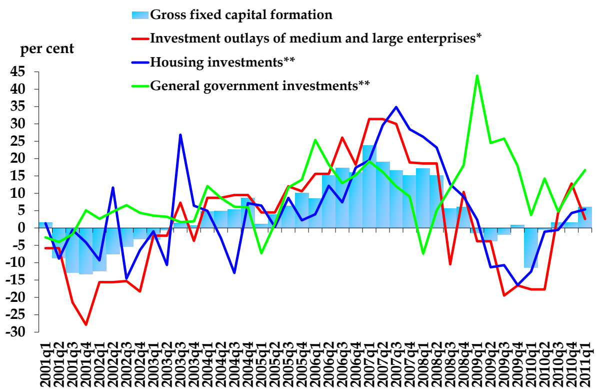
Source: GUS data, NBP calculations

Figure 2.13
Consumer confidence indicators.



Source: GUS and NBP data.

Figure 2.14
Investment in the economy (y/y).



Source: GUS data, Ministry of Finance data, NBP estimates.

* Due to the lack of data on investment outlays of enterprises in Q1 and Q2 up to 2010, the chart presents the growth for the first half of a year till 2011.
** NBP estimates for the NECMOD model; seasonally adjusted data.

[13] According to NBP estimates, the growth of income from hired employment once again exceeded in 2011 Q4 the growth of the wage fund as calculated from the data on employment and wages in the economy. Income from hired employment includes - apart from wages - i.a. some forms of benefits, non – cash income,, transfers from the Employee Benefit Fund and severance pay.

continued to increase, reaching 10.3% in 2010 Q4, versus 9.9% in 2010 Q3, thus approximating its multi-year average level[14].

Between January and April 2011, retail sales followed an upward trend. During the entire period, sales of certain categories of durable goods saw a strong increase (among them furniture, electronics, household appliances). The same trend was observed in non-durable, non-inferior goods. This might be indicative of the broad base to the current upturn in consumption demand.

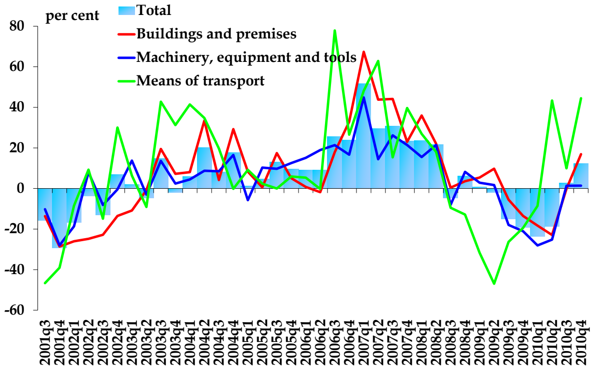
Surveys of business conditions again point to relatively low sentiment of households in 2011 (Figure 2.13). Since the beginning of 2011, all the components of the consumer confidence index (except for changes in unemployment) have been running lower than in the previous year. In particular propensity of consumers to make important purchases has been systematically decreasing. However, the relatively pessimistic outlook has not as yet had enough bearing on households' consumer behaviour to drag down individual consumption. It seems to be more dependent on the improvement of outlook in the labour market (see Chapter 2.3 *Labour Market*).

2.2.2. Investment demand

The recent three quarters have seen a gradual improvement in investment. The growth rate of investment outlays in the economy in 2011 Q1 amounted to 2.0% q/q (as compared to 0.8% q/q in 2010 Q4 and 0.5% in 2010 Q3), while in annual terms it increased by 6.0% in 2011 Q1 (as compared to 1.6% in 2010 Q4 and 1.5% in 2010 Q3; Figure 2.14).

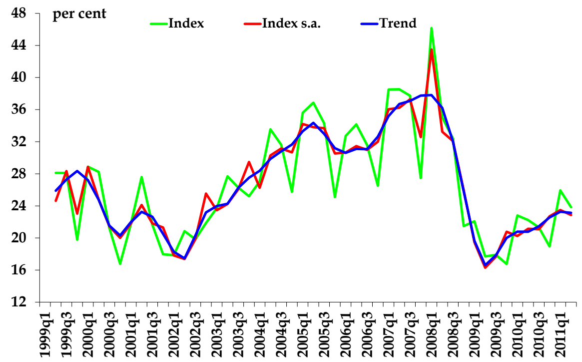
A significant driving force behind the rise in investment was a further boom in public investment, which increased by 16.7% y/y in 2011 Q1, against 11.5% y/y in 2010 Q4, and 4.8% y/y 2010 Q3.

Figure 2.15
Gross fixed capital formation in medium and large enterprises (in nominal terms, y/y).



Source: GUS data, NBP calculations.

Figure 2.16
Index of new investments (percentage of enterprises planning to start new investments within the coming quarter).



Source: NBP business tendency survey.

Table 2.1
Selected financial efficiency indices in the enterprise sector.

percent	2006	2007	2008	2009	2010	2010 q1	2010 q2	2010 q3	2010 q4	2011 q1
Return on sales ratio	5.5	5.6	5.0	5.0	5.2	4.8	5.5	5.6	5.0	5.3
Net profitability ratio	4.7	5.0	3.3	4.1	4.4	4.0	4.7	5.0	3.9	4.3
Cost level index	94.3	93.9	95.8	95.0	94.7	95.0	94.4	94.0	95.3	94.7
	end of period									
Liquidity ratio of the first degree	34.9	33.7	33.6	38.5	39.7	38.7	37.5	37.7	39.7	38.9

Source: GUS data.

[14] Savings rate (the so-called narrow rate calculated as share of savings in disposable income) after deseasoning. Average savings rate (seasonally adjusted) in the period 1999 Q1 - 2010 Q4 worked out at 10.3%.

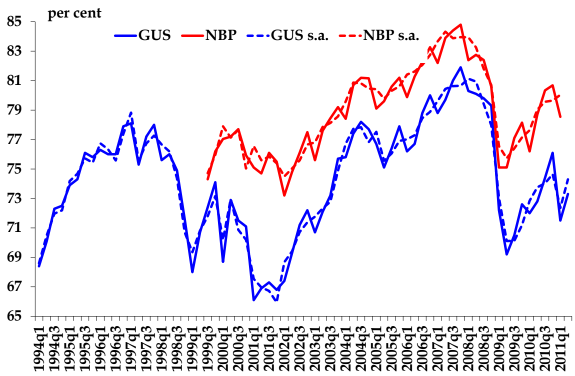
In 2011 Q1 growth in corporate investment, as was expected, slowed down. The annual growth decreased to 2.9% in nominal terms in 2011 Q1 as compared with 12.3% in 2010 (Figure 2.15).

In 2011 Q1 the growth rate of investments of large and medium-sized enterprises decreased significantly. It amounted to 2.6%, compared with 12.8% in 2011 Q4 (Figure 2.14). The decrease in growth of large and medium-sized firms' investments occurred despite a continued gradual increase in growth in investments in machinery, equipment and tools. A decrease in buildings and premises spending (by 9.0% y/y in nominal terms as compared with growth by 16.9% y/y in 2010 Q4), which may be associated with a temporal slowdown of growth tendencies in construction (see Chapter 2.2.5 *Production*) contributed to the decrease in growth in investments of large and medium enterprises. Furthermore, a significant weakening of growth in spending on means of transport (to 26.5% y/y in nominal terms in 2011 Q1 from 44.5% y/y in 2010 Q4), connected with increased purchases of them in the end of 2010 before the announced abolishment of VAT rebates for purchases of cars with goods vehicle approval certificates, was reducing the growth in firms' investments.

The NBP business conditions surveys indicate a likely recovery in investment by the largest companies in 2011 Q2[15]. These companies enjoy the most comfortable liquidity positions and declare the largest growth in planned investment.

At the same time, according to GUS data, a sharp rise in the estimated cost of newly started investment projects in 2010 Q4 may signal a possible rebound in fixed capital formation. Improvement in investment growth in the next quarters may be supported by the relatively optimistic economic outlook[16]. Furthermore high levels of companies' profitability and liquidity ratios indicate that they are in a sound financial position (Table 2.1). The positive relationship between companies' liquidity position and their investment activity results

Figure 2.17
Production capacity utilisation in industry (GUS) and in the corporate sector (NBP).



Source: GUS data, NBP business tendency survey.

The production capacity utilisation obtained from the GUS business survey is significantly lower from one obtained from the NBP business survey. However, the changes in this indicator are similar in both surveys. The difference is due to the fact that the two surveys are based on different enterprise samples. The difference may also reflect the over-representation of big enterprises in the NBP sample, while the GUS sample is representative with respect to enterprise size.

[15] *Information on the condition of the enterprise sector with a particular focus on business conditions in 2011 Q1 and forecast for 2011 Q 2*, NBP.
[16] Favourable business conditions are signalled by: the general index of the forecast economic situation in manufacturing, business climate index IRG-SGH, the PMI index and the leading indicator of business climate, the BIEC index.

from the fact that – as in previous years – a significant share of firms declare that their investment is self-financed. Large resources of liquid funds held by companies may also facilitate their access to external financing.

However, surveys of business conditions reveal that many small and medium-sized enterprises are withholding investment in anticipation of a more permanent economic revival. This has translated into a lower aggregate index of new investment, which is running below its multi-year average (Figure 2.16). The increase in the prices of materials and raw materials remains a factor reducing enterprises' propensity to invest in 2011. In addition in the last quarters the increase in capacity utilisation, which remains at a level close to its multi-year average, slowed down (in seasonally adjusted terms; Figure 2.17).

2.2.3. Government demand

In the period January-May 2011, the central budget deficit amounted to approx. PLN 23.7 billion and was markedly lower than in the corresponding period of 2010 (PLN 32.0 billion)[17]. Total budget revenues in the period January-May 2011 exceeded the revenues of the corresponding period of 2010 by 11.4%, with tax revenues growing by 11.9%. This rise resulted both from tax rate increases (in particular increases in most VAT rates) and from an improvement in the economic situation, evidenced by a strong growth in retail sales and good financial results of enterprises. In turn government expenditures in the analysed period rose by 2.1%. This modest increase was i.a. due to the low subsidy requirements of the Social Security Fund. At the end of April 2011 the State Treasury debt amounted to PLN 735.1 billion and thus was PLN 33.2 billion higher than at the end of 2010, while in the corresponding period of 2010 it rose by PLN 32.7 billion[18].

[17] The advancement of the central budget deficit after May 2011 stood at 59.0% of the annual plan, as compared to 71.9% of the annual plan after May 2010.

[18] Changes in the level of the State Treasury debt, especially in the short-term horizon, are largely driven, apart from central budget deficit, also by other below-the-line financing items. They include, among other things, proceeds from privatization, balance of EU funds, contributions paid to Open Pension Funds and changes in the level of government funds on current and fixed-term deposit accounts. In January – April 2011 the combination of these factors contributed to a higher debt increase than

In 2011 Q1, local government units recorded a budget surplus of PLN 7.7 billion, as compared with a surplus of PLN 6.6 billion in 2010 Q1. Total revenues of local government units in the analysed period grew by 8.6%, with a relatively strong increase in local government's own revenues that are correlated with developments in economic conditions. Local government's expenditures expanded by 7.0%, mainly due to a rise in capital expenditures (20.9%) and in expenditures on wages (9.8%). Local government's debt at the end of 2011 Q1 amounted to PLN 55.5 billion and was close to the level recorded at the end of 2010.

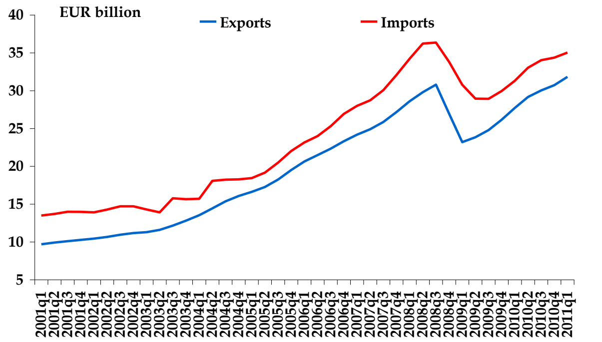
The level of Social Security Fund debt to the central budget in the period January-May 2011 remained unchanged. A smaller budget subsidy to the Social Security Fund that in the corresponding period of 2010 indicates an improvement in the Fund's finances. In the first four months of 2011, the Labour Fund and the National Health Fund recorded somewhat higher surpluses than in the corresponding period of the previous year.

In 2011, the public finance imbalance is expected to be reduced substantially. According to the government *Convergence Programme, 2011 Update*, the deficit of central and local government budgets in ESA95 terms is to be lowered to 5.6% of GDP (from 7.9% of GDP in 2010)[19].

2.2.4. Exports and imports[20]

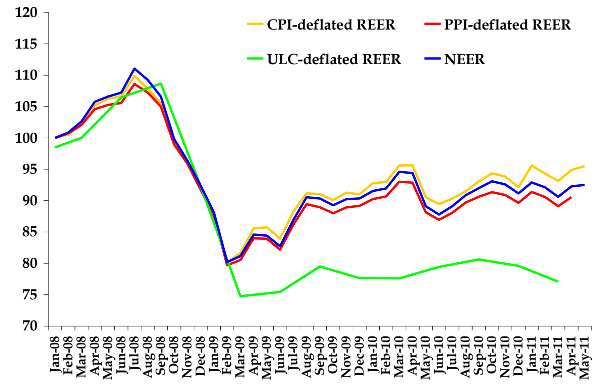
In 2011 Q1, the value of Polish goods exports (Figure 2.18) rose by 3.6% q/q (versus 2.3% q/q in 2010 Q4) and by 14.8% y/y (as compared with 17.4% y/y in 2010 Q4). The acceleration in the quarterly growth of exports was to a large extent driven by the growth (4.8% q/q) in the value of exports of intermediate goods, supported by the continued high activity of the export sectors of Poland's key export partners (see Box 2. *Synchronisation of Polish and German*

Figure 2.18
Value of Polish exports and imports.



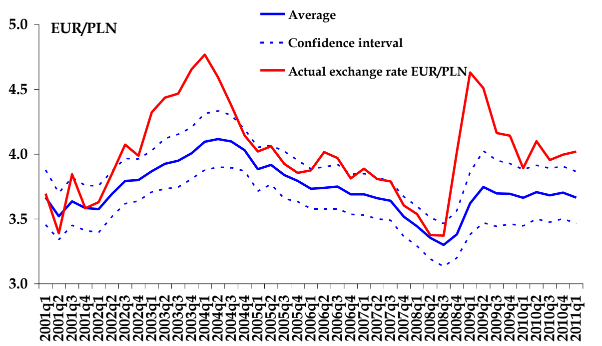
Source: NBP calculations based on GUS data (seasonally adjusted).

Figure 2.19
Zloty real and nominal effective exchange rate (increase denotes appreciation; January 2008=100).



Source: NBP and European Commission data.

Figure 2.20
Average threshold exchange rate (EUR/PLN) of exports profitability declared by enterprises.



Source: NBP data and estimates.

The threshold exchange rate at which exports become profitable is determined as the average of responses to a question (see below) included in the survey of NBP quick monitoring addressed at enterprises (*Economic Climate in the Enterprise Sector*). Survey question: "What is the threshold level of the foreign exchange rate at which exports will become (is) unprofitable (in zloty)?"

in the corresponding period of the previous year. In contrast, reduction of contributions paid to Open Pension Funds adopted in March 2011, will be, starting from June, a factor curbing current public debt accumulation.

[19] Fiscal tightening, measured as a change in the primary structural deficit of general government, is to amount to 2.3 percentage points of GDP, of which approx. 0.6 percentage points of GDP will be the effect of the lowering of contribution to the open pension funds.

[20] Information about the value of Polish exports and imports refers to GUS data (in EUR) adjusted for seasonal factors.

business cycles). In sectoral terms, the best results were achieved by the automotive industry, which accounts for over 14% of Polish exports. This was driven by a rebound in car sales and a significant increase in the sales of car parts and commercial vehicles.

In 2011 Q1, quarterly growth imports accelerated as well (from 1.0% in 2010 Q4 to 1.9% in 2011 Q1) while yearly growth slowed (from 14.7% in 2010 Q4 to 11.9% in 2011 Q1). The growth of imports was underpinned by an increase in imports of intermediate goods, connected with the demand of the export sector and further buildup of inventories, as well as of fuels, including crude oil, and consumer goods.

In 2011 Q1, the zloty depreciated slightly both in nominal and in real terms (Figure 2.19), which helped keep Polish exports price competitive. The NBP surveys of business conditions show that in 2011 Q1 the exchange rate of the zloty was still weaker than the rate quoted by companies as the export profitability threshold value (Figure 2.20).

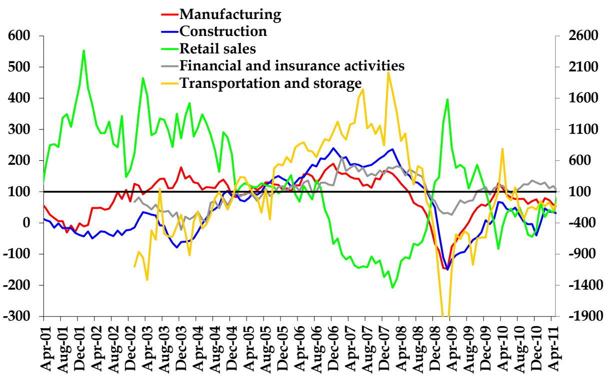
2.2.5. Output

Trends in GUS economic conditions indices between March and May show no signs of a material change in the economic outlook (Figure 2.21). Most indicators of the economic situation in individual sections remain slightly below their long-term averages.

Data on the growth of industrial production sold and companies' order portfolio indicate a continuing upward trend in the sector, although a slight deterioration in these indices has been recorded recently (Figure 2.22). Moreover, a recent decline in the PMI index may signal a less robust recovery in industry.

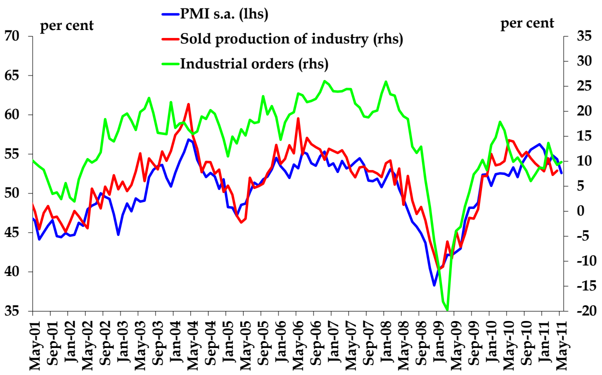
Data on construction output suggest that the sector has stabilised. The accelerated growth in construction and assembly output which was observed between February and April 2011 resulted, to a large extent, from a statistical base

Figure 2.21
Forecast of economic situation in relation to the long-term average (long-term average=100)



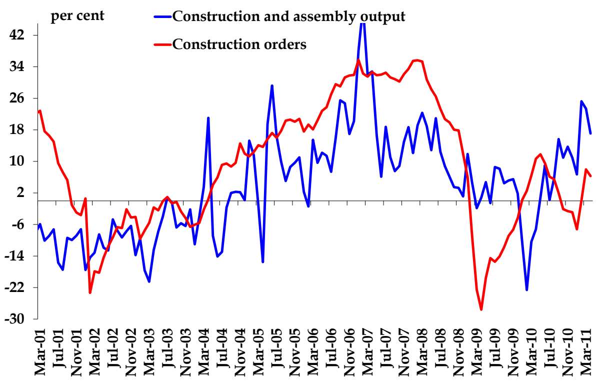
Source: GUS business tendency survey, NBP calculations.

Figure 2.22
PMI and annual growth of sold production of industry and of industrial orders.



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

Figure 2.23
Annual growth of construction and assembly output and construction orders.



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

effect [21] (Figure 2.23). Simultaneously, the growth in the construction order portfolio progressed at a moderate rate.

In the first months of 2011 growth tendencies in the market services sector continued. Growth in wholesale trade (in nominal terms), although it decreased from 22.1% y/y in January 2011 to 17.7% y/y in April 2011, remained considerably above the 2010 average (12.2%). The growth of services in transport units also increased in comparison with the previous year and amounted to 11% y/y (in real terms) in April 2011 as compared with 15.9% y/y in January 2011 and 5.4% y/y in 2010. At the same time retail sales increased (see Chapter 2.2.2. *Consumption demand*).

Box 2. Synchronisation of business cycles in Poland and Germany

Business conditions in Poland are strongly correlated with the macroeconomic situation abroad, which is largely a consequence of the openness of the Polish economy[22]. Germany is Poland's main trading partner - in 2010, it accounted for 26% of Polish exports and 21.7% of Polish imports[23]. Thus, developments in the German economy have a particularly large effect on economic activity in Poland. The significance of German business conditions for domestic economic growth is additionally strengthened by substantial FDI capital flows from Germany to Poland and the ensuing large-scale intra-corporation trade between the two countries.

The existence of strong correlation between the macroeconomic situation of Poland and Germany is confirmed by the analysis of business cycle convergence between the two economies. Fluctuations in business conditions are defined as the recurring, though irregular, oscillations of output level around its long-term trend (Lucas 1977), which translates into an opening or closing of a positive or negative output gap. The need to refer to unobservable variables in analysing business cycles (here cyclical components) requires the use of econometric and statistical methods (see *Box 1. Uncertainty concerning the estimates of unobservable variables: the example of the output gap* in Chapter 1. *External environment of the Polish economy*).

In this analysis (more on this topic see: Skrzypczyński 2008, 2010) quarterly data on real GDP and industrial output in 1995-2010 were used as measures of economic activity in Poland and in Germany. In order to estimate the output gap (cyclical components), *the band-pass filter* of Christiano and Fitzgerald (1999)[24] was applied. Cyclical components of the real GDP and industrial output in Poland and in Germany are presented in Figure R.2.1.

Business cycles in the respective economies are characterised primarily by: the length of the cycle, its turning points and the amplitude of the fluctuations.

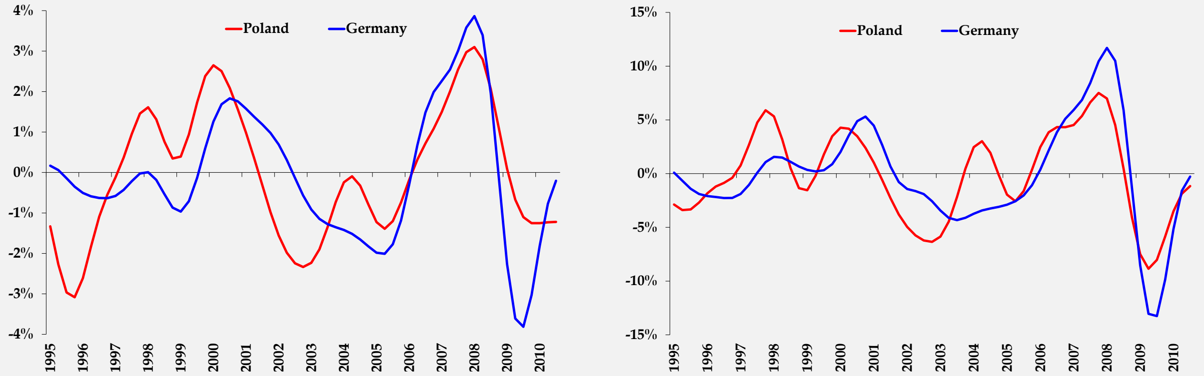
Fluctuations in business conditions may be determined by cycles of various lengths. The period of fluctuations which can be interpreted as a business cycle is assumed to be between 1.5 and 10 years. The analysis of cyclical components aims at identifying those cycle lengths which have the strongest impact on the variability of macroeconomic variables, such as GDP.

[21] Construction and assembly output fell sharply at the beginning of 2010, largely as a result of unfavourable weather conditions.
[22] In 2010 exports plus imports accounted to 84% of GDP.
[23] By comparison, in the case of Poland’s remaining trading partners, their individual shares in Polish exports do not exceed 7% and 11% in Polish imports.
[24] The time series which were filtered with the Christiano and Fitzgerald filter were first transformed logarithmically and seasonally adjusted with the TRAMO/SEATS method.

The turning point denotes the moment at which one can observe a transition from one stage of the cycle to the other (e.g. from high to low business activity or the other way round).

The amplitude of the cycle means the maximum deviation (in absolute terms) of its turning points from the assumed reference value. In empirical research, the standard deviation of the variable representing activity fluctuations is usually used as a measure of the amplitude of the business cycle (Kydland and Prescott, 1990).

Figure R.2.1
The business cycle in Poland and in Germany in 1995-2010; cyclical components of real GDP (left-hand panel) and of industrial output (right-hand panel).



Source: GUS and Ecowin data, NBP calculations.

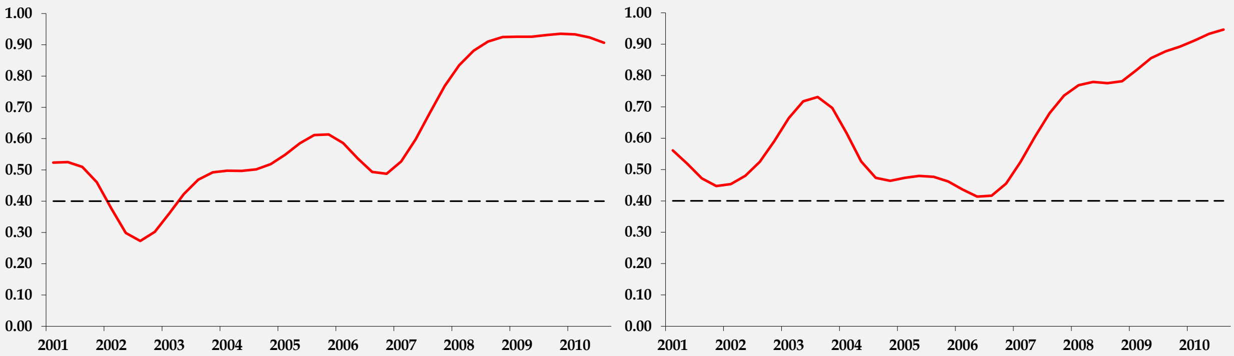
The comparison of Polish and German business cycles in terms of the above characteristics leads to the following conclusions:

- Poland and Germany are characterised by a similar length of cycles that have the strongest impact on the fluctuations of business activity (a 6- to 7-year output cycle can be identified in Poland and Germany, within which a 3-year cycle can be also observed, Figure R.2.1),

- for industrial production, the amplitude of cyclical fluctuations in Poland and Germany is similar, while for the GDP it is slightly larger in Poland,

- the cyclical fluctuations in Poland and in Germany have converged in recent years (Figure R.2.2), which has also been reflected in a closer synchronisation of the turning points of the fluctuations.

Figure R.2.2
Rolling correlation coefficients in 6-year periods between cyclical components of the real GDP (left-hand panel) and industrial output (right-hand panel) in Poland and in Germany in 2001-2010.



Source: GUS and Ecowin data, NBP calculations.
The dashed line denotes the 5-percent critical value for the correlation coefficient.

The significant synchronisation of business cycles in Poland and Germany means that in assessing the outlook for the macroeconomic situation in Poland it is important to take into consideration predictions concerning trends in German economic activity.

References:

Christiano, L.J., Fitzgerald, T.J. (2003), "The Band Pass Filter", International Economic Review, Vol. 44(2), s. 435-465.

Kydland, F. E., Prescott, E. C. (1990), "Business Cycles: Real Facts and a Monetary Myth", Federal Reserve Bank of Minneapolis Quarterly Review, Vol. 14, No. 2 Spring, s. 3-18.

Kydland, F. E., Prescott, E. C. (1990), "Business Cycles", in: Kydland, F. E., (ed.) (1995), Business Cycle Theory, Edward Elgar Publishing Limited, Aldershot, s. 85-107.

Skrzypczyński, P. (2010), „Metody spektralne w analizie cyklu koniunkturalnego gospodarki polskiej", Materiały i Studia, No. 252, National Bank of Poland.

Skrzypczyński, P. (2008), „Wahania aktywności gospodarczej w Polsce i strefie euro", Materiały i Studia, No. 227, National Bank of Poland.

2.3. Labour market

Strengthening economic growth has been conducive to rising labour demand, which has translated into an accelerated expansion in employment. 2011 Q1 saw a rise in the growth rates of all employment indicators (in y/y terms as well as seasonally adjusted q/q terms, Figure 2.24).

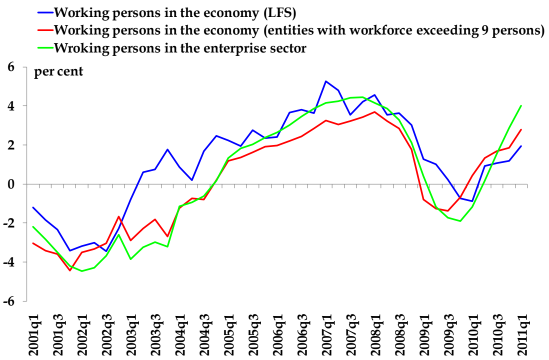
The number of persons working in the economy according to the Labour Force Survey increased by 1.9% y/y in 2011 Q1 (as compared with 1.2% y/y in the previous quarter; Figure 2.25). This growth was curbed by the markedly deepening decline in public sector employment (in quarter-on-quarter, seasonally adjusted terms). In contrast to this, the number of persons working in the private sector grew at an accelerated rate.

The growth in the number of working persons was supported - to a higher degree than in the previous quarters - by rising demand for hired labour, including a rise in permanent employment, whose response to improved business conditions lags behind that of more flexible employment forms.

For the last two quarters, the number of persons employed in industry[25] has been rising sharply; in 2011 Q1 the annual growth in this category was positive for the first time since 2008 Q4. At the same time, the number of persons working in services stabilised, while the number of those working in agriculture continued to follow a downward trend.

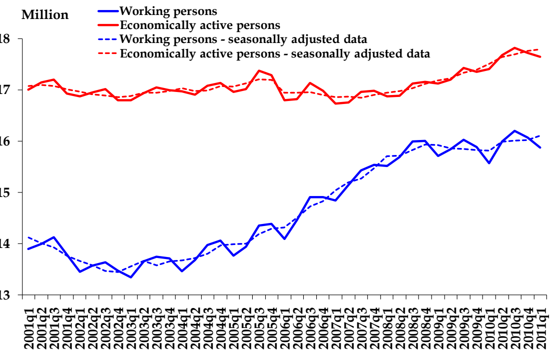
The data released at the beginning of 2011 Q2 indicate that after a substantial increase in January 2011 (caused mainly by a change in the

Figure 2.24
The rise (y/y) in the number of persons working in the economy according to Labour Force Survey and to reports by entities with workforce exceeding 9 persons and in the enterprise sector.



Source: GUS data, NBP calculations.

Figure 2.25
Number of working persons and of the economically active in the economy according to Labour Force Survey.



Source: GUS data, NBP calculations

[25] In Labour Force Survey terms, the industry sector includes manufacturing, energy, gas and water supply and construction.

sample of the analysed enterprises), growth of employment in the enterprise sector slowed down. At the same time, the findings of the NBP business conditions survey indicate a rise in enterprises' demand for paid employment in 2011 Q2: for the first time since 2008 Q3 more respondents declared an increase in the number of new hires than a decrease[26].

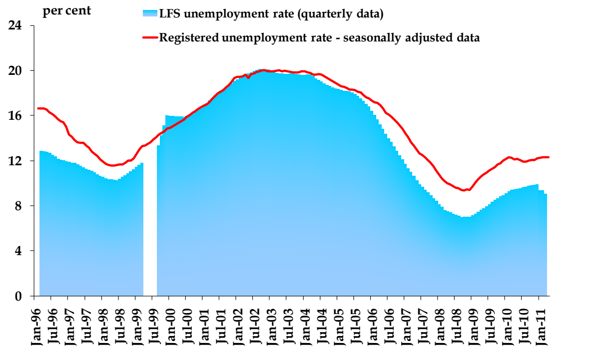
In 2011 Q1, the upward trend in labour supply continued, although the growth in the number of the economically active according to the Labour Force Survey had progressed at a slightly declining pace since 2010 Q3 (Figure 2.25). The rise in labour supply is mainly driven by growing activity of persons at pre-retirement age, which was stimulated by the imposition of restrictions on early retirement.

The unemployment rate according to the Labour Force Survey declined in 2011 Q1 to 9.1% (after seasonal adjustment), i.e. by 0.8 percentage point on the previous quarter (Figure 2.26). This was mainly due to a rise in the number of persons working in the economy (Figure 2.27). At the same time, expanding labour supply exerted an upward pressure on the unemployment rate, albeit to a much smaller degree than in the previous quarters. The rate of registered unemployment has remained stable since the beginning of the year (Figure 2.26) and has been accompanied by a downward trend in the number of newly registered unemployed persons.

The labour market tensions index (number of job offers per one unemployed person) - after a one-off slump in January 2011, connected mainly with a reduction in government-subsidised job offers (in particular, jobs offered under the so-called employment activation programmes) - has seen a slightly rising trend in recent months.

According to NBP estimates the decline in the unemployment rate in 2011Q1 was mainly driven by a falling number of persons who lost their job during a given quarter[27]. A decline in

Figure 2.26
Registered unemployment rate and unemployment rate according to Labour Force Survey.

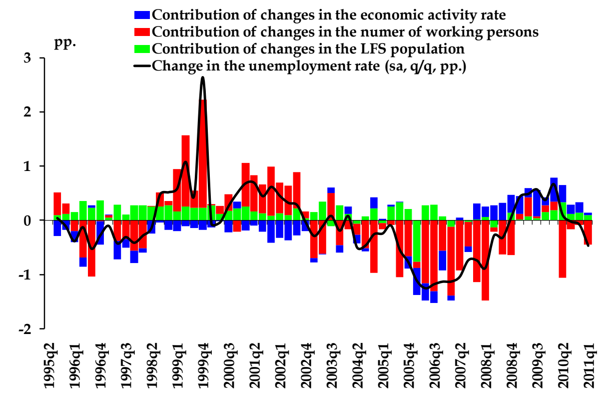


Source: GUS data (seasonally adjusted).

Data until 2002 adjusted for the results of the 2002 National Census. No Labour Force Survey was conducted in 1999 Q2 and Q3.

There are two reasons for the differences between the unemployment rate according to Labour Force Survey 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.

Figure 2.27
Decomposition of changes in unemployment rate (seasonally adjusted) in q/q terms according to Labour Force Survey*.



Source: GUS data (seasonally adjusted).

*Change in the unemployment rate can be broken down into changes resulting from: 1) change in the size of working age population (on the graph, change in the population in Labour Force Survey terms), 2) change in economic activity of working age persons (change in the economic activity rate), 3) change in labour demand (change in number of working persons in Labour Force Survey terms). Changes in the population in the Labour Force Survey may stem from demographic trends or migration.

---

[26] *Information on the condition of the enterprise sector with a particular focus on business conditions in 2011 Q1 and the forecast for business conditions in 2011 Q2*, NBP.

[27] The analysis of labour market flows is based on microdata from the Labour Force Survey and in the case of 2011Q1 on both extrapolation of microdata from the previous quarters and aggregate data from 2011Q1. Probabilities of transition between different states (employment, unemployment, economic inactivity) are derived basing on the method proposed by R. Shimer (2007) *Reassessing the Ins and Outs of Unemployment*, NBER Working Paper No. 13421.

transitions from employment to unemployment was reflected in a falling separation probability for employed workers. However, the probability of job finding increased in this period only slightly.

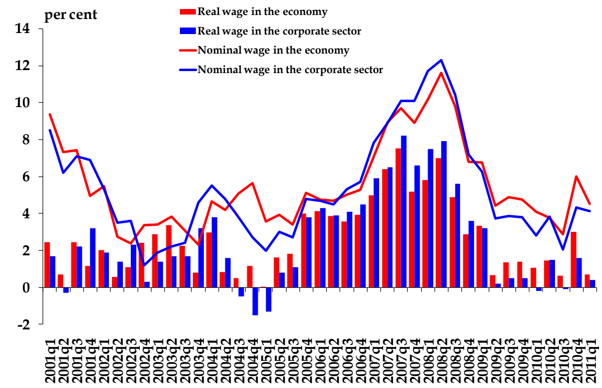
After a considerable acceleration in 2010 Q4, growth in nominal wages in the economy declined in 2011 Q1 (Figure 2.28). Wages in enterprises continued to rise at a moderate pace in that period. Amidst heightened inflation, real wage growth in the economy as a whole and in the enterprise sector was close to zero.

Following a substantial increase in April 2011 (related mainly to the different timing of the payment of bonuses in mining and in the energy sector compared to the previous year), nominal wage growth in enterprises declined to the level observed in the previous months. The NBP business conditions survey indicates that enterprises do not plan any pay rises in 2011 Q2 that would be more significant than those observed in the recent quarters[28].

Given a faster increase in the number of persons working, the improvement in labour productivity was slower in 2011 Q1 than in the previous quarters (Figure 2.29). At the same time, however, due to weaker growth in wages, unit labour costs increased more slowly than in 2010 Q4. However, growth in unit labour costs in 2011 Q1 was considerably higher than in the earlier four quarters.

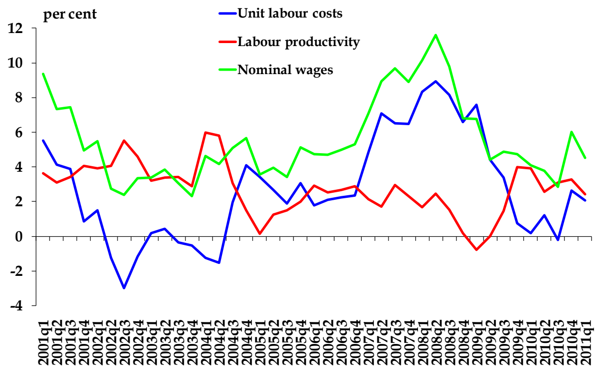
In April 2011 - for the first time since July 2009 - unit labour costs in industry rose in year-on-year terms. The decline of unit labour costs in industry came to a halt mainly due to slower growth in labour productivity in recent months (Figure 2.30) and a markedly faster rise in wages in April 2011.

Figure 2.28
Annual wage growth rate in the economy and in the enterprise sector (nominal and real).



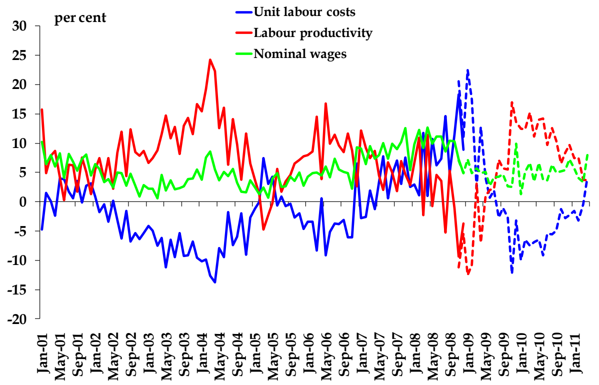
Source: GUS data, NBP calculations.

Figure 2.29
Annual growth in labour productivity, wages and unit labour costs in the economy.



Source: GUS data, NBP calculations.

Figure 2.30
Annual growth in labour productivity, wages and unit labour costs in industry.



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 January 2008 are not fully comparable with previously recorded rates.

[28] *Information on the condition of the enterprise sector with a particular focus on business conditions in 2011 Q1 and the forecast for business conditions in 2011 Q2*, NBP.

2.4. Financial markets

2.4.1. Financial asset prices and interest rates

Since the publication of the previous *Report* the Monetary Policy Council has increased the NBP's interest rates three times, by a total of 0.75 percentage points, including the increase in the reference rate to 4.50% (Figure 2.31). Interest rate hikes, each by 0.25 percentage points, took place in April, May and June 2011.

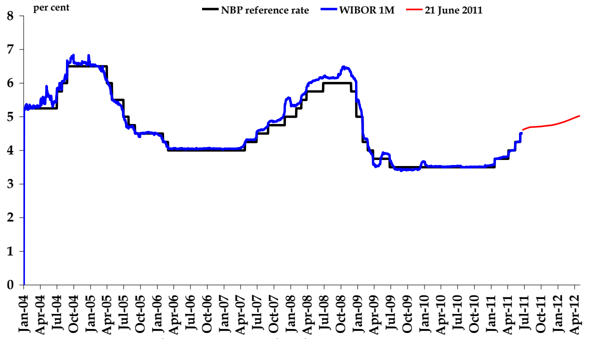
Increases in the NBP's interest rates translated into proportional rises of interbank market rates. At the same time, the downward trend in the spread between the interest rate on deposits in the interbank market and the OIS rate continued (Figure 2.32). Despite a fall in the spread, the interbank market did not function fully effectively and banks used mainly interbank operations with the shortest maturities.

FRA contracts indicate that at the end of 2011 the 1M WIBOR rate will run at 4.75%- 5.00%.

Since the publication of the previous *Report*, yields on Polish government bonds have fallen due to a weakening of investors' expectations of further interest rate increases (Figure 2.33). Falls in yields on 5- and 10-year maturity bonds were driven by the announcements of a gradual limitation of debt supply, including the withholding till the second half of 2011 of the issue of 10-year-maturity bonds due to Poland's smaller borrowing needs[29]. The inflow of non-residents to the Polish Treasury securities market (Figure 2.34) and the accompanying markedly lower CDS rates on Polish bonds than on bonds of the peripheral countries of the euro area (Figure 2.35) were also conducive to the decline in the yields on longer-term bonds.

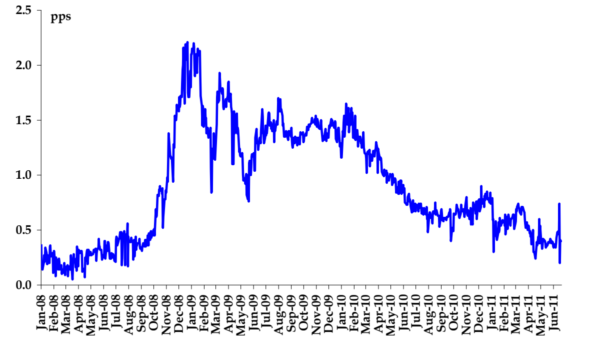
In May 2011 the yield on Polish long-term bonds in average annual terms, used to assess compliance with the Maastricht long-term

Figure 2.31
NBP reference rate, 1-month WIBOR and 1-month interest rate implied by FRAs.



Source: Reuters data, NBP calculations.

Figure 2.32
The spread between the 3-month interbank deposit rate and the OIS rate in Poland.

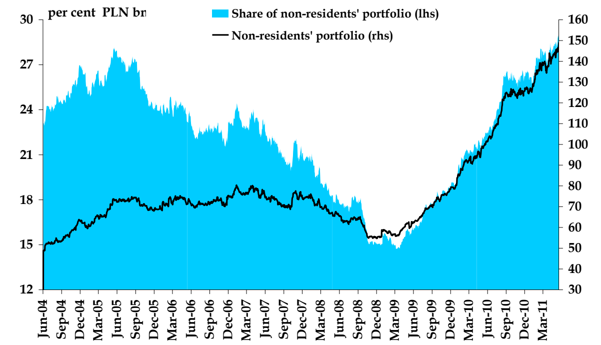


Source: Reuters data, NBP calculations.

Figure 2.33
Yields of Polish benchmark bonds.

Source: Reuters data.

Figure 2.34
Non-residents' involvement in the Polish Treasury bond market.



Source: National Depository for Securities (KDPW) data.

[29] The latest issue of 10-year government bonds took place in January 2011.

interest rate criterion, amounted to 5.9%, and stood below the estimated reference value for this criterion (4.9%).

Since the publication of the previous *Report*, the WIG index has increased, despite some volatility, amidst a slight rise in involvement of non-residents in the Polish equity market (Figure 2.36, Figure 2.37).

2.4.2. Housing prices

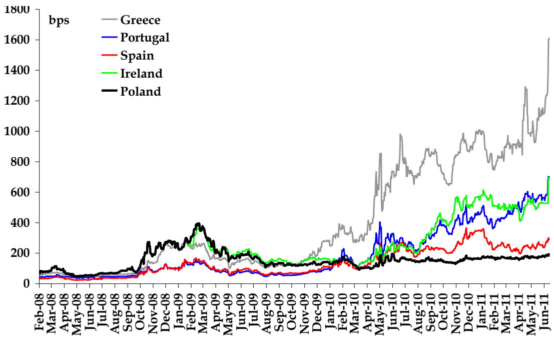
2011 Q1 saw no significant changes in the housing market in major Polish cities[30]. Similarly to 2010 Q4, asking prices in the primary and secondary market declined slightly. A modest downward trend in 2010 Q4 and in 2011 Q1 was also observed in the case of sale prices in the primary market, while sale prices in the secondary market remained stable over this period (Figure 2.38).

In 2011 Q1 the number of completed flats was approx. 18% lower than in the corresponding period of 2010. However, profit margins in the residential construction sector have remained high, which encourages property developers to embark on new investment projects. In 2011 Q1 the number of newly started construction projects was approx. 14% higher than in 2010 Q1, which should translate into a higher number of completed flats in the coming quarters (Figure 2.39).

2.4.3. Exchange rate

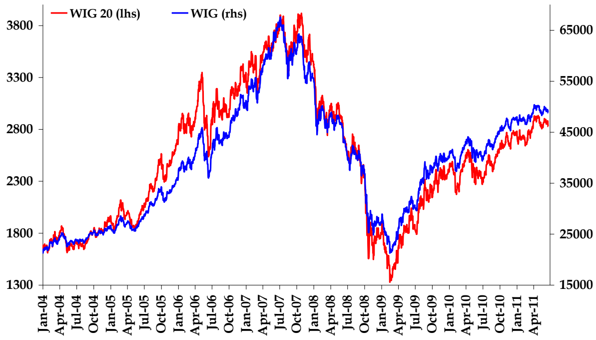
Since the publication of the previous *Report*, the nominal exchange rate of the zloty has appreciated by 0.4% against the euro and by 3.0% against the US dollar, but it has depreciated by 6.9% against the Swiss franc (Figure 2.40). The Swiss franc, regarded as a safe and stable currency, has also gained in value against the US dollar and the euro.

Figure 2.35
CDS rates of Poland vis-a-vis peripheral euro area economies.



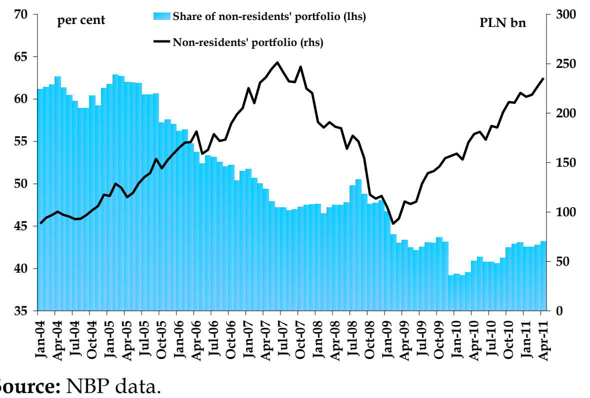
Source: Reuters data.

Figure 2.36
WIG and WIG20 stock exchange indices.



Source: Reuters data.

Figure 2.37
Non-residents' involvement in the Polish equity market (measured by the market value of shares)



Source: NBP data.

[30] More information on the situation in the Polish housing market can be found in the NBP publication *Report on the prices of flats and the situation on the residential market in Poland in 2011 Q1* available at the NBP website (www.nbp.pl, in Polish only).

Following a temporary depreciation in mid-March 2011, connected with heightened uncertainty in the financial markets due to the earthquake and tsunami that had hit Japan, the zloty strengthened gradually. The appreciation of the Polish zloty was supported by increases in the NBP interest rates and by the fact that the Ministry of Finance began exchanging a part of transfers from the European Union directly in the foreign exchange market instead of at the NBP. In the second half of May and in June 2011 the zloty weakened again due to investors' rising concerns about the fiscal situation of some of the euro area countries, and the ensuing selloff of currencies perceived as more risky, including the Polish zloty.

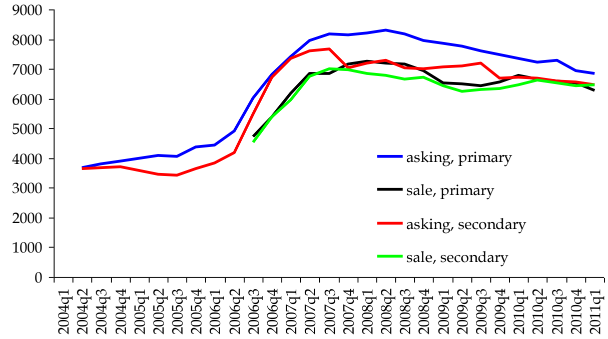
2.5. Credit and money[31]

2.5.1. Loans

In February-May 2011 corporate lending rebounded. In this period, companies increased their debt with domestic banks by an average of PLN 2.6 billion per month as compared with an average decline of PLN 0.3 billion in November 2010 - January 2011 (Figure 2.41). In March 2011 annual growth in total corporate loans was, for the first time in almost one and a half year period, positive and in May 2011 amounted to 6.2%. Data are indicative of a stronger rise in debt of SMEs than that of large enterprises, which are less dependent on external financing.

Growth in corporate lending was driven mainly by a rise in current loans (i.e. overdrafts and operating loans), extended to enterprises for the purpose of financing current liabilities related to their core activity. Moreover, the regular rise in investment loans observed already since July 2010 also added to a rise in the scale of corporate debt. This may be connected with an improvement in the prospects for investment (see Chapter 2.2.2 *Investment demand*).

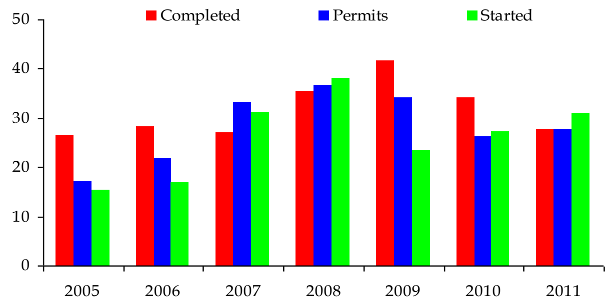
Figure 2.38
Average* prices of flats in Poland's 7 big cities (Gdansk, Gdynia, Krakow, Lodz, Poznan, Warszawa, Wroclaw).



Source: Sale price data from an NBP survey. PONT Info Nieruchomości asking price data. NBP calculations.

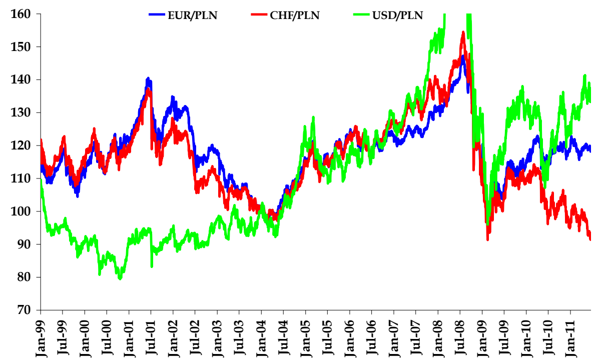
* Asking prices - average weighted by the number of offers; sale prices in the primary market - average weighted by the share of the housing stock in a given city in the total housing stock of all 7 cities; sale prices in the secondary market - average adjusted (with the use of a hedonic index) for differences in the quality of flats.

Figure 2.39
The number of completed flats, construction permits issued and construction projects started (thous.).



Source: GUS data.

Figure 2.40
Nominal exchange rate of the Polish zloty against the euro, the Swiss franc and the US dollar (January 2004=100; increase denotes appreciation).



Source: Ecowin data.

[31] The monetary data presented in this chapter refer to values adjusted for the impact of fluctuations in zloty exchange rate against main foreign currencies.

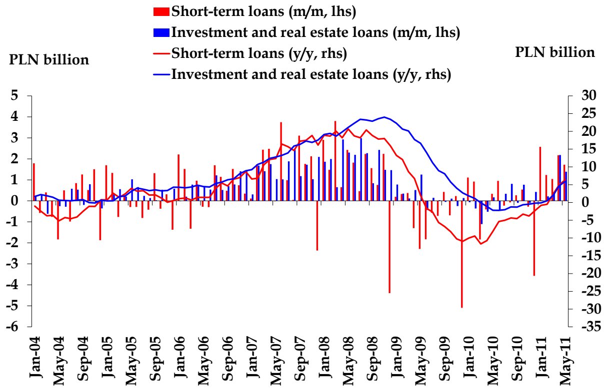
Survey studies of banks indicate that growth in bank lending to enterprises may have been driven by both demand and supply factors[32]. In 2010 Q4 and 2011 Q1 banks declared they eased their criteria and terms of extending loans to enterprises. Moreover, the results of the survey studies of enterprises show that growth in the number of loan applications approved by banks has continued (seasonally adjusted data; Figure 2.42)[33]. In the period from December 2010 to April 2011 interest rates on corporate lending increased (Figure 2.43, Figure 2.44) which was partially due to a rise in the interbank rate (as a consequence of an increase in NBP rates) as well as a result of an increase in margins.

Domestic sources of corporate financing were supplemented with foreign debt, which in 2010 Q4 rose faster than domestic loans to enterprises[34]. The volume of foreign loans amounted to EUR 93.7 billion in 2010 Q4 , with annual credit growth at the level of 11.9%[35].

The relatively fast growth in housing loans to households has continued. Their volume increased by an average of PLN 2.2 billion per month in the period from February to May 2011 (Figure 2.45). This resulted in a continued high share of these loans in the total loans of non-financial sector (Figure 2.47). The annual growth in housing loans has ranged from 13% to 14% for a year now (in the case of loans in PLN this level is close to 30%, in the case of foreign currency loans to approx. 4-6%), which is conducive to limiting the price declines in the real property market (see: Chapter 2.4.2 *Housing prices*).

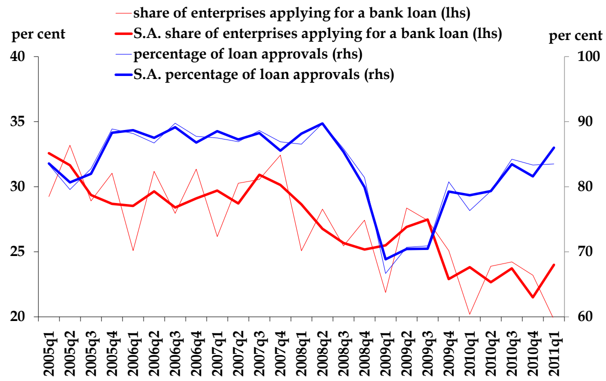
In the recent period, most newly granted housing loans were PLN loans (77.6% in April 2011), which translated into a consistent rise in the share of PLN loans in total housing loans (Figure 2.46) and was conducive to the growing effectiveness of the monetary policy transmission mechanism.

Figure 2.41
Loans to enterprises.



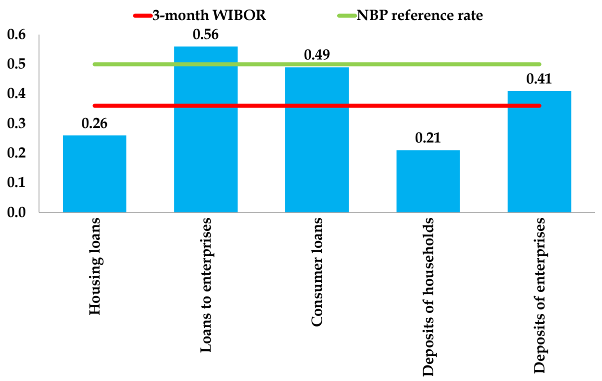
Source: NBP data.

Figure 2.42
Share of enterprises applying for loans and percentage of approved loan applications.



Source: NBP data.

Figure 2.43
Change of the average interest rates on loans and deposits, change of the interbank rate and NBP reference rate in the period December 2010 - April 2011.



Source: NBP data.

[32] *Senior Loan Officer Opinion Surveys on Bank Lending Practices and Credit Conditions, 2011 Q2*, NBP.
[33] *Economic Climate in the Enterprise Sector in 2011 Q1 and Forecasts for 2011 Q2*, NBP.
[34] The comparison concerns the rates of growth in foreign debt expressed in EUR and growth in domestic debt expressed in PLN.
[35] To compare, the total volume of domestic bank debt of Polish enterprises in December 2010 amounted to PLN 204 billion.

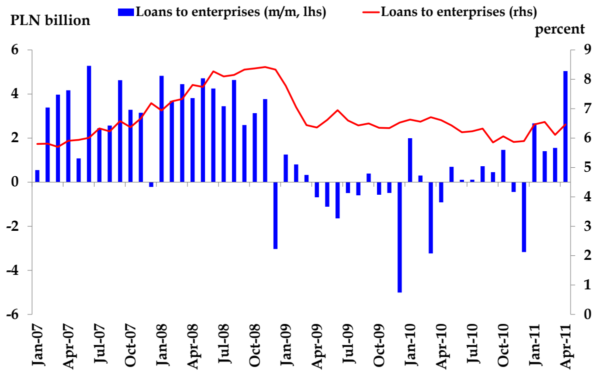
The results of survey studies of banks show that the rise in housing loans was accompanied in 2011 Q1 by a slight tightening of loan granting criteria. At the same time, banks declare they eased their loan granting criteria, in particular, as regards margins - and to a lesser degree - the required borrower's own share in investment as well as non-interest credit expenses. This was reflected in a decline in average margins on newly extended housing loans in PLN by 0.1 percentage points between April 2011 and December 2010. The average total interest charged on newly granted housing loans rose in this period by 0.3 percentage points, which was driven by a rise in 3M WIBOR rates in 2011 Q1 (Figure 2.48; see Chapter 2.4.1 *Prices of financial assets and interest rates*).

In the period from February to May 2011 household debt due to consumer loans continued to decline (by an average of PLN 0.4 billion per month with annual growth remaining negative since February 2011 and amounting to -2.0% in May 2011; Figure 2.45). This was driven by the tightening of loan granting criteria in this segment in 2010 connected with banks' obligation to implement Recommendation T and a relatively high share of doubtful debts in banks' credit portfolio. As regards borrowing terms, in the first four months of 2011 bank margins and interest charged on consumer loans increased (by an average of 0.1 percentage points and 0.5 percentage points). As follows from the senior loan officer opinion surveys, demand for this type of credit continues on a downward trend, despite a weaker tightening of credit policy declared by banks (Figure 2.49).

2.5.2. Deposits and monetary aggregates

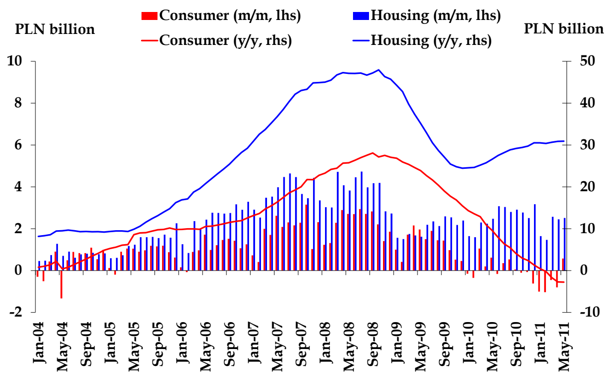
After a temporary increase in monetary aggregates in March 2011, which was largely driven by a one-off factor, their rates of growth returned to moderate levels in May 2011 (Figure 2.50)[36]. At the same time, the growth of broad

Figure 2.44
Monthly increases and average interest charged on newly granted loans to enterprises.



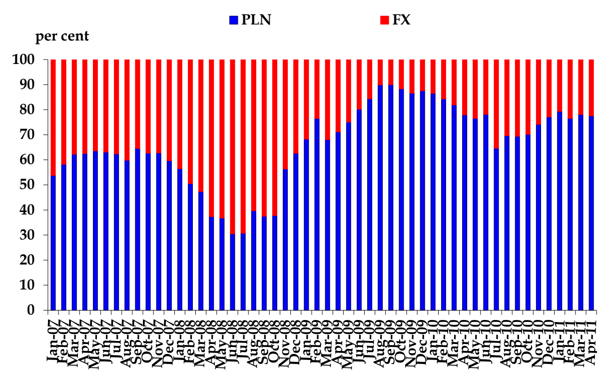
Source: NBP data.

Figure 2.45
Loans to households.



Source: NBP data.

Figure 2.46
Currency structure of newly granted housing loans to households.



Source: NBP data.

Structure prepared based on information acquired for interest-rate reporting purpose from the sample of 20 banks whose share in the market of loans to non-financial sector accounts for approx. 75%.

[36] High rise in monetary aggregates in March 2011 was, to a large extent, the result of inflow of foreign funds earmarked for the execution for a one-off ownership transaction in the banking sector.

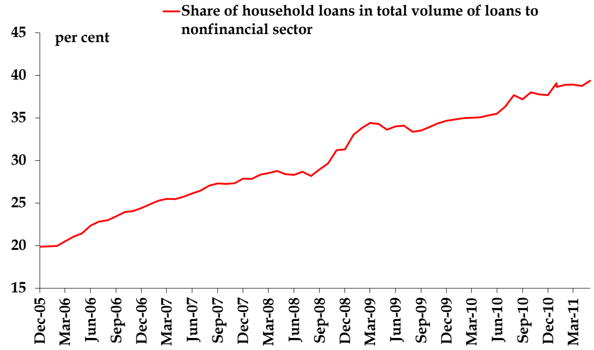
money still remained close to nominal GDP growth. In May 2011, the annual growth of M3 money stood at 8.3%, i.e. 0.1 percentage points lower than in January 2011. The M1 liquid component, whose annual growth rate amounted to 9.9% in May 2011 rose at a slightly faster pace than broad money. The annual growth of M0, after accelerating in the period from February to April 2011, which was connected to a strong decline in M0 in the corresponding period of 2010, slowed down in May to 4.4% y/y.

In February - May 2011, growth in corporate deposits (average of PLN 1.8 billion per month) was higher than in November 2010 - January 2011 (PLN 0.5 billion) (Figure 2.51). At the same time, their annual growth rate in May 2011 amounted to 9.1%. The lower than in the previous period growth in corporate deposits may be the result of higher investment activity of businesses.

The rate of growth of household deposits accelerated in February - May 2011. Their volume increased in this period by an average of PLN 2.3 billion, and their annual growth rate rose in May 2011 to 10.5% from 9.6% in January (Figure 2.51). Accelerated growth in household deposits in February - April 2011 was supported by rising interest charged on deposits in PLN (in April 2011 it was by 0.2 percentage points higher than in December 2010).

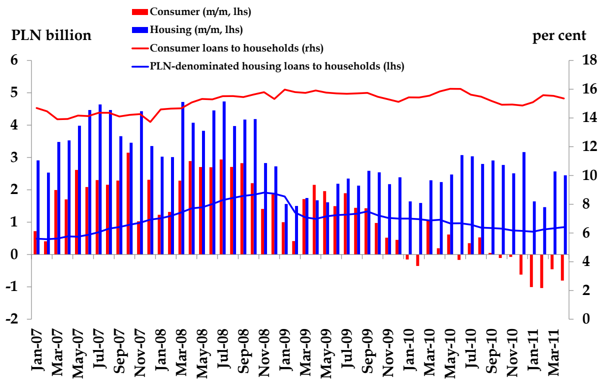
At the beginning of 2011 the value of other financial assets of individuals continued on an upward trend, which was largely the result of good conditions in the stock market. In January-April 2011 investment fund assets grew in value by PLN 1.8 billion, while the net value of newly paid-in funds was negative and reached PLN 0.3 billion. The total value of financial assets of households increased in this period by PLN 19.9 billion (an increase of 10.7% y/y)[37].

Figure 2.47
Share of housing loans in the total of loans.



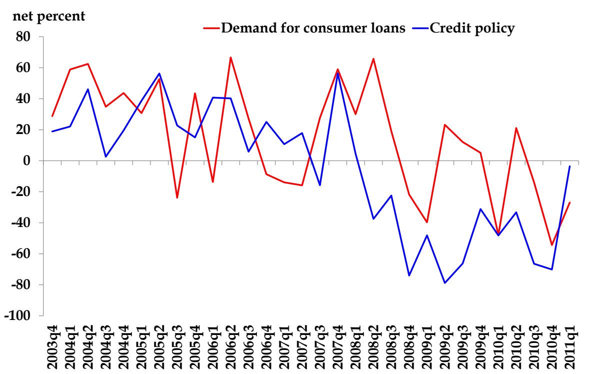
Source: NBP data.

Figure 2.48
Monthly increases and average interest charged on newly granted PLN loans to households.



Source: NBP data.

Figure 2.49
Demand for credit and banks' credit policy as regards consumer loans to households.



Source: NBP data.

Weighted responses of banks. Positive value of both indicators should be interpreted respectively as a rise in the demand for credit or easing of lending policy with respect to the previous quarter.

[37] The given sum of financial assets takes into account both deposits up to 2 years and deposits over 2 years, not classified as M3 money.

2.6. Balance of payments

Further strengthening of economic activity is accompanied by a deepening of the current account deficit (Figure 2.52), which is largely driven by a growing deficit in the trade in goods. The observed increase in the foreign trade deficit is connected not only with a growing demand for imported goods amidst a surge in economic activity in Poland, but is also partly caused by deteriorating terms-of-trade (as a result of growing prices of imported commodities). Moreover, good financial results of enterprises translate into a rise in remittances from Poland to foreign company owners, which deepens the deficit in the income account.

The current account deficit of the balance of payments in 2010 Q4 rose to EUR 5.7 billion (as compared to EUR 4.5 billion in 2009 Q4), and in 2011 Q1 it amounted to EUR 3.4 billion (as compared to EUR 2.2 billion in 2010 Q1)[38].

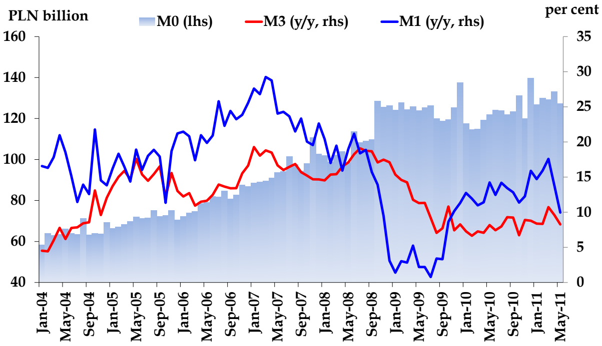
At the same time, increasing utilization of EU funds for financing investment projects is reflected in a large inflow of funds to the capital account. Capital account surplus in 2010 Q4 amounted to EUR 2.9 billion (as compared to EUR 1.7 billion in 2009 Q4) and in 2011 Q1 - to EUR 1.6 billion (as compared to EUR 1.3 billion in 2010 Q1).

According to the financial account data, in 2010 Q4 net inflows of foreign capital were mainly in the form of portfolio investments. Inflows into equity securities were a significant share of them[39]. In turn, in 2011 Q1 net inflows of capital were mainly in the form of other investment[40].

Data for 2010 Q4 and for 2011 Q1 indicate strong inflows of foreign direct investment to Poland[41]. At the same time, a rise in Polish direct investment abroad may be observed.

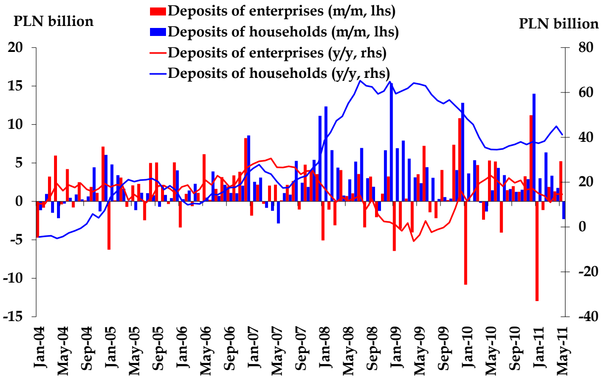
As a result of the above changes, in 2010 Q4 the

Figure 2.50
Currency in circulation and annual growth rate of M1 and M3.



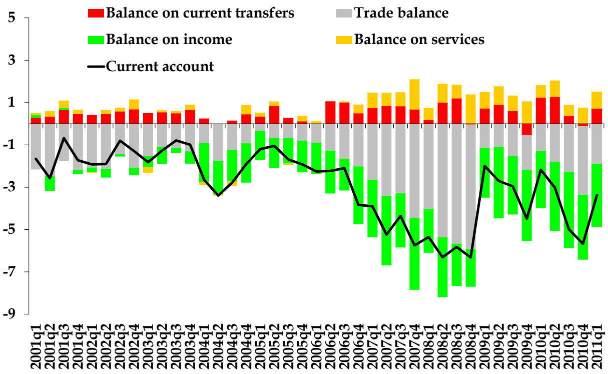
Source: NBP data.

Figure 2.51
Bank deposits of households and enterprises.



Source: NBP Data.

Figure 2.52
Current account balance (in EUR bn).



Source: NBP data and estimates.

[38] Deepening of the current account deficit in 2011 Q1 (as compared to 2010 Q1) was driven by a rise in trade deficit and a decline in the current transfers surplus.
[39] The volume of inflows of direct and portfolio investments to Poland in 2010 Q4 was strongly affected by a one-off transaction involving the sale of shares by a foreign direct investor to foreign portfolio investors, which took place in November 2010.
[40] Other investments include investments not classified as direct or portfolio investments, in particular commercial loans, other credits and loans to enterprises, credits and loans to the banking and government sectors.
[41] Strong outflow of capital in the form of direct investment in November 2010 was caused by a one-off transaction involving the sale of shares by a foreign direct investor to foreign portfolio investors.

financial account surplus amounted to EUR 1.9 billion (as compared to EUR 6.9 billion in 2009 Q4), and in 2011 Q1 inflows to the financial account of the balance of payments amounted to EUR 11.9 billion (as compared to EUR 9.4 billion in 2010 Q1).

The deficit in the current account (over 4 subsequent quarters) increased to 4.5% of GDP at the end of 2010 Q4 (as compared to 4.3% at the end of 2010 Q3), whereas the deficit in the current and capital account amounted to 2.6% of GDP (as compared to 2.7% at the end of 2010 Q3; Figure 2.53). In 2011 Q1 those deficits rose to 4.6% and 2.8% of GDP, respectively.

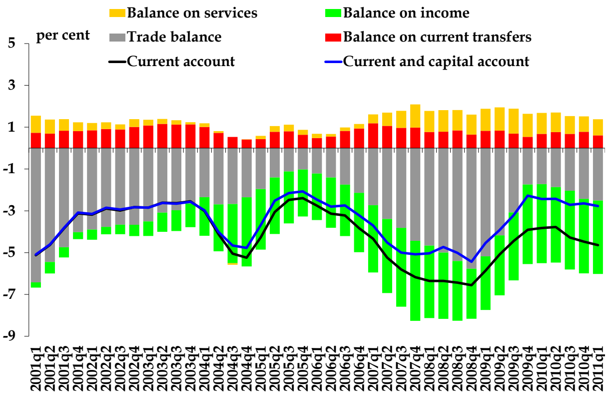
In 2010 Q4 the scale of financing of the current and capital account deficit through net inflows of capital in the form of direct investment decreased (Table 2.2). Over 4 subsequent quarters it amounted to 26%, while in the first half of 2010 the deficit was almost fully - and in 2010 Q3 in half - financed through inflows of direct investment. In 2011 Q1 only 10% of the deficit was financed with inflows of foreign direct investment.

In 2010 Q4 Poland's foreign debt in EUR rose by EUR 5.4 billion (to EUR 235.4 billion as compared to EUR 230.1 billion at the end of 2010 Q3), mainly due to rising indebtedness of the banking sector and enterprises (Figure 2.54). In 2011 Q1 Polish foreign debt increased further - by EUR 8.0 billion to EUR 243.5 billion. New transactions raised this debt by EUR 13.7 billion whereas the negative exchange rate differentials and other valuation changes lowered it by EUR 5.7 billion.

Growing domestic economic activity supported the deepening of Poland's external imbalance - and, in particular, led to an increase in the current account deficit and drove the rise in foreign debt - which is reflected in deteriorating basic indicators showing this imbalance in 2010 and in 2011 Q1 (Table 2.2). At the same time, the ratio of reserve assets to imports remained at a relatively high level.

Poland's official reserve assets at the end of 2011 Q1 amounted to EUR 75 billion. Transations of

Figure 2.53
Current and capital account to GDP (4-quarter rolling window).



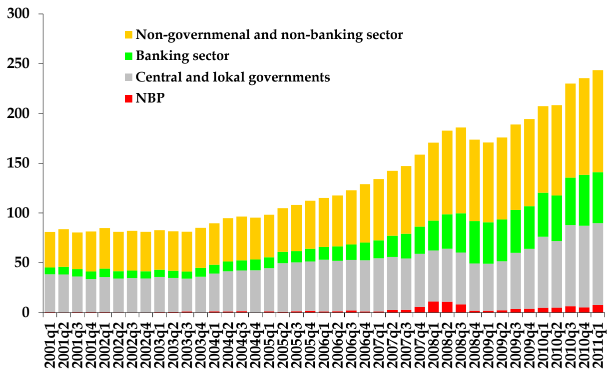
Source: NBP data.

Table 2.2
Selected indicators of external imbalances.

	2006	2007	2008	2009	2010	2010 q1	2010 q2	2010 q3	2010 q4	2011 q1
Current account balance /GDP (in %)	-3.8	-6.2	-6.6	-3.9	-4.5	-3.8	-3.8	-4.3	-4.5	-4.6
Current and capital account balance/GDP (in %)	-3.2	-5.1	-5.4	-2.3	-2.6	-2.4	-2.4	-2.7	-2.6	-2.8
Trade balance/GDP (in %)	-2.1	-4.4	-5.8	-1.7	-2.4	-1.7	-1.9	-2.0	-2.4	-2.5
Direct investment/current account deficit (in %)	82.5	68.7	29.6	49.4	15.4	63.0	59.8	30.4	15.4	5.9
Direct investment/current and capital account deficit (in %)	98.2	83.5	35.8	85.0	26.1	98.8	92.9	47.9	26.1	9.8
Official reserve assets expressed in terms of monthly imports of goods and services	3.8	3.9	3.3	5.3	5.5	5.9	6.1	6.0	5.6	5.7
Foreign debt/GDP (in %)	47.4	50.9	47.9	62.5	66.4	64.3	62.2	67.0	66.4	66.3
Official reserve assets /short-term debt (in %)	71.3	92.6	107.8	88.0	81.4	77.0	76.2	78.2	81.4	87.3
Net international investment position/GDP (in %)	-46.4	-52.6	-47.5	-61.9	-63.5	-59.2	-53.9	-62.0	-63.5	-62.1

Source: NBP data.

Figure 2.54
External debt of Poland (in EUR bn).

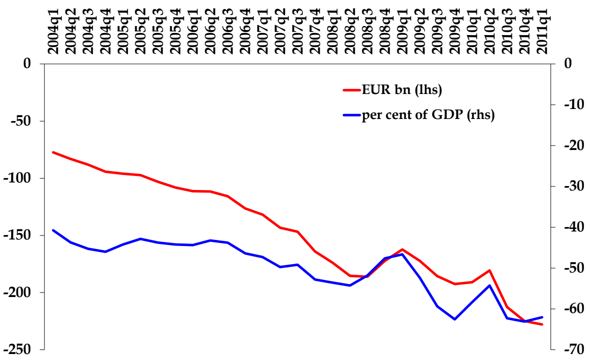


Source: NBP data.

NBP conducted in that period raised their level by EUR 7.5 billion while exchange rate and valuation changes lowered it by EUR 2.4 billion.

The considerable scale of foreign capital inflows to Poland translates into a negative net investment position of Poland. At the same time, the recently stronger outflow of Polish capital abroad helped to halt the deterioration of Poland's negative net investment position which in 2011 Q1 amounted to approx. 62% of GDP (Figure 2.55).

Figure 2.55
Net international investment position of Poland.



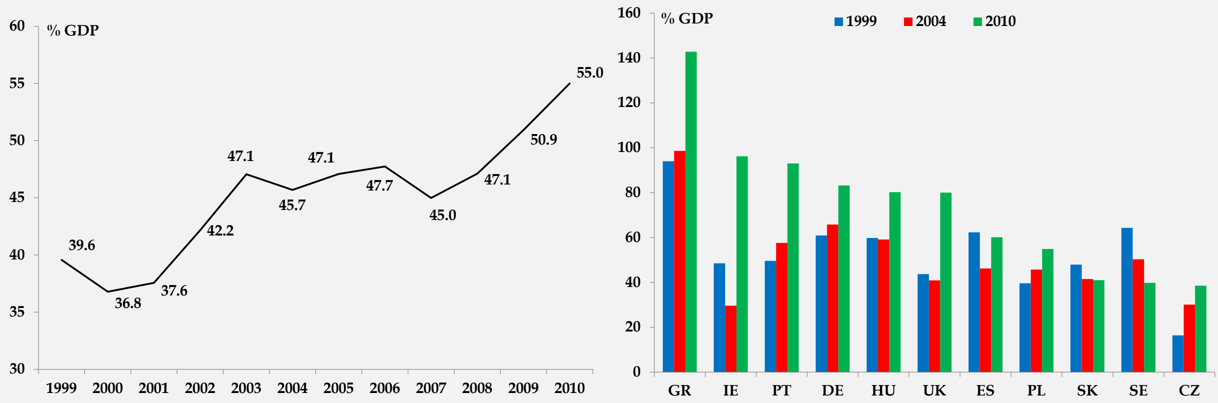
Source: NBP data.

Since 2010 Q1 the methodology of computing international investment position of Poland was adjusted to new international standards of the International Monetary Fund, which translated into an increase of Polish direct investments abroad and a decrease of valuation of equity stocks of the foreign direct investment in Poland.

Box 3. Public and private sector debt in Poland

Since the beginning of the financial crisis in 2007, public debt in many economies, especially developed ones, has increased considerably (Figure R.3.1). Negative effects of investors' concerns about timely debt repayment have been particularly visible in certain euro area countries - Greece, Ireland and Portugal - significantly affecting the condition of these economies. Over the same period, albeit at a considerably slower pace, an increase in Poland's public debt has been recorded (Figure R.3.1). In 2010, Poland's public debt in ESA95 terms, according to GUS fiscal notification of April 2011, stood at 55% of GDP as compared to approx. 80% of GDP for the European Union as a whole.

Figure R.3.1
Public debt in Poland (left-hand panel) and in the EU countries in ESA95 terms (right-hand panel).



Source: Eurostat data and GUS fiscal notification of April 2011.

Designations: IE - Ireland, UK - United Kingdom, SE - Sweden, PT - Portugal, ES - Spain, DE - Germany, GR - Greece, HU - Hungary, CZ - Czech Republic, SK - Slovakia, PL - Poland.

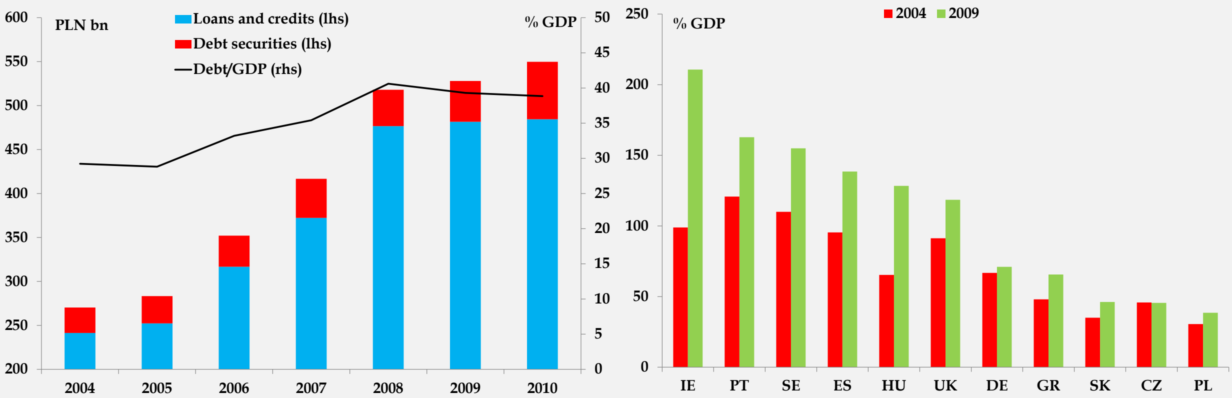
Important factors influencing fiscal policy in Poland are the three prudential thresholds of the ratio of public debt (calculated according to Polish methodology) to GDP: 50%, 55% and 60%. The Act on Public Finances defines measures to be taken in the case of exceeding subsequent thresholds. Such a solution reduces the risk of public finance instability and increases the country's credibility in the international financial markets.

In 2010 public debt, according to the national definition, stood at 52.8% of GDP, i.e. exceeded the first prudential threshold[42]. As a result, in the draft Budget Act for 2012 the state budget deficit to revenues ratio cannot exceed the corresponding ratio adopted in the *Budget Act for 2011*[43]. After exceeding the threshold of 55% of GDP, the scale of required adjustments would be considerably larger. The Council of Ministers is then obliged, among other things, to prepare a draft Budget Act for the following year envisaging no central budget deficit or a central budget balance that ensures a reduction of the State Treasury debt to GDP ratio at the end of the budget year. According to government forecasts presented in Poland's Long-term Financial Plan for 2011-2014, the ratio of public debt (according to the Polish methodology) to GDP in the coming years should gradually diminish, to reach the level of 49.7% of GDP in 2014.

Moreover, Poland, similarly to the other countries of Central and Eastern Europe, has a relatively low average debt maturity of approx. 5 years. It is markedly lower than in most OECD countries where it ranges from 6 to 7 years, reaching almost 14 years in the United Kingdom. Due to a positive relation between the sensitivity of the real value of debt to inflation and debt maturity, low average debt maturity increases the credibility of the inflation target (Missale and Blanchard 1994)[44]. Yet, it should be remembered that a reduction in debt maturity may also be the result of the absence of investors' confidence (e.g. concerns about solvency or debt monetization) and is likely to increase the risk connected with a debt rollover.

In the case of Polish companies, their debt level is rather low compared to other countries (Figure R.3.2). Additionally, in contrast to the public sector whose debt rose significantly during the crisis, the debt of domestic non-financial enterprises remained at the level of approx. 40% of GDP (Figure R.3.2).

Figure R.3.2
Debt of non-financial enterprises in Poland (left-hand panel) and in the EU countries (right-hand panel).



Source: NBP, GUS and Eurostat data.
Designations as above.

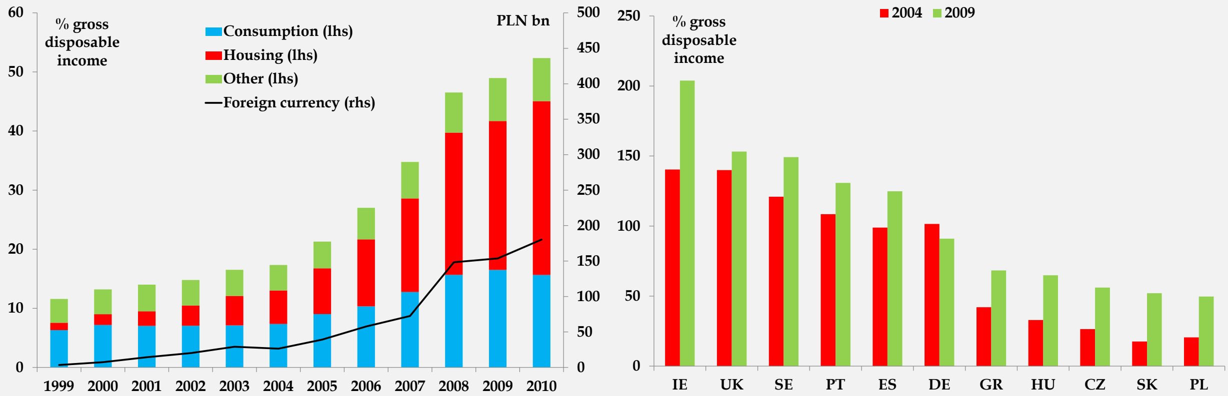
The term structure of corporate debt is rather sound - the share of short-term debt in total debt at the end of 2010 amounted to a mere 24% and was small when compared to other countries. Credits and loans (accounting for approx. 88% of total corporate financing) have a predominant position in the financing of

[42] The level of public debt in line with the national definition differs from the previously published figures in ESA95 terms, which results mainly from differences in the scope of the government sector depending on the applied methodology. The scope of public finance sector in line with the national definition is specified in the Act on Public Finance, and the classification of a particular unit in the sector is decided based on legal criteria. Meanwhile, under ESA95 principles, the allocation of units to institutional sectors, including the central and local government sector, is determined based on economic criteria, set forth in the Council Regulation (EC) on the European system of national and regional accounts. The catalogue of units meeting these criteria is set forth in a publication of the Polish Central Statistical Office (GUS) the *Central and Local Government Sector Statistics*. It includes, among other units, funds operating within Bank Gospodarstwa Krajowego (BGK) – the National Road Fund and the Railway Fund – which are not classified in the public finance sector according to the national definition. In accordance with the *Report on Budget Act Implementation for 2010*, the different classification of those funds (including the commitments of the National Road Fund resulting from public and private partnerships) accounted for PLN 33.0 billion (i.e. 2.3% of GDP) of the difference between the amount of public debt according to the national definition and the ESA95 accounts.
[43] This rule will also apply in the coming years until public debt goes down below 50% of GDP.
[44] The higher the debt maturity, the stronger the impact of unexpected inflation on the real value of debt. High debt maturity may therefore incite to reduce the real value of debt through higher inflation, thus undermining the credibility of inflation targets. Low debt maturity, reducing this risk, is not however a necessary condition for the credibility of monetary policy.

enterprises in Poland. In other European countries loans and credits have a smaller share in total debt with a relatively greater importance of financing in the form of issuing debt securities. In the United Kingdom where the issue of debt securities was most popular, in 2004-2009 the resulting debt accounted for approx. 25% of total debt. In the past few years the growing popularity of debt securities was also observed in Greece and Portugal.

Household debt is largely similar to corporate debt. After a surge in this debt in the pre-crisis period - from the level of approx. 17% of disposable income in 2004 to 46% in 2008, its growth slowed down markedly (Figure R.3.3). A decline was also noted in the growth of foreign currency loans, over 90% of which were used for housing purposes.

Figure R.3.3
Household debt resulting from loans in Poland (left-hand panel) and in selected EU countries (right-hand panel).



Source: NBP, GUS and Eurostat data.
Designations as above.

With their debt at 50% of annual disposable income, Polish households are among the least indebted in the European Union (Figure R.3.3). Short-term debt (with maturity up to 1 year) accounted for approx. 12% of total debt in 2010 and was close to levels observed in other countries of the region. Higher short-term debt indices, at the level of approx. 15% in 2010 were recorded e.g. in Greece and the United Kingdom.

References:

Missale A., Blanchard O. (1994), "The Debt Burden and Debt Maturity", American Economic Review, vol. 84(1), pp. 309-19, March.

Reinhart C.M., Rogoff K.S. (2009), "This Time is Different: Eight Centuries of Financial Folly", Princeton University Press, Princeton.

Chapter 3.

Monetary policy in March - July 2011

At the meeting in March the Monetary Policy Council decided to keep the NBP interest rates unchanged, i.a. the reference rate at the level of 3.75%. In turn at the meetings in April, May and June the Monetary Policy Council decided to raise the NBP interest rates by 25 basis points on each occasion, to the level: the reference rate 4.50%, the lombard rate 6.00%, the deposit rate 3.00% and the rediscount rate 4.75%. In July 2011 the Monetary Policy Council decided to keep the NBP interest rates unchanged.

What follows in the next part of the chapter are the previously published *Minutes of the Monetary Policy Council decision-making meetings* held in March, April, May and June 2011 as well as the *Information from the meeting of the Monetary Policy Council* in July 2011.

Minutes of the Monetary Policy Council decision-making meeting held on 2 March 2011

At the meeting, the Monetary Policy Council discussed the outlook for growth and inflation in Poland, the situation in the domestic labour market and in the external environment of the Polish economy.

With regard to the developments in Poland's real economy, it was pointed out that GDP growth was likely to remain close to the previous year's level. Some Council Members drew attention to the fact that there were still no signs of a visible recovery in corporate investment. They emphasised that at the current rate of economic growth there was a limited risk of deep macroeconomic imbalances building up. At the same time, those Council members pointed out that recent data increased the uncertainty about the short-term outlook for output growth. In particular, a further rise in (seasonally adjusted) unemployment rate was mentioned, along with a relatively slow growth of construction and assembly, a slowdown in retail sales growth in January 2011, a deterioration in some economic climate indicators and a markedly slower expansion in lending than in the corresponding periods of previous years.

At the same time, it was pointed out that much of the December 2010 and January 2011 data could have been influenced, to a significant degree, by one-off factors (economic and statistical), which made their assessment more difficult. In this context, some Council members assessed that slow growth in construction and assembly was primarily due to unfavourable weather conditions and thus did not constitute a negative signal for recovery in corporate investment. Equally, in the opinion of these Council members, the weaker retail sales growth did not reflect a strong decrease in individual consumption, as it resulted mainly from the slump in car sales, affected largely by the abolition, as of 2011, of VAT rebates for cars with goods vehicle approval certificates. At the same time, they pointed out that while advance purchases of cars in 2010 increased the growth of domestic demand they simultaneously deepened the negative contribution of net exports to GDP.

With regard to GDP growth in 2012 and 2013, it was pointed out that the March NBP projection expected it to slow down, and individual consumption and gross fixed capital formation growth were weaker than in the previous projection. It was emphasised that the slower rise in investment resulted from the envisaged postponement of the absorption of some EU funds from 2012 till subsequent years as well as the adverse impact of commodity price rises on enterprises' investment activity. However, some members drew the Council's attention to the significant uncertainty regarding the developments of investment projects co-financed from EU funds. In addition, some members were of the opinion that the developments in the labour market would act against a deceleration in individual consumption. In those members' opinion, investment might also rise faster than in the projection. Factors pointing to such a scenario include the rising production capacity utilisation and enterprises' good financial results, enabling them to self-finance investment projects as well as facilitating access to external financing.

While discussing inflationary pressures in the economy, it was emphasised that the pronounced rise in CPI was driven mainly by the rise in agricultural and energy commodity prices in the world markets, increases in VAT rates and administered prices, i.e. primarily factors unrelated to domestic monetary policy. It was pointed out that the increase in headline inflation feeds into higher inflation expectations of households and enterprises as well as expectations implied by yields on long-term Treasury securities. At the same time, it was indicated that while the available forecasts point to a possible further rise in inflation in the coming months, the impact of the factors contributing to its elevated level will dissipate in the second half of 2011 and – according to some Council members – inflation will subside. Notwithstanding that, it was pointed out that over almost the whole horizon of the March projection – assuming no change in the NBP policy rates – inflation remains above the inflation target. According to the assessment of some Council members the risk of inflation running above the central path of the March projection was higher than the risk that it would be running below this path.

While addressing wage pressures in the economy, some Council members stressed the fact that the current situation in the labour market did not indicate that these pressures should escalate. They pointed out that the marked acceleration in wage growth in Q4 2010 was probably temporary, as it had been driven by a sharp rise in government sector wages preceding a wage freeze in 2011. Those Council members stated that wage growth in enterprises remained moderate, especially against the background of labour productivity growth, and was consistent with inflation stabilising at the inflation target. However, other Council members pointed to the fact that the acceleration in wage growth at the turn of 2010 and 2011 was indicative of uncertainty as to whether that growth would continue to be moderate and thus might signal the risk of mounting wage pressures within the monetary policy transmission horizon. Those members also expected a gradual deterioration in the relationship between wage and labour productivity growth, stronger than the one signalled by the March projection of inflation and GDP.

Amongst the factors pointing to a limited risk of intensifying wage pressure – including a limited risk of elevated inflation and inflation expectations feeding into wage growth – some Council members listed the rising unemployment rate and the fall in the number of jobs offered, resulting in a significant decrease in the labour market tensions index. Those members highlighted the fact that the weaker labour demand, while resulting mainly from the reduction in the number of subsidised jobs, should mitigate wage growth demands. However, other Council members assessed that while subsidised jobs had fallen, surveys suggest rising reservation wage. This reduces the likelihood that rising unemployment will significantly weaken wage pressures. These Council members also pointed to the March projection, according to which unemployment rate will gradually decrease and in the second half of 2011 will go below the steadily rising NAWRU unemployment rate. In the opinion of these Council members, good financial results of enterprises were another factor conducive to a possible fast build-up of wage pressures.

While discussing the developments in the external environment of the Polish economy, the Council pointed to the continued moderate GDP growth in major advanced economies and the accompanying rise in headline inflation, driven by rising global commodity prices. Some Council members pointed out that major central banks kept interest rates low, despite some signals pointing to the possibility that some of them will tighten monetary policy. Those members added that the quickly rising government debt in the advanced economies remains an important uncertainty factor for economic growth, including the situation in the global financial markets. At the same time, continued good business climate in Germany was emphasised, along with the strong synchronisation of business cycles in Germany and Poland. Some Council members were of the opinion that the tightening of monetary policy in China may adversely affect the outlook for German, and consequently also Polish exports. According to those members, other factors with a potentially weakening effect on Polish exports include the fiscal consolidation in the EU countries and a possible tightening of monetary policy in some of these economies.

While discussing the rapid growth of commodity prices, some Council members expressed the opinion that the current commodity shocks were temporary supply shocks. However, it was pointed out that the ample liquidity in the financial markets, coupled with low short-term elasticity of commodity supply may result in a stronger than expected rise in these prices. Furthermore, other Council members expressed the view that a sharp rise in demand for commodities on the part of emerging economies may also have been conducive to commodity price increases and therefore these increases may be more lasting. Those Council members believed that rising commodity prices may also reflect mounting inflation concerns amongst the financial markets participants. It was simultaneously pointed out that the elevated commodity prices could act towards a weakening of global economic activity.

While analysing developments in loan aggregates, some Council members highlighted the continuing fall in consumer loans, along with a deceleration in the expansion of housing loans at the beginning of 2011. At the same time other Council members stated that growth of housing loans remained strong compared to the growth in disposable income achievable in the low inflation environment. Some Council members expressed the view that the sluggish expansion in corporate loans might have a curbing effect on investment growth. They also pointed out that a rise in the number of entities without creditworthiness in Q4 2010 did not bode well for a possible recovery in lending. However, other Council members pointed out that the rise in the number of entities without creditworthiness was accompanied by a drop in the share of liabilities of these entities in the total liabilities to the banking sector.

With regard to public sector demand, some Council members assessed that a significant fiscal tightening was unlikely in the years 2011-2012 given the date of the parliamentary election. Other Council members, however, argued that the need to comply with the requirements relating to the public finance sector deficit resulting from the Excessive Deficit Procedure will translate into a more pronounced fiscal tightening in 2012. In this context, the European Commission decision was invoked, concerning the maintenance of the current approach to accounting for the costs of pension reform in the calculation of the deficit and debt of the sector. Simultaneously, these Council members held the view that a fiscal policy tightening would not curb the build-up of demand pressures in the economy. It was pointed out that a more comprehensive evaluation of the outlook for public finance sector demand would be possible only after the government had presented measures to limit the sector’s deficit in its Convergence Programme update.

While discussing the level of NBP interest rates it was emphasised that their increase in January 2011 initiated the process of a gradual tightening of monetary policy, the scale and pace of which would depend on the incoming data on macroeconomic developments. In the opinion of some Council members, a further interest rate increase at the current meeting was justified, considering the sustained risk that wage and inflation pressure would intensify in the medium term. Such a decision would also limit the risk that the elevated inflation expectations persist. These Council members argued that prompt interest rate increases would reduce the overall scale of increases necessary to stabilise inflation at the inflation target in the medium term. In these members' opinion, the reduced sensitivity of the zloty exchange rate to the interest rate differential was another argument in favour of prompt interest rate increases.

The majority of Council members represented the view that recent data increased the uncertainty regarding economic growth, including a recovery in investment and sustainability of the acceleration in consumption and thereby substantiated the decision not to change interest rates at the current meeting. Further arguments in favour of this decision included the persistently high unemployment rate and modest wage pressures in the enterprise sector, both reducing the risk that heightened inflation, which up to now has resulted from factors beyond the direct influence of monetary policy, should persist. Furthermore, in the opinion of some Council members, NBP decisions on interest rates should take into account the monetary policy pursued by major central banks, in particular the European Central Bank.

A motion to raise the NBP interest rates by 25 basis points was put forward at the meeting. The motion did not pass. The Council kept the interest rates unchanged: reference rate at 3.75%, the lombard rate at 5.25%, the deposit rate at 2.25%, the rediscount rate at 4.00.%

Minutes of the Monetary Policy Council decision-making meeting held on 5 April 2011

At the meeting, the Monetary Policy Council discussed the situation in the external environment of the Polish economy, the outlook for economic growth and inflation in Poland as well as the situation in the domestic labour market, including the risk of second round effects.

While assessing the external environment of the Polish economy, it was pointed out that activity growth in the global economy was stable. Yet, it was emphasized that uncertainty about its outlook remained high, and in the recent period was further exacerbated by the events in Japan, North Africa and the Middle East. Some members of the Council also indicated that recovery in many developed economies continued to be sluggish, and activity growth in the United States might not be maintained at the current, relatively high, level as it was largely supported by significant monetary stimulation. At the same time, attention was paid to a rapid GDP growth in emerging economies and in Germany, and emphasis was given to the strong business cycle synchronization between the Polish and German economies.

Some members of the Council also indicated that inflation remaining at a heightened level in emerging economies was accompanied by signs of growing inflationary pressures in developed economies. Those members pointed out that the central banks in many emerging economies and in some small open developed economies increased their interest rates considerably, and that the European Central Bank was likely to embark on monetary policy tightening in the coming period. Yet, other members of the Council emphasized that even after an increase the ECB's interest rates, similarly to other major central banks' interest rates, would remain at a low level. At the same time, some members of the Council assessed that likely continuation of the accommodative monetary policy in some major developed economies would act towards sustained high global liquidity, and, consequently, increased global inflationary pressure.

While discussing commodity prices in the world markets it was assessed that intensified activity of short-term investors in these markets contributed to the growth of these prices. In the opinion of some members of the Council this was indicative of a temporary character of commodity price increases and the coming months might be expected to bring a fall of these prices. According to those members of the Council, such an assessment is supported also by forecasts of improved supply conditions in the agricultural commodity markets in 2011. Other members of the Council assessed, however, that the rise in commodity prices was to a large extent driven also by growing demand from emerging economies, which indicates that despite possible temporary fluctuations in those prices due to the changing level of short-term investor activity in commodity markets the upward trend of these prices would continue.

With regard to the outlook for economic growth in Poland, some members of the Council pointed out that GDP growth in 2011 and in subsequent years was most likely to be close to, or slightly higher than, that recorded in 2010. It was assessed that GDP growth would be supported by growing external demand and a rise in domestic demand would mainly be driven by rising household consumption, supported by growing employment. Other members of the Council emphasized, on the other hand, that in the absence of recovery in corporate investment and in view of the likely weakening of infrastructure investments co-financed with EU funds, as well as in the face of the anticipated fiscal policy tightening, economic growth might be expected to slow down in subsequent years. It was also pointed out that growing commodity prices in the global markets might also be conducive to lower growth in investment and consumption.

With regard to the prospects for recovery in investment, some members of the Council assessed that corporate investment growth might be faster than currently expected, as suggested by: the growth in gross fixed capital formation in large enterprises in 2010 Q4, very good financial, including liquidity, situation of enterprises and steadily growing production capacity utilization, now exceeding the long-term average. Yet, some members of the Council emphasized that the degree of production capacity utilization in Poland continued to be moderate compared to other EU countries. Members of the Council also pointed at the continuing downward trend in construction and assembly production at the beginning of 2011 and the decline in the indicator of new investment in the enterprises survey. It was pointed out that continuing uncertainty about the future economic situation was a factor behind enterprises' lower propensity to invest.

While addressing the developments in individual consumption, some members of the Council assessed that its acceleration at the end of 2010 was not only due to advance purchases of certain goods in response to the expected changes in taxation starting from January 2011. In the opinion of those members of the Council this conclusion was suggested by the data on retail sales at the beginning of 2011. Yet, some members of the Council highlighted that monthly data on retail sales were highly volatile whereas high growth in retail sales in February 2011 resulted partly from a statistical base effect.

While discussing the situation in the labour market, some members of the Council assessed that the data released recently mitigate the risk of rapid build-up of wage and inflationary pressure. In particular, those members pointed at wage growth in enterprises slowing down at the beginning of 2011 and high unemployment level persisting as a result of a relatively rapid rise in the number of the economically active. At the same time, however, the uncertainty regarding the impact of the opening up of the labour market in Germany on labour supply in Poland was emphasized. Those members also pointed out that amidst the falling number of job offers, the labour market tensions indicator (number of job offers per one unemployed) was now at its lowest level in five years. Other members of the Council emphasized, however, that the decline in the number of job offers was driven mainly by the falling number of subsidized job offers which was not a good indicator of labour demand developments in the economy. Those members also pointed at the continuing relatively high employment growth in enterprises.

While discussing the developments in CPI inflation and its outlook, it was emphasized that its heightened level was mainly related to the growing prices of agricultural and energy commodities in the global markets, which had not been offset by changes in the zloty exchange rate, and – to a markedly lesser degree – by a rise in VAT rates. Some members of the Council pointed at a risk of inflation continuing to run above the upper limit for deviations from the NBP inflation target in 2011. Some members of the Council, on the other hand, assessed that following its temporary rise, inflation would fall markedly in the second half of 2011. At the same time, in the opinion of the majority of members of the Council, the risk of intensifying inflationary pressure resulting from the excessive demand growth was currently limited. Yet, some members of the Council pointed at the uncertainty regarding the potential output estimates and indicated at the risk of positive output gap being higher than in the March projection of inflation and GDP.

Some members of the Council emphasized that also a possible increase in wage pressure, driven by heightened inflation expectations could be conducive to a rise in inflation. In the opinion of those members of the Council, a marked rise in inflation expectations of both individuals and enterprises in the recent period was indicative of a higher risk of intensifying wage demands and their translation into wage growth, especially in view of a very good financial condition of enterprises. They pointed that the share of enterprises planning to increase wages in 2011Q2 was the highest in ten quarters. At the same time, some members of the Council emphasized that amidst heightened inflation expectations enterprises might show more propensity to shift higher costs to product prices. Other members of the Council, on the other hand, pointed out that the risk of second round effects in a situation of high unemployment was uncertain. They emphasized that this risk was also reduced by the limited role of labour unions in the Polish economy.

With regard to the developments in loan aggregates, some members of the Council assessed that a rise in lending to the private sector was moderate and was not a factor behind higher demand pressure in the economy. Those members paid particular attention to the fact that the growth in housing loans weakened at the beginning of 2011 and investment loans to enterprises showed a low growth rate. A slump in consumer loans was also pointed out, yet it was emphasized that this was due to the banks' tightening their lending policies in response to worsening credit quality and regulatory changes. Other members of the Council assessed, on the other hand, that the growth in housing loans remained strong as compared to the growth in disposable income achievable under price stability. They also stressed that the low growth of corporate lending was connected with very good liquidity situation of enterprises and low level of investment activity.

While discussing the situation in the public finance sector, some members of the Council emphasized that in 2011 the expansionary fiscal policy would be continued which, in their opinion, required a tighter monetary policy. Other members of the Council assessed, however, that in the face of the anticipated tightening of fiscal policy in 2011 it was not a factor justifying interest rate hikes. At the same time, the uncertainty about the scale and structure of fiscal tightening in the coming years was emphasized.

While addressing the zloty exchange rate developments, some members of the Council assessed that a rise in the interest rate differential would support the appreciation of the zloty. Other members of the Council emphasized, however, that the impact of a higher differential on the exchange rate might be limited by the risk of revision of the current account deficit estimates, the uncertainty related to parliamentary elections and the continuing fiscal risk in some euro area countries.

The Council discussed the scale and pace of monetary policy tightening. Some members of the Council assessed that fast interest rate increases would constitute a more effective measure of curbing inflation expectations than gradual tightening of monetary policy. They also emphasized that a quicker ending of the cycle of interest rate increases would mitigate the uncertainty in the financial markets and could support the appreciation of the exchange rate of the zloty. Other members of the Council argued, however, that amidst persisting heightened uncertainty about the outlook for economic growth and inflation in the domestic and global economy, continuation of the gradual tightening of monetary policy was justified.

While analyzing the decision about changing the interest rates at the current meeting, some members of the Council represented the view that persisting uncertainty about the prospects of activity growth in the Polish economy and its environment justified keeping the interest rates unchanged. Yet, the majority of the Council members argued that a marked rise in inflation expectations combined with a strong growth in commodity prices in the global markets created, in a situation of continuing economic recovery, a risk of persisting heightened inflation. In order to contain the risk of inflation running above the inflation target in the medium term, it is justified to continue the cycle of monetary policy tightening and increase interest rates at the present meeting of the Council. Some members of the Council also indicated that the low level of real interest rates connected with inflation and, as a result, inflation expectations running at a heightened level was another argument in favour of interest rate increases.

A motion to raise the NBP interest rates by 25 basis points was put forward at the meeting. The motion passed. The Council decided to increase the interest rates to the following levels: reference rate to 4.00%, lombard rate to 5.50%, deposit rate to 2.50% and rediscount rate to 4.25%.

Minutes of the Monetary Policy Council decision-making meeting held on 11 May 2011

At the meeting, the Monetary Policy Council discussed the outlook for economic growth and inflation, including the risk of inflation persisting at a heightened level, as well as the pace and possible overall scale of interest rate increases.

While discussing the outlook for domestic economic growth, some members of the Council pointed out that the annual growth rate – after reaching a high level in 2011 Q1 - was likely to decline gradually in the coming quarters, which should reduce the overall scale of interest rate increases necessary to stabilize inflation at the inflation target in the medium term. It was pointed out that GDP growth would be constrained by – somewhat slower than in the first phase of the recovery – growth in external demand, adverse impact of high inflation on private consumption and corporate investment growth, as well as tightening of domestic fiscal policy. Some members of the Council pointed at the persisting risk to GDP growth stemming from the developments in the external environment of the Polish economy, including concerns over the sustainability of economic recovery in the major developed economies associated with an elevated level of unemployment and reduction of high fiscal imbalances.

Other members of the Council, however, assessed that Poland's economic growth might be faster than currently forecast. Good outlook for growth in Polish exports associated with continued rapid growth in exports in Germany and signs of recovery in corporate investment were, in their opinion, indicative of such a possibility. Those members of the Council pointed out that in view of improving expectations of enterprises about demand and future economic performance, sustained growth in production capacity utilization and good liquidity position, corporate investment could be growing faster than currently anticipated, despite increases in the NBP's interest rates. According to these members of the Council, acceleration of investments was likely to be accompanied by continued rapid growth in employment, which would support a rise in private consumption. Growing prices of commodities and materials, which the enterprises started to quote as the main barrier to their development, was seen by these members as the main threat to investment growth. At the same time - in their opinion - good liquidity situation of enterprises reduced the risk of potential interest rate increases curbing investment growth.

While discussing the risk of intensifying wage pressure, including second round effects, some members of the Council assessed that this risk was limited at the moment. They pointed to the continuing moderate wage growth in enterprises, and argued that the risk of second round effects was reduced by increased level of unemployment, freezing of aggregate wages in the public finance sector in 2011 and limited role of trade unions in wage-setting in the Polish economy. Those members also pointed out that until now there were no signs that the opening of the labor market in Germany and Austria had resulted in a growing scale of migration to these countries. Other members of the Council emphasized that the continuing rapid growth of employment in enterprises was indicative of the mounting risk of intensifying wage pressure. They also pointed out that wage demands had soared recently in industries with high trade union density, pointing out that wage growth in enterprises in these industries might put an upward pressure on wages in other enterprises. Those members of the Council pointed out that the risk of accelerating wage growth was boosted by high inflation expectations of households and businesses. They also underlined that starting from 2012, wage growth in the economy would be heightened by the minimum wage increase.

While addressing the situation in the credit market, some members of the Council emphasized that lending to households and businesses continued at a relatively low level. Other members of the Council, however, assessed that a certain upturn in corporate lending could be observed. In particular, they pointed to some signs of recovery in demand for corporate loans, which was an important factor limiting the growth of bank lending to this sector. They also paid attention to the announced easing of lending policy for enterprises in 2011 Q2.

While discussing the NBP interest rate policy, members of the Council agreed that the current assessment of the outlook for economic growth and inflation justified the continuation of monetary policy tightening in a previously assumed scale. The discussion focused on the timing of further tightening of the policy.

According to some members of the Council it was justified to continue with tightening monetary policy by raising interest rates at several month intervals. They pointed out that the recently released data had not fundamentally changed the assessment of the outlook for economic growth and inflation, and emphasized that most participants in the financial markets expected that the current pace of monetary policy tightening would continue. In the opinion of some participants of the meeting, factors speaking in favour of such pace of monetary policy tightening included: supply-side character of an inflation increase reflected in core inflation net of food and energy prices running well below the CPI, absence of signs of second-round effects, forecasts pointing to a slowdown in annual economic growth later in 2011 as well as in commodity prices growth in the world markets and the related projected decline in inflation around the inflation target in 2012. These meeting participants also assessed that the acceleration of interest rate increases might not reduce inflation expectations of households, which are highly adaptive in nature.

Moreover, some members of the Council paid attention to the decision of the Ministry of Finance to exchange some of the European Union funds in the foreign exchange market. They emphasized that a more comprehensive assessment of the impact of this decision on macroeconomic conditions of monetary policy would be possible in the coming months, which – in their view – spoke in favour of keeping interest rates unchanged at the current meeting.

The majority of the Council members decided that acceleration of interest rate increases would be a more effective way to reduce the risk of persisting heightened inflation than interest rate increases implemented at the current pace. According to these members of the Council, the rationale behind more rapid interest rate increases was the need of a pre-emptive response to the growing risk of higher costs of enterprises and heightened inflation expectations translating into price and wage increases. In this context, those members pointed out the data on CPI inflation in March 2011, indicating an acceleration in price growth not only in food and energy but also in most of other categories of consumer goods and services. Those members also stressed that, considering strong shocks in the agricultural and energy commodity markets, core inflation net of food and energy prices might not correctly reflect permanent changes in inflationary pressures. Those members also pointed out that the projected decline in inflation around the inflation target at the beginning of 2012 was connected with base effects and assumed that rapid increases in commodity prices in the global markets would slow down. It was pointed out that this assumption was subject to uncertainty due to persisting political risk in some oil-exporting countries and growing demand for commodities from emerging economies. Some members of the Council also argued that, in view of the likelihood of inflation and inflation expectations continuing at an elevated level in the coming months, factors speaking in favour of accelerating NBP interest rate hikes included also the risk of real interest rates running at very low levels. It was also emphasized that acceleration of interest rate increases would reduce the need for any strong interest rate adjustments in the future.

While arguing in favour of accelerating interest rate hikes, some members of the Council justified it through uncertainty about the developments of the zloty exchange rate.

A motion to raise the NBP interest rates by 25 basis points was put forward at the meeting. The motion passed. The Council decided to increase the interest rates to the following levels: reference rate to 4.25%, lombard rate to 5.75%, deposit rate to 2.75% and rediscount rate to 4.50%.

Minutes of the Monetary Policy Council decision-making meeting held on 8 June 2011

At the meeting, the Monetary Policy Council analyzed the current and anticipated economic growth and inflation, including the prospects for inflation returning to the target, and discussed future decisions on the NBP interest rates.

While addressing external conditions of economic growth and inflation in Poland, some members of the Council pointed out that although the global economy was recovering, there were signs of a possible weakening of economic conditions abroad in the coming quarters. In particular, attention was paid to the negative effects of the large fiscal imbalance in some euro area countries, including worsening consumer sentiment in the peripheral countries of the euro area and the risk of increasing financial market turmoil related to the fiscal problems of Greece. At the same time, some members of the Council pointed to the limited impact of the so-called quantitative easing of monetary policy on economic activity in the United States. They also emphasized that given the risk of a further weakening of economic conditions in the United States, the Fed might undertake additional measures supporting economic growth in the United States despite rising inflation.

Other members of the Council argued that from the perspective of business conditions in Poland, it was particularly important to take into account the economic situation in Germany, whose prospects remained good, as indicated, among other things, by a favourable structure of GDP growth. The growing role of domestic demand, including investment and private consumption, in Germany’s economic growth means lower sensitivity of this economy to fluctuations in external demand. Moreover, some members of the Council emphasized that economic activity in Poland might increase relatively fast even in the case of moderate GDP growth abroad.

While addressing the situation in the commodity markets, it was pointed out that the worsening of investor sentiment due to concerns about economic growth in the United States translated into a halt of commodity price growth in the world markets. Members of the Council emphasized, however, that considering the prospects for growing demand for commodities amidst limited supply growth, the observed slowdown in price growth might be temporary. Moreover, some members of the Council indicated that unfavourable agro-meteorological conditions in certain regions key to global food supply (i.e. protracted drought in China) might contribute to a further rise in the prices of agricultural commodities. At the same time, members of the Council argued that the anticipated good crop in Russia would limit the growth in food prices.

While discussing the outlook for economic growth in Poland, some members of the Council argued that subsequent quarters might see GDP growth decline as compared to 2011 Q1, which was signalled, among other things, by a halt in the upward trend in industry and construction. In the opinion of these members of the Council the growth inhibiting factors will include weaker growth of public investment which, most likely, will not be accompanied by a proportionally strong acceleration in corporate investment growth, and a slowdown in private consumption growth. In their opinion, the slowdown in private consumption growth will be connected with a weak – amidst heightened inflation - growth of real disposable income. Those members also pointed out that the acceleration in annual retail sales growth in April was largely due to a statistical base effect.

Other members of the Council assessed, however, that economic growth might continue at a relatively high level due to a favourable outlook for growth of both external and domestic demand. In the opinion of those members of the Council, export growth was supported by good conditions in the German economy, investment growth was supported by good financial results of enterprises and growing productive capacity utilization, and the rise in consumption was driven by increasing employment which might continue as a result of growing investment. While referring to the factors that may weaken consumption growth, those members pointed out that maintaining private consumption growth in 2011 Q1 at a level close to that recorded in 2010 Q4 – despite the already heightened inflation at that time, a simultaneous decline in consumer loans and the bringing forward of purchases to the end of 2010 due to changes in VAT rates scheduled to take effect in 2011 – might attest to the fact that the impact of these factors was limited, and improvement in the labour market was crucial for consumption prospects.

While addressing the impact of growing economic activity on inflation, members of the Council were of the opinion that the implemented fiscal tightening combined with the more restrictive monetary policy would limit the risk of too rapid growth of aggregate demand and of intensifying inflationary pressure. Furthermore, the rebound in corporate investment should boost potential output growth, which is a factor supporting the return of inflation to the target in the medium term. At the same time, some members of the Council emphasized that, in their view, the potential growth rate was now lower than before the financial crisis, which should be taken into consideration in the analysis of the output gap and inflationary pressure. Other members of the Council assessed that the impact of the global financial crisis on potential output growth in Poland was not significant.

While assessing wage growth developments, it was emphasized that the acceleration in wage growth in the enterprise sector in April could largely have resulted from the postponement of the payment of bonuses and awards in the mining and energy sectors, and therefore it was difficult to assess the sustainability of this phenomenon. At the same time, some members of the Council pointed out that factors such as rising current inflation, elevated inflation expectations, weaker than in previous years growth in the number of the economically active, good financial condition of enterprises, particularly in industries with a strong presence of labour unions where wage demands intensified in the recent period, as well as an increase in the minimum wage, could put an upward pressure on wages. Those members also stressed that although growth in unit labour costs in the economy declined in 2011 Q1, the service sector – constituting the largest share of value added in the economy – saw labour productivity growth significantly below wage growth. They also pointed to lags between wage bargaining and real wage growth. Other members of the

Council argued, however, that the still high unemployment rate reduced the risk of a mounting wage pressure. This risk, according to members of the Council, is also limited by the already implemented substantial tightening of the monetary policy of the NBP.

While analyzing the developments in lending to the corporate sector, some members of the Council pointed out that the already observed monetary policy tightening did not hamper growth in loans to businesses, although it translated into rising credit costs, which might be indicative of a favorable outlook for lending to this sector. Other members of the Council assessed that rising credit costs could have a dampening effect on growth in corporate lending.

While addressing the outlook for inflation it was pointed out that the acceleration in price growth was observed in most categories of goods and services, and hence affected core inflation. It was also emphasized that an important change as compared to previous years was the fading of the anti-inflationary effect of falling prices of goods imported from countries with low production costs. Some members of the Council assessed, at the same time, that the downward trend in prices of these goods coming to a halt might be a lasting phenomenon, resulting from changes in the labour markets of the largest emerging economies. It was also stressed that the rapid growth in prices was accompanied by heightened inflation expectations.

While assessing the prospects for inflation returning to the target, some members of the Council pointed out that by the end of 2011 inflation was likely to remain above the upper limit for deviations from the inflation target, as suggested by the short-term forecasts prepared at the NBP. It was argued, at the same time, that in line with these forecasts, inflation was soon to start declining gradually and to come close to the inflation target of 2.5% in 2012.

While discussing the NBP interest rates, the majority of Council members agreed that a fast growth in prices in most groups of goods and services and a high level of inflation expectations combined with the risk of rising wage demands justified raising the NBP interest rates further at the current meeting. In their opinion, the low level of the real interest rate was another factor speaking in favour of an interest rate increase.

Some members of the Council assessed, however, that it was not necessary to increase the NBP interest rates at the current meeting, particularly in view of the expectations of ECB interest rates being kept unchanged in June 2011 as well as considering the external nature of the shocks driving up current inflation in Poland.

At the same time, the majority of Council members indicated that the substantial tightening of monetary policy implemented since the beginning of 2011 should enable inflation to return to the target in the medium term, and further tightening of monetary policy would be justified should the prospects of inflation returning to the target deteriorate. An assessment of these prospects will be possible after data released in subsequent months have been analysed. Some members of the Council assessed that in subsequent months further tightening of monetary policy was more likely than monetary policy easing. Yet, other members of the Council argued that from the perspective of stabilizing inflation at the target, the current level of the NBP interest rates might be appropriate in the longer term.

The issue of the POLONIA rate running below the NBP reference rate was also addressed at the meeting. In the opinion of some members of the Council, it would be justified to symmetrically narrow the corridor between the NBP deposit rate and the NBP lombard rate which would lead to a lowering of the deviation of the POLONIA rate from the NBP reference rate.

A motion to raise the NBP interest rates by 25 basis points was put forward at the meeting. The motion passed. The Council decided to increase the interest rates to the following levels: reference rate to 4.50%, lombard rate to 6.00%, deposit rate to 3.00% and rediscount rate to 4.75%.

At the meeting a motion to symmetrically narrow the corridor between the NBP deposit rate and the NBP lombard rate by a total of 50 basis points was put forward. The motion did not pass.

Information from the meeting of the Monetary Policy Council held on 5-6 July 2011

The Council decided to keep the NBP interest rates unchanged, i.e.: reference rate at 4.5% on an annual basis; lombard rate at 6.00% on an annual basis; deposit rate at 3.00% on an annual basis; rediscount rate at 4.75% on an annual basis.

The incoming data indicate continued moderate economic growth in the United States. At the same time, GDP growth in the euro area most probably declined in 2011 Q2 after an exceptionally strong surge in Q1. Inflation in most countries continues to run at an elevated level, largely due to high commodity prices. In the past two months, however, growth in commodity prices in the global markets has been halted. Moreover, concerns about the stability of the economic situation in Greece have continued, which has contributed to an increase in risk aversion in the international financial markets.

In the first months of 2011 Q2 economic activity growth in Poland was close to the one observed in the previous quarters. Some slowdown in industrial output was accompanied by higher growth in construction and in retail sales. Employment in enterprises remained stable and wage growth, following a temporary acceleration in April, fell to a moderate level. At the same time, the rebound in corporate lending, including in investment loans, was sustained. Relatively rapid growth in mortgage loans to households also continued and further negative growth in consumer loans was observed.

In May annual CPI inflation rose to 5.0%, remaining significantly above the NBP's inflation target of 2.5%. The acceleration in price growth was mainly connected with a rise in the prices of food and clothing and footwear, which was also driven by changes in the treatment of prices of seasonal goods implemented at the beginning of 2011. May saw an increase also in core inflation. Inflation expectations of households remained at a heightened level. At the same time, PPI inflation declined.

In the coming months, the annual CPI inflation rate will continue at an elevated level, mainly due to the strong growth in global commodity prices observed prior to the inflation increase.

The Council got acquainted with the projection of inflation and GDP prepared by the Economic Institute of the NBP, which is one of the inputs to the Council's decisions on the NBP interest rates. In line with the July projection – under the assumption of constant NBP interest rates – there is a 50-percent probability of inflation running in the range of 3.7-4.4% in 2011 (as compared to 2.8-3.7% in the March projection), 2.1-3.4% in 2012 (as compared to 2.2-3.4%) and 1.8-3.4% in 2013 (as compared to 2.1-3.7%). In turn, with a 50-percent probability, the July projection sees annual GDP growth in the range of 3.0-4.9% in 2011 (as compared to 3.3-5.1% in the March projection), 1.9-4.5% in 2012 (as compared to 2.3-4.8%) and 1.5-4.3% in 2013 (as compared to 1.7-4.4%).

In the opinion of the Council, the substantial monetary policy tightening implemented since the beginning of 2011 should enable inflation to return to the target in the medium term. Such an assessment is also supported by the July projection of inflation and GDP. In the medium term, inflation will be curbed by a likely slowdown of economic growth amidst fiscal policy tightening, including a decline in public investment, and the implemented interest rate increases.

The Council does not rule out a further adjustment of monetary policy, should the outlook for inflation's return to the target deteriorate.

An important factor affecting the monetary policy is the situation of public finances. In order to maintain macroeconomic stability, and comply with the euro adoption criteria, decisive measures need to be implemented, aimed at a lasting reduction of the deficit of the general government sector and at curbing the increase of public debt.

Although the share of foreign currency loans in new mortgage loans to households has declined, undertaking measures aimed at preventing fast growth in foreign currency lending to households is, in the opinion of the Council, important for macroeconomic stability. Such measures can contribute to increasing the effectiveness of the monetary policy transmission mechanism. Therefore, the Council expects that measures aimed at curbing the supply of new foreign currency loans to households will be introduced.

The Council maintains its view that Poland should join the ERM II and the euro area at the earliest date possible, after meeting the necessary legal, economic and organizational conditions.

The Council has adopted the *Inflation Report – July 2011.*

Chapter 4.

Projection of inflation and GDP

The inflation and GDP projection was prepared at the Economic Institute of the National Bank of Poland and presents forecasted economic developments under the assumption of constant NBP interest rates. The content-related supervision over the work connected with the projection was entrusted to a member of the NBP's Management Board, Mr. Zbigniew Hockuba. The works on the projection were coordianated by the Bureau of Macroeconomic Forecasts of the Economic Institute. The projection was prepared with the use of the macroeconomic model NECMOD[45]. The projection is the outcome of an iterative process in the course of which the paths of some variables were adjusted if they diverged from NBP's 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 is one of the inputs to the Monetary Policy Council's decision making process concerning NBP interest rates.

The July projection based on the model NECMOD covers the period from 2011 Q2 to 2013 Q4. The starting point of the projection is 2011 Q1. The cut-off date for data used in the projection is 25 May 2011 (except for the interest rate path assumed in the projection, which took into account the MCP's decision of 8 June 2011).

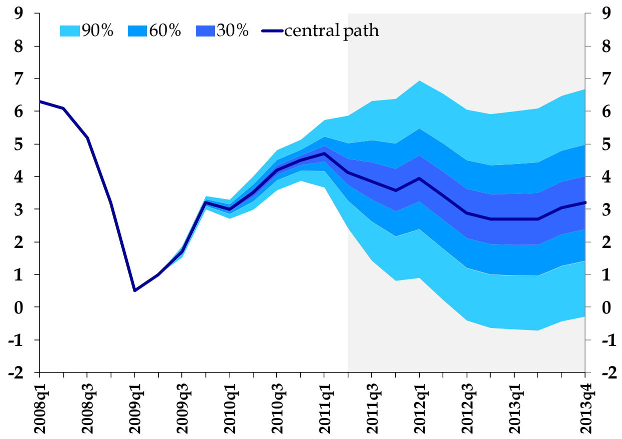
[45] Current version of the model's documentation is available at the NBP website.

Summary

The positive impact of main factors responsible for maintaining GDP growth in 2009-2010 in Poland at a relatively high level (depreciation of exchange rate, higher absorption of EU transfers, interest rates cuts, postponement of fiscal policy tightening) will die off gradually over the projection horizon. In the central scenario of the projection, foreign exchange rate will be relatively stable in the coming years, from 2012 the level of EU transfers will decline, the effects of increase in the NBP reference rate by 100 basis points since the beginning of the year will start to be felt, tax burden will grow and growth rate of certain categories of expenditures of the public finance sector will fall. As there are no significant positive signals from abroad (a moderate GDP growth in the euro area and persistently high prices of energy commodities in the world markets are assumed in the projection horizon), the forecasted GDP growth falls from approx. 4% in 2010-2011 to approx. 3% in 2012-2013 (Figure 4.1). Thus, a recovery in the Polish economy will be weaker then after a previous period of slowdown in the economic activity, when for two years (2006-2007) GDP growth rate was exceeding 6% on yearly basis, the rate of consumption growth was close to 5% and double-digit growth of investment was observed.

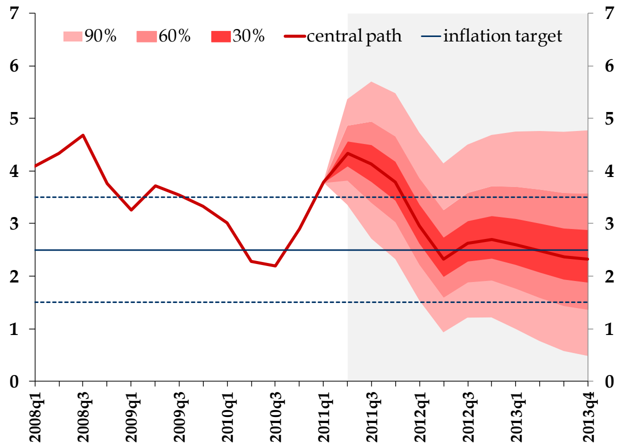
CPI inflation in the short-term projection horizon will continue at a high level (4.0% in 2011 ; Figure 4.2), which is the result of unfavourable supply conditions that support a surge in domestic prices of food and energy and changes in VAT rates implemented since the beginning of January 2011. In 2012-2013 these factors will push up inflation only marginally in year-on-year terms: higher effective rate of VAT will have already fed through to prices in 2011 and prices of agricultural and energy commodities in the world markets will start stabilizing from mid-2011 at high levels. An additional factor bringing inflation down around the inflation target of 2.5% y/y in 2012-2013 will be slower GDP growth, close to the potential growth.

Figure 4.1
GDP (y/y, %).



Source: NBP (unless otherwise specified, this information applies to all figures and tables in the chapter).

Figure 4.2
CPI inflation (y/y, %).



External environment

Data for 2011 Q1 indicate that economic growth in the United States and United Kingdom was weaker than assumed in the March projection whereas growth in the euro area was close to the projected level. In the euro area particularly strong GDP growth was recorded in Germany (4.8% y/y), Poland's main trading partner. Economic growth in Germany was supported by growing demand on the part of developing countries, in particular, China. Within the projection horizon it is assumed that economic recovery in the euro area, the United States and the United Kingdom will be slower than after the previously observed recessions (Figure 4.3). At least by the end of 2012, GDP in those countries will remain below the potential level, which will partly result from the fading effects of a loose fiscal and monetary policy and high prices of energy commodities in the global markets.

Due to mounting inflation in the euro area countries the ECB is expected to continue its interest rate hikes (Figure 4.4). Due to unfavourable situation in the labour market and concerns about sustainability of economic recovery in the United States financial markets expect the Fed to start the interest rate hike cycle only at the beginning of 2013.

The prices of crude oil and natural gas in the world markets in 2011 Q1 exceeded the assumption of the March projection, mainly on account of destabilized political situation in the Maghreb countries. Also prices of agricultural commodities were in 2011 Q1 higher than assumed in the March projection, primarily due to rising costs of production and a surge in biofuels prices, driven by growing prices of crude oil. In the medium- and long-term projection horizon, both prices of energy commodities as well as prices of agricultural commodities will stabilize at a level exceeding the one assumed in the previous projection (Figure 4.5). High commodity prices will be supported by growing demand, in particular, on the part of developing countries and supply barriers (close to the maximum production capacity utilization in crude oil extraction in the

Figure 4.3
GDP abroad (y/y, %).

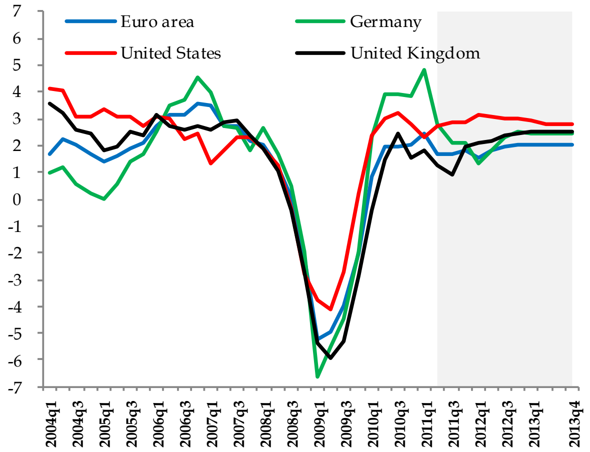


Figure 4.4
Interest rate abroad (%).

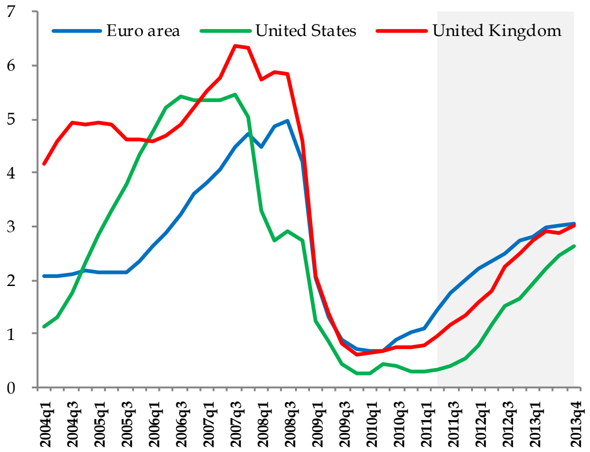
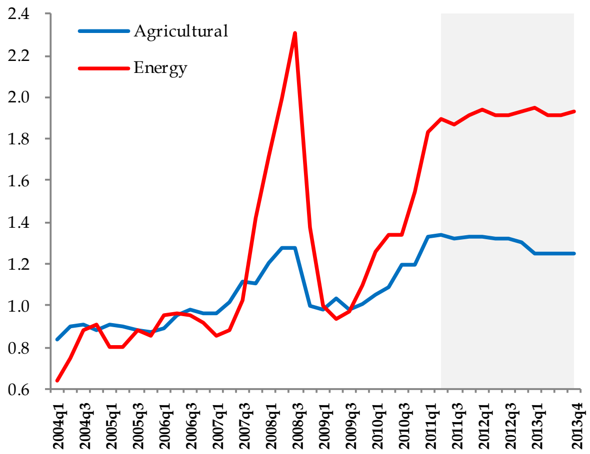


Figure 4.5
Indices of commodity prices in the world markets (USD, 2009=1).



majority of the OPEC countries, climbing costs of agricultural production, etc.).

Polish economy in 2011-2013

Aggregate demand

A relatively rapid recovery in domestic demand, being the main driving force behind economic growth in 2010, will continue also in 2011. In 2012-2013, as a result of measures aimed to reduce public finance sector deficit, reduced absorption of EU funds, curbed consumption growth and termination of inventory rebuild process, domestic demand growth will decelerate significantly and fall below 3% y/y. Due to the limited growth in imports connected with weaker expansion of domestic demand, GDP growth will decline to a lesser extent: from 4.0% in 2011 to approx. 3% in 2011-2012 (Figure 4.6, Figure 4.7).

In 2011 despite a relatively high rise in nominal wage fund, growth in households real disposable income will remain at a low, close to zero level, as a result of high CPI inflation and lower growth in social transfers in this period (resulting, among other things, from lower than in 2010 indexation of retirement pays and pensions as well as systemic changes reducing these expenditures). Thus growth in private consumption in 2011 (3.7%; Figure 4.8) will be largely financed through a decline in the savings ratio. In 2012-2013, despite a slowdown in consumption growth, it will continue to be an important driving force behind GDP growth. Faster consumption growth in this period is curbed by a moderate growth in households disposable income, including wage fund (the effect of a limited improvement in the situation in the labour market) and limited growth in revenues of self-employed (the effect of lower economic activity over the long-term projection horizon).

Following the decline observed in 2010, investment ratio will increase in 2011-2013, with an average growth of gross fixed capital formation of approx. 4.7% (Figure 4.9). During the short-term projection horizon, total investment growth will be largely fuelled by

Figure 4.6
Economic growth.

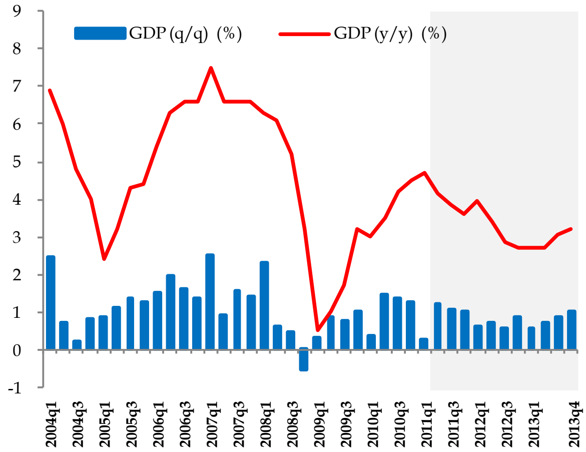


Figure 4.7
GDP growth (y/y, %) - decomposition.

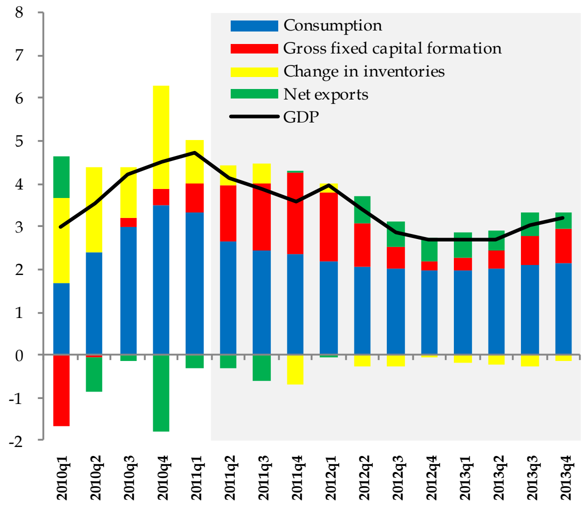
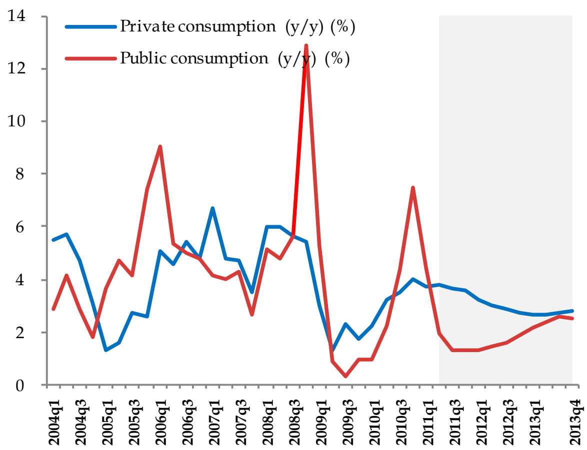


Figure 4.8
Consumer demand.



high growth of public sector gross fixed capital formation, supported, to a large extent, by the inflow of EU structural funds (Figure 4.10). In 2012-2013 the absorption of EU funds and capital expenditures by the general government sector connected with their co-financing are likely to decline, contributing to the wearing off of public investment growth. An argument in favour of this scenario are government plans presented in Multiannual Financial Plan for 2011-2014 and The National Road Construction Programme for 2011-2015, as well as possible curbing of investment expenditures by local government units due to growing debt burden and the applicable fiscal rules. Growth in gross fixed capital formation will be supported, at the beginning to a moderate extent, and subsequently, in the long-term projection horizon to a considerable extent, by growing investment demand of enterprises. The gradual rise in corporate investment will be driven by growing production capacity utilization and a relatively low cost of capital utilization (resulting from a constant NBP reference rate assumed in the projection). A rise in housing investment, slightly exceeding consumption growth, will be supported by both low interest rates as well as by low unemployment rate over the projection horizon.

Following a high rise in external trade turnover in 2010, driven by a rebound in trade relations after the global financial crisis, the years 2011-2013 are expected to bring a decline in the growth rate of exports and imports – yet, their levels will continue to exceed GDP growth (Figure 4.11). While in the short-term projection horizon the contribution of net exports will remain negative, in the years 2012-2013, due to a slowdown in the growth rate of domestic demand (given a stable level of the effective exchange rate and growth in the euro area remaining at the level close to 2% y/y) it will rise to approx. 0.5 percentage points.

Macroeconomic equilibrium

A relatively rapid GDP growth in the short-term projection horizon and lower, after the period of a slowdown, potential product growth will lead to the closing in 2011 Q2 of the negative output gap and its slight widening in

Figure 4.9
Gross fixed capital formation (y/y %) – decomposition.

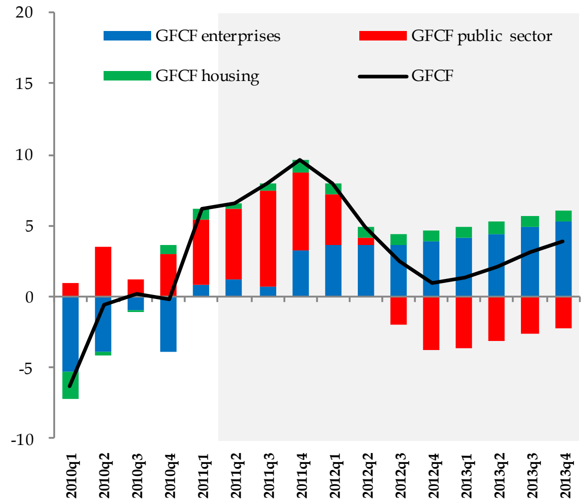


Figure 4.10
EU transfers (EUR billion) - decomposition.

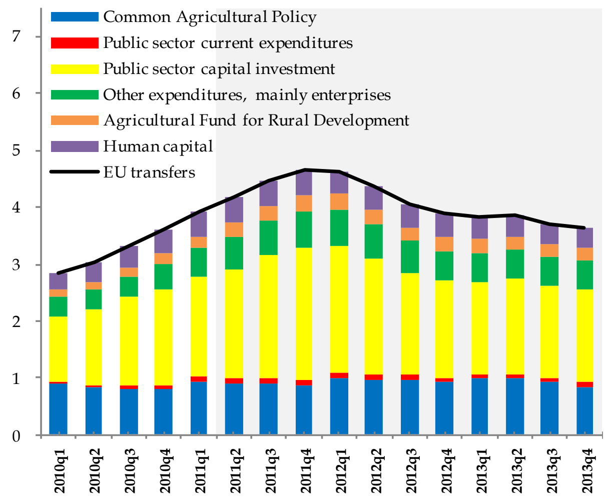
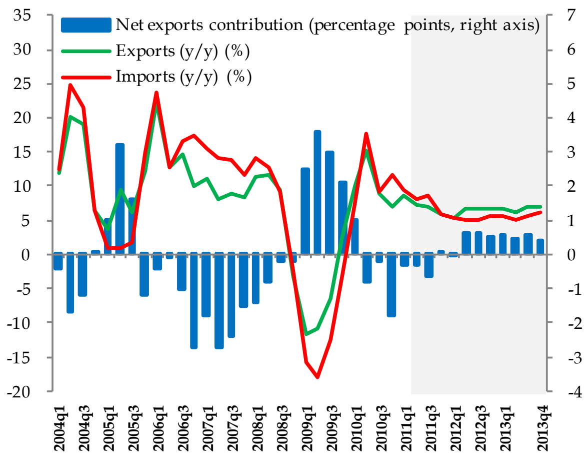


Figure 4.11
Foreign trade.



the subsequent quarters (Figure 4.12). In 2012-2013, potential GDP growth will gradually accelerate which, amidst slower economic growth will translate into stabilization of the output gap at a slightly positive level.

Apart from slower private capital accumulation (connected with a decline in corporate investment in 2009-2010, having a lagged effect), the factor contributing to a slowdown in potential product growth in the short-term projection horizon (Figure 4.13) is a slowdown in the growth rate of labour force participation rate (due to a growing share of persons at a post-production age) and population growth (connected with the reversal of the trends observed in 2009-2010, i.e. limited return migration and a rise in emigration to Germany and Austria). In the long-term projection horizon, potential product growth will be fuelled by faster capital accumulation reflecting a rise in corporate investment and a gradual reversal of the growth rate of total factor productivity (TFP) to the level observed before the global financial crisis.

In the short-term projection horizon, the situation in the labour market will be improving steadily – employment and wage growth will continue on an upward trend (Figures 4.14, Figure 4.15, Figure 4.16). In the long-term projection horizon, along with the expected slowdown in economic growth rate, these trends are wearing off. The unemployment rate will continue on a downward trend throughout the projection horizon, declining by the total of 1.1 percentage points, amidst a relatively stable equilibrium unemployment rate (NAWRU). An increase in unemployment gap will limit the impact of economic slowdown on wages and in 2012-2013 real wage growth will slightly exceed labour productivity growth, and growth rate of unit labour costs will exceed 3% y/y.

Trade and income deficits persisting over the projection horizon will be largely offset by the inflow of EU funds. External imbalance, measured by the ratio of current and capital account deficit to GDP will decrease from 2.9% in 2011 to 1.6%-2.0% in the years 2012-2013 due to improving trade balance.

Figure 4.12
Output gap.

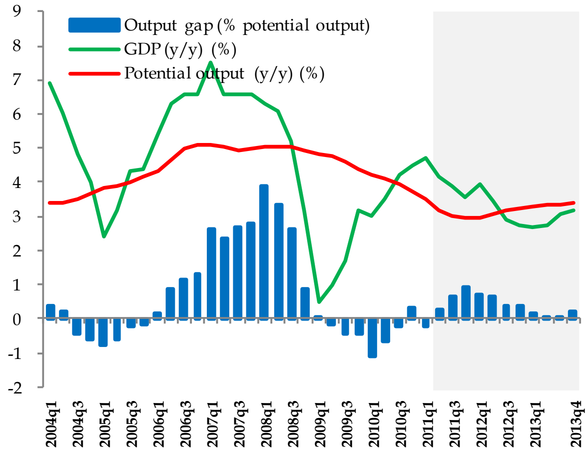


Figure 4.13
Potential product (y/y,%) – decomposition.

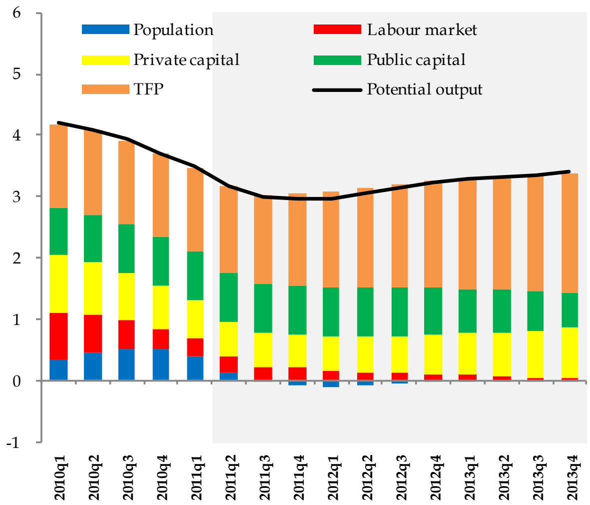
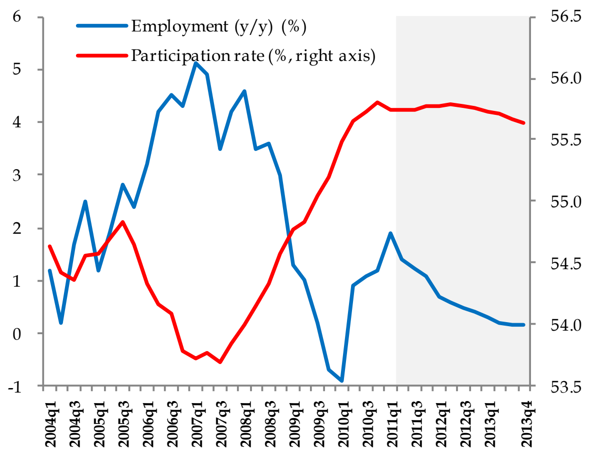


Figure 4.14
Employment and labour force participation rate.



Exchange rate and inflation

Throughout the projection horizon, forces working towards a strengthening and a weakening of the exchange rate will remain in balance, rendering it relatively stable. The steadily strengthening equilibrium exchange rate will exert an upward pressure on the zloty. This will be related to the positive balance on the current and capital accounts from the EU, and the country's potential output growing faster than in the euro area. A decreasing interest rate differential, resulting from assumption of a constant NBP reference rate, will be a factor working towards a weaker zloty.

The rise in core inflation in 2011 Q1 was largely driven by the increase in the VAT effective rate. In the short-term projection horizon, the lagging effect of import prices, which have been rising since 2010 Q3, will be an additional factor increasing core inflation (Figure 4.17, Figure 4.18). In the long-term projection horizon, growth of import prices decreases, and the gradual rise in core inflation will be supported by growing labour unit costs.

In the short-term projection horizon, soaring prices of agricultural commodities in the world markets, combined with a relatively stable exchange rate of the zloty against the dollar and a restricted supply of cereals in the domestic market will translate into a further rapid growth in food prices (Figure 4.19). In the medium- and long-term projection horizon, food price inflation may be expected to fall considerably, as supply should improve in the domestic market and growth in prices of agricultural commodities in the world markets should decline significantly (Figure 4.5).

Energy prices inflation will remain elevated in the short term (8.8% in 2011), due to the increasing prices of energy commodities in the world markets, an increase of the effective VAT rate at the beginning of 2011, and higher administrated prices of energy carriers, approved by the Energy Regulatory Office. In the medium- and longer- term projection horizon, the prices of energy commodities in the world markets will settle down at a relatively

Figure 4.15
Unemployment.

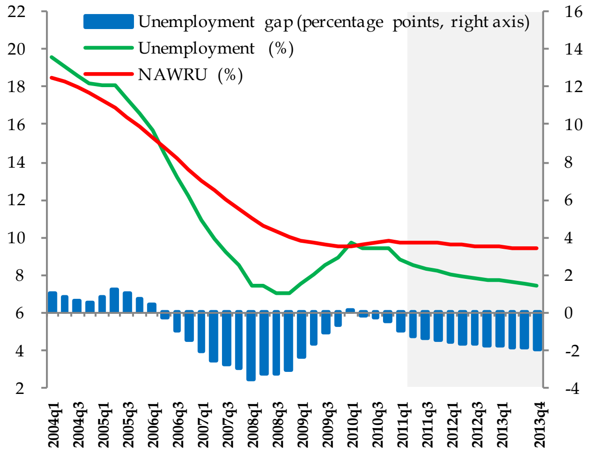


Figure 4.16
Unit labour costs.

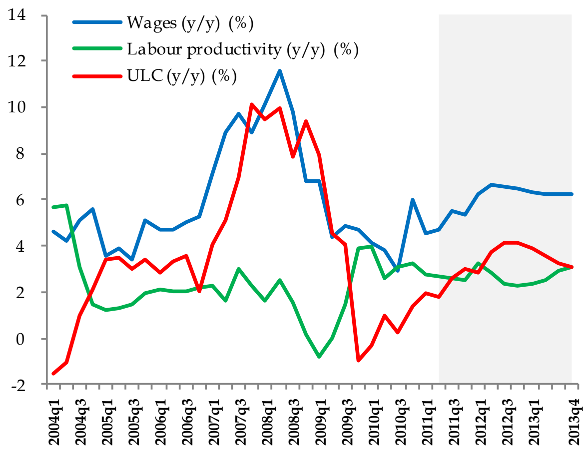
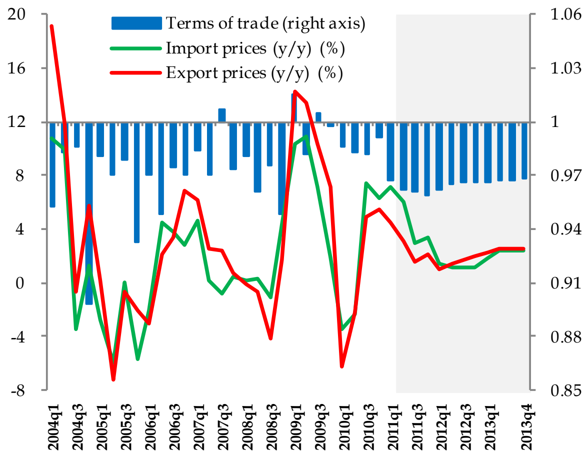


Figure 4.17
Terms-of-trade.



high level. As a result, the rate of growth of energy prices will decrease, albeit will be higher than the CPI inflation.

CPI inflation in 2011 will run considerably higher than in the preceding year (Figure 4.20). The rise in inflation will be attributable to supply factors, causing high increase in food and energy prices, and the change in VAT rates as of January 2011. From 2012 Q2 inflation will decline to the level close to the inflation target. In the medium- and longer- term, rising labour costs will contribute to higher inflation rate, while the limited domestic demand and decreasing growth in the prices of agricultural and energy commodities will inhibit the rise in overall consumer prices. Assuming a constant reference rate of the NBP throughout the projection horizon, the probability of annual inflation rate remaining within the 1.5%-3.5% range grows from 17% in 2011 to 69% in 2012, and subsequently falls back to 60% in the last year of the projection horizon.

Current versus previous projection

The main factors affecting the change of the paths of inflation and GDP between the March and July forecasting round include: upward revision of the forecasts of prices of energy and agricultural commodities in the global markets, accounting for additional measures reducing the public finance sector deficit, higher path of interest rates and data on GDP, inflation and public investment released after the previous projection. As a result of those changes the average annual inflation rate in the short-term projection horizon will exceed considerably the level assumed in the previous forecasting round while in the longer term it will run below this path. At the same time, GDP projection has been revised downward throughout the projection horizon (by an average of 0.3 percentage points; Table 4.1). The reasons for deviations between the March and July projection have been detailed below.

Figure 4.18
CPI and core inflation.

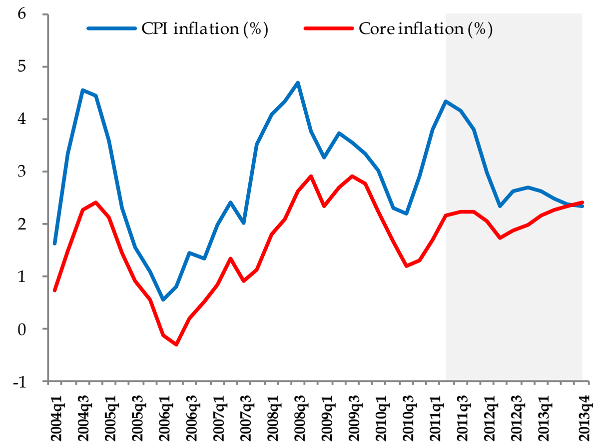


Figure 4.19
Food and energy price inflation.

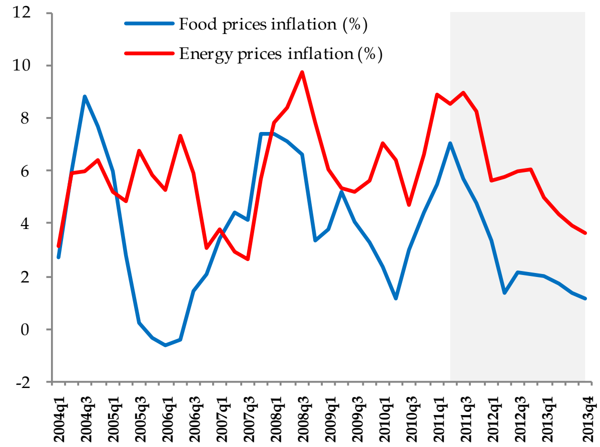
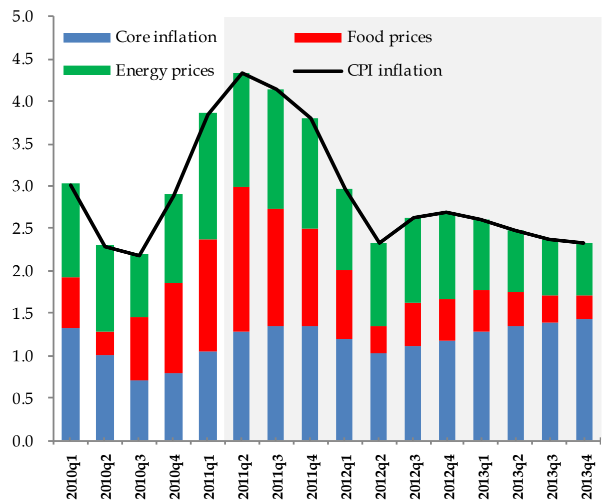


Figure 4.20
CPI inflation (y/y, %) - decomposition.



GDP

In 2011 the downward revision of the forecasted GDP growth was driven by lower contribution of inventories to GDP growth amidst higher contribution of private consumption (Figure 4.21, Figure 4.22). The change between the projections results mainly from the data released after the publication of the March projection. Preliminary estimates of the Central Statistical Office (GUS) for 2010 Q4 (and their later revisions) point to a very large contribution of inventory changes to GDP growth in this quarter (2.3 percentage points) which may be indicative of the inventory rebuild cycle being over sooner than anticipated in the previous forecasting round. Since the March projection data have been released which are indicative of a possible, exceeding expectations, growth in consumer demand in 2011 (favourable 2011 Q1 data on private consumption and wage fund). Government investment growth rate in 2011 exceeding the expectation of the March projection (the effect of the assumption of higher absorption of EU funds in 2011 amidst downward revision of estimates for 2010) is likely to be largely offset by a lower level of corporate investment.

In 2012 and 2013 the downward revision of GDP growth was driven by lower forecasts of gross fixed capital formation (primarily in government and enterprise sector) and public consumption. Downward revision of forecasted corporate investment is the result of higher prices of energy commodities in the world markets, hikes in domestic interest rates and lower GDP growth. On the other hand, lower growth of public investment in 2012 will be caused by the base effect of higher assumed absorption of EU funds in 2011. Weaker public consumption growth in 2012 is mainly connected with the government's plans to freeze wages in the public sector and savings of local government units spurred by their rapidly accumulating debt. Imports, limited in the current forecasting round, resulting from lower domestic demand is translated into higher net export contribution to GDP growth in 2012 and 2013.

Table 4.1
July projection versus March projection.

	2010	2011	2012	2013
CPI inflation (y/y,%)				
VII 2011	2.6	4.0	2.7	2.4
III 2011	2.6	3.2	2.8	2.9
GDP growth (y/y,%)				
VII 2011	3.8	4.0	3.2	2.9
III 2011	3.8	4.2	3.6	3.1

Figure 4.21
July projection versus March projection: GDP growth (y/y, %).

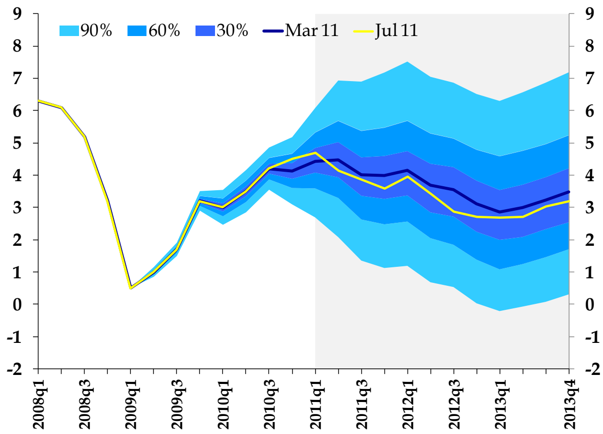
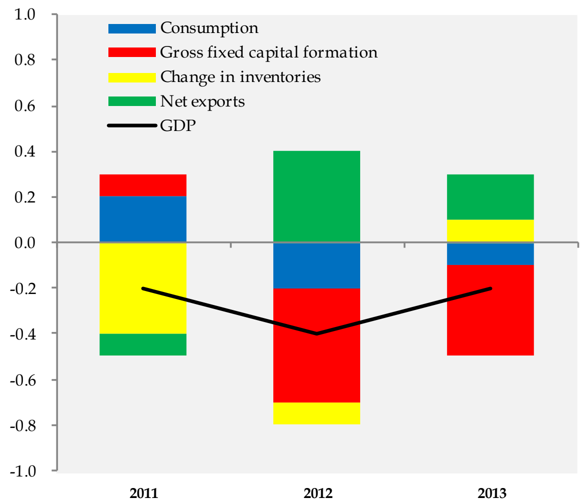


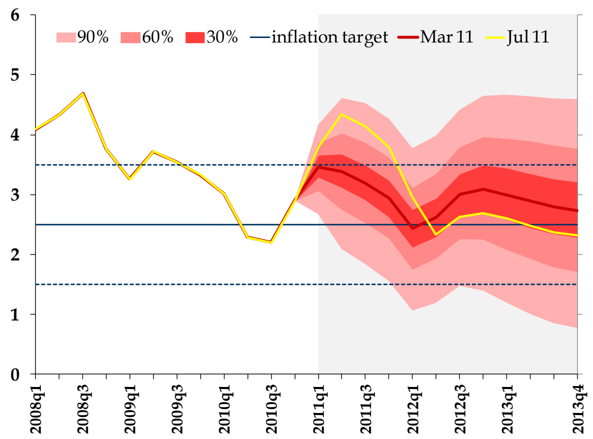
Figure 4.22
Decomposition of deviations between July and March projection : GDP growth (percentage points).



Inflation

In the short term projection horizon, consumer prices are rising faster than in the March projection. This is the effect of a much stronger growth in domestic food and energy prices (Figures 4.23, Figure 4.24), largely driven by higher than assumed in the previous projection prices of agricultural and energy commodities in the global markets. In 2012-2013, despite raw materials price stabilization at a higher level than envisaged in March, a stronger negative base effect brings the inflation of domestic energy and food prices below the values from the previous projection. Moreover, the increase in consumer prices (including core inflation) is limited by a weaker domestic demand and a stronger zloty related to a higher path of interest rates, which brings down the import prices. On the other hand, the higher growth rate of unit labour costs, due to a lower forecast of the economic activity (and hence a lower unemployment rate) is a factor which raises the inflation rate between the March and July forecasting round.

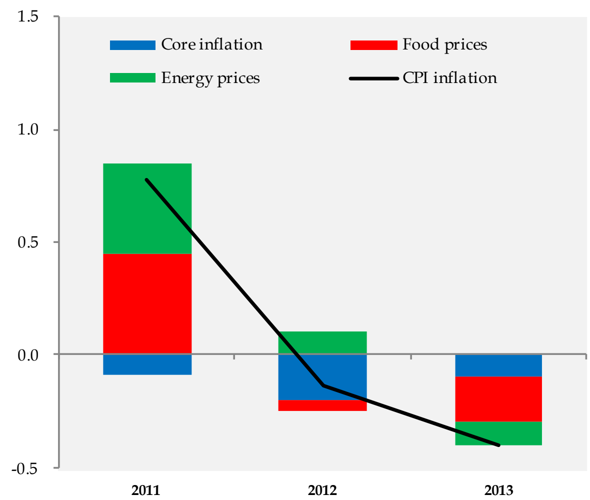
Figure 4.23
July projection versus March projection: CPI inflation (y/y, %).



Sources of projection uncertainty

The various factors of risk to GDP growth for the projection horizon are deemed to be balanced. On the other hand, the inflation rate will be more likely to run above the central path of the projection (Table 4.2). The most important sources of projection uncertainty have been listed below.

Figure 4.24
Decomposition of deviations between July and March projection : CPI inflation (percentage points).



External environment

The external environment remains the most important source of uncertainty for the inflation and GDP projection. The outlook for economic growth in the developed countries, in particular EU member states, are still characterized by large volatility. The response of these economies to the withdrawal of their governments and central banks from strongly expansionary monetary and fiscal policies is difficult to predict. There are growing concerns about the mounting debt of some euro area countries, which may result in the weakening of the euro exchange rate against the US dollar and the lowering of the economic growth rate in the euro area. The developments on the market for agricultural and energy commodities remain a significant source of uncertainty on account of the difficult to assess effect of the growing demand from developing countries coupled with limited capabilities of increasing the supply of these commodities.

It is estimated that the above-mentioned sources of uncertainty related to the external environment of the Polish economy increase the probability of the inflation path running above and the GDP growth path running below the central path.

Table 4.2
Probability of inflation running:

	below 1.5%	below 2.5%	below 3.5%	below the central path of the projection	within the range (1.5%-3.5%)
11q2	0.00	0.00	0.08	0.49	0.08
11q3	0.00	0.03	0.22	0.48	0.22
11q4	0.00	0.07	0.34	0.47	0.34
12q1	0.04	0.26	0.66	0.45	0.62
12q2	0.14	0.50	0.84	0.43	0.69
12q3	0.08	0.38	0.75	0.43	0.67
12q4	0.08	0.35	0.71	0.42	0.63
13q1	0.11	0.39	0.72	0.43	0.61
13q2	0.15	0.44	0.74	0.43	0.59
13q3	0.18	0.47	0.75	0.43	0.57
13q4	0.20	0.48	0.75	0.43	0.56

Exchange rate

The future zloty exchange rate developments is an unavoidable source of uncertainty for the inflation and GDP projections. On the one hand, the still high budget deficit and a possibility that the public debt exceeds subsequent prudential thresholds poses a risk of increasing the risk premium and weakening the zloty exchange rate, especially in the context of persisting uncertainty in global financial markets. On the other hand, relatively high economic growth in Poland when compared with other countries of the region as well as the euro area countries may – in the context of persisting liquidity surplus in the global financial markets – attract the inflow of foreign direct and portfolio investment, and contribute to the appreciation of the domestic currency.

Domestic demand

In connection with the expected fiscal tightening within the projection horizon, including the weakening of growth in public investments related to the preparations to the organization of the European Football Championship (EURO 2012), a significant source of uncertainty for the projection is the reaction of household and enterprise sector demand, in particular the reaction of consumption and enterprise investment. On the one hand, a historically stable increase in private consumption, growing capacity utilization and good liquidity situation of enterprises allow to expect a relatively strong growth in consumption and corporate investment in the future. On the other hand, within the projection horizon for these categories of domestic demand there are negative signals for growth, such as latest data showing a close to zero growth rate of corporate investment and real household income.

Fiscal policy

Fiscal policy remains an important source of uncertainty for future inflation and GDP, in particular in the long-term projection horizon. The excessive deficit procedure which obliges Poland to reduce the deficit of the general government sector below 3% in 2012 may result in further adjustments increasing the revenues and reducing the expenditure of this sector in the years 2012-2013. As a result there is an increasing probability of GDP running below the central path, while the impact of changes in fiscal policy on CPI inflation is burdened with high uncertainty, as depending on the adopted solutions, it may be a factor conducive to higher or lower consumer prices. An additional source of uncertainty for GDP projection is constituted by the developments of public investment related to the utilisation of EU funds.

Food and energy prices in Poland

On account of a significant impact of regulatory policy on the development of food and energy prices, similarly as in previous forecasting rounds, it remains a significant source of uncertainty for the inflation projection. Significant uncertainty is associated with the future European Union environmental protection policy (including the implementation of standards on emissions of carbon dioxide), regulatory activities in the food market and the future tariff policy of the ERO.

Discussion of data released after 25 May 2011

Data released after 25 May 2011 indicate that the indices of the prices of agricultural and energy commodities may exceed the level expected in the projection. These data, coupled with the higher than expected CPI inflation figure for May 2011, increase the probability of inflation running above the central path in the short horizon of the projection. However, they do not change the balance of risks to the projection in the longert term significantly.

Along with the publication of 2011 Q1 data on 29 June 2011, the balance of payments statistics has been revised from 2004 onwards. These revisions have not significantly changed the assessment of inflation and GDP developments within the projection horizon.

Table 4.3
Central path of inflation and GDP projection.

	2009	2010	2011	2012	2013
Consumer Price Index CPI (per cent y/y)	3.5	2.6	4.0	2.7	2.4
Food prices (per cent y/y)	4.1	2.7	5.7	2.2	1.5
Energy prices (per cent y/y)	5.5	6.2	8.8	5.9	4.2
Core inflation net of food and energy prices (per cent y/y)	2.7	1.6	2.1	1.9	2.3
GDP (per cent y/y)	1.6	3.8	4.0	3.2	2.9
Domestic demand (per cent y/y)	-1.1	4.4	4.3	2.8	2.4
Individual consumption (per cent y/y)	2.1	3.2	3.7	3.0	2.7
Collective consumption (per cent y/y)	1.9	3.8	1.9	1.6	2.4
Gross fixed capital formation (per cent y/y)	-1.2	-1.0	7.6	4.0	2.6
Contribution of net exports (percentage points y/y)	2.7	-0.6	-0.4	0.4	0.5
Exports (per cent y/y)	-6.8	10.1	7.5	6.3	6.7
Imports (per cent y/y)	-12.4	11.5	8.4	5.3	5.6
Gross wages (per cent y/y)	5.4	4.0	5.0	6.5	6.2
Total employment (per cent y/y)	0.4	0.6	1.4	0.5	0.2
Unemployment rate (per cent)	8.2	9.6	8.4	7.9	7.6
NAWRU (per cent)	9.7	9.7	9.7	9.6	9.4
Labour force participation rate (per cent)	54.9	55.8	55.7	55.8	55.7
Labour productivity (per cent y/y)	1.3	3.2	2.6	2.7	2.7
Unit labour costs (per cent y/y)	4.2	0.7	2.4	3.7	3.4
Potential output (per cent y/y)	4.6	4.0	3.1	3.1	3.3
Output gap (percentage of potential GDP)	-0.3	-0.4	0.4	0.5	0.1
Index of agricultural commodity prices (USD; 2009=1.00)	1.00	1.13	1.33	1.32	1.25
Index of energy commodity prices (USD; 2009=1.00)	1.00	1.37	1.88	1.92	1.93
Foreign price level (per cent y/y)	1.5	0.7	1.3	1.8	2.0
Foreign GDP (per cent y/y)	-4.2	2.2	2.2	2.0	2.2
Current account and capital account balance (per cent GDP)	-0.5	-1.6	-2.9	-1.6	-2.0
3M WIBOR (per cent)	4.32	3.89	4.52	4.75	4.75

Source: LFS data is the data source for total employment, labour force participation rate and unemployment rate. The index of agricultural commodity prices is constructed on the basis of the IMF's forecasts for future paths of the prices of wheat, pork, beef, poultry, fish, sugar, rape oil, oranges, bananas and drinks 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.

Box 4. Changes in the methodology of constructing fan charts

In the current forecasting round, the method of constructing fan charts illustrating the uncertainty surrounding the inflation and GDP paths has been modified. The changes aimed at making asymmetry and variance around central path consistent with the listed main sources of uncertainty of the projection. In order to calculate the asymmetry of distributions in fan charts, a procedure similar to the one used at the Bank of England (Britton E., Fisher P., Whiley J., The Inflation Report projections: understanding the fan chart, Bank of England Quarterly Bulletin, February 1998) has been adopted. The method of calculating variance, however, has not changed significantly (see description in the Inflation Report, October 2008, p. 72).

In the first step of the procedure, experts make an assessment of the main areas of projection uncertainty, on the basis of which, using NECMOD model, several scenarios are created, presenting a different (from the central projection) development of macroeconomic situation. Each of the scenarios is assigned a probability of materialisation (with the central scenario being assigned the highest probability). Afterwards, on the basis of GDP and inflation paths obtained in these scenarios, and on the basis of relevant assigned probabilities, a measure of skewness of the distribution (i.e. the difference between the expected value and the mode) is calculated, separately for each of the horizons. The skewness measure and the variance of the distribution (calculated pursuant to the previous methodology), together with the central value, uniquely determine the distribution of uncertainty from the TPN (two piece normal) family of distributions, i.e. a family of distributions with three parameters, the special case of which is the normal distribution. As in the procedure used by the Bank of England, the central path of projection is determined by the mode, and the intervals of fan charts are constructed around the central path in such a way as to minimize their width.

Chapter 5.

The voting of the Monetary Policy Council members on motions and resolutions adopted in January - May 2011

- **Date:** 19 January 2011

  Subject matter of motion or resolution:

  Resolution No. 1/2011 on the level of the reference rate, lombard rate, deposit rate and rediscount rate of the National Bank of Poland.

  MPC decision:

  The MPC increased the level of all interest rates by 0.25 percentage points.

  Voting of the MPC members:

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

- **Date:** 15 February 2011

  Subject matter of motion or resolution:

  Resolution no. 2/2011 on the regulations governing the Monetary Policy Council.

  Voting of the MPC members:

For:		**Against**:
	M. Belka	J. Winiecki
	A. Bratkowski	
	E. Chojna-Duch	
	Z. Gilowska	

A. Glapiński
J. Hausner
A. Kaźmierczak
A. Rzońca
A. Zielińska-Głębocka

- **Date:** 2 March 2011

  Subject matter of motion or resolution:

  Motion to raise the NBP interest rates by 0.25 percentage points.

  MPC decision:

  Motion did not pass.

  Voting of the MPC members:

  For: A. Bratkowski
  J. Hausner
  A. Rzońca

  Against: M. Belka
  E. Chojna-Duch
  Z. Gilowska
  A. Glapiński
  A. Kaźmierczak
  A. Zielińska-Głębocka

  J. Winiecki was absent.

- **Date:** 4 April 2011

  Subject matter of motion or resolution:

  Resolution No. 3/2011 on approving the Annual Financial Report of the National Bank of Poland prepared as of 31 December 2010.

  Voting of the MPC members:

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

  Against:

- **Date:** 5 April 2011

  Subject matter of motion or resolution:

  Resolution No. 4/2011 on the level of the reference rate, lombard rate, deposit rate and rediscount rate of the National Bank of Poland.

MPC decision:

The MPC increased the level of all interest rates by 0.25 percentage points.

Voting of the MPC members:

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

Against: E. Chojna-Duch

- **Date:** 10 May 2011

Subject matter of motion or resolution:

Resolution No. 5/2011 on approving the report on monetary policy implementation in 2010.

Voting of the MPC members:

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

Against:

- **Date:** 10 May 2011

Subject matter of motion or resolution:

Resolution No. 6/2011 on the evaluation of the activities of the NBP Management Board as regards the implementation of the monetary policy guidelines for the year 2010.

Voting of the MPC members:

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

Against: A. Bratkowski

- **Date:** 11 May 2011

Subject matter of motion or resolution:

Resolution No. 7/2011 on the level of the reference rate, lombard rate, deposit rate and rediscount rate of the National Bank of Poland.

MPC decision:

The MPC increased the level of all interest rates by 0.25 percentage points.

Voting of the MPC members:

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

- **Date:** 17 May 2011

Subject matter of motion or resolution:

Resolution No. 8/2011 on approving the report on the operations of the National Bank of Poland in 2010.

Voting of the MPC members:

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

A. Zielińska-Głębocka was absent.