Inflation Report
June 2010

National Bank of Poland
Monetary Policy Council

Warsaw, June 2010

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. Eugeniusz Gatnar. 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; the cut-off date for the data was 24 June 2010. In turn, the periodisation of the analysis (breakdown into sub-periods) is conditioned by the development of particular variables.

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

The recovery in the world economy continued in 2010 Q1 and at the beginning of Q2, though its scale differed across regions. Among developed economies, Japan and the United States saw the fastest rate of improvement in economic conditions. Economic activity in the euro area continued at a low level at the beginning of 2010. Even though at the turn of 2010 Q1 and Q2 this economy showed some signs of stronger recovery, the fiscal crisis in Greece and high fiscal imbalances of some other euro-area countries raised uncertainty regarding the growth outlook for this region's economies. In turn, in the period under review the largest emerging economies saw a continuation of rapid economic growth. It was, however, accompanied by signs of growing macroeconomic imbalances in these countries.

After half a year of decline in the overall level of consumer prices in the largest developed economies ended up in October 2009, inflation picked up in those countries, mainly due to a faster growth of energy prices. At the same time, core inflation in those economies dropped to low levels as a result of still relatively weak demand pressure and low degree of capacity utilisation. Inflation picked up also in the largest emerging economies. In the case of those economies, however, this increase was largely driven by buoyant growth of demand.

Since the publication of the previous *Report* uncertainty in international financial markets rose again. As a result of Standard and Poor's downgrading its rating of Greek (below investment grade), Portuguese and Spanish bonds in late April 2010, risk aversion in the global financial markets increased markedly. The fiscal crisis in Greece and the intensification of fiscal difficulties of some other euro area countries contributed to a weakening of the exchange rate of the euro against the US dollar to a four-year low and to a fall in equity prices in the world's major stock exchanges. In the period under review, major central banks have continued to pursue easy monetary policy, though the Fed has phased out all special liquidity programmes launched in 2007-2009 in order to support credit markets. In May 2010 the ECB introduced the Securities Markets Programme under which it conducted sterilised secondary-market purchases of Treasury bonds issued by countries threatened by the debt crisis. Moreover, the Fed, in agreement with the ECB and the central banks of England, Japan, Canada and Switzerland, resumed central bank liquidity swaps providing these banks with US dollar liquidity.

In connection with expectations of an improved outlook for global economic growth, in February - April 2010 the prices of crude oil have been growing, approaching approx. 90 USD/b. In May 2010, however, due to the intensification of turmoil in the financial markets and the ensuing appreciation of the dollar, the prices of oil fell significantly - to approx. 75 USD/b. In turn, the prices of agricultural produce in the world commodity markets have been on a rising trend since the beginning of 2010, though they remain clearly below the level of 2008 Q4.

The annual growth of prices of consumer goods and services in Poland in January - May 2010 was falling steadily from 3.5% to 2.2%, i.e. below the NBP's inflation target of 2.5%. The slide of inflation was supported by the appreciation of the exchange rate of the zloty observed until the beginning of April, low demand pressure and slowing growth of unit labour costs in the economy as well as negative base effects. In turn, the inflation decline was reduced by a rise in the prices of tobacco products and a significant rise in fuel prices connected with the growth of oil prices in the world markets. The decline in CPI inflation in the analysed period was accompanied by a fall of all core inflation measures.

Producer prices in industry in 2010 Q1 were lower than a year before, which was mainly due to the appreciation of the zloty observed since March 2009. In April 2010 the scale of PPI decline decreased and in May a PPI increase in annual terms was recorded. This path of the PPI was primarily the effect of price developments in manufacturing. On the one hand, it mainly reflected changes in the zloty exchange rate and on the other, a rise in commodity prices (such as oil and coal) in global markets. In turn, the annual growth of zloty-denominated import prices fell in 2009 Q4 and in 2010 Q1 it was negative.

Since early 2009 both inflation forecasts of bank analysts and those of enterprises (an objectified measure) in the horizon of one year have remained relatively stable and close to the NBP's inflation target. In turn, the objectified measure of inflation expectations of individuals remains close to inflation observed at the moment of the survey, which results from the adaptive character of those expectations. In surveys of individuals, the structure of responses to the question about future price developments has not changed significantly.

The available data point to a continuing economic recovery in Poland. In 2010 Q1 GDP in real terms increased by 3.0% y/y according to the GUS preliminary estimate (as compared to 3.3% y/y in the previous quarter). GDP growth in annual terms was supported mainly by an increase in inventories and in total consumption. Net exports also had a positive contribution to annual GDP growth in 2010 Q1. A marked drop in gross fixed capital formation, which partly resulted from adverse weather conditions in the first months of 2010, had an opposite effect.

The growth of individual consumption picked up in 2010 Q1 in comparison with the previous quarter, though it remained below a multi-year average. The growth of individual consumption accelerated despite a weaker increase in income from paid employment and a further decrease of consumer credit growth. A negative impact on individual consumption growth was also exerted by unfavourable weather conditions, which contributed to a strong decline in retail sales growth. This decline suggests that the acceleration in consumption growth resulted from a marked acceleration in spending on services. At the same time, consumer confidence indicators improved further in 2010 Q1.

In 2010 Q1 a deep decline in investments was observed (after their increase in annual terms in 2009 Q4), which was driven by adverse weather conditions. The results of business conditions surveys indicate that, despite further improvement in the economic situation, enterprises' interest in undertaking new investment projects was still small in 2010 Q1. Enterprises are discouraged from investing by a still low, though slightly higher than in the previous quarter, level of production capacity utilisation and uncertainty as to the outlook for economic growth in the world and in Poland. In turn, the good financial (including liquidity) standing of companies and the easing of banks' credit policies support the rise in their investments.

In line with the government's *Convergence Programme. Update 2009*, the deficit of the public finance sector in ESA95 terms will edge down in 2010 in relation to its 2009 level to 6.9% of GDP. In January - May 2010 the central budget deficit reached approx. PLN 32.1 billion (which ac-counts for 61.6% of the annual plan) and proved lower than accounted for in the *Schedule of central budget revenues and expenditures for 2010* due to lower expenditures. In 2010 Q1 local government units recorded a surplus, yet, as a result of a significant deterioration in their financial situation in 2009, their debt in 2010 Q1 was higher than one year before.

The improvement in global economic activity was accompanied by the concurrent reinforcement of positive trends in Polish foreign trade. Following a drop at the turn of 2008 and 2009, the value of exports was gradually increasing from 2009 Q2, which was driven by the recovery of the export sector in Western European countries, associated with a rising demand of emerging Asian economies for European products. The recovery in exports, characterised by a relatively high import intensity, in conjunction with rising commodity prices in the world markets and zloty appreciation favouring the import of consumer goods, translated into an increase in the value of Polish imports.

In 2010 Q1 industry had the largest contribution to gross value added; a positive contribution to gross value added growth was also recorded by the sector of non-market services. In turn, the contributions of market services and construction sectors fell below zero in 2010 Q1, which could have been largely connected with weather conditions.

2010 Q1 was the second consecutive quarter of a decline (in annual terms) in the number of working persons according to the BAEL Labour Force Survey, which - amid a concurrent increase in the number of economically active persons - contributed to a rise in the BAEL rate of unemployment. In turn, employment in the enterprise sector edged up in January - May 2010, and the registered unemployment rate stabilized at approx. 12%. In 2010 Q1 the growth of nominal and real wages declined both in the economy and in the enterprise sector. This decline, however, was driven by the effect of a high base of 2009 Q1, when some enterprises had paid a part of the wages from the end of 2008 in such a way that they had fallen under more favourable Personal Income Tax rules. Monthly data for April and May 2010 point to an increase in the growth of wages in the enterprise sector. The stabilisation of labour productivity growth in conjunction with a decline in the wage growth resulted in a further deceleration in the growth of unit labour costs in the economy in 2010 Q1. At the same time, unit labour costs in industry have been decreasing since August 2009.

Since the publication of the previous *Report* the NBP interest rates have remained unchanged. Nevertheless, April 2010 saw a reduction in three-month interest rates in the interbank market. In the analysed period yields on Polish bonds have been subject to increased volatility: first they were falling, and in the last days of April and in May 2010 they surged amid a global increase in risk aversion. In turn, equity prices in Poland rose in March and for the most of April 2010 and then fell.

Whereas the asking prices of flats in Poland's major cities decreased slightly in the primary markets in 2010 Q1, they have remained unchanged in the secondary market. Sale prices of flats increased slightly both in the primary and the secondary market.

Between the publication of the previous *Report* and 23 June 2010 the nominal exchange rate of the zloty depreciated against the US dollar, the euro and the Swiss franc by approx. 12%, 2% and 9%, respectively. Zloty exchange rate depreciation was, to a large extent, the result of a selloff of Central and East European countries' currencies, connected to the increase in risk aversion in the global financial markets in late April 2010.

In February - May 2010 the volume of loans to enterprises fell, largely due to a strong decline recorded in March this year; in May those loans increased in monthly terms. Growth in housing loans to households stabilised at levels which were about 50% lower than in the period of a very strong surge in lending in 2007-2008. Household consumer loans grew as well, yet, their growth was markedly lower than in the previous years. In 2010 Q1 financing conditions and the capital position of banks continued to improve. This improvement should support an increase in the supply of credit. Since the publication of the previous *Report* the M3 broad monetary aggregate has maintained stable annual growth of approx. 7%.

Following a considerable improvement in the current account balance in 2009 Q1 - mainly connected with a strong reduction in the imports of goods - subsequent quarters saw a deepening of the current account deficit. Preliminary data for 2010 Q1, however, indicate that it improved again. Despite a decline the deficit proved higher than in the corresponding period of 2009. The net inflow of foreign capital to Poland (mainly in the form of portfolio investments) continued in 2009 Q4 and 2010 Q1, resulting in a surplus in the financial account of the balance of payments.

The *Report on Inflation* 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 factors affecting them are discussed in Chapter 2. *Minutes of the Monetary Policy Council decision-making meetings* held in February, March, April and May 2010 together with the *Information from the meeting of the Monetary Policy Council* in June 2010 are presented in Chapter 3. Minutes from the MPC meeting held in June will be published on 15 July 2010 and so will be included in the next *Report*.

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 June projection – under the assumption of constant NBP interest rates – there is a 50-percent probability of inflation running in the range of 2.3-2.9% in 2010 (compared to 1.3-2.2% in the February projection), 2.1-3.3% in 2011 (compared to 1.7-3.1%) and 2.2-3.7% in 2012 (compared to 2.6-4.6%). In turn, the June projection sees the annual GDP growth with a 50-percent probability in the range of 2.5-3.9% in 2010 (compared to 2.1-4.1% in the February projection), 3.3-5.9% in 2011 (compared to 1.8-4.0%) and 2.2-5.0% in 2012 (compared to 1.9-4.3%).

The *Report* includes three anexes: "Public finance crisis in Greece", "*Convergence Reports* of May 2010" and "The effect of the financial crisis on potential output".

Chapter 1.

External environment of Polish economy

1.1. Global economic activity

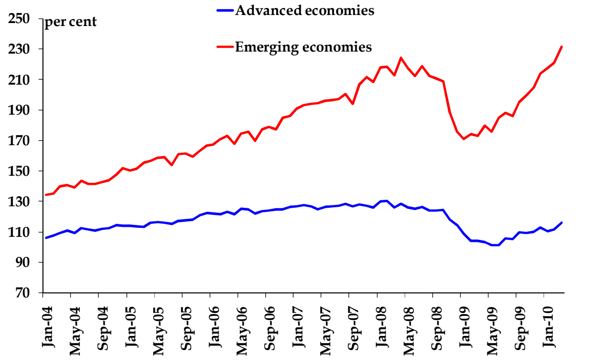
The recovery in the world economy continued in 2010 Q1 and at the beginning of Q2. Global economic indicators point to persisting strong activity growth in manufacturing, a clear activity increase in services and a rising level of employment in these sectors[1]. The recovery in global trade also continues (Figure 1.1).

However, the scale of economic activity improvement differs across regions. Among developed economies, Japan and the United States saw the fastest rate of improvement in economic conditions in the analysed period (Figure 1.2). Economic activity in the euro area continued at a low level at the beginning of 2010. At the turn of 2010 Q1 and Q2 this economy showed some signs of stronger recovery. However, the fiscal crisis in Greece and high fiscal imbalances of some other euro-area countries raised uncertainty regarding the growth outlook for this region's economies.

In the period under review, the largest emerging economies saw a continuation of rapid economic growth (Figure 1.6). It was, however, accompanied by signs of growing macroeconomic imbalances in these countries.

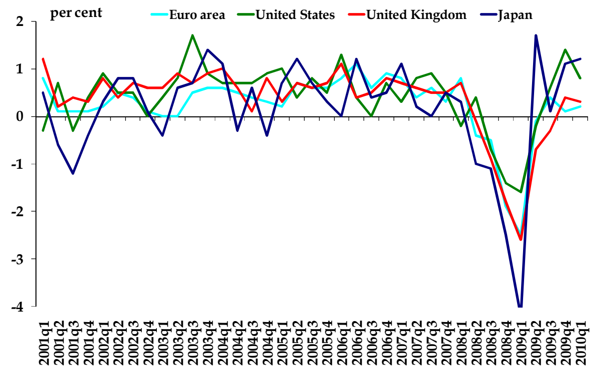
US GDP growth (in seasonally adjusted terms) decreased to 0.7% q/q in 2010 Q1 after strongest GDP growth since 2003 had been recorded in 2009 Q4. Yet, this growth rate was still above

Figure 1.1
Volume of imports (2000=100).



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

Figure 1.2
Economic growth in selected advanced economies (q/q).



Source: Eurostat and IMF data (seasonally adjusted).

[1] The index of global services and manufacturing activity (JPMorgan Global All Industry Index) fell in May 2010 to 57.0 points (down from 57.7 points in April), though it still ranged above its multi-year average, which indicates a continuing recovery in both these sectors. Moreover, the global employment level increased in May to 51.4 points, exceeding the level of 50 points for the third consecutive month.

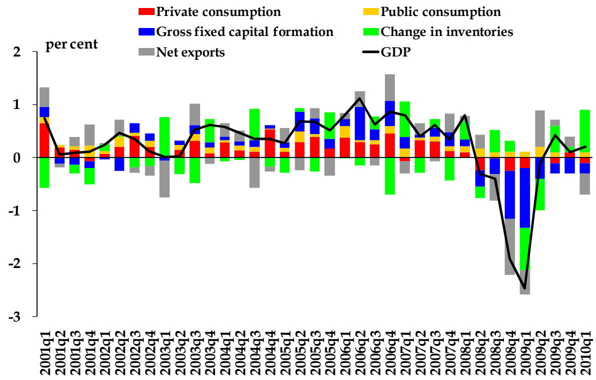
the ten-year average quarterly growth rate of the US economy (Figure 1.2). On the one hand, household consumption continued to rebound, with a particularly clear increase observed in spending on durable goods. The continuing recovery in private consumption, suggested also by consumer sentiment indicators for the first months of 2010 Q2, has been supported by a gradual improvement in the US labour market. The latter was reflected in the employment increase observed since the start of the year. With improved sales outlook, in 2010 Q1 US enterprises started to rebuild their inventories, sharply reduced over the previous seven quarters. A further marked increase in private investment in machinery and equipment was also recorded. On the other hand, the situation in construction was still unfavourable in 2010 Q1, with declining non-residential investment and a decrease in residential investment. In 2010 Q1 - similarly to the previous quarter - public expenditure was also cut down.

In 2010 Q1 euro area GDP increased for the third consecutive quarter, yet - similarly to the previous quarter - its growth rate remained low (0.2% q/q in seasonally adjusted terms, as compared to 0.1% q/q in 2009 Q4; Figure 1.3). In the group of Poland's largest trading partners in terms of exports in 2010 Q1, the GDP growth rate amounted to 0.2% q/q in Germany (as compared to 0.2% q/q in 2009 Q4), 0.1% q/q in France (as compared to 0.5% q/q) and 0.5% q/q in Italy (as compared to -0.1% q/q).

The continuation of positive GDP growth in the euro area was primarily attributable to a slowing reduction of private inventories. Moreover, after stabilization in the previous quarter, government expenditure increased markedly in 2010 Q1. The exports and imports of the euro area were still rising in the analysed period. Yet, due to a stronger increase in imports the contribution of net exports to GDP growth was negative. At the same time, the decline in investments of enterprises observed since 2008 Q2 continued. After picking up slightly in the previous quarter, household consumption also decreased again.

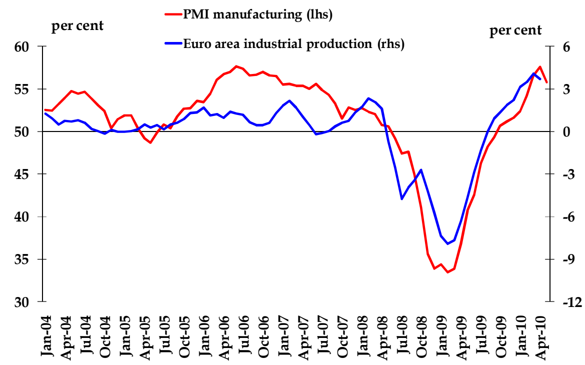
Data for the first months of 2010 Q2 indicate a continuation of economic recovery in the euro area. In particular, data on industrial produc-

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



Source: Eurostat data (seasonally adjusted).

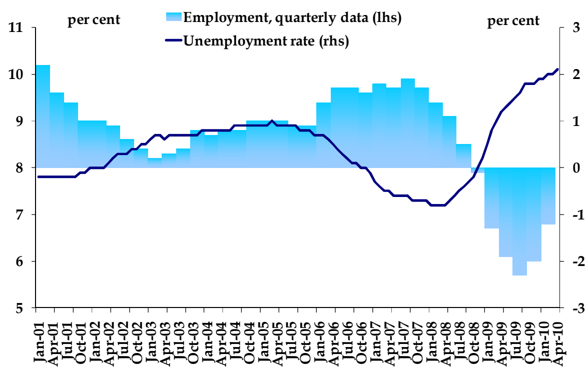
Figure 1.4
Euro area industrial production growth* and PMI for manufacturing.



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

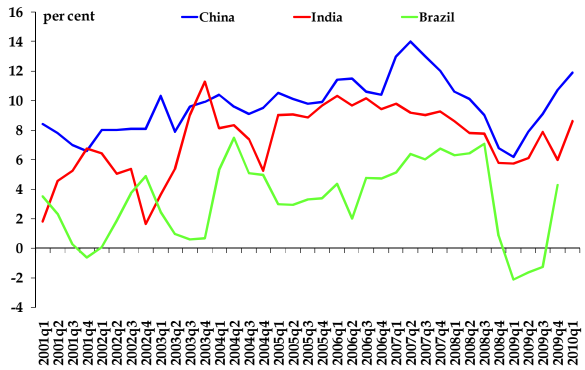
tion and activity in manufacturing point to relatively high growth in the output of this sector at the beginning of 2010 Q2 (Figure 1.4). Moreover, survey data signal a recovery in euro-area services. On the other hand, however, business sentiment deteriorated in the majority of sectors of the euro-area economy. This was connected with the fiscal crisis in Greece and significant fiscal imbalances in such countries as Portugal, Spain, Ireland and Italy. At the same time, the persistently unfavourable situation in the euro-area labour market, including the rise of the unemployment rate to its highest level in 12 years (Figure 1.5), together with a further fall in retail sales and a low level of consumer sentiment indicators point to a lack of recovery in household demand at the beginning of 2010 Q2.

In 2010 Q1 economic activity was still clearly improving in Japan, where cumulative GDP over the previous four quarters was the highest among analysed developed economies. Moreover, 2010 Q1 was the second consecutive quarter of GDP growth in the UK after six quarters of decline.

In 2010 Q1 economic growth in China accelerated again, reaching its highest level in over two years (at 11.9% y/y as compared to 10.7% y/y in 2009 Q4; Figure 1.6). The growth of investment outlays in the Chinese economy remained high, though it was slower than in 2009, mainly due to a marked slowdown of investment growth in the public sector. In turn, the growth rate of housing investment accelerated significantly. At the same time, strong expansion in private consumption and the recovery in external demand continued. Robust growth of economic activity in China was reflected in strongly increasing imports, including imports of raw materials. Amid emerging signs of macroeconomic imbalances building up in China, the economic authorities of this country continued their efforts to reduce the rapid growth of credit and asset prices, primarily including real property prices.

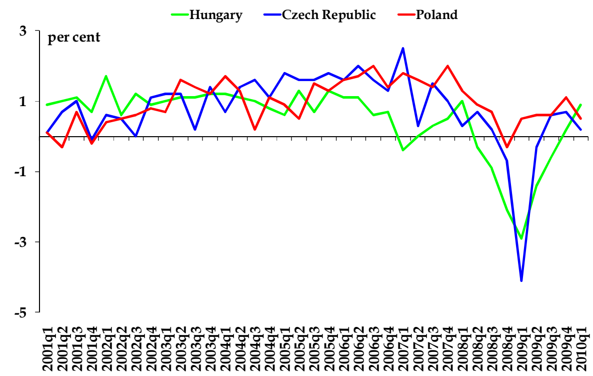
Among the non euro-area countries from Central and Eastern Europe, in 2010 Q1 the strongest quarter-on-quarter GDP growth was reported by Hungary (Figure 1.7). In the period under review GDP growth was also sustained in the Czech Republic, though its scale was smaller than in the previous quarter. At the

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



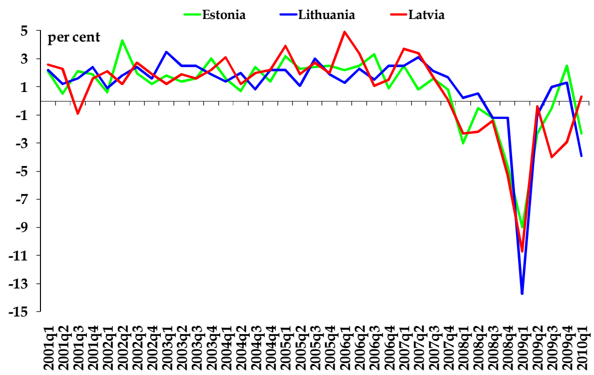
Source: Reuters data.

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



Source: Eurostat data (seasonally adjusted).

Figure 1.8
Economic growth in the Baltic countries (q/q).



Source: Eurostat data (seasonally adjusted).

same time, Latvia's GDP increased in quarterly terms for the first time since 2007 Q4. In contrast, GDP in Lithuania and Estonia declined, following an increase in 2009 Q4 (Figure 1.8).

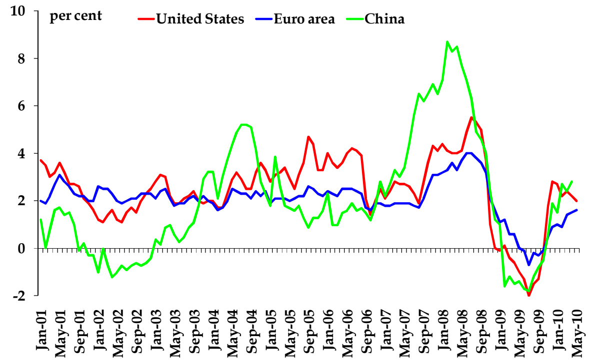
1.2. Inflationary processes abroad

After half a year of decline in the overall level of consumer prices in the largest developed economies ended up in October 2009, headline inflation picked up in those countries (Figure 1.9). This increase was mainly connected with a faster growth of energy prices, related to the rebound of commodity prices observed in the world markets until April 2010. At the same time, core inflation indices in the major developed economies dropped to low levels. This drop was driven by relatively weak demand pressure and a low degree of capacity utilisation.

Headline inflation picked up also in the largest emerging economies. In particular, after a decline (in annual terms) in the overall level of consumer prices observed until November 2009, inflation in China emerged again and exceeded 3% y/y in May 2010. Inflation in the largest emerging economies was driven by buoyant economic growth. At the same time, the growth of food prices ranged high in those countries.

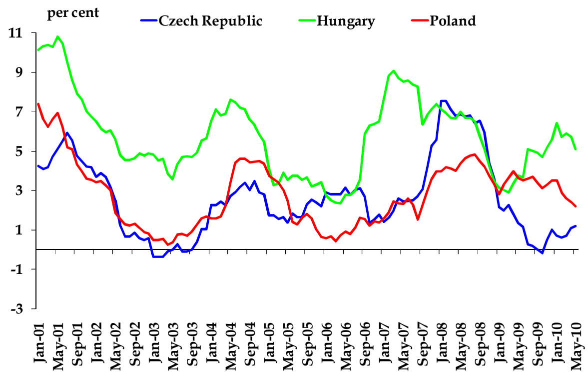
As regards the Central and Eastern European countries, in the analysed period inflation rose again in the Czech Republic, though it remained below the inflation target. Inflation in Hungary was still running at a relatively high level, despite some decline over the last months (Figure 1.10). In the analysed period the overall level of consumer prices in Latvia was still falling (in annual terms). At the same time, headline inflation in Lithuania ranged at a low level. In turn, in Estonia, where from May 2009 to February 2010 the overall level of prices was decreasing, inflation picked up and reached 3.0% y/y in May. In the countries of Central and Eastern Europe inflation was driven by growing energy prices. At the same time, core inflation in all these economies - except for Hungary - continued at low levels.

Figure 1.9
CPI inflation in the major economies (y/y).



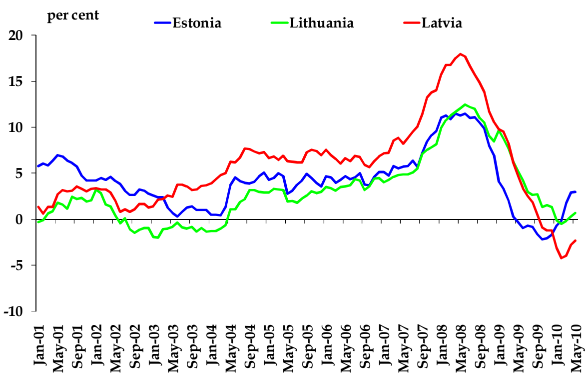
Source: IMF data.

Figure 1.10
CPI inflation in the Czech Republic, Hungary and Poland (y/y).



Source: National CSO's data.

Figure 1.11
CPI inflation in the Baltic countries (y/y).



Source: National CSO's data.

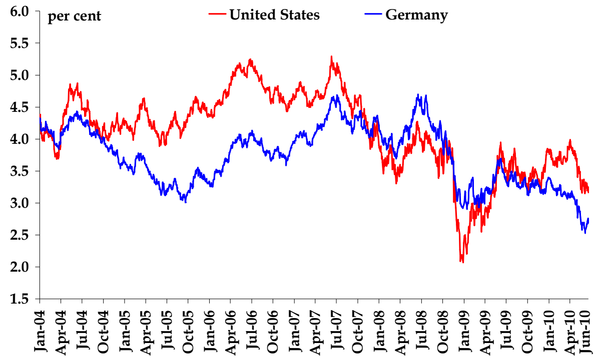
1.3. International financial markets and monetary policy abroad

Since the publication of the previous *Report* uncertainty in international financial markets rose again. As a result of Standard and Poor's downgrading its rating of Greek (below investment grade), Portuguese and Spanish bonds in late April 2010[2] concerns about the fiscal situation in these economies intensified. Those concerns resulted in a marked growth in risk aversion and a rise in bond yields and CDS rates for these countries, reflecting a decline in their creditworthiness (Figure 1.13). At the same time, the higher risk aversion led to a decline in yields of bonds regarded as safe, i.e. US and German bonds (Figure 1.12). LIBOR and the LIBOR-OIS spread increased markedly, which could indicate a renewed decline in confidence in the interbank market (Figure 1.14).

The fiscal crisis in Greece (cf. Annex 1) and the intensification of fiscal difficulties of some other euro area countries raised concerns about the stability of the financial system and economic growth prospects for the region. As a result, the exchange rate of the euro against the US dollar weakened to a four-year low (Figure 1.15), equity prices on the world's major stock exchanges fell as well (Figure 1.16).

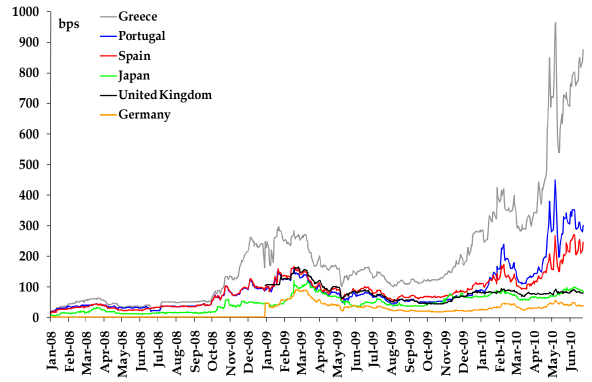
Since the publication of the previous Report major central banks have continued to pursue easy monetary policy (Figure 1.17). The Fed has kept its federal funds rate unchanged at 0.00-0.25%, the European Central Bank (ECB) has kept its key interest rate at 1.00% and the Swiss National Bank (SNB) has not changed the 3-month LIBOR band, which is currently set at 0.00-0.75%, while still intending to hold the rate in the lower part of the target range, at around 0.25%. Analysts surveyed by Reuters expect that the Fed and the SNB will raise interest rates in 2011 Q1 to 0.50%, while the ECB will raise its interest rate (to 1.25%) in 2011 Q2. In line with forward market quotations it is currently expected that the federal funds rate and the key rates of the ECB and SNB will be kept unchanged over the next six months.

Figure 1.12
Yields of 10-year US and German bonds.



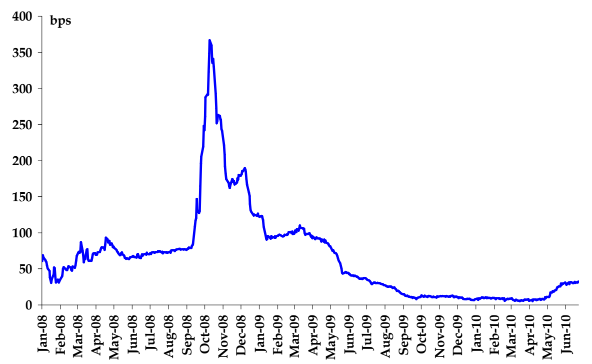
Source: Bloomberg data.

Figure 1.13
CDS spreads in selected developed countries.



Source: Bloomberg data, NBP calculations.

Figure 1.14
The Libor-OIS spread for the US dollar.



Source: Reuters data, NBP calculations.

[2] In June 2010 the rating of Greek bonds was also downgraded below investment status by Moody's. Fitch lowered its rating of Spanish bonds to AA+ in May.

The Fed has phased out all special liquidity programmes launched in 2007-2009 in order to support credit markets (the last such programme expired on 30 June). In May 2010 the ECB introduced the Securities Markets Programme under which it conducted sterilised secondary-market purchases of Treasury bonds issued by countries threatened by the debt crisis. The ECB also announced that it would conduct long-term refinancing operations providing banks with euro liquidity. Moreover, the Fed, in agreement with the ECB and the central banks of England, Japan, Canada and Switzerland, resumed central bank liquidity swaps providing these banks with US dollar liquidity. In turn, the Bank of Japan announced a special programme of loans to commercial banks aimed at fighting deflation and strengthening the foundations of economic growth. Under the programme, Japanese private financial institutions will be able to apply to the Bank of Japan for loans at a low interest rate, provided that the funds obtained in this way are then extended to firms in the form of investment loans. In addition, in June 2010 the People's Bank of China resumed the process of increasing flexibility of the yuan exchange rate.

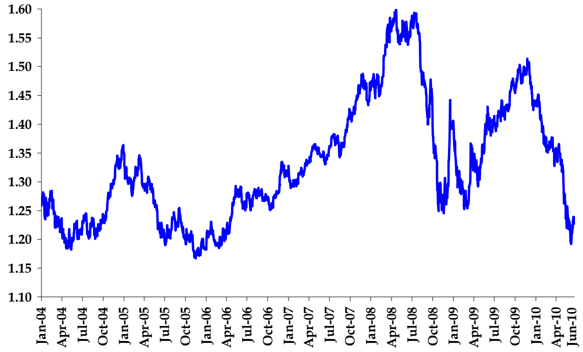
1.4. Global commodity markets

Since the publication of the previous Report the prices of crude oil have been growing, approaching approx. 90 USD/b (Figure 1.18). This oil price hike was primarily connected with expectations of an improved outlook for the global economic growth. In May 2010, however, due to the intensification of turmoil in the financial markets and the ensuing appreciation of the dollar, the prices of oil dipped significantly - to approx. 75 USD/b.

The prices of coal stabilised at the level of approx. 107 USD/t in April and May 2010 (compared to 104 USD/t in January 2010). In turn, the prices of natural gas, which change with a lag of 6 to 9 months in relation to oil price shifts, rose to approx. 283 USD/1000 m^3 in January 2010; Figure 1.19).

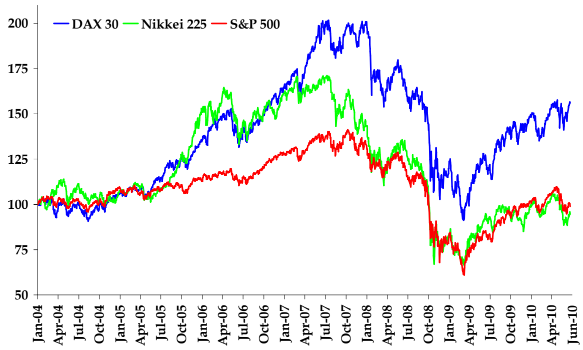
Since the beginning of 2010 the prices of agricultural produce in the world commodity markets have been on a rising trend. The value of

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



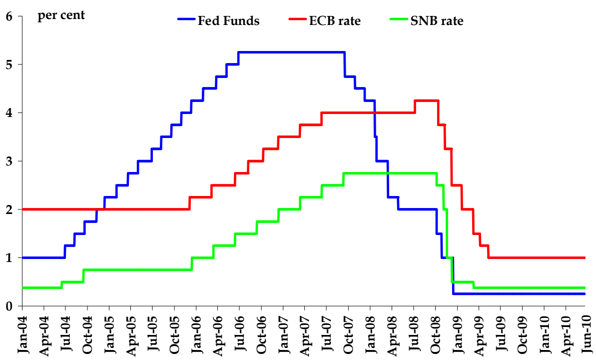
Source: Bloomberg data.

Figure 1.16
Stockmarket indices in Germany (DAX 30), Japan (Nikkei 225) and the United States (S&P 500), January 2004 = 100.



Source: Reuters Ecowin data, NBP calculations.

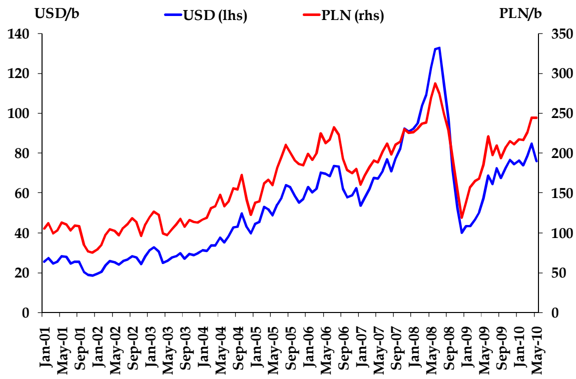
Figure 1.17
Fed Funds rate, ECB refinancing rate, and SNB rate.



Source: Central banks' data.

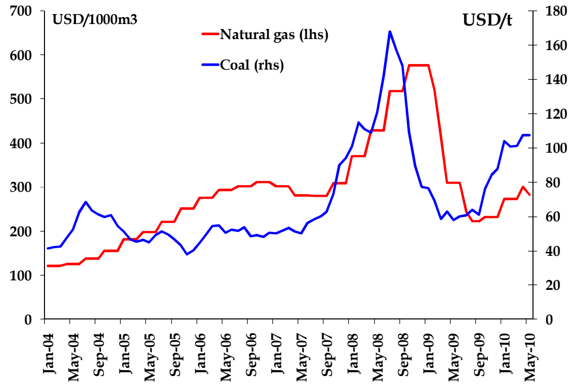
the NBP index of those prices rose in January-May by 7.1% (Figure 1.20), though it remained clearly below the level of 2008 Q4. The growth of prices of agricultural products driven by increased prices of energy and freight. At the same time, the increased supply with a relatively stable demand in most markets of agricultural commodities contributed to curbing the rise of their prices.

Figure 1.18
Brent crude oil prices in USD and PLN.



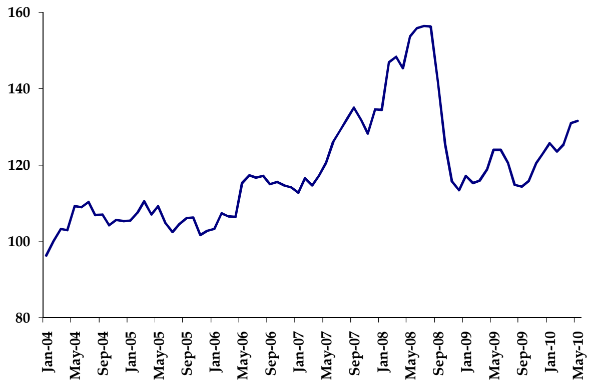
Source: The US Department of Energy data, NBP calculations.

Figure 1.19
Gas and coal prices in the global markets.



Source: IMF data.

Figure 1.20
Index of agricultural commodity prices in the global markets (2004Q1=100).

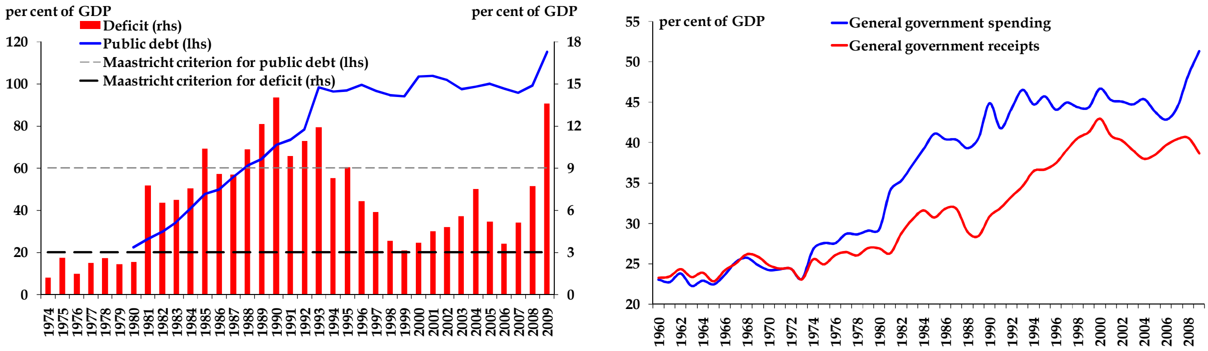


Source: IMF data, NBP calculations.

Annex 1. Public finance crisis in Greece

The problems of Greek public finances date back to the early 1980s. Greece entered the European Economic Community in 1981 amidst the global economic slowdown ensuing from the oil shock of 1979. Under intensifying social pressure, largely resulting from unfavourable economic conditions, combined with high expectations of faster convergence towards other EEC countries in terms of the standard of living and welfare following the change of the political regime[3], the government decided to pursue an expansionary fiscal policy[4], which was continued throughout the 1980s and in the early 1990s. In this period the deficit of the public finance sector ran at a very high level - approx. 10% of GDP on average. In consequence, public debt increased from approx. 20% of GDP in 1980 to almost 100% of GDP in the early 1990s. The expansionary budget policy led to crowding out of private investment, which was in turn conducive to distortions in the allocation of resources in the economy[5].

Figure A.1
Deficit and debt (left-hand panel) as well as revenues and expenditures of the public finance sector in Greece (right-hand panel).



Source: AMECO, Eurostat and OECD data.

Moreover, the central bank was not fully independent and so the monetary policy had been largely subordinated to the objectives of the government's fiscal policy[6]. In consequence, in 1980-1990 the central bank provided on several occasions financing of a portion of the budget deficit[7] and inflation persisted at a double-digit level. Unfavourable tendencies in the economic policy were accompanied by increasing structural weaknesses of the Greek economy.

In the second half of the 1990s, faced with the perspective of participating in the monetary integration of Europe, Greek macroeconomic policy had to adjust to external restrictions in the form of the convergence criteria set out in the Treaty of Maastricht. The pursuit of accession to the Economic and Monetary Union offered an incentive for a partial reversal of negative trends in Greek economic policy (Figure A.1, left-hand panel): since 1996 the deficit of the public finance sector was steadily lowered, public debt also stabilised and inflation was effectively reduced. In 2001 Greece joined the euro area. It is worth mentioning that the fiscal consolidation in Greece was primarily based on the revenue side (Figure A.1, right-hand panel). As demonstrated by empirical studies such adjustments are usually less permanent[8].

In the context of Greece's participation in the euro area a number of doubts arose with regard to the reliability of its fiscal data. Greece repeatedly revised data presented in fiscal notifications under the framework of

[3] In 1974 the military dictatorship collapsed. Democratic elections were won by the conservative party (New Democracy). As a result of a general referendum, monarchy was abolished and the Third Republic established.
[4] In October 1981 parliamentary elections were held. The level of public spending rose in this year to 34.1% of GDP (from 29.2% of GDP a year earlier). With a concurrent drop in tax revenue in relation to GDP, the deficit of the public finance sector deepened as compared to the preceding year by 5.5 percentage points to 7.8% of GDP. Despite the fiscal expansion the election was won by the socialist party (PASOK). The socialist government continued the expansionary budget policy for the next decade.
[5] Those distortions were also driven by regulatory policy, e.g. until the mid-1980s banks were obliged by law to assign 56% of the value of total lending to the public sector. Moreover, till 1990 the share of state banks in the credit market amounted to 90% (cf. Oltheten et al., 2003).
[6] Cf. Panagiotidis, Triampella (2005), Alogoskoufis (1995).
[7] A change in regulations introduced in 1994 banned the financing of the budget deficit by the central bank.
[8] Cf., among others, von Hagen et al. (2001); Guichard et al. (2007); Larch and Turrini (2008).

excessive deficit procedure and the scale of those revisions was considerably larger than in the case of other countries. Moreover, Eurostat frequently voiced reservations as to the quality of Greek statistics and refused to accept them on several occasions[9]. A significant revision of Greek fiscal data made by Eurostat in 2004 revealed that the fiscal position of Greece prior to its adoption of the single currency had been considerably poorer than presented in official governmental statistics (Table A.1). In 1997-2003 the actual deficit of the public finance sector was, on average, 2% of GDP higher than earlier notified by the Greek government. Ex post it turned out that the deficit calculated according to the ESA95 methodology had not actually fallen below 3% of GDP[10].

Table A.1
Public finance sector deficit in Greece (ESA95, % of GDP) - data revision of 2004.

	1997	1998	1999	2000	2001	2002	2003
Unrevised data	4.0	2.5	1.8	2.0	1.4	1.4	1.7
Revised data	6.6	4.3	3.4	4.1	3.7	3.7	4.6
Difference	2.6	1.8	1.7	2.1	2.3	2.3	2.9

Source: Eurostat (2004) data.

Once Greece had joined the euro area, external incentives for reform subsided. The membership in the monetary union brought many benefits, especially in the form of a stable currency, low inflation and low interest rates. At the same time, structural weaknesses were increasing. The labour and product markets displayed a high degree of rigidity. The fast growing unit labour costs, on the one hand, contributed to a worsening of the economy's competitiveness and, on the other, favoured the expansion of the shadow economy. At the same time, the current account deficit was widening[11]. However, due to the credibility following from euro area membership, for a long time financial markets did not react negatively to the country's economic policy, including its excessive fiscal expansion and the accumulation of public debt[12]. Risk premia and the cost of debt servicing remained at a low level. At the same time, and despite the fact that Greece was almost incessantly under the excessive deficit procedure, the country’s compliance with the principles set out in the Stability and Growth Pact was not effectively enforced and did not lead to a change of Greek fiscal policy.

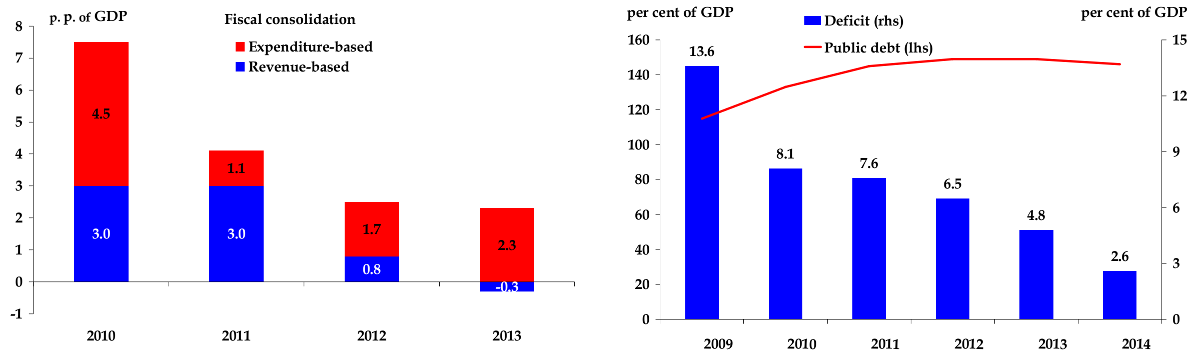
In October 2009 the newly elected Greek government announced a revised estimate of the public finance sector deficit (at 12.7% of GDP), which was almost twice as high as the earlier forecast. In consequence, yields on Greek bonds and CDS rates, which reflect the cost of insurance against default, began to rise gradually. According to the fiscal notification of April 2010, the public finance sector deficit in Greece in 2009 is estimated at 13.6% of GDP. Moreover, Eurostat made the reservation that the quality of data presented by the Greek government still failed to be fully reliable and stated that the final data for 2009 might prove even worse (even by 0.5 percentage points of GDP) as a result of Eurostat's verification of social expenditure for 2009 and financial operations aimed at concealing a part of the debt. This information was followed by a sharp market reaction and a strong increase in yields and in CDS rates. Rating agencies once again downgraded their ratings of Greek securities which in effect reached the level of BB+ (Standard and Poor's), i.e. below investment grade. In the face of difficult market conditions, which resulted in a growing cost of obtaining funds from the market, and of high gross credit needs in May 2010 (approx. EUR 9.5 billion), the Greek government requested the initiation of a rescue package for Greece in the amount of, initially, approx. EUR 45 billion. Negotiations within the euro area as to the details of financial support for Greece protracted, which intensified market nervousness. At the end of April 2010 yields on 10-year Greek bonds exceeded 10%, and CDS rates approached 900 basis points. On 2 May 2010 the European Union and the International Monetary Fund announced a 3-year rescue package, granting Greece conditional access to EUR 110 billion[13]. The amount covers Greek credit needs until mid-2011.

Under the rescue package of the EU and the IMF, the Greek government committed itself to implementing a fiscal consolidation programme in the total amount of 11% of GDP within 4 years (in addition to the ad-

[9] Among others, in March and October 2002 and in March 2004.
[10] The differences in the level of deficit before and after the revision mainly resulted from understating the amount of military expenditures, erroneous accounting of EU funds, overestimating the balance of social security funds and overestimating tax revenues (mainly from VAT).
[11] In 2002-2009 the current account deficit exceeded, on average, 10% of GDP (European Commission Spring Forecast, 2010).
[12] If the markets' disciplining reaction comes with a lag, it is violent.
[13] Greece will receive EUR 80 billion from euro-area countries in the form of bilateral loans, while the remaining EUR 30 billion will be provided by the International Monetary Fund.

justment package of approx. 5% of GDP already adopted by the government in the first months of 2010)[14] and to cutting the public finance sector deficit to below 3% of GDP till 2014 (Figure A.2). On the revenue side, the adjustment measures will involve increases of VAT and excise tax rates as well as the extension of the tax base for VAT, PIT and CIT. The adjustments on the expenditure side assume, among others, the abolition of special allowances and bonuses (such as the 13th and 14th salary or pension)[15], the freezing of old age pension payments, reductions of highest pensions, downsizing employment in the public sector (ban on opening new positions) as well as cuts in investment outlays and in subsidies for public companies. Moreover, steps were taken to streamline tax administration in order to increase tax collection and to improve the budget procedure and the control over spending. The adjustment programme also contains guidelines for structural reforms aimed at improving the competitiveness of the Greek economy and its reorientation towards a growth model that would to a greater extent be based on investment and exports rather than in the past.

Figure A.2
Planned fiscal adjustment in Greece (left-hand panel) and public finance sector deficit and debt in Greece in 2009-2014 (right-hand panel).

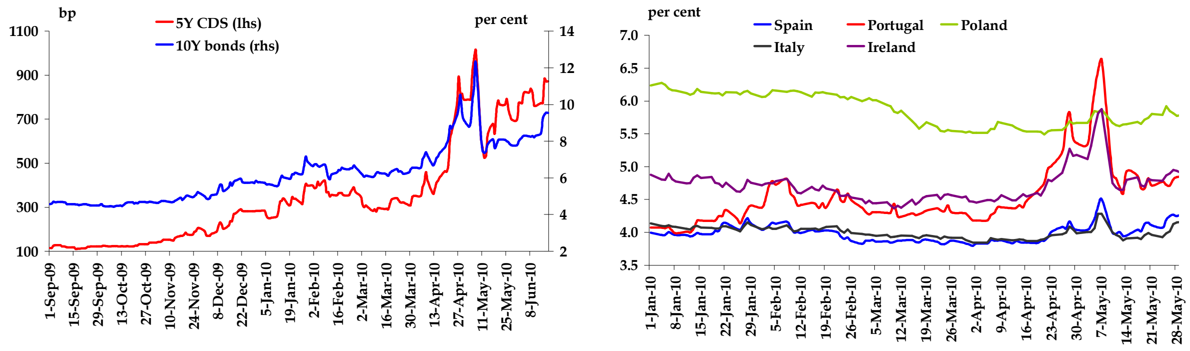


Source: IMF (2010), Greek government (2010a), Greek government (2010b).

However, the financial package of the EU and the IMF along with the adjustment measures announced by the Greek government did not appease the financial markets. On 6 May 2010 yields on Greek securities[16] and CDS rates for this country's public debt rose to new records. The yields on bonds issued by other peripheral EU countries also reported significant increases (Figure A.3, right-hand panel), which signalled a heightened risk of the crisis spreading to the remaining countries with a difficult situation of the public finance sector. Under such a threat, the ECOFIN Council and the International Monetary Fund jointly proposed a plan of an unprecedented financial support mechanism. On 10 May 2010 those institutions announced the creation of a European stabilisation mechanism for euro-area countries worth EUR 750 billion, of which EUR 500 billion would be provided by euro-area countries and the remaining part by the IMF[17]. This amount satisfies the credit needs of Spain, Portugal, Ireland and Greece within the next 3 years. The support under the European stabilisation mechanism is to be provided under rigorous conditions on the future economic policy of the given country set by the EU institutions and the IMF. Additionally, the European Central Bank purchased in the secondary market the Treasury bonds of countries threatened with a debt crisis, at the same time announcing sterilisation of such operations. The scale and scope of the presented measures clearly limited investor uncertainty, which found reflection in a sudden slump in yields on bonds and CDS rates (for Greece the CDS and the yields on 10-year bonds plunged on a single day by approx. 400 basis points; Figure A.3, left-hand panel).

[14] In total, the adjustment measures in 2010-2013 will reach the level of approx. 16% of GDP.
[15] The adjustment programme is constructed in such a way as to protect the poorest: old age pensioners with the lowest benefits, as well as public sector employees with the lowest earnings, will receive one-off benefits (of EUR 1000) which is to partially compensate for their loss of income due to the abolition of special allowances (among others the 13th and 14th salary or pension).
[16] The yields on 10-year Greek Treasury bonds exceeded 12% and the yields on 2-year bonds approached 20%, thus exceeding the yields on corresponding financial assets of countries such as Argentina or Venezuela.
[17] The European stabilisation mechanism consists of two components: an EU instrument of financial stabilisation (EUR 60 billion), secured with the EU's budget, and loans guaranteed by euro-area countries (EUR 440 billion), extended from funds obtained in the financial markets through a special purpose vehicle by issuing own debt securities.

Figure A.3
Yields on bonds and CDS rates in Greece (left-hand panel) and yields on 10-year bonds of selected euro-area countries (right-hand panel).



Source: EcoWin data.

The public debt crisis in Greece and the related revelation of significant differences in the fiscal situation of euro-area countries intensified the divergence of long-term interest rates within the euro area. Until recently the differences had not been sufficiently accounted for by the financial markets, which lowered the debt servicing costs of countries with a considerable fiscal imbalance and therefore also their motivation to pursue a prudent fiscal policy. The previous fiscal framework of the European Union, primarily the Stability and Growth Pact, proved insufficient in disciplining domestic fiscal policies of the member states. The inefficiency of enforcing obligations set out in the Stability and Convergence Programmes resulted in infringing on the principles of the Pact. Moreover, it turned out that except supervision of fiscal policy of EU countries additional stabilisation mechanisms are needed, particularly within the euro area. The crisis put countries such as Spain and Ireland, which had generated public finance surpluses before 2007[18], in a very difficult fiscal situation. In response to those challenges, in March 2010 the European Council established a special task force for the reform of EU economic governance, chaired by the President of the European Council Herman Van Rompuy. The task force consists of the representatives of member states (mainly ministers of finance), the European Commission and the ECB. The task force will focus on four areas: i) achieving greater fiscal discipline in the EU by reinforcing the preventive and corrective arm of the Stability and Growth Pact, ii) reducing imbalances between countries within the euro area, iii) intensify cooperation and coordination within the institutions of the the European Union, iv) creating a mechanism to deal with future crises. The final report with recommendations of the special task force is to be prepared before the European Council's meeting scheduled for October 2010.

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[18] Spain in 2005-2007, Ireland in 2003-2007.

Chapter 2.

Domestic economy

2.1. Inflationary processes

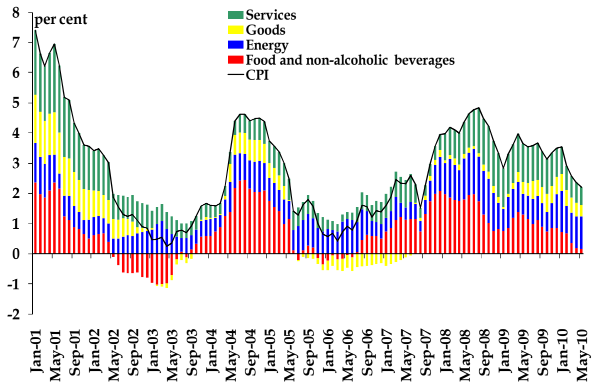
2.1.1. Consumer prices

The annual growth of prices of consumer goods and services in Poland in January - May 2010 was falling steadily from 3.5%, i.e. the upper limit for deviations from the NBP's inflation target, to 2.2%, i.e. below the target of 2.5%. Falls in the annual price growth in January - May 2010 were recorded in all main groups of consumer goods and services (Figure 2.1).

In the analysed period the slide of inflation was supported by the appreciation of the exchange rate of the zloty observed since the beginning of April, low demand pressure and a slowing growth of unit labour costs in the economy. It was also connected with negative base effects resulting from a considerable increase, in the corresponding period of 2009, in food and non-alcoholic beverage prices[19] and prices related to dwelling maintenance services (mainly refuse disposal prices), as well as excise tax hikes on alcoholic beverages in 2009 and higher increases in the prices of energy (electricity and heating) than those introduced this year.

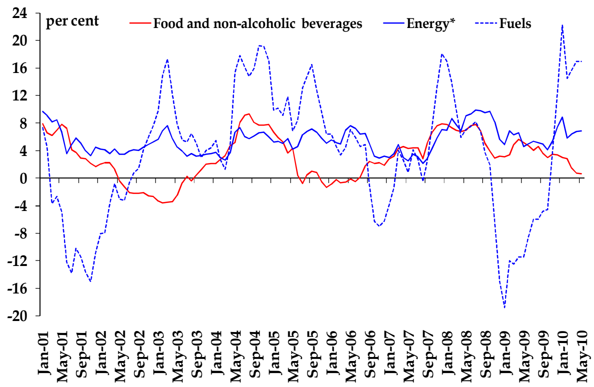
In turn, the inflation decline in the analysed period was reduced by a rise in the prices of tobacco products (the effect of increases in excise rates in both 2009 and 2010) and a significant rise in fuel prices (connected with the growth of oil prices in the world markets).

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



Source: GUS data, NBP calculations.

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



Source: GUS data, NBP calculations.

* The category of *energy* includes energy products (electricity, gas, heating, fuel) and engine fuels (for private means of transport).

[19] The decrease in the growth of food prices in January - May also resulted from the favourable supply situation in the domestic market of agricultural commodities.

2.1.2. Core inflation

In January - May 2010, all core inflation measures decreased (Figure 2.4). The index of core inflation net of food and energy prices fell from 2.4% y/y in January to 1.6% y/y in May 2010. This was mainly driven by the negative base effects of the prices of alcoholic beverages and services connected with dwelling maintenance, as well as the reduced demand pressure (as indicated, among others, by the decline in the price growth in the group of *restaurants and hotel services*) and the earlier appreciation of the zloty (and, consequently, lower growth in prices of imported goods - mainly cars and audio-visual, photographic and information processing equipment).

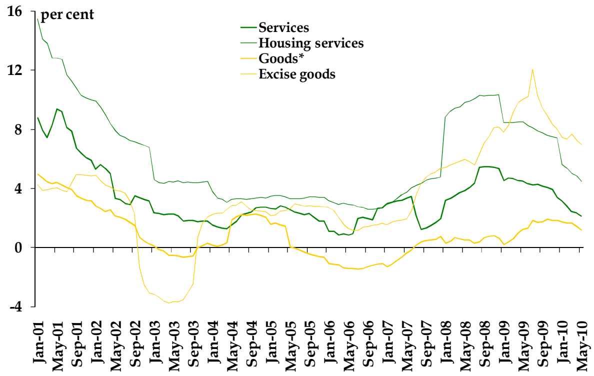
2.1.3. The Maastricht price stability criterion

In January - May 2010 the 12-month average HICP inflation in Poland, considered while assessing the compliance with the Maastricht price stability criterion, decreased from 4.0% to 3.6%. In the same period, according to NBP estimates, the reference value for the inflation criterion ranged between 0.8% and 1.0%[20] (Figure 2.5). As a result, the gap between the 12-month average HICP inflation in Poland and the reference value narrowed in January - May 2010 from approx. 3.0 percentage points to approx. 2.8 percentage points (cf. Annex 2).

2.1.4. Producer prices

Producer prices in industry (PPI) fell in 2010 Q1 by 1.5% y/y (after an increase of 2.0% y/y in 2009 Q4), which was mainly due to the appreciation of the zloty during this period[21]. This was the effect of a deeper decline (in annual terms) in prices in *manufacturing* and of slower

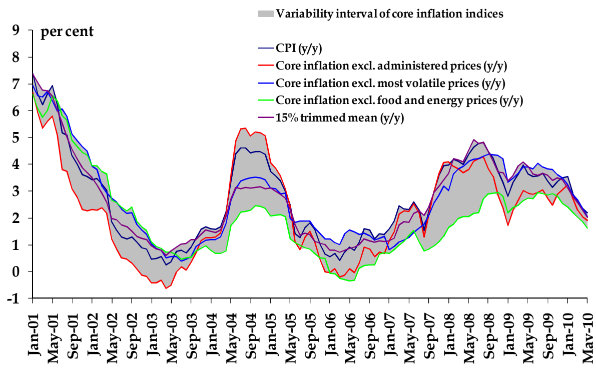
Figure 2.3
Changes in the prices of services and goods (y/y).



Source: GUS data, NBP calculations.

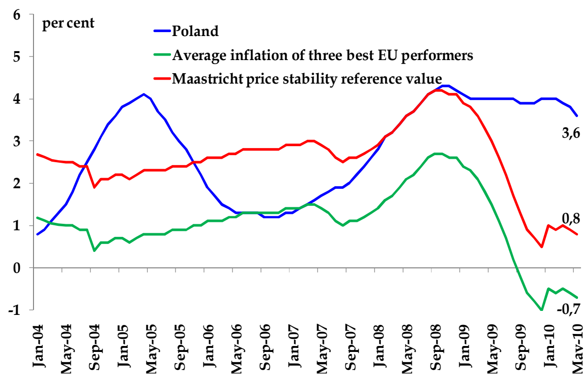
* The category of *goods* does not include food, non-alcoholic beverages or energy.

Figure 2.4
Core inflation measures (y/y).



Source: GUS data, NBP calculations.

Figure 2.5
HICP inflation in Poland (12-month moving average) and the Maastricht criterion.



Source: Eurostat data, NBP calculations.

[20] These estimates are based on the assumption that in May 2010 the reference group for the criterion of price stability included the following countries: Latvia, Portugal and Estonia, where the 12-month average HICP inflation was -1.2%, -0, 5% and -0.4%, respectively. Formal examination of a particular country's compliance with the price stability criterion is performed by the European Commission and the European Central Bank and then published in *Convergence Reports*. In the *Reports* of May 2010 these institutions recognized for the first time the countries with a negative 12-month average HICP inflation as the best performers in terms of price stability, which led to significant changes in the pervious NBP estimates of the reference value.

[21] Their decline in annual terms could have been additionally driven by the base effect connected with a significant price increase in the section *Electricity, gas, steam and air conditioning* supply in 2009 Q1 due to liberalisation of energy prices for enterprises.

price growth in the remaining sections of industry (Figure 2.6). In April 2010 the scale of PPI decline decreased to 0.4% y/y, and in May a PPI increase was recorded of 1.5% y/y. This was primarily the effect of deceleration of the year-on-year price decline in manufacturing (and of its slight growth in May) coupled with faster price growth in the remaining sections of industry[22]. Changes in PPI (in annual terms) in that period mainly reflected changes in the zloty exchange rate and a rise in commodity prices (such as oil and coal) in global markets.

The growth of producer prices in the domestic market rose by 0.6% y/y in 2010 Q1, as compared to 2.1% y/y in 2009 Q4. At the same time, producer prices for exported goods decreased, which was associated with the appreciation of the zloty during this period (Figure 2.6). Both the April data and the May estimates, however, point to a renewed acceleration of the growth of producer prices in the domestic market - to 1.7% y/y and 3.0% y/y respectively.

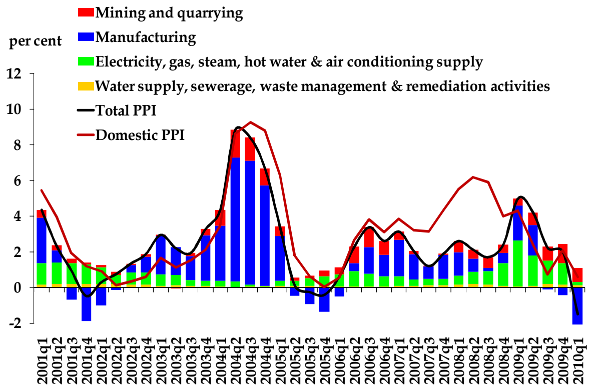
2.1.5. Import prices

In 2009 Q4 the annual growth of zloty-denominated import prices fell to 2.5% (down from 8.2% in the previous quarter), and in 2010 Q1 import prices dropped by 4.7% y/y. These changes were connected with the appreciation of the zloty observed until the end of 2010 Q1. On the other hand, the decline in import prices in the analysed period was mitigated by growth in commodity prices in the global markets, especially oil prices (Figure 2.7).

2.1.6. Inflation expectations

Inflation forecasts of bank analysts in the horizon of one year have remained relatively stable since early 2009, hovering close to the NBP's inflation target. According to bank analysts' June forecasts, both annual inflation in December and the average annual inflation in 2010 will amount to 2.4%.

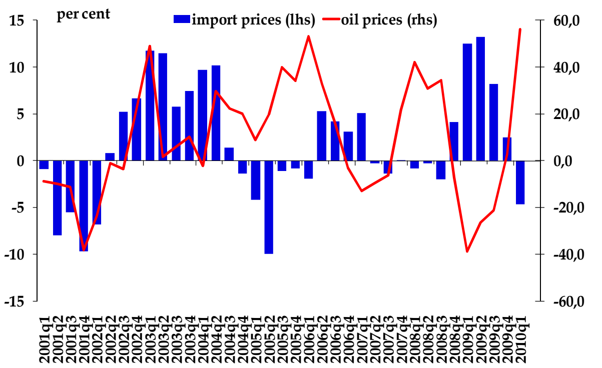
Figure 2.6
Domestic PPI, total PPI and the composition of annual growth of total PPI by sections of industry.



Source: GUS data.

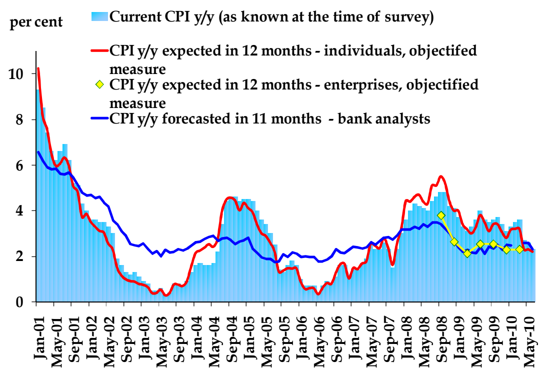
* Total PPI includes producer prices in the domestic market and export producer prices.

Figure 2.7
Changes in import prices and in oil prices in PLN terms.



Source: GUS data.

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



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

[22] In the section *Electricity, gas, steam and air conditioning* price growth acceleration was only recorded in April this year - to 7.2% y/y (as compared to 6.3% y/y in March 2010); in May the prices increased by 7.0% y/y.

Inflation expectations of enterprises in the 12-month horizon (an objectified measure) have also been relatively stable since the beginning of 2009 and range between 2.1% and 2.5%, i.e. close to the inflation target. In 2010 Q1 the inflation expected by enterprises has not changed as compared to 2009 Q4 and remained at 2.3%.

In turn, the objectified measure of inflation expectations of individuals remains close to inflation observed at the moment of the survey, which results from the adaptive character of those expectations (Figure 2.8). Until June 2010, in surveys of individuals, the structure of responses to the question on future price developments has not changed significantly[23].

2.2. Demand and output

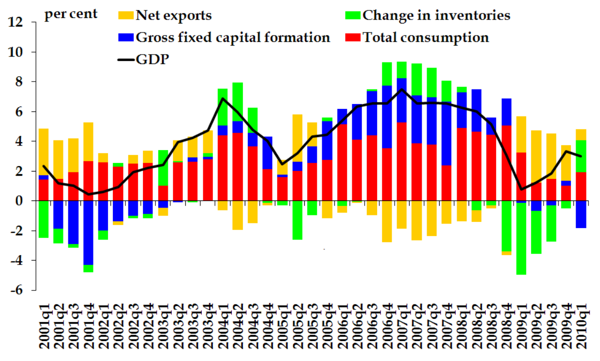
In 2010 Q1 GDP in real terms increased by 3.0% y/y according to the GUS preliminary estimate, as compared to 3.3% y/y in 2009 Q4 (Figure 2.9). Domestic demand in 2010 Q1 grew by 2.2% y/y as compared to a rise of 0.9% y/y in 2009 Q4.

The growth of individual consumption picked up in 2010 Q1 in comparison with the previous quarter. Yet, it remained below a multi-year average. Public consumption growth also accelerated in 2010 Q1.

By contrast, the growth of gross fixed capital formation declined sharply. It was positive in 2009 Q4 but in 2010 Q1 it slid significantly below zero. The investment drop in 2010 Q1 partly resulted from adverse weather conditions in the first months of the year. At the same time, in 2010 Q1 enterprises began a rebuilding of their inventories, which was reflected in a positive (for the first time since 2008 Q1) and significant (larger than that of other GDP components) contribution of this category to GDP growth.

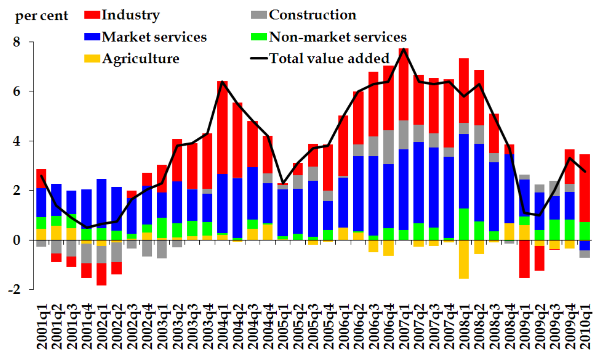
Together with a gradual improvement of economic activity abroad, in 2009 Q4 and 2010 Q1 the annual growth of exports increased signifi-

Figure 2.9
Contribution of aggregate demand components to GDP growth.



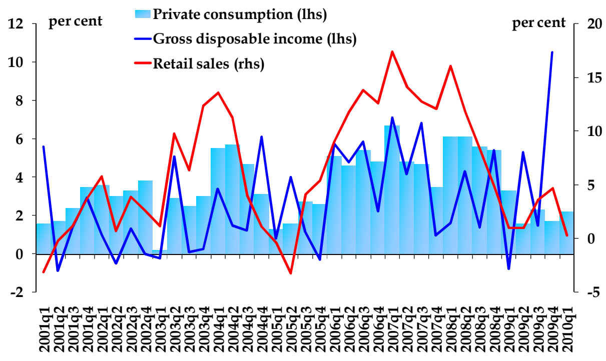
Source: GUS data.

Figure 2.10
Sector contribution to annual growth of gross value added.



Source: GUS data, NBP calculations.

Figure 2.11
Growth of private consumption, gross disposable income and retail sales (y/y, constant prices).



Source: GUS data.

[23] In June 2010 this structure deteriorated, which most probably was connected with the flood that passed through Poland in the second half of May and in early June. A similar deterioration in respondents' opinion as to future inflation occurred after the flood in July 1997, yet it improved strongly as soon as in the following month and in October the structure of responses resembled that recorded before the flood.

cantly, reaching positive values for the first time since 2008 Q3. At the same time, import demand rebounded, supported by recovery in exports and increased domestic demand, and in 2010 Q1 also by the zloty's appreciation. As a result of this rebound, the positive contribution of net exports to GDP growth was gradually shrinking.

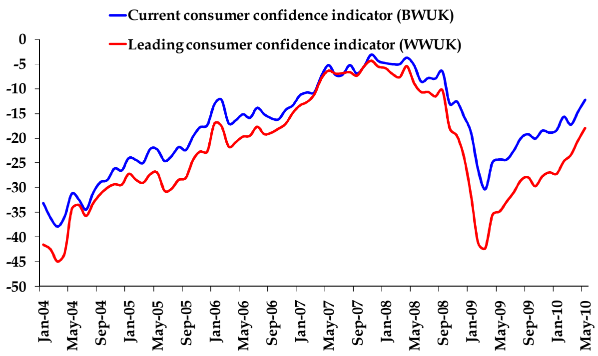
In 2010 Q1 industry had the largest contribution to gross value added. A positive contribution to gross value added growth was also recorded by the sector of non-market services. In turn, the contributions of market services and construction sectors fell below zero in 2010 Q1, which could have been largely connected with weather conditions (Figure 2.10).

2.2.1. Consumption demand

Available data indicate that the growth of consumer demand both in 2009 Q4 and in 2010 Q1 remained relatively low, i.e. below a multi-year average. According to the GUS preliminary estimate, in 2010 Q1 individual consumption increased by 2.2% y/y (as compared to a rise of 1.7% y/y in 2009 Q4; Figure 2.11). The growth of individual consumption in 2010 Q1 accelerated in relation to 2009 Q4 despite a weaker increase in income from paid employment and further decrease of consumer credit growth. Negative impact on individual consumption growth was also exerted by unfavorable weather conditions, which contributed to strong decline in retail sales growth. This decline suggests that the acceleration in consumption growth resulted from a marked acceleration in spending on services.

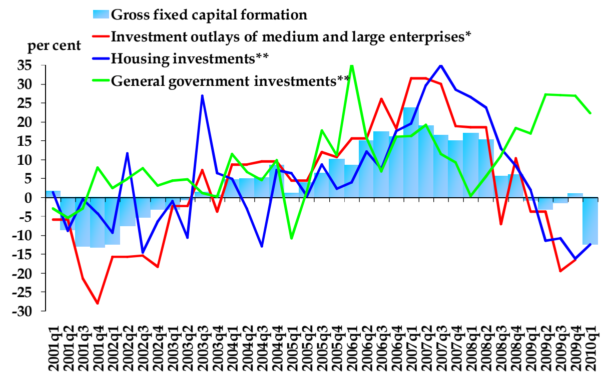
According to GUS data, the growth of households' disposable income picked up strongly in 2009 Q4 (Figure 2.11). This acceleration in income growth occurred despite a moderate estimated growth of income form paid employment (which resulted from a low increase of the real average wage - by 1.4% y/y - and of the number of employed in the domestic economy - by 0.3% y/y) and of social benefits in this period[24]. The strongest impact on income devel-

Figure 2.12
Consumer confidence indicators.



Source: GUS, NBP data.

Figure 2.13
Investment in the economy (y/y).

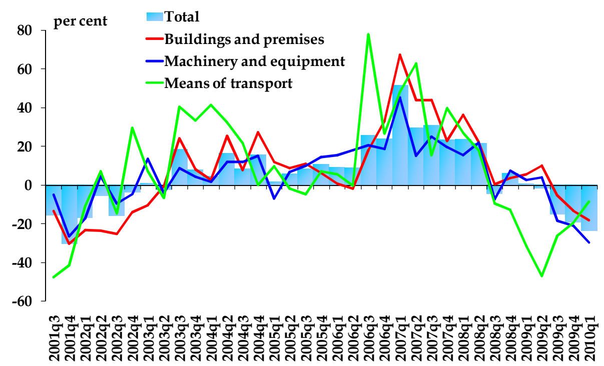


Source: GUS data, Ministry of Finance data, NBP estimates.

* Due to the lack of data on investment outlays of enterprises in Q1 and Q2 of each year, the chart presents the growth for the first half of a year.

** NBP estimates for the NECMOD model; seasonally adjusted data.

Figure 2.14
Gross fixed capital formation in the enterprise sector (in nominal terms, y/y).



Source: GUS data, NBP calculations.

[24] Additionally, the acceleration in the annual growth of income was still supported by the fact that taxes and social security contributions were lower than in the preceding year, which was connected with a reduction in the income tax rates starting from 2009.

opments was probably exerted by the increase in the growth of gross operating surplus of private enterprises and of income from property. The marked increase in disposable income was accompanied by a significantly lower than in the preceding quarter rise in consumer credit (cf. Section 2.5.1) and a surge in the savings rate.

In 2010 Q1 the growth of wages in the economy in real terms decreased to 1.1% y/y, which - amid a 0.4% y/y decline in the number of employed - was conducive to lowering the growth of income from paid employment. On the basis of available data it can be estimated that the growth of total social benefits was also lower than that recorded in 2009 Q4. The above mentioned factors should be contributing to a decline in the growth of households' disposable income in 2010 Q1. At the same time, the rise of consumer credit to households was further curbed.

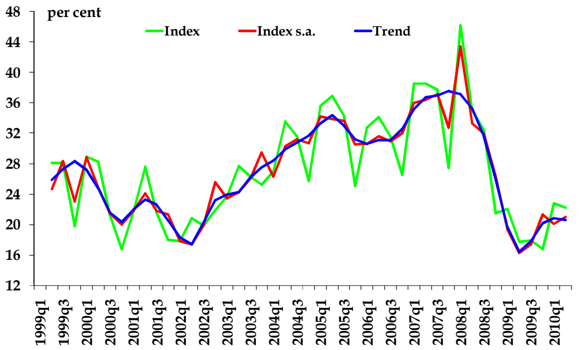
Retail sales in real terms, having risen by 4.7% y/y in 2009 Q4, edged up only by 0.3% y/y in 2010 Q1 and fell by 4.0% y/y in April. The weakening of retail sales growth, which occurred despite further improvement in consumer confidence indicators[25] (Figure 2.12), was probably largely associated with unfavourable weather conditions in the first months of the year and with the period of national mourning in April 2010. This could be suggested by the rebound in retail sales in May (which rose by 2.0% y/y).

2.2.2. Investment demand

In 2010 Q1 a deep decline in investments was observed in the Polish economy, which was driven by adverse weather conditions in the first months of the year. According to GUS data, investments shrank by 12.4% y/y (as compared to a rise of 1.1% y/y in 2009 Q4; Figure 2.13).

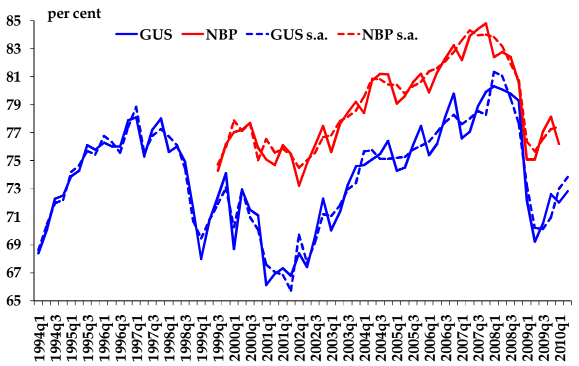
Estimates for 2010 Q1 point to a continuation of the decline in housing investments and an increase in public investments (Figure 2.13).

Figure 2.15
Index of new investments (percentage of enterprises planning to start new investments within the coming quarter).



Source: NBP business tendency survey.

Figure 2.16
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.

Table 2.1
Selected efficiency indices in the enterprise sector.

per cent	2005	2006	2007	2008	2009	2009 q1	2009 q2	2009 q3	2009 q4	2010 q1
Return on sales ratio	5.3	5.5	5.6	5.0	5.0	5.1	5.2	5.0	4.9	4.8
Net profitability ratio	3.9	4.7	5.0	3.3	4.1	2.2	5.8	4.7	3.6	4.0
Cost level index	95.1	94.3	93.9	95.8	95.0	97.1	93.3	94.3	95.5	95.0
	end of period									
Liquidity ratio of the first degree	30.3	34.9	33.7	33.6	38.5	31.9	33.4	34.9	38.5	38.7

Source: GUS data.

[25] The improvement in the current consumer confidence indicator resulted, among others, from a better assessment of the present time as being favourable for larger purchases. In turn, the improved expectations for the next 12 months were primarily connected with a better assessment of saving opportunities in the coming year and a clear drop in fears of unemployment.

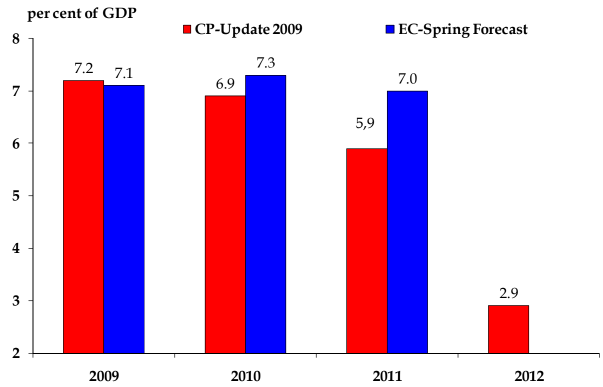
In 2010 Q1 investment outlays of enterprises (in nominal terms) continued to fall in all major categories (Figure 2.14). A deeper drop than in the previous two quarters was recorded in outlays on machinery and equipment (by 29.7% y/y) and buildings and premises (by 18.3% y/y). Outlays on means of transport declined the least (by 8.5% y/y), which was partly connected with a low base of 2009.

The results of NBP business conditions surveys[26] indicate that, despite further improvement in the economic situation, enterprises' interest in undertaking new investment was still small in 2010 Q1. The new investment index remains low (Figure 2.15), especially in the private sector. A strong majority of commenced investments, however, will be carried on, as indicated by a very high level of the investment continuation index.

The investment outlays of enterprises are being curbed by a still low, though slightly higher than in the previous quarter, level of production capacity utilisation (Figure 2.16) and uncertainty as to the outlook for economic growth in the world and in Poland. In turn, good financial standing of companies, including their good liquidity situation, and easing of banks' credit policies support the rise in their investments.

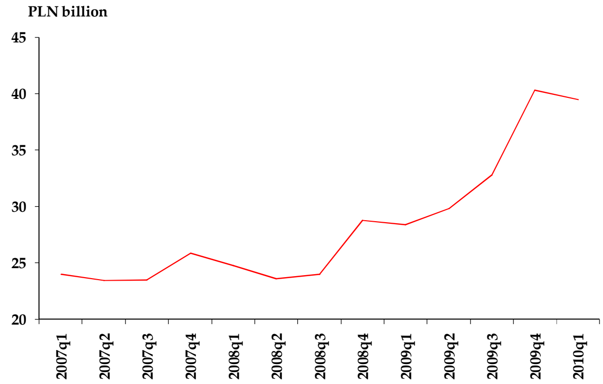
In 2010 Q1 increased prices of commodities and materials lowered enterprises' return on sales ratios, though, at the same time, the remaining efficiency indices in the enterprise sector improved - among others, the cost level index declined and net profitability increased (Table 2.1). The improved net financial result supported rise of liquidity ratios of enterprises, which reached the highest level in the GUS survey history. Good liquidity standing of companies may have a positive impact on their investment activity, because a significant part of enterprises declares that they finance investment with own funds. It may, however, also decrease resistance of enterprises to possible wage pressure.

Figure 2.17
General government deficit according to ESA95.



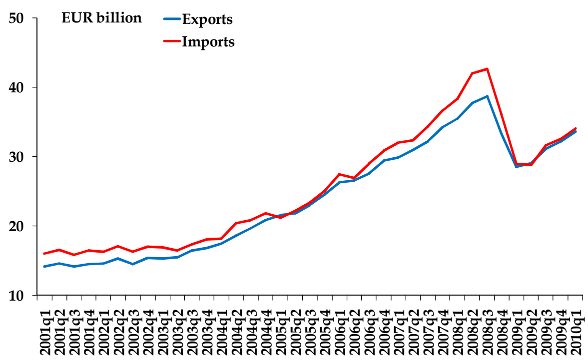
Source: Ministry of Finance and European Commission data.

Figure 2.18
Revenues and expenditures of local government entities.



Source: Ministry of Finance data

Figure 2.19
Value of Polish exports and imports (EUR billion).



Source: Eurostat data (seasonally adjusted).

[26] *Information on the Condition of the Enterprise Sector, Including the Economic Climate in 2010 Q1 and Forecasts for 2010 Q2*, NBP, April 2010.

2.2.3. Government demand

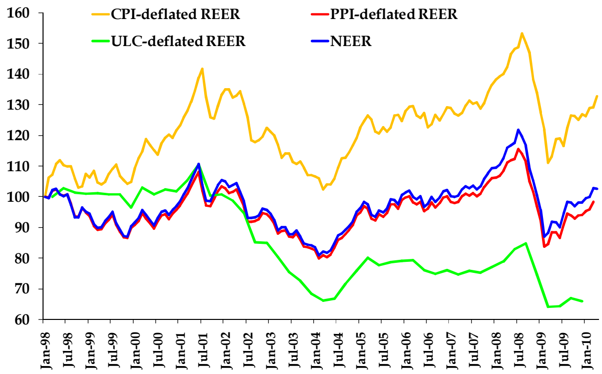
In line with the government's Convergence Programme. Update 2009, the deficit of the public finance sector in ESA95 terms will edge down in 2010 in relation to its 2009 level[27] to 6.9% of GDP[28] (Figure 2.17)[29].

In January-May 2010 the central budget deficit reached approx. PLN 32.1 billion, which accounts for 61.6% of the annual plan[30]. The deficit proved PLN 4.3 billion lower than accounted for in the Schedule of central budget revenues and expenditures for 2010, due to lower expenditures.

The total central budget revenue in January-May 2010 was 12.9% lower than in the corresponding period of the previous year. The tax and non-tax revenues fell by 0.9% y/y[31]. On the other hand, central budget expenditures rose in this period by 1.1% y/y, with a significant increase in the subsidy paid to the Social Security Fund and for the servicing of domestic public debt.

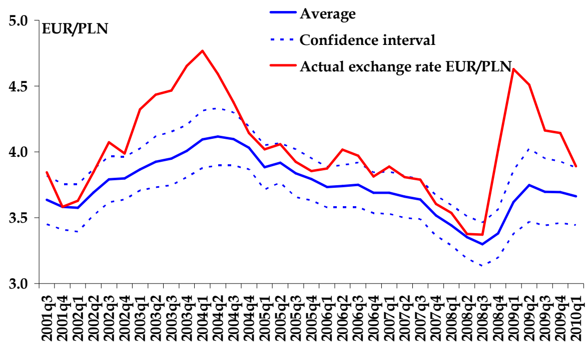
It should be emphasised that, due to the exclusion of EU funds from the central budget since 2010, the comparison of the amount of both aggregate total revenues and expenditures with the previous year's levels is difficult. Low growth rates of those aggregates are in part the consequence of excluding from the central budget the revenues from the implementation of programmes co-financed with EU funds and the expenses incurred for the implementation of such programmes in the portion that is subject

Figure 2.20
Zloty real and nominal effective exchange rate (increase denotes appreciation; January 1998=100)



Source: NBP and European Commission data.

Figure 2.21
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 *Information on the Condition of the Enterprise Sector. Including the Economic Climate.*

Survey question: "What is the threshold level of the foreign exchange rate at which exports will become (is) unprofitable (in zloty)?"

[27] In the *Convergence Programme. Update 2009* the government expected the deficit in 2009 at the level of 7.2% of GDP, while in the April GUS notification the deficit for 2009 was estimated at 7.1% of GDP.
[28] In turn, the Spring Forecast of the European Commission predicts a small increase in the deficit in 2010 to 7.3% of GDP, which results from a more cautious forecast of tax revenues of the public finance sector in 2010 due to a less dynamic economic recovery expected by the Commission. In line with the Commission's estimates, the total income of this sector in relation to GDP will rise in 2010 by 1.3 percentage points to the level of 38.7% of GDP, while the Ministry of Finance expects a significantly higher growth - by 2.2 percentage points to the level of 39.6% of GDP.
[29] In line with the forecasts of the Ministry of Finance and the European Commission, public debt calculated using the ESA95 methodology will exceed 53% of GDP at the end of 2010 and then will rise again in 2011.
[30] In 2009 68.6% of the annual deficit plan was achieved at the end of May.
[31] The revenues from VAT increased in the analysed period (by 8.8% y/y) , which should largely be associated with the base effect resulting from the systemic change introduced at the end of 2008 that cut the basic VAT return period from 180 to just 60 days. As a result, starting from March 2009 VAT returns were made both within 60 and 180 days, which led to lower VAT revenues at the beginning of 2009 and increased the annual growth rate of revenues from VAT payments in 2010. Excise duty revenues increases in the period January-May by 0.7% y/y, mainly as a result of a quicker than in the previous years - and resulting from shorter than in 2009 expiry date of excise stamps - appearance of cigarettes taxed with a higher excise rate. Revenues from direct taxes fell after May: PIT - by 7.4% y/y, CIT - by 25.8% y/y). The diminished revenues from The lower revenues from direct taxes are primarily the effect of higher returns of this tax under the annual settlement for 2009. In turn, the decline in PIT revenues was connected with unfavourable tendencies in the labour market.

to reimbursement.

In 2010 Q1 local government units recorded a surplus in the amount of PLN 6.6 billion, i.e. 2.0 billion lower than in 2009 Q1. The total income of local governments rose in the first three months of 2010 by 3.7% y/y, while own revenue grew by 4.1% y/y[32]. At the same time, the high growth rate of expenditure continued (at 11.4% y/y). As a result of a significant deterioration in the financial situation of local government units in 2009, the local government sector debt deepened - at the end of 2010 Q1 it amounted to PLN 39.5 billion, i.e. 39.1% more than one year before (Figure 2.18).

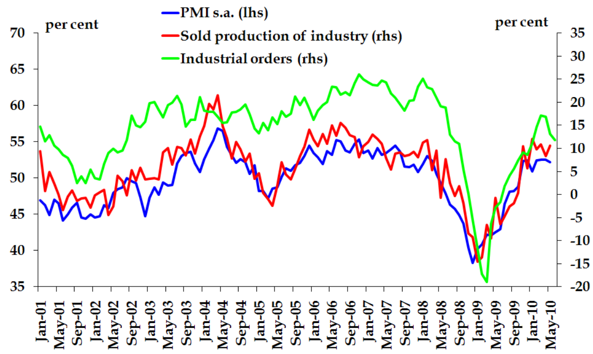
As a result of significantly higher subsidies transferred to the Social Security Fund from the central budget in January - April 2010 in comparison to the corresponding period of 2009, the Social Insurance Institution (ZUS) paid back some of its bank loan debt[33]. In turn, the Labour Fund and the National Health Fund recorded surpluses in the first four months of 2010, though in a much lower amount than in the corresponding period of 2009.

2.2.4. Exports and imports[34]

The improvement in global economic activity was accompanied by the concurrent reinforcement of positive trends in Polish foreign trade (Figure 2.19). Following a drop at the turn of 2008 and 2009, the value of exports was gradually increasing from 2009 Q2. In 2009 Q4 the value of exports of goods and services from Poland (in EUR) rose by 3.4% q/q, and in 2010 Q1 by 4.4% q/q[35]. This was driven by the recovery of the export sector in Western European countries, associated with a rising demand of emerging Asian economies for European products.

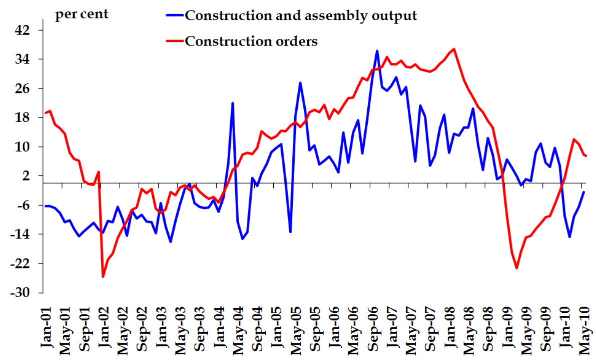
The recovery in exports, characterised by a relatively high import intensity, in conjunction with rising commodity prices in the world markets and zloty appreciation favouring the import of consumer goods, translated into an increase in the value of Polish imports. In 2009 Q4 the

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



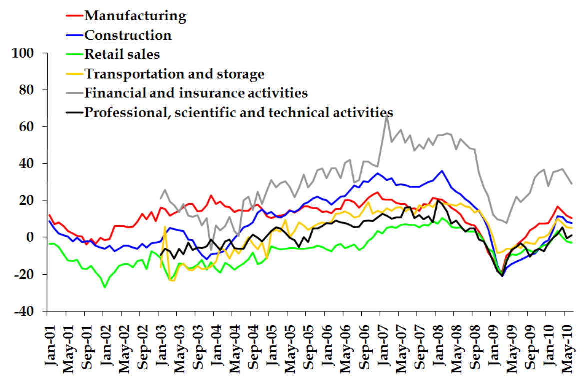
Source: GUS. Reuters data (seasonally adjusted). NBP calculations.

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



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

Figure 2.24
Indicators of future economic activity in selected sections.



Source: GUS business tendency survey.

[32] Own revenue of local government units reported growth in annual terms for the first time since 2008 Q4.
[33] In 2009 the shortfall of the Social Security Fund was financed by bank loans and a loan from the central budget.
[34] Information about the value (in EUR) and the volume of Polish exports and imports refer to the Eurostat data.
[35] The volume of Polish exports increased in 2009 Q4 by 4.1% q/q, and in 2010 Q1 by 3.1% q/q (in seasonally adjusted terms).

value of Polish imports (in EUR) rose by 2.5% q/q, and in 2010 Q1 by 4.8% q/q[36].

Despite further appreciation of the zloty nominal exchange rate in 2009 Q4 and 2010 Q1 (Figure 2.20), which contributed to a worsening of competitiveness of Polish manufacturers, the price competitiveness of exports remained high. This is confirmed by NBP business conditions surveys, which suggest that the average threshold exchange rate of export profitability ranged still below the actual exchange rate (Figure 2.21).

2.2.5. Output

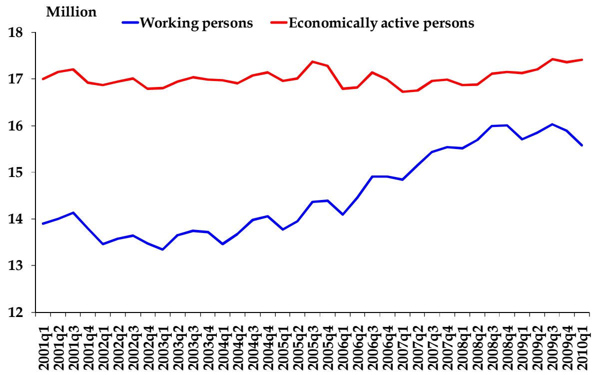
Monthly data on industrial output and the portfolio of orders in industry point to an improvement in this sector in the first half of 2010 (Figure 2.22). In turn, the situation in construction deteriorated in 2010 Q1: construction and assembly output dropped significantly. This drop was largely related to adverse weather conditions. Monthly data for 2010 Q2 may indicate a gradual deceleration of the downward trend in construction output. This can be supported by the expanding portfolio of orders in this sector observed from the beginning of the year (Figure 2.23).

After a surge of the main GUS business conditions indicators in January - March 2010, the readings for the next three months slightly declined (Figure 2.24). These trends were visible in all major sectors of the economy.

2.3. Labour market

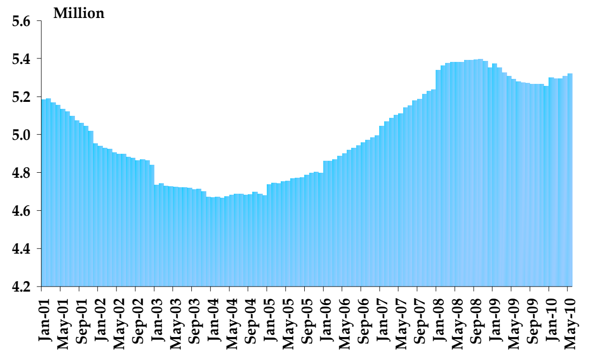
2010 Q1 was the second consecutive quarter of a fall (in annual terms) in the number of working persons according to the BAEL Labour Force Survey - it declined by 0.9% y/y (as compared to 0.7% y/y in 2009 Q4). This fall was mainly driven by a continued decline in the number of employees in industry and in agriculture[37]. In

Figure 2.25
Working persons working in the economy and economically active in the economy according to BAEL.



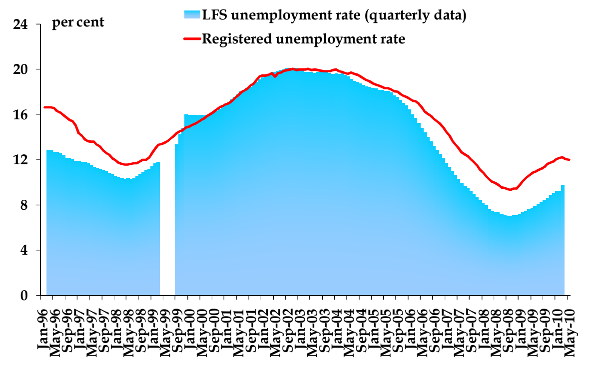
Source: GUS data.

Figure 2.26
Employment in corporate sector.



Source: GUS data.

Figure 2.27
Unemployment rate registered by labour offices and unemployment rate according to LFS.



Source: GUS data (seasonally adjusted).

Date till 2002 adjusted for the results of the 2002 National Census. No BAEL survey was conducted in 1999 Q2 or Q3.

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

[36] The volume of Polish imports picked up in 2009 Q4 by 1.1% q/q, and in 2010 Q1 by 5.5% q/q (in seasonally adjusted terms).
[37] BAEL data are sensible to the impact of one-off effects because they include the smallest enterprises, where the share of sectors vulnerable to weather conditions, such as agriculture or construction, was above average, and also because they do not account for working time differences. The adjusted BAEL data - without the agriculture sector and allowing for shifts in the number of working hours per one worker - indicate that in 2010 Q1 the decline in the degree of workforce utilisation outside agriculture was halted.

January - May 2010 employment edged up in the enterprise sector.

In 2010 Q1 despite adverse trends in the labour market, the number of economically active persons continued to rise (by 1.7% y/y as compared to 1.1% in the previous quarter). This growth was mainly due to an increase in the economic activity ratio of people at pre-retirement age (aged 45-59/64).

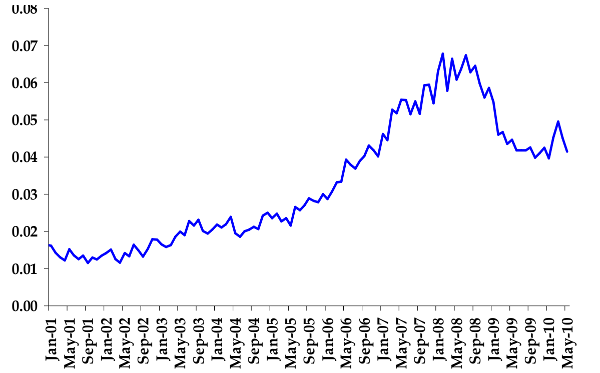
As a result of growth in the labour supply and a fall in the number of people working in the economy in 2010 Q1 (Figure 2.25), the unemployment rate according to BAEL, in seasonally adjusted terms, rose to 9.7% (from 9.0% in 2009 Q4). At the same time, the registered unemployment rate in seasonally adjusted terms stabilized at 12.0% in May 2010 (Figure 2.27).

February and March saw an increased number of job vacancies reported to labour offices, with a persistently elevated but stable number of newly registered unemployed persons, which translated into an increase in the number of vacancies in relation to the number of unemployed in early 2010. In the following months the decrease in the number of job vacancies reported to labour offices contributed to lowering this ratio, however it was at the level higher than during emerging from previous slowdown (Figure 2.28).

The results of NBP business conditions surveys[38] indicate some improvement in the labour market. In 2010 Q1 the forecast of employment in the enterprise sector improved for the fourth consecutive quarter. The surveyed companies forecast employment growth almost as often as its decline, reflecting both a decline in the share of enterprises intending to reduce employment, and an increase in the percentage of companies planning to increase it.

In 2010 Q1 the growth rate of nominal and real wages in the economy declined. In 2010 Q1 nominal wages increased by 4.1% y/y (as compared to 4.7% y/y in 2009 Q4), while real wages grew by 1.1% y/y (as compared to 1.4% y/y in 2009 Q4; Figure 2.29)[39]. In 2010 Q1 wage growth

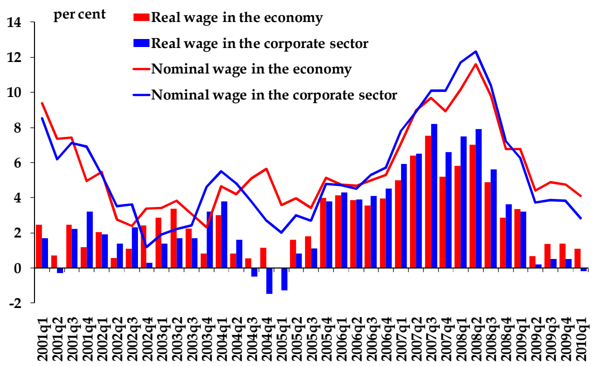
Figure 2.28
Labour market tensions index (number of vacancies per one unemployed)



Source: GUS data. NBP calculations.

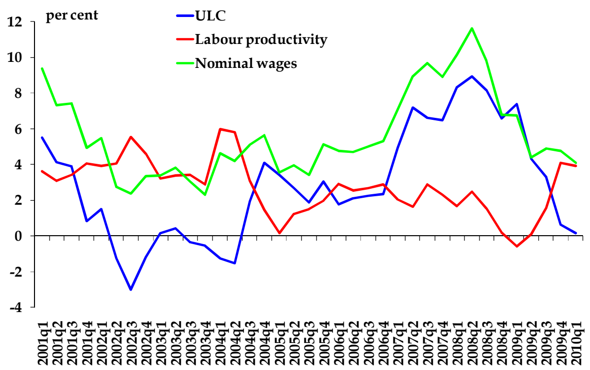
The Vacancy-Unemployment Ratio is directly proportional to the probability of an unemployed person finding a job (the more vacancies per unemployed the more likely he/she is to find a job) and inversely proportional to the probability of filling a vacant post by an employer (the more job offers in relation to the number of unemployed persons the less likely it is that the vacancy is fill in quickly). The measure reflects the relative power of employees and employers in wage negotiations.

Figure 2.29
Annual growth of wages in the economy and corporate sector.



Source: GUS data. NBP calculations.

Figure 2.30
Annual growth of labour productivity. wages and unit labour costs (ULC) in the economy.



Source: GUS data. NBP calculations.

[38] *Economic climate in the enterprise sector in 2010 Q1 and expectations for 2010 Q2*, NBP, April 2010.
[39] This decline, however, was driven by the effect of a high base of 2009 Q1, when some enterprises had paid a part of the wages from the end of 2008 in such a way that they had fallen under more favourable Personal Income Tax rules.

declined also in the enterprise sector to 2.8% y/y in nominal terms (as compared to 3.8% y/y in 2009 Q4), and in real terms to -0.2% y/y (as compared to 0.5% y/y in 2009 Q4). In May 2010, the nominal growth rate of wages in the enterprise sector amounted to 4.8% y/y (as compared to 3.2% y/y in April 2010), i.e. constituted a 2.5% y/y increase in real terms (as compared to 0.7% y/y in April 2010).

Labour productivity growth in the economy in 2010 Q1 decreased slightly to 3.9% y/y (as compared to 4.1% y/y in 2009 Q4). As labour productivity growth stabilised and wage growth declined, the growth of unit labour costs in the economy continued to decelerate (down to 0.2% y/y in 2010 Q1 as compared to 0.6% y/y in the previous quarter, Figure 2.30). At the same time, unit labour costs in industry have been decreasing since August 2009.

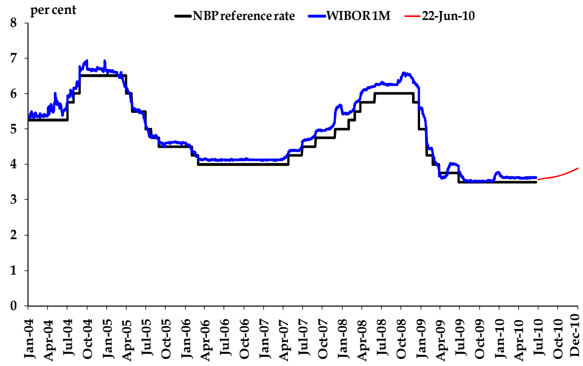
2.4. Financial markets

2.4.1. Financial assets prices and interest rates

Since the publication of the previous *Report* the NBP interest rates have remained unchanged (Figure 2.31). Despite the absence of changes in the NBP interest rates, April 2010 saw a reduction in interest rates in the interbank market: 3M WIBOR fell from 4.10% at the end of March to 3.86% at the end of April and remained stable thereafter. The decline in WIBOR rates probably reflected an increase in confidence in the interbank market, as evidenced by a reduction in the spread between the interbank deposit rate and the OIS rate (Figure 2.32).

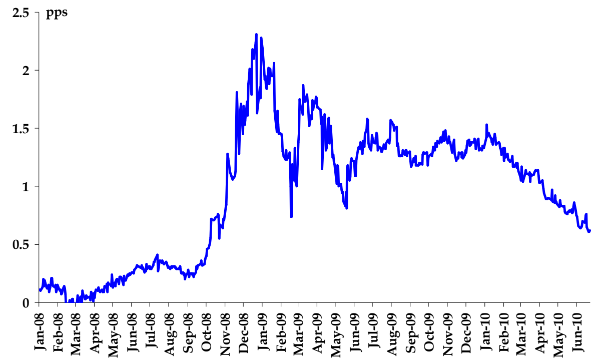
According to the results of the Reuters survey of 10 June 2010, most analysts anticipate that the reference rate will have been increased by the end of this year: 50% of analysts expect the rate to increase to 3.75%, 20% expect an increase to 4.00%, while 30% of analysts believe the reference rate will remain unchanged until the end of this year. FRAs indicate that the expected 1M WIBOR rate will remain stable for the next three months, and will range within 3.75-4.00% at the

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 (y/y).

Source: Reuters data.

end of the year.

Since the publication of the previous *Report* yields on Polish bonds have been subject to increased volatility. In March and for the most of April 2010 yields were falling due to the publication of positive macroeconomic data on the Polish economy coupled with a further increase in foreign investors' involvement in the Polish debt market. In the last days of April and in May 2010 yields on Polish bonds surged and remained at elevated levels also in June. These developments resulted from a global increase in risk aversion due to the fiscal crisis in Greece and unfavourable information about the fiscal situation of some other euro area countries. Since 2009 Q2 wide spreads have persisted between yields on long-term and short-term bonds. Recently non-residents have further increased their involvement in the Polish bond market (Figure 2.34).

In May 2010 the yield on Polish long-term bonds in average annual terms, used for assessing the compliance with the Maastricht interest rate criterion, amounted to 6.0% while the reference value stood at 6.3% (cf. Annex 2).

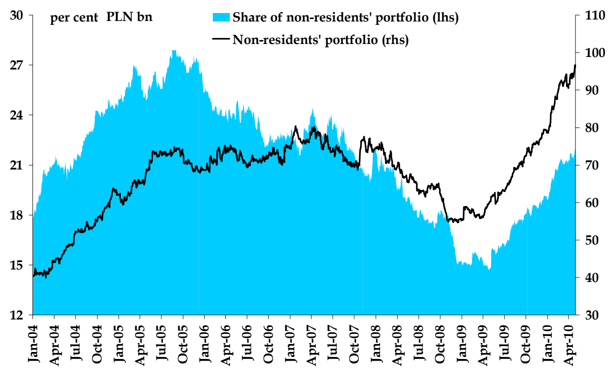
Whereas equity prices in Poland rose in March and for the most of April 2010, they fell at the end of April and in May (Figure 2.35). In June equity prices moved within a horizontal band. In the first months of 2010 non-residents increased their involvement in the Warsaw Stock Exchange (Figure 2.36).

2.4.2. Home prices

2010 Q1 saw no significant changes in the housing markets of Poland's major cities. Whereas the asking prices of flats in the primary market decreased slightly, they have remained unchanged in the secondary market (Figure 2.37). Sale prices increased slightly both in the primary and the secondary market. This increase could result from a larger market share of more expensive flats and from a slight recovery of demand for housing due to an easing of housing loan conditions.

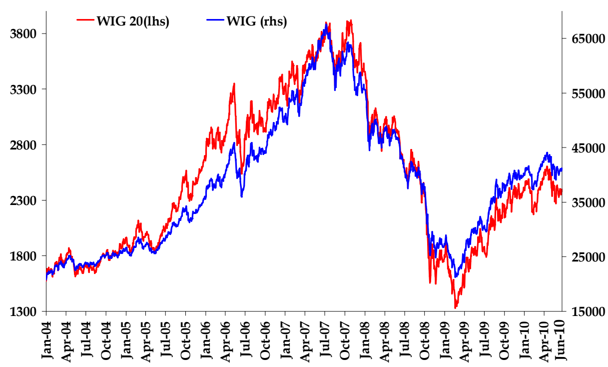
Due to high profit margins persisting in the residential housing sector the number of hous-

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



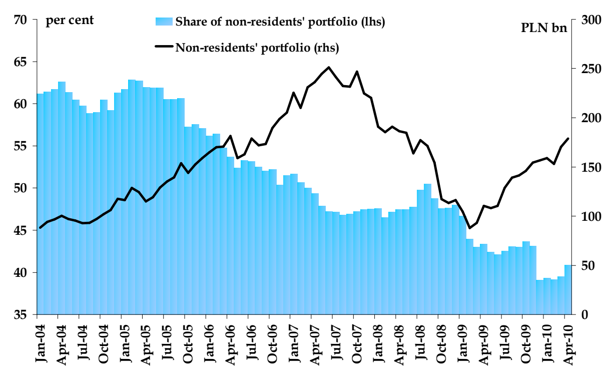
Source: National Depository for Securities (KDPW) data.

Figure 2.35
WIG and WIG20 stock exchange indices.



Source: Reuters data.

Figure 2.36
Non-residents' involvement in the Polish equity market (measured by the market value of shares)



Source: NBP data.

ing starts rose in 2010 Q1 after a slight fall in 2008-2009, despite the long period of sale of finished flats (Figure 2.38).

2.4.3. Exchange rate

Between the publication of the previous *Report* and 23 June 2010 the nominal exchange rate of the zloty depreciated against the US dollar, the euro and the Swiss franc, by approx. 12%, 2% and 9%, respectively.

Initially, the zloty appreciated against the euro and the Swiss franc, while remaining relatively stable against the US dollar, but since mid-April it began to depreciate against all three currencies. The fastest rate of depreciation was recorded in late April and in early May due to increased risk aversion in the global financial markets after the Standard & Poor's downgrade of credit ratings of Greece, Portugal and Spain (cf. Section 1.3). The rise in risk aversion triggered a selloff of Central and East European countries' currencies.

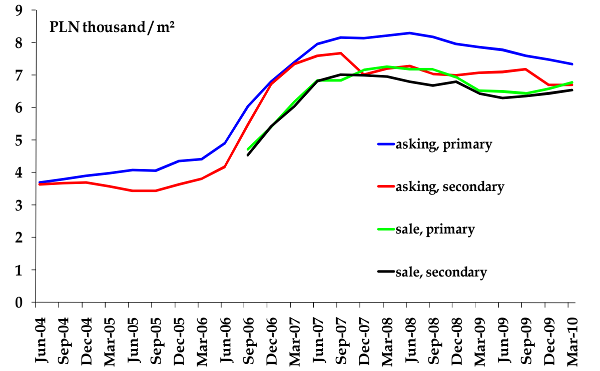
2.5. Credit and money[40]

2.5.1. Loans

In February - May 2010 the volume of loans to enterprises fell by PLN 3.2 billion, largely due to a strong decline recorded in March this year in both current loans (i.e. current account loans and working capital loans) as well as investment and real estate loans (Figure 2.40). That said, the decline in both categories of loans was much smaller in April, and in May their monthly increases entered positive territories.

The foreign debt of enterprises rose in 2009 by EUR 6.0 billion (i.e. 7.4%), which was primarily due to increased non-trade credit (EUR 5.4 billion). Stagnation of trade credit, i.e. deferred payments for imports of goods and services (in the whole of 2009 rose by only 0.2%) was associated mainly with a fall in imports.

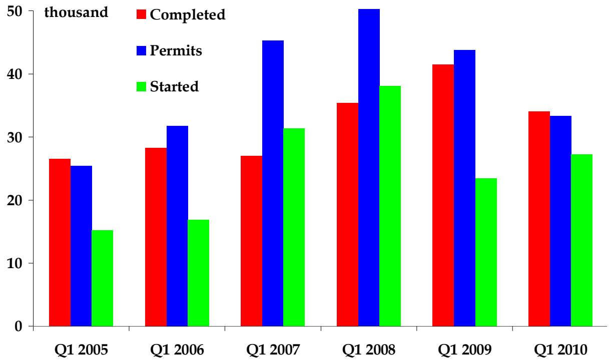
Figure 2.37
Average* asking prices (PLN/m²) in the primary and secondary markets. and sale prices in the secondary markets of 7 big cities in Poland (Gdansk. Gdynia. Krakow. Lodz. Poznan. Warszawa. Wroclaw).



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 2.38
The number of completed flats, construction permits issued and construction projects started.



Source: GUS data.

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

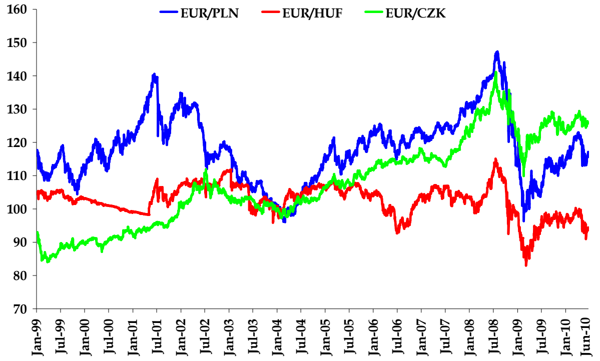
As indicated in survey studies of enterprises conducted by the NBP[41], the percentage of companies applying for a loan fell in 2010 Q1 although it was probably a seasonal effect (Figure 2.41), while surveys carried out among senior loan officers[42] show that in the same period demand of large enterprises for short-term loans decreased. At the same time, both surveys indicate a gradual loosening of banks' credit policy to enterprises.

In February - May 2010 growth in housing loans to households stabilised at levels which were about 50% lower than in the period of a very strong surge in lending in 2007-2008. Following a decline to 12.4% y/y in February 2010, annual growth rate of these loans increased in the subsequent months to 13.4% y/y in May (Figure 2.42).

The results of the above-mentioned survey studies of banks indicate that the growth in housing loans in 2010 Q1 reflected increased household demand for these loans recorded by a number of banks and the declared easing of some credit standards (e.g. the margin and the required own contribution) associated with the reintensification of interbank competition for market share[43]. In March 2010, still the vast majority (82.0%) of newly granted housing loans was denominated in the zloty, but since December 2009, the share of loans denominated in foreign currencies has been on a steady increase (Figure 2.44), including approximately 60% of loans denominated in the euro in 2010 Q1.

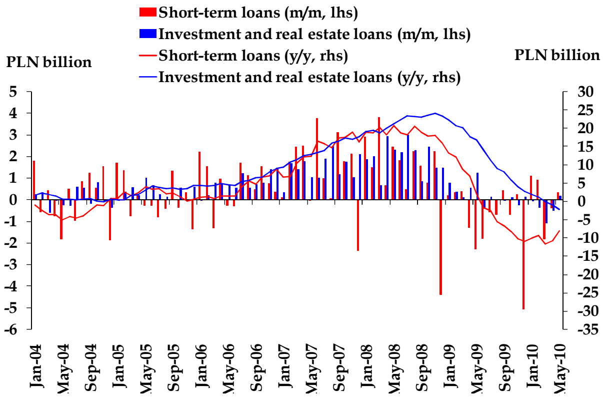
From early 2010 until May household consumer credit indebtedness grew by PLN 1.4 billion. The increase in consumer loans, however, was more than five times lower than in the corresponding period of 2009 and nearly eight times less than in 2008 (Figure 2.42). The slower growth in consumer loans as compared with the previous year, resulted, on the one hand, from a

Figure 2.39
Nominal exchange rates of the Polish zloty. the Czech koruna and the Hungarian forint against the euro (January 2004=100; increase denotes appreciation).



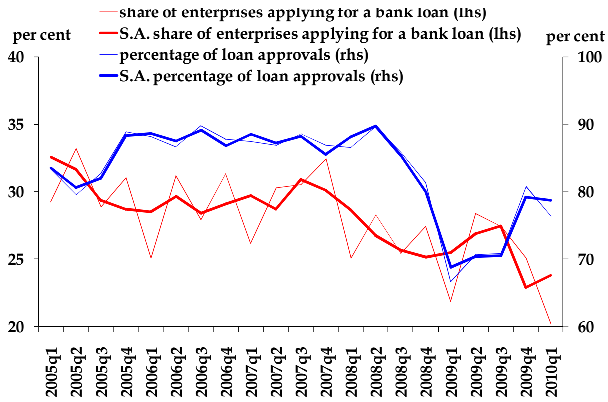
Source: Ecowin data. NBP calcualtions.

Figure 2.40
Loans to enterprises.



Source: NBP data.

Figure 2.41
Share of enterprises applying for loans and percentage of approved loan applications.



Source: NBP data.

[41] *Information on the Condition of the Enterprise Sector, Including the Economic Climate in 2010 Q1 and Forecasts for 2010 Q2, NBP, April 2010, NBP.*

[42] Senior loan officer opinion survey on bank lending practices and credit conditions (1st quarter 2010), NBP.

43 As some terms (i.e. features of the loan agreement agreed by the bank and the borrower such as the spread or the maximum loan size) for granting housing loans to households eased in 2009 Q1, most banks tightened (in net terms) their standards for granting such loans (i.e. the minimum standards of creditworthiness that the borrower is required to meet in order to obtain a loan). The scale of the tightening was not significant and banks' responses were very diverse - about one third of all surveyed banks did not change the criteria, and nearly 30% of banks have decided to mitigate them. This issue is further elaborated in Senior loan officer opinion survey on bank lending practices and credit conditions (2nd quarter 2010).

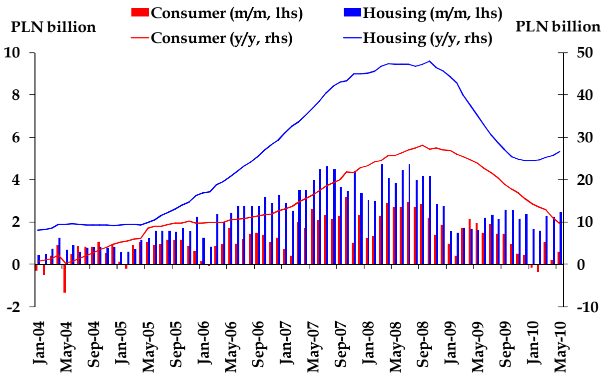
strong decline in demand for these loans, and on the other hand, from the tightening of banks' lending policy in this segment of the market (Figure 2.43), due to deteriorating quality of consumer loan portfolio (Figure 2.48).

In January - April 2010, despite a reduction in WIBOR rates, the interest rate charged on newly-granted loans to enterprises denominated in the zloty increased slightly (by 8 basis points on average), in line with increased margins signalled by banks in this period. Margins also rose (by an average of 85 basis points) in the segment of consumer loans to households. By contrast, the spread between the interest rates charged on zloty-denominated housing loans and the 3M WIBOR rate, which typically constitutes the basis to determine the variable interest rate on this segment of loans, narrowed in April and widened in May[44]. The decrease in margins in 2010 Q1 reflected an easing of credit standards declared by banks in the segment of housing loans.

2.5.2. Financing and capital standing of banks[45]

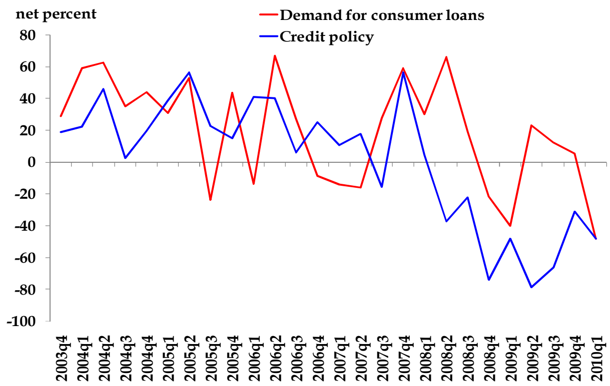
In 2010 Q1 financing conditions and the capital position of banks, which have an impact on the supply of credit, continued to improve. The loosening of price competition in the market for deposits of the non-financial sector accounted for an increase in the - persistently negative - deposit margin, i.e. the spread between the WIBOR 3M rate and the average interest rate of the non-financial sector. This margin, however, remains markedly lower than before 2008 Q4, when competition in the deposit market intensified considerably (Figure 2.46). Financing conditions of lending improved in 2010 Q1 also due to a more stable situation in the interbank market, including the decline in risk premium reflected in the interest rate on unsecured interbank deposits and a more active trade in that market.

Figure 2.42
Loans to households.



Source: NBP data.

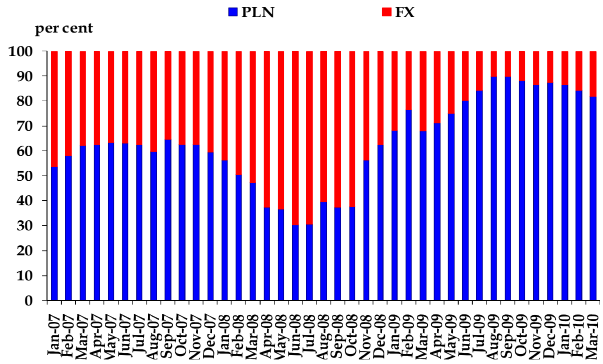
Figure 2.43
Demand for housing loans and credit policy of banks as regards housing loans to households.



Source: NBP data.

Weighted responses of banks. Positive value should be interpreted as rise in demand for credit or credit policy easing in relation to previous quarter.

Figure 2.44
Currency structure of newly granted housing loans to households.



Source: NBP data.

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

[44] To some extent, the increase in margins over the 3M WIBOR rate for both consumer and housing loans may be due to the methodology of research in interest rates. The statistics concern so-called new contracts concluded in a given month, whereas the value of and interest on a loan quoted by the bank refer to its conclusion. In the case of variable-rate loans consisting of a 3M WIBOR and a margin above that rate, the bank calculates the interest rate on the basis of this rate on the contract. If interbank rates decline (as was the case in the period covered in the analysis), the interest rate reported by the bank at the time of the contract can exceed the actual interest rate at the time of disbursement of the loan.

[45] A more comprehensive discussion of the banking sector's stability may be found in the *Financial Stability Report - December 2009*, NBP.

The retention of 2008 profits and the increase in the capital base of the majority of banks also improved the capital position of the banking sector. Between the end of December 2009 and the end of 2010 Q1 the average capital adequacy ratio[46] rose from 13.3% to 14.1% (Figure 2.47), and a positive evaluation of the current and future capital position acted towards more lenient bank lending policies. In turn, the deterioration of the quality of credit portfolios became the main factor prompting banks to tighten their terms and standards for granting loans. This was largely associated with the growth in the irregular loans ratio in the consumer loan segment, while in the case of corporate loans this ratio decreased in comparison with the previous quarter (Figure 2.48).

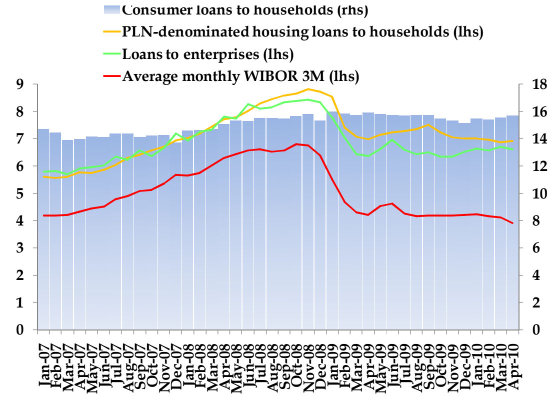
2.5.3. Deposits and monetary aggregates

According to NBP studies[47], 2010 Q1 saw a continued good liquidity situation of enterprises, which reflects growth in bank deposits in the sector: between January and May 2010 they rose by PLN 7.7 billion (Figure 2.49). Accumulation of liquidity in enterprises' bank accounts decreased their dependence on credit. This is also indicated in the surveys of enterprises[48] which show that nearly half of respondents planning new investments intend to finance them with their own funds.

Following a rise in February 2010, household deposits fell in March - April 2010, to rise again in May (Figure 2.49). Non-banking investments had a dampening impact on the increase in household deposits. In January - May 2010, the value of shares held by households rose by PLN 4.7 billion and their portfolios of investment fund assets expanded by PLN 8.1 billion, of which PLN 5.1 billion accounted for a net inflow of new funds.

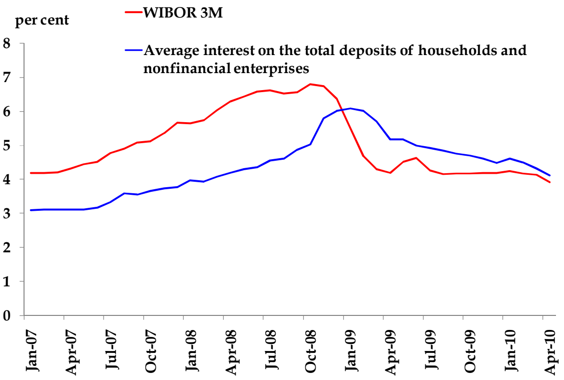
As a result of diversified developments in bank deposits of households and enterprises ob-

Figure 2.45
Average interest charged on newly granted zloty loans to households and enterprises.



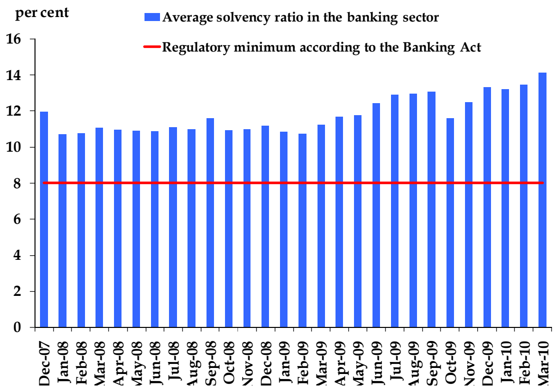
Source: NBP data.

Figure 2.46
Average interest on the total deposits of households and enterprises (without current accounts) and the monthly average WIBOR 3M.



Source: NBP data.

Figure 2.47
Average solvency ratio in the banking sector.



Source: NBP data.

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[46] Solvency ratio is a ratio of own funds and short-term capital to the bank's total capital requirement multiplied by 12.5. In accordance with the Banking Law the minimum ratio is 8%. In practice, banks are required to comply with many regulations, but the solvency ratio shows in a synthetic way the size of the capital buffer available to banks in relation to the regulatory capital requirement, and hence is a measure expressing the ability of banks to develop lending.

[47] *Information on the Condition of the Enterprise Sector, Including the Economic Climate in 2010 Q1 and Forecasts for 2010 Q2, NBP, April 2010, NBP.*

[48] *Information on the Condition of the Enterprise Sector, Including the Economic Climate in 2010 Q1 and Forecasts for 2010 Q2, NBP, April 2010, NBP.*

served since mid-2009 the M3 broad monetary aggregate has maintained stable annual growth of around 7% since November last year[49]. In the same period the annual M1 growth stabilized at around 11% y/y, before increasing in May 2010 to 14.2% y/y (Figure 2.50). Reserve money (cash in circulation plus banks' current and required reserves accounts)[50] grew in January - May 2010 by PLN 4.3 billion, while the annual growth rate of this aggregate was mainly influenced by changes in banks' current account holdings. Meanwhile, the balance of cash in circulation increased in the same period by PLN 4.2 billion, and the annual growth of this aggregate in May approached zero after seven months in the negative territory.

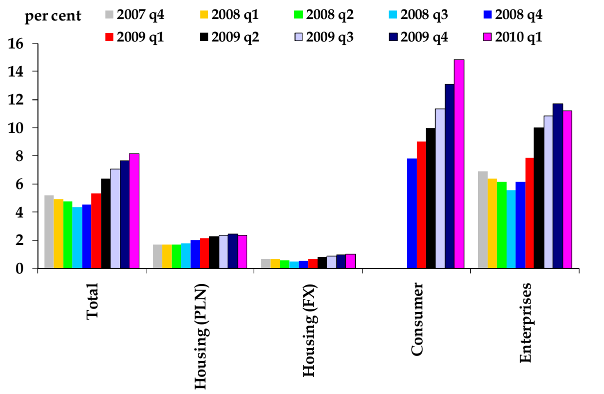
2.6. Current account and capital account of the balance of payments

Following a considerable improvement in the current account balance in 2009 Q1 - mainly connected with a strong reduction in the imports of goods - subsequent quarters saw a deepening of the current account deficit (Figure 2.51). In 2009 Q4 this deficit rose to EUR 2.7 billion (as compared to EUR 1.2 billion in 2009 Q3). Preliminary data for January-March 2010[51] point to its reduction in 2010 Q1 back to approx. EUR 1.2 billion. Despite a decline the deficit proved higher than in the corresponding period of 2009.

The net inflow of foreign capital to Poland continued in 2009 Q4, yet it was lower than in the preceding quarter. The surplus in the financial account amounted to EUR 6.3 billion (as compared to EUR 11.0 billion in 2009 Q3), which was primarily the effect of a further net inflow of portfolio investments.

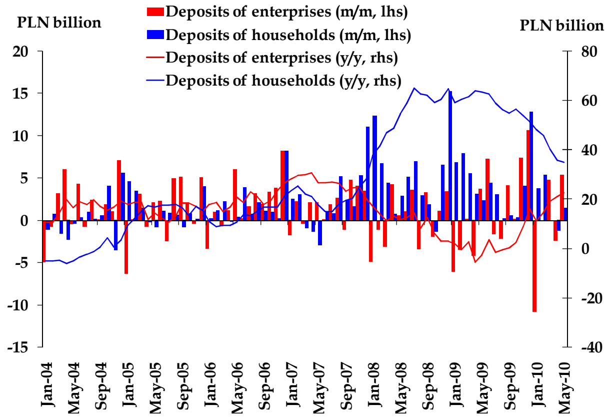
In 2010 Q1 the surplus in the financial account of the balance of payments, which was also largely due to the net inflow of portfolio investments, grew to approx. EUR 9.9 billion.

Figure 2.48
Share of irregular loans in particular loan categories.



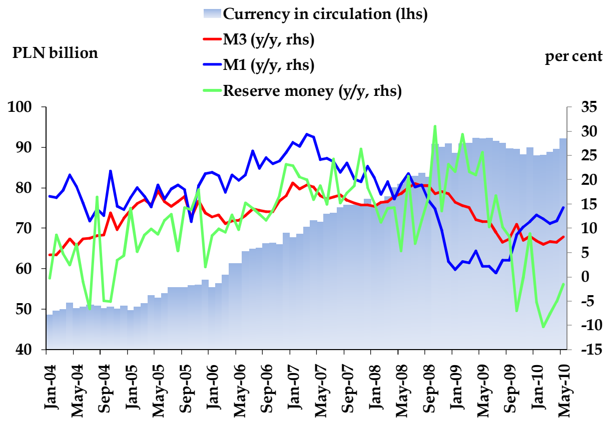
Source: NBP data.

Figure 2.49
Bank deposits of households and enterprises.



Source: NBP data.

Figure 2.50
Currency in circulation and annual growth rates of M1, M3 and reserve money.



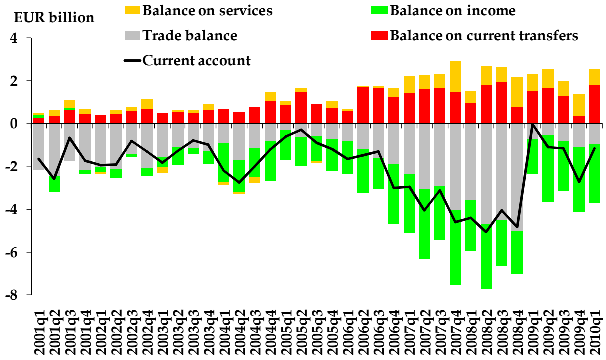
Source: NBP data.

[49] A temporary deviation of M3 growth from the trend observed in October 2009 resulted from a strong increase in the deposits of non-monetary financial institutions, as investors allocated funds in broker accounts with the intention to buy the shares of Polska Grupa Energetyczna. The funds for the purchase of shares were, to a large extent, acquired from loans incurred for the purchase of securities, and following an over-90-percent reduction in orders, they returned to the ordering parties.
[50] Starting from end-November 2008 data the NBP introduced a methodological change in the compilation of the central bank reserve money statistics. The redefinition consists in including in the reserve money aggregate the deposit facility held by banks with the NBP.
[51] Shifts in the balance of payments in 2010 Q1 were described based on preliminary monthly data of the balance of payments for January-March 2010.

Foreign investors invested mainly in Treasury bonds issued in the domestic and foreign markets. The net inflow of capital in the form of direct foreign investment also increased and amounted to approx. EUR 3.5 billion in 2010 Q1[52].

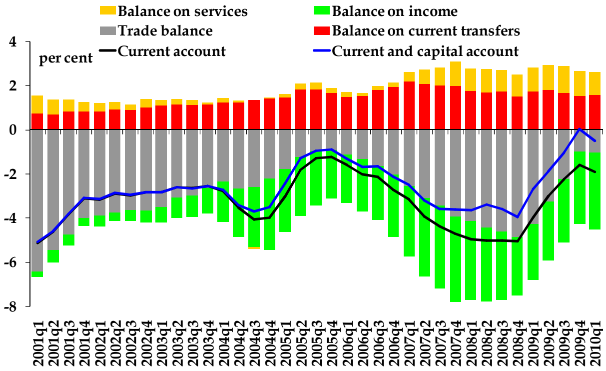
The current account deficit in relation to GDP (in terms of four consecutive quarters) declined systemically throughout 2009 to reach 1.6% of GDP in 2009 Q4 (as compared to 5.0% a year before)[53]. In 2010 Q1 it reached approx. 1.9% (Figure 2.52). The balance on the current and capital account was also improving and in 2009 Q4 the account was balanced (as compared to a deficit of 3.9% in the corresponding period of the previous year). Preliminary estimates for 2010 Q1 reveal a slight total deficit in the current and capital account in the amount of 0.5% of GDP. The current and capital account deficit was entirely financed with the inflow of foreign capital in the form of foreign direct investment.

Figure 2.51
Current account balance (EUR billion).



Source: NBP data.

Figure 2.52
Current and capital account to GDP (4-quarter rolling window).



Source: NBP data.

[52] In 2009 Q4 the net inflow of capital in the form of direct foreign investment amounted to EUR 1.5 billion, similarly as in 2009 Q1.

[53] The current account deficit deepened throughout 2009 in quarter-on-quarter terms, although the levels of the deficit were still significantly lower than in 2008. For that reason the current account deficit in terms of four consecutive quarters declined in 2009.

Annex 2. *Convergence Reports* of May 2010

From the moment of joining the European Union, Poland has been a Member State with a derogation. Like eight other EU countries - Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Romania and Sweden - it is obliged to introduce the euro upon meeting of the so-called convergence criteria. The progress of EU Member States in this respect is assessed by the European Central Bank (ECB) and the European Commission (EC) at least once every two years, and the results of this assessment are presented in *Convergence Reports*. This annex discusses the current assessment of the above mentioned Member States presented in the ECB and EC *Convergence Reports* published in May 2010.

Convergence criteria

The convergence criteria (the Maastricht criteria[54]) are set out in Article 140 of the Treaty on the Functioning of the European Union[55] and specified in greater detail in Protocol (No 13) on the Convergence Criteria annexed to the Treaty. The way of applying the Treaty provisions in practice is presented in detail in *Convergence Reports*.

The price stability criterion means that a Member State has a price performance that is sustainable and an average rate of inflation, observed over the period of one year before the examination, that does not exceed by more than 1.5 percentage points that of the three best performing Member States in terms of price stability. In practice, the average inflation rate is calculated using the latest available 12-month average of the annual HICP relative to the previous 12-month average. Due to the requirement of achieving price stability in a sustainable manner, both the ECB and the EC also analyse in detail changes in inflation and in underlying factors in a perspective that is longer than the past year; moreover, they assess possible future course of inflation developments.

The criterion on the government budgetary position means that at the time of the examination the Member State is not the subject of a Council of the European Union decision that an excessive deficit exists. The excessive deficit procedure is initiated by the EC particularly[56] when: (a) the ratio of the planned or actual government deficit to GDP exceeds the reference value of 3%, unless the ratio has declined substantially and continuously and reached a level that comes close to 3% or, alternatively, the excess over the reference value is only exceptional and temporary and the ratio remains close to the reference value, (b) the ratio of government debt to GDP exceeds 60%, unless the ratio is sufficiently diminishing and approaching the reference value at a satisfactory pace. The EC also takes into account whether the government deficit exceeds government investment expenditure and all other relevant factors, including the medium-term economic and budgetary position of the Member State.

The criterion on participation in the Exchange Rate Mechanism of the European Monetary System (exchange rate stability criterion) means that the Member State has respected the normal fluctuation margins provided for by the Exchange Rate Mechanism of the European Monetary System without severe tensions for at least two years before the examination. In particular, the Member State has not devaluated its currency's bilateral central rate against the euro on its own initiative for the same period. In practice, a formal participation in the Exchange Rate Mechanism II, which in 1999 replaced the European Monetary System, is required. While examining exchange rate stability, the ECB focuses on the exchange rate being close to the ERM II central rate, while also taking into account factors that may have led to an appreciation of the currency. The ECB addresses the issue of the absence of "severe tensions" by: i) examining the degree of deviation of the exchange rate from the ERM II central rate; ii) using indicators such as exchange rate volatility vis-à-vis the euro and its trend, as well as short-term interest rate differentials vis-à-vis the euro area and their development; iii) considering the role played by foreign exchange interventions. In turn, the examination of exchange rate stability performed by the EC includes the development of factors such as changes in foreign

[54] They are named after the town of Maastricht where the Treaty on European Union, colloquially referred to as the Treaty of Maastricht, was signed in 1992. It was in this treaty that the convergence criteria were originally set out.

[55] From 1 December 2009, when the Treaty of Lisbon became effective, the two most important EU treaties were modified: the Treaty on European Union and the Treaty establishing the European Community. The latter is currently renamed as the Treaty on the functioning of the European Union.

[56] The procedure may also be initiated when the Member State complies with the budgetary discipline criteria yet, in the assessment of the EC, there is a risk of an excessive deficit.

exchange reserves and short-term interest rates, as well as the role of foreign exchange interventions in maintaining the exchange rate at a stable level. Additionally, in the *Convergence Reports* of May 2010. both institutions - for the first time in the history of the *Reports* - analysed the significance of financial assistance programmes (such as the IMF assistance programme for Latvia) and other programmes or instruments that could affect the stability of the exchange rates of the examined countries' currencies (including instruments not applied in practice, such as the Flexible Credit Line granted by the IMF to Poland as a country with strong economic fundamentals or the foreign exchange swap agreement concluded between the central banks of Estonia and Sweden).

The criterion on the convergence of interest rates means that, observed over a period of one year before the examination, a Member State has had an average nominal long-term interest rate that does not exceed by more than 2 percentage points that of the three best performing Member States in terms of price stability. Interest rates are measured on the basis of long-term government bonds or comparable securities, taking into account differences in national definitions. In practice, the long-term interest rate is calculated as an arithmetic average over the latest 12 months for which HICP data were available. The reference value is calculated based on the unweighted arithmetic average of the interest rates of the same Member States which form the reference group for the price stability criterion. In the case of countries where no suitable long-term interest rates are available, the examination of interest rate convergence is formulated based on a broad analysis of the situation of the financial markets of those countries.

Assessment of Member States with a derogation presented in *Convergence Reports* of May 2010

Convergence Reports of May 2010 were prepared based on data from the period in which the economic situation of EU countries developed under the influence of the financial crisis and the ensuing global recession. Due to a significant drop in economic activity, some EU countries recorded a negative average HICP inflation rate in the reference period adopted for the assessment of price stability (April 2009 - March 2010), which resulted in the lowest reference value for the price stability criterion in history. Moreover, due to the cyclical deterioration of the budgetary situation and governmental stimulus programmes, the fiscal imbalance deepened significantly in 2009 in the majority of countries examined in the Reports. Additionally, disruptions in the international financial markets and a high aversion to risk contributed to a hike of market interest rates in many emerging economies, including new Member States of the EU. These factors made the compliance with the convergence criteria more difficult for the examined countries.

In the latest *Reports* prepared by both institutions (i.e. the Commission and the ECB) - for the first time in the history of those Reports - the reference group for the price stability criterion included countries with a negative 12-month average HICP inflation rate: Portugal (with the average rate of -0.8%), Estonia (-0.7%) and Belgium (-0.1%). The reference value (1.0%) for the price stability criterion was calculated by adding 1.5 percentage points to the unweighted arithmetic average of these average inflation rates. In turn, both institutions excluded Ireland from the reference group, an economy which recorded the lowest average HICP inflation among EU countries (at -2.3%); this value was judged as an outlier. In the face of a historically low reference value, in the EC's assessment[57] six out of nine examined Member States - Bulgaria, Hungary, Lithuania, Poland, Romania and Sweden - failed to comply with the price stability criterion; the criterion was only met by the Czech Republic, Estonia and Latvia (cf. Table A.2).

Apart from the latest *Convergence Reports*, both the issue of the 12-month average HICP inflation path and of the outlier appeared only in the *Reports* of 2004 and referred to Lithuania, which at that time recorded a value of -0.2%. Excluding Lithuania from the reference group was then justified by the EC with the argument that countries with a negative inflation rate were not deemed to be countries of the most stable price level. In the latest *Report*, however, the Commission judged that in the current situation negative inflation rates could serve as the appropriate reference point for assessing the compliance with the price stability criterion by the countries with a derogation. The ECB, in its *Convergence Report* of May 2010, also judged countries with a negative average inflation rate as the best performers in terms price stability. At the same time, however, the ECB observed that negative inflation is not consistent with medium-term price stability (understood by the ECB as inflation in the medium-term maintained below, but close to 2%), which had earlier been emphasised in other ECB documents[58].

[57] In contrast to the EC, the ECB does not formulate in its Convergence Report unanimous conclusions as to the examined countries' compliance with the convergence criteria.
[58] Cf. e.g. ECB (1999), p. 46 or ECB (2003), pp. 80-81.

Table A.2
Economic convergence indicators for countries examined in Convergence Reports of May 2010<0}

		Price stability	+Public finance situation			Exchange rate stability		Convergence of interest rates
		HICP inflation	Excessive deficit	Balance of central budget	Public debt	Participation in ERM II	Severe tensions	Long-term interest rate
Bulgaria	2009 2010	2.5 1.7	No No	-3.9 -2.8	14.8 17.4	No No	–	7.2 6.9
the Czech Republic	2009 2010	0.6 0.3	Yes Yes	-5.9 -5.7	35.4 39.8	No No	–	4.8 4.7
Estonia	2009 2010	0.2 -0.7	No No	-1.7 -2.4	7.2 9.6	Yes Yes	No	… …
Lithuania	2009 2010	4.2 2.0	Yes Yes	-8.9 -8.4	29.3 38.6	Yes Yes	No	14.0 12.1
Latvia	2009 2010	3.3 0.1	Yes Yes	-9.0 -8.6	36.1 48.5	Yes Yes	Yes	12.4 12.7
Poland	2009 2010	4.0 3.9	Yes Yes	-7.1 -7.3	51.0 53.9	No No	–	6.1 6.1
Romania	2009 2010	5.6 5.0	Yes Yes	-8.3 -8.0	23.7 30.5	No No	–	9.7 9.4
Sweden	2009 2010	1.9 2.1	No No	-0.5 -2.1	42.3 42.6	No No	–	3.3 3.3
Hungary	2009 2010	4.0 4.8	Yes Yes	-4.0 -4.1	78.3 78.9	No No	–	9.1 8.4
Reference value		1.0		-3.0	60.0			6.0

Source: Data and forecasts of European Commission.

HICP inflation: average annual percentage change. Data for 2010 refer to period April 2009 - March 2010.

Excessive deficit: information whether a given country has been at least for part of the year subject of a Council of the European Union decision that an excessive deficit exists. Information for 2010 refer to period until 23 April 2010.

Balance of central budget and public debt: as percentage of GDP; data for 2010 refer to forecasts of the Commission.

Long-term interest rate: average annual interest rate; data for 2010 refer to period April 2009 - March 2010.

The reference value in the case of HICP inflation and long -term interest rates refers to period April 2009 - March 2010, and in the case of the balance of central budget and public debt to 2009.

At the time of publication of the *Convergence Reports* six out of the nine examined countries - the Czech Republic, Hungary, Latvia, Lithuania, Poland and Romania - were subject to a Council decision that an excessive deficit exists. Moreover, due to the increase in the budget deficit in Bulgaria in 2009 above the threshold of 3%, the Commission adopted (on the day the *Convergence Report* was published) a report initiating the excessive deficit procedure for this country. Thus it was only Estonia and Sweden that the Council explicitly judged to comply with the public finance criterion. It is worth mentioning that Estonia and Sweden are the only EU Member States that have never been subject to the excessive deficit procedure.

In the reference period for the exchange rate stability criterion (from 24 April 2008 to 23 April 2010) six out of the nice examined countries - Bulgaria, the Czech Republic, Hungary, Poland, Romania and Sweden - did not participate in ERM II and thus did not comply with this criterion. In turn Latvia, which has been in ERM II since May 2005, was forced, as a result of the aggravation of the global financial crisis in September 2008, to request international financial assistance in order to avoid a foreign exchange crisis. Both in the assessment of the ECB and the EC this indicated the existence of "severe tensions"; these tensions arose once again in mid-2009. In this situation the Commission assessed that Latvia did not comply with the exchange rate criterion despite the fact that the Latvian lats exchange rate against the euro ranged throughout the analysed period in the narrow fluctuation band of ±1% around the central rate[59]. By contrast, Estonia and Lithuania, which have participated in ERM II since June 2004, were complying with the criterion.

The reference value for the criterion on the convergence of interest rates (6.0%) was calculated by adding 2 percentage points to the arithmetic average of 12-month average interest rates in Belgium (3.8%) and Portugal (4.2%). Estonia - one of the three countries judged as the best performers in terms of price stability - was

[59] At the time of Latvia's accession to ERM II the standard exchange rate fluctuation band was established (±15% around the central rate). Additionally, Latvia committed unilaterally to maintain the exchange rate of the lats within a narrow fluctuation band (±1%).

not included in the reference group due to the absence of a long-term harmonised interest rate. The assessment of the convergence of interest rates in this country was formulated based on the analysis of the path of a number of variables describing financial markets, including interest rates on loans to the private sector denominated in Estonian kroons, money market rates and the rating of Treasury bonds, In the opinion of the Commission, six of the examined countries - Bulgaria, Hungary, Latvia, Lithuania, Poland and Romania - failed to comply with this criterion, while the remaining three - the Czech Republic, Estonia and Sweden - did comply.

As follows from the above discussion, Estonia is the only country which in the period analysed in the latest *Convergence Reports* complied - in the Commission's opinion - with all the convergence criteria. It may therefore be expected that Estonia will introduce the euro in 2011.

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Annex 3. The effect of the financial crisis on potential output

The global financial crisis led to a deep recession and a considerable downturn of economic growth in many countries, including Poland. Analyses of previous financial crises and recessions indicate that they are not merely conducive to a decline in current economic activity but also may significantly affect the path of potential output, i.e. the maximum output that the economy is able to generate at an employment level that does not cause the inflationary pressure to build up[60] (Haugh 2009; Furceri and Mourougane 2009; European Commission 2009).

Determining the effect of the financial crisis on potential output is of high significance for economic policy, including monetary policy. The behaviour of the output gap, i.e. the difference between the amount of actual and potential output, provides decision makers with information on the cyclical position of the economy and allows them to assess the inflationary pressure. Thus it constitutes one of the inputs into the monetary policy decision-making process.

Potential output is not directly observable. There are a lot of methods of its calculation. From the point of view of analysing possible channels through which the financial crisis influences the behaviour of the output gap, the production function approach may prove useful. According to this approach, potential output is a function of: 1) the capital stock in the economy, 2) potential labour input, which depends on the path of the labour supply and the equilibrium unemployment rate[61], and 3) trend total factor productivity (further called TFP). Financial crises may affect the path of potential output by influencing each of the three mentioned factors.

Declining demand and a deteriorating sales outlook lower enterprises' propensity to invest, which leads to a slower rate of **private capital accumulation** during a recession. However, the drop in investment in capital in the economy may sometimes be offset by a rise in government investment in infrastructure aimed at stimulating economic activity. Due to restructuring in the period of recession, including the liquidation of some enterprises and irreversibility of certain investment, the depreciation of the capital stock may increase. which, if coupled with low investment, may result in a diminishing capital stock. Additionally, disruptions in the financial system - characteristic especially of the recent crisis - resulting in a higher risk premium. limited access to loans and more restrictive credit granting criteria and conditions, lead to less advantageous corporate investment financing and may also accelerate the loss of liquidity and bankruptcy of some - even profitable - enterprises. Both the investment decline and accelerated capital depreciation during a recession are conducive to a transitory decrease in the rate of capital accumulation and, consequently, to a temporary fall in the growth of potential output. Recessions and financial crises, however, may have a long-term impact on capital accumulation if they lead to a permanent increase in financing costs, e.g. caused by a rise in uncertainty or by a permanent deterioration of the fiscal imbalance in the economy.

A recession may also result in a temporary or a long-term reduction of **potential labour input**. This is connected with the possibility of an increased equilibrium unemployment rate and a drop in the labour supply, e.g. due to the aversion of some people to remaining in the labour market or entering the market if the probability of finding a job that guarantees a certain reservation wage is low. The equilibrium unemployment rate may pick up temporarily as a result of recession due to rigidities existing in the economy, which could make impossible a fast unwinding of unemployment at the onset of recovery without causing inflationary pressure to build.[62] A recession or a financial crisis may affect the equilibrium unemployment rate in the longer term as well. This applies primarily to countries where - in order to prevent an excessive deterioration in the purchasing power of households - institutional changes were introduced in the labour market that in a long term may be negatively affecting the propensity to work or change jobs (e.g. unemployment benefits were increased and the entitlement period was extended). Moreover, a persistent rise in the equilibrium unemploy-

[60] There are a number of definitions of potential output in the literature. The present study makes use of a definition proposed by Arthur Okun, which provided a foundation for the methods of calculating potential output with the use of the production function approach (see e.g. Gradzewicz and Kolasa 2004).

[61] Here understood as the level of unemployment at which inflation remains stable.

[62] For example, investment reduction may diminish the productive capital stock of enterprises, which will make it impossible for those entities to quickly increase output and employment and instead will be an incentive to raise their prices in response to increased demand in the period of recovery.

ment rate may be expected when unemployment remains elevated for a relatively long period[63], which may lead to a decline in human capital (i.e. accumulated expertise, experience and skills) of some part of the unemployed. Such people become less attractive to employers[64], they also have a lower propensity to seek employment, which limits the downward impact of high unemployment on wage demands of employees, thus contributing to a persistently higher unemployment rate.

Recessions and financial crises may also have a significant bearing on **total factor productivity**. On the one hand, economic crises may lead to a decline in TFP growth as a result of, firstly, reduced investment. A part of technological progress is embodied in new capital goods (e.g. new machinery). With falling investment, its structure may also change. In a period of heightened uncertainty, if enterprises decide to invest at all they may opt for less innovative projects. Moreover, increased uncertainty may impede securing the financing for innovative investment or R&D. In addition, TFP is likely to be negatively affected during a recession by the disruption of the process of learning by doing due to increased unemployment. Moreover, in the case of emerging economies the inflow of FDI to these countries may diminish as a result of the economic crisis, which also negatively affects the development of TFP. Finally, if the crisis reduced international trade, the transfer of more advanced technologies from abroad to countries far from the technological frontier would be hampered.

On the other hand, economic crises may also contribute to TFP growth acceleration. This is because they often result in the liquidation or restructuring of the least productive enterprises, which translates into an increase in average productivity across the economy. Economic crises may also bring about the relocation of the factors of production to more productive sectors of the economy (i.e. the process of creative destruction takes place, cf. Schumpeter 1942). Moreover, economic crises can also accelerate the implementation of structural reforms, which may lead not only to higher TFP growth but also to faster growth of the labour supply and faster capital accumulation.

Given the uncertainty associated with both estimates of potential output and medium- and long-term forecasts of economic processes, a quantitative assessment of the impact of the global financial crisis on potential output may be burdened with a considerable error. Recent estimates by the European Commission (2010) suggest that the annual potential output growth in the euro area could fall from 1.75% in 2000-2008 to about 1% in 2010-2012. In turn, estimates by the IMF (2010) indicate that the global economic crisis may contribute to a reduction of potential growth in the largest developed economies from 2.1%, on average, in 2000-2007 to 1.1% in 2008-2011. The IMF also predicts that in 2012-2015 potential output growth in these economies may increase (to 1.7%), but will still be lower than in the pre-crisis period. However, currently it is hard to assess whether the reduced growth of potential output in the euro area and in other developed economies will continue beyond the horizon of these forecasts. To a large extent this will depend on whether the economic policy in the post-crisis period will support growth of the potential output of these economies or not (European Commission 2009). At the same time, the ageing of society will be an additional factor that will exert a negative impact on potential output growth in the euro area in the longer term and will require policies aimed at supporting the growth of potential output.

The global financial crisis had a relatively smaller impact on the Polish economy as compared to many other economies, including the largest developed ones. Nevertheless, Poland too saw a marked decrease in investment in productive capital as a result of the crisis. In 2009 gross fixed capital formation of enterprises fell by more than 7%. The investment decline in the Polish economy was mitigated by a very rapid rise in public investment, including infrastructure investments, the growth of which can also have a positive effect on the evolution of TFP. The low level of corporate investment can also continue in the coming period, as productive capacity utilisation clearly dropped in Polish enterprises due to the crisis. In addition, the decline in interest rates on loans to enterprises as a result of lower NBP interest rates was accompanied by a tightening of loan granting criteria, which was connected with the deterioration in the portfolio of those loans. However, the impact of Polish companies' limited access to investment loans may be offset by the relatively large share of own funds in financing investments. The crisis has not led to any significant worsening in profitability and liquidity of Polish enterprises.

[63] An increase in the equilibrium unemployment rate resulting from a prolonged period of heightened unemployment is called the hysteresis of unemployment.

[64] Those unemployed whose skills have not deteriorated during the crisis can also become less attractive to potential employers. Employers cannot verify the skills of job seekers without incurring costs and they assume that the long-term unemployed typically have lower skills. As a result, employers can be reluctant to hire people that are out of job for a longer period of time, regardless of their individual qualifications.

The economic downturn has also negatively affected the public finance situation in Poland. According to forecasts of the European Commission, the public finance deficit in 2010-2011 can continue at a level close to 7%, and the debt of this sector may increase to 59.3% in 2011, i.e. by more than 12 percentage points as compared to 2008. The growing borrowing needs of the government may contribute to an increase in the costs of financing in the economy, thereby adversely affecting private capital accumulation.

The slowdown of economic growth also adversely affected the labour market in Poland. In the conditions of relatively high flexibility of the Polish labour market, wage adjustments were stronger than employment adjustments and, hence, the rise in the unemployment rate was moderate. It can therefore be expected that the probability of severe hysteresis effects is limited. At the same time, despite adverse economic conditions, in 2009 the growth in the number of economically active accelerated. Furthermore, although it is difficult to clearly identify the scale and the sustainability of the impact of the crisis on migration processes, available data point to a decline in the emigration from Poland, particularly to Western European countries heavily affected by the crisis. The continuation of the reduced scale of emigration from Poland could be affecting the development of domestic labour supply favourably in the years to come and, consequently, the growth of potential output.

Estimates made on the basis of the NECMOD model used at the NBP indicate that, in view of the fast increase in investments in the pre-crisis period, the rate of productive capital formation in the Polish economy could still range at a relatively high level in 2009. The weakening of physical capital investment related to the global financial crisis can translate into a slowdown in capital accumulation in 2010-2012, which will be conducive to lower growth of potential output in that period. However, the projection based on the NECMOD model indicates that the high growth in public investment will support the return of the pace of capital accumulation in the coming years above the 2004-2008 average. At the same time, in line with the June projection based on the NECMOD model, TFP growth may decelerate from 2.0% on average in the period 2004-2008 to 1.8% in the years 2009-2011, which will also negatively affect potential output. The projection also indicates that the coming years may bring an increase in the equilibrium unemployment rate (Non-Accelerating Wage Rate of Unemployment), which in combination with slower labour supply growth will be conducive to lower potential output growth than before the crisis. Estimates based on the NECMOD model indicate that potential output growth in Poland can fall from 4.5% in 2004-2008 to 3.5% in 2009-2012. As in other economies it is difficult to assess whether the decline in potential output growth in the Polish economy will prove permanent or not.

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Chapter 3.

Monetary policy in February - June 2010

At the meetings in February, March, April, May and June 2010 the Monetary Policy Council decided to keep the NBP interest rates unchanged: the reference rate at 3.50% on an annual basis; the lombard rate at 5.00% on an annual basis; the deposit rate at 2.00% on an annual basis; the rediscount rate at 3.75% on an annual basis and the discount rate at 4.00% on an annual basis.

What follows in the next part of the chapter are the previously published *Minutes of the Monetary Policy Council decision-making meetings* held in February, March, April, and May 2010, as well as the *Information from the meeting of the Monetary Policy Council* in June 2010.

Minutes of the Monetary Policy Council decision-making meeting held on 24 February 2010

At the meeting, the Monetary Policy Council discussed primarily the interaction of the outlook for economic growth and inflation abroad and in Poland in the light of the February projection of the NBP, and the situation in the labour and credit markets.

It was pointed out that the better than expected GDP data for 2009 Q4 as well as the rise in industrial output and retail sales in January 2010, signalled further improvement in the economic activity in the United States. It was pointed out that increase in inventories might indicate an improvement in the assessment of future demand. A gradual deceleration of the unfavourable tendencies in the American labour market was also stressed. At the same time, some Council members listed the following factors likely to pose risk for sustainable recovery in the American economy: weakening of upward trends in the real estate market, further curbing of bank lending to the private sector and persistently high budget deficit.

While analyzing the situation in the euro area, the contrast between GDP growth in this economy as compared to GDP growth in the American economy was emphasized. A marked decline in industrial output in December 2009 and a low GDP growth in the euro area in 2009 Q4, including the stagnation in Germany, was stressed. Considerable differences in the situation of particular euro area countries were noted and it was argued that fiscal problems of Greece, Ireland, Italy, Portugal and Spain is an important risk factor for sustainable recovery in this economy. At the same time, further improvement in the business confidence indicators in the euro area was noted. Additionally, high growth in Asian economies whose demand might constitute a factor stimulating recovery in the economies being Poland's major trading partners was stressed.

Moreover, some Council members pointed out that an important risk factor for sustainable recovery in the global economy and, as a result, in the Polish economy, were the effects of the expected unwinding of stimulus packages in many countries. Other Council members indicated that deterioration in economic activity abroad and, consequently, in the Polish economy, might occur, among other things, due to a difficult fiscal situation in the developed countries. Some members of the Council argued that - despite weak GDP growth in the euro area, and in particular in Germany - a gradual increase in the Polish exports and imports had been noted, which resulted from Polish trade being more strongly connected with exports of Poland's main trading partners than with domestic demand in those countries. Additionally, some Council members indicated that in the case of considerable weakening of economic growth in the external environment of the Polish economy, depreciation of the nominal zloty exchange rate would be more likely than its appreciation. Combined with decreasing unit labour costs in industry this would increase price competitiveness of enterprises as compared with foreign countries, supporting positive contribution of net exports to GDP growth.

While discussing the situation in the Polish economy, the Council pointed at higher than expected growth in industrial output, continued improvement in business confidence indicators and further upward revision of GDP growth forecasts for 2010, prepared by external analysts. In the opinion of some Council members the released data indicate faster than previously expected acceleration of GPD growth. Some members of the Council assessed that retail sales growth in December 2009, being lower than anticipated in majority of forecasts, had resulted primarily from unfavourable weather conditions and was not a sign of weakening demand. Members of the Council pointed at a difficult situation in the public finance sector, including worse - as compared with the previous years - situation of the local government entities. Some Council members argued that the decrease in the number of employed in the public sector, as indicated by the BAEL data for 2009 Q4, and the possibility of this decrease being continued in view of the necessary reduction of public finance imbalance, might translate into lower income of some households, and, as a result, lower domestic demand. Yet, other Council members - pointing at difference between the growth of income from employment in the enterprise sector and the growth of income from employment in total - argued that the public finance sector, so far, had been increasing wage pressure rather than easing it.

While analyzing labour market data, majority of the Council members assessed that gradual stabilization of employment in the enterprise sector observed in the past few months might signal some deceleration of the unfavourable labour market tendencies. Yet, in the opinion of some Council members further rise in unemployment rate, driven by increased labour force participation amidst low labour demand, should support maintaining low wage pressure in the coming months. However, other Council members pointed at the negative impact of demographic factors on labour supply which would stimulate the wage pressure in the coming years.

While discussing the outlook for bank lending, some members of the Council assessed that banks' credit policy towards enterprises continued to be restrictive. This may have a negative impact on enterprises' activity the more so as persistently high share of companies has low liquidity. Those Council members indicated that Recommendation T issued in February 2010 by the Polish Financial Supervision Authority would contribute to reduced loan availability for households. According to those Council members the possible further weakening of bank lending to the private sector will be a factor curbing economic growth in Poland, which may - in the opinion of some Council members - speak in favour of the central bank taking additional measures stimulating indirectly bank lending.

Other members of the Council argued that high net profitability of enterprises coupled with high depreciation write-offs, and, as a result - in the opinion of those Council members - good liquidity situation of companies enables them to finance both their current and investment activities with their own funds, which limits their demand for loans. Those Council members also stressed a continued decline in the number of companies with very low liquidity and no liquidity problems being reported by majority of enterprises. They also pointed at the accelerating quarterly increases in household debt, including, in particular, a relatively high growth in housing loans. Those Council members indicated that the amount of housing loan instalments depended primarily on the level of interest rates in Poland. In their opinion, too late tightening of monetary policy aimed at stabilizing inflation at the target might require considerably stronger increases of the NBP interest rates in the future which would be conducive to significantly higher housing loan instalments.

While discussing the inflation developments it was pointed out that a slight rise in inflation above the upper limit for deviations from the inflation target in January 2010 was most probably a temporary phenomenon. Majority of the Council members emphasized that subsequent months were expected to bring a strong decline in inflation, even close to the lower limit for deviations from the inflation target. In the opinion of those Council members the strong decline in inflation would be driven primarily by base effects connected with high increases in regulated prices at the beginning of 2009 and by a decline in import prices being the result of the hitherto observed zloty appreciation, which will also contribute to the decline in core inflation. In the opinion of some Council members this effect will be additionally supported by the limited demand and wage pressures. Those Council members also pointed out that, on the basis of the currently available data, no increases in certain taxes, including exercise duty, should be expected this year. Increases in those taxes were previously assessed as a risk factor for decline in inflation. Other Council members stressed that despite strong decline in economic growth, inflation in Poland continued at a relatively high level.

While discussing the outlook for inflation in the medium term, some Council members emphasized that factors supporting low inflation would include: stable inflation expectations, relatively low production capacity utilization, possible tightening of fiscal policy resulting from the need to reduce public finance sector deficit and low demand pressure connected with a slow recovery in the global economy. Those Council members also pointed out that future decline in inflation was additionally signalled by continuously decreasing growth in M3 aggregate. Other Council members indicated, however, that higher inflation in the coming years might be driven by higher energy prices connected with further growth in oil prices. Those Council members argued that limited possibilities of increasing the supply of energy commodities justified the expectations of their price increases in response to the slowly rising demand in the global economy. At the same time - in the opinion of those Council members - attempts to increase the production of biofuels would also result in the rise of food commodity prices in the world markets.

The Council discussed the outlook for inflation in the light of the results of the February NBP projection. It was pointed out that the central projection path, under the assumption of constant NBP interest rates, indicated a gradual rise in inflation from 2010 Q4 - above the upper limit for deviations from the inflation target at the end of 2012, with core inflation in the years 2011-2012 expected to continue markedly above 2.5%. Some Council members argued that headline inflation remaining below the inflation target until mid-2011 would be driven by a strong decline in the growth of food and energy prices, i.e. categories likely to be affected by shocks, whose forecasts might be subject to considerable error. In the opinion of those Council members higher than assumed in the projection might also be, on the one hand, the growth in unit labour costs and, on the other hand, growth in private consumption (according to the projection, the latter should remain markedly below the average level for the years 2000-2009). They assessed the situation in which until the end of the projection horizon the negative output gap widens as very unlikely. As a result, according to those Council members, inflation in the medium term may run above the central projection path. Other members of the Council argued, however, that different than assumed in the projection developments in zloty exchange rate may translate into more favourable than presented in the February projection assessment of risk for stabilizing inflation at the target in the medium term.

The discussion at the Council's meeting also focused on issues connected with Poland's monetary integration with the euro area, including participation of the zloty in the Exchange Rate Mechanism II. The Council discussed the conditions to be fulfilled for Poland to join the euro area. The Council agreed that Poland should join the ERM II and the euro area at the earliest possible date, after meeting the necessary legal, economic and organisational conditions.

While discussing the outlook for monetary policy in the coming months, some Council members emphasized that in line with the February projection the probability of inflation running in the medium term above the inflation target was higher than the probability of inflation running below the target which - in their opinion - justified signalling in the Information from the MPC meeting that the balance of risks for inflation might soon change. Other members of the Council argued, however, that the uncertainty related to macroeconomic developments in the global economy, and in particular, in the euro area, does not allow to assess clearly whether the risk for inflation in the medium term running above the inflation target had considerably increased.

The Council assessed that the data on the economic situation in Poland and abroad released since its last meeting justified maintaining the interest rates unchanged at the current meeting.

While considering the decisions on the NBP interest rates in the future, some Council members agreed that the expected rise in inflation in the years 2011-2012 might indicate the need of tightening of the monetary policy in 2010, although the timing of possible interest rate increases would depend on the current developments. Some Council members noted that further stabilization in the international financial markets might translate into a decline in risk premium accounted for in market interest rates, which - under constant NBP interest rates - would mean some easing of monetary conditions. In the opinion of other Council members too early tightening of monetary policy might, however, be conducive to an excessive appreciation of the zloty exchange rate.

The Council kept the interest rates unchanged: the reference rate at 3.50%, the lombard rate at 5.00%, the deposit rate at 2.00%, the rediscount rate at 3.75% and the discount rate at 4.00%.

Minutes of the Monetary Policy Council decision-making meeting held on 31 March 2010

During its meeting the Monetary Policy Council discussed primarily the outlook for economic growth and inflation in the world and in Poland, zloty exchange rate developments, the situation of the public finance sector and the future monetary policy.

While discussing the situation in the external environment of the Polish economy, a further rise in economic activity in the United States, particularly noticeable in industry, was emphasised. It was assessed that the stabilisation in the unemployment rate combined with an employment decline slower than in the previous period may signal a gradual deceleration of unfavourable tendencies in the labour market. At the same time, it was stressed that February brought a deterioration in US consumer sentiment, which could have been connected with the still high unemployment level and a worsening situation in the real estate market. Some members of the Council argued that a limited scale of lending to the private sector and the bad situation in the real estate market, on the one hand, and the persistently high budget deficit, on the other, constitute risk factors to a permanent recovery of economic growth in the United States.

While analysing the situation in the euro area, it was pointed out that the economic climate there was improving at a markedly slower pace than in the United States, although - similarly to the US economy - the decelerating decline in employment and the stabilisation of the unemployment rate might be signalling that negative tendencies in the labour market were slowing down gradually. It was also argued that in the coming period economic activity in the euro area would be supported by a growing demand from developing economies, particularly Asian ones. Some Council members, however, pointed out that the outlook for euro-area exports may be negatively affected by their geographical structure and a weakening competitiveness of the German economy, connected with the recent rise in unit labour cost in this economy. It was also assessed that the latest monthly data, including a drop in retail sales and a deterioration of some economic climate indicators in January might point to a continuation of weak internal demand in the euro area. In the view of some Council members, the data on GDP for 2009 Q4 and the latest monthly data may indicate that the improvement of activity in this economy was only transitory and, to a large extent, resulted from government stimulus programmes.

In this context it was pointed out that the sustainability of the global economic recovery remained subject to uncertainty. In the opinion of some Council members this uncertainty is connected primarily with tensions in the financial markets caused by financial problems of some euro-area countries, notably Greece, and with macroeconomic policy in the largest European economies and in the United States being gradually less and less expansionary. Other members of the Council believed that this uncertainty mainly results from the build-up of public debt in many countries. While analysing the factors raising the uncertainty as to the outlook for economic growth in the world, some Council members also pointed to the faster growth of retail sales as well as of CPI and PPI inflation in China, which may indicate a growing imbalance in this economy. Those members argued that due to strong trade links between China and the euro area a possible weakening of economic activity in China would have negative effects on economic growth in the euro area and, consequently, also in Poland.

While addressing the monetary policy of major central banks it was emphasised that they were gradually withdrawing non-standard monetary policy measures. At the same time, it was assessed that due to the still weak economic recovery in the world and low inflationary pressure in major developed economies, interest rate hikes in those economies should not be expected in the coming period. It was also pointed out that the monetary policy in some countries of the region had been further eased in the recent period. On the other hand, some Council members emphasised that in certain developed economies the interest rate hiking cycle had already begun.

While discussing the situation in the Polish economy it was pointed out that in 2009 Q4 the annual growth of domestic demand was still relatively slow and GDP growth was primarily driven by net exports. At the same time, it was assessed that in the light of the latest monthly data the economic recovery primarily concerned industry, i.e. the sector most deeply affected by the economic downturn. It was also pointed out that retail sales data were lower than expected and that the construction and assembly output had fallen strongly in the first months of 2010, though - at the same time - it was assessed that those data could have been distorted by unfavourable weather conditions and in subsequent months some improvement could be expected. Some Council members suggested that the decline in the growth of retail sales may point to a delayed adjustment of the households' demand to the conditions of economic downturn. Moreover, some Council members argued that the fact that lending to the enterprise sector was markedly lower than a year ago could signal slow growth of this sector's investment. Other members of the Council, however, assessed that the rising trend of some consumer sentiment indicators observed in the past few months may be signalling a recovery in consumer demand in the coming period. They also argued that a low growth of loans to enterprises reflected their low demand for credit due to their very good financial results and high liquidity. In the opinion of those Council members, such assessment could be supported by the results of NBP economic climate surveys, according to which in 2009 Q4 the percentage of enterprises applying for loans declined, while the share of approved loan applications increased. Moreover, they assessed that in the coming period the rise in housing loans to households may accelerate once again, which was indicated by commercial banks' forecasts.

While discussing developments in consumer prices of goods and services, a marked decline in annual CPI inflation in February 2010 was pointed to, driven by a fall in annual price indices of fuel, energy commodities and food, and by a decline in core inflation. Some members of the Council emphasised that in the light of available forecasts inflation in the coming months would continue to decline, driven mostly by statistical base effects connected with a strong rise of administered prices in 2009, the appreciation of the zloty observed so far, moderate growth of unit labour costs and the currently low demand pressure. They indicated that the demand pressure was low due to the still unfavourable situation in the labour marked, reflected in a fall in the number of working persons according to the BAEL in 2009 Q4 and in a limited wage increase, and also due to the slow growth of loans to the non-financial sector. Other members of the Council indicated that an inflation decline in the coming period may be curbed by a rise in the prices of energy commodities in the world markets and the prices of natural gas for individual subscribers in the domestic market. In the opinion of some Council members, in the longer run the inflationary pressure would be rising due to the growing demand pressure connected with the economic recovery and the public finance sector imbalance, as well as due to a possible rise in wage pressure in a part of this sector. Some Council members also pointed out that despite the decline, in the recent period inflation had been higher than previously forecasted.

The prospects for Poland's compliance with the Maastricht price stability criterion were also addressed at the meeting. Some Council members stressed that the 12-month average HICP inflation, considered while assessing the compliance with the Maastricht price stability criterion, exceeded significantly the estimated reference value for this criterion. Those members also pointed out that a continuation of the positive differences between the Harmonised Index of Consumer Prices and the Consumer Price Index observed over the past year and a possible future inclusion of the prices of owner-occupied housing services in the HICP could affect the outlook for Poland's meeting of the price stability criterion.

The Council paid much attention to developments of the zloty exchange rate, which had strengthened significantly in the recent period. Some Council members assessed that the pace of zloty appreciation might have been excessive, arguing that since February 2009 the zloty had strengthened more than other currencies of the region. They pointed out that the zloty appreciation increased the restrictiveness of monetary conditions in Poland and might adversely affect the competitiveness of Polish exports decelerating the pace of economic recovery. It was also stressed that a fast appreciation of the exchange rate raised the risk of its increased volatility in the future. Other members of the Council assessed that the movements of the zloty exchange rate and of other currencies of the region were largely influenced by the situation in international financial markets and that the recent strengthening of the zloty was associated with a fall in global risk aversion. They also pointed out that the zloty appreciation was supported by the inflow of foreign capital into the Polish Treasury securities market, which was associated with large borrowing needs of the state budget. Those members argued that due to the higher scale of the earlier zloty depreciation connected with the financial crisis than in the case of other currencies of the region, the exchange rate of the zloty did not exceed the estimated equilibrium exchange rate despite the recently observed appreciation. According to these members of the Council, the current level of the zloty exchange rate did not significantly reduce the competitiveness of Polish exports, which was confirmed - in their view - by NBP studies showing improvement in exporting companies' assessments of their current and expected situation. Moreover, those members pointed out that the competitiveness of exports was positively affected by a decline in unit labour costs in industry. They also assessed that the growth of Polish exports was more dependent on trade growth in countries that are Poland's major trading partners than on the exchange rate level, although at the same time they stressed that the high exchange rate volatility may have an adverse effect on the development in the sector producing internationally tradable goods compared to the non-tradable goods sector.

Council members pointed to the unfavourable situation in the public finance sector, as evidenced by the very high cumulative budget deficit recorded by local government units in 2009 and a central budget deficit reaching a relatively high level relative to the full-year plan in the first two months of 2010. Some Council members assessed that a possible continuation of weak consumer demand would be conducive to reducing VAT revenues and increasing the budget deficit. According to those Council members, in the light of available data the consolidation measures planned by the government may prove insufficient to reduce the public finance sector imbalances in line with the objectives outlined in the Convergence Programme - 2009 Update. At the same time, those members emphasised that in case these problems aggravated, an outflow of foreign capital could occur that would be conducive to a weakening of the zloty.

The Council assessed that a moderate inflationary pressure over the monetary policy transmission horizon and uncertainty as to the outlook for economic growth in the world and in Poland, combined with the appreciation of zloty exchange rate so far, justified keeping NBP interest rates unchanged at the current meeting.

While addressing future decisions on the NBP interest rates, some members of the Council declared that in view of a risk of an excessive zloty appreciation leading to a surge in the restrictiveness of monetary conditions, their temporary easing by lowering the NBP interest rates could be considered. Some Council members argued that in the current situation an interest rate cut was unjustified and it could contribute to higher volatility of prices in the financial markets. Moreover, in the assessment of the majority of the Council, a temporary reduction of the NBP interest rates would necessitate a stronger monetary tightening in the longer term.

The Council kept the interest rates unchanged: the reference rate at 3.50%, the lombard rate at 5.00%, the deposit rate at 2.00%, the rediscount rate at 3.75% and the discount rate at 4.00%.

Minutes of the Monetary Policy Council decision-making meeting held on 28 April 2010

During its meeting the Monetary Policy Council discussed primarily the situation in the external environment of the Polish economy, including the possible consequences of the fiscal crisis in Greece, and the outlook for economic growth and inflation in Poland.

While addressing the situation abroad, it was pointed out that the economic activity abroad was gradually rising, although the scale of the recovery varied strongly between the regions. It was indicated that in March - for the first time since the beginning of the recession brought about by the financial crisis - a marked rise in employment in the United States was observed, which further boosted consumer demand in that economy. At the same time, it was emphasised that further improvement in the labour market would be achieved gradually. Moreover, it was assessed that the persistently limited scale of lending in the United States contributed to curbing demand in this economy in the months to come.

In the discussion about the euro area some members of the Council pointed at further increase in industrial output and improvement in business confidence indicators. Those members pointed out that rapid economic growth in the developing Asian countries leads to growing demand of these countries for euro area exports, thus contributing to GDP growth in the euro area. Other members of the Council emphasised, however, that the revival in the economic activity in the euro area was significantly weaker than in the United States, whereas, in the opinion of some Council members, this was mostly the effect of a relatively larger scale of fiscal and monetary expansion in the US economy in the preceding period. Those members also pointed out that the persistently unfavourable situation in the euro area labour market contributed to curbing consumer demand, which was reflected in the decline in retail sales in the first months of 2010. Yet, it was emphasised that unfavourable weather conditions were also an important factor behind this decline.

The Council paid much attention to the fiscal situation in the major developed economies. It was assessed that public debt accumulation in the United States and in the euro area, being the effect of the previously introduced stimulus packages, constituted the main risk factor for their economic growth. On the one hand, reduction of budget deficits, although likely to support economic growth in the longer run, could lead to another decline in activity in those economies in the short run. On the other hand, maintenance of the loose fiscal policy would be a factor limiting economic growth due to the ensuing increase in long-term interest rates.

While addressing the situation in Greece, some members of the Council pointed out that the fiscal crisis in that country would trigger tensions in the international financial markets and a rise in the market interest rates also in other economies, in particular, in the euro area countries with distinctly strong fiscal imbalances. The differences in the public finance situation and in capacity for its improvement amplify the diversity in the outlook for growth in particular euro area economies. In the opinion of those Council members, a contingent insolvency of the Greek government would entail losses for financial institutions operating in Europe that hold Greek government securities, which might contribute to a repeated limited access of European enterprises to bank credit. This would also significantly increase agents' uncertainty about the future economic situation, leading to a decline in the economic activity. At the same time, some members of the Council argued that although granting financial aid to Greece by other euro area countries would mitigate the current crisis, it might, in the longer run, translate into a decline in the confidence of financial market participants in the fiscal policy pursued in the euro area countries. This would, in turn, on the one hand, contribute to a rise in the market interest rates in those economies, and, on the other hand, weaken the euro exchange rate and increase the volatility of exchange rates of other currencies, including the zloty.

While analysing the situation in the Polish economy, a slight upward revision of GDP in 2009 Q4 and better than expected data on industrial output and retail sales were indicated. It was also stressed that economic recovery was observed mainly in industry. Some members of the Council pointed out that in March 2010 the sold production of industry reached higher level than before the economic slowdown, and its growth in the recent period was observed in the majority of the sections. They emphasised the improvement in enterprises' expectations about their economic situation and future demand as well as the fact that, although economic recovery had not translated yet into a rise in corporate investment activity, a higher than in the previous quarters percentage of firms surveyed by the NBP continued the already started investment projects. Those members also emphasised that the change in inventories might have a positive contribution to GDP growth in the subsequent quarters, which was signalled by a decreasing percentage of the surveyed enterprises reporting excessive levels of inventories of finished products and by an increasing percentage of firms assessing their inventory levels as too low. Yet, other members of the Council pointed at the deepening decline in the annual growth of corporate investment in 2009 Q4 as well as the decline in construction and assembly output and still low growth of retail sales in the whole of 2010 Q1. The Council also emphasised that the outlook for economic growth in Poland depended largely on the developments in the external environment, including the way the fiscal crisis in Greece will be contained and the fiscal problems of other economies solved.

Some members of the Council argued that the possible persistence of weak economic activity in the euro area, which is Poland's main trading partner, would limit the growth in Polish exports, thus slowing down GDP growth. Other members of the Council pointed out that - despite low economic activity in the euro area - in the past months Polish exports increased steadily, which was driven by the growing demand of Asian countries for European goods, produced with the use of Polish intermediate goods. They also pointed out that in the light of the NBP surveys, the situation of Polish exporters was improving and profitability of exports was high despite the appreciation of the zloty.

While discussing the situation in the labour market, it was emphasised that the data for March 2010 signalled possible deceleration of unfavourable tendencies in that market: acceleration in the annual wage growth and some stabilisation of employment in the enterprise sector, stabilisation of the employment rate (adjusted for seasonal factors) and a rise in the number of new job offers. Some Council members argued that a certain improvement in the labour market situation in 2010 Q1 was also indicated by the results of NBP survey studies of enterprises which pointed to a probable acceleration of wage growth in the following quarter. Other members of the Council assessed that the situation in the labour market will be improving only gradually and the improvement may not occur in some sectors of the economy, particularly construction.

In the discussion about current inflation it was pointed out that in March 2010 the annual CPI inflation fell to a level close to the NBP inflation target; all measures of core inflation and the HICP had also declined, while the PPI remained negative. Some Council members, however, argued that the decline in CPI inflation in March was largely driven by lower annual growth of the prices of food and Internet services, which - according to these Council members - are not sensitive to shifts in demand pressure. In this context, they assessed that demand pressure might be better reflected by the growth of prices in the category restaurant and hotel services which remains relatively high. Those members also pointed out that Poland had not complied with the Maastricht price stability criterion for many months.

While analysing the outlook for inflation, some members of the Council pointed out that in line with the available forecasts the CPI inflation in the coming months would be running below the NBP inflation target. This would primarily result from a moderate demand pressure reflected in low production capacity utilisation, recently observed zloty appreciation and low growth of labour costs in the economy, including their decline in industry. In the opinion of those Council members, demand pressure should be curbed by a relatively high unemployment rate and low growth of lending to the private sector, including in particular the decline in loans granted to enterprises. At the same time, it was assessed that inflation decline may be limited by rises in commodity prices in the world markets (though this effect may be offset by the so-far zloty appreciation) and by the persistently elevated growth of some administered prices. Other members of the Council assessed that the scenario of the annual CPI inflation running markedly below the inflation target for an extended period was rather improbable as the recovery in the Polish economy and an improvement in the labour market situation (which was probable in the light of the latest data), including in particular a possible acceleration of wage growth, will lead to a gradual build-up of demand and cost pressures. They argued that a decline in unit labour costs was typical of the current phase of the business cycle and it may be expected that further recovery in the economic activity would be accompanied by their faster growth. Moreover, in view of those Council members, the drop in lending to enterprises may be reflecting low credit needs on the part of companies due to their good financial situation. It was emphasised, however, that in the assessment of banks the decline in the demand for credit mainly applied to large enterprises, while the demand of small and medium-sized enterprises was rising.

Some Council members pointed to the data on industry which indicated that in comparison to the situation before the economic slowdown the highest increase in output was recorded in the case of consumer goods. In view of those Council members, this may suggest that the utilisation of production capacity in enterprises producing consumer goods was higher than in the industrial sector on average, which may be relevant for the assessment of the future price growth of those goods. Other members of the Council, however, emphasised that consumer goods were internationally tradable goods, which should be curbing their price growth even amid high utilisation of production capacity in their producers.

The members of the Council also referred to the unfavourable public finance situation. It was pointed out that the loose fiscal policy was contributing, through the large issue of Treasury securities, to increased involvement of non-residents in the bond market. This raises the vulnerability of the Polish economy to a possible turmoil in the global financial markets leading to capital outflows from emerging market economies. Some Council members assessed that in the event of no public finance consolidation the costs of financing the public debt would continue to rise due to, among others, a possible ensuing increase in the inflation expectations of economic agents. They also pointed out that the yields on Treasury securities in Poland were currently higher then in some other countries of the region. Other members of the Council believed that the current fiscal imbalance did not pose a direct risk of higher inflation amid the currently low inflation pressure, though they shared the opinion that the continuation of such imbalance in the longer term would be a factor limiting the GDP growth.

While addressing the exchange rate issues, some Council members assessed that zloty exchange rate developments might have been affected by expectations of future changes in the interest rate disparity between Poland and the euro area. Other members of the Council, however, argued that changes in zloty exchange rate were to a large extent driven by factors other than the current and expected interest rate disparity, including in particular shifts in the sentiment in the global financial markets.

The Council assessed that the low inflationary pressure over the monetary policy transmission horizon and the uncertainty as to the impact of the situation in the external environment on the outlook for economic growth in Poland justified keeping the NBP interest rates unchanged at the current meeting.

The Council kept the interest rates unchanged: the reference rate stands at 3.50%, the lombard rate at 5.00%, the deposit rate at 2.00%, the rediscount rate at 3.75% and the discount rate at 4.00%.

Minutes of the Monetary Policy Council decision-making meeting held on 25 May 2010

During its meeting the Monetary Policy Council discussed primarily the situation in the external environment of the Polish economy, zloty exchange rate developments and the outlook for economic growth and inflation in Poland.

While addressing the developments abroad, strengthening recovery in the United States was emphasized, in particular an improvement in the labour market and restoring consumer demand. Some Council members assessed that the recovery in the US economy may persist even after withdrawal of fiscal stimuli, although the scale of improvement in economic activity may be curbed by still limited access to loans and the appreciation of the US dollar against the euro. At the same time a gradual increase in euro area economic activity and improving economic conditions in Central and Eastern Europe, a region with a substantial share in Polish exports, were pointed at. In particular, attention was drawn to positive data from the German economy. Some Council members emphasized positive impact of a rapid economic growth in China on short-term prospects of German exports, and consequently, on the exports of Central and Eastern European countries. At the same time those members pointed out that the growing macroeconomic imbalances in China, reflected in the rising inflation in the country, generated a risk to global economic growth in the longer term.

During the discussion on the economic outlook for the euro area, the risks associated with the fiscal problems of many countries of the region were highlighted. Some Council members argued that in order to contain growing public debt in these countries, substantial fiscal consolidation must be conducted. If combined with the rise in market interest rates and more difficult access to loans it could have a dampening impact on economic growth in the euro area in the short- and medium-term. Some Council members pointed, however, to uncertainty regarding the possibility of carrying out significant fiscal adjustments in some euro area countries. At the same time other members of the Council deemed the possibility of limiting spending of households and enterprises as a result of the increased uncertainty associated with the fiscal imbalances and curbing of public spending in some euro area countries to be a downside risk to a medium-term economic growth of this region. They argued that this constitutes more important downside risk to the euro area economic growth than the increase in the long-term interest rates.

On the other hand, some Council members indicated that the recently observed euro depreciation, increasing the price competitiveness of euro area exports could favourably affect the economic growth in this region. Other Council members argued, however, that the euro exchange rate fluctuations had a moderate impact on the competitiveness of euro area exports due to the structure of exports of major euro area economies.

While analysing global price developments, the rise in inflation in the major emerging economies was emphasized. At the same time, some Council members indicated that inflationary pressures remained low in the major developed economies, where core inflation fell in April 2010 to historically low levels. They made a point that a drop in oil prices in the world markets in May 2010 could contribute to a decline in headline inflation in the world. Other Council members, however, assessed that the recent fall in oil prices had been associated with the appreciation of the US dollar, and therefore its disinflationary impact would be limited. Furthermore, they also pointed out that a strong growth in euro-denominated commodity prices observed until April 2010 may be conducive towards an increase in inflation in the euro area.

While analysing the situation in the Polish economy, it was highlighted that the persistent upward trend in industrial output, further increase of economic indicators, and improving situation on the labour market confirmed the continued recovery. Some Council members indicated that the low level of investment in the corporate sector may limit future economic growth in Poland. Other Council members argued that the low level of investment was typical of the current phase of the business cycle.

While discussing the impact of the national mourning and the flood on the Polish economy, some Council members believed that those events would have a minor impact on the economic growth in Poland. Other Council members assessed that the national mourning could significantly affect consumer demand, and therefore April 2010 was likely to bring lower growth of retail sales. Moreover, some Council members pointed out that the flood had not yet come to an end, so there was considerable uncertainty regarding the scale of its impact on the economy. They made a point that the increase in investment (including public investment) as a result of the necessary removal of flood-related damage may be conducive to higher growth in subsequent quarters. At the same time, some Council members referred to uncertainty about the impact of flood on the inflationary developments in Poland, noting that the flood can contribute towards the growth in some prices, including those of unprocessed food and insurance.

In the discussion on inflationary developments, some Council members assessed that inflationary pressures in the Polish economy remain moderate at the current juncture. More specifically, those members highlighted a clear decline in core inflation rates observed in recent months, which - besides statistical effects - largely reflected an earlier appreciation of the zloty exchange rate and easing of cost and demand pressures. In their view, these factors should be determining inflation also in the coming months. Moreover, as those Council members claimed, continued relatively low growth in unit labour costs - characteristic of the current phase of the business cycle - and stable inflation expectations of economic agents should favour inflation running at the level which would pose no risk to meeting the inflation target over a one-year horizon. In addition, some Council members indicated that subdued lending and low capacity utilization in the economy would also have a dampening impact on the inflation in Poland. It was emphasized that most available forecasts implied the persistence of low inflation in coming months.

Other Council members stressed, however, that April 2010 was a consecutive month of a marked hike in inflation on a monthly basis, and also noted that the level of consumer prices rose by 1.6% in the first four months 2010 as a result of those increases. They emphasized that the balance of risks for short-term NBP inflation forecasts was asymmetrical and pointed to a greater risk of higher inflation than would follow up from the central path. Those members also drew attention to the hikes observed in recent months in prices of certain goods imported from countries with low production costs and to the stabilisation of China's share of Polish imports. According to those Council members it may indicate that while recovering from the current economic slowdown, inflation would not be reduced by the increasing share of these goods in consumption, as was the case during the previous downturn. Moreover, some Council members pointed out that the recent weakening of the zloty exchange rate, increases in administered prices and strengthening economic recovery should contribute towards higher inflation in Poland.

While discussing the zloty exchange rate and its impact on inflation, the Council considered that the current exchange rate of the zloty was marked by high volatility. In view of the Council, changes in investors' sentiment in global financial markets, largely determined by changing perception of fiscal risk in Greece and some other euro area economies, significantly influenced short-term zloty exchange rate fluctuations. Some Council members pointed out that in line with the convergence of the Polish economy, the appreciation of the zloty exchange rate may be expected in the longer term, and that the current disturbances were not of a permanent character. Uncertainty on financial markets may, however, impact zloty exchange rate developments in the short term.

In the discussion on the labour market situation, a gradual increase in employment in the corporate sector and a decline in the seasonally-adjusted unemployment rate in April 2010 were pointed at. Some Council members took note that employment growth in the corporate sector had not been so far accompanied by a significant increase in wage pressure. Other Council members, however, emphasized that the growth rate of social security and health contributions indicated that the increase in wages in the economy may be stronger than in the corporate sector, whereas a rapid growth in disposable income in Q4 2009 may reflect a fast growth in income from other sources than labour. Moreover, those members assessed that the growing ability of enterprises to finance spending may make them more willing to increase wages or employment. At the same time, those members pointed out that April 2010 was the second consecutive month of increase in the annual real wages in the corporate sector.

While analysing credit market developments, it was pointed at further decline in the value of corporate loans, in particular in investment loans, and low growth of loans to households. Some Council members argued that low level of lending to the corporate sector was typical of the current phase of the business cycle. They emphasized that the demand for credit may also be limited by favourable liquidity conditions of enterprises, as evidenced by the liquidity ratios which rose in Q1 2010 to their historical heights and by a robust growth in corporate deposits. Other Council members pointed out, however, that the data on the liquidity of enterprises covered relatively large companies, whereas limited access to loans adversely affects the development prospects of small and medium-sized enterprises, which have higher demand for external financing in the form of bank loans.

Referring to the prospects of lending, some Council members pointed out that thanks to their strong capital position banks could increase the supply of loans. According to those members of the Council, at the time being the turmoil in international financial markets limits the increase in the supply of housing loans denominated in foreign currencies by creating obstacles to their refinancing. If the turmoil recedes, this segment of the credit market may show a rapid expansion.

While addressing the fiscal policy, some Council members assessed that fiscal policy tightening in the short term would result in a slower economic growth in Poland. However further fiscal consolidation is required to reduce the general government deficit. Moreover, those members assessed that postponing Poland's accession to the euro area would reduce incentives for early fiscal reforms.

While referring to Poland's compliance with the price stability criterion of the Maastricht Treaty, some Council members pointed out that countries with negative twelve-month average HICP inflation rates had been included to determine the reference value for the price stability criterion in the May 2010 Convergence Reports of the European Commission and European Central Bank, which resulted in a very low level of the reference value. According to these members, regarding the countries with negative twelve-month average HICP inflation rates as the best-performing countries in terms of price stability may complicate the prospective fulfilment of this criterion by Poland.

While analysing monetary policy abroad and at home, some Council members indicated that the central banks from Central and Eastern Europe had further eased their monetary policies and, according to market expectations, the ECB should raise interest rates at the earliest in the following year. Other Council members argued, however, that the parameters of monetary policy in Poland may change earlier than in the developed economies. Some Council members assessed at the same time that the increase in ex post real interest rate (CPI-deflated) in April 2010 was indicative of a more restrictive monetary policy.

The Council assessed that the uncertainty concerning the impact of the situation in the external environment on the outlook for economic growth in Poland and on the zloty exchange rate justified keeping the NBP interest rates unchanged at the current meeting. Moreover, some Council members argued that a more comprehensive assessment of the outlook for inflation and economic growth in Poland will be possible after considering the June inflation and GDP projection.

The Council kept the interest rates unchanged: the reference rate at 3.50%, the lombard rate at 5.00%, the deposit rate at 2.00%, the rediscount rate at 3.75% and the discount rate at 4.00%.

Information from the meeting of the MPC held on 29-30 June 2010

The Council decided to keep the NBP interest rates unchanged, i.e. the reference rate at 3.50%, the lombard rate at 5.00%, the deposit rate at 2.00%, the rediscount rate at 3.75%, and the discount rate at 4.00% on an annual basis.

Further signals of recovery can be seen in the world economy. However, the rate of economic growth varies across regions.

The recovery in the United States has continued, even though some economic activity indicators (including the latest data on GDP growth in 2010 Q1, the real estate market and retail sales) have deteriorated in this country in the recent period. At the beginning of 2010 Q2 the level of economic activity in the euro area proved higher than in Q1. However, the slight worsening in the business climate indicators in subsequent months may be signalling the slower pace of activity improvement in this region. The short-term growth outlook for the euro area is negatively affected by the uncertainty regarding the pace of reducing public finance imbalance in the region, including the uncertainty connected with the fiscal crisis in Greece.

At the same time, fast economic growth is continuing in the largest emerging economies. The ensuing risk of a significant deepening of economic imbalance as a result of the economic boom leads to a gradual tightening of macroeconomic policy in these countries.

Disruptions in the international financial markets, connected with the uncertainty as to the reduction of fiscal imbalances in some of euro-area countries, continued. The scale of those disruptions has nevertheless decreased recently, which has contributed to halting the fall in prices of some financial assets.

The data on the Polish economy indicate a stabilisation of the rate of economic growth. Robust increase in industrial output continued. Following a strong decline at the beginning of the year, construction output is also gradually increasing. In May retail sales rose as well. Employment growth in the enterprise sector (for the first time since January 2009 also in year-on-year terms) and stabilisation of the unemployment rate (in seasonally adjusted terms) observed in May 2010 are signs of a gradual improving labour market situation. At the same time, in May 2010 real wages in the enterprise sector increased (in year-on-year terms) for the third consecutive month. The growth of loans to households stabilised at a moderate level. The investment activity of enterprises is still limited and will probably remain so in the quarters to come, especially because the production capacity utilisation in enterprises - though rising - remains low. No revival in lending to the corporate sector can be seen, which is characteristic amid a low investment activity and good financial situation of enterprises, including their good liquidity standing.

In May 2010 the annual CPI inflation fell back again (to 2.2%), running below to the NBP's inflation target of 2.5%. This decline in CPI inflation was mainly connected with a decrease in core inflation. In the coming period, inflation will be further lowered by negative base effects stemming from a strong increase in the prices of excise goods in 2009.

The Council has got acquainted with the projection of inflation and GDP prepared by the Economic Institute of the NBP, which is one of the inputs into the Council's decision-making on the NBP interest rates. In line with the June projection - under the assumption of constant NBP interest rates - there is a 50-percent probability of inflation running in the range of 2.3-2.9% in 2010 (compared to 1.3-2.2% in the February projection), 2.1-3.3% in 2011 (compared to 1.7-3.1%) and 2.2-3.7% in 2012 (compared to 2.6-4.6%). In turn, the June projection sees the annual GDP growth with a 50-percent probability in the range of 2.5-3.9% in 2010 (compared to 2.1-4.1% in the February projection), 3.3-5.9% in 2011 (compared to 1.8-4.0%) and 2.2-5.0% in 2012 (compared to 1.9-4.3%).

The Council has discussed factors that may fuel inflationary pressures in the medium term.

An important factor affecting monetary policy is the situation of public finance, especially in the face of changing attitude in many European countries to high budget deficits and growing public debts. Introducing decisive measures aimed at permanently reducing the deficit of the general government sector and at curbing the increase of the public debt is necessary for macroeconomic stability and will allow the meeting of euro adoption criteria.

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

The Council has adopted the *Inflation Report - June 2010.*

Chapter 4.

Projection of inflation and GDP

The inflation and GDP projection has been prepared at the Economic Institute of the National Bank of Poland. The content-related supervision over the work connected with the projection has been entrusted to a member of the NBP's Management Board, Mr. Eugeniusz Gatnar. The works on the projection were coordinated by the Bureau of Macroeconomic Forecasts of the Economic Institute. The projection was prepared with the use of the macroeconomic model NECMOD.[65] The projection is an outcome of an iterative process in the course of which the paths of some variables were adjusted if they diverged from NBP experts' economic intuition based on their knowledge of economic processes. The Management Board of the NBP approved the projection to be submitted to the Monetary Policy Council. The projection was prepared under the assumption of constant NBP interest rates and is one of the inputs to the Monetary Policy Council's decision-making process.

International environment

In 2010 Q1, the euro-area , the US and UK economies recorded GDP growth in quarter-on-quarter terms which confirms the scenario of these economies' recovery from the recession. Recovery in those economies was largely driven by expansive fiscal and monetary policy. Nevertheless, incoming data from the euro area (no significant improvement in the labour market, emerging fiscal problems of some countries), are slightly revising downwards earlier forecasts of the pace of the euro area economy's recovery from the recession. Therefore, it is expected that monetary policy in the euro area will start tightening later than anticipated in the February projection and the ECB will postpone interest rate hikes until 2011.

Following the disclosure of the scale of fiscal problems in some countries of the euro area, risk aversion has increased in global financial markets and the appreciation trend of the dollar against the euro observed since early 2010 has strengthened. Prices of the world energy commodities, following strong surges at the turn of 2009 and 2010, will continue, in the years to come, on a moderate upward trend, which will be the result of a rebound in the global economy and a growing demand for these commodities in emerging countries in Asia. In turn, price stabilisation resulting from favourable supply conditions is expected in the world agricultural markets.

Aggregate demand

Economic growth in Poland in 2010-2012 will be determined primarily by domestic demand, while net exports will have less importance than in previous years. Domestic demand will grow

[65] Current version of the model's documentation is available at the NBP web site.

steadily both in current and the next year, while in 2012 it is expected to weaken. This is largely due to the expected high growth of public investment in 2011, resulting from the intensification of infrastructural preparations before the European Football Championship EURO 2012. Corporate investment in the short projection horizon will continue to decline, and only since 2011 Q2, its annualized growth rate turns positive. By contrast, growth in household consumption demand, following a slowdown in late 2009 and 2010, will increase in subsequent quarters of 2010 and then will remain relatively stable until the end of the projection horizon. In 2010-2011 a significant contribution to the acceleration in domestic demand growth will also be made by build-ups in inventories, which were strongly reduced by enterprises in 2008 Q4 - 2009 Q4.

The persistent difficult situation in the labour market and the consequent reduction in disposable income will be reflected in the development of consumer demand, which will grow more slowly than the GDP throughout the projection horizon. In addition to low wage fund growth, factors inhibiting the growth in individual consumption will also include moderate growth in net transfers to households, gradual increase in inflation diminishing consumer purchasing power and tightened credit policy of banks in a short period. From 2010 Q4 to the end of the projection horizon, household consumption will grow slightly faster than the increase in real disposable income, this being impacted by low real interest rate, resulting from the gradual rise in inflation, and the projection assuming the NBP constant reference rate.

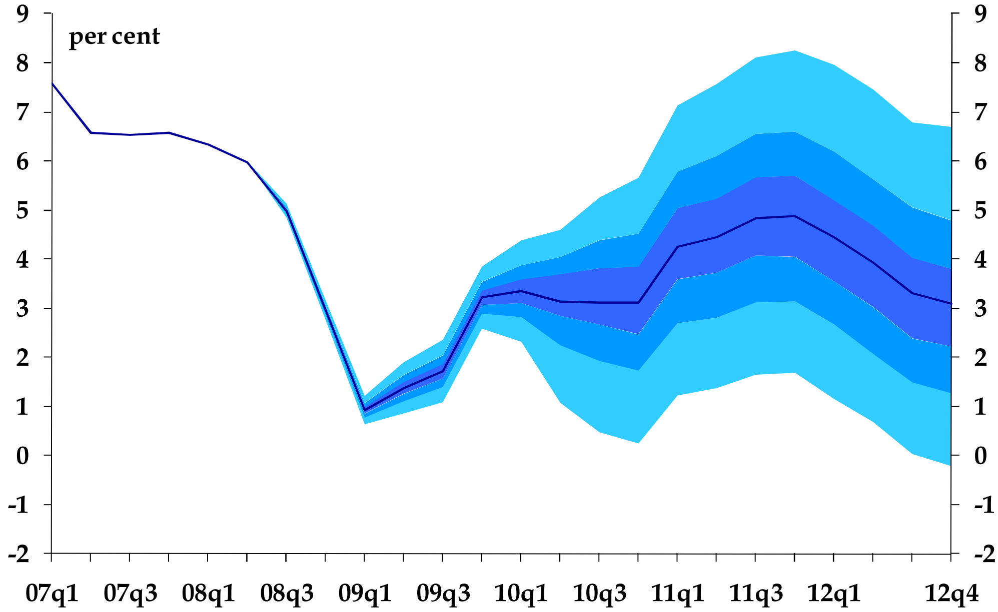
The growth in investment demand of private companies will remain negative until 2011 Q1, to recover gradually later on, and reach a double-digit growth rate at the end of the projection horizon. In the horizon of the next year, private investment will continue to be limited by negative sales outlook, relatively low levels of capacity utilization and the still limited availability of credit to enterprises (especially SMEs). Since 2011 Q2, the growth rate of gross fixed capital formation of enterprises will gradually increase, reflecting a recovery in domestic and foreign demand and expected improvements in the credit market. In addition, private investment will be driven by the decline in real interest rates. Nevertheless, in the years to come, the inflow of foreign direct investment will be small and will not have a significant impact on the level of corporate investment.

Throughout the projection horizon, the inflow of EU structural funds will stimulate growth in gross fixed capital formation in the public sector. However, given the need for infrastructure development prior to the European Football Championships Euro 2012, it is expected that capital expenditure will reach its maximum in 2011 and, in conjunction with a low import intensity for this type of investment, will have a significant, positive effect on GDP growth.

On account of the devastation caused by flood and the payment of government aid for renovation and reconstruction of houses, housing investments are expected to rise already in the short projection horizon. However, household investment will remain hampered by persistent restrictive lending policies of banks, although this effect will be mitigated by a gradual decline in margins on such loans. In the longer projection horizon credit availability will improve and housing investments will grow at a rate close to the rate of consumption growth.

Over the projection horizon, improving economic situation of the Polish main trading partners will translate into a faster growth in exports. In the coming quarters, due to low import intensity of domestic demand (low corporate investment and individual consumption), imports growth rate will remain at a lower level. As a result, in 2010 the contribution of net exports will stand at 0.7 percent points. However, in subsequent years trade balance will fall due to deteriorating terms-of-trade and increase in domestic demand.

Figure 4.1
Central GDP projection and fan chart.



Source: NBP.

Macroeconomic equilibrium

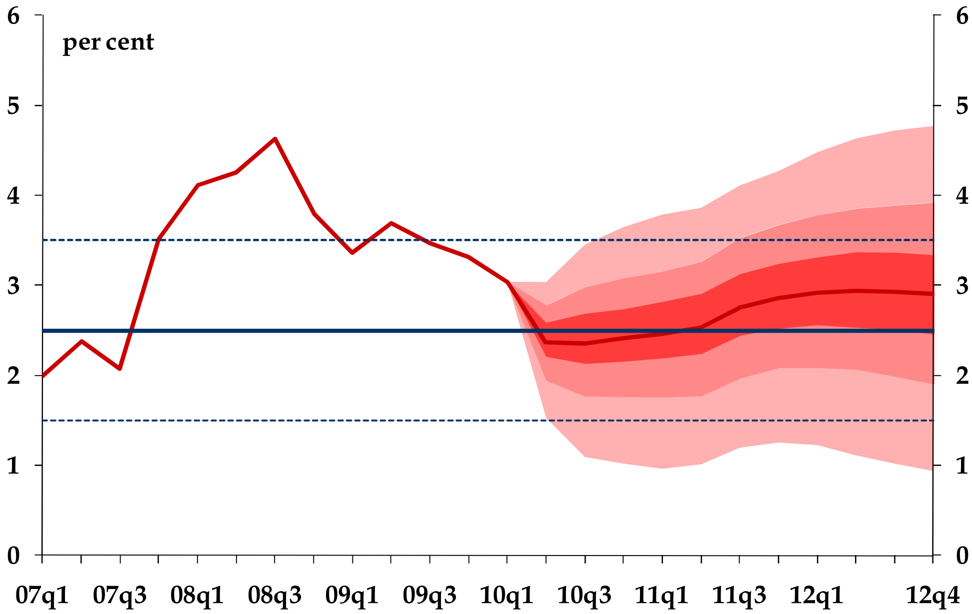
Output gap, negative at the beginning of the projection horizon, will close in 2011 Q2, and in subsequent quarters will expand, reaching 1.0% of GDP in 2012. The output gap will more closely correspond to the current GDP growth than to the increase in potential output which in the projection horizon will grow at a relatively stable rate of 3.0% y/y, on average . Potential output growth will be supported by a rapid (on average around 4.8% y/y) increase in productive capital associated with intensification of infrastructure investments, and, to a lesser extent, systematic growth of participation rate. The growth of potential output will be inhibited by the increase in the equilibrium unemployment rate and reduction in the share of private corporate investment in 2009-2010.

The economic slowdown initiated in 2008 Q4 will continue to negatively affect the situation in the labour market. Companies will reduce costs both by limiting wage increases and reducing employment. However, unlike previous periods of slowdown, the effect of the so-called labour hoarding is expected to be stronger this time, and thus a smaller scale of redundancies will occur amidst a stronger reduction in wage growth. Therefore, in the short projection horizon, the growth rate of real wages, recorded during the boom in the labour market which lasted till 2008, will remain lower than labour productivity growth, which will be conducive to closing the positive gap between real wages and productivity In the longer projection horizon, with an increase in positive output gap, there will be a gradual improvement in the labour market, employment will cease to fall and real wages will grow at a rate close to the labour productivity growth. Throughout the projection horizon, the wage pressure will be limited by positive changes in the demographic structure of the population (in particular the increase in the share of people within the age range of 25-44 characterised by a high participation rate) and a positive net migration. In the longer horizon, the unemployment rate is to stabilize at around 11.5%, close to the equilibrium unemployment rate.

Throughout the projection horizon, factors strengthening and weakening the exchange rate will be balanced and ultimately the exchange rate will be relatively stable. An appreciation of the exchange rate will be supported by systematic strengthening of the equilibrium exchange rate, inter alia, due to the positive balance of transfers associated with the inflow of EU funds and potential output growing faster in Poland than in the euro area. Factors that affect the depreciation rate will include a decreasing interest rate disparity (related to the assumption of constant NBP reference rate) and persistent high fiscal deficit (associated with the assumption of no fiscal policy changes).

The widening trade deficit will be financed to a large extent with the inflow of EU funds and, consequently, over the whole projection horizon, external imbalances measured by the ratio of current and capital account deficit to GDP will not exceed 1.3%

Figure 4.2
Central inflation projection, fan chart of inflation and NBP inflation target.



Source: NBP.

Inflation

In 2010 Q1 core inflation stood at 2.2% per year. In the two subsequent quarters core inflation is expected to decline further due to the positive development of the cost determinants of inflation (import prices and unit labour costs) and relatively low domestic demand. In the period of 2010 Q4 - 2011 Q2 core inflation will rise and then stabilize at around 2.6% y/y. In a short projection horizon this increase will reflect the rising growth of import prices. In the longer horizon, import prices dynamics will diminish, however, core inflation will be sustained by the recovery in the economy, which translates into a positive output gap and faster wage growth.

Appreciation of the zloty, from the period of early 2009 to 2010 Q2, will influence with a lag the energy and food prices inflation, both of which will decrease in the short projection horizon. The growth of energy prices, however, remains relatively high throughout the projection horizon, stabilizing from the beginning of 2011 at around 4% y/y. The above will be driven by energy commodities prices rising in the global markets (expressed in dollars), a relatively weak euro exchange rate against the dollar and costs associated with necessary investments in the energy sector. In contrast, in the short term the drop in food price inflation will follow from the adverse supply situation due to flood damage. In the longer projection horizon, amidst stable prices of agricultural commodities in the world markets and growing (along with the economic recovery) demand, food price inflation will rise to around 2.9% y/y.

From 2010 Q2 to Q4, CPI inflation will run slightly below the inflation target, due to low food prices inflation, core inflation falling until 2010 Q3 and declining energy prices inflation. Along with economic recovery, supported by low real interest rates, and increasing cost pressure, from 2011 Q3 inflation will rise above the inflation target, stabilizing at around 2.9% y/y in 2012. While assuming no changes in central bank's reference rate, the probability of average annual inflation running in the range of 1.5%-3.5% will decrease from 75% in 2011 to 61% in the last year of the projection.

Table 4.1
Balance of probabilities for future inflation path.

	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%)**
2010q2	0.05	0.57	1.00	0.46	0.95
2010q3	0.12	0.55	0.96	0.47	0.84
2010q4	0.13	0.52	0.93	0.47	0.80
2011q1	0.13	0.49	0.90	0.47	0.76
2011q2	0.12	0.46	0.88	0.47	0.76
2011q3	0.09	0.37	0.79	0.48	0.70
2011q4	0.08	0.34	0.74	0.48	0.67
2012q1	0.08	0.32	0.72	0.49	0.64
2012q2	0.09	0.33	0.70	0.49	0.61
2012q3	0.10	0.34	0.69	0.50	0.59
2012q4	0.12	0.36	0.69	0.49	0.57

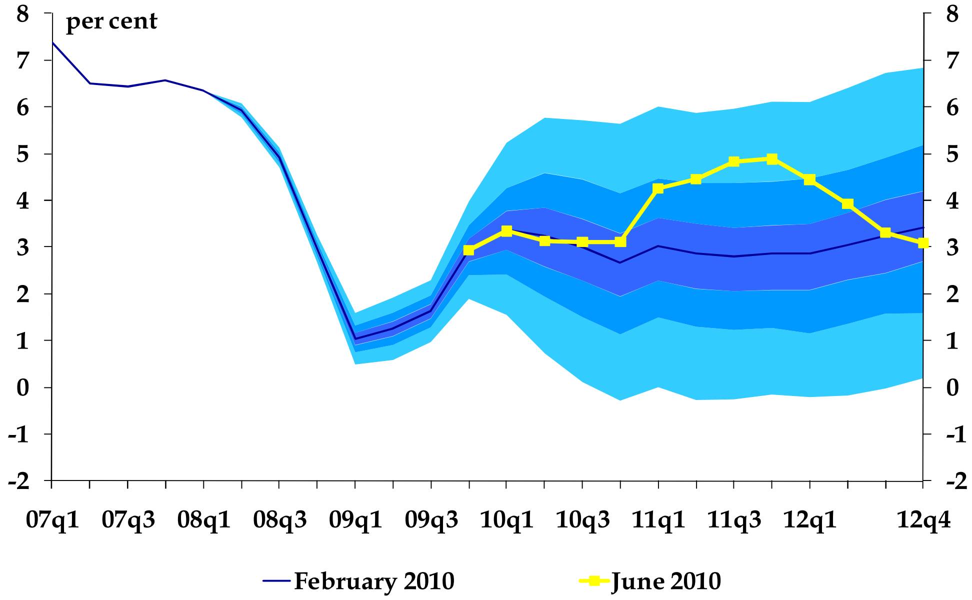
Source: NBP.

June projection compared to February projection

At the starting point (2010 Q1) and in the short horizon of the current projection, GDP growth remains close to the one forecasted in the previous projection round. In 2011, GDP growth will increase substantially above the February projection, due to higher public investment (linked to shifts in the use of EU funds) and individual consumption (which will be affected, among others, by zloty exchange rate being stronger than in the previous projection round). In the long horizon, with decreasing scale of public investment and a small downward revision in the scale of recovery abroad, GDP growth returns to levels close to those forecasted in the February projection.

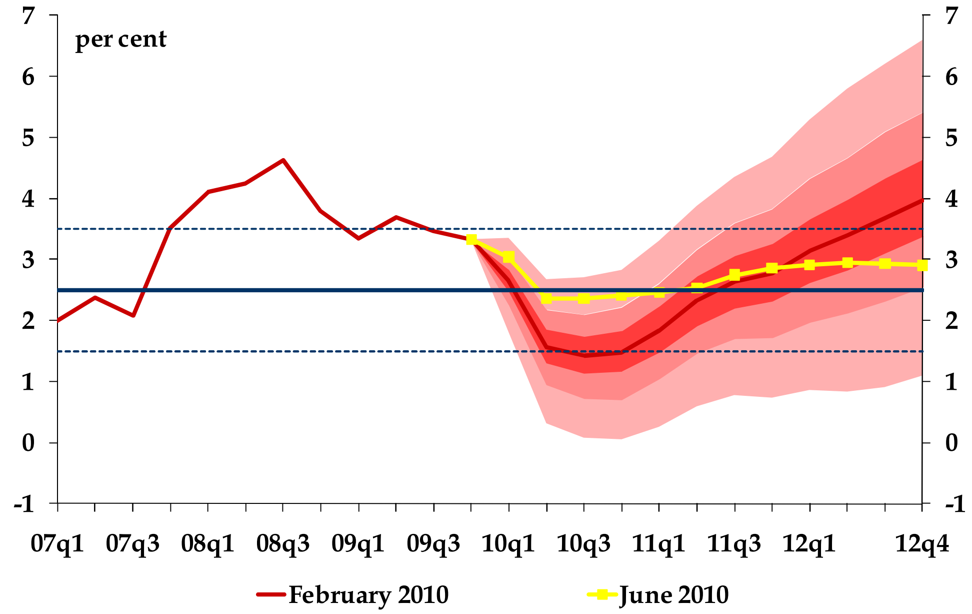
At the starting point of the projection, CPI inflation was recorded at 3.0% y/y, i.e. 0.4 percentage points above the February projection. It is a consequence of a stronger than expected increase in food and energy prices and lower core inflation. In the short horizon, consumer prices rise faster than projected in February, due to a higher starting point and a weaker euro exchange rate against the dollar which translates into higher prices of energy and agricultural commodities denominated in euro (with minor changes of commodity prices expressed in dollars between forecasting rounds .) In the long horizon, these two effects gradually die out, while stronger than previously projected zloty exchange rate lowers the rate of CPI inflation below the path projected in February.

Figure 4.3
June projection compared to February projection: GDP.



Source: NBP.

Figure 4.4
June projection compared to February projection: CPI inflation.



Source: NBP.

Main areas of uncertainty

External environment

The external environment remains the most important source of uncertainty for the inflation projection. On one hand, the pace and scale of global economic recovery remains unknown, including reaction of the economies of developed countries to the inevitable withdrawal of governments and central banks from a policy of strong fiscal and monetary stimulation. On the other hand, high uncertainty persists in global financial markets due to the recently growing concerns about the effects of increased indebtedness of some countries of the euro area. Growing demand in the world economy and its effect on prices of energy and agricultural commodities is an additional source of uncertainty.

Food and energy prices in Poland

Zloty exchange rate path, as signalled in previous forecasting rounds, remains a significant risk. On one hand, the high fiscal deficit and a possibility that the public debt goes beyond prudential thresholds poses a risk of weakening the zloty exchange rate, especially in the continuing uncertainty in global financial markets. On the other hand, a relatively high economic growth in Poland, as compared to other countries of the region and euro-area member states may step up the inflow of foreign direct and portfolio investment and contribute to zloty exchange rate strengthening.

In connection with significant impact of regulation on energy and food prices, they remain an important source of risks for inflation. High uncertainty is also associated with the future European Union environmental protection policy (including the implementation of standards on emissions of carbon dioxide), and regulatory activities in the food market. In addition, energy prices will significantly affect the tariff policy of the ERO given high investment needs of the energy sector in Poland.

Recovery of domestic demand

It is estimated that in the projection horizon, the probability of GDP running below the central path is higher, due to lower than expected demand from both public and private sectors.

The risk of a lower level of investment of the public finance sector is mainly associated with a lower than assumed in the projection use of EU funds by the public sector. Furthermore, in reaction to the increased debt of the public finance sector, the government may introduce a saving plan aimed at a reduction of current public expenditure.

The period of economic slowdown saw a considerable adjustment of inventories and investments of enterprises to the current and expected economic situation, where, apart from the tightening of banks' credit policy, the channel of market expectations played a significant role. In the projection horizon, with improved economic activity at home and abroad, these factors will determine the pace of rebuilding stocks and investment and thus will constitute an important source of uncertainty for GDP growth.

Discussion of data released after 21 May 2010

On May 31st, 2010, the Central Statistical Office (CSO) published a preliminary estimate of GDP for 2010 Q1. Compared to the starting point of the June projection, GDP growth was 0.4 percentage points lower, which primarily was the consequence of significantly lower rate of investment growth. The CSO estimate increased the risk of lower GDP in the short horizon. The data for May on the evolution of agricultural commodity prices in the world markets were higher than expected, i.e. the probability of CPI inflation developing above the central path increased in the short run.

Summary of risks to inflation and GDP projection

It is estimated that over the projection horizon the risk not included in the projection is well-balanced for inflation, while in the case of GDP growth, these risk factors indicate a possibility of output developing below the central path. The main risk to inflation is associated with the path of the zloty exchange rate, both against the euro and the dollar. The exchange rate also remains a crucial source of uncertainty for economic growth. Persistent significant risks are associated with the developments abroad. They are related to the pace of the global economy's recovery from the recession and the scale of tightening of fiscal and monetary policy in developed countries. The possibility of GDP running below the central path stems from the risk of lower than expected use of EU funds and a possible tightening of fiscal policy.

Table 4.2
Central path of inflation and GDP projection.

	2009	2010	2011	2012
Consumer Price Index (per cent y/y)	3.5	2.5	2.7	2.9
Food prices (per cent y/y)	4.1	1.6	2.1	2.9
Energy prices (per cent y/y)	5.5	5.5	3.8	4.1
Core inflation net of food and energy prices (per cent y/y)	2.7	2.1	2.6	2.6
GDP (per cent y/y)	1.8	3.2	4.6	3.7
Domestic demand (per cent y/y)	-1.0	2.4	5.1	3.7
Individual consumption (per cent y/y)	2.3	2.5	3.3	2.9
Collective consumption (per cent y/y)	1.8	2.1	1.2	2.8
Gross fixed capital formation (per cent y/y)	-0.8	-1.2	8.3	4.7
Contribution of net exports (percentage points y/y)	2.8	0.7	-0.5	0.0
Exports (per cent y/y)	-7.9	10.9	9.8	9.2
Imports (per cent y/y)	-13.6	8.6	11.0	9.1
Gross wages (per cent y/y)	5.2	3.6	4.0	5.8
Total employment (per cent y/y)	0.4	-1.2	-0.6	-0.1
Unemployment rate (per cent)	8.2	10.3	11.1	11.4
NAWRU (per cent)	10.4	10.4	10.9	11.6
Economic activity rate (per cent)	55.0	55.4	55.5	55.6
Labour productivity (per cent y/y)	1.3	4.4	5.2	3.7
Unit labour costs (per cent y/y)	3.6	-0.8	-1.1	2.0
Potential output (per cent y/y)	4.5	3.5	2.8	3.0
Output gap (percentage of potential GDP)	-1.0	-1.3	0.4	1.0
Index of agricultural commodity prices (USD; 2008=1.00)	0.84	0.85	0.86	0.88
Index of energy commodity prices (USD; 2008=1.00)	0.54	0.72	0.78	0.82
Foreign price level (per cent y/y)	1.5	1.1	1.5	2.0
Foreign GDP (per cent y/y)	-4.0	1.0	1.6	1.9
Current account and capital account balance (percentage of GDP)	0.1	-1.0	-1.3	0.2
3M WIBOR (per cent)	4.32	3.86	3.70	3.70

Source: NBP.

LFS data is the data source for total employment, economic activity and unemployment rates. 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.

Chapter 5.

The voting of the Monetary Policy Council members on motions and resolutions adopted in January - April 2010

- **Date:** 16 March 2010

  Subject matter of motion or resolution:

  Resolution No. 1/RPP/2010 on the stance of the Monetary Policy Council on Poland's participation in a temporary increase in the assets of the International Monetary Fund.

  Voting of the MPC members:

  For: S. Skrzypek
  E. Chojna-Duch
  Z. Gilowska
  A. Glapiński
  A. Kaźmierczak

  Against: A. Bratkowski
  J. Hausner
  A. Rzońca
  J. Winiecki
  A. Zielińska-Głębocka

- **Date:** 30 March 2010

  Subject matter of motion or resolution:

  Resolution No. 1/2010 changing the resolution on the principles for creating and unwinding provisions against the foreign exchange risk of the zloty against foreign currencies at the National Bank of Poland.

  Voting of the MPC members:

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

  Against: S. Skrzypek
  Z. Gilowska
  A. Glapiński
  A. Kaźmierczak

- **Date:** 20 April 2010

  Subject matter of motion or resolution:

  Resolution No. 2/2010 changing the resolution on the principles for creating and unwinding provisions against the foreign exchange risk of the zloty against foreign currencies at the National Bank of Poland.

  Voting of the MPC members:

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

- **Date:** 20 April 2010

  Subject matter of motion or resolution:

  Stance of the Monetary Policy Council on the way of interpretation by the Management Board of the National Bank of Poland of the MPC Resolution No. 9/2006 of 19 December 2006 on the principles for creating and unwinding provisions against the foreign exchange risk of the zloty against foreign currencies at the National Bank of Poland.

  Voting of the MPC members:

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

- **Date:** 27 April 2010

  Subject matter of motion or resolution:

  Resolution No. 3/2010 on approving the Annual Financial Report of the National Bank of Poland prepared as of 31 December 2008.

  Voting of the MPC members:

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

- **Date:** 28 April 2010

  Subject matter of motion or resolution:

  Resolution No. 2/RPP/2010 on the stance of the Monetary Policy Council on the IMF Flexible Credit Line.

  Voting of the MPC members:

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

  Against: P. Wiesiołek
  Z. Gilowska
  A. Glapiński
  A. Kaźmierczak