Inflation Report
February 2009

National Bank of Poland
Monetary Policy Council

Warsaw, February 2009

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's Management Board, Mr. Zbigniew Hockuba. The NBP Management Board approved the submission of the projection to the Monetary Policy Council. The inflation projection is one of the inputs to the Monetary Policy Council's decision-making process.

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

Since the October *Report* the situation in the external environment of the Polish economy changed considerably. The intensified financial market turmoil and the related increase in risk aversion were accompanied by a strong downturn in world economic growth and significant revisions of global growth forecasts. The decrease in the current and forecast economic growth relates both to developed countries and to emerging market economies, including Central and Eastern European countries. The worsening global economic conditions contributed to a marked drop of commodity prices which, coupled with a weakening of aggregated demand, was conducive to a decline of inflation in most countries. The developments in the global economy observed since the October *Report* have also affected the economic processes in Poland.

The annual growth of prices of consumer goods and services in the last four months of 2008 decreased to 3.3% in December, i.e. below the upper limit for deviations from the NBP inflation target. According to GUS preliminary data, the annual inflation in January 2009 declined further to 3.1%. In line with the expectations of the previous *Report*, conducive to curbing inflation was the fall in commodity prices in the world markets, including the prices of energy and agricultural and food commodities.

The main factor reducing inflation in the period October–December 2008 was the decline in fuel prices driven by a strong fall in crude oil prices in the world markets. Inflation decreased also due to the slower growth of prices of food and non-alcoholic beverages which might be attributed to the drop in the prices of agricultural and food commodities in the world markets and the negative base effects connected with the surge in food prices in the second half of 2007. The disinflationary impact of decreases in the prices of goods strongly influenced by globalization, the considerable part of which is imported from low cost countries, also persisted.

In the period October–December 2008 five of the six core inflation measures decreased. Core inflation excluding food and energy prices, after stabilizing at the level of 2.9% in the period September–November 2008, declined slightly in December 2008 (to 2.8%).

In the period October 2008–February 2009 the inflation expectations of bank analysts and individuals gradually declined. Inflation forecasts of bank analysts over the 11-month horizon fell from 3.2% in October 2008 to 2.2% in February 2009. In the survey of inflation expectations of individuals, the proportion of respondents expecting the price growth to pick up or continue at the same level in the months to come as compared with inflation observed at the moment of the survey decreased from 76% in October 2008 to 74% in February 2009. In turn, the objectified measure of inflation expectations of individuals decreased from 5.2% in October 2008 to 3.4% in February 2009.

In 2008 Q3 import prices expressed in PLN declined further, brought down by delayed effects of the zloty nominal exchange rate appreciation observed in the first half of 2008. On the one hand, the appreciation of the zloty dampened the impact of a strong rise in oil prices on import prices, and on the other, it contributed to steeper declines in the prices of other imported goods as a whole. As a result of export prices decreasing more quickly than import prices in 2008 Q3, the *terms of trade* deteriorated further.

A strong drop in oil prices that began in 2008 Q3 brought the prices of this commodity in 2008 Q4 down to a level lower than that observed a year earlier. Nevertheless, the depreciation of the zloty during this period resulted in a much more benign decrease of the prices expressed in PLN than in the case of the prices expressed in USD. Till the end of 2008 the strong drop in oil prices continued, accompanied by a reduction of the forecast prices. After a temporary rise in oil prices in the first half of January 2009, the prices stabilised above 40 USD/b.

In 2008 Q4 an increase was recorded in the growth of the PPI which reached 2.5% y/y. As a result of the depreciating zloty exchange rate, which led to increased growth of producer prices for exported goods, the difference between the PPI growth in the domestic market and the total PPI growth narrowed (from more than 3 percentage points in 2008 Q3 to 0.6 percentage points in 2008 Q4). The highest growth in producer prices was recorded in the section *production and supply of electricity, gas and water*, which at the same time had the highest contribution to the total PPI growth. Similarly as in 2008 Q3, the producer price growth in *mining* was high. Despite the significant contribution of *manufacturing* to industrial output, due to low growth in producer prices, the impact of this division on annual growth of the PPI was relatively low.

According to GUS preliminary estimates, GDP grew by 4.8% in 2008, which implies the GDP growth of approximately 2.9% y/y in 2008 Q4 (as compared with 4.8% y/y in 2008 Q3), i.e. below the expectations of the previous *Report*. Private consumption remained the main factor in GDP growth in the second half of 2008, while investment growth recorded a marked decline. As a result of recession abroad and a considerable economic slowdown in Poland, 2008 Q4 brought a significant decline both in exports and imports, and the contribution of net exports to GDP growth was close to zero.

According to GUS estimates in 2008 Q3 private consumption growth decreased to 5.1% y/y (as compared with 5.5% y/y in 2008 Q2). Public consumption did not change in 2008 Q3 as compared with the corresponding period of the previous year. Private consumption growth in 2008 Q4 implied on the basis of GUS annual estimates reached approx. 5.3% y/y. In 2008 Q3 the growth of gross fixed capital formation declined significantly to 3.5% y/y as compared with 15.7% y/y in 2008 Q1 and 15.2% y/y in 2008 Q2. The growth of gross fixed capital formation implied on the basis of GUS annual estimates amounted in 2008 Q4 to approx. 3.6% y/y.

In 2008 Q3 gross value added grew by 4.7% y/y, i.e. in accordance with the expectations from the previous *Report*. According to GUS preliminary data for 2008, the implied growth of gross value added in 2008 Q4 declined to approx. 3.4% y/y. In 2008 Q3 contributions of industry, construction and market services to the total growth of value added decreased, the most significant decline being recorded in the first category. Market services remained the major factor driving the growth of gross value added. According to the data implied on the basis of GUS preliminary estimates for 2008, this trend persisted in 2008 Q4 and the contribution of industry to the growth of gross value added was negative for the first time since 2002.

The current account deficit in 2008 Q3 was larger than in the corresponding period of 2007. This was primarily driven by an increase in the trade and the income deficits, whereas the increase in the positive balance on services and on transfers had the opposite effect. The current account deficit relative to GDP (in terms of four quarters) grew to 5.2% (as compared to 5.1% after 2008 Q2 and 4.4% after 2007 Q3). In turn, the combined current account and capital account deficit relative to GDP rose to 3.7% in 2008 Q3 (as compared to 3.5% after 2008 Q2); in the corresponding period of 2007 this ratio stood at 3.5%. Estimates for 2008 Q4 indicate that the current account deficit continued to widen, which was in a large part the result of a decline in the positive balance of transfers. The trade deficit further pursued a deepening tendency. It is assessed that after 2008 Q4 the ratio of current account deficit to GDP went up to 5.4%, whereas the ratio of the combined current and capital account deficit to GDP increased to 4.3%.

According to preliminary estimates of the Ministry of Finance, in 2008 central budget revenue amounted to PLN 254.1 billion, central budget expenditure to PLN 278.7 billion, and central budget deficit to PLN 24.6 billion. Thus, the central budget deficit was somewhat lower than the PLN 27.1 billion envisaged in the *Budget Act for 2008*. The amount of the deficit in the whole of 2008 was largely the result of the high deficit recorded in 2008 Q4 which was primarily driven by lower than expected tax revenue in that quarter. According to the estimates of the Ministry of Finance presented in the *Convergence Program. December 2008 Update*, in 2008 the deficit in the public finance sector (in line with ESA'95 methodology) most likely reached 2.7% of GDP as compared with the deficit of 2.0% of GDP envisaged for 2008 and the deficit of 2.0% of GDP realised in 2007. Deepening fiscal imbalance in 2008 was driven by deteriorating macroeconomic conditions (considerable slowdown in the economic growth) and the introduction of systemic changes, mainly further tax wedge reduction.

In 2008 Q3 demand for labour still grew strongly, while in Q4 it slowed down. Employment in the corporate sector in 2008 Q3 remained at a similar level as in 2008 Q2, and in 2008 Q4 it began to decrease. Weakened demand for labour in the last months of 2008 was also reflected in a smaller number of vacancies reported by employers to labour offices and in the marked easing of difficulties in hiring employees reported by employers. The increase in the number of working persons in the economy in 2008 Q3 still contributed to the decline in unemployment – the rate of unemployment according to BAEL slid to the lowest level in the survey history (6.6%) and the registered unemployment rate to approx. 9%. While a slight increase of the registered unemployment rate at the end of 2008 (to 9.5% in December) was mainly due to seasonal factors, preliminary data for January 2009 (10.5%) point to a significant increase in unemployment unrelated to seasonal factors, which confirms the deterioration of situation on the labour market. In 2008 Q3 the labour supply was still rising – the number of working persons increased by 0.9% y/y to 17,122 thousand (after the increase of 0.8% y/y in 2008 Q2). Since the beginning of 2008 the total labour participation ratio increased as well (in 2008 Q3 by 0.5 percentage points y/y to 54.6%), with a particularly high rise recorded in the group of people aged 35–44 and 45–60/65. This may indicate that, on the one hand, favourable situation in the labour market encouraged older persons to become more economically active and, on the other hand, that persons more active in their search for a job have returned to Poland from economic migration.

In 2008 Q4 the growth of nominal wages continued to decline both in the economy (dropping to 6.8% y/y against 9.8% y/y in 2008 Q3) and in the enterprise sector (dropping to 7.0% y/y against 10.4% y/y in 2008 Q3). The fall in the annual wage growth in 2008 Q4 was significant – in the case of wages in the economy it was the strongest fall recorded since 2000 Q2 – and it will probably be continued in the coming quarters. 2008 Q3 saw a deceleration in labour productivity in comparison with 2008 Q2 (1.1% y/y against 2.2% y/y), which was driven by the decrease in GDP growth under stable growth in the number of working persons. As a result of a greater decline in wage growth than in labour productivity growth, the growth of unit labour costs in the economy dropped in 2008 Q3 as compared to the previous quarter (8.6% y/y against 9.2% y/y). In December 2008 the growth of unit labour costs decreased also in industrial enterprises, although in 2008 Q4 as a whole it was still high, which was mainly due to procyclical developments in labour productivity in industry.

Since the publication of the previous *Report* the majority of central banks significantly lowered interest rates. The Fed has lowered its interest rate by a total of 125 basis points to 0.00–0.25%. In line with forward market quotations it is currently expected that the federal funds rate will be kept unchanged over the horizon of the next six months. Since the end of October 2008 the ECB has cut its key interest rate by 175 basis points to 2.00%. Current forward market quotations suggest expectations of a further drop in interest rates in the euro area to 1.00% in the first half of 2009. In Poland the NBP interest rate changes were followed by a significant change of expectations concerning the future value of the reference rate. Analysts expect the NBP key interest rate at 3.00% in December 2009, while as recently as in the November 2008 survey they expected the reference rate to be lowered to 5.00% (the median) over a one-year horizon.

Since the publication of the previous *Report* yields on US and euro-area Treasury bonds have declined significantly due to the uncertainty concerning the depth and duration of the recession in the United States and the euro area. Since the beginning of 2009 the yields began to rise again, but then fell again in February 2009. After a sharp rise in the second half of October 2008, yields on Polish bonds declined significantly since the second half of November 2008 until mid-January 2009, but then increased considerably again.

The situation in the domestic equity market reflected the overall sentiment prevailing in international markets. September and October 2008 saw a steep decline in share prices on the Warsaw Stock Exchange accompanied by a significant outflow of foreign portfolio investment. After the sharp sell-off, share prices rose strongly at the turn of October and November. The October decline and the subsequent share-price rise at the turn of October and November formed a price range within which shares continued to move until early February 2009. However, in mid-February shares plummeted again to the lowest level since July 2003.

In the second half of 2008 the biggest property markets displayed a tendency for a growing imbalance between the rising supply of flats and the demand for them. The main factors behind this imbalance included still relatively high prices of flats, as well as mounting costs and limited availability of housing loans. A significant role was also played by expectations of price declines. As a result, according to market data, the number of flats sold in 2008 was significantly lower than in 2007. In a situation of rising supply, this led to a growing number of unsold flats, and combined with flats bought for speculation purposes and then put up for sale, it currently creates strong pressure on price declines. In the second half of 2008 the asking prices of flats both in the primary and the secondary market showed a slight tendency to fall. According to data available for seven biggest city markets, in 2008 there was a slight decrease in sale prices in the secondary market.

Since July 2008 the nominal exchange rate of the zloty has depreciated considerably against the euro, the US dollar and the Swiss franc. In this period a marked depreciation of other currencies of the region, i.e. the Hungarian forint and the Czech koruna, could be observed, although the scale of depreciation of these currencies was smaller than in the case of the zloty.

As a result of tightening banks' credit policies and deceleration in investment activity of enterprises driven by worsening of the economic climate, the annual growth of loans to enterprises dropped by 5.1 percentage points in January 2009 as compared to September 2008, albeit remaining at a relatively high level (22.1% y/y). In the case of loans to households a deceleration in their growth was recorded in January 2009 (to 32.3% y/y, i.e. by 5.5 percentage points as compared to September 2008). The growth of loans to households was primarily determined by the developments in the mortgage loan segment. Adverse conditions on the supply side of the credit market resulted from banks' tightening their credit policies, on account of the anticipated deteriorating of the economic situation and worse assessment of the current and expected capital situation of banks. Most banks raised loan margins, increased non-interest loan costs and lowered the loan-to-value ratio. The major constraint on the supply side was, however, a strongly restricted – since October 2008 – access to loans denominated in Swiss franks, as evidenced in the change of the currency structure of the newly granted loans.

During the meeting in October 2008 the Monetary Policy Council kept the NBP interest rates unchanged. At the November 2008 meeting the Council lowered the interest rates by 0.25 percentage points and at the meetings in December 2008 and in January 2009 by 0.75 percentage points. At the February 2009 meeting the Council again lowered the interest rates to the level: the reference rate to 4.00%, the lombard rate to 5.50%, the deposit rate to 2.50% and the rediscount rate to 4.25%.

Minutes of the MPC decision-making meetings held in October, November and December 2008 and in January 2009 together with the *Information from the meeting of the Monetary Policy Council* in February 2009 are presented in chapter "Monetary policy in October 2008 – February 2009". *Minutes* from the MPC meeting held in February will be published on 19 March 2009 and so will be included in the next *Report*.

Chapter 4 of the *Report* presents the projection of inflation and GDP prepared by the NBP staff and based on the NECMOD model, which is one of the inputs into the Council's decision-making process on the NBP interest rates. Under constant interest rates, there is a 50-percent probability that projected inflation will lie within the range of 2.5–3.9% in 2009 (compared to 3.9–5.7% in the October projection), 0.5–3.2% in 2010 (compared to 1.9–4.5%) and –0.9–2.6% in 2011 (the October projection did not cover the year 2011). According to the February projection, the annual GDP growth will remain, with a 50-percent probability, within the range of 0.3–1.9% in 2009 (compared to 1.9–3.7% in the October projection), 1.2–3.3% in 2010 (compared to 2.7–4.5%) and 2.5–4.8% in 2011.

Inflationary processes

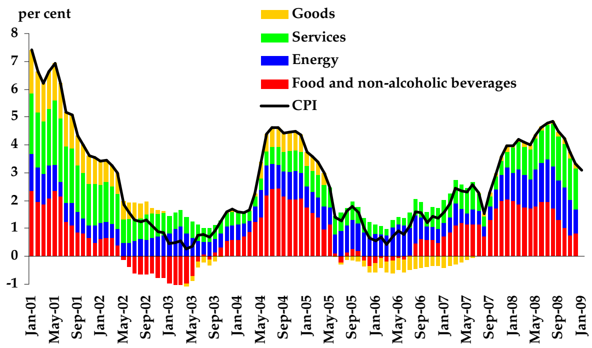
1.1 Inflation indicators

The annual growth of prices of consumer goods and services in the last four months of 2008 decreased to 3.3% in December, i.e. below the upper limit for deviations from the NBP inflation target (Figure 1.1). According to GUS preliminary data[1], the annual inflation in January 2009 declined further to 3.1%. In line with the expectations of the previous *Report*, conducive to curbing inflation was the decline in commodity prices in the world markets, including the prices of energy and agricultural and food commodities.

The main factor decreasing inflation in the period October–December 2008 was the decline in fuel prices driven by a strong fall in crude oil prices in the world markets. Inflation decreased also due to the slower growth of prices of food and non-alcoholic beverages which might be attributed to the decline in the prices of agricultural and food commodities in the world markets and the negative base effects connected with the surge in food prices in the second half of 2007. The disinflationary impact of decreases in the prices of goods strongly influenced by globalization, the considerable part of which is imported from low cost countries, also persisted.

Conducive to curbing the fall of inflation in the analysed period was the strong depreciation of

Figure 1.1:
CPI and main categories of prices (y/y).



Source: GUS data, NBP calculations.

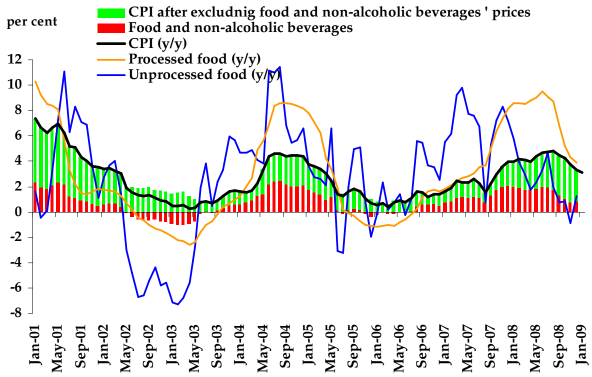
[1]Data on inflation in January 2009, published by the GUS in February, are of preliminary character and will be revised in March 2009 due to change in the weights in the CPI basket, carried out at the beginning of each year. Because of the limited extent of information on developments in particular groups of consumer prices in January, the analysis presented in the *Report* covers the period until the end of 2008.

the zloty exchange rate observed since August 2008 and high growth in administered prices, including the prices of domestic energy products whose growth reacts to decreases in the prices of energy commodities in the world markets with a time lag.

Global factors that were conducive to the fall in inflation in Poland also contributed to the considerable decline in inflation in many countries in the world (Table 1.1).

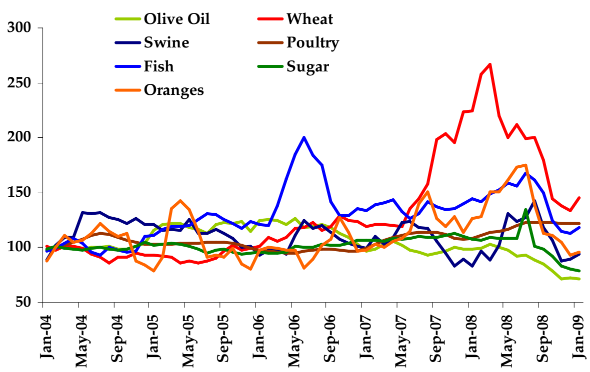
In the coming months inflation is expected to stay within the limit for deviations from the NBP target. On the one hand, this will be driven by low commodity prices and limited domestic demand pressure. On the other hand, the fall in inflation will be curbed by the consequences of the observed depreciation of the zloty exchange rate and increase in administered prices, including energy prices.

Figure 1.2:
CPI and main categories of prices – food and non-alcoholic beverages (y/y).



Source: GUS data, NBP calculations.

Figure 1.3:
Prices of agricultural commodities in the global markets (2004 Q1 = 100).



Source: IMF data, NBP calculations.

Food and non-alcoholic beverages prices

The annual growth of food and non-alcoholic beverages prices in 2008 Q4 was markedly lower than in the preceding quarter; yet, following the declines recorded in October and November, being the continuation of the trend observed in the preceding months, December brought a slight increase in the growth of these prices (Figure 1.2). The decline in the growth of processed food had the largest contribution to the fall in the total food prices growth in the analysed period. This was driven, on the one hand, by the negative base effect resulting from the exceptional surge in the prices of this product group recorded in the autumn of 2007, and on the other hand, by a strong drop in prices of agricultural commodities in Poland and in the world markets (Figure 1.3[2]), a fall in the domestic fuel prices

[2] The fall in the prices of agricultural commodities in the world markets in the last quarter of 2008 was, among other things, the result of favourable supply conditions, strong price competition among major exporters, fall in the prices of crude oil and other energy products (bringing down the costs of production and transport of agricultural commodities and food and contributing to falling demand for bio-fuels), and as a result of the expected decline in demand for commodities due to the negative impact of the global financial crisis on the activity in the world economy.

and a slowdown in the growth of demand for food[3]. Changes in the growth of prices of unprocessed food in the analysed period showed diverse trends, yet the average growth in 2008 Q4 was markedly lower than in 2008 Q3 which was mainly driven by more favourable than expected supply conditions in the fruit market. Depreciation of the zloty exchange rate might have been a factor mitigating the decline in the total food prices growth in 2008 Q4.

It may be expected that the rise in the annual growth of food prices in December 2008 was temporary and that the growth of these prices will be gradually decreasing in the coming months. This will be supported by the anticipated stabilization at a low level of prices of agricultural and food commodities in the world markets.

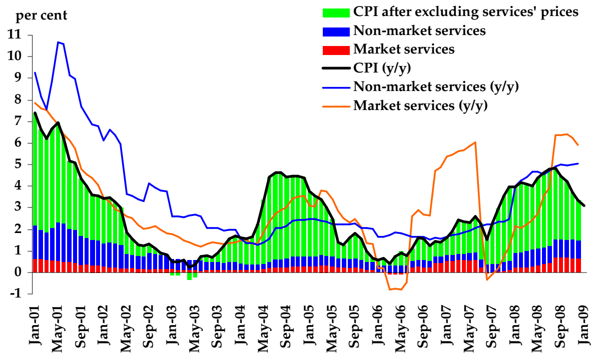
Services prices

In the analysed period the growth in prices of services remained high and amounted to approximately 5.5% y/y. Yet, it slightly decreased as a result of a fall in the growth of prices of market services and only a slight rise in the growth of prices of non-market services (Figures 1.4).

The fall in the annual growth of prices of market services was mainly driven by weaker annual growth of prices in the group of *restaurant and hotel services* and prices of Internet services. The decline in the growth of prices of market services was most likely the result of falling commodity prices in the world market and weakening domestic demand pressure.

On the other hand, further rise in the prices of services related to flat maintenance, including prices regulated by local government entities (water supply and sewerage) and the rise in prices of transportation services contributed to a sustained high growth in prices of non-market services.

⊡ **Figure 1.4:**
CPI and main categories of prices – services (y/y).



Source: GUS data, NBP calculations.

[3] The annual growth of retail sales in the group of *food, beverages and tobacco products* (in constant prices) in the second half of 2008 declined markedly, reaching negative values in the period from June to November.

Table 1.1: Annual CPI inflation in selected countries.

Change y/y (per cent)	2008											
	Jan	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
Austria	3.2	3.2	3.5	3.3	3.7	3.9	3.8	3.7	3.8	3.1	2.3	1.3
Belgium	3.5	3.6	4.4	4.2	5.2	5.8	5.9	5.4	5.5	4.7	3.1	2.6
Finland	3.9	3.7	3.8	3.5	4.2	4.3	4.4	4.7	4.7	4.4	3.6	3.5
France	2.8	2.8	3.2	3.0	3.3	3.6	3.6	3.2	3.0	2.7	1.6	1.0
Greece	3.9	4.4	4.4	4.4	4.9	4.9	4.9	4.7	4.6	3.9	2.9	2.0
Spain	4.3	4.4	4.5	4.2	4.6	5.0	5.3	4.9	4.5	3.6	2.4	1.4
Netherlands	2.0	2.2	2.2	2.0	2.3	2.6	3.2	3.2	3.1	2.8	2.3	1.9
Ireland	4.3	4.8	5.0	4.3	4.7	5.0	4.4	4.3	4.3	4.0	2.5	1.1
Luxembourg	3.3	3.1	3.5	3.5	4.0	4.3	4.9	4.0	4.0	3.3	2.0	1.1
Germany	2.8	2.8	3.1	2.4	3.3	3.3.	3.3	3.1	2.9	2.4	1.4	1.1
Portugal	2.9	2.9	3.1	2.5	2.8	3.4	3.1	3.0	3.1	2.3	1.4	0.8
Slovakia	3.8	4.0	4.2	4.3	4.6	4.6	4.8	5.0	5.4	5.1	4.9	4.4
Slovenia	6.4	6.5	6.9	6.5	6.4	7.0	6.9	6.0	5.5	4.9	3.1	2.1
Italy	3.0	2.9	3.3	3.3	3.6	3.8	4.1	4.1	3.8	3.5	2.7	2.2
USA	4.3	4.0	4.0	3.9	4.2	5.0	5.6	5.4	4.9	3.7	1.1	0.1
China	7.1	8.7	8.3	8.5	7.7	7.1	6.3	4.9	4.6	4.0	2.4	1.2
Denmark	2.9	3.1	3.1	3.2	3.4	3.8	4.0	4.3	4.2	3.7	2.7	2.4
Sweden	3.2	3.1	3.4	3.3	3.9	4.2	4.1	4.3	4.4	4.0	2.5	0.9
United Kingdom	2.2	2.5	2.5	3.0	3.3	3.8	4.4	4.7	5.2	4.5	4.1	3.1
Poland	**4.0**	**4.2**	**4.1**	**4.0**	**4.4**	**4.6**	**4.8**	**4.8**	**4.5**	**4.2**	**3.7**	**3.3**
Czech Republic	7.5	7.5	7.1	6.8	6.8	6.7	6.9	6.5	6.6	6.0	4.4	3.6
Hungary	7.1	6.9	6.7	6.6	7.0	6.7	6.7	6.5	5.7	5.1	4.2	3.5
Estonia	11.0	11.3	10.9	11.4	11.3	11.4	11.1	11.0	10.5	9.8	8.0	7.0
Lithuania	9.9	10.8	11.3	11.7	12.0	12.5	12.2	12.0	11.0	10.5	9.1	8.5
Latvia	15.7	16.7	16.7	17.4	17.9	17.7	16.6	15.7	14.9	13.8	11.8	10.6

Source: Eurostat, GUS, domestic statistical offices data.
National indices are not fully comparable due to methodological differences (including different weighting systems and different methods of measurement).

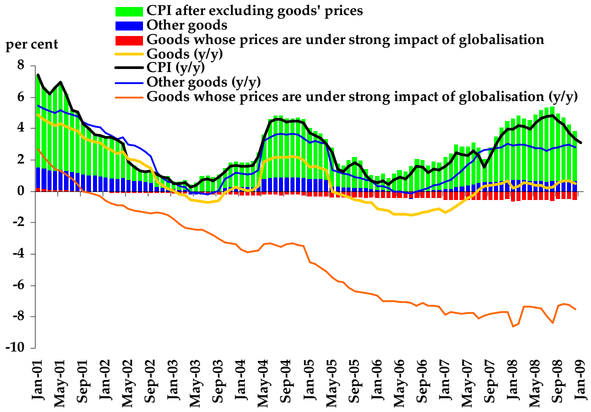
Table 1.2: CPI and core inflation indices.

Change y/y (per cent)	2008											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
CPI	4.0	4.2	4.1	4.0	4.4	4.6	4.8	4.8	4.5	4.2	3.7	3.3
Core inflation indices excluding:												
Administered prices	3.8	3.7	3.8	3.8	3.9	4.3	4.4	4.4	4.1	3.8	3.4	3.3
Most volatile prices	4.2	4.2	4.2	4.3	4.5	4.8	4.7	5.0	4.6	4.3	3.8	3.2
Most volatile prices and fuel prices	3.6	3.8	3.9	4.2	4.4	4.7	4.5	4.9	4.7	4.4	4.4	4.2
Food and energy prices	1.6	1.8	2.0	2.1	2.1	2.2	2.2	2.7	2.9	2.9	2.9	2.8
Food and fuel prices ("net" inflation)	1.9	2.5	2.7	2.8	3.2	3.4	3.5	4.0	4.3	4.5	4.7	4.5
15% trimmed mean	3.7	4.2	4.2	4.1	4.5	4.9	4.8	4.8	4.5	4.1	3.7	3.7
Change m/m (per cent)	**2008**											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
CPI	0.7	0.4	0.4	0.4	0.8	0.2	0.0	-0.4	0.3	0.4	0.2	-0.1
Core inflation indices excluding:												
Administered prices	0.9	0.1	0.4	0.4	0.6	0.1	-0.3	-0.6	0.5	0.6	0.3	0.3
Most volatile prices	0.3	0.0	0.3	0.3	0.0	0.1	0.5	0.0	0.3	0.5	0.6	0.2
Most volatile prices and fuel prices	0.4	0.1	0.3	0.3	-0.2	-0.1	0.5	0.2	0.5	0.6	1.0	0.6
Food and energy prices	0.5	0.1	0.3	0.3	0.2	0.3	0.2	0.1	0.3	0.2	0.1	0.1
Food and fuel prices ("net" inflation)	0.7	0.6	0.3	0.2	0.6	0.3	0.3	0.2	0.4	0.4	0.4	0.1
15% trimmed mean	0.5	0.3	0.3	0.3	0.4	0.4	0.3	0.1	0.2	0.2	0.2	0.1
Core inflation indices – seasonally adjusted (TRAMO/SEATS):												
CPI	0.5	0.4	0.3	0.1	0.5	0.4	0.3	0.1	0.1	0.2	0.2	0.2
Core inflation excluding food and energy prices	0.5	0.1	0.3	0.3	0.2	0.3	0.2	0.1	0.3	0.2	0.1	0.1
"Net" inflation	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4

Source: GUS data, NBP calculations.

In June 2008 the NBP introduced a new measure of core inflation – **core inflation excluding food and energy prices.** This measure excludes from the CPI the prices of food and non-alcoholic beverages as well as the prices of fuels and energy products (electricity, gas, heating, etc.). The structure and interpretation of core inflation excluding food and energy prices are close to the formerly used measure of 'net' core inflation. Changes in the prices of energy products, which have recently been subject to increased volatility, constitute supply shocks for the Polish economy distorting the image of the total trend in the price level. Therefore, it is justified to exclude them from the new measure of core inflation. It is the NBP's intention to replace the former, most commonly used measure of 'net' inflation with the new measure. Core inflation excluding food and energy prices was also used in the macroeconomic model NECMOD to prepare the inflation projection presented in Chapter 4 of the *Report*.

□ **Figure 1.5:**
CPI and main categories of prices – goods (y/y).



Source: GUS data, NBP calculations.

Goods prices

In the period October–December 2008 the annual growth of prices of goods[4] declined slightly, remaining at a low level (0.5% y/y in December; Figure 1.5).

The decline in the annual growth of goods prices was fuelled by further decrease in the prices of goods strongly influenced by globalization[5], the considerable part of which is imported from low cost countries.

The annual growth of prices of other goods in the period October–December 2008 was stable. Conducive to decreasing the prices of these goods was the fall in prices of passenger cars and household appliances, while the rise in prices of tobacco products had the opposite effect[6].

Energy prices

The analysed period brought a decline in the annual growth of energy prices[7], yet this growth remained relatively high. The considerable fall in the prices of fuels for private means of transport, triggered by the strong decline in the prices of crude oil in the worlds markets, observed since August 2008, had the largest impact on decreasing the growth in this group. On the other hand, increases in administered prices of electricity, natural gas, heating and fuel, driven by rising

[4]In accordance with the definition adopted in the *Report*, the group of *goods* does not include food, non-alcoholic beverages and energy products.

[5]This group of goods includes: clothing, footwear, audio and television equipment, photographic and IT equipment, musical instruments, games and toys, sports and camping equipment for outdoor recreation, electric appliances for personal hygiene.

[6]After excluding tobacco products, the growth of goods prices would be negative. The high growth of prices of tobacco products is connected with the annual increases of excise tax resulting from adjustment to the EU minimum excise rates. The rise in retail prices of tobacco products is spread over time owing to, among others, the high stock of these products maintained by producers.

[7]The category of *energy* includes energy products (electricity, gas, heating, fuel) and engine fuels (for private means of transport). In previous *Reports* this group of goods was referred to as *energy products (including fuels)*.

coal prices in the domestic market, had the opposite effect. The depreciation of the zloty exchange rate, especially against the US dollar, was also conducive to maintaining the high growth of energy prices.

With fuel prices anticipated to remain considerably lower than in the previous year, the growth of energy prices is expected to slow down in the coming months. The last year's fall in crude oil prices may additionally contribute to decreasing the prices of other energy products, in particular those of natural gas[8]. The expected and already implemented changes in administered prices of electricity and heating as well as the depreciation of the zloty exchange rate observed in the past few months will have the opposite effect.

Base effects and their impact on changes in the annual inflation index in 2009

Particular months of 2008 saw considerable increases in administered prices, primarily prices of energy (electricity, gas, heating and fuels) and other prices dependent upon decisions of central and local government institutions (refuse collection and disposal charges, sewerage and water supply charges, real estate management and administration charges). This led to the annual CPI remaining at an elevated level throughout most of 2008. At the end of 2008 fuel prices slumped sharply, which contributed to the decline of the annual CPI in that period. The above price changes will also impact - as a result of the so-called base effects – the annual inflation in 2009.

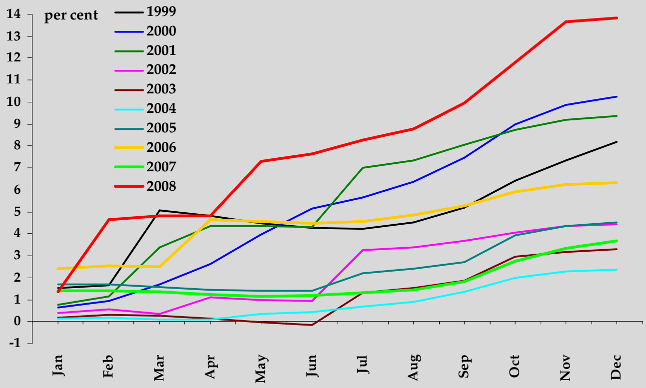


Figure R.1.1: Cumulative price changes of energy products (electricity, gas, heating, fuel) in 1999–2008 (in per cent relative to December of the preceding year).
Source: GUS data, NBP calculations.

While analysing the changes in consumer prices of goods and services, different inflation indices may be used (monthly, annual, fixed base). Inflation measure which is commonly used in the Polish economy and to which the NBP inflation target relates is the annual index of consumer goods and

[8]As a result of the adopted method of setting import prices of natural gas, the prices of this commodity react to changes in the prices of oil-derivative products with a delay of 2–3 quarters.

services prices published monthly by the GUS. It depicts the percentage change in the price level in a particular month as compared to the corresponding month of the preceding year.

The annual inflation index in a particular month reflects cumulative monthly changes in the price level in the past twelve months. Yet, the change in the annual price index in a particular month (as compared with the annual index in the preceding month) is determined by two factors: monthly change in consumer prices (in that particular month) and monthly change in prices in the preceding year (in the base period). Thus, month-on-month changes in annual inflation result from both current price growth and changes in prices in the corresponding month of the preceding year. Appropriate assessment of changes in inflationary pressure in the economy should take into account the impact of those two factors on the changes in the annual inflation index.

Below is presented the impact of the latter factor, referred to as the base effect, i.e. the impact of monthly changes in prices in the preceding year (in particular months of 2008) on changes in the annual inflation index in 2009. In the literature there is no single commonly used definition and method of estimating the base effect. Calculations presented herein are based on the definition of base effect used by the European Central Bank[1]. In accordance with this definition, the base effect is the impact of an atypical change (taking seasonality into account) in prices of a particular component of the CPI basket in the base month (i.e. in the corresponding period of the preceding year) on a change in the total annual CPI in the corresponding month of the subsequent year. If the monthly price growth in the base period is higher than the typical growth, then in the corresponding period of the subsequent year the base effect is negative; on the other hand, if the monthly price growth in the base period is lower than the typical one, then in the corresponding period of the subsequent year the base effect is positive.

In order to identify the sources of base effects in the annual CPI three basic components of this index have been distinguished: (1) food prices, (2) energy prices and (3) core inflation (net of energy and food prices). The typical monthly price growth of a particular component was calculated as the arithmetic mean of monthly price changes, seasonally adjusted, for the period 2001–2008[2]. The atypical element of the price change of the component in a particular month was identified as the difference between the actual monthly price growth of this component (seasonally adjusted) and its typical value (Figure R.1.2). The impact of the so calculated atypical element on the change of the annual inflation index was calculated using the weight of a particular component in the CPI basket.

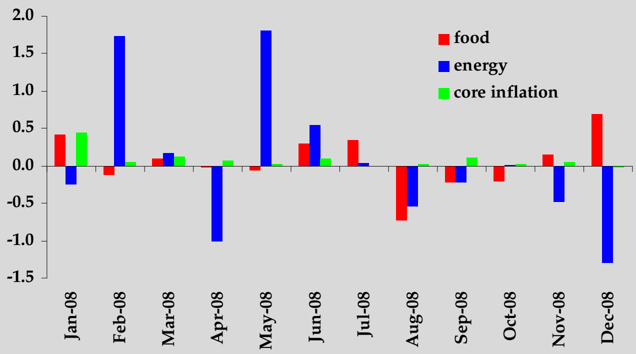


Figure R.1.2: Atypical monthly changes in the prices of food, energy and core inflation in 2008 (in percentage points).
Source: GUS data, NBP calculations.

In line with the adopted methodology, in most months of 2008 the core month-on-month inflation was higher than its typical value, albeit these deviations were (except for January) rather insignificant. In the first half of 2008 the monthly energy price growth was markedly higher than its average growth, which was mainly the result of a rise in prices of energy raw materials in the world markets; yet, from August 2008 – following the decline in prices in the world markets – it was lower than its typical value.

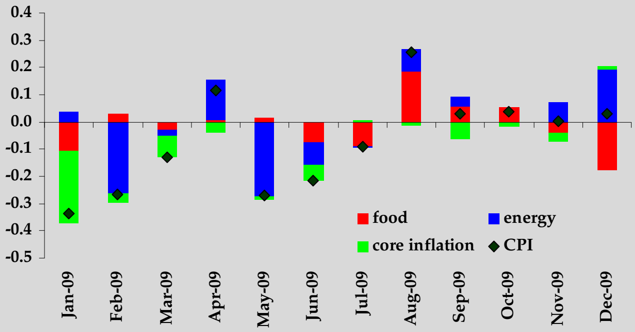


Figure R.1.3: CPI base effects (in percentagepoints) resulting from atypical changes in the prices of food, energy and core inflation in particular months of 2009.
Source: GUS data, NBP calculations.

Relatively high monthly price growth of particular CPI components in the first half of 2008 means that in the period January - July 2009 in most months (except for April) negative base effects should appear contributing to the decline in annual inflation in those months. Yet, it should be remembered that whether and at what pace the annual inflation in those months will decline will depend – apart from base effects – on price developments in particular months of that period.

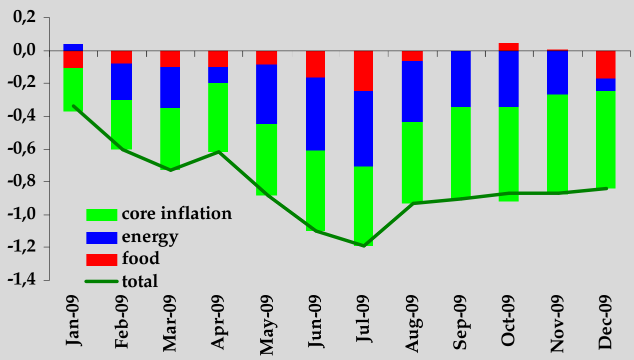


Figure R.1.4: Cumulative CPI base effect in 2009 (in percentage points).
Source: GUS data, NBP calculations.

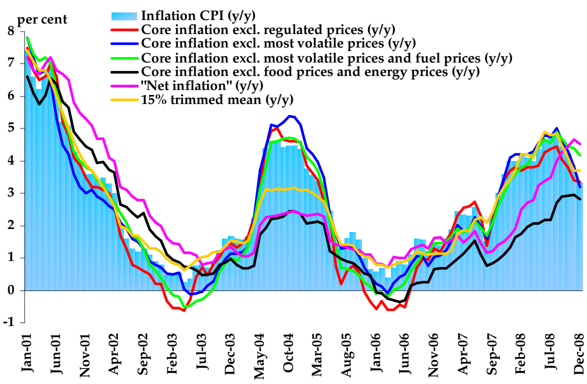
It results from Figure R.1.3 that the decline in annual inflation in 2009 as compared with December 2008 (from 3.3% to 3.1%, i.e. by 0.2 percentage points) was driven by both the negative base effect (0.3 percentage points) and slightly higher than the typical monthly price increase in January 2009. Likewise, the change in the annual inflation in February 2009 as compared with January 2009 will be driven by the subsequent negative base effect of 0.3 percentage points. Thus, if the monthly price change in February 2009 (as compared with January) is typical, then the annual inflation in February 2009 will decline by 0.3 percentage points in relation to January 2009. Consequently, should prices in 2009 change at a typical pace, then the annual inflation in that period would change in consecutive months by the extent of the base effect in those months (as presented in Figure R.1.3).

In turn, the cumulative base effect reflects the cumulative impact of atypical price changes in particular months of 2008 on the change of the annual inflation index in a given month of 2009 relative to December 2008. It results from Figure R.1.4 that the change in the annual inflation, e.g. in July 2009 as compared with December 2008 will be driven by the cumulative negative base effect of 1.2 percentage points. Thus, should consumer prices grow in the period January–July 2009 at a typical pace, the annual inflation in July 2009 – due to the cumulative base effect only – would be by 1.2 percentage points lower than in December 2008 (contribution of atypical changes in energy prices to the decline in inflation being 0.5 percentage points, contribution of core inflation being another 0.5 percentage points and contribution of food prices 0.2 percentage points). Thus, the cumulative base effect will contribute to lowering the annul consumer price growth as compared with December 2008 in the whole of 2009, yet, since August 2009 its negative impact will be declining.

It should be emphasised that the presence of base effect does not mean that the annual inflation index overstates or understates the actual price growth. The annual inflation index always reflects the change in the price level as compared with the corresponding period of the preceding year. Identification of base effects allows determination of the extent to which changes in the annual index are the result of atypical changes a year before. It should be noted that the applied method of assessing atypical price changes does not take into consideration the possibility of changes in typical price growth over time (depending, for example, on the business cycle phase). Besides, atypical price changes cannot always be given a clear economic interpretation and it is difficult to assess whether they are a one-time phenomenon or a result of structural changes which will influence price growth in a longer period. Summing up, one should remember that changes in annual inflation result from both current price changes and base effects connected with atypical price changes a year before whose identification is not always unambiguous.

[1] European Central Bank Monthly Bulletin, December 2008, p. 63-64.
[2] Estimating typical monthly changes on the 2001–2008 sample is conditioned by the following factors. On the one hand, the sample should be as long as possible to ensure appropriate statistical properties of the estimates. On the other hand, in the case of Poland this period should not include the disinflation period (as this would overstate the estimates of typical price changes). It should be emphasized that the typical monthly CPI change (seasonally adjusted) estimated on the basis of the 2001-2008 sample is 0.2%, which in annualized terms gives 2.5%, thus is consistent with the current inflation target of the NBP.

Figure 1.6:
CPI and core inflation measures.



Source: GUS Data, NBP calculations.

Core inflation

In the period October–December 2008 five of the six core inflation measures decreased[9] (Figure 1.6).

The decline in core inflation measures was on average lower than that in the CPI, which shows that the fall of the latter was mainly driven by those of its components which are to a large degree sensitive to external shocks (i.e. food and fuel prices).

In December 2008 the annual growth of all core inflation measures exceeded the NBP inflation target (2.5%), yet, the growth of half of them was below the upper limit for deviations from

[9] The net core inflation index for December 2008 published in January 2009 was the last such index published by the NBP.

the target. Core inflation excluding food and energy prices, after stabilizing at the level of 2.9% in the period September–November 2008, declined slightly in December 2008 (to 2.8%).

Inflation and the Maastricht criterion

In the period October–December 2008 the annual HICP inflation in Poland was on a steady declining path. Yet, its 12-month moving average, taken into account in the assessment of compliance with the Maastricht inflation criterion, reached in December 2008 the level recorded in September 2008, i.e. 4.2% (after a temporary rise to 4.3% in October and November). In turn, the reference value for the inflation criterion decreased in November by 0.1 percentage points to 4.1% and remained at this level in December. As a result of those changes, the 12-month moving average HICP inflation in Poland in the period October–December 2008 slightly exceeded the reference value (Figure 1.7).

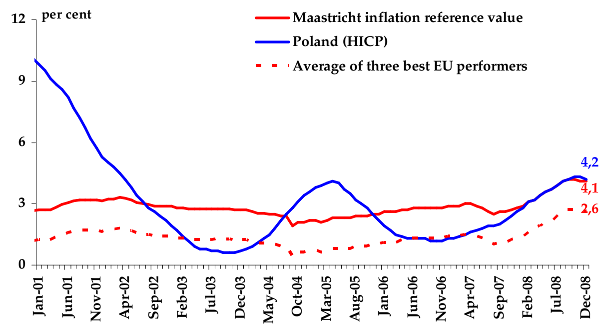
1.2 Inflation expectations

In the period October 2008–February 2009 the inflation expectations of bank analysts and individuals gradually declined. Inflation forecasts of bank analysts over the 11-month horizon fell from 3.2% in October 2008 to 2.2% in February 2009 (Figure 1.8).

In the survey of inflation expectations of individuals, the proportion of respondents expecting the price growth to pick up or continue at the same level in the months to come as compared with inflation observed at the moment of the survey decreased from 76% in October 2008 to 74% in February 2009[10] (Figure 1.9). In turn, the objectified measure of inflation expectations of individuals decreased from 5.2% in October 2008 to 3.4% in February 2009.

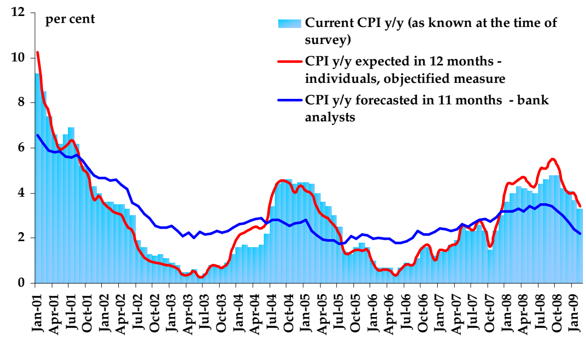
[10]Following a temporary increase to 78% in January 2009.

Figure 1.7:
HICP inflation in Poland (12-month moving average) and the Maastricht criterion (y/y).



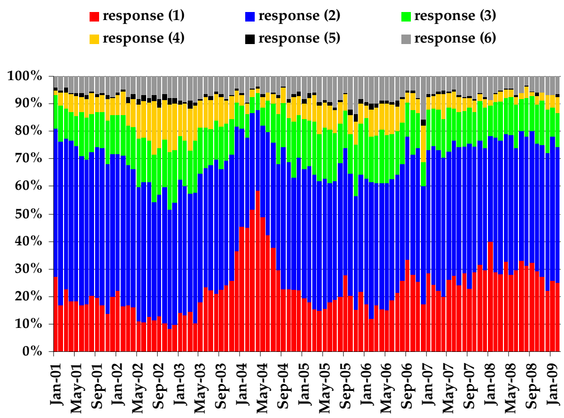
Source: Eurostat data, NBP calculations.

Figure 1.8:
Inflation expectations of individuals and inflation forecasts of bank analysts.



Source: Ipsos, Reuters, GUS, NBP calculations.

Figure 1.9:
Inflation expectations of individuals – responses to the question asked by Ipsos.



Source: Ipsos data.
Ipsos survey question: "Considering the present situation, do you think that prices during the next 12 months: (1) will grow faster than they do now; (2) will rise at the same rate; (3) will grow at a slower rate; (4) will stay the same; (5) will decrease; (6) it is hard to say?"

Determinants of inflation

Since the October *Report* the situation in the external environment of the Polish economy changed considerably. The intensified financial market turmoil and the related increase in risk aversion were accompanied by a strong downturn in world economic growth and significant revisions of global growth forecasts. The decrease in the current and forecast economic growth relates both to developed countries and to emerging market economies, including Central and Eastern European countries. The worsening global economic conditions contributed to a marked drop of commodity prices which, coupled with a weakening of aggregated demand, was conducive to a decline of inflation in most countries. The developments in the global economy observed since the October *Report* have also affected the economic processes in Poland.

According to GUS preliminary estimates, GDP grew by 4.8% in 2008, which implies the GDP growth of approximately 2.9% y/y in 2008 Q4 (as compared with 4.8% y/y in 2008 Q3), i.e. below the expectations of the previous *Report*. Private consumption remained the main factor in GDP growth in the second half of 2008, while investment growth recorded a marked decline. As a result of recession abroad and a considerable economic slowdown in Poland, 2008 Q4 brought a significant decline both in exports and imports, and the contribution of net exports to GDP growth was close to zero. The past few months saw decelerating employment growth and unemployment has begun to rise. At the same time, wage growth started to fall gradually which contributed to a slowdown in the growth of unit labour costs. These processes were accompanied by a slight growth in the current account deficit and a decline in most of the core inflation indices. Falling fuel prices and a decrease in the growth of food prices additionally contributed to bringing CPI inflation down below the upper limit for deviations from the NBP's inflation target.

2.1 Demand[11]

In 2008 Q3, real GDP growth amounted to 4.8% y/y (as compared with 5.8% y/y in 2008 Q2) and was slightly higher than anticipated in the previous

[11] In the present *Report* the assessment of GDP and its components in 2008 Q4 is based on the preliminary estimates of GDP for 2008 published on 29 January 2009. The implied data for 2008 Q4 assume no revision of the national accounts for 2008 Q1–Q3. It should be emphasized that the released GUS estimates are incomplete: the data refer to the whole of 2008 (there are no detailed data on 2008 Q4) and they concern only certain categories.

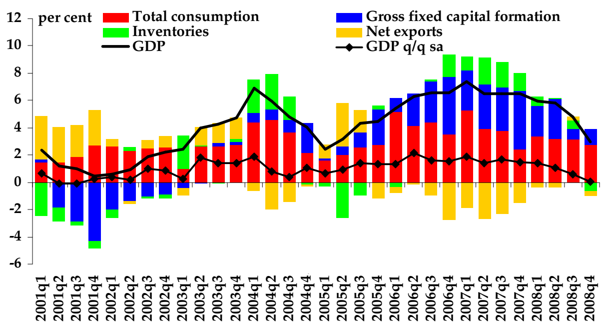
Report (Table 2.1, Figure 2.1)[12]. According to the preliminary estimates of GDP for 2008 published by the GUS, the GDP growth in 2008 Q4 decreased to approx. 2.9% y/y, and in seasonally adjusted quarter-on-quarter terms to 0%.

Table 2.1: GDP and aggregate demand components growth rates.

Change q/q seasonally adjusted (per cent)	2006				2007				2008			
	q1	q2	q3	q4	q1	q2	q3	q4	q1	q2	q3	q4
GDP	1.3	2.1	1.6	1.5	1.8	1.4	1.6	1.4	1.4	1.1	0.6	0.0
Domestic demand	2.0	2.0	2.1	2.6	2.1	1.8	2.0	1.6	1.2	1.2	0.2	0.7
Total consumption	1.8	1.0	1.2	1.4	1.1	0.9	1.3	0.8	0.7	0.9	1.5	0.7
Private consumption	1.8	1.2	1.2	1.5	1.1	0.8	1.7	1.0	1.2	1.2	1.8	0.9
Gross capital formation	3.1	6.0	5.5	7.0	6.0	5.1	4.1	4.3	2.6	2.1	-3.8	0.7
Gross fixed capital formation	2.0	5.6	4.3	4.8	5.2	2.8	4.3	3.2	3.2	2.9	-4.7	2.2

Source: NBP calculations on the basis of GUS data; 2008 Q4 – data implied by GUS preliminary estimates of GDP in 2008 (NBP estimates).

□ **Figure 2.1:**
Contribution of aggregate demand components to GDP growth.



Source: GUS data; 2008 Q4 – data implied by GUS preliminary estimates of GDP in 2008 (NBP estimates).

In accordance with the expectations of the previous *Report*, private consumption remained the main factor in GDP growth in the second half of 2008. Yet, the investment growth recorded a marked decline running significantly beyond the expectations. As a result, the domestic demand growth decreased to 4.3% y/y in 2008 Q3 and to approx. 3.2% y/y in 2008 Q4. The slowdown in the domestic economy combined with the weakening of the zloty exchange rate contributed to considerable decline in import growth in 2008 Q4. The same period also brought a marked decline in export growth which was driven by a strong downturn abroad; consequently, the net export contribution to GDP growth continued to be close to zero.

In the NBP's assessment, the coming quarters should see a further dampening of GDP growth. Due to the negative outlook for economic growth abroad and in Poland, investment activity of enterprises and households will continue to fall.

[12] The *Report* contains the national accounts data in average annual prices of the previous year seasonally adjusted by the NBP and not the seasonally adjusted data in constant prices of 2000 as reported by the GUS. For this reason, the seasonally adjusted growth of GDP and its components presented in the *Report* may differ from those presented by the GUS.

Private consumption growth will also decline, albeit this category will remain a major factor in GDP growth. Despite the deteriorating economic situation in countries that are Poland's main trading partners, leading to a drop in Polish exports, the contribution of net exports to GDP growth may be positive in the coming quarters. This will be mainly driven by the considerable decline in the domestic demand growth, including a fall in investment and in the demand for intermediate goods, which, combined with the significant zloty exchange rate depreciation observed over the past months, will contribute to a considerable decline in imports.

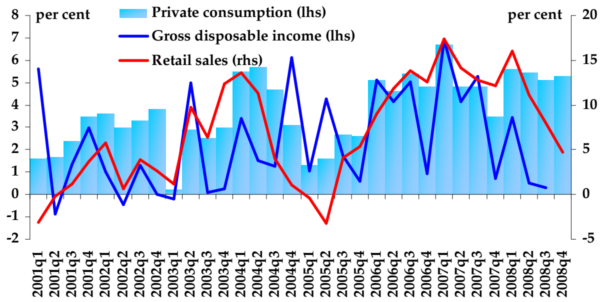
2.1.1 Consumption demand

According to GUS estimates in 2008 Q3 private consumption growth decreased to 5.1% y/y (as compared with 5.5% y/y in 2008 Q2), yet exceeded the expectations of the previous *Report*. Public consumption did not change in 2008 Q3 as compared with the corresponding period of the previous year, while this category was expected to rise according to the October *Report*. Private consumption growth in 2008 Q4 implied on the basis of GUS annual estimates reached approx. 5.3% y/y and was consistent with the expectations of the October *Report*.

In 2008 Q3 the consumption growth remained relatively high despite considerably lower growth of household disposable income (Figure 2.2). This may be connected with households' tendency to smooth consumption, i.e. maintain the hitherto existing growth of consumption expenditure despite the declining income growth, which is signalled by the lower than in the corresponding period of 2007 value of household savings.

In 2008 Q3 the growth of average monthly wages in the economy remained relatively high, albeit lower than in the preceding quarter – it declined to 9.8% y/y from 11.6% y/y in 2008 Q2 in nominal terms (to 5.1% y/y from 7.7% y/y in real terms). Also the enterprise sector has observed a decline in wage growth since 2008 Q3 (from 12.1% y/y in 2008 Q2 to 10.4% y/y in 2008 Q3 and 7.0% y/y in 2008 Q4). The decline in wage and employment growth contributed to lower nominal aggregate

□ **Figure 2.2:**
Growth of private consumption, gross disposable income and retail sales (y/y, constant prices).

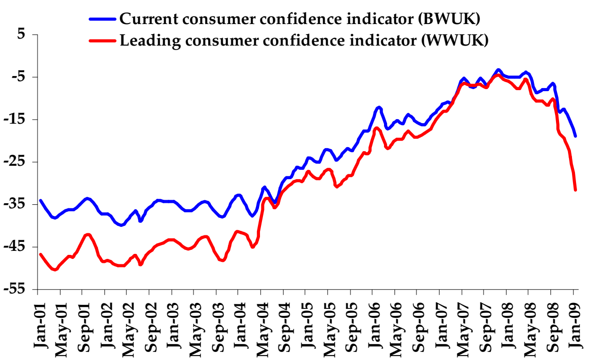


Source: GUS data; 2008 Q4 – data implied by GUS preliminary estimates of GDP in 2008 (NBP estimates).

wage growth (to 15.1% in 2008 Q3 as compared with 17.6% y/y in 2008 Q2). Also the growth of income from social benefits was slower than in the previous quarter in connection with the gradual weakening of the effects of old-age and disability pension indexation which took place in 2008.

The purchasing power of households was reinforced by consumption loans whose growth in 2008 Q3 – similarly as in 2008 Q2 – reached its historically high level (PLN 9.9 billion in quarterly terms), with the annual growth in the flow of consumption loans exceeding 30%[13]. In 2008 Q4 the growth in consumption loans weakened slightly to PLN 7.9 billion in quarterly terms; yet, consumption loans remained a significant source of financing of consumption demand (see Chapter 2.5.3 Credit and money[14]). In 2008 Q3 the retail sales growth (in real terms) decreased to 8.0% y/y (from 11.1% y/y in 2008 Q2) and in 2008 Q4 declined to 4.7% y/y.

Figure 2.3:
Consumer confidence indicators.



Source: GUS, NBP data.
Since January 2004 surveys have been conducted on a monthly basis (previously quarterly).

In 2008 Q4 and in January 2009 consumer sentiment deteriorated considerably (Figure 2.3). Consumer expectations worsened relative to the previous quarters mainly as a result of increased concerns about growing unemployment and more pessimistic assessment of the future situation of the domestic economy. Lower assessment of consumers translated into declarations to limit purchases. It may be expected that the worsening situation in the labour market combined with deteriorating consumer sentiment will contribute to lower consumption growth which is reflected in the decreasing retail sales growth.

2.1.2 General government demand

According to preliminary estimates of the Ministry of Finance, in 2008 central budget revenue amounted to PLN 254.1 billion, central budget expenditure to PLN 278.7 billion, and central bud-

[13]The flow of loans is understood as the change in the volume of loans in a particular period.

[14]It should be emphasized that the data discussed in the Chapter 2.5.3 Credit and money concern changes in the volume of loans adjusted for the impact of fluctuations in the zloty exchange rate against major currencies, while the data presented in this chapter refer to officially published monetary data (not accounting for the impact of exchange rate fluctuations).

get deficit to PLN 24.6 billion. Thus, the central budget deficit was somewhat lower than the PLN 27.1 billion envisaged in the *Budget Act for 2008*[15]. The amount of the deficit in the whole of 2008 was largely the result of the high deficit recorded in 2008 Q4[16].

The increase in the budget deficit in 2008 Q4 was primarily driven by lower than expected tax revenue in that quarter[17]. As a result of a decrease in activity in the Polish economy in 2008 Q4 indirect tax revenue fell considerably. In 2008 the total budget revenue was PLN 27.8 billion lower than envisaged in the Budget Act, of which PLN 20 billion may be attributed to lower inflow of EU funds and PLN 8.6 billion to lower tax revenue[18], with non-tax revenue being PLN 0.8 billion higher than envisaged.

Central budget expenditure in 2008 was 9.8% (i.e. PLN 30.3 billion) lower than envisaged, probably due to the low realisation of investment expenditure and funds allocated to the co-financing of EU projects, as well as current expenditure of local government units. Due to the anticipated considerably lower indirect tax revenue, at the end of 2008 expenditure of some government units was curtailed and the potentially resulting obligations will probably be settled from the budget funds for 2009.

According to the estimates of the Ministry of Finance presented in the *Convergence Program. December 2008 Update*, in 2008 the deficit in the public finance sector (in line with ESA'95 methodology) most likely reached 2.7% of GDP as compared with the deficit of 2.0% of GDP envisaged

[15] In 2007 the central budget recorded a deficit of PLN 16.0 billion, and in 2006 of PLN 25.1 billion

[16] In 2008 Q4 the central budget recorded a deficit of PLN 20.4 billion. In the corresponding period of 2007 the deficit amounted PLN 16.1 billion, and in 2006 Q4 to PLN 10.5 billion

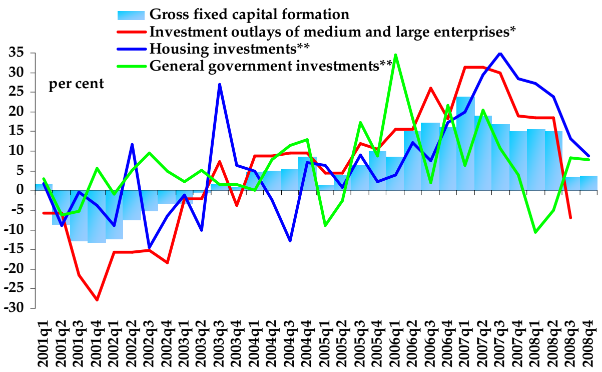
[17] In 2008 Q4 the growth of the central budget tax revenue (in nominal terms) reached merely 1.1% y/y as compared to the growth of 8.9% y/y recorded in the period January–September 2008

[18] In 2008 indirect tax revenue was PLN 10.8 billion lower than the envisaged amount. Yet, the central budget recorded extra revenue from personal income tax (approx. PLN 2 billion) which was driven, inter alia, by favourable situation in the labour market and lower than envisaged financial consequences of the family allowance first introduced in 2008.

for 2008 and the deficit of 2.0% of GDP realised in 2007. Deepening fiscal imbalance in 2008 was driven by deteriorating macroeconomic conditions (considerable slowdown in the economic growth) and the introduction of systemic changes, mainly further tax wedge reduction. Higher ratio of public deficit to GDP recorded in 2008 means that the structural deficit of the public finance sector continued at a high level. Considering the anticipated further economic slowdown in 2009 and the level of budget revenue envisaged in the *Budget Act for 2009*, maintaining the public finance discipline in line with the EU fiscal rules is subject to considerable risk. At the same time, it should be emphasized that as a result of considerable slowdown in the global economy driven by the global financial crisis, as well as anti-crisis measures of many governments, the year 2009 may be expected to bring a rise in the ratio of public deficit to GDP in the majority of EU countries.

2.1.3 Investment demand

Figure 2.4:
Investment in the economy (y/y).



Source: GUS data, Ministry of Finance data, NBP calculations; 2008 Q4 – data implied by GUS preliminary estimates of GDP in 2008 (NBP estimates).
* Due to 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.

In 2008 Q3 the growth of gross fixed capital formation declined significantly to 3.5% y/y as compared with 15.7% y/y in 2008 Q1 and 15.2% y/y in 2008 Q2 (Figure 2.4). The investment rate (the ratio of investment to GDP) decreased slightly and amounted to 21.9%[19] (Figure 2.5). The growth of gross fixed capital formation implied on the basis of GUS annual estimates amounted in 2008 Q4 to approx. 3.6% y/y.

The decline in investment activity was most significant in the enterprise sector. In non-financing enterprises with more than 49 employees investment outlays on new fixed assets fell in 2008 Q3 in nominal terms by 4.5% y/y. This was the result both of a decline in the outlays on plant and machinery as well as means of transport and of a marked decline in the growth of outlays on buildings and structures. On the other hand, housing investment in the second half of 2008

[19] Investment rate is calculated on the basis of data for the past four quarters. Among the twelve new member states of the European Union only three (Malta, Cyprus and Hungary) recorded a lower investment rate than Poland in the last four quarters.

Table 2.2: Decomposition of gross fixed capital formation in Poland.

Contribution (per cent)	2006				2007				2008		
	q1	q2	q3	q4	q1	q2	q3	q4	q1	q2	q3
Products of agriculture. forestry and fisheries	0.0	0.0	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.2
Metal products and machinery	31.7	29.2	29.9	28.8	33.3	29.1	29.2	27.8	32.3	29.1	28.6
Transport equipment	11.1	11.2	10.8	9.1	10.9	11.1	11.0	9.2	11.9	11.1	10.2
Construction work: housing	17.0	17.0	15.5	10.9	15.5	15.5	15.6	10.9	16.1	16.6	16.1
Construction work: other constructions	36.8	38.9	40.2	47.6	37.0	40.5	40.2	48.0	35.5	39.8	40.7
Other products	3.5	3.7	3.6	3.6	3.0	3.7	3.8	4.0	4.1	3.3	4.3

Source: Eurostat data.

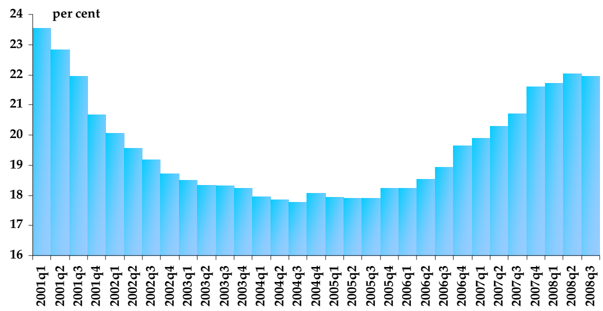
was markedly higher than a year before, albeit the growth of this category decreased. In the same period a considerable improvement was also recorded in investment outlays of the public finance sector.

According to business tendency surveys conducted both by the GUS and the NBP, the coming quarters may be expected to bring a further decline in investment growth (Figures 2.6, 2.7). The percentage of respondents planning to start new investment projects in 2009 fell considerably (to 34.9% against 53.6% in 2008)[20]. At the same time, although the number of enterprises declaring reduction in outlays on investment in progress as compared with their original plans increased, it still remains low. Decline in investment activity results from the anticipated fall in demand and reduced needs of enterprises as regards the development of their production potential which is signalled by the findings of the above mentioned business tendency surveys, on the one hand, and a marked decline in the production capacity utilization, on the other hand (Figure 2.8). The percentage of enterprises planning to modernise their production assets, purchase new technologies, replace worn out production assets, or renovate buildings, being maintained at the 2008 level, should be considered a positive phenomenon.

Apart from falling demand, the factors negatively affecting investment decisions of enterprises include: growing uncertainty about the global economic situation, declining capacity to finance investment resulting from falling rentability, hin-

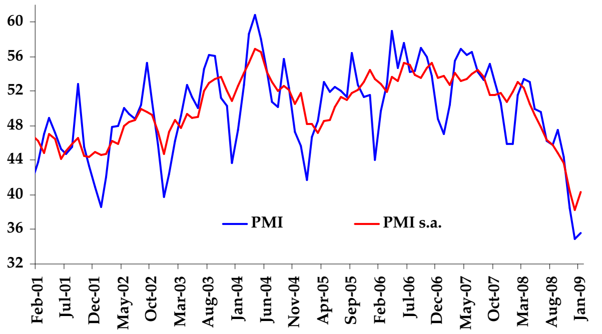
[20]See: *The Condition of the Non-financial Enterprises in 2008 Q4 and Expectations for 2009 Q1*, NBP.

□ **Figure 2.5:**
Investment to GDP ratio (gross fixed capital formation to GDP in nominal terms; quarterly data, cumulated over last 4 quarters.)



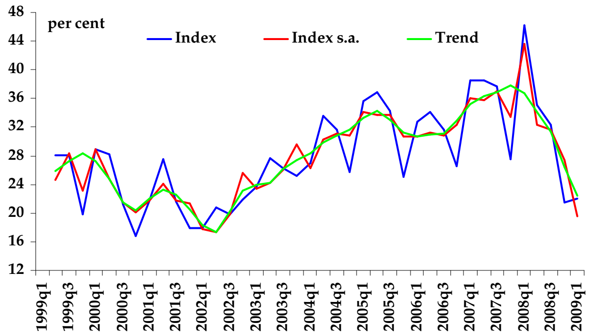
Source: GUS data, NBP calculations; 2008 Q4 – data implied by GUS preliminary estimates of GDP in 2008 (NBP estimates).

□ **Figure 2.6:**
PMI for manufacturing.



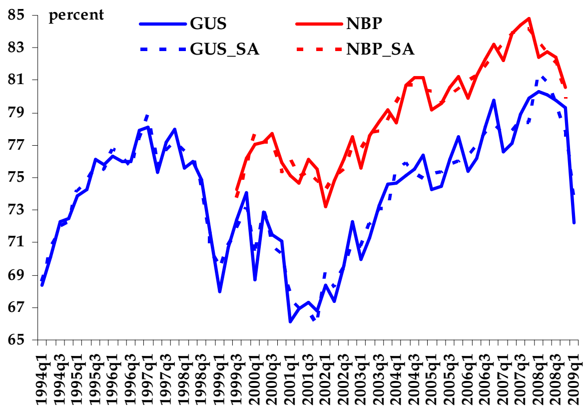
Source: GUS data.

□ **Figure 2.7:**
Index of new investments (the percentage of enterprices planning to start new investments within the coming quarter).



Source: NBP business tendency survey.

□ **Figure 2.8:**
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 GUS sample includes ca. 3500 enterprises from manufacturing excluding waste processing. The NBP sample in September 2008, in turn, included 894 enterprises from the whole corporate sector. 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.

dered access to sources of financing and increased costs of obtaining capital, mitigated to a certain extent by decreases of the NBP interest rates.

Due to the growing inflow of EU funds the outlook for investment activity in the central and local government sector in the coming quarters remains favourable. Yet, a marked decline will be recorded both in investment activity of enterprises, as reflected in the business tendency surveys, and housing investment of households. The decline in investment activity is driven by the global financial crisis which has already brought about a significant deterioration in the outlook for growth in the global and Polish economy, and a tightening of banks' lending policy.

2.1.4 External demand and current account balance of payments[21]

External demand

In the euro area, which is Poland's major export market, recession deepened in 2008 Q4. According to preliminary estimates, the last quarter of 2008 was the third consecutive quarter which recorded a quarter-on-quarter decline in GDP (by 1.5% q/q as compared to 0.2% q/q in 2008 Q2 and Q3). 2008 Q4 also saw – for the first time since the introduction of the common European currency – a GDP decline in annual terms (of 1.2% y/y as against a growth of 0.6% y/y in 2008 Q3). The strong deterioration in economic activity was broadly based across all the economies of the region[22].

The structure of economic growth in 2008 Q3 (most recent quarter for which data are available) indicates that annual GDP growth in the euro area slowed down in comparison to the previous quarter primarily due to a fall in net exports

[21] Export and import data presented in this chapter refer to values expressed in EUR.

[22] The economic downturn in the euro area was primarily the result of a decline in German GDP (by 1.6% y/y in 2008 Q4 as compared to a growth of 0.8% y/y in 2008 Q3.). A decline in GDP was also observed in France (by 1.0% y/y in 2008 Q4 as compared to a growth of 0.6% y/y in 2008 Q3), whereas in Italy the growth of GDP was negative for the third consecutive quarter (-2.6% y/y in 2008 Q4 as compared to -1.1% in 2008 Q3).

and a decrease in the contribution of private consumption to GDP growth to zero. Furthermore, the contribution of investments to GDP growth diminished as compared to the previous quarter (Figure 2.9).

In 2008 Q3 the growth of both exports and imports of the euro area continued to decelerate. Conducive to the weakening growth of exports were the marked contractions in sales to the United Kingdom and the United States (due to the deepening recession in both countries) as well as significant decline in the growth of exports to developing countries, most particularly to China. In contrast, relatively buoyant growth was observed for exports to oil exporting countries and to the new EU member states. Decline in both internal demand and export sector demand had a dampening effect on the volume of imports. In 2008 Q3 the volume of imports of capital goods reported a considerable slump, and imports of intermediate goods also recorded a marked decline.

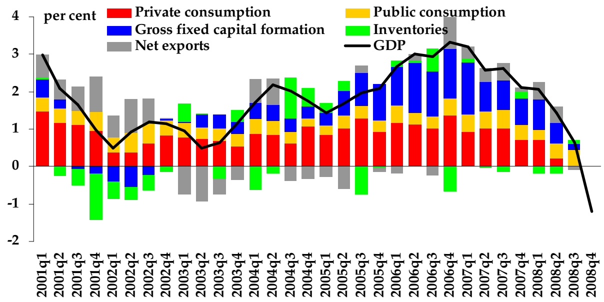
At the beginning of 2009 Q1, recession continued to deepen in the euro area, as indicated by the worsening results of the surveys conducted among consumers and enterprises, which signalled, *inter alia*, a strong decline in export orders. At the same time, since the release of the previous*Report* the prospects for economic growth in 2009 have changed considerably: it is now commonly expected that 2009 will see GDP contraction in the euro area[23]. Both the demand contraction envisaged for other developed economies[24] and the downward revision of economic growth forecasts for developing economies point to a possible further weakening of both exports and imports of the euro area.

The recession in the euro area had a dampening impact on the growth of Polish exports to the region. Notwithstanding the above, the growth of sales to other major trade partners, most notably

[23]The consensus forecast published by *The Economist* in February 2009 assumes that GDP in the euro area will decrease by 2.1% y/y in 2009.

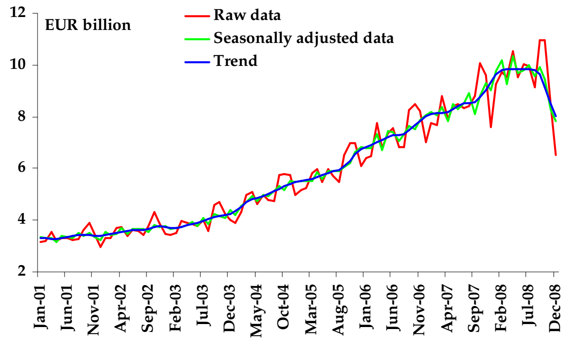
[24]The consensus forecast published by *The Economist* in February 2009 assumes that GDP in United States in 2009 will decrease by 2.0% y/y, whereas the consensus forecast for the United Kingdom assumes that GDP in 2009 will decrease by 2.6% y/y.

⊡ **Figure 2.9:**
Decomposition of the euro area GDP growth.



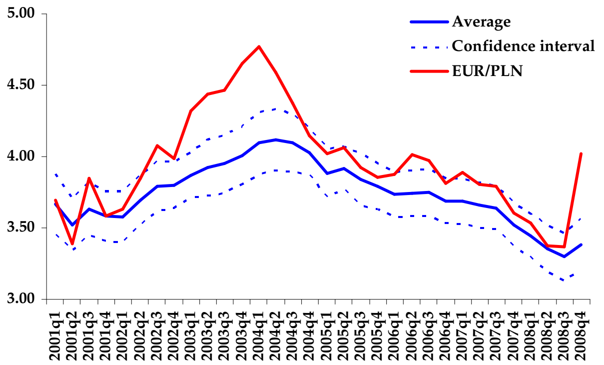
Source: Eurostat data.

□ **Figure 2.10:**
The value of Polish exports.



Source: GUS data, NBP calculations.

□ **Figure 2.11:**
Threshold exchange rate of exports profitability (EUR/PLN) declared by enterprises.



Source: NBP data and estimates.
The threshold exchange rate - at which exports become unprofitable, is determined as the average of responses to a question (see below) included in the survey of NBP quick monitoring addressed at enterprises *Information Concerning the Condition of the Corporate Sector and the Economic Climate*. The survey covers non-financial enterprises representing all NACE (PKD) sections (except for Agriculture, Forestry and Fisheries) of both public and non-public sector, including small and medium-sized enterprises and large entities.
Survey question: "What is the threshold level of the foreign exchange rate at which exports will become (is) unprofitable (in zloty)?"

to CIS and CEE countries, was relatively high, hence the growth of Polish exports remained relatively strong in 2008 Q3[25]. The slight reduction in exports growth over that period was fuelled by a slowdown in the sales of the motor vehicle sector (in particular the sales of motor vehicle parts and accessories) and durable consumer goods. It should be emphasized that parts and accessories as well as consumer durable goods belong to those goods whose exports are the most vulnerable to the economic climate changes in the external environment of the Polish economy. This is the consequence of a major role played by foreign investors in manufacturing the above-mentioned two groups of goods and a large share of intra-company trade – both between CEE branches of multinational corporations and the parent companies and branches located in Western Europe – in the exchange of those goods.

As suggested by the preliminary data, the value of exports declined in 2008 Q4 (Figure 2.10). Apart from the developments in the above-mentioned groups of goods – motor vehicle parts and accessories as well as consumer durable goods – this decline was driven by the contraction in car exports. Strong weakening of economic activity in the countries which are Poland's main trade partners also had negative impact on the value of intermediate goods exports, which was additionally reinforced by a drop in metal prices.

In 2008 Q3 there was a deterioration in the competitive position of both domestic exporters and producers (Table 2.3), which was mainly the result of unit labour costs rising faster than abroad as well as the imported goods prices decreasing relative to the domestic goods prices. By contrast, in 2008 Q4 the zloty nominal exchange rate depreciated considerably, thereby making Polish products more competitive. This is confirmed by the NBP's business tendency survey showing

[25] According to GUS data, the value of Polish exports grew by 17.8% y/y in 2008 Q3, as compared to 21.5% y/y in 2008 Q2. The lower growth of the value of exports was mainly due to a slower growth of the volume (which stood at 8.5% y/y in 2008 Q3, as compared to 11.2% y/y in 2008 Q2) and to a lesser extent due to a weaker growth of transaction prices (8.5% y/y in 2008 Q3 as compared to 9.1% y/y in 2008 Q2). According to preliminary data, in 2008 Q4 the value of exports decreased by 5.0% y/y.

Table 2.3: Polish export and import competitiveness measures.

Change (per cent)	2006				2007				2008		
	q1	q2	q3	q4	q1	q2	q3	q4	q1	q2	q3
Export prices / Unit labour costs*											
y/y	2.1	10.3	13.5	13.0	10.4	3.4	2.1	-2.3	-0.5	-2.9	-7.2
q/q	2.5	6.4	3.6	0.0	0.1	-0.4	2.4	-4.3	2.0	-2.7	-2.2
Import prices / Domestic producer prices**											
y/y	-2.0	3.5	0.9	0.5	2.1	-3.0	-4.0	-3.9	-3.1	-1.9	-2.4
q/q	2.1	1.3	-0.9	-1.8	3.6	-3.7	-1.9	-1.8	4.5	-2.5	-2.5
REER ULC***											
y/y	-1.3	-2.7	-5.3	-2.1	-2.6	5.0	7.4	10.1	14.9	18.9	21.1
q/q	0.1	-4.2	-1.1	3.2	-0.4	3.3	1.1	5.9	3.9	6.9	3.0

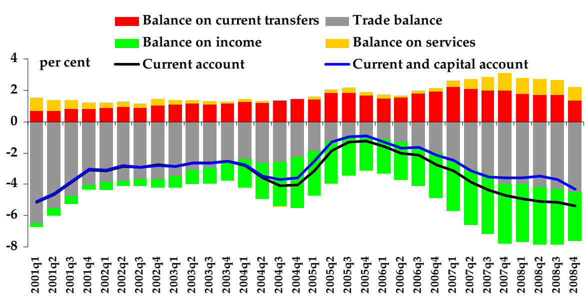
Source: NBP's calculations based on Eurostat, OECD and GUS data.
* Unit labour cost (ULC) index is calculated as the ratio of payroll growth to labour productivity growth, measured as output (volume) in manufacturing per person employed in this sector.
** Domestic PPI in manufacturing.
*** Estimates on the basis of monthly GUS data and ECB data. REER ULC – real effective exchange rate deflated with unit labour costs in manufacturing. Minus denotes depreciation.

that whereas the zloty nominal exchange rate featured a marked depreciation, the threshold exchange rate of export profitability declared by enterprises moderated only marginally (Figure 2.11).

Current account balance[26]

The current account deficit in 2008 Q3 was larger than in the corresponding period of 2007. This was primarily driven by an increase in the trade and the income deficits, whereas the increase in the positive balance on services and on transfers had the opposite effect. The current account deficit relative to GDP (in terms of four quarters) grew to 5.2% (as compared to 5.1% after 2008 Q2[27] and 4.4% after 2007 Q3). In turn, the combined current account and capital account deficit relative to GDP rose to 3.7% in 2008 Q3

☐ **Figure 2.12:**
Current account and its main components to GDP (4-quarter rolling window).

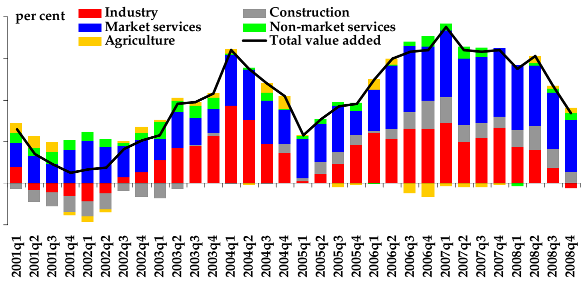


Source: NBP data.
2008 Q4 – based on NBP monthly estimates of the current account for the period of October–December 2008 as well as data implied by GUS preliminary estimates of GDP in 2008 (NBP estimates).

[26]Shifts in the current account balance in 2008 Q4 were described based on the NBP monthly estimates of the current account balance for October–December 2008. Data for 2008 Q4 will be released on 31 March 2009.

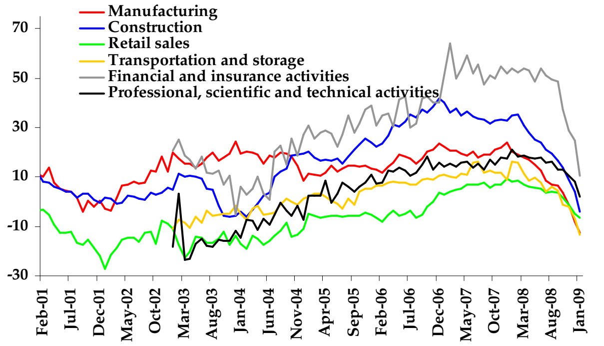
[27]Upon release of data on the current account for 2008 Q3, the NBP adjusted historical data. Taking those adjustments into account, the current account deficit relative to GDP after 2008 Q2 reached 5.1% rather than 4.9% as given in the previous *Report*.

⊡ **Figure 2.13:**
Sector contribution to annual gross value added growth.



Source: NBP calculations on the basis of GUS data.

⊡ **Figure 2.14:**
Indicators of future economic activity in selected sections.



Source: GUS business tendency survey.

(as compared to 3.5% after 2008 Q2); in the corresponding period of 2007 this ratio stood at 3.5% (Figure 2.12).

Estimates for 2008 Q4 indicate that the current account deficit continued to widen, which was in a large part the result of a decline in the positive balance of transfers. The trade deficit further pursued a deepening tendency. It is assessed that after 2008 Q4 the ratio of current account deficit to GDP went up to 5.4%, whereas the ratio of the combined current and capital account deficit to GDP increased to 4.3%.

2.2 Output

In 2008 Q3 gross value added grew by 4.7% y/y, i.e. in accordance with the expectations from the previous *Report*. According to GUS preliminary data for 2008, the implied growth of gross value added in 2008 Q4 declined to approx. 3.4% y/y (Figure 2.13).

In 2008 Q3 contributions of industry, construction and market services to the total growth of value added decreased, the most significant decline being recorded in the first category. Market services remained the major factor driving the growth of gross value added. According to the data implied on the basis of GUS preliminary estimates for 2008, this trend persisted in 2008 Q4 and the contribution of industry to the growth of gross value added was negative for the first time since 2002.

Table 2.4: Value added and its components.

Change q/q seasonally adjusted (per cent)	2006				2007				2008			
	q1	**q2**	**q3**	**q4**	**q1**	**q2**	**q3**	**q4**	**q1**	**q2**	**q3**	**q4**
Value added – total	1.3	2.1	1.6	1.6	1.9	1.1	1.8	1.5	1.0	1.6	0.5	0.4
Industry	2.8	2.9	2.6	2.0	3.0	1.1	2.7	3.0	-0.4	0.9	-0.5	-1.0
Construction	-1.6	9.4	4.0	5.4	4.5	-0.1	4.3	2.0	5.4	3.5	0.5	-0.2
Market services	1.5	1.6	1.5	1.3	1.7	1.5	1.6	1.4	1.3	1.4	1.2	1.1

Source: NBP calculations on the basis of GUS data.

In the assessment of the NBP, subsequent quarters will bring a further decline in the growth of value added, which is corroborated by the results of the GUS business tendency surveys for all sections of the economy (Figure 2.14).

2.3 Labour market

2.3.1 Employment and unemployment

In 2008 Q3 demand for labour still grew strongly, while in Q4 it slowed down. In 2008 Q3 the number of working persons according to BAEL (Labour Force Survey) reached once again its highest value in survey history, i.e. since 1992 (Figure 2.15 and Table 2.5). Employment in the corporate sector in 2008 Q3 remained at a similar level as in 2008 Q2, and in 2008 Q4 it began to decrease[28] (Figure 2.16).

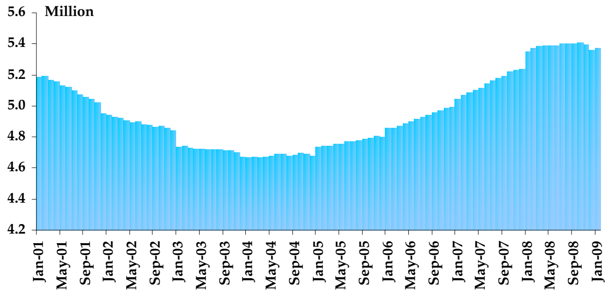
Weakened demand for labour in the last months of 2008 was also reflected in a smaller number of vacancies reported by employers to labour offices (in 2008 Q4 it dropped by 21.9% y/y). Another signal of weakened demand for labour is the marked easing of difficulties in hiring employees reported by employers[29].

The increase in the number of working persons in the economy in 2008 Q3 still contributed to the decline in the unemployment rate, both the one calculated based on BAEL data and the registered unemployment rate (Figure 2.17). The unemployment rate and the number of unemployed according to BAEL slid to the lowest levels in the survey history (respectively to 6.6% and

Figure 2.15:
Working persons and the economically active in the economy (according to BAEL).

Source: GUS data.

Figure 2.16:
Employment in the enterprise sector.



Source: GUS data.

[28]The level of employment in the enterprise sector in January 2009 – apart form the actual change in employment – reflected, to a significant extent, also the change in the sample composition of enterprises; the change was due to the verification of the size of enterprises and a modification of the Polish Classification of Activities (PKD). As a result, it is difficult to interpret the rise in employment in the enterprise sector in January 2009.

[29]According to GUS business tendency survey, in January 2009 the shortfall of skilled employees in construction was declared by 32% of employers (as compared to 55% a year before), and in manufacturing 13.5% in 2009 Q1 (against 29.4% in the corresponding period of 2008). According to the results of the NBP business tendency survey, 2.7% of enterprises reported difficulties with hiring employees in 2008 Q4 in comparison with 11.7% of enterprises a year before.

Table 2.5: Working population according to BAEL in selected sections.

	Working persons in 2008q3		Growth in 2008q2		Growth in 2008q3		Growth in 2008q2	Growth in 2008q3
	thousands	structure	y/y thousands	y/y percent	y/y thousands	y/y percent	q/q seasonally adjusted (percent)	q/q seasonally adjusted (percent)
Total	15,990	100.0	537	3.5	558	3.6	0.8	1.0
Total excluding private agriculture	13,848	86.6	551	4.2	546	4.1	0.7	1.1
Place of residence								
urban areas	9,854	61.6	373	4.0	383	4.0	0.7	0.5
rural areas	6,131	38.3	163	2.8	169	2.8	0.0	0.6
Economic sector								
agriculture	2,300	14.4	-32	-1.4	-1	0.0	-0.1	-1.1
industry	5,156	32.2	326	7.0	363	7.6	0.3	2.3
services	8,522	53.3	237	2.9	187	2.2	0.5	0.4
Ownership sector								
public	4,314	27.0	34	0.8	76	1.8	0.4	0.7
private	11,676	73.0	502	4.6	482	4.3	0.5	0.5
Employment status								
hired employees	12,318	77.0	464	4.0	512	4.3	0.7	1.3
employers and self-employed	2,965	18.5	107	3.7	9	0.3	0.5	-0.7
contributing family workers	706	4.4	-33	-4.8	36	5.4	-1.0	1.9
Type of job contract								
fixed-term contract	3,387	21.2	-12	-0.4	-6	-0.2	-0.6	0.5
permanent contract	8,932	55.9	475	5.7	518	6.2	0.9	1.6

Seasonally adjusted growth was computed based on data seasonally adjusted with TRAMO/SEATS on a sample 1995 Q1–2008 Q3. Data on working persons in the public sector were seasonally adjusted on a sample 2002 Q1–2008 Q3.
Source: GUS data, NBP calculations.

1,132 thousand in 2008 Q3). The registered unemployment rate in 2008 Q3 stood at approx. 9%. While a slight increase of the registered unemployment rate at the end of 2008 (to 9.5% in December) was mainly due to seasonal factors, preliminary data for January 2009(10.5%)[30] point to a significant increase in unemployment unrelated to seasonal factors, which confirms the deterioration of situation on the labour market.

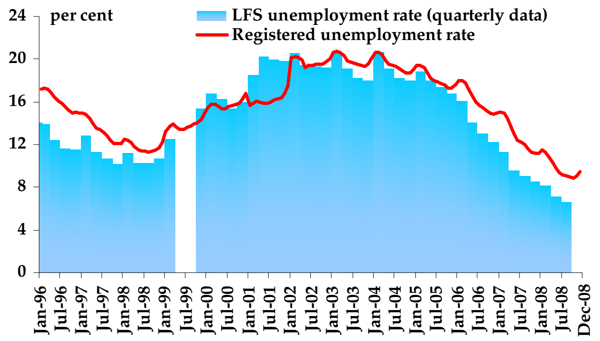
High growth of wages, weakening incentives for economic migration and the increase in the working-age population constituted factors which contributed to further rise in labour supply in 2008 Q3. The number of working persons in-

[30]According to data on the labour market situation in January 2009 published by the Ministry of Labour and Social Policy.

creased by 0.9% y/y to 17,122 thousand (after the increase of 0.8% y/y in 2008 Q2). Since the beginning of 2008 the total labour participation ratio increased as well (in 2008 Q3 by 0.5 percentage points y/y to 54.6%), with a particularly high rise recorded in the group of people aged 35–44 and 45–60/65. This may indicate that, on the one hand, favourable situation in the labour market encouraged older persons to become more economically active and, on the other hand, that persons more active in their search for a job have returned to Poland from economic migration.

The results of the NBP business tendency survey[31] indicate that in the coming quarters the situation in the labour market will be deteriorating. In 2009 Q1 once again enterprises in all surveyed sectors lowered their forecasts concerning employment. Industry expects a reduction in employment, while construction and retail trade, though still expecting a slight increase of employment, signal a significantly lower scale of the increase than in the previous quarters.

Figure 2.17:
Unemployment rate registered by labour offices and unemployment rate according to BAEL.



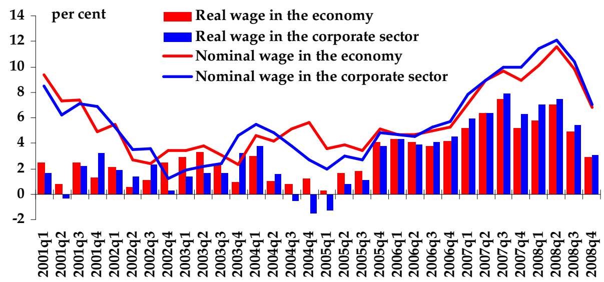
Source: GUS data.
Data till 2002 are adjusted for the results of the 2002 National Census.
The BAEL survey was not conducted in 1999 Q2 nor in Q3.
There are two reasons for the differences between the unemployment rate according to BAEL and the registered unemployment rate: (1) Different definition of unemployed person. (2) Different definition of population to which the number of the unemployed is referred.

2.3.2 Wages and productivity

In 2008 Q4 the growth of nominal wages continued to decline both in the economy (dropping to 6.8% y/y against 9.8% y/y in 2008 Q3) and in the enterprise sector (dropping to 7.0% y/y against 10.4% y/y in 2008 Q3; Figure 2.18). The fall in the annual wage growth in 2008 Q4 was significant – in the case of wages in the economy it was the strongest fall recorded since 2000 Q2 – and it will probably be continued in the coming quarters[32].

2008 Q3 saw a deceleration in labour productivity[33] in comparison with 2008 Q2 (1.1% y/y

Figure 2.18:
Annual growth of wages in the economy and in the corporate sector (nominal and real).



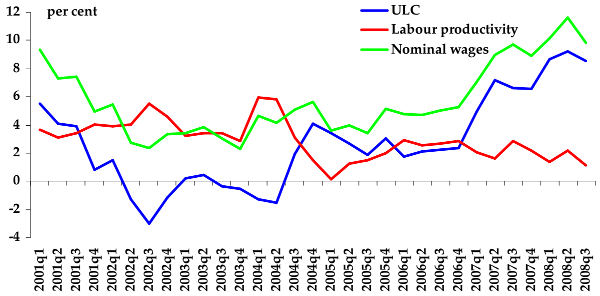
Source: GUS data, NBP calculations.

[31] See: *The Condition of the Non-financial Enterprises in 2008 Q4 and Expectations for 2009 Q1*, NBP.

[32] The significant fall in the annual growth of wages in the enterprise sector in December 2008 (to 5.4% y/y from 7.4% y/y in November 2008) and its subsequent high rise in January 2009 (to 8.1% y/y) probably resulted, to a large extent, from postponing some payments of wages from the end of 2008 till the beginning of 2009 due to the introduction of a more favourable PIT rates in 2009.

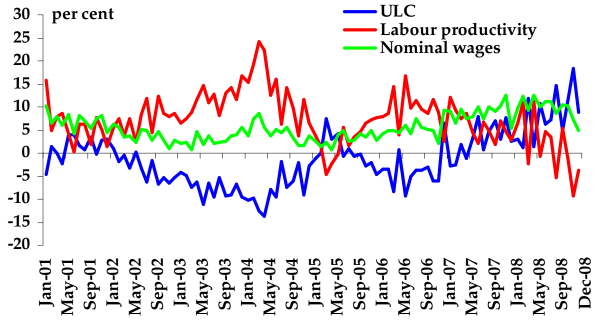
[33] Labour productivity in the economy: GDP in constant average annual prices of the previous year per one person working in the economy according to BAEL.

⊡ **Figure 2.19:**
Annual growth of labour productivity, wages and unit labour costs (ULC) in the economy.



Source: GUS data, NBP calculations.

⊡ **Figure 2.20:**
Annual growth of labour productivity, wages and unit labour costs (ULC) in industry.



Source: GUS data, NBP calculations.

against 2.2% y/y), which was driven by the decrease in GDP growth under stable growth in the number of working persons. As a result of a greater decline in wage growth than in labour productivity growth, the growth of unit labour costs in the economy dropped in 2008 Q3 as compared to the previous quarter (8.6% y/y against 9.2% y/y)[34] (Figure 2.19). In December 2008 the growth of unit labour costs decreased also in industrial enterprises (Figure 2.20), although in 2008 Q4 as a whole it was still high[35], which was mainly due to procyclical developments in labour productivity in industry. In the coming months the drop in production should be accompanied by further decline in wage growth, which in turn will be conducive to the reduction of growth in unit labour costs in this sector.

The results of the NBP business tendency survey[36] indicate that the wage pressure in enterprises dropped significantly. In 2009 Q1 the percentage of enterprises that are planning wage rises decreased, with the average planned wage rise remaining at a similar level as in the previous quarter[37]. At the same time, the percentage of enterprises for which the wage rise constituted the main reason for raising the prices of their products remained low[38].

In GUS consumer tendency surveys, in turn, the percentage of people fearing a rise in unemployment increased, which will dampen the wage pressure on the part of employees.

[34] Unit labour costs in the economy: nominal aggregate wages in the economy (average nominal wage in the economy multiplied by the number of people working in the economy according to BAEL) relative to GDP (in constant average annual prices of the previous year).

[35] Unit labour costs in industry: the average gross nominal wage in industry relative to the labour productivity in industry (labour productivity in industry: the ratio of industrial output in constant prices to the average employment in the sector).

[36] See: *The Condition of the Non-financial Enterprises in 2008 Q4 and Expectations for 2009 Q1*, NBP.

[37] The average planned rise in the group of enterprises that envisage such a development amounts to 5.8% against 6.1% in 2008 Q4

[38] Among the enterprises declaring to raise wages in 2009 Q1, this percentage stood at 5.3%.

2.4 Other costs and prices

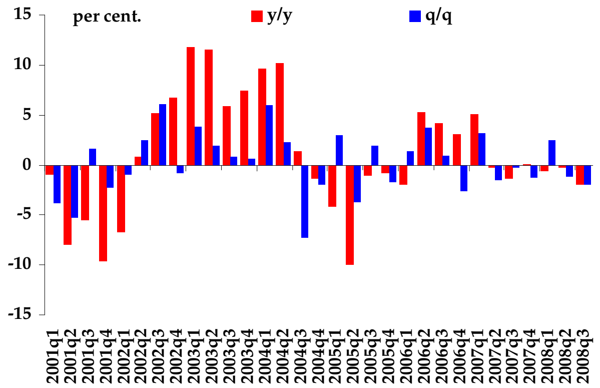
2.4.1 External prices

In 2008 Q3 import prices expressed in PLN declined further, brought down by delayed effects of the zloty nominal exchange rate appreciation observed in the first half of 2008. On the one hand, the appreciation of the zloty dampened the impact of a strong rise in oil prices on import prices[39], and on the other, it contributed to steeper declines in the prices of other imported goods as a whole[40]. As a result of export prices decreasing more quickly than import prices in 2008 Q3, the *terms of trade* deteriorated further.

A strong drop in oil prices that began in 2008 Q3 brought the prices of this commodity in 2008 Q4 down to a level lower than that observed a year earlier. Nevertheless, the depreciation of the zloty during this period resulted in a much more benign decrease of the prices expressed in PLN than in the case of the prices expressed in USD[41].

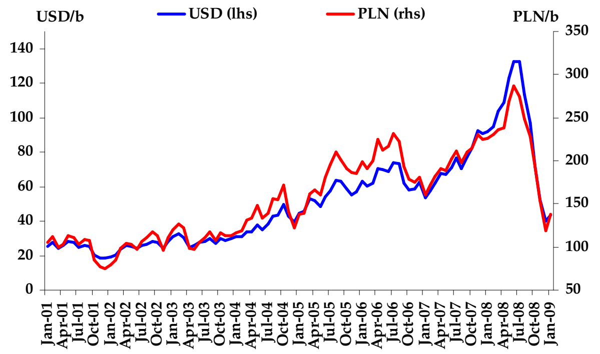
Till the end of 2008 the strong drop in oil prices continued, related to a significant reduction of the demand for oil and a marked deterioration of growth outlook in the global economy, which was reflected in a strong downward revision of forecasts of global oil demand[42]. The falling price trend was not halted by the unprecedented reduction of oil supply announced by the OPEC twice in 2008 Q4 (jointly by 4.2 million b/d). The markets are generally convinced that the OPEC

Figure 2.21:
Changes in import prices expressed in PLN.



Source: GUS data.

Figure 2.22:
Brent crude oil prices in USD and PLN.



Source: The US Department of Energy (www.eia.doe.gov) data, NBP caluculations.

[39] In 2008 Q3 oil import prices expressed in PLN rose by 34.4% y/y (as compared to 30.1% in 2008 Q2), while those expressed in USD rose by 74.6% y/y (as compared to 70.3% y/y in 2008 Q2).

[40] Import prices of other goods (excluding oil) in PLN decreased by 4.4% y/y (as compared with a decrease of 1.9% y/y in 2008 Q2) and by 3.0% q/q (as compared with a rise of 2.6% q/q in 2008 Q2.)

[41] In November 2008, for the first time in 2008, the annual growth of oil prices expressed in PLN was negative. In comparison with November 2007 oil prices expressed in PLN declined by 1.7% y/y and those expressed in USD by 12.5% y/y.

[42] US Department of Energy expects that the global oil demand in 2009 will decrease by 1.2 million b/d. This would mean a second consecutive year of declining global demand for this commodity (according to February 2009 estimates, the demand for oil in 2008 dropped by ca. 30 thousand b/d) and the largest such decline since 1983.

countries will not manage to fulfill these declarations, as indicated by the delay in the implementation of the OPEC decisions[43]. At the same time it is expected that, at least in some of these countries, the oil sector will be under pressure to maintain output at a higher level as income from oil sales will be earmarked for the financing of government programmes. Moreover, the reduction of oil output entails an increase in the output capacity surplus, which should have a stabilising effect on the oil market in the case of unexpected disruptions of supply. The fall in current oil prices was accompanied by a reduction of the forecast prices[44].

After a temporary rise in oil prices in the first half of January 2009, mainly due to political factors[45], the prices stabilised above 40 USD/b. Major factors affecting the oil price developments in the nearest future include: low demand for oil (further downward revisions of forecasts of global demand for this commodity are possible due to the revisions of global economic growth forecasts), increase in stocks, and growing surpluses of output capacity in OPEC countries.

2.4.2 Producer prices[46]

In 2008 Q4 an increase was recorded in the growth of the PPI which reached 2.5% y/y (Figure 2.23). As a result of the depreciating zloty exchange

[43]According to estimates of the US Energy Department, between September 2008 and January 2009 the OPEC reduced the oil output by 2.1 million b/d (which means a 50% implementation of the assumed output reductions), whereas the OPEC estimates that its members reduced output by 3.6 million b/d (85% of the assumed reduction).

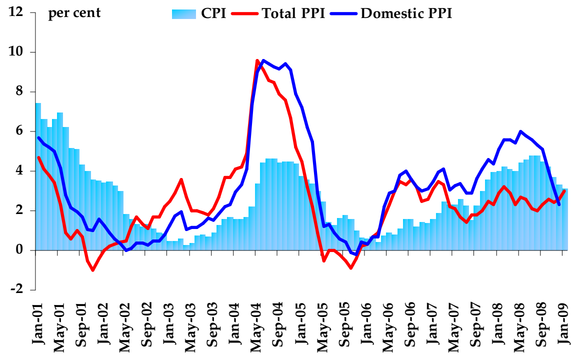
[44]Between October 2008 and February 2009, the US Energy Department lowered the oil price forecasts for 2009 by nearly 70 USD (from 112.0 USD/b to 43.1 USD/b).

[45]The rise in oil prices at the beginning of January 2009 was brought about, *inter alia*, by the suspension of supplies of Russian gas via the Ukrainian territory and the attack of Israel on the Gaza strip as well as speculations regarding the possibility of Iran involving in this conflict.

[46]Total producer prices in industry and in three main sections (i.e. *mining and quarrying*, *manufacturing* and *production and supply of electricity, gas and water*) referring to a specific month are published in the next calendar month, while the prices in particular divisions of *manufacturing* and the producer prices in the domestic market are available with a longer time lag (of about two months).

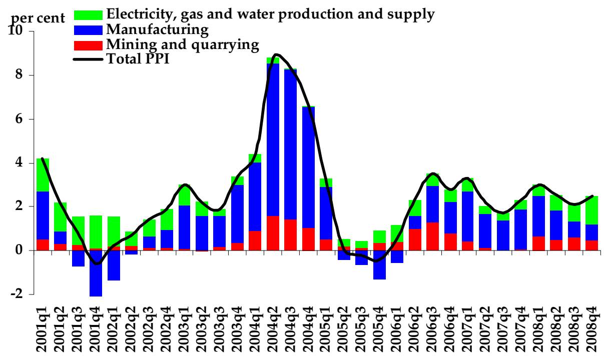
rate, which led to increased growth of producer prices for exported goods, the difference between the PPI growth in the domestic market and the total PPI growth narrowed (from more than 3 percentage points in 2008 Q3 to 0.6 percentage points in 2008 Q4). The highest growth in producer prices was recorded in the section *production and supply of electricity, gas and water*, which at the same time had the highest contribution to the total PPI growth. Similarly as in 2008 Q3, the producer price growth in *mining* was high. Despite the significant contribution of *manufacturing* to industrial output, due to low growth in producer prices, the impact of this division on annual growth of the PPI was relatively low (Figure 2.24).

Figure 2.23:
CPI and PPI changes (y/y).



Source: GUS data.

Figure 2.24:
Composition of PPI total annual growth.



Source: GUS data.

2.5 Financial markets[47]

2.5.1 Asset prices and interest rates

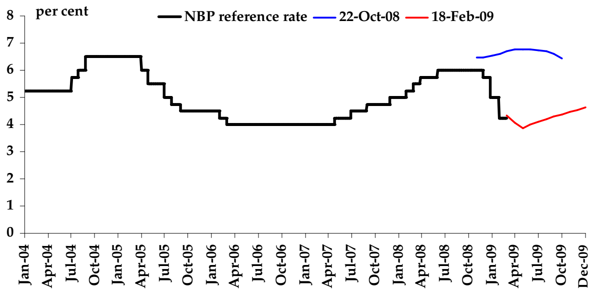
Short-term interest rates

Since the publication of the previous *Report* the Monetary Policy Council lowered the reference rate by 175 basis points to 4.25%. The interest rate cuts were effected in November and December 2008 (by 25 and 75 basis points respectively), and in January 2009 (by 75 basis points). The cuts were followed by decreases of interest rates in the interbank market (WIBOR 3M fell from 6.86% on average in the last week of October 2008 to 4.71% on average in the second week of February 2009). In November 2008 analysts expected the reference rate to be kept unchanged, whereas the rate cuts in December 2008 and in January 2009 were slightly bigger than the market consensus. The NBP rate cuts took place in a period of significant easing of monetary policy by central banks in developed countries as well as by the majority of central banks in developing countries.

The NBP interest rate changes were followed by a significant change of expectations concerning the future value of the reference rate. Analysts

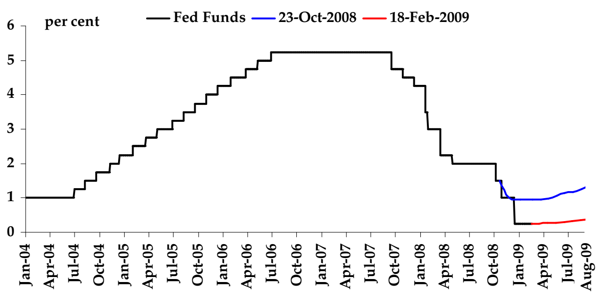
[47] The cut-off date for the data presented in this section is 18 February 2009.

□ **Figure 2.25:**
Monetary policy expectations in Switzerland – actual developments and expected NBP interest rate.



Source: Reuters data, NBP calculations.

□ **Figure 2.26:**
Monetary policy expectations in the United States – actual developments and expected Fed Funds rate.



Source: Bloomberg data, NBP calculations.

surveyed by Reuters in February 2009 expected the NBP's key interest rate at 3.00% in December 2009[48], while as recently as in the November 2008 survey they expected the reference rate to be lowered to 5.00% (the median) over a one-year horizon.

3M WIBOR FRA rates (including the risk premium, Figure 2.25) could point to expectations of NBP rates at 3.75–4.00% over the next three months and 4.50% over a one-year horizon. It should be emphasized, however, that the quotations of these contracts may still be distorted by a heightened risk premium included in the WIBOR rate. After a sudden rise in the second half of October 2008, FRA rates began to fall in line with the direction of market expectations regarding the changes of NBP interest rates. The decline in money-market interest rates may also have been influenced – besides cuts in the reference rate – by actions taken by the NBP in October 2008, aimed at improving the functioning of the interbank market (the so-called "Confidence package"[49]). However, since the second half of January 2009 FRA rates have risen again reflecting increased risk aversion to emerging-market assets. Furthermore, significant fluctuations of the exchange rate may have contributed to the revision of expectations, implied by FRA rates, of interest rate changes in 2009.

Since the publication of the previous *Report* the Fed has lowered its interest rate by a total of 125 basis points to 0.00–0.25%. Expectations with regard to the future path of US interest rates have changed significantly since the end of October 2008. In line with forward market quotations it is currently expected that the federal funds rate

[48]In the survey of 10 February 2009 45% of analysts expected that the NBP's key interest rate would reach 3.00% in December 2009, 32% of them saw it at 2.50–2.75% and 23% expected the rate to reach 3.25–3.50%.

[49]Measures taken by the NBP as part of the "Confidence package" include: Polish zloty liquidity-providing operations (repo transactions with maturities of up to three months), providing banks with foreign currencies (FX swaps) and the introduction of modifications in the operational system of the lombard credit (*inter alia* expanding the range of assets that may serve as collateral of a lombard credit with the NBP by debt securities deposited in the National Depository for Securities, i.e. municipal bonds, corporate bonds of domestic issuers, covered bonds and EIB bonds).

will be kept unchanged over the horizon of the next six months (Figure 2.26).

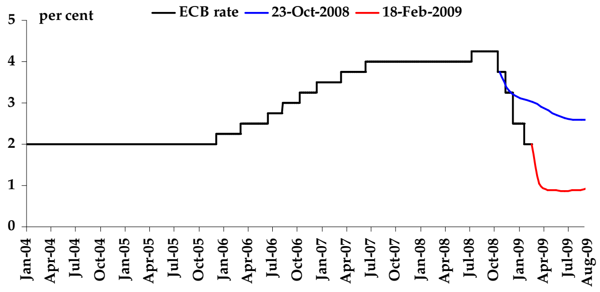
Since the end of October 2008 the European Central Bank (ECB) has cut its key interest rate by 175 basis points to 2.00%. Current forward market quotations suggest expectations of a further drop in interest rates in the euro area to 1.00% in the first half of 2009. Expectations of a further reduction of the ECB reference rate in the first half of 2009 are related to the risk of a much more pronounced economic slowdown in the euro area than expected before (Figure 2.27).

Since the publication of the previous *Report* the Swiss National Bank (SNB) has reduced its interest rate by a total of 200 basis points. According to the SNB the quickly deteriorating economic situation in Switzerland's external environment will contribute to a deeper than previously anticipated deterioration of domestic economic conditions. Currently the market expects the SNB interest rate to remain unchanged at 0.50% over the horizon of the next six months (Figure 2.28).

Long-term interest rates and the equity market

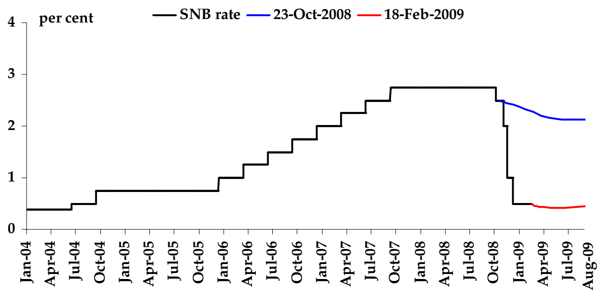
Since the publication of the previous *Report* yields on US and euro-area Treasury bonds have declined significantly due to the uncertainty concerning the depth and duration of the recession in the United States and the euro area. The uncertainty in global financial markets related to the feared intensification of the crisis in the US economy and its consequences spreading to other countries remained high. This led to an increase in risk aversion, which contributed to a change in investment preferences involving the selling out of riskier financial assets (e.g. shares) and investing the withdrawn funds in safer securities, e.g. Treasury bonds of developed countries (Figure 2.29). However, since the beginning of 2009 the yields on US and euro area Treasury bonds began to rise again. This rise may have been related to a certain fall in risk aversion in the face of better than expected December 2008 data from the US property market. Nevertheless, risk aversion in global financial markets remains high, which was reflected by another decline in

Figure 2.27:
Monetary policy expectations in the euro area – actual developments and expected ECB interest rate.



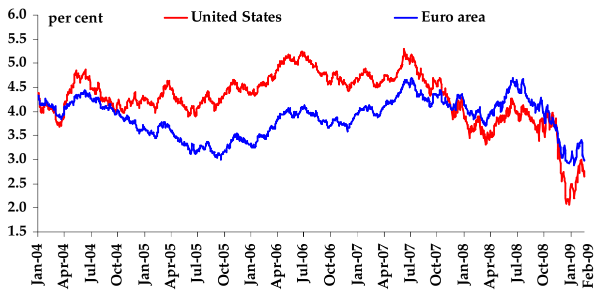
Source: Bloomberg data, NBP calculations.

Figure 2.28:
Monetary policy expectations in Switzerland – actual developments and expected SNB rate.



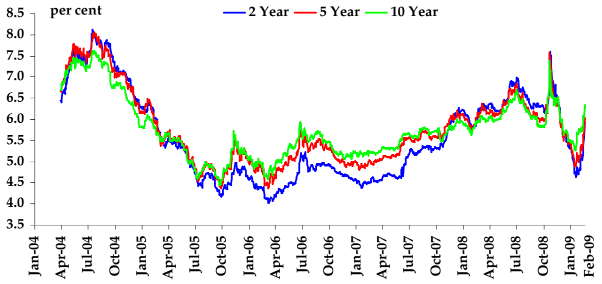
Source: Bloomberg data, NBP calculations.

Figure 2.29:
Yields of 10-year US and euro area bonds (y/y).



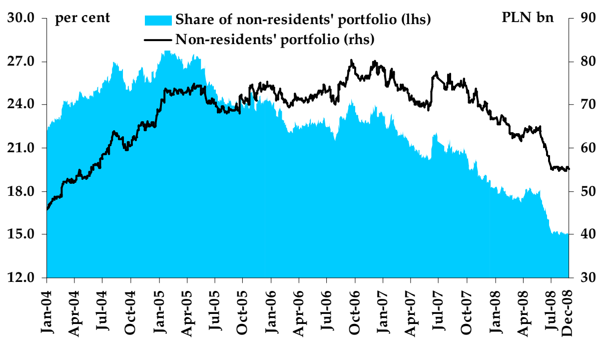
Source: Bloomberg data.

□ **Figure 2.30:**
Yields of the Polish benchmark bonds (y/y).



Source: Reuters data.

□ **Figure 2.31:**
Non-residents' participation in the Polish Treasury bond market.



Source: National Depository for Securities (KDPW) data.

US and euro-area Treasury bond yields in February 2009.

After a sharp rise in the second half of October 2008, related to a very rapid increase in risk aversion reflected, among others, in CDS rates (see box), yields on Polish bonds declined significantly since the second half of November 2008. In the period between the end of October 2008 and 20 January 2009, yields on 2-year bonds dropped by over 280 basis points, on 5-year bonds by ca. 260 basis points, and on 10-year bonds by nearly 190 basis points. As a result of improved sentiment towards the bond market, yields on Treasury securities temporarily (on 20 January 2009) reached levels last observed in May 2007. The domestic factors conducive to the improvement in sentiment in the bond market included the fall in inflation to 3.3% y/y in December 2008, i.e. below the upper limit of deviations from the NBP inflation target, and the deteriorating economic outlook raising the probability of further cuts in NBP interest rates. The key external factors included significant declines in yields on Treasury bonds both in the world's major markets and in the region (Figure 2.30). In the second half of January 2009, however, yields on Polish bonds began to rise again. The worsening economic outlook in Central and Eastern Europe had a negative impact on the perception of investment risk in the region, including Poland. As a result, between 20 January and 17 February yields on Polish 5- and 10-year Treasury bonds increased on average by 120 basis points and yields on 2-year bonds by approx. 100 basis points. The factors contributing to this rise in yields included lower expected NBP rate cuts and the rise in yields in the world's major government-bond markets.

Having climbed to 340 basis points in th second half of October 2008, in January 2009 the spread between the Polish 10-year Treasury bond and the corresponding German bond narrowed to 225 basis points. Subsequently, however, the spread widened again and on 18 February amounted to 328 basis points[50].

In October 2008 non-residents significantly re-

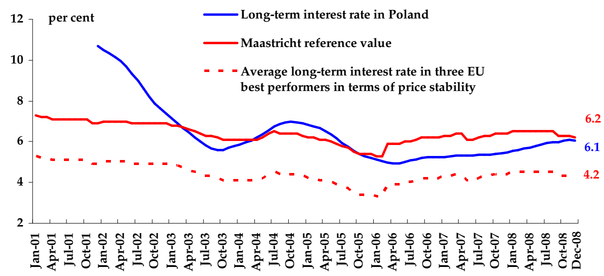
[50]In the case of Czech and Hungarian bonds the spread stood at 197 and 865 basis points respectively.

duced their involvement in the Treasury bond market in Poland, which was due to a significant rise in risk aversion among foreign investors. In November and December 2008 the outflow of foreign capital from the Polish debt market stopped due to a certain calming of the situation in the region's financial markets and rising expectations of an easing of monetary policy in Poland (Figure 2.31).

The yields on Polish long-term bonds in average annual terms, used to verify the compliance with the Maastricht interest-rate criterion, increased slowly in the last few months and came close to the Maastricht reference value. In December 2008 the average annual yield on 10-year Treasury bonds in Poland stood at 6.1%, while the reference value amounted to 6.2% (Figure 2.32). Since the end of 2005 Poland has been complying with the interest rate criterion.

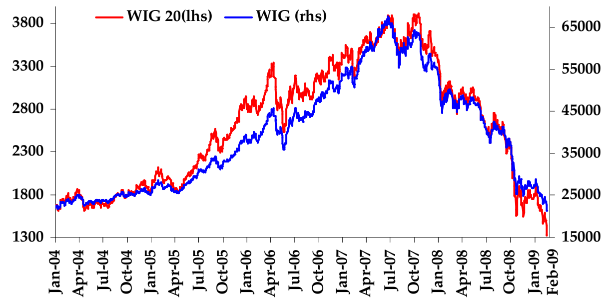
The situation in the domestic equity market reflected the overall sentiment prevailing in international markets. September and October 2008 saw a steep decline in share prices on the Warsaw Stock Exchange (WSE; Figure 2.33), accompanied by a significant outflow of foreign portfolio investment (Figure 2.34). After the sharp sell-off, share prices rose strongly at the turn of October and November. The October decline and the subsequent share-price rise at the turn of October and November formed a price range within which shares continued to move until early February 2009. November 2008 saw sizeable share-price volatility on the WSE, as well as a slight inflow of portfolio investments by non-residents. Nevertheless, this inflow was mainly due to purchases of shares of a single company (Enea), which was floated on the WSE in November 2008 as part of its privatisation scheme. In December 2008 WIG20 rose by 4.9% and a slight inflow of foreign portfolio investments took place, whereas in January 2009 WIG20 dropped by 10.9%. The decline in share prices continued in February: in the period 2–18 February WIG20 fell by 12.7% to the lowest level since July 2003.

□ **Figure 2.32:**
Average annual yield (12-month moving average) for long-term Treasury bonds in Poland versus the reference value for the Maastricht criterion.



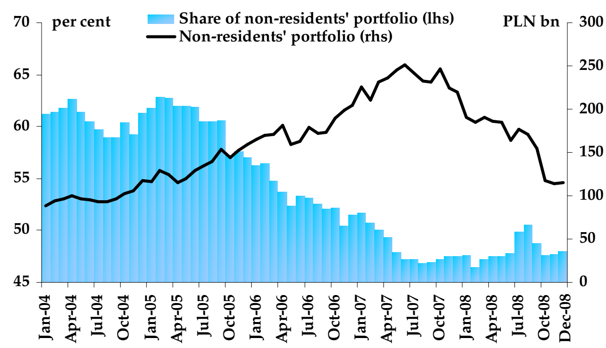
Source: NBP estimates based on Eurostat data.

□ **Figure 2.33:**
WIG and WIG 20 stock exchange indices.



Source: Reuters data.

□ **Figure 2.34:**
Non-residents' participation in the Polish equity market – on the basis of market value of stocks.



Source: NBP data.

CDS market

The *credit default swap* (CDS) market developed in the 1990s on the basis of transactions concluded *over-the-counter*, individually negotiated between the counterparties of the interbank market. Whereas in the first half of 2008 the outstanding notional value of CDS contracts in the global market was assessed at approx. USD 57 trillion, i.e. at over 8% of the derivatives market[1], the turnover in that market could shrink rapidly in the context of the global financial crisis. A typical CDS contract is bilaterally concluded so as to reassign credit risk incurred by one of the counterparties holding debt securities, should the credit event specified in the contract occur. CDS contracts are hence designed to hedge[2] credit risk of debt securities issuer and they illustrate market expectations regarding the likelihood of a credit event. In recent years investors made use of those contracts in order to gain credit risk exposure of the bond issuer. It could lead to a situation when the nominal value of the outstanding CDS contracts was higher than the issue value of debt securities hedged.

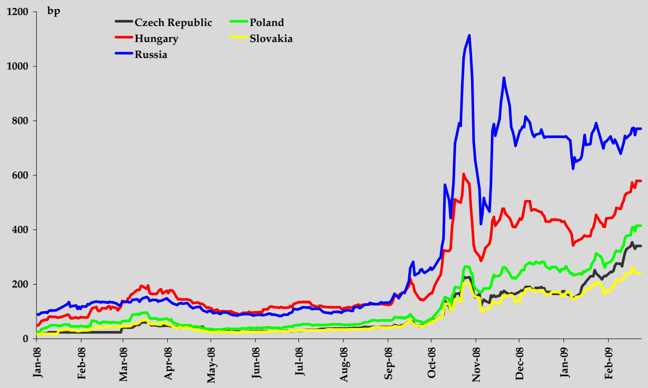


Figure R.2.1: CDS rates in the selected countries.
Source: NBP calculations based on Bloomberg data.

A buyer of credit protection is obliged to pay a fixed premium to a seller of credit protection in the lifetime of the contract. A premium – construed as a price of a CDS contract, the so-called CDS spread – is determined on the insured value of debt securities and expressed in basis points. If a credit event does not occur, the buyer continues to pay premium until the maturity of a CDS instrument. Should, however, a credit event – indicated in the contract – occur, the CDS seller pays the compensation. A credit event can be construed as, *inter alia*: insolvency of an insured debt securities issuer, default in repaying his liabilities from the securities issued, grace period on the debt repayment or its restructuring.

Disbursement may be effected via cash or physical settlement. Cash settlement consists in the transfer by the contract seller of the compensation amount to the buyer. The buyer remains in possession of the debt securities insured. In turn, the amount transferred by the contract seller is determined by deducting the current market value of those papers following the occurrence of the credit event from the amount of a CDS contract. In the event of a physical settlement, upon the occurrence of a credit event, the buyer transfers debt securities to the seller of insurance protection, and is disbursed the entire amount set forth in the contract.

Figure R.2.1 presents the value of CDS rates for government bonds from selected emerging markets since the beginning of 2008. The first wave of increase in the CDS rates resulted from the takeover of the investment bank Bear Stearns by JP Morgan in March 2008. However, it was only the insolvency of Lehman Brothers in September 2008 that led to a very strong increase in CDS rates, which could be explained by the *flight to quality* and the desire to reduce credit risk exposure. Due to the low transparency of the CDS market, it is difficult to assess to which extent the price of credit protection of developing countries' debt reflects the increased credit risk and the assessment of a credit event likelihood, and to which extent it results from the financial turmoil which leads to reduction in the number of concluded CDS transactions.

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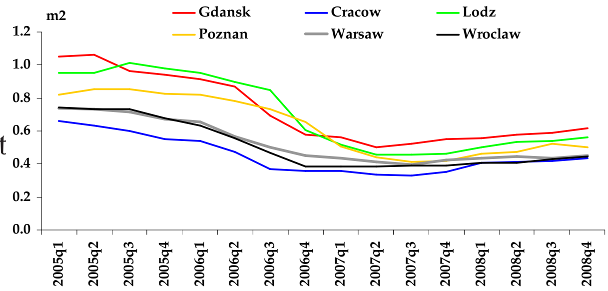
[1]BIS Quaterly Review, December 2008.
[2]Hedging should be construed as the protection against credit risk by reassigning this risk to the counterparty of the contract.

Home prices

In the second half of 2008 the asking prices of flats both in the primary and the secondary market showed a slight tendency to fall. Although in the second half of 2008 asking prices were on average lower than in the first half of that year, a certain differentiation of quarter-on-quarter price changes could be observed between the primary and the secondary markets, both in individual quarters of the second half of 2008 and in individual regions of Poland. In annual terms price drops in the second half of 2008 were recorded in big cities as well as in small and medium-sized towns. According to data available for seven biggest city markets, in 2008 there was a slight decrease in sale prices in the secondary market.

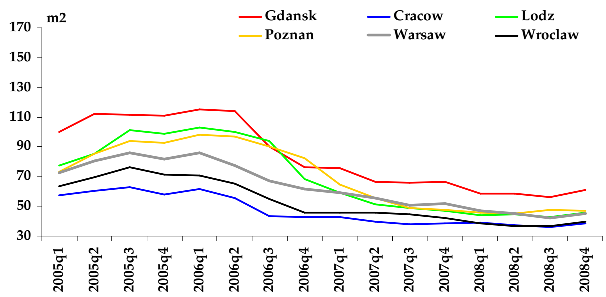
In the second half of 2008 the biggest property markets displayed a tendency for a growing imbalance between the rising supply of flats and the demand for them. The main factors behind this imbalance included still relatively high prices of flats, as well as mounting costs and limited availability of housing loans. A significant role was also played by expectations of price declines, spurred by numerous press reports about difficulties experienced by property developers. As a result, according to market data, the number of flats sold in 2008 was significantly lower than in 2007. In a situation of rising supply (according to GUS data the number of completed dwellings in 2008 was 24% higher than in 2007), this led to a growing number of unsold flats, and combined with flats bought for speculation purposes and then put up for sale, it currently creates strong pressure on price declines.

Figure 2.35:
Availability of flats (number of square metres of a flat that can be purchased for local average gross monthly salary in corporate sector at average price in primary and secondary housing market).



Source: NBP, GUS data.

Figure 2.36:
PLN credit availability of flats (number of square metres of a flat the purchase of which can be financed with a PLN-denominated housing loan, given the income equals local average salary adjusted for the social minimum)



Source: NBP, GUS data.

Table 2.6: Change in the average price of a flat in selected local markets.

	Dec 2005 y/y (per cent)	Dec 2006 y/y (per cent)	Dec 2007 y/y (per cent)	Dec 2008 y/y (per cent)	Mar 2008 q/q (per cent)	Jun 2008 q/q (per cent)	Sep 2008 q/q (per cent)	Dec 2008 q/q (per cent)	Dec 2008 Average price (PLN/m^2)
	Primary market – asking prices								
Poland (total)	7.9	51.5	21.1	-0.6	1.4	0.3	-1.6	-0.8	7434
Most important housing markets in Poland†‡	12.6	56.1	19.7	-2.4	0.8	0.9	-1.4	-2.7	7955
Capitals of voivodships‡	15.0	45.2	22.7	-3.4	0.7	-0.6	-1.6	-1.9	7626
Small and medium towns‡	7.0	10.4	95.7	-0.8	-0.1	1.1	-8.4	7.1	6314
Warsaw	12.9	54.3	13.1	3.6	2.7	3.2	-0.1	-2.2	8895
Cracow	22.3	67.4	15.7	-10.4	-1.9	-5.3	-1.0	-2.6	7374
Wroclaw	17.9	101.2	8.1	-2.1	5.1	2.6	-8.1	-1.1	7352
Gdansk	15.7	63.7	22.6	-5.7	-0.5	-3.1	0.5	-2.6	6473
Gdynia	8.5	46.0	48.5	-15.6	-5.9	-8.7	30.3	-24.6	6905
Poznan	3.0	18.9	119.2	-11.9	-5.2	3.4	-15.4	6.1	7797
Lodz	-5.3	67.4	37.8	-8.3	4.8	-6.5	-2.5	-4.1	5566
	Secondary market – asking prices								
Poland (total)	8.7	77.6	10.9	-9.2	-3.0	-4.0	1.9	-4.4	5051
Most important housing markets in Poland‡†	-1.6	84.1	4.6	-0.4	2.6	1.0	-3.4	-0.6	6992
Capitals of voivodships‡	4.5	82.2	3.6	-3.9	-1.4	-2.4	2.3	-2.4	5729
Small and medium towns‡	9.6	49.4	47.7	-4.1	1.8	-3.8	0.6	-2.7	4532
Warsaw	15.1	55.6	14.5	5.3	6.4	-3.7	5.1	-2.1	9811
Cracow	31.3	62.4	8.4	-10.8	-10.6	4.0	-0.3	-3.7	7252
Wroclaw	13.8	74.8	11.1	-4.5	0.9	0.0	-0.5	-4.8	6883
Gdansk	18.9	82.5	24.2	-5.6	1.6	-1.6	-3.1	-2.6	6667
Gdynia	17.7	77.8	10.4	3.3	4.8	0.5	3.4	-5.1	6912
Poznan	4.5	49.4	36.7	0.2	0.0	-2.1	-1.4	3.8	6407
Lodz	3.9	74.5	47.3	-10.3	-6.3	-4.6	3.6	-3.1	4411
	Secondary market – sale prices#								
Most important housing markets in Poland†	n.a.	n.a.	31.3	-1.1	0.0	-1.8	-2.3	2.4	7241
Warsaw	n.a.	n.a.	24.7	1.6	1.7	-1.9	-0.9	2.7	10346
Cracow	n.a.	n.a.	12.0	-3.7	-0.5	3.4	-9.1	3.0	6430
Wroclaw	n.a.	n.a.	11.5	0.2	-1.3	0.2	3.7	-2.3	5928
Gdansk	n.a.	n.a.	49.0	-3.5	-1.5	-0.1	-3.2	1.3	6042
Gdynia	n.a.	n.a.	31.3	0.5	2.4	-3.7	-4.7	7.1	6208
Poznan	n.a.	n.a.	52.0	-8.3	2.1	-11.0	-1.3	2.3	5073
Lodz	n.a.	n.a.	62.9	0.5	1.2	-1.5	-2.6	3.5	4018

† Warsaw, Cracow, Wroclaw, Gdansk, Gdynia, Poznan, Lodz. The selection was based, among other things, on the number of transactions, the housing construction volume and the potential for development.
‡ Weighted average with the number of offers in the sample (cities' weigts vary depending on the size of the sample).
# Index of sale prices, weighted-average method with the classification variable *location*.
Source: NBP estimates based on the data from the *PONT Info Nieruchomości* asking price database, NBP sale price database and AMRON.

Developments in the housing market in 2009 will be an outcome of the decisions taken by property developers, households and banks. Taking into account the current large supply of flats, the limited availability of housing loans (particularly foreign currency loans), the still relatively high prices of flats and the tendency for households to delay their demand, further declines in flat prices are likely. Futhermore, it is likely that the number of new construction projects started will fall further (Figure 2.37), as indicated by the decline in the number of building permits issued, and that property developers will postpone the completion of dwellings already under construction.

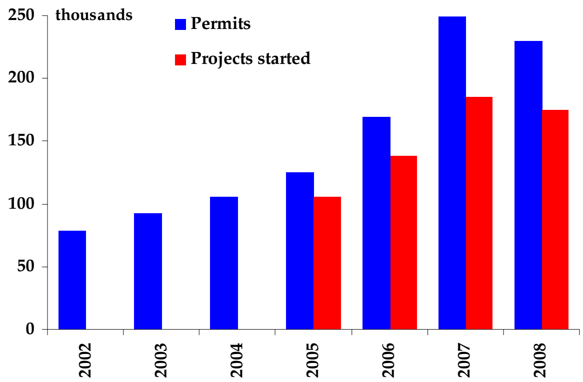
The indices of availability of flats and credit availability of flats remained relatively stable in the second half of 2008 due to a balancing of the impact of wage growth, a slight fall in flat prices and the growth of interest rates on housing loans (Figures 2.35, 2.36).

2.5.2 Exchange rate

Since July 2008 the nominal exchange rate of the zloty has depreciated considerably against the euro, the US dollar and the Swiss franc. Since the publication of the October *Report* (until 19 February 2009) the zloty depreciated against the US dollar by 30%, against the euro by 35% and against the Swiss franc by 27%. In this period a marked depreciation of other currencies of the region, i.e. the Hungarian forint and the Czech koruna, could be observed, although the scale of depreciation of these currencies was smaller than in the case of the zloty (Figure 2.38).

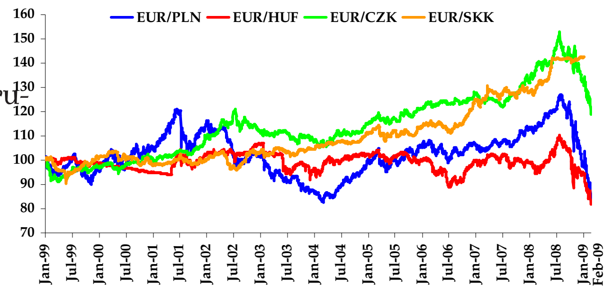
Zloty depreciation was primarily driven by global factors, including the persisting high risk aversion leading to the outflow of capital from emerging markets. It is worth emphasizing that since July 2008 when the exchange rate of the zloty to the euro was strongest in history, not only did the currencies of emerging economies markedly depreciate but so did also certain currencies of developed countries. Apart from global factors, the zloty depreciation could also have been influenced by Poland's deteriorating current account balance and by expectations of a stronger than

Figure 2.37:
The number of construction permits issued and construction projects started.



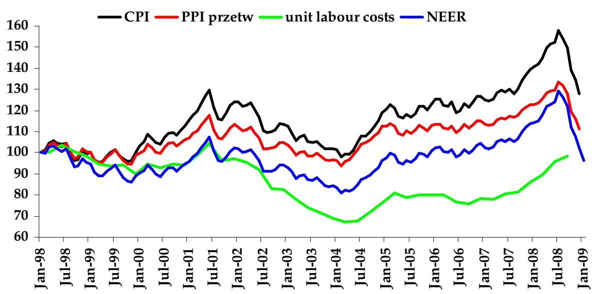
Source: GUS data.
Dane wstêpne za 2008 r.

Figure 2.38:
Nominal exchange rates of CEE-4 currencies against the euro (increase denotes appreciation).



Source: EcoWin data.

Figure 2.39:
Zloty real and nominal effective exchange rate (increase denotes appreciation).



Source: NBP, European Commission, and EcoWin data.
For unit labour costs (in manufacturing): quarterly data, NBP estimates based on GUS, ECB, and European Commission data.

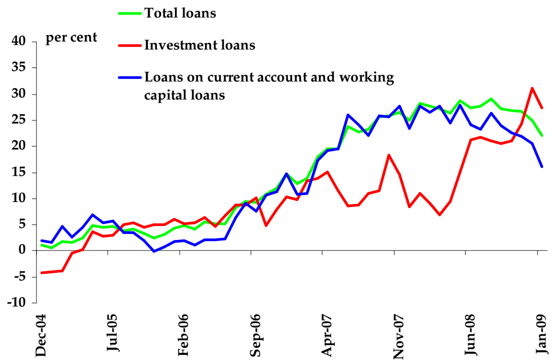
previously assumed economic slowdown in 2009 amidst the growing recession in the world economy.

Since August 2008, along with the depreciation of the zloty nominal effective exchange rate, a depreciation of similar magnitude of the real exchange rate has been observed (Figure 2.39).

2.5.3 Credit and money[51]

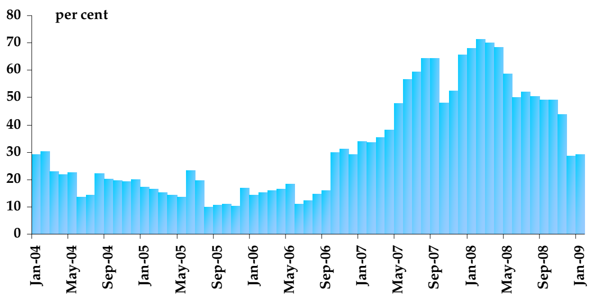
Credit

⊡ **Figure 2.40:**
Loans to enterprises (y/y).



Source: NBP data.

⊡ **Figure 2.41:**
Loans to enterprises for the purchase of real estate (y/y).



Source: NBP data.

As a result of tightening banks' credit policies and deceleration in investment activity of enterprises driven by worsening of the economic climate, the annual growth of loans to enterprises dropped by 5.1 percentage points in January 2009 as compared to September 2008, albeit remaining at a relatively high level (22.1% y/y, Figure 2.40).

A relatively high corporate demand for loans prevailed, primarily due to, *inter alia*, the continuation of investments in progress. As follows from the NBP surveys[52] the indicator of investment continuation remained at a high level (90,9%), declining by 6.3 percentage points as compared to 2008 Q4. The process of continuing investments – moving from the initial stage of conducted projects (i.e. purchase of land and real estate) to the stage of financing expenses directly increasing production capacities – was reflected in the change of enterprise long-term debt growth structure that has been observed since March 2008. In January 2009, as compared to September 2008, the growth of loans for the purchase of real estate declined by 19.6 percentage points to 29.4% y/y. At the same time, the growth of investment loans rose by 6.8 percentage points to 27.4% y/y.

[51]It should be emphasized that the monetary data officially published by the NBP, in particular those concerning the changes in the value of loans to households and enterprises, are strongly affected by exchange rate shifts. Given a considerable depreciation of the zloty observed since July 2008, the data overstate the actual scale of lending. Therefore, the monetary data presented in this chapter refer to values adjusted for the impact of the zloty exchange rate fluctuations against main foreign currencies.

[52]See: *The Condition of the Non-Financial Enterprises in 2008 Q4 and Expectations for 2009 Q1*, NBP.

Table 2.7: Foreign loans of Polish enterprises (EUR).

Change y/y (per cent)	2006				2007				2008		
	q1	q2	q3	q4	q1	q2	q3	q4	q1	q2	q3
non-trade loans	17.5	17.4	22.4	30.8	32.0	35.1	28.7	21.6	24.7	29.3	26.6
trade loans	19,3	25,1	18,4	17,0	23.2	22.6	24.2	20.8	21.4	18.5	13.8

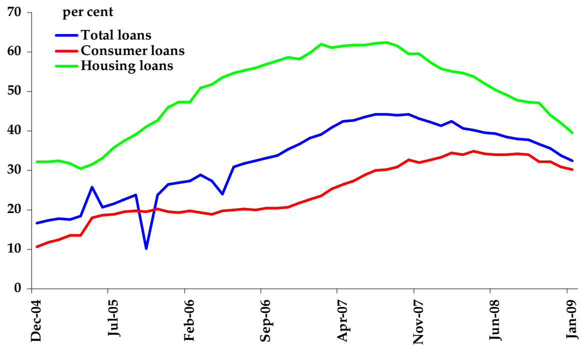
Source: NBP data.

According to the balance of payment data, in 2008 Q3 foreign debt remained an important source of financing for enterprises, growing by 23.8% y/y[53] (Table 2.7).

In the case of loans to households (Figure 2.42) a deceleration in their growth was recorded in January 2009 (to 32.3% y/y, i.e. by 5.5 percentage points as compared to September 2008). The growth of loans to households was primarily determined by the developments in the mortgage loan segment. Adverse conditions on the supply side of the credit market resulted from banks' tightening their credit policies, on account of the anticipated deteriorating of the economic situation and worse assessment of the current and expected capital situation of banks[54]. Most banks raised loan margins, increased non-interest loan costs and lowered the loan-to-value ratio. The major constraint on the supply side was, however, a strongly restricted – since October 2008 – access to loans denominated in Swiss franks, as evidenced in the change of the currency structure of the newly granted loans (Figure 2.43). This was due to the difficulty encountered by banks while raising Swiss franks funding in the interbank market to hedge against exchange rate risk associated with granting currency loans. Foreign parent banks became thus the main source of funds in Swiss franks. Additionally, since November 2008 banks gained the possibility of obtaining the Swiss currency under FX swaps conducted via the NBP.

Until December 2008 the deceleration in the growth

□ **Figure 2.42:**
Loans to households (y/y).



Source: NBP data.

[53]Calculations based on data on corporate foreign debt denominated in euro.

[54]See: *Senior Loan Officer Opinion Survey on Bank Lending Practices and Credit Conditions in 2009 Q1*, NBP.

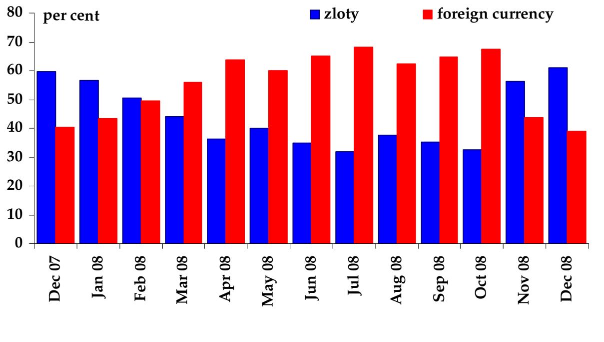
of households' housing loans, given the overall situation in the credit market, could be regarded as relatively small[55]. However, in January 2009 it declined by 7.9 percentage points to 39.5% y/y as compared to September 2008 (Figure 2.42), whereas the growth in the segment of foreign currency loans decreased by 5.7 percentage points to 57.5% y/y. A limited scale of the decline in the growth of household indebtedness in 2008 Q4 was most likely due to delays in the adjustment processes, triggered, *inter alia*, by the payments of follow-up tranches of loans already granted. Furthermore, on the demand side, households could decide to borrow, motivated by concerns about more difficult access to loans in Swiss francs in the future, as more and more banks excluded foreign currency loans from their offer or markedly tightened their criteria.

In addition to financing housing expenses, loans constituted a significant source of financing households' demand for consumer durable goods, such as furniture, radio and television equipment and household appliances, the sales of which grew by 15.5% y/y in December 2008. Even though the adverse effects of the global crisis for the current and the expected income situation of households became more and more apparent, the growth of consumer loans contracted by only 3.8 percentage points, to 30.2% y/y in January 2009 as compared to September 2008 (Figure 2.42).

The average interest on new loans to enterprises in October–December 2008 remained broadly unchanged , as well as the interest charged on new housing loans in the Polish zloty. Following a temporary rise to 15.8% in November 2008 (i.e. by 0.5 percentage points as compared to September 2008), the average interest on new consumer loans in December 2008 dropped to 15.3% (Table 2.8).

In subsequent periods the developments in lending will depend on the capital and liquidity situation of banks and the changes in the demand for loans. To enhance the liquidity conditions of the banking system, the NBP undertook early re-

□ **Figure 2.43:**
Currency structure of newly granted housing loans to households.



Source: NBP data.
Structure based on information from interest rates reporting of 20 banks whose market share in credits to non-financial sector amounts to approx. 75%.

[55] Housing loans in zloty rose in 2008 Q4 by PLN 1.4 billion, whereas those denominated in Swiss franks increased by PLN 9.9 billion.

Table 2.8: Average interest rates in commercial banks: new PLN denominated loans and deposits and selected foreign currency loans (major currencies).

per cent	2008											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Households												
Total Deposits	4.3	4.7	4.9	5.1	5.1	5.2	5.2	5.4	5.8	6.1	6.2	6.5
Total loans	12.3	12.5	12.5	13.1	13.6	13.6	13.8	13.7	13.7	13.6	14.1	13.7
Consumption loans	14.6	14.7	14.7	15.1	15.3	15.3	15.5	15.5	15.5	15.6	15.8	15.3
Housing loans in PLN	7.0	7.2	7.4	7.7	7.8	8.0	8.3	8.4	8.6	8.7	8.8	8.7
Housing loans in CHF	4.6	4.6	4.6	4.8	4.7	4.6	4.7	4.7	4.8	5.2	5.4	4.5
Enterprises												
Total deposits	4.7	5.0	5.3	5.5	5.4	5.6	5.6	5.6	5.6	5.7	5.5	5.6
Total loans	6.9	7.3	7.3	7.8	7.7	8.3	8.1	8.2	8.3	8.4	8.4	8.3

Source: NBP data.

demption of 10-year bonds maturing in 2012 for over PLN 8 billion. In the situation of increased uncertainty and limited confidence, banks having excessive liquidity preferred so far to keep excess funds at current accounts with the NBP or to purchase NBP money market bills significantly reducing transactions in the interbank market.

On the demand side, the indebtedness will increase at a slower pace, subdued by the economic slowdown. The deterioration in evaluation of the current and anticipated order portfolio, output and the financial situation of enterprises that has been signalled by the results of economic climate surveys will be conducive to limiting the enterprise demand for loans. At the same time, along with the deterioration of households' evaluation of their future income situation due to anticipated rise in unemployment and deceleration of the wage growth, the households' demand for loans should also be expected to moderate. An important reason behind deceleration of bank lending will be limited population of potential borrowers meeting the tightened credit criteria.

Deposits and monetary aggregates

A visible sign of the negative impact of the global financial crisis on the Polish economy was the deterioration of financial results of economic entities, which was reflected in the lower growth of enterprises' deposits, which in January 2009 declined by 8.9 percentage points to 0.3% y/y as compared to September 2008. However, NBP survey studies indicate that financial liquidity of enterprises remained high.

The expected deterioration of economic climate, accompanied by the willingness to continue investment in progress declared by the majority of respondents, may favour a further decline in deposits of enterprises. According to NBP surveys, own funds will continue to constitute the main source of financing new investments in 2009 Q1 – as indicated by 38,3% of respondents, while 30,6% intended to finance investments with credit.

In the case of households, the global financial crisis resulted in the drop of the value of their financial assets by PLN 3.6 billion in 2008 (0.6% y/y). As a result of the revaluation of the assets portfolio and amortisations of investment fund units, the value of investment fund assets fell by PLN 18.8 billion in 2008 Q4 and by PLN 66.9 billion (52.1% y/y) in 2008. In turn, households' investment in shares fell respectively by PLN 10.8 billion and PLN 32.2 billion (52.4% y/y). During the bear period in the capital market, bank deposit became an attractive alternative to non-bank forms of saving[56], particularly in the context of a significant rise in deposit rates offered by banks (Table 2.8).

In September 2008 the confidence in the banking system diminished significantly – after the bankruptcy of the American investment bank Lehman Brothers and in the face of the looming threat of other banks collapsing led to a global confidence crisis. Amid concerns about uncontrolled withdrawal of deposits, many countries, including Poland, decided to raise the guaranteed sum of bank deposits[57].

The collapse of Lehman Brothers and the drop

[56] In 2008 Q4 the difference between new investments and withdrawal of assets previously invested in investment funds participation units reached PLN –3.3 billion, and in 2008 PLN –29.8 billion.

[57] In accordance with the amended Act on the Bank Guarantee Fund passed by the Sejm on 23 October 2008, the guarantees for bank deposits have been raised to 50 thousand euro.

in confidence towards financial institutions found its reflection in significant monthly changes of households' deposits. Till the end of September 2008 deposits grew, and in October – at the time of growing uncertainty about the safety of deposits – the amount of funds on bank accounts fell by PLN 1.3 billion. In subsequent months, when the situation calmed, banks again recorded a rise in deposits (by PLN 6.6 billion in November, PLN 15.3 billion in December and PLN 6.7 billion in January). The annual growth of deposits in January 2009 amounted to 20.0%.

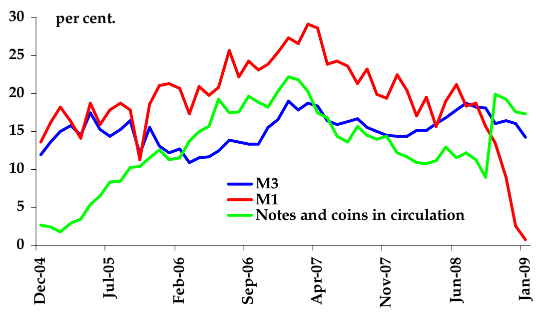
In the period of uncertainty in financial markets, bank deposits will probably still constitute the main form of savings for households. The expected deterioration of situation on the labour market and the lower wage growth, as well as the falling deposit interest rate will constitute factors dampening the further increase in the growth of savings on bank accounts.

The trends observed in the credit market in the analysed period were reflected in the developments of major monetary aggregates. The decline in lending in 2008 Q4 was accompanied by the stabilization of the annual growth of the broad M3 money supply at the level of approx. 16%, which constitutes a drop by approx. 2 percentage points as compared to 2008 Q3 (Figure 2.44). In January 2009 the growth of M3 amounted to 14.3% y/y. At the same time significant changes were recorded in the structure of the M3 aggregate.

The temporarily faltering confidence towards the banking sector in response to the intensifying turmoils in international financial markets led to a strong rise in cash in circulation in October 2008 (by PLN 8.1 billion). The calming situation in financial markets and the returning confidence of economic entities should gradually reduce the amount of cash in circulation and increase funds on bank accounts.

Since mid-2008 the liquidity of the M3 monetary aggregate, measured by the share of cash and current deposits – i.e. the M1 aggregate – in M3, gradually fell – to 50.9% in January 2009 (i.e. by 5.2 percentage points as compared to September 2008). Admittedly, strong growth in the amount of cash in circulation was conducive towards in-

Figure 2.44:
M1, M3, and notes and coin in circulation (y/y).



Source: NBP data.

crease in the liquidity of this aggregate, yet a significant flow of funds from current accounts of households and enterprises to term deposits at the end of 2008 contributed to the rise in the share of less liquid components of the M3 aggregate. The outflow of households' savings from investment funds was an additional factor contributing to the rise in term deposits (of the maturity of up to 2 years inclusive).

Monetary policy in October 2008 – February 2009

During the meeting in October 2008 the Monetary Policy Council kept the NBP interest rates unchanged. At the November 2008 meeting the Council lowered the interest rates by 0.25 percentage points and at the meetings in December 2008 and in January 2009 by 0.75 percentage points. At the February 2009 meeting the Council again lowered the interest rates to the level: the reference rate to 4.00%, the lombard rate to 5.50%, the deposit rate to 2.50% and the rediscount rate to 4.25%.

What follows in the next part of the chapter are the previously published *Minutes of the Monetary Policy Council decision-making meetings* held in October, November and December 2008 and in January 2009 as well as the *Information from the meeting of the Monetary Policy Council* in February 2009.

Minutes of the MPC decision-making meeting held on 29 October 2008

During the meeting the Monetary Policy Council discussed the outlook for the future inflation developments in the context of the past, current and, primarily, anticipated economic situation.

The discussion at the meeting focused on: situation in the external environment of the Polish economy, outlook for economic growth in Poland, situation in the labour market and the prospects of Poland's entry to the euro area. The Council discussed the impact of those factors on future inflation developments in Poland in view of the October projection of inflation and GDP.

While discussing the situation in the external environment of the Polish economy, further considerable deterioration in the outlook for economic growth in the global economy was noted. It was emphasised that the crisis of the financial sector in the United States contributed to intensifying unfavourable developments in the real economy of that country. Attention was also paid to considerable deterioration of economic climate in Great Britain and strong slowdown in economic activity in the euro area as well as considerable lowering of growth forecasts for the euro area's economy. Moreover, it was emphasised that in the time to come the weakening of the economic activity would be experienced not only in the developed but also in developing economies, including Asian and Latin American countries. In the case of economies exporting commodities, an important factor conducive to lower economic growth would be the decline in the value of their exports caused by falling commodity prices, whereas the decline in economic activity in the emerging economies which import commodities might additionally contribute to the lowering of prices of those commodities. It was pointed out that the slowdown in global economic activity curbed inflationary pressure, prompting central banks of many countries to ease their monetary policy.

The Council paid a lot of attention to the impact of the weakened global economy and the turmoil in the global financial markets on the outlook for economic growth in Poland. It was pointed out that the recession in the euro area, which is Poland's main trading partner, would lead to the lowering of demand for Polish exports. It was emphasised that deteriorating growth outlook in the global economy and the increased uncertainty in the external environment might – despite still relatively good condition of the Polish economy – contribute to the worsening of households' expectations of the future economic situation in Poland and, as a result, to the weakening of consumption demand. It was also argued that the drop in the value of households' assets being the result of the downturn in the financial markets might additionally dampen the consumption growth. It was also pointed out that changes in the external environment of the Polish economy might adversely affect the investment activity of enterprises in Poland. Investment growth may slow down primarily due to worsening entrepreneurs' expectations concerning the future demand in the foreign and domestic markets. Moreover, it was emphasised that the rise in risk premium driven by the turmoil in the international financial markets had led to a rise in market interest rates in Poland, and, consequently, to an increase in the cost of credit, which would also contribute to the weakening of investment growth in the time to come. Difficulties in acquiring capital for new investment, related to falling share prices in the capital markets, may also have the same effect. Attention was also drawn to further tightening of loan granting criteria by banks. A possible decrease in the inflow of foreign direct investment to Poland and deteriorating outlook for the financing of enterprises with foreign loans were also listed among adverse effects of the weakening world economy and the crisis in the global financial markets.

While assessing the outlook for economic growth in Poland, it was pointed out that in the coming quarters the above discussed factors would be conducive to lowering GDP growth. It was emphasised that the decline in economic growth was signalled, inter alia, by the deterioration in economic climate indices observed in the past few months. It was also emphasised that the growth of retail sales and industrial output in 2008 Q3 was markedly lower than in the first half of 2008. On the other hand, some members of the Council pointed out that the decline in the GDP growth in Poland would be curbed by the inflow of EU structural funds for financing investment projects, the expected relatively low level of prices of oil and other commodities as well as the zloty exchange rate depreciation observed between July and October 2008 which, if proved lasting, might mitigate the adverse impact of the weakening economic activity in the external environment of the Polish economy on the growth of Polish exports.

While addressing the situation in the labour market, it was assessed that in the near term wage pressure may be expected to continue despite the decline in economic growth. At the same time, however, it was pointed out that in the longer term the wage pressure would ease due to the falling labour demand signalled, inter alia, by further decline in the annual employment growth in the corporate sector in September 2008. It was also argued that due to the economic slowdown in Western Europe, one could expect increased returns of Poles from economic migration and, consequently, a rise in the number of the economically active persons, which would contribute to further easing of the wage pressure. Moreover, it was assessed that the strong rise in corporate investment observed in the past few quarters would result in labour productivity continuing at a relatively high level, contributing to the improving of the unfavourable relation between the wage and labour productivity growth in the time to come.

When analysing inflation developments in Poland, it was noted that core inflation net of food and energy prices had increased in September 2008. Some members of the Council pointed out that the rise in core inflation was one of the major factors driving the considerable increase in CPI inflation over the past year. They emphasised that the increase in the growth of the prices of services was an important factor contributing to the rise in both CPI and core inflation. They argued that high growth of those prices in the analysed period resulted, on the one hand, from growing demand pressure (which, in turn, in the opinion of those members of the Council, was the result of the high wage growth and fast credit growth observed in the past few quarters), and, on the other hand, from intensifying cost pressure driven by rising unit labour costs. Moreover, those members pointed at the signs of growing share of services in households' consumption expenditure which suggests that the impact of the prices of services on CPI would be increasing. In the opinion of those members, accounting for those tendencies in the GUS revised CPI basket next year, provided the current prices trends continue, could be conducive to increasing inflation in 2009. Other members of the Council indicated that faced with deteriorating outlook for economic growth, the household demand for services might weaken, thus easing the pressure on further rise of those prices. They also indicated that the rise in the prices of services might be connected with the increasing demand for services resulting from the adjustment of the consumption structure in Poland to the structure prevailing in wealthier EU countries. Those members also argued that high annual growth of prices of certain services (e.g. in the group of *restaurant and hotel services*) resulted, to some extent, from previous strong increases of food prices, whereas in the case of some other services the price increases were largely related to insufficient competition in the markets of those services.

Some members of the Council pointed out that the rise in CPI inflation in the past year was largely driven by a rise in administered prices dependent on the decisions of central and local government entities (in particular, prices of services related to flat maintenance and energy prices), at the same time emphasising that further rise in those prices would be conducive to increasing inflation also in the future. Other members pointed out that due to the expected continued high contribution of growth in administered prices to CPI inflation, bringing CPI inflation down to the inflation target would require curbing the core inflation through considerable easing of demand pressure.

While discussing the outlook for inflation, some members of the Council emphasised that increased growth of consumer prices in the past months had been largely driven by the high annual growth of food and fuel prices, and that the expected decline in the growth of those prices in the coming months, driven by falling commodity prices in the world markets, would bring inflation down. Yet, it was emphasised that at present it was difficult to assess whether the currently low level of oil prices was a lasting phenomenon or not. Some members of the Council indicated that already in September 2008 CPI inflation had decreased as a result of a strong decline in the annual growth of food and fuel prices. They also stressed that GDP growth falling below the growth of potential output in the coming quarters would contribute to curbing the inflationary pressure. Some members also argued that the rise in administered prices and increasing households' loan service burden resulting from rising market interest rates would limit the volume of current consumption, thus contributing to lowering demand pressure and, consequently, inflationary pressure. Inflation should also be curbed by the expected easing of wage pressure and the continuing disinflationary impact of goods imported from low-cost countries. Moreover, those members assessed that due to the possible considerable weakening of economic activity in Poland, inflation in the coming quarters might be significantly lower than assumed in the October inflation projection based on the NECMOD model. In the opinion of those members of the Council, considering the current exceptionally high uncertainty about the growth outlook for the world economy, reflected in significant and frequent revisions of macroeconomic forecasts, the usefulness of forecasts based on econometric models is lower than usual. It was pointed out that due to considerable deterioration in the situation in the external environment of the Polish economy, the works on the October inflation projection based on the NECMOD model involved quantification of the related risks, in the light of which the forecast GDP growth and inflation in Poland would be lower than suggested by the data released until 26 September 2008. Some members of the Council also pointed at other inflation forecasts which had been recently revised downwards.

In the opinion of other members of the Council, even considerable slowdown of GDP growth would not contribute to a rapid decline in inflation, which was reflected in the NBP's October projection. Those members pointed at the results of other forecasts conducted at the NBP according to which the forecast inflation, despite downward revision, would be running at an increased level in the coming quarters. They also emphasised that in line with the central projection path, the forecast CPI inflation in 2009 would be running at a level above the upper limit of deviations from the NBP's inflation target even after accounting for the quantification of risks resulting from deteriorating outlook for the global economic growth. Those members emphasised that in the light of the October projection, core inflation would remain at an elevated level in the coming quarters. It was also underlined that some measures of inflation expectations of individuals increased in September. Some members of the Council pointed out that expectations of future inflation might increase as a result of the turmoil in the financial markets and the related zloty exchange rate depreciation observed in October. At the same time it was pointed out that in September inflation expectations of bank analysts and some measures of inflation expectations of individuals decreased; in the opinion of some members of the Council, the decline in the economic activity in Poland, as anticipated by households, might contribute to the lowering of households' expectations of future inflation.

The discussion at the meeting also focused on the prospects of Poland's accession to the euro area in the context of the calendar of preparation for the euro adoption presented in October by the Council of Ministers. It was pointed out that the likelihood of implementing this calendar was dependent upon the required majority in the Parliament supporting the amendments in the Constitution of the Republic of Poland and other legal acts necessary for euro adoption. At the same time, it was pointed out that developments in the financial markets would be an important factor that may affect the prospects of Poland's adoption of the euro. While addressing the prospects of Poland's complying with the Maastricht inflation criterion, some members of the Council argued that the decline in the economic activity in many EU countries would be considerably stronger than in Poland, causing the reference value for this criterion to decrease stronger than inflation in Poland. In the opinion of those members of the Council, this means that that complying with the Maastricht inflation criterion in 2011 may require a more restrictive monetary policy than in a situation when Poland were to meet the convergence criteria at a later date.

The Council emphasised that the implementation of structural reforms, including the increasing of competition in certain sectors of the economy, would support the sustainable compliance with the convergence criteria.

While discussing the exchange rate developments, attention was paid to the strong weakening of the zloty exchange rate against the US dollar and the euro observed in October. It was pointed out that the exchange rate depreciation in October was driven by the turmoil in the global financial markets and the outflow of foreign capital and that it was present in all countries of the region pursuing a floating exchange rate regime as well as many other countries. In this context, a lot of attention was paid to the current macroeconomic situation and monetary policy in some small open economies. While discussing the exchange rates, it was pointed out that amidst increased uncertainty, exchange rate developments in small open economies are subject to stronger than usual fluctuations. Some members of the Council argued that credible prospects of Poland's accession to the euro area might limit the fluctuations of the Polish zloty against the euro, at the same time emphasising that delays in this process may lead to the depreciation of the exchange rate. The Council also discussed the impact of interest rate differential between Poland and the euro area and the United States on the zloty exchange rate developments.

While discussing the decision on interest rates, the Council assessed that the considerable deterioration of the outlook for global economic growth, as well as the increased uncertainty as to the future economic activity in Poland coupled with elevated current and expected inflation, justified keeping the NBP's interest rates unchanged at the current meeting.

The Council also discussed the level of the NBP's interest rates in the near term. Some members of the Council pointed out that in the coming quarters inflation should be expected to continue above the inflation target despite the decline in economic growth. They stressed that this, coupled with stronger weakening of the economic activity and, consequently, of the inflationary pressure in many EU countries, was likely to make it difficult for Poland to comply with the Maastricht inflation criterion. In the opinion of those members, those arguments spoke for keeping the interest rates unchanged in the coming months. Other members argued that the decline of GDP growth in the coming quarters below the potential output growth would bring inflation down to the target in the medium term, while pointing out that the weakening of the economic activity in Poland might prove stronger than currently assessed which, coupled with the limited credit availability and market interest rates remaining at an increased level due to the turmoil in the international financial markets, might contribute to bringing down inflation below the target. In the opinion of those members of the Council, those arguments might justify the need to lower the NBP's interest rates in the coming months.

The members of the Council emphasised that the assessment of the NBP's interest rates level consistent with ensuring price stability in the medium term would depend on the data to be released in the coming months.

The Council kept the interest rates unchanged: the reference rate at 6.00%, the lombard rate at 7.50%, the deposit rate at 4.50% and the rediscount rate at 6.25%.

Minutes of the MPC decision-making meeting held on 26 November 2008

During the meeting the Monetary Policy Council discussed the outlook for the future inflation developments in the context of the past, current and, primarily, anticipated economic situation.

The discussion at the meeting focused on: situation in the external environment of the Polish economy, outlook for economic growth and inflation in Poland, credit market conditions, zloty exchange rate developments and prospects of the public finance sector.

While addressing the situation in the external environment of the Polish economy, a further deterioration in the outlook for global economic growth, and in particular, recession already observed in the United States, the euro area and Great Britain, was noted. It was also pointed out that global economic slowdown had been accompanied by a strong decline in the prices of oil and other commodities which was conducive to curbing global inflation. It was noted that those factors urged many central banks to further considerable interest rate cuts. In some countries fears of deflation have emerged. It was emphasised that due to strong links between the financial sector and the real economy it was difficult, at the moment, to assess how strongly the global financial crisis would affect the activity in the world economy; although, this impact might prove considerable.

While discussing the impact of the weakened global economy and the turmoil in the global financial markets on the outlook for economic growth in Poland, attention was paid to the downward revisions of forecasts of the domestic economic growth. It was argued that lower than expected data on industrial output and retail sales in October 2008 and weaker financial results of enterprises after the three quarters of 2008 as compared with 2007 as well as declining economic climate indices corroborated expectations of economic slowdown in Poland. Attention was also paid to the findings of enterprise surveys pointing to a decline in the expected demand and employment indices. It was emphasised that the anticipated deterioration of the situation in the labour market in Poland combined with the recession observed in Polish migration's major destination countries might contribute to deteriorating households' sentiment, and, as a result, to lowering consumption demand. In the opinion of some Council members, considerable deterioration in the external environment of the Polish economy and a risk of significant decline in investment and consumption demand due to deteriorating expectations about future economic situation in Poland suggested that in 2009 GDP growth in Poland might prove lower than anticipated in the NBP's October projection.

In this context, it was also pointed out that an important factor conducive to the weakening of the domestic demand would be banks' tightening of their lending policy. Some members of the Council argued that 2009 might see a stabilisation or even a decrease in corporate and household lending. A more difficult access to loans will result mainly from the currently introduced by banks tighter loan granting criteria and conditions (more rigorous assessment of creditworthiness, higher margins, increased required collateral, higher non-interest costs of credit etc.), while the increase in costs of loans may result, to some extent, from the increase in interest rates offered by banks on deposits. Market interest rates remaining at an elevated level and limited access of banks to external financing are also conducive to curbing lending. Yet, some Council members noted that the monetary data had not, thus far, suggested any considerable slowdown in lending.

While addressing the situation in the labour market it was pointed out that – despite some deceleration – the growth of wages and unit labour costs had remained at a high level. In the opinion of some members of the Council, subsequent quarters might be expected to bring a decline in employment and a rise in unemployment which might be driven by probable increase in labour supply resulting from demographic factors and lower incentives for economic migration of Poles to other EU countries. The majority of the Council members assessed that the expected decline in economic growth and the related deterioration in the labour market situation would translate into lowering wage pressure which, given the falling current inflation considerably limits the risk of the second round effects.

While analyzing current inflation in Poland it was noted that for a year it had been remaining above the upper limit for deviations from the NBP inflation target. Some Council members pointed out that the currently heightened inflation resulted largely from high growth in administered prices (mainly prices of non-market services related to flat maintenance and energy prices) not directly influenced by monetary policy. At the same time it was noted that the rise in prices of some market services driven by demand pressure was also contributing to inflation remaining at an elevated level. Other members of the Council argued that the consumption growth had been continuously below the GDP growth which, in their opinion, meant that demand pressure in the Polish economy was limited. Those members pointed out that October 2008 saw a decline in four out of six core inflation indices, and core inflation net of food and energy prices remained at the level recorded in September 2008.

While discussing future inflation developments, some members of the Council pointed out that due to time lags in the monetary transmission mechanism, the outlook for inflation after 2009 was currently of key importance for monetary policy. Those Council members emphasised that the expected decline in inflation would be faster than anticipated in the October projection. In their opinion, the following arguments supported such an assessment: probably stronger than previously expected economic slowdown in Poland, considerable easing of the global inflationary pressure (including further decline in commodity prices), weaker – amidst declining demand – translation of the currently observed growth in unit labour costs into prices and faster lowering of wage growth than anticipated in the projection. Those members of the Council pointed out that the growth of both food and fuel prices in 2009 might prove lower than forecast. It was also emphasized that the rise in administered prices, including prices of energy, together with an increase of excise duty on tobacco products due to the required adjustment of tax rates to the EU regulations would be delaying the process of lowering inflation. It was pointed out that the uncertainty about administered prices developments was an important factor that hinders identifying the time of inflation returning to the inflation target.

While addressing the exchange rate issues, some members of the Council emphasized that the current exchange rate of the zloty was weaker than anticipated in the October inflation projection which may contribute to price increases. Moreover, those Council members pointed out that zloty depreciation limited translation of lower commodity prices in the world markets into domestic prices. Other members of the Council assessed that the impact of the zloty depreciation observed in the past few months on inflation in Poland would be limited due to the lower pass through of exchange rate changes to consumer prices amidst the expected economic slowdown.

While discussing the exchange rate developments, it was pointed out that zloty depreciation in the past few months had largely been driven by the outflow of foreign capital from developing economies connected with the turmoil in the global financial markets. It was argued that the role of interest rate differential between Poland and the euro area and the United States had been temporarily limited, and the outlook for exchange rate developments depended to a major extent on the situation in the financial markets of the developed countries. Some members of the Council emphasized that exchange rate depreciation increases the volume and service cost of foreign corporate debt. Yet, it was also pointed out that weaker exchange rate of the zloty might mitigate the adverse effects of the economic slowdown in the euro area on the demand for Polish exports.

The Council paid a lot of attention to the prospects of fiscal policy in 2009 in the light of the announced amendments to the draft Budget Act. It was pointed out that keeping the budget deficit at the level adopted in the original draft Budget Act would mean - under the assumption of a lower economic growth - tightening of the fiscal policy. Some members of the Council noted, however, that the final shape of the Budget Act was not yet known and the planned lowering of the expenditure did not have to mean their actual reduction, among other things, due to the possibility of reallocating some of the funds not spent in 2008 to the subsequent year. The Council emphasized that maintaining fiscal discipline in the public finance sector may be conducive to easing monetary policy.

While addressing the issue of Poland's accession to the euro area, attention was paid to increased uncertainty about the implementation of the schedule of Poland's euro adoption, which was due to the lack of political consensus on this matter so far. At the same time it was pointed out that the monetary policy should take into account the risk of a strong economic slowdown in Poland making the compliance with the Maastricht fiscal criterion more difficult.

The Council also analyzed the liquidity conditions in the banking sector and their impact on the monetary policy transmission mechanism. In this context, the Council discussed the need for possible further adjustment of monetary policy instruments to liquidity conditions in the interbank market.

While discussing the decision on interest rates, some Council members assessed that further deterioration in the outlook for global economic growth, including the recession observed in Poland's major trading partners, the signs of considerable decline in economic activity in Poland in subsequent quarters and the resulting anticipated significant lowering of the inflationary pressure in the medium term justified easing the monetary policy at the Council's November meeting. The factor favouring the decision to ease the monetary policy was maintaining the public finance discipline amidst the expected economic slowdown declared by the government's representatives. Those members of the Council also argued that the lowering of the NBP interest rates would prevent banks from limiting lending. Other Council members, however, pointed at the difficulty to identify the horizon of inflation returning to the inflation target and the considerable volatility of the zloty exchange rate as factors speaking for keeping the interest rates unchanged. Those members assessed that changes in the monetary policy parameters, if any, should be implemented at a later date - i.e. after the Council has got acquainted with the Budget Act for 2009 and with the subsequently released data on inflation and economic growth in Poland.

The Council also discussed the scale of the NBP interest rate reduction at the current meeting. In the opinion of some Council members the considerable deterioration of the outlook for economic growth in Poland spoke for lowering interest rates by 50 basis points at the November meeting. The majority of the Council members, however, assessed that developments in the Polish economy justified a gradual easing of monetary policy. They pointed out that amidst persisting high risk aversion in the international financial markets a too strong interest rate reduction at the current meeting could lead to further exchange rate depreciation.

A motion to lower the NBP interest rates by 50 basis points was put forward. The motion did not pass. A motion to lower the NBP interest rates by 25 basis points was put forward and passed. The Council decided to lower the NBP interest rates to the level: the reference rate to 5.75%, the lombard rate to 7.25%, the deposit rate to 4.25% and the rediscount rate to 6.00%.

Minutes of the MPC decision-making meeting held on 23 December 2008

During the meeting the Monetary Policy Council discussed the outlook for inflation in the context of the past, current and, primarily, anticipated economic situation.

The discussion at the meeting focused on: the outlook for economic growth and inflation in Poland, credit market conditions and zloty exchange rate developments.

While addressing the situation in the external environment of the Polish economy, a further deterioration in the outlook for global economic growth, and in particular, the deepening recession in the United States and the euro area, was noted. It was emphasised that the developments in the global economy were conducive to faster than previously expected decline in inflation in many economies, inter alia, as a result of the fall in commodity prices, including oil prices. It was pointed out that those factors urged many central banks, in particular banks of countries that are in recession, to further considerable easing of the monetary policy.

The Council paid a lot of attention to the outlook for economic growth in Poland. It was emphasised that unfavourable developments in the external environment of the Polish economy brought about stronger than previously expected decline in activity in the Polish economy which was corroborated by weaker than anticipated November data on industrial and construction output. Among major channels through which the world crisis affected the Polish economy were listed: the decline in external demand, deteriorating agents' expectations as to the future economic situation of the country and tightening of banks' lending policy. It was pointed out that the coming quarters might be expected to bring about a strong drop in corporate investment being largely the result of economic slowdown and deterioration in the outlook for sales in the domestic and foreign markets as well as a more difficult access of enterprises to loans both in Polish zloty and foreign currencies. Considerable weakening of investment demand will also be driven by such factors as deteriorating financial results of enterprises, limited possibilities of business financing through the capital market and a probable decline in the inflow of foreign direct investment to Poland. It was also stressed that as a result of the tightening of banks' lending policy, small and medium-sized enterprises might face problems with the absorption of EU funds for investment projects due to the need to contribute own funds. It was emphasised that GDP data for 2008 Q3 pointed to a considerably stronger than anticipated fall in investment growth. At the same time, it was pointed out that the annual investment growth in the enterprise sector in 2008 Q3 was negative, and investment growth in the economy resulted from the continued relatively high growth in investment expenditure of the public finance sector and in housing investment. It was assessed that in 2008 Q4 the investment contribution to GDP growth could be close to zero and in the first half of 2009 it might turn negative.

While discussing the future economic situation it was assessed that the slowdown in economic growth would also be driven by a decline in consumption and export growth, and GDP growth in 2008 Q4 and in subsequent quarters would most probably be lower than anticipated in the NBP's October projection. It was pointed out that the decline in the growth of Polish exports might be stronger than the one recorded in the previous periods of economic slowdown in the external environment of the Polish economy due to the fact that in the past few years, the corporate links between Polish and foreign companies intensified and the share of highly processed goods sensitive to business cycle fluctuations in the Polish export production increased. Moreover, it was argued that contrary to previous expectations the consumption demand might also weaken considerably which was suggested by worse than expected November data on retail sales. The decline in private consumption growth will be driven by the anticipated deterioration of the labour market situation indicated by the November data on the declining wage growth and falling employment in the enterprise sector and increasing unemployment as well as tightening of household lending criteria. It was argued that limited access to credit would have a stronger impact on consumption demand than in the previous periods of the economic slowdown as the past few years had been marked by growing importance of credit in financing household consumption. Moreover, deterioration in the housing market situation related, among other things, to the tightening of conditions and criteria of granting mortgage loans, will contribute to the decline in demand for home furnishing goods and services. Among factors having a negative impact on consumption demand were also listed: deteriorating consumer sentiment and decreasing purchasing power of households' incomes driven by increases in administered prices.

While discussing the outlook for inflation it was assessed that in the time to come the growth in consumer prices would continue to decline and would be within the tolerance range for deviations from the inflation target, thus running below the level forecast in the NBP's October inflation projection. Lower than forecast inflation in the near term will be mainly driven by lower than assumed commodity prices in the global markets, including oil and gas prices. In the medium term, the lowering of inflationary pressure will be driven by: stronger than previously expected decline in the global and domestic economic growth, low inflation in the external environment of the Polish economy translating into declining growth in the prices of import goods and faster than anticipated in the projection weakening of wage pressure connected with falling labour demand and increased labour supply, inter alia, as a result of intensified return of Poles from the economic migration. Moreover, some members of the Council indicated that amidst the economic slowdown the previously observed increase in unit labour costs would translate into prices only to a limited extent. Attention was also paid to the stronger than expected decline in CPI inflation in November. Among factors curbing the decline in inflation, in turn, were listed: further rise in administered prices, increases in excise tax on certain products and depreciation of the zloty exchange rate observed in the past few months. Yet, some members of the Council pointed out that the impact of the exchange rate weakening on prices amidst economic slowdown would probably be limited.

While addressing the exchange rate developments, it was stressed that the considerable zloty depreciation against the euro and the US dollar and increased exchange rate volatility observed in the past few months resulted mainly from the increase in risk aversion in the global financial markets leading to capital outflow from the emerging markets. Some members of the Council argued that the appreciation of the zloty exchange rate in the first half of 2008 and its subsequent depreciation could be reinforced by Polish enterprises concluding structured foreign exchange contracts. In this context, it was pointed out that the exchange rate depreciation in the second half of 2008 contributed to the deterioration of the financial situation of certain enterprises which might additionally limit the investment of these enterprises. Some members of the Council pointed out that the exchange rate depreciation resulted in increasing the value of public debt denominated in foreign currencies and, consequently, the relation of debt to GDP which, due to statutory restrictions, might make it necessary to limit the expenditure of the public finance sector in the coming years. Yet, other members of the Council pointed out that the share of debt denominated in foreign currencies in the total public debt was considerably lower than the share of debt in Polish zloty. On the other hand, as the favourable consequence of the zloty exchange rate depreciation it was noted that it was increasing the competitiveness of Polish products on foreign markets which would limit the impact of recession in countries being Poland's major trading partners on the growth of Polish exports.

While analysing the situation in the credit market it was pointed out that the tightening of banks' lending policy and continued increased level of market interest rates as compared with the NBP rates were related to liquidity disturbances in the banking system being the result of the crisis in the global financial markets. It was argued that commercial banks' operations aimed at increasing the liquidity - reduction of lending and offering of high interest rates on deposits - would contribute to limiting the domestic demand in the time to come. It was also pointed out that too high interest rates on deposits might result in deteriorating financial results of banks and, consequently, constitute a factor limiting future lending. It was pointed out that this effect was not yet observed in the monetary data showing that loans continued to grow relatively fast in November. Some members of the Council argued that the continued growth in corporate loans in November might be driven by the fact that enterprises, fearing the further tightening of banks' lending policy, tried to use the available credit lines.

The Council also discussed the actions of the NBP and the government that could counteract the reduction of banks' lending. It was argued that this objective would be supported by the government loan guarantee system, concerning in particular corporate loans, including loans taken for projects financed with UE funds. It was pointed out that due to liquidity problems faced by banks possible lowering of the NBP interest rates might not fully translate into reductions of market interest rates. In the opinion of some discussants this was an argument speaking in favour of considerable decreases in the NBP interest rates. Other members of the Council argued that even strong decreases in the interest rates would not increase loan availability or reduce credit costs since those depend on banks' liquidity situation and households' and entrepreneurs' expectations as to the future situation of the Polish economy.

While discussing the decision on interest rates, the Council assessed that the signs of stronger and faster than expected decline in the global and Polish economic activity combined with considerable lowering of the inflationary pressure in the medium term speak for decreasing the NBP interest rates. Some members of the Council expressed the opinion that easing of the monetary policy should be implemented gradually, inter alia, due to the high uncertainty about the outlook for the global and Polish economy and about the impact of cuts in the NBP interest rates on market interest rates and domestic demand. They argued that too strong a lowering of the NBP interest rates might negatively affect the expectations of the financial market participants as regards the outlook for the Polish economy, thus driving further exchange rate depreciation. Some members of the Council assessed, however, that in the current situation the impact of the interest rate disparity on the exchange rate was limited. The majority of the Council members assessed that the scale of economic slowdown in Poland and the increased credit cost resulting from market interest rates continuing well above the level of the NBP reference rate combined with the marked weakening of the inflationary pressure justified a considerable easing of the monetary policy at the December meeting. Those members argued that insufficient response of the monetary policy to the unfavourable developments in the Polish economy might contribute to intensifying those developments and, as a result - through deteriorating expectations of the financial market participants - be conducive to the weakening and increased volatility of the zloty exchange rate. They assessed that a more significant lowering of the NBP interest rates would counteract the reduction of bank lending and, consequently, the excessive weakening of domestic demand, and that it would also reduce the cost of credit, including the cost of servicing the previously contracted loans, which could additionally reduce the share of the so-called bad debts, thus contributing to increased stability of the financial system. They also pointed out that maintaining the public finance discipline despite the economic slowdown declared by representatives of the government constituted an additional factor favouring the easing of the monetary policy. The Council also discussed the scale of possible further lowering of the NBP interest rates.

A motion to lower the NBP interest rates by 50 basis points and a motion to lower the NBP interest rates by 75 basis points were put forward. The motion to lower the NBP interest rates by 75 basis points was passed, therefore the motion to lower the NBP interest rates by 50 basis points was not put to voting. The Council decided to lower the NBP interest rates to the level: the reference rate to 5.00%, the lombard rate to 6.50%, the deposit rate to 3.50% and the rediscount rate to 5.25%.

Minutes of the MPC decision-making meeting held on 27 January 2009

During the meeting the Monetary Policy Council discussed the outlook for inflation in the context of the past, current and, primarily, anticipated economic situation.

The discussion at the meeting focused on the outlook for economic growth and inflation abroad and in Poland, zloty exchange rate developments and credit market conditions.

The Council paid a lot of attention to the domestic economic growth. It was pointed out that the recession in the external environment of the Polish economy and the accompanying decline in foreign demand for Polish goods had increasing impact on the activity in the domestic economy which is corroborated, among other things, by further fall in industrial output in December. Considerable reduction in demand, in particular for the products of exporting enterprises, is also signalled by the results of the NBP business climate surveys. It was emphasized that deteriorating outlook for sales translated into investment dampening and, consequently, contributed to faster than previously expected slowdown in GDP growth.

While discussing the outlook for economic growth in Poland it was noted that it was largely dependent on the foreign economic situation. In this context, the deepening recession in the United States and in the euro area was pointed out together with a risk of further downward revisions of economic growth forecasts for Poland's main trading partners. The risk is related to the negative impact of the global financial crisis on the situation in the labour markets in those countries and, consequently, on households' income and consumption. The protracted recession in the external environment of the Polish economy may delay the improvement in the domestic business activity relative to previous assessments. Some members of the Council emphasized that this might translate into even stronger curbing of the investment activity of enterprises; consequently, the contribution of investment to GDP growth in 2009 might be negative. It was argued that economic slowdown in Poland, through decreasing labour demand and declining wage growth, would contribute to limiting households' consumption growth. Another factor curbing domestic demand may be a reduction in general government expenditure, which - if concerning investment outlays - will additionally negatively affect GDP growth in the longer term. Some members of the Council argued that implementation of projects financed with EU funds by local government entities would contribute to maintaining the growth of the general government investment expenditures.

While discussing inflation developments, attention was paid to the slightly stronger than expected decline in inflation in December 2008 to 3.3%, i.e. below the upper limit for deviations from the NBP's inflation target. It was indicated that the decrease in inflation had been largely driven by falling fuel prices, yet, it was emphasized that core inflation had also declined.

While addressing the outlook for inflation, it was assessed that in the coming months inflation should gradually decline to the inflation target (2.5%). At the same time, some members of the Council emphasized that considerable depreciation of the zloty exchange rate observed in the past few months and possible further raises in administered prices would be factors conducive to price increases. In this context, attention was paid, among other things, to possible increases in 2009 of excise tax on fuels aimed at compensating some of the decline in government budget revenues, which would translate into higher prices. Other members of the Council argued that the pass through of exchange rate changes into inflation might be limited amidst economic slowdown, and raises in administered prices are beyond the direct impact of monetary policy. Those members also emphasized that rises in administered prices limited households' purchasing power, which in an economic downturn would additionally curb their demand. During the discussion attention was also paid to uncertainty relating to changes in inflation in the near term connected with commodity price developments in the global markets and with the GUS changing the weights in the households' consumption basket.

The majority of the Council members stressed that amidst declining inflationary pressure, monetary policy should focus more on counteracting excessive slowdown of economic growth, thus contributing to maintaining price stability in the medium term. In the opinion of some Council members, this justified a significant reduction of the NBP interest rates so that - considering the time lags in the transmission mechanism - the effects of such measures could translate, as soon as possible, into strengthening the domestic demand. Some Council members were of the opinion that the easing of the monetary policy should also be accompanied by the implementation of the government loan guarantee system supporting economic growth.

While discussing the exchange rate developments, it was emphasized that the recently observed considerable depreciation of the zloty exchange rate resulted mainly from the increase in risk aversion in the global financial markets leading to capital outflow from the emerging markets, which was reflected in a rise of bond yields and CDS rates. Some Council members pointed out that the scale of zloty depreciation was higher than that of other currencies of the Central and Eastern Europe despite interest rates in Poland had been lowered to a lesser extent than in other countries of the region. In their opinion, this meant that the impact of the interest rate disparity on the exchange rate had recently been limited. At the same time, those Council members indicated that under current circumstances the outlook for economic growth in Poland and the resulting situation of the public finance sector were of higher importance for the zloty exchange rate developments. In the opinion of some Council members, a strong reduction of interest rates aimed at counteracting excessive economic slowdown might therefore contribute to the strengthening of the zloty exchange rate in the medium term. Additionally, they argued that consolidating lowering the NBP interest rates to the level consistent with both maintaining price stability and supporting economic activity, would be conducive to fading of expectations for further NBP interest rates reductions, which should limit the pressure for zloty depreciation. Other members of the Council assessed, however, that too strong lowering of the NBP interest rates might boost expectations of financial market participants as to overall scale of further interest rates reductions. Moreover, they pointed out that the too rapid easing of the monetary policy by the Council might be perceived as a sign of considerable deterioration in the outlook for Polish economy, and thus contribute to further depreciation of the zloty exchange rate. Those Council members also emphasized that the domestic foreign exchange market was at present relatively shallow bringing about the risk of further strong zloty depreciation which should be accounted for while deciding on the scale of the NBP interest rates reduction.

While analyzing the factors affecting exchange rate developments specific for the Polish economy, some members of the Council argued that the zloty depreciation might have been strengthened by Polish enterprises having to conclude previously signed options contracts by purchasing foreign currency at the market. On the other hand, some Council members pointed out that declarations of the Government about its commitment to meet the timetable of Poland's euro area accession could have contributed to limiting the scale of zloty depreciation. In this context, it was noted that a possible postponement of euro adoption might have a negative impact on zloty exchange rate developments.

While discussing the impact of zloty depreciation on the economy it was indicated that exchange rate depreciation negatively affected the financial condition of enterprises engaged in options contracts and increased the zloty value of debt of economic entities (enterprises, households and public finance sector) denominated in foreign currencies, which would be conducive to curbing their expenditures. Moreover, it was pointed out that rising import prices driven by weaker exchange rate would - through higher costs of imported commodities and intermediate goods - negatively affect the economic activity in Poland. On the other hand, it was noted that improved competitiveness of Polish products on foreign markets, related to zloty depreciation, would limit the negative impact of recession in the external environment on Polish exports. It was argued that depreciation would also lead to rising zloty value of EU funds which - combined with a possible fall in prices of construction and assembly works, signaled by the results of the GUS business condition surveys - might constitute a factor supporting the implementation of investment projects financed with EU funds. It was emphasized that depreciation bringing about a rise in the prices of imported goods, would favour the growth of domestic demand for domestic goods to the detriment of imported goods which would contribute to reducing the imbalance of Polish trade.

While analyzing the credit market situation it was pointed out that although monetary data had not as yet signaled strong slowdown in credit growth, in 2008 Q4 banks considerably tightened their lending policy and some of them retreated from granting housing loans denominated in foreign currencies. In this context, some Council members argued that decisions about lowering the NBP interest rates were of considerable importance for bank lending as they contributed to decreasing the costs of zloty denominated loans. It was also pointed out that since the beginning of the process of the NBP interest rates lowering in November 2008, the 3-month WIBOR rate decreased by more than 100 basis points which confirmed that despite market interest rates remaining at an elevated level relative to the reference rate, the Council's decisions had a considerable impact on market interest rates.

While analyzing the situation in the banking sector it was pointed out that offering high interest rates on term deposits was accompanied by rising loan margins by banks. Some Council members argued that by the time the previously opened deposits terminate, banks might tend to maintain the cost of newly granted loans at an increased level even despite reduction in the NBP interest rates. Moreover, in the opinion of those Council members too deep lowering of the interest rates through decreasing banks' incomes from servicing previously granted loans - provided their interest depends directly on interest rates in the interbank market - might result in deteriorating financial results of banks and, consequently, constitute a factor limiting lending. Those members argued that easing the monetary policy should be implemented in such a pace as to allow banks to gradually adjust to changing business conditions.

While discussing the level of interest rates it was pointed out that considering the rapid downturn in the economy and decline in inflationary pressure many central banks had recently continued to ease their monetary policy. Some members of the Council argued that provided there were no or small reductions in the interest rates in Poland, this would lead to a rise in interest rate disparity. Other Council members noted, however, that at present it was difficult to assess the impact of the considerable monetary policy easing introduced by major central banks on the economy and financial system stability; therefore, changes in interest rates in other countries should not be followed automatically.

While discussing the decision on interest rates, the Council assessed that the signs of stronger and faster than expected slowdown in the global and Polish economic activity combined with further decline in inflationary pressure spoke of lowering the NBP interest rates. In the opinion of some Council members reduction of the interest rates should be implemented gradually and its scale at the January meeting should be smaller than in December 2008, especially in view of the easing of the monetary conditions resulting from considerable depreciation of the zloty exchange rate. According to those members of the Council, too strong lowering of the NBP interest rates at the current meeting posed a risk of further depreciation of the exchange rate which favoured gradual adjustment of interest rates. Moreover, those members pointed out that too strong lowering of interest rates at the current meeting might excessively boost market expectations as to the total scale of interest rate reduction. Other members of the Council emphasized, however, that in view of the fast deteriorating outlook for domestic economic growth, it was necessary to lower, as soon as possible, the interest rates to the level supporting the economic activity in Poland. In the opinion of those Council members considerable reduction of the NBP interest rates would counteract limiting of banks' lending, and consequently, too strong decline in domestic demand. They argued that the Council's decisions aimed at supporting GDP growth in view of the falling inflationary pressure might lead to strengthening of the zloty exchange rate. The Council also discussed the scale of possible further lowering of the NBP interest rates.

Motions to lower the NBP interest rates by 25 basis point, by 50 basis points and by 75 basis points were put forward. The motion to lower the NBP interest rates by 75 basis points was passed, therefore the motions to lower the NBP interest rates by 25 basis points and by 50 basis points were not put to voting. The Council decided to lower the NBP interest rates to the level: the reference rate to 4.25%, the lombard rate to 5.75%, the deposit rate to 2.75% and the rediscount rate to 4.50%.

Information from the meeting of the MPC held on 24-25 February 2009

The Council decided to lower NBP interest rates by 0.25 percentage points: reference rate to 4.00% on an annual basis; lombard rate to 5.50% on an annual basis; deposit rate to 2.50% on an annual basis; rediscount rate to 4.25% on an annual basis.

Data that have been released recently confirm that economic growth in Poland has been slowing considerably. Strong economic slowdown, which is mainly driven by recession in Poland's major trading partners, has been spilling over to further sectors of the economy. Similarly to other countries, limited credit availability stemming from increased risk aversion and considerable tightening of banks' lending conditions as well as deteriorating sentiment of economic agents contribute to slowing economic growth. Despite persisting excess liquidity of the banking sector, the cost of credit remains at a relatively high level which results from high risk premium incorporated in market interest rates and from increased margins. At the same time, information on labour market developments points to increasing unemployment and decelerating wage growth in the economy which is conducive to curbing inflationary pressure.

The recent period saw a strong depreciation of Central and Eastern European currencies, including the zloty, which was accompanied by a considerable rise in the exchange rate volatility. In the Council's view, the zloty is currently weaker than the equilibrium exchange rate and does not reflect the relatively favourable condition and outlook for the Polish economy.

According to GUS preliminary data, in January 2009 the annual growth of consumer prices in Poland decreased further (to 3.1%). Decline in inflation was mainly driven by falling fuel prices, yet the decrease in inflation was mitigated by a strong rise in administered prices (prices of energy carriers and services related to housing) and the depreciation of the zloty.

The Council got acquainted with the projection of inflation and GDP based on the NECMOD model, 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. The macroeconomic projection which will be presented in the *Inflation Report* has been prepared based on data released until 23 January 2009. The annual growth of consumer prices forecasted in the February projection is lower than expected in the October projection throughout the projection horizon. Under constant interest rates, there is a 50-percent probability that inflation will lie within the range of 2.5–3.9% in 2009 (compared to 3.9–5.7% in the October projection), 0.5–3.2% in 2010 (compared to 1.9–4.5%) and –0.9–2.6% in

2011. According to the February projection, the annual GDP growth will remain, with a 50-percent probability, within the range of 0.3–1.9% in 2009 (compared to 1.9–3.7% in the October projection), 1.2–3.3% in 2010 (compared to 2.7–4.5%) and 2.5–4.8% in 2011. In the Council's assessment, inflation may temporarily increase slightly in the coming months as a result of rising administered prices, primarily electricity and fuel prices.

In the medium term, the recession in the global economy bringing about the decline in the domestic economic growth will contribute to lowering the inflationary pressure in Poland. Banks' tightening of their lending terms and conditions will also be conducive to curbing demand and, consequently, inflationary pressure. On the other hand, the considerable depreciation of the zloty exchange rate, observed in the past few months, will drive price increases. Weakening of the zloty exchange rate increases also the zloty value of liabilities of economic agents (both households and enterprises) denominated in foreign currency, which might lead to lowering domestic demand.

The Council assessed the probability of inflation running below the target in the medium term to be higher than the probability of inflation running above the target and decided to lower the NBP interest rates.

The easing of monetary policy should support the economy returning to the potential growth path, which in the medium term supports the achievement of the inflation target. The Council's decisions in the coming months will take account of the incoming information on the outlook for economic growth, inflation and situation in the financial markets in Poland and abroad and information on zloty exchange rate developments.

The Monetary Policy Council pursues the direct inflation targeting under a floating exchange rate. In line with this strategy, the National Bank of Poland may use instruments directly affecting the zloty exchange rate.

Maintaining fiscal discipline in the public finance sector may be conducive to easing the monetary policy.

The Council will analyse the impact of developments in the domestic interbank market on the monetary policy transmission mechanism in Poland.

The Council maintains its view that Poland should join the Exchange Rate Mechanism II (ERM II) and the euro area at the earliest possible date, after achieving the necessary political support for amendments in the Constitution of the Republic of Poland and other legal acts necessary for the euro adoption in Poland.

The Council adopted the *Inflation Report – February 2009*.

Projection of inflation and GDP

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 was conducted by a member of the NBP's Management Board, Mr. Zbigniew Hockuba. The work on the projection was coordinated by the Bureau of Macroeconomic Forecasts of the Economic Institute. The projection was prepared with the use of the NECMOD[1] macroeconomic model. The projection is an outcome of an iterative process in the course of which some of the 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 is prepared under the assumption of constant NBP interest rates and is one of the inputs to the Monetary Policy Council's decision-making process.

External conditions

The economies of the United States, the euro area and the United Kingdom are expected to remain in recession in 2009. The persisting unstable situation in the financial markets and the signs of economic slowdown in emerging economies, including China and India, will continue to be factors supporting the aggravation of the global economic crisis. A gradual improvement of economic conditions in the United States and in Europe can be expected not before 2010.

Due to the economic slowdown the inflationary pressure will also slacken, which will make room for further interest-rate cuts by central banks of the world's major economies. In 2010, as developed economies recover from the recession and inflation risks re-emerge, interest rates will start to be gradually raised.

Prices of energy and agricultural commodities, following the sharp decline at the end of 2008, will remain at levels considerably lower than last year. The prices of oil, gas and hard coal will stabilize mainly as a result of low demand for energy commodities amidst strong global economic slowdown. The correction of agricultural commodity prices will also be supported by good cereal crops anticipated this year, the removal of export barriers in countries facing in previous years mounting concerns about insufficient supply of agricultural products on domestic markets, as well as falling transportation costs and weakening demand for biofuels driven by the decline in crude oil prices.

[1] Current version of the model's documentation is available on the NBP website.

Over the longer-term projection horizon, commodity prices may increase slightly in response to improving global economic conditions.

Aggregate demand

In 2009 the Polish economy will slacken. Although the primary factor behind the slowdown will be the weakening of foreign demand, the consequences of the global crisis will rather quickly translate into a considerable decline in domestic demand growth. Domestic demand growth will be on a downward trend until the turn of 2009 and 2010 and then, following the global economy's recovery from the recession, it will exceed 3% in 2011.

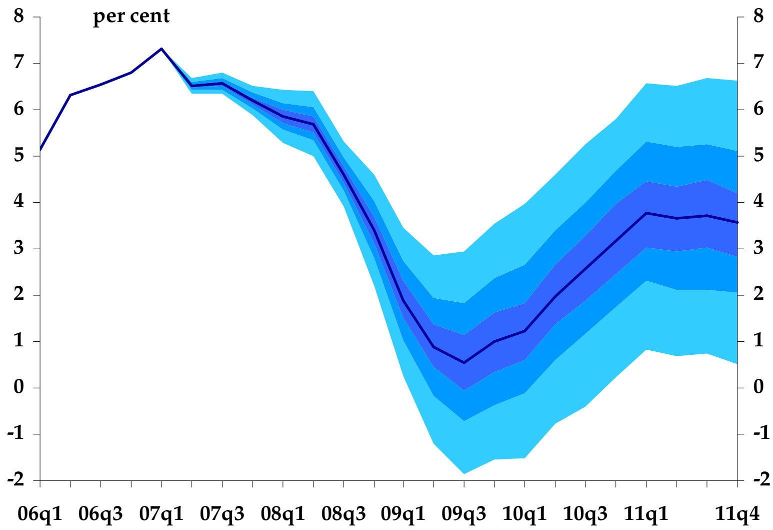
Over the short-term projection horizon, slower domestic demand growth will be connected with weakening investment demand of the private sector. The curbing of enterprises' investment projects will result both from a deteriorating outlook for sales and from limited possibilities of financing gross fixed capital formation. Lower loan availability coupled with the banks' tightening of their lending policy will be accompanied by falling production profitability, which, in turn, will limit the possibilities of financing investment with own funds. At the same time declining demand for housing will be driven by deteriorating situation in the labour market, banks' tightening of conditions for granting mortgage loans and rising foreign exchange risk in the case of mortgage loans denominated in foreign currency. Due to high housing supply in 2009 which will adjust to the deteriorating situation in the housing market with some delay, prices of dwellings will fall.

The factor which will counteract the fall in investment growth in the short term will be public investment stimulated by the inflow of EU structural funds.

In 2009 GDP growth will be supported by the steady growth of private consumption which will remain close to 4%. Households will only gradually adjust their consumption level to the falling growth rate of real income; moreover, a considerable fall in real interest rates at the beginning of 2009 will act towards maintaining relatively high growth rate of private consumption. In 2010 due to the persisting low aggregate wage fund growth in the economy, the growth of private consumption will slow down considerably. It will start to accelerate again only after the situation in the labour market has improved and the growth rate of household disposable income has risen again in 2011. The growth rate of public consumption, albeit relatively low in the short-term projection horizon, will be rising from the end of 2009.

The economic recession that has affected Poland's major trading partners will result in a marked decline in the volume of trade. The decline in foreign demand in the first quarters of 2009 will have a negative impact on exports. At the same time, the weakening domestic demand will negatively affect the growth of imports, in particular due to declining growth of import-intensive investment. In the long-term horizon, global economic recovery will contribute to a recovery in export growth. The growth of imports will remain lower than that of exports until 2011 which will translate into a slightly positive contribution of net exports to GDP growth throughout the projection horizon.

□ **Figure 4.1:** Central projection and GDP growth fan chart



Source: NBP.

Macroeconomic equilibrium

Economic growth will systematically decelerate until 2009 Q3. The growth of economic activity will start to accelerate in 2010, following the global economy's recovery from the recession, and will come close to 4% in the last year of the projection (Figure 4.1).

Together with the deepening economic slowdown in 2009 labour demand will weaken. The adjustment to deteriorating economic conditions will come about primarily through employment reduction which may affect mainly the least productive workers. As a result, in 2009 the growth in the number of working persons will decline considerably. The negative tendencies in the labour market will reverse only in 2011. Employment growth will be stimulated both by recovering labour demand and by the growth in labour supply triggered by favourable changes in the age structure of the population[2], by an former reduction of the wage wedge and by weakening migration outflows.

The decline in the number of working persons in the short-term projection horizon will reduce the scale of the desired correction in wage growth at the beginning of 2009. At the same time, the weakening of the wage pressure in 2009 will be driven by the PIT reform implemented this year, and in the longer term, also by a growing unemployment rate. As a result, the growth of gross wages will decline to close to 2%, and then will be rising gradually until the end of the projection horizon. Until 2011 the growth rate of real wages will remain below the growth rate of labour productivity, leading to a gradual closing-up of the gap between the level of wages and productivity that arose due to the labour market recovery observed until 2008 and pressures resulting from the intensive migration after 2004.

Additionally, a considerable increase in minimum wage will contribute in 2009 to an increase in economic activity of persons aged below 25 years.

[2]The share of persons in age groups with a traditionally high economic activity rate (aged 25–44) will increase.

Despite a further reduction of the wage wedge due to the PIT reform, the natural unemployment rate (NAWRU), just like the actual unemployment rate, will follow an upward trend in the years 2009–2010. This will be connected with growing labour supply amidst weakening labour demand which will, to a certain extent, be a mid-term phenomenon. Slower capital formation due to the economic slowdown will also translate into a deteriorating outlook for labour demand also in a longer term. The growth in relative import prices triggered by zloty depreciation and acting towards raising the costs of production, will have a similar impact on the outlook for labour demand in the first quarters of the projection. Amidst the negative growth rate of the number of working persons, the growth of the actual unemployment rate will exceed the growth of the equilibrium unemployment rate, leading to the closing of the unemployment gap at the turn of 2009 and 2010. In 2011, as a result of improved economic conditions, the absorption of free labour force will accelerate stabilizing the unemployment rate.

Due to the fading of the impact on potential output growth of the changes in the fiscal policy implemented in 2008 and 2009, leading to a reduction in the fiscal burden affecting labour costs, a decline in potential output growth will also be observed. The factor stabilizing potential output growth in the longer term will be TFP growth combined with still relatively high growth in capital formation.

Until the end of 2010, real GDP growth will be lower than potential output growth. As a result, the negative output gap will widen, pointing to a weakening of demand pressure in the economy. In 2011 together with the expected improvement in economic conditions in Poland, the disequilibrium in the goods market will gradually diminish.

The negative balance on trade in goods will be improving throughout the projection horizon. The current and capital account balance will improve mainly on account of larger inflows of EU funds, especially in 2011. Yet, the income balance will slightly deteriorate as a result of lower transfers of income from abroad and higher costs of debt service.

Despite the depreciation of the zloty exchange rate observed at the end of 2008 and at the beginning of 2009, in the nearer projection horizon the competitiveness of Polish goods, measured by terms-of-trade, will continue to deteriorate. However, this trend will reverse as the enterprise sector adjusts to new business conditions and the economic conditions in the global economy subsequently improve. Consequently, the external imbalance, measured by the ratio of the current and capital account balance to GDP, will gradually decline already in 2011, following a stabilization period in the years 2009–2010.

Cost pressure

The strong depreciation of the zloty exchange rate at the turn of 2008 and 2009 will translate into higher costs of domestic production in the short-term projection horizon. Yet, the scale of depreciation of the zloty exchange rate will be reflected in prices in the economy only to a small extent due to deteriorating economic conditions in the domestic market. The cost pressure associated with the exchange rate depreciation will be reversed in subsequent quarters of the projection when the exchange rate of the zloty gradually strengthens, moving back to the values determined by fundamental factors.

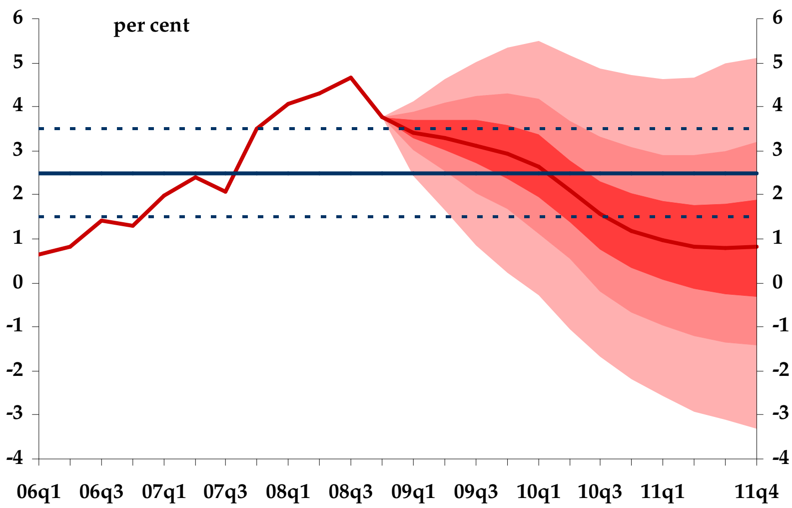
The gradual easing of the inflationary pressure will be reinforced by slowing wage growth and the falling number of working persons. Unit labour costs will decrease as a result of deteriorating economic conditions. Labour costs will start to rise slowly only in 2011. Labour costs being maintained at a relatively low level despite an improvement in economic growth in the last years of the projection will be primarily the result of a favourable situation in the labour market and a relatively high unemployment rate.

Moreover, the considerable fall in the prices of agricultural and energy commodities in the global markets, followed by their stabilisation, will, together with a gradual appreciation of the zloty, have a considerable impact on reducing the growth of domestic food and energy prices.

Inflation

CPI inflation throughout the projection horizon will decline gradually, going beyond the lower limit for deviations from the inflation target in 2011 (Figure 4.2). The probability of inflation running below the inflation target of 2.5% consistently rises to approx. 0.74 in the last quarters of the projection, with a twofold decline in the probability of inflation remaining within the tolerance range for deviations from the target in 2011 as compared with 2009.

⊡ **Figure 4.2:** Central projection, inflation fan chart and MPC's inflation target.



Source: NBP.

The growth of consumer prices in the current year will be significantly affected by a falling growth rate of prices of food and energy products. Yet, due to the historically high growth in labour costs and the strong depreciation of the zloty at the turn of 2008 and 2009, core inflation will remain at a heightened level in the first quarters of the projection. Over the long-term projection horizon, the easing of the inflationary pressure will be driven by the stabilisation of prices in the global markets, including the prices of agricultural and energy commodities, a slow return of the zloty to its fundamental values and a reduction of labour costs as the slowdown in the labour market deepens.

The table below presents the main characteristics of the probability distribution of the inflation path obtained in the February projection.

Table 4.1: Probability of forecasted inflation

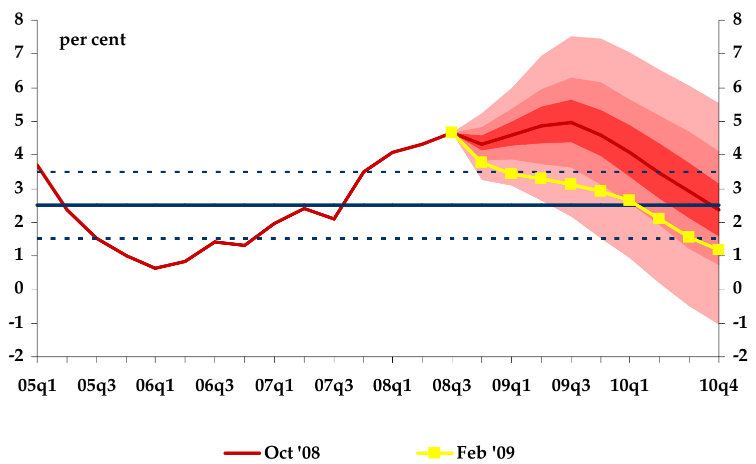
	Probability of inflation				
	below 1.5%	below 2.5%	below 3.5%	below central projection	within (1.5%; 3.5%)
2009q1	0.00	0.06	0.51	0.45	0.51
2009q2	0.04	0.18	0.56	0.47	0.52
2009q3	0.12	0.31	0.59	0.47	0.47
2009q4	0.17	0.38	0.62	0.49	0.45
2010q1	0.26	0.46	0.68	0.48	0.42
2010q2	0.38	0.59	0.77	0.51	0.40
2010q3	0.49	0.69	0.83	0.51	0.34
2010q4	0.56	0.73	0.85	0.50	0.29
2011q1	0.59	0.75	0.88	0.50	0.29
2011q2	0.60	0.75	0.87	0.50	0.27
2011q3	0.60	0.74	0.86	0.50	0.26
2011q4	0.59	0.73	0.84	0.50	0.25

Source: NBP.

The February projection compared to the October projection

Both CPI inflation (Figure 4.3) and GDP growth (Figure 4.4) run clearly below the paths from the October projection round. The change in the expected price growth and in future economic activity was primarily due to a significant revision of forecasts concerning the external environment. The strong depreciation of the zloty exchange rate observed in the past few months mitigated the impact of the change in the assessment of the slump in the global economy on the forecasted economic situation in Poland.

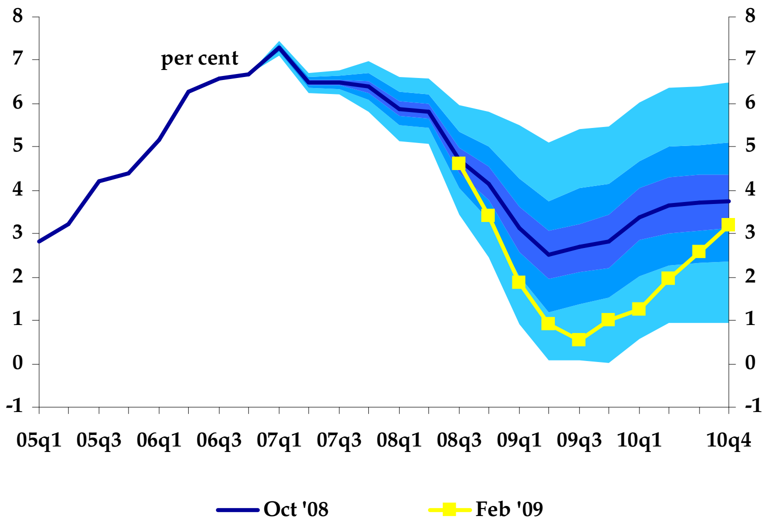
⊡ **Figure 4.3:** February projection against October projection: CPI inflation.



Source: NBP.

Significantly more pessimistic, compared with the forecasts presented in October, expectations concerning growth in Poland's major trading partners translating into lower export growth and, through the investment channel and situation in the labour market, into deteriorating outlook for domestic demand, as well as a further tightening of banks' lending policy, resulted in the decline of economic growth in the projection. Given the sudden fall in foreign demand, the depreciation of the zloty exchange rate contributes to maintaining GDP growth with a delay and to a limited extent only. The monetary policy easing effected so far will contribute to supporting economic growth.

⊡ **Figure 4.4:** February projection against October projection: GDP growth.



Source: NBP.

The deterioration of the outlook for growth and the accompanying worsened situation on the labour market added to easing of the demand pressure and lowering the path of core inflation in comparison with the previous projection. On the other hand, the considerable depreciation of the zloty contributed to the inflationary pressure in the economy, and, consequently, core inflation in the first quarters of the February projection, similarly to October expectations, continues to show an upward trend. The significant revision of forecasts for growth of prices of food and energy products is associated with a considerable lowering of expectations about the developments in the prices of energy and agricultural commodities as compared with the October projection round.

Revisions of forecasts of inflation and GDP during the last year

The data released since the publication of forecasts in the February 2008 Inflation Report changed, at the beginning gradually and in the past few months sharply, the assessment of both current economic situation as well as expectations of future economic processes.

Changes in the external environment

2008 gradually revealed the scale of problems in the financial markets. This was accompanied by signs of a possible slowdown in the global economic growth. At the same time, the persistently high prices of commodities supported global inflation.

The situation in the financial markets deteriorated significantly in the last quarter of 2008. In that period the depth of the global recession manifested itself to a much larger extent. Plunging economic growth combined with strong fall of commodity prices translated into prompt reaction of central banks.

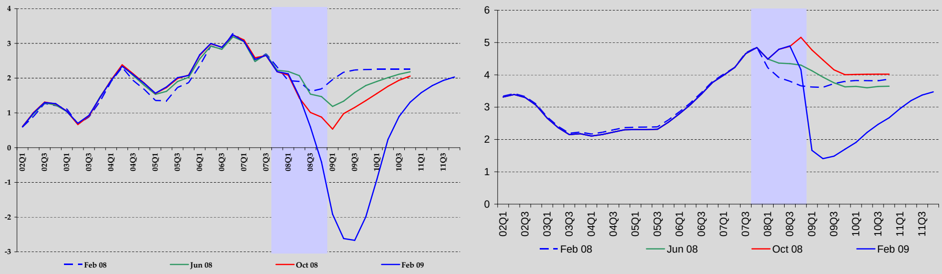


Figure R.4.1: GDP (% y/y) (lhs) and foreign interest rate (pp) (rhs).
Source: NBP.

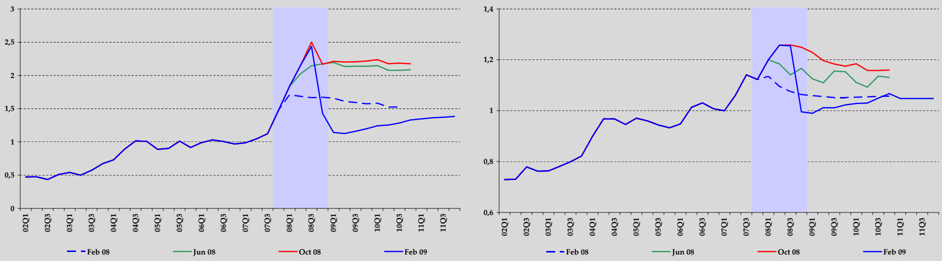


Figure R.4.2 Index of global prices of food (lhs) and energy commodities (rhs).
Source: NBP.

The developments in the global economy were reflected in the revision of assumptions adopted in the forecasting process, concerning global growth, commodity prices and interest rates in the world's major economies. In the June and October 2008 projections, the anticipated foreign GDP growth was gradually revised downwards. (See Figure R.4.1). In the current projection, the scale of revision of forecasts of the global economic situation was considerably larger, clearly reflecting the changes in the assessment of the outlook for the global economy, observed since the publication of the October 2008 projection.

The assumptions concerning both commodity prices and foreign interest rates were originally revised upwards (See Figures R.4.1 i R.4.2). Yet, in the current projection round, the forecasts of these categories were significantly revised downwards.

Changes in the assessment of domestic economy

In the first three quarters of 2008 the economic situation in Poland developed favourably, mainly due to strong consumer demand and high growth of investment outlays. This period was characterised by a positive sentiment of foreign investors towards the countries of the region, which resulted in a strong zloty. Strong economic growth was accompanied by increasing imbalance in the labour market. Tensions in the labour market, together with persisting high prices of commodities in global markets led to upward corrections of the inflation path in the short horizon of projections, both in June and in October 2008 (see Figure R.4.3).

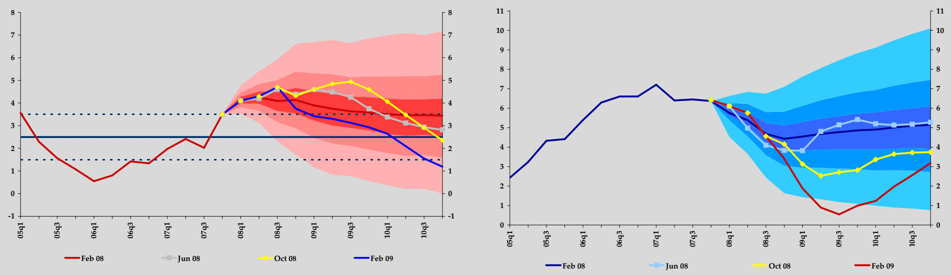


Figure R.4.3: CPI (lhs) and GDP growth (rhs) in subsequent projections in 2008–2009 (against fanchart published in February 2008 *Inflation Report*)(y/y) (%).
Source: NBP.

Together with the rapid deterioration of global economic situation, whose effects became visible in the last quarter of 2008, the external demand for Polish goods declined significantly, marking the beginning of the deterioration of domestic economic situation. Cautious revisions of the GDP growth forecasts in the short horizon of projection in the present forecasting round became more pronounced (See Figure R.4.3). The downward revision of inflation forecasts for 2009 in the present projection is due mainly to external factors (fall in indices of global commodity prices) partly limited by the depreciation of the zloty related to a sudden reversal in investors sentiment towards the countries of the region. The revision of inflation forecasts in the longer horizon of projection is, in turn, driven by the forecasted weakening of internal price pressure resulting from transmission of economic slowdown to the deterioration of situation in the labour market.

Main areas of uncertainty

Slowdown in the world economy and in Poland

Despite a significant downward revision of global growth forecasts, as well as expectations concerning the growth in Poland as compared to previous forecasting rounds, the assessment of the scale of both global downturn and its transmission to slowdown in Poland remains a significant risk of the present projection. The projection is based on the scenario of recession in the global economy, which will gradually fade out in 2010–2011, when growth rates will return to their long-term trends. It is also assumed that the Polish economy will be affected by the crisis in the global economy mainly through the deteriorated conditions for exporters, increased producers' concerns about market outlook, and employees' concerns about employment outlook. At the same time, it is assumed that the structure of the economy, the banking sector or the labour market will be sufficiently flexible to prevent the effects of the crisis in Poland to linger beyond 2011, when growth should accelerate again following recovery abroad. Both the protracted global recession and lower resilience of the Polish economy to external shocks may significantly negatively affect growth prospects in the years of the projection.

Fiscal policy in times of crisis

The efficiency of the government policy is also burdened with significant uncertainty, both in terms of mitigating the effects of economic crisis and in safeguarding the stability of the public finance sector. Government's proposals presented so far, among others, in the 'Plan for stability and development', aim at fostering growth in the period of downturn by means of guarantees. This remains in line with the government's intention of retaining the discipline of public finances and minimizing the risk of negative assessment of excessive deficit by financial markets. The efficiency of the presented solutions will depend on the economic effectiveness of the proposed measures, on the time needed to conclude the legislative procedure with respect to proposals which require parliamentary approval, on the transparency of the elaborated procedures and on the organisational efficiency of involved public institutions.

Considering the significant reduction in revenue of the public finance sector due to deteriorating economic situation, the most probable actions which may be taken by the government in the coming years include the reduction of current expenditure on materials and services and government investment not co-financed with European funds, freezing the wages of the general government sector employees, changes limiting access to certain social benefits or reducing the amount of such benefits, as well as increases of taxes or social security contributions and in particular indirect tax increases, as well as partial withdrawal from the reduction of the disability pension contribution. The pro-savings adjustments of the fiscal policy constitute a risk of lowering the path of economic growth in the projection horizon. While the reduction of current expenditure on materials and services, similarly to freezing the wages of the general government sector employees will constitute in the first place a negative demand impulse, whose effects should fade out in the coming years, the reduction of investment outlays or raising the fiscal burden may negatively affect also the medium term growth and the situation in the labour market. The direction of the fiscal policy in the coming years remains a risk factor also for the course of the inflation path. Cuts in the current expenditure of the public sector may induce a further drop in the inflation rate, while raising the fiscal and parafiscal burden may increase the risk of inflation running above the path from the current projection.

Also the scale of necessary changes in budget policy is burdened with uncertainty. With growing aversion to risk in global financial markets, the costs of financing public debt may increase significantly. The increase of yields on Treasury bills and bonds may constitute an additional factor requiring reduction of the deficit of the public finance sector. Similarly, the continuation of processes leading to the weakening of the zloty, due to a significant share of instruments denominated in foreign currencies in the portfolio of the public finance sector, may lead to a fast increase in the ratio of the current value of public debt expressed in PLN to the GDP. As a result, there is a threat of the ratio of debt-to-GDP exceeding the safe thresholds (50%, 55%, 60%), stipulated in the Public Finance Law and in the Constitution of the Republic of Poland. Both scenarios would put the government in the position when it would find necessary to curb expenditure in a decisive manner as well as intensify measures aimed at increasing revenue in the years to come.

Risks to the utilisation of EU funds

The financial crisis and economic slowdown may constitute a threat to the utilisation of EU funds by the public sector. The deterioration in revenue of the local government units and tightening credit standards introduced by banks may constitute an obstacle for the local governments in obtaining necessary co-financing for EU funds.

Transmission of monetary policy to economic activity

It is expected that decisive actions by the central bank aimed at reducing the costs of financing consumption and investment activities should have a positive impact on the economic activity and make it easier to maintain inflation near the inflation target. In the conditions of marked economic slowdown and growing uncertainty as to the economic outlook, transmission of reductions in the central bank reference rate on supply and cost of credit may be incomplete. Dwindling demand for goods, payment bottlenecks and deteriorating situation in the labour market may increase the risk of granting credit. Growing credit risk, limited capital buffors and banks' pursuit of maintaining safe liquidity conditions lead to tightening the credit standards, including raising credit markups. As a result a reduction in the reference rate may fail to translate fully into the lower interest rates on newly granted credits and on the increased supply of credit to households and enterprises.

Rate of exchange developments and the competitiveness of the economy

The present uncertainty concerning the development of both real and nominal global economic processes makes it particularly difficult to assess the mode of transmission of changes in global markets to relative competitiveness of export products of Polish companies, or the attractiveness of Poland as a country of profitable investments. As a result, the uncertainty related to the future direction of changes in the zloty exchange rate, development of terms of trade or contribution of net exports to growth, has increased in comparison with the previous projections.

One of the effects of the global financial crisis is a sharp depreciation of the zloty. The durability and scale of this depreciation and departure of the zloty from fundamentals observed in recent quarters may result in a different intensity of inflation pressure than forecasted, particularly in the nearer horizon of projection. At the same time, in the context of a pronounced drop in foreign demand and slowdown in the domestic economy, also the scale of transmission of the volatility of the zloty onto import and export prices and volumes is burdened with risk. Taking into consideration also the data available after the cut-off date for projection assumptions it is estimated that the risk of a zloty persistently weaker than expected in the projection scenario in the first quarters of 2009 is relatively high.

The uncertainty surrounding the process of Poland's accession to the euro area

In the context of high risks related to the growth prospects, a failure to meet fiscal criteria and the volatile sentiments of foreign investors, the uncertainty surrounding the process of Poland's accession to the euro area, and earlier the zloty's introduction to the ERM II system, may impact the developments in the nominal – and indirectly also in the real – sector of the economy.

Developments in labour market

The flexibility of the Polish labour market may prove important for the prospects of growth and inflation in the oncoming years. Economic slowdown will be accompanied by considerable labour supply increase, to a large extent stimulated by demographic factors. Return migration from abroad will also occur. The economy's absorption capacity, strictly related to the labour market rigidity, will then determine not only the scale of employment growth but also the efficiency of utilizing that potential in the Polish economy to maintain its high growth. The scenario of developments in the labour market carries a number of multi-dimensional risks related to the structural policies of the government, impact of the anticipated or effective regulations on the market (such as the cuts of tax rates or changes of the minimum wage), the scale of actual return migration, the quality of workforce and the adjustment of its structure to the structure of the demand for labour.

Cost-inflation ratio

Whereas both the foreign and domestic demand weakens, the uncertainty surrounds also the enterprise pricing strategy. Amidst considerable economic slowdown, the enterprises may postpone pay rises, even if production costs remain high, making use of the space earned by relatively elevated profits.

Discussion of data released after 23 January 2009

On 29 January 2009 the Central Statistical Office in Poland released the preliminary estimates of the national accounts for 2008. Whereas the rate of implied growth of 2008 Q4 (assuming unchanged GUS estimates for the first three quarters of 2008) is closed to that assumed in the current forecast, the structure of growth is somehow different. Most probably, the growth in 2008 Q4 was above-anticipated in the categories of consumption and gross fixed capital formation, but below-anticipated in inventories. As assessed, should the preliminary GUS estimates be considered, the results of the projection would remain broadly unchanged.

In response to the prospects of growth deceleration and the anticipated deterioration in the public finance, on 3 February 2009 the government took a decision to reduce the expenditure of ministries, central government administration and provincial governors to the total amount of PLN 10.0 billion. The February projection assumed PLN 4.1 billion savings. In other words, the government declaration – if implemented – may narrow the public finance deficit in 2009 by about 0.5% of GDP and lower GDP growth path in comparison February projection.

Summary of risks to inflation and GDP projection

The key factor conducive to increasing inflation above the levels assumed in the projection is actual and potential depreciation of the zloty due to the deterioration in the investors' confidence. The risk of inflation path higher than projected stems on the one hand from the possibility that the government may conduct fiscal policy, whereby the public finance sector in the period of economic slowdown is consolidated through fiscal burden tightening, and on the other hand from lower than assumed flexibility of the Polish labour market. The possibility of inflation developing below the central path is indicated by the risk of deeper recession in the global economy than assumed in the projection, more restrictive fiscal policy and lower absorption of the EU funds. Upon considering the above-discussed uncertainty factors, the risk of inflation running below the central path may be assessed as slightly higher in the shorter horizon of the projection, while in the longer horizon the risk of inflation remaining above that path prevails. In turn, the risk factors for growth not included in the projection indicate the higher probability of economic slowdown in Poland persisting for a longer period than that assumed in the projection.

Table 4.2: The central path of the GDP and inflation projection.

	2008	2009	2010	2011
CPI (per cent y/y)	4.2	3.2	1.9	0.9
Food prices (per cent y/y	6.1	2.2	0.2	-1.3
Energy prices (per cent y/y)	8.4	3.4	2.4	2.1
Core inflation excl. food and energy prices (per cent y/y	2.3	3.6	2.4	1.5
GDP (per cent y/y)	4.9	1.1	2.2	3.7
Domestic demand (per cent y/y	4.9	0.3	1.0	3.3
Private consumption (per cent y/y)	4.8	3.9	2.5	3.1
Public consumption (per cent y/y	-0.3	0.7	1.7	2.9
Gross fixed capital formation (per cent y/y)	8.0	-2.5	-2.1	3.0
Contribution of net export (pkt. proc. r/r)	-0.2	0.7	1.2	0.3
Exports (per cent y/y)	7.1	3.8	8.5	12.6
Imports (per cent y/y	7.0	1.9	5.5	11.6
Average nominal gross wages(per cent y/y)	9.6	3.9	2.1	3.9
Number of working persons (per cent y/y)	1.0	-1.4	-0.7	-0.2
Unemployment rate ((per cent)	7.4	10.7	13.7	14.5
NAWRU (per cent)	11.9	12.1	13.1	14.1
Participation ratio (per cent)	54.0	55.1	56.2	56.4
Labour productivity (per cent y/y)	3.9	2.5	3.0	3.9
Unit labour cost (per cent y/y)	5.5	1.3	-0.9	0.0
Potential output (per cent y/y)	7.3	5.1	3.1	3.4
Output gap (percentage of potential output)	1.0	-2.4	-4.5	-4.3
Index of agricultural commodity prices (USD; 2006=1.00)	1.18	1.01	1.04	1.05
Index of energy commodity prices (USD; 2006=1.00)	1.96	1.16	1.28	1.37
Foreign price level (per cent y/y)	2.6	1.2	1.3	2.0
Foreign GDP (per cent y/y	0.9	-2.3	0.4	1.8
Current account and capital account balance (percentage of GDP)	-3.5	-3.5	-3.2	-2.2
WIBOR 3M (per cent)	6.32	4.78	4.45	4.45

Source: NBP.
Notes: Data on the number of working persons, labour productivity and unit labour costs are own estimates of the Economic Institute of the NBP based on BAEL data. The index of agricultural commodity prices is constructed on the basis of the IMF's forecasts of the prices of wheat, pork, beef, poultry, fish, sugar, olive oil, oranges and bananas with weights reflecting the consumption structure of Polish households. The index of energy commodity prices includes the prices of crude oil, coal and natural gas taking into account the consumption structure of these commodities in Poland.

Annex

The voting of the Monetary Policy Council members on motions and resolutions adopted in September–December 2008.

- **Date:** 24 September 2008

  Subject matter of motion or resolution:
  Resolution on adopting *Monetary Policy Guidelines for 2009*.

  Voting of the MPC members:

For:	S. Skrzypek J. Czekaj D. Filar S. Nieckarz M. Noga S. Owsiak A. Sławiński H. Wasilewska-Trenkner A. Wojtyna	**Against:**

  M. Pietrewicz was absent.

- **Date:** 24 September 2008

  Subject matter of motion or resolution:
  Motion to raise the NBP interest rates by 0.25 percentage points.

  MPC decision:
  The motion was not passed (due to tie vote, the Chairman's casting vote was decisive).

Voting of the MPC members:

For:	D. Filar	**Against:**	S. Skrzypek
	M. Noga		J. Czekaj
	A. Sławiński		S. Nieckarz
	H. Wasilewska-Trenkner		S. Owsiak
	A. Wojtyna		M. Pietrewicz

- **Date:** 13 October 2008

  Subject matter of motion or resolution:
  Resolution amending the resolution on *Monetary Policy Guidelines for 2008.*

  Voting of the MPC members:

For:	S. Skrzypek	**Against:**	
	J. Czekaj		
	D. Filar		
	S. Nieckarz		
	M. Noga		
	S. Owsiak		
	M. Pietrewicz		
	A. Sławiński		
	H. Wasilewska-Trenkner		
	A. Wojtyna		

- **Date:** 13 October 2008

  Subject matter of motion or resolution:
  Resolution on the principles for using currency swap transactions by the National Bank of Poland.

  Voting of the MPC members:

For:	S. Skrzypek	**Against:**	
	J. Czekaj		
	D. Filar		
	S. Nieckarz		
	M. Noga		
	S. Owsiak		
	M. Pietrewicz		
	A. Sławiński		
	H. Wasilewska-Trenkner		
	A. Wojtyna		

- **Date:** 26 November 2008

  Subject matter of motion or resolution:
  Motion to lower the NBP interest rates by 0.50 percentage points.

  MPC decision:
  Motion did not receive a majority vote.

  Voting of the MPC members:

For:	S. Skrzypek	**Against:**	J. Czekaj
	M. Pietrewicz		D. Filar
			S. Nieckarz
			M. Noga
			S. Owsiak
			A. Sławiński
			H. Wasilewska-Trenkner
			A. Wojtyna

- **Data:** 26 November 2008

  Subject matter of motion or resolution:
  Resolution on the level of the reference rate, lombard rate, deposit rate and rediscount rate of the National Bank of Poland.

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

  Voting of the MPC members:

For:	S. Skrzypek	**Against:**	D. Filar
	J. Czekaj		H. Wasilewska-Trenkner
	S. Nieckarz		
	M. Noga		
	S. Owsiak		
	M. Pietrewicz		
	A. Sławiński		
	A. Wojtyna		

- **Date:** 16 December 2008

  Subject matter of motion or resolution:
  Resolution on approving the *Financial Plan of the National Bank of Poland for 2009.*

Voting of the MPC members:

For:	S. Skrzypek	**Against:**	A.Wojtyna
	J. Czekaj		
	D. Filar		
	S. Nieckarz		
	M. Noga		
	S. Owsiak		
	M. Pietrewicz		
	A. Sławiński		
	H. Wasilewska-Trenkner		

- **Date:** 16 December 2008

  Subject matter of motion or resolution:
  Resolution on setting the ceiling for liabilities arising from loans and credits drawn by the NBP at foreign banking and financial institutions.

  Voting of the MPC members:

For:	S. Skrzypek	**Against:**	
	J. Czekaj		
	D. Filar		
	S. Nieckarz		
	M. Noga		
	S. Owsiak		
	M. Pietrewicz		
	A. Sławiński		
	H. Wasilewska-Trenkner		
	A. Wojtyna		

- **Date:** 16 December 2008

  Subject matter of motion or resolution:
  Resolution amending the resolution on accounting principles, the layout of balance-sheet assets and liabilities and profit and loss of the National Bank of Poland.

  Voting of the MPC members:

For:	S. Skrzypek	**Against:**	
	J. Czekaj		
	D. Filar		
	S. Nieckarz		
	M. Noga		
	S. Owsiak		
	M. Pietrewicz		
	A. Sławiński		
	H. Wasilewska-Trenkner		
	A. Wojtyna		

- **Date:** 16 December 2008

  Subject matter of motion or resolution:
  Resolution amending the resolution on *Monetary Policy Guidelines for 2009.*

  Voting of the MPC members:

For:		**Against:**
	S. Skrzypek	
	J. Czekaj	
	D. Filar	
	S. Nieckarz	
	M. Noga	
	S. Owsiak	
	M. Pietrewicz	
	A. Sławiński	
	H. Wasilewska-Trenkner	
	A. Wojtyna	

- **Date:** 23 December 2008

  Subject matter of motion or resolution:
  Resolution on the level of the reference rate, lombard rate, deposit rate and rediscount rate of the National Bank of Poland.

  MPC decision:
  The MPC lowered the interest rates by 0.75 percentage points (due to tie vote, the Chairman's casting vote was decisive).

  Voting of the MPC members:

For:		**Against:**	
	S. Skrzypek		D. Filar
	J. Czekaj		M. Noga
	S. Nieckarz		A. Sławiński
	S. Owsiak		H. Wasilewska-Trenkner
	M. Pietrewicz		A. Wojtyna

- **Date:** 23 December 2008

  Subject matter of motion or resolution:
  Motion to lower the NBP interest rates by 0.50 percentage points.

  MPC decision:
  The motion to lower the NBP interest rates by 0.75 percentage points was passed, therefore the motion to lower the NBP interest rates by 0.50 percentage points was not put to voting.

- **Date:** 23 December 2008

  Subject matter of motion or resolution:
  Resolution on principles of conducting open market operations.

Voting of the MPC members:

For:	S. Skrzypek	**Against:**
	J. Czekaj	
	D. Filar	
	S. Nieckarz	
	M. Noga	
	S. Owsiak	
	M. Pietrewicz	
	A. Sławiński	
	H. Wasilewska-Trenkner	
	A. Wojtyna	