

**National Bank of Poland**

**Monetary Policy Council**

**Report on monetary policy  
implementation in 2008**

**Warsaw, May 2009**

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The *Report on monetary policy implementation in 2008* is a translation of the National Bank of Poland's *Sprawozdanie z wykonania założeń polityki pieniężnej na rok 2008* in Polish. In case of discrepancies, the original prevails.

# 1. Monetary policy strategy in 2008

According to the Article 227 para. 1 of the Constitution of the Republic of Poland “the National Bank of Poland shall be responsible for the value of Polish currency.” The Act on the National Bank of Poland of 29 August 1997 states in Art. 3 that “the basic objective of NBP activity shall be to maintain price stability, and it shall at the same time act in support of Government economic policies, insofar as this does not constrain pursuit of the basic objective of the NBP”.

Contemporary central banks understand price stability as an inflation low enough as not to exert negative influence on investment, saving and other important decisions taken by economic agents. Ensuring thus understood price stability is a fundamental way in which the central bank contributes, by means of its decisions, to high and sustainable economic growth. Central banks view price stability symmetrically, which means that they respond both to inflationary and deflationary threats.

Since 1998 the Monetary Policy Council (MPC) has based its monetary policy on the direct inflation targeting (DIT) strategy. International experience shows that this strategy is an effective method of ensuring price stability. Having brought down inflation to a low level, in 2004 the MPC adopted a permanent inflation target of 2.5% with a symmetrical tolerance range for deviations of  $\pm 1$  percentage point. The MPC pursues this strategy under a floating exchange rate regime. Floating exchange rate regime does not rule out foreign exchange interventions should it turn out necessary for the inflation target implementation.

In *Monetary Policy Guidelines for the Year 2008*, the Council explained how it understood the permanent inflation target and the way of its implementation:

- First, the notion of *permanent* inflation target means that it refers to inflation measured as a year-on-year change in prices of consumer goods and services in each month compared to the corresponding period of the preceding year. For a better understanding of inflation processes it is also justified to use annual and quarterly inflation indices such as those used in the NBP’s inflation projection and in the central budget. An important role in the assessment of inflationary pressure is also played by core inflation indices.
- Second, the adopted solution means that the monetary policy is unequivocally focused on maintaining inflation as close as possible to the target of 2.5% and not only within the tolerance range. The adopted solution provides anchoring for inflation expectations, thus

facilitating the pursuit of monetary policy, which in case of shocks requires smaller and less frequent exchange rate changes.

- Third, the occurrence of shocks in the economy is inevitable. It is the scale and the duration of inflation deviation from the adopted target that may differ depending on the strength of the shock and the degree of inertia of inflation expectations. The central bank normally does not respond to those deviations from the inflation target which it deems temporary and which lie within the tolerance range around the target. In countries with a permanently low inflation rate, the central bank does not have to respond even when inflation leaves the tolerance band temporarily. In the case of shocks viewed as leading to a permanent deviation from the inflation target, the central bank adjusts its monetary policy accordingly.
- Fourth, monetary policy reaction to shocks depends also on their causes and nature. The reaction to demand shocks is a relatively minor issue, since in this case inflation and output move in the same direction. An interest rate increase weakens economic activity and, consequently, inflationary pressure. Supply shocks are a more difficult problem from the point of view of monetary policy, as in this case output and inflation move in opposite directions. Inappropriate monetary policy reaction may have far-reaching negative consequences for the economy. An attempt to fully neutralise the impact of a supply shock on inflation through monetary policy may lead to an unnecessary plunge in output, as the supply shock itself already has a negative effect on consumption and investment. On the other hand, an attempt to fully accommodate a supply shock resulting in a price increase and output decrease – by pursuing an expansive monetary policy – usually leads to persistently higher inflation, which, in turn, requires a far more restrictive monetary policy in subsequent periods, bringing about a stronger deceleration in economic growth. Reaction of the central bank should depend on the assessment of the shock's durability.
- Fifth, most of supply shocks are transitory and limited in scale. Thus, they do not require an immediate reaction. However, in the case of stronger shocks even temporary acceleration in price growth may bring about a relatively permanent rise in inflation expectations and, as a consequence, an increase in inflation due to the emergence of wage demands. In such a situation, monetary policy has to prevent secondary effects of the supply shock (the so-called second-round effects). The risk of such effects is substantial in countries with a short history of low inflation. Very useful in analysing supply shocks are core inflation indices, which help to distinguish, at least roughly, temporary effects from permanent changes in inflationary pressure.

- Sixth, because the reaction of output and inflation to the pursued monetary policy is delayed, its influence on current inflation is limited. Current decisions of the monetary authorities affect price developments in the future just as current inflation is influenced by interest rate changes made several quarters ago. However, the length of these lags is not constant and to a large extent depends on structural and institutional changes ongoing in the economy. Changes in the transmission mechanism of monetary impulses result in a situation in which central banks can only approximately determine the time lag between an interest rate decision and its strongest observed impact on real variables (output, employment), and then on inflation.
- Seventh, monetary policy affects the economy not only through changing interest rates but also through keeping them unchanged for a period of time. The decision to keep interest rates unchanged for several periods (months or quarters) also has substantial consequences for the economy because it leads to a gradual widening or narrowing of the output gap.
- Eighth, monetary policy is pursued under uncertainty. Large uncertainty is due, among others, to the fact that inflation projection models utilised by central banks may start to less adequately describe economic processes owing to the ongoing structural changes in the economy. This means that (a) while making decisions it is necessary to take into account all available data, rather than just the inflation projection; (b) it is not possible to adopt a simple policy rule which could be known *ex ante* to market participants; and (c) forward-looking monetary policy has to be presented to the public as an attempt to achieve the inflation target under large uncertainty, rather than an exercise of strict control over economic processes.
- Ninth, in pursuance of monetary policy, while assessing the inflation outlook, especially when inflation is low, central banks allow for the prices of assets because of the need of ensuring financial stability. In the conditions of liberalised financial markets and amid favourable developments on the supply side of the economy supporting low inflation, it is becoming ever more essential for monetary authorities to allow for the financial stability in their decisions. If in response to low inflation central banks reduce interest rates too much, this may lead to rapid asset price growth. This growth is accompanied with the risk of the so-called unstable boom, where higher inflation surfaces with a considerable time lag. Such rapid growth in asset prices is also accompanied with the rising risk of their violent and considerable slump, which poses a threat to the stability of the financial system and the real economy. Financial system stability ensures effective operation of the transmission mechanism, which is crucial for appropriate monetary policy implementation. In assessing

the risk of the emergence of disruptions in the asset market and the inflation outlook, it may be useful in the longer run to account for the paths of monetary aggregates.

- Tenth, in assessing monetary conditions, not only the level of real interest rates should be considered but also the level of the real exchange rate. Thus understood restrictiveness of monetary policy impacts, in tandem with the implemented fiscal policy, the total restrictiveness of macroeconomic policy. An overly expansive fiscal policy is the most common reason that necessitates keeping the interest rates at a higher level.
- Eleventh, an important input into monetary policy decision-making process is the balance of factors affecting the probabilities of future inflation running above or below target. This balance is based on the inflation projection, the assessment of the actual economic developments, which may deviate from the scenario presented in the projection, as well as the course of variables and information not accounted for directly in the projection. While assessing the factors affecting future inflation, central banks take into consideration the length of the period in which inflation remained close to the target, because such course of inflation favours the anchoring of inflation expectations.

Moreover, in the *Monetary Policy Guidelines* the Council upheld its conviction that it would be most beneficial for Poland to pursue an economic strategy aimed at creating conditions for the accession to the euro area at the earliest possible date, with proper consideration of the balance of the resulting costs and benefits.

## **2. Monetary policy in 2008**

While assessing monetary policy *ex post*, it is necessary to take into account – apart from economic developments in the assessed period – the delays in the transmission of monetary policy impulses and the uncertainty accompanying the decision making. As emphasised in Section 1 of the current *Report*, the decisions of monetary authorities affect the economy with a considerable delay with the strongest impact observed after a few quarters. In particular, this means that inflationary processes in 2008 were to a large extent affected by the monetary policy pursued in 2006-2007, while the monetary policy pursued in 2008 will have the strongest impact on the inflationary processes in 2009-2010.

Moreover, shocks in the economy are inevitable. Shocks, though they largely remain beyond control of the national monetary policy, especially when they are connected with factors resulting from the economy's external environment, may to a large extent determine internal economic situation and inflationary processes in the short- and sometimes also in the mid-term.

The above mentioned factors are highly significant for the assessment of the monetary policy pursued in 2008, which saw strong shocks in the global economy. Those shocks were to a large extent determining the economic situation and inflationary processes, and thus also the monetary policy in Poland. In consequence, the situation in the global and Polish economies in the second half of 2008 was significantly different than the conditions observed in the first half of 2008.

### **Situation in external environment of Polish economy**

In 2008 the most significant external shock was the global economic crisis observed since September 2008. One of the main sources of this crisis was the bursting of the price bubble in the US real property market in 2007 and the resulting crisis in the subprime mortgage market in the United States. This bursting of the real property price bubble in the United States led – through the so-called wealth effect coincided with limited possibility of mortgage refinancing – to reducing consumption and thus also the GDP growth in this country and a considerable deterioration in the value of financial sector assets. The reduced activity in the US economy was conducive to worsening the economic climate in Europe. Additionally, the activity drop in many European countries in 2008 was connected with a slump in the real property markets in those countries. Some countries (especially Ireland, Spain and the United Kingdom) – similarly as the United States – saw the end of the boom observed in previous years in the real property market, which had been fuelled by earlier surge in lending. In turn, the boom was conducive to increasing the contribution of the construction sector's output in GDP. As a result, the meltdown

in the real property market had a significant impact on the deterioration of the economic climate in those countries.

At the beginning of 2008 it was assessed that disruptions connected with the subprime loan market in the United States would mainly affect the developed economies, whose financial institutions were directly involved in the market of mortgage instruments. The impact of those disruptions on the emerging economies at first seemed limited to just capital markets: the turn of 2007 and 2008 was marked with steep declines in the world securities markets. In this period it was sometimes assessed that the activity in the developing economies could remain relatively high even in the face of a considerable slowdown in the rate of growth of the developed economies (the so-called decoupling hypothesis). Such assessments encouraged an increased inflow of capital to the developing economies and a significant appreciation of their currencies, including the Polish zloty. With the passage of time, however, the disruptions in the financial markets aggravated exerting a growing impact on business activity not only in the countries directly affected by the subprime crisis but also in the emerging economies.

In the first half of 2008 most countries of the world saw a significant rise in inflation, mainly resulting from a price surge in the global agricultural and energy commodity markets observed in 2007 and the first half of 2008.

The second half of 2008 was marked with a marked worsening of the outlook for the world economy, which was accompanied by dropping commodity prices and easing global inflationary pressure. At the same time, the previously visible appreciation trend of many currencies, including those of CEE countries, was inverted.

In September the crisis in the US financial sector aggravated in connection to the bankruptcy declared by Lehman Brothers investment bank. Financial problems of banks in the United States and Western Europe coupled with intensified liquidity disruptions led to plunges of equity prices, a significant outflow of capital from emerging markets and depreciation of their currencies. The capital outflow from the emerging economies also triggered investors' fears over the ability of some of the affected economies to finance their foreign debts, which additionally deepened the depreciation of their currencies.

In 2008 Q4 the global financial crisis contributed to the plunge in the world economy giving rise to the deepest recession in the global economy since World War II. Amid concurrent decline in inflation and inflation expectations, the situation prompted the central banks of the developed countries and also of some developing economies to effect significant interest rate cuts. At the same time governments of many countries implemented large-scale measures in the area of fiscal

policy aimed at stimulating demand and thus reviving the economic activity, and recapitalising the banking sector.

The shocks observed in the world economy in 2008 constituted a considerable challenge to the monetary authorities in most countries.

In the first half of the year the developed economies were faced with a risk of stagflation, i.e. the situation when a decline in economic growth would be accompanied by a relatively high inflation, while in the developing economies appeared the risk of persistently heightened inflation due to the so-called second round effects amid relatively high economic growth. In the second half of the year inflationary pressure eased markedly and the main problems central banks were facing were the crisis in the financial markets, the ensuing threat to the stability of the financial system and a deep slump in the activity in the world economy. Moreover, central banks were confronted with disruptions in the monetary policy transmission mechanism: market interest rates were largely affected by liquidity disturbances in the money markets, resulting from the crisis of trust among market participants and from a considerable deterioration of the markets' balances due to price drops and problems with asset valuation. In many countries the decrease of asset prices and heightened risk aversion led to a significant reduction of lending. Thus, apart from interest rate cuts, the major central banks resorted to instruments directly injecting the financial system with liquidity, including foreign currency liquidity, among others by foreign exchange swap contracts. Additionally, many banks enlarged the scope of collaterals acceptable in open market operations and the list of institutions authorised to participate in such operations. Moreover, in December 2008 the US Federal Reserve, alongside cutting its key interest rate to almost zero (0.00-0.25%), introduced a credit easing strategy, which consisted in direct purchase of debt securities in order to improve the functioning of the credit markets in general and the market of mortgage loans in particular. In order to strengthen the confidence in the financial system, governments of many countries, including Poland, decided to increase the limits for deposits of non-financial sector guaranteed by the government in case of bankruptcy of a given financial institution.

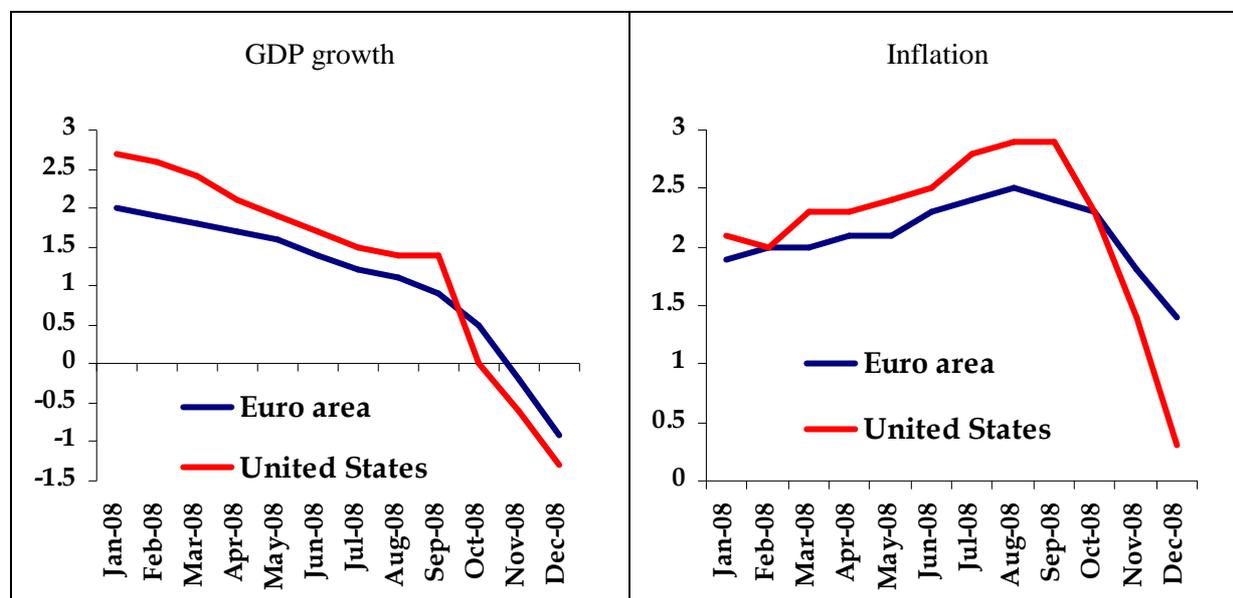
The decision-making dilemmas of monetary authorities in the developing economies, including Poland, were made even harder by changes in foreign capital flows and the ensuing significant fluctuations of the exchange rate.

Moreover, due to the concurrent shocks, the uncertainty about the outlook for the world economy was markedly greater than in the previous years. This was reflected, among others, in more frequent than usual significant revisions of macroeconomic forecasts (cf. Figure 1), which

meant both downwards corrections of the expected rate of economic growth and considerable changes in the outlook for future inflation.

**Figure 1**

**Forecasts of GDP growth and inflation in euro area and United States for 2009 as formulated in subsequent months of 2008**



Source: Foreign Exchange Consensus Forecasts.

### Situation in Polish economy

The changes occurring in the world economy in the course of 2008 had an impact on the situation in the banking sector and the real economy in most countries, including Poland.

In the first half of 2008 Polish economy was in a phase of intensive growth encompassing all its major sectors. Similarly as in the preceding year, the dominant contribution to GDP growth was made by dynamic increase in consumption and investment (cf. *Appendix 1. GDP and final demand*). Fast economic growth was conducive to increased demand for labour, which resulted in a rise in employment and decline in unemployment to the lowest level in the whole history of the BAEL (LFS), i.e. since 1992. The percentage of enterprises reporting problems in finding employees also remained high. The tensions in the labour market were reflected in a high growth rate of wages, which outpaced the growth rate of labour productivity, leading to a significant upsurge in Unit Labour Costs. At the same time, the deteriorating indicators of economic climate coupled with steady decline of some measures of activity in the Polish economy pointed to a gradual deceleration of GDP growth rate. Because Polish banks had not been directly involved in complex financial instruments, including structured financial instruments secured by subprime mortgage loans, until the disruptions in the global financial markets soared in August 2008 the

Polish banking system remained relatively immune to the results of those disturbances. At the same time, the increased inflow of capital to emerging markets contributed to strong appreciation of the zloty.

In the second half of 2008 the deepening world financial crisis exerted a strong and increasing impact on the Polish economy: the growing risk aversion and the ensuing capital outflow from the emerging markets resulted, following a period of strong appreciation – in a significant depreciation of zloty exchange rate. In September 2008 the collapse of Lehman Brothers bank contributed to a considerable decline in trust among counterparties in the world markets and the reduction of limits for interbank transactions. As the majority of banks operating in Poland constitute part of foreign bank groups, the disruptions in the international markets lowered the level of mutual trust among the banks. The liquidity of the domestic interbank market significantly diminished and the transactions were performed mainly for periods shorter than one week. Some banks were attracting deposits but only at interest rates significantly higher than WIBOR. WIBOR rates in this period reflected, apart from expected short term interest rates, the counterparty risk premium, which was visible in rising spread between WIBOR rates and the quotations of overnight index swaps.

After the collapse of Lehman Brothers bank there was also a radical reduction in the possibility to finance Polish banks in the international financial markets. Problems with acquiring funds in the interbank market forced banks to increase funding from dominant foreign entities or to intensify competition for non-financial sector deposits, which resulted in a significant rise in the offered interest, often above the rates in the international market.

Under the uncertainty surrounding the outlook for future economic situation and the financial standing of borrowers, both enterprises and households, the risk of lending to the non-financial sector increased significantly. This factor, in combination with the shrinking capital buffers, persuaded banks to considerably reduce lending, which had been very dynamic in previous two years. Moreover, decreased availability and a high cost of funding were forcing banks to raise their loan margins in order to keep profitability.

A marked rise in uncertainty concerning the outlook for the global and Polish economies and, consequently, a deterioration in the expectations of Polish enterprises about the future demand for their products, also resulted in slowing down their investment activity. 2008 Q4 brought a sudden deterioration in global economic climate and the ensuing downturn of the global trade exchange. These changes had a particularly strong effect on the activity in economies with a significant exports sector, including the euro area economy (especially Germany), which in the

second half of 2008 experienced recession. The recession in the euro area, which is the most important trade partner of Poland, translated into a drop in exports and industrial output in Poland, contributing to a strong slowdown of GDP growth. At the same time, there was a change in the situation in the Polish labour market; employment began to fall and unemployment started to rise amid a decline in wage growth rate.

### **Inflationary processes in Poland**

In 2008 the inflationary processes in Poland were to a large extent determined by food price movements and also by the shifts in energy prices and other administered prices, in particular prices of services related to maintenance of dwelling, i.e. by factors remaining largely beyond direct impact of the domestic monetary policy.

As a result of strong price shocks in the agricultural commodity markets in the second half of 2007 and the first half of 2008, the annual growth rate of food and non-alcoholic beverage prices in the first months of 2008 remained high and was contributing to upholding the heightened level of the annual growth rate of the prices of consumer goods and services.<sup>1</sup> Similar effect was exerted by the upsurge in oil prices in the world markets observed until July 2008, which contributed to fuel price growth in the domestic market; the impact was slightly attenuated by the swift appreciation of the zloty exchange rate observed in the same period. With the unwinding of price shock effects in the agricultural commodity market (i.e. with the occurrence of the negative base effect), starting from August 2008 the annual growth rate of food prices began to slide, thus contributing to lowering the CPI inflation. The decline of oil prices in the global markets visible in the same period had a similar effect, which contributed to lowering the prices of fuels in Poland, though the impact was weakened by concurrent depreciation of the zloty against the euro and the US dollar.

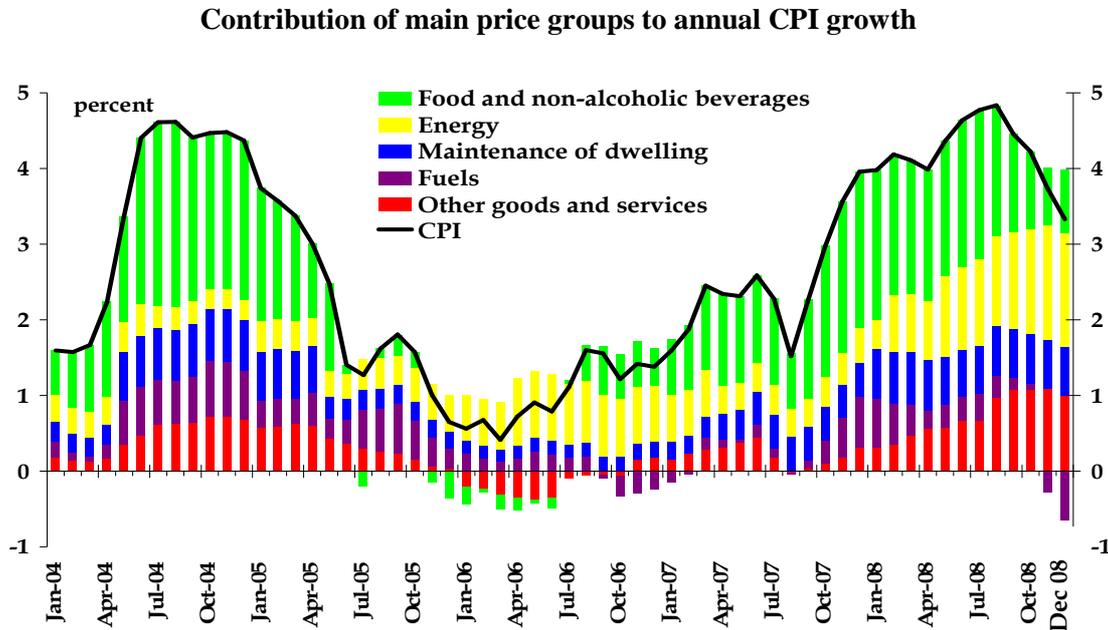
Throughout 2008 the CPI inflation was being pushed up significantly by considerable rises of administered prices dependent on decisions of governmental agencies and local government authorities. The decisions were taken in different months of the year and primarily concerned the prices of energy carriers subject to the regulatory policy of the Energy Regulatory Office, in particular the prices of energy and natural gas, and the prices of services related to maintenance of dwelling, including the fees for waste removal, sewage and water supply utility services, and the costs of management and administration of housing (cf. Figure 2). In 2008 the prices of energy carriers raised the annual CPI inflation by the average of 1.1 percentage points (compared

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<sup>1</sup> Detailed information about the paths of particular components of the inflation index can be found in *Appendix 2. Prices of consumer goods and services* of the present Report.

to 0.5 percentage points, on average, in 2004-2007), while the prices of services related to maintenance of dwelling raised inflation by 0.7 percentage points (compared to 0.4 percentage points, on average, in 2004-2007).

**Figure 2**



Source: GUS data, NBP calculations.

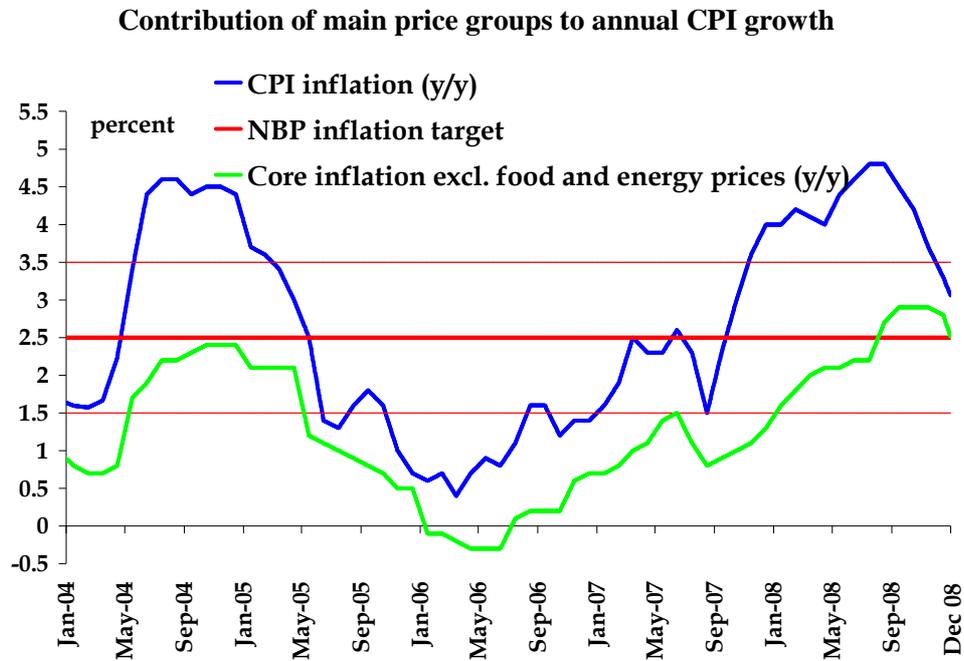
The steady growth of prices of services – both non-market services (mainly connected with maintenance of dwelling) and some market services, supported by rising demand pressure – was the main reason of the gradual increase in the inflation net of food and energy prices<sup>2</sup> observed almost in the whole of 2008. Between January and November the measure increased from 1.6% to 2.9% and then edged down to 2.8% in December.

Due to the impact of the above mentioned factors, the annual growth of prices of consumer goods and services remained above the inflation target of 2.5% in all months of the year, and starting from November 2008 also above the upper limit for deviations from the target (3.5%); the average annual growth of prices of consumer goods and services amounted to 4.2%. Until August the CPI inflation displayed a rising trend, rising from 4.0% in January to 4.8% in July and August and then began to fall back to 3.7% in November and 3.3% in December 2008 (cf. Figure 3). It should be emphasised that the inflation path over the inflation target throughout 2008 was primarily the result of external factors, which can also be confirmed by the heightened

<sup>2</sup>In June 2008 the NBP introduced a new measure of core inflation, i.e. core inflation net of food and energy prices. The measure strips the CPI of the prices of food and non-alcoholic beverages and also those of fuel and energy carriers (electricity, natural gas, heating etc.).

inflation in the majority of both the developed and developing countries (Table 1). In most countries implementing the strategy of direct inflation targeting and in the euro area inflation remained markedly above the inflation target (or the quantitative definition of price stability for the euro area).

**Figure 3**



Source: GUS data, NBP data.

**Table 1**

Inflation in 2008 vs. inflation targets in selected countries pursuing DIT strategy and in euro area

Country	Inflation target*	Inflation in 2008	Deviation from (centre of) target in percentage points
Australia	2% – 3%	4.4%	+1.9 pp
Brazil	4.5% +/-2 pp	5.9%	+1.4 pp
Czech Republic	3% +/-1 pp	6.4%	+3.4 pp
Chile	3% +/-1 pp	8.7%	+5.7 pp
Canada	2% +/-1 pp	2.4%	+0.4 pp
South Korea	3% +/-0.5 pp	4.7%	+1.7 pp
Mexico	3% +/-1 pp	5.1%	+2.1 pp
Norway	2.5%	3.8%	+1.3 pp
New Zealand	1% – 3%	4.0%	+2.0 pp
Poland	2.5% +/-1 pp	4.2%	+1.7 pp
Slovakia	below 2%	3.9%	+1.9 pp
Euro area	below but close to 2%	3.3%	+1.3 pp
Sweden	2% +/-1 pp	3.4%	+1.4 pp
Hungary	3% +/-1 pp	6.1%	+3.1 pp
United Kingdom	2% +/-1 pp	3.6%	+1.6 pp

\* Inflation target expressed in CPI, except for euro area and Slovakia, where it is expressed in HICP.

Source: Data of central statistical offices and central banks of the listed countries.

## **Monetary policy in Poland**

In the first half of 2008 the Monetary Policy Council was striving to lower inflation to the inflation target in the monetary policy transmission horizon by continuing the cycle of NBP interest rate increases which had been started back in April 2007. In 2008 the interest rates were raised on four occasions: at MPC meetings in January, February, March and June 2008, each time by 0.25 percentage points. From July to October the rates were kept unchanged. In the face of falling inflation, marked deterioration in outlook for economic growth and the ensuing significant easing of inflationary pressure in the medium term, in November and December 2008 the Council cut interest rates by 0.25 and 0.75 percentage points, respectively. As a result, in the first half of 2008 the reference rate of the NBP rose by the total of 1 percentage point and then was cut back by the total of 1 percentage point in the second half of 2008. Consequently, at the end of December 2008 it stood at 5% (Figure 4).

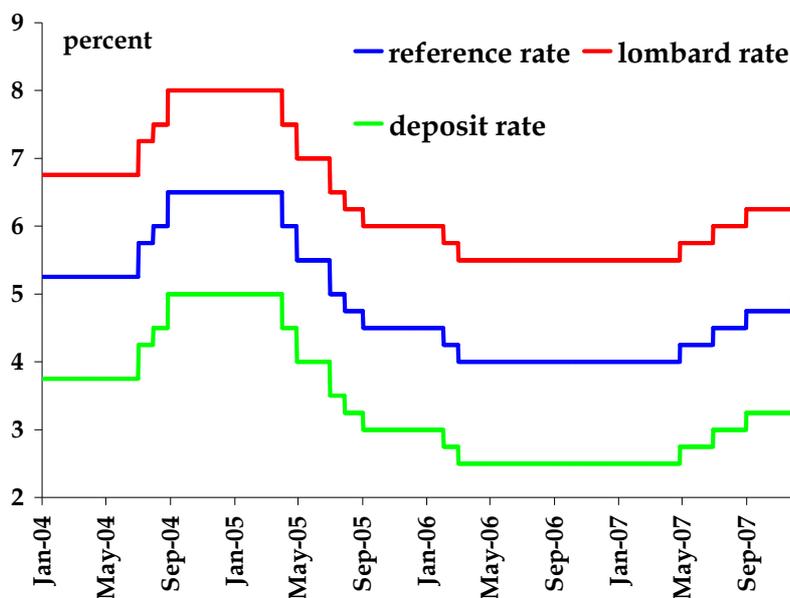
On each occasion when taking decisions on NBP interest rates, the Council considered the mid-term inflation outlook, assessing it in the context of past, current and especially the anticipated economic situation. The decisions of the Council was affected by the changing assessment of factors influencing the probabilities of future inflation running above or below the target. The assessment took into account the results of subsequent projections and other forecasting activities and also the path of variables and information not directly accounted for in the projections.

Similarly as in many other economies in the region, at the beginning of 2008 inflation in Poland remained at a heightened level, among others, as a result of the price shocks in the agricultural and energy commodity markets in the previous year. Moreover, January brought significant increases of regulated prices, primarily the prices of services related to maintenance of dwelling followed by energy price rises in February, which accelerated the CPI growth. The data on national accounts released in the first months of 2008 and other macroeconomic data indicated that Polish economy still remained in the period of dynamic growth. The information on labour market developments pointed to a continuing strong wage growth and unfavourable relation between wage and labour productivity growth. The Council assessed that due to, among others, renewed demands for wage increases in the public finance sector, the wage pressure in the economy was likely to persist in the coming period. The Council expected that inflation in the following months would remain above the upper limit for deviations from the NBP's inflation target with further increases of, among others, regulated prices contributing to this scenario. This assessment was also supported by the projections of inflation and GDP prepared in February

2008, which saw the central path of CPI inflation – assuming unchanged NBP key interest rates – remaining above the inflation target throughout the projection horizon, i.e. till the end of 2010. At the same time the projection suggested a positive output gap throughout the projection horizon (with unchanged interest rates), strong wage increases and unfavourable relationship between wage and labour productivity growth. Despite the fact that the anticipated continuation of the heightened inflation was expected to be primarily the outcome of factors remaining beyond the direct influence of central bank, the MPC was convinced that monetary policy should allow for the possibility of this situation contributing to a deterioration of inflation expectations. In the conditions of low unemployment rate accompanied by tensions in the labour market, this could increase the probability of emergence of the so-called second round effects.

**Figure 4**

**NBP key interest rates in 2004-2008**



Source: NBP data.

In the Council's opinion, the factors that contributed to limiting inflation in the medium term in the first months of 2008 included, in particular, the high growth of investment, which was supporting productivity growth, the continuing good financial standing of enterprises, rising competition in the market of internationally tradable goods and services, appreciation of the zloty exchange rate and the expected deceleration of growth in the global economy. Nevertheless, at the meetings in January, February and March 2008 the Council assessed that the effect of these factors may prove insufficient to keep inflation at the target level in the monetary

policy transmission horizon and thus decided to increase the key NBP interest rates by 0.25 percentage points on each occasion.

At the meetings in April and May 2008 the Council still assessed that the probability of inflation running above the target in the medium term was still higher than the probability of inflation falling below the target. However, after three consecutive interest rate increases (the total of six increases counting from the beginning of the monetary policy tightening cycle started in April 2007) the Council decided to keep rates unchanged both in April and May. The decisions were supported by the following factors: a high uncertainty about the outlook for growth in the global and, consequently, Polish economies, weaker than expected data on industrial output and retail sales and deteriorating results of economic climate surveys, which suggested that the rate of economic growth in Poland would slow down more strongly than previously anticipated, which would be easing the inflationary pressure. The Council also assessed that inflation in the medium term would be lowered by the previously effected interest rate increases and by the appreciation of the zloty observed in the previous period, which was strengthening monetary policy restrictiveness.

At the meeting in June 2008 the Council got acquainted with the new projection of inflation and GDP, which suggested that inflation till 2009 in Poland would be higher than anticipated in the February projection. The data published in June pointed to a rise in the current inflation and a deepening of the unfavourable relation between the growth of wages and labour productivity. Although the rise in both current and forecast inflation was to a large extent the result of the growth of regulated prices and food and fuel prices, in the Council's assessment under the conditions of high wage increases this could raise the risk of the so-called second round effects. At the same time there was an increase in both current and forecast inflation abroad. Those factors persuaded the Council to raise NBP interest rates by 0.25 percentage points at its June meeting.

Data released in July, August and September 2008 confirmed earlier signals that the activity in domestic economy was decreasing and the assessments of the future rate of economic growth were steadily worsening. The Council assessed that the drop in GDP growth below the growth of potential product would favour the easing of inflationary pressure in the medium term. On the other hand, the continuing increase of unit labour costs was expected to have the opposite effect. At the same time, the uncertainty surrounding the expected scale of growth deceleration in the world economy and in Poland remained high due to disturbances in the international financial markets which resulted in capital outflows from emerging markets and depreciation of many

currencies, including – from August 2008 – the zloty. In view of this uncertainty and previous monetary policy tightening, the Council decided to keep interest rates unchanged at its meetings in July, August and September.

In October the turmoil in the international financial markets aggravated strongly in parallel with intensification of fears of recession in the developed economies with concurrent easing of inflationary pressure and inflation expectations. This convinced major central banks to carry out a coordinated interest rate cut. Changes in the external environment were also exerting a growing impact on the Polish economy contributing to deterioration in the assessment of future economic situation by households and enterprises. At the meeting in October the Council assessed that the slowdown in the domestic economic would be stronger than previously anticipated, which would be easing the inflationary pressure in the medium term. Additionally, the rise of market interest rates triggered by increased risk aversion led to a higher cost of credit and the liquidity disruptions in the money markets provoked encouraged banks to tighten their lending conditions. In this situation, in the October meeting the Council assessed the probability of inflation running above the target in the medium term to be similar to the probability of inflation running below the target and so it kept NBP interest rates unchanged. At the same time, as the access to financing currency positions by commercial banks was limited due to the turmoil in the international financial markets, in October the Council introduced an additional monetary policy instrument, namely the currency swap.

November and December were marked by increasingly adverse impact of the financial crisis on the global economic activity, which contributed to the continuing decline in prices of many commodities and food in international markets and, consequently, to a significant decrease of inflation around the world. In this situation a number of central banks considerably eased their monetary policy in this period. The annual inflation in Poland was also falling, though till November it remained above the upper limit for deviations from the inflation target, which was to a large extent the result of the rises of regulated prices introduced in 2008. At the meetings in November and December the Council assessed that the expected significant slowdown of domestic economic growth would be conducive to inflation fall. Moreover, the Council expected the drop in the demand for labour, triggered by slowing GDP growth rate, to ease the wage pressure in the medium term; this was also suggested by the data released in the period on employment, unemployment and wages pointing to a gradual easing of tensions in the labour market. The Council perceived further increase of regulated prices and the exchange rate depreciation of the zloty observed over the preceding months as factors delaying inflation decline. Considering the above factors, at the meetings in November and December the Council

assessed the probability of inflation running below the inflation target in the medium term as higher than the probability of inflation running above the target and thus decided to cut NBP interest rates by 0.25 percentage points and 0.75 percentage points, respectively, i.e. by the total of 1 percentage point.

In September 2008 the Prime Minister of the Republic of Poland and the Monetary Policy Council issued a common declaration stating that Poland should meet the Maastricht convergence criteria in 2011 and receive positive recommendation for euro area accession. In the press releases called *Information from the meeting of the Monetary Policy Council* issued in the last months of 2008 the Council upheld its position that Poland should join ERM II and the euro area at the earliest possible date, after achieving the necessary political support for introducing amendments to the Constitution of the Republic of Poland and other legal acts necessary to adopt the euro in Poland. The macroeconomic conditions and the uncertainty about the outlook for euro adoption in Poland, connected, among others, with the lack of political consensus in this respect, were allowed for by the Council in its monetary policy pursued in the last months of 2008.

As in the previous years, communication with the environment was an important component in the pursuit of monetary policy under the direct inflation targeting strategy. For this reason, the Council presented its assessments of the current economic situation and future economic developments. The most important instruments of communication in 2008 included the following cyclical publications: *Inflation Reports*, *Information from the meeting of the Monetary Policy Council* (with accompanying press conferences organised after Council meetings), *Minutes of the Monetary Policy Council decision-making meeting*<sup>3</sup> (Appendix 6) as well as the *Report on Monetary Policy Implementation in 2007 and Monetary Policy Guidelines for the Year 2008*.

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<sup>3</sup> *Minutes of the Monetary Policy Council decision-making meeting* (Appendix 6) present a more detailed discussion of the problems and arguments which had significant impact on the decisions taken by the Council in 2008.

### 3. Monetary policy instruments<sup>4</sup>

In 2008, the National Bank of Poland pursued its monetary policy influencing the inflation level through interest rate channel. The Monetary Policy Council set the NBP's official interest rates which determined the yield on monetary policy instruments. To shape short-term interest rates, the NBP used the following instruments: open market operations, lending and deposit operations (standing facilities) and reserve requirements. By influencing the level of short-term interest rates, the Monetary Policy Council strived to achieve such a level of interest rates in the economy that would be consistent with the adopted inflation target.

In the first three quarters of 2008 the situation in the world financial markets had limited impact on the functioning of the domestic financial markets. Consequently, the National Bank of Poland implemented its monetary policy using a set of instruments that was similar to that used in the previous year. The announcement of Lehman Brothers bankruptcy in September 2008 triggered a sudden slump in the interbank money market. The turmoil in the international markets fed through to the domestic market leading to, among others, a significant reduction of interbank market liquidity. The aggravating crisis of confidence led to the lowering of mutual credit limits between banks and to the changes in their way of liquidity management. There was a significant decrease of the turnover in the unsecured interbank deposits market and the shortening of transactions maturities.

Taking into consideration the tensions building up in the domestic financial markets and banks' problems with obtaining financing in both domestic and foreign currencies, in October 2008 the NBP undertook additional measures under the so-called "Confidence Pact". The measures focused on three main objectives:

1. to enable banks to obtain financing in the zloty for periods longer than one day,
2. to enable banks to obtain foreign currency financing, and
3. to increase the possibilities of banks to obtain funds in the zloty by extending the list of securities acceptable in transactions with the NBP.

The NBP began to inject domestic liquidity into the banking sector through repo transactions with maturities of up to 3 months, while retaining the issuance of the NBP bills with 7-day maturity as the principal instrument of liquidity surplus absorption. At the same time, the scope

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<sup>4</sup> Throughout Chapter 3 wherever average annual values (including POLONIA rate) and the scale of yearly use of a given instrument are provided, the figures account for the reserve maintenance periods in 2008, i.e. the aggregate values in the period from 31 December 2007 to 30 December 2008.

of assets acceptable as collateral for NBP refinancing operations was extended and banks were enabled to obtain foreign currency liquidity by means of foreign exchange swaps.

### **3.1. Liquidity surplus in banking sector**

The level of short-term liquidity of the banking sector in 2008, calculated as the balance of open market operations (basic and fine-tuning), foreign exchange swaps and standing facilities, amounted to PLN 10,964 million, on average. In comparison to 2007 the level dropped by PLN 8,850 million, i.e. by 45%.

The banking sector liquidity was affected by changes in autonomous factors independent from the NBP.

The largest contribution to lowering the liquidity level of the banking sector was made by the growth in the volume of notes and coin in circulation by PLN 16,272 million comparing December 2008 to December 2007. The annual growth rate of cash was 19.01%, which was connected, among others, with cash withdrawals from banks in October 2008 (the total of over PLN 8 million during six days).

Additionally, the increasing level of deposits with commercial banks in 2008 caused the increase of the requirement reserves level by 20,5%, what was the reason of the banking sector liquidity drop by PLN 3,972 million.

The main factor conducive to the increase in the scale of liquidity was the purchase of foreign currencies by the NBP (which exceed sales), which was responsible for its growth by the average of PLN 6,363 million.

Another important factor contributing to rising liquidity surplus was a decline in the public sector deposits with the NBP. It was responsible for the increasing liquidity by PLN 4,956 million.

Less important factor of the banking sector liquidity growth were the NBP payments including: discount on the NBP bills, interest accrued on the reserve requirement and the NBP bonds.

Starting from mid-September 2008, due to the crisis in the financial markets, commercial banks started to show more caution in investing their funds into open market operations. The fall in the demand for the NBP bills in relation to the existing liquidity conditions led to a significant surplus in the financial assets held by banks on current accounts in relation to the required

reserve and to the high overnight deposit placed with the NBP. The overall average level of the overnight deposit placed with the NBP in 2008 was PLN 1,421 million. However, in the period until August 2008 it was PLN 417 million, while from September to the end of the year it averaged PLN 3,455 million (the maximum level of approx. PLN 17 million).

## **3.2. Monetary policy tools**

### **Interest rate**

In 2008 the fundamental monetary policy instrument was the short-term interest rate. The Monetary Policy Council set the NBP's official interest rates which determined the interest rates of monetary policy instruments.

The main interest rate of the NBP was the reference rate. Changes in the NBP's reference rate defined the direction of the pursued monetary policy. This rate determined the yield obtainable on main open market operations, influencing, at the same time, the level of short-term deposit rates in the market of unsecured interbank deposits market.

The deposit rate and the lombard rate of the NBP determined the fluctuation band of overnight interest rates in the interbank market. The rediscount rate indirectly determined the interest on required reserve funds.

In 2008 the Monetary Policy Council changed key NBP rates on six occasions. In the first half of the year NBP interest rates were hiked on four occasions and then cut twice in the final quarter of 2008. As a result the reference, lombard, deposit and rediscount rates at the end of 2008 landed at the same level as at the end of the previous year. The tolerance band for deviations of short-term market rates remained unchanged at +/-1.5 percentage points around the reference rate.

Since 2008 the NBP has affected the liquidity conditions in the banking sector in such a way as to place the POLONIA rate around the NBP reference rate. In the preceding year the aim had been to influence the rate of WIBOR SW. This change was prompted by the tendencies in the term structure of the money market. Over the recent years there has been a rise, among others, in the share of overnight deposits in the total turnover of the unsecured interbank deposits market. They account for the major part of all transactions.

In the first three quarters of 2008 the POLONIA rate was following the shifts in the reference rate of the NBP. Some larger temporary deviations of the POLONIA rate from the NBP reference rate occurred only in the last days of the required reserve maintenance periods.

**Table 2**

Decisions of Monetary Policy Council regarding changes in official interest rates in 2008.

Decision date*	Decision:
30 January 2008	- Raising the reference rate from 5.00% to 5.25% - Raising the lombard rate from 6.50% to 6.75% - Raising the rediscount rate from 5.25% to 5.50% - Raising the deposit rate from 3.50% to 3.75%
27 February 2008	- Raising the reference rate from 5.25% to 5.50% - Raising the lombard rate from 6.75% to 7.00% - Raising the rediscount rate from 5.50% to 5.75% - Raising the deposit rate from 3.75% to 4.00%
26 March 2008	- Raising the reference rate from 5.50% to 5.75% - Raising the lombard rate from 7.00% to 7.25% - Raising the rediscount rate from 5.75% to 6.00% - Raising the deposit rate from 4.00% to 4.25%
25 June 2008	- Raising the reference rate from 5.75% to 6.00% - Raising the lombard rate from 7.25% to 7.50% - Raising the rediscount rate from 6.00% to 6.25% - Raising the deposit rate from 4.25% to 4.50%
26 November 2008	- Cutting the reference rate from 6.00% to 5.75% - Cutting the lombard rate from 7.50% to 7.25% - Cutting the rediscount rate from 6.25% to 6.00% - Cutting the deposit rate from 4.50% to 4.25%
23 December 2008	- Cutting the reference rate from 5.75% to 5.00% - Cutting the lombard rate from 7.25% to 6.50% - Cutting the rediscount rate from 6.00% to 5.25% - Cutting the deposit rate from 4.25% to 3.50%.

Source: NBP data.

\*Decisions came into force on the following business day.

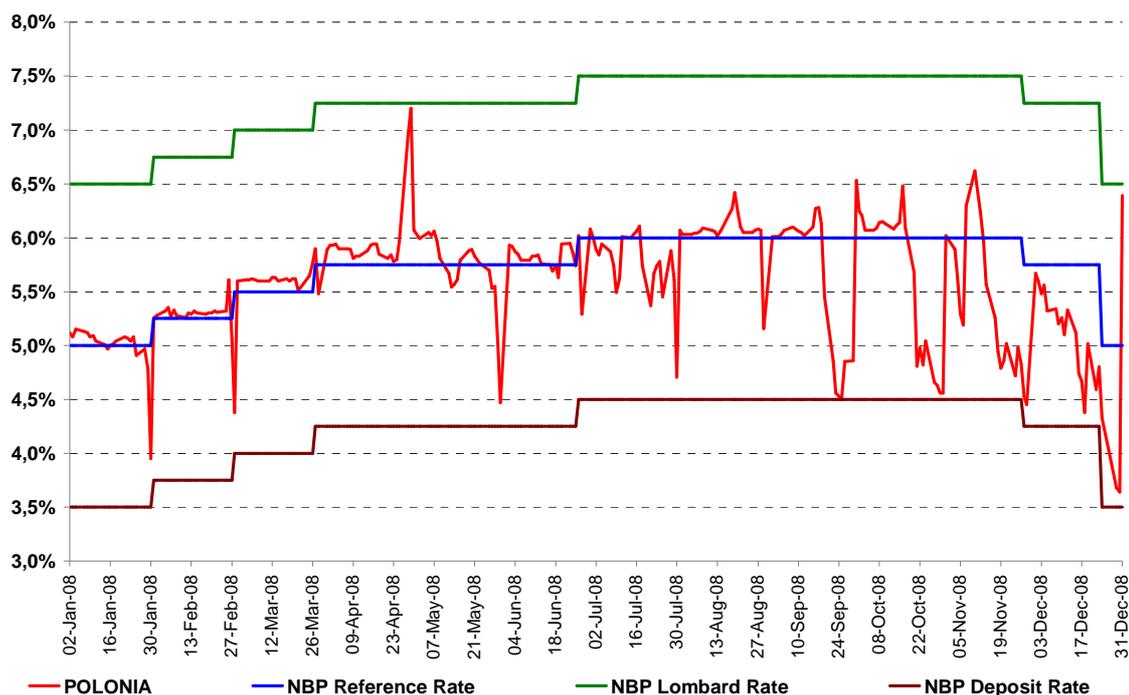
In the last quarter of 2008, the exacerbating disturbances in the world financial markets had a significant bearing on the situation in the domestic market and the behaviour of banks. In the conditions of a significant rise in uncertainty and a lack of confidence in the interbank market, banks – for prudential reasons – retained considerable surplus funds on their accounts that led to a drop in the price of overnight money and thus caused the path of the POLONIA rate to run below the NBP reference rate.

The average deviation<sup>5</sup> of the POLONIA rate from the NBP reference rate in 2008 was 32 basis points (compared with 23 basis points in 2007), in the first three quarters averaging 20 basis points and in the fourth as much as 70 basis points.

<sup>5</sup> Average deviation of POLONIA rate was calculated according to the uniform base of 365 days in the year.

**Figure 5**

NBP interest rates and POLONIA rate in 2008



Source: NBP data.

## Open market operations

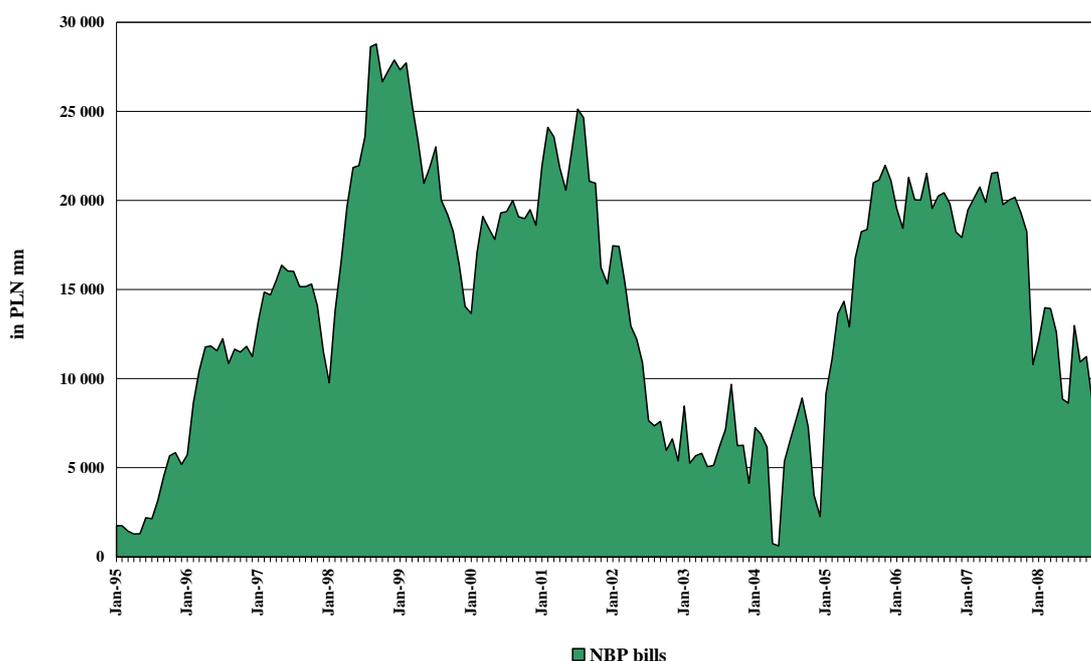
In 2008 open market operations were the principal instrument for maintaining short-term interest rates at a level consistent with the pursuit of the MPC-established inflation target. As regards these operations, the NBP could make use of basic, fine-tuning and structural operations.

Basic operations consisted in the issuance of the NBP bills with 7-day maturity. They were performed, similarly as in the preceding year, on a regular basis (once a week). In the first three quarters of 2008 the demand received from banks on basic operations was close to the supply of bills declared by the NBP. Banks were depositing the major part of their surpluses in this kind of operations.

Starting from mid-September (the announcement of Lehman Brothers bankruptcy) the deteriorating situation in the international financial markets and the liquidity problems of other foreign financial entities were exerting an indirect impact on the functioning of the domestic interbank market. Banks significantly reduced the depositing of surpluses in basic open market operations, holding their funds on current accounts (as security buffer), even at the NBP deposit rate, which bore less interest (in comparison to basic operations). They preferred managing their liquidity positions on an overnight basis and limited lending funds for longer terms.

**Figure 6**

Average monthly balance of basic open market operations 1995-2008



Source: NBP data.

Basic operations were available for all the banks participating in the SORBNET system which, at the same time, had an account at the NBP's Securities Register and the ELBON application and for the Bank Guarantee Fund.

In 2008 the National Bank of Poland, apart from the basic open market operations, could also recourse to conducting fine-tuning operations. While implementing measures connected with the "Confidence Pact", on 17 October 2008 the NBP started conducting repo transactions providing liquidity to the banking sector. The first fine-tuning repo operation was carried out on 17 October 2008. As a result, the banking sector was provided with liquidity for the period of 6 days. Another repo operation was executed on 21 October 2008 with a maturity of 14 days. Starting from November 2008 the NBP was injecting liquidity to banks using the liquidity-providing repo operations with 3-month maturity. On 16 December 2008 a 28-day repo operation was also carried out.

In total there were 6 repo operations conducted in 2008. The average level of banking sector liquidity influenced in this way was higher by PLN 4.3 billion, PLN 8.5 billion and PLN 12.8 billion, respectively, in October, November and December. In average annual terms, the level of repo operations in 2008 amounted to PLN 2.1 billion. At the end of 2008 the balance of the banking sector's liquidity provision in the form of repo operations reached PLN 15.3 billion.

As regards fine-tuning operations, the NBP also implemented additional issues of bills for periods shorter than the maturity of basic open market operations. The issues were meant as an attempt at curbing the significant surplus liquidity of the banking sector responsible for a considerable decline of the POLONIA rate. The first operation of this kind was executed on 25 November 2008 with a 3-day maturity. Another one, with a 2-day maturity, was conducted on 10 December. Due to the fact that the impact of both operations on the POLONIA rate was rather slight and temporary, the NBP abstained from implementing this kind of measures later on.

Fine-tuning operations were initially available for 13 banks which were most active in the money and foreign exchange markets and which signed contracts with the NBP to act as a Money Market Dealer. Started from 7 November 2008 – by virtue of the Decision of the NBP's Management Board – fine-tuning operations were conducted with all the banks meeting the criteria necessary for the participation in basic open market operations.

In 2008 it was not necessary to modify the long-term liquidity structure of the banking sector. Thus, the NBP did not execute any structural open market operations.

### **Reserve requirements**

In 2008 the obligation to hold reserve requirements in the accounts with the NBP applied to banks, branches of credit institutions and branches of foreign banks operating in Poland. Required reserves were held in the averaged system. Banks were obliged to maintain an average balance of funds in accounts with the NBP during the reserve period at the level not lower than the value of the reserve requirements.

Required reserves were calculated on the basis of bank's collected deposits and funds received from the sale of securities. Excluded from the reserve base were funds received from a different domestic bank, acquired from abroad for at least two years and deposited in credit and savings accounts at building societies and in individual pension accounts. Required reserves were calculated and held in the Polish zloty. The rates of the reserve requirements were not changed in 2008 and amounted to 3.5% of all liabilities, except for funds acquired from repo transactions, for which the required reserve rate was 0%.

Banks reduced the amount of calculated reserve requirements by the equivalent of EUR 500 thousand. The holdings of required reserves were remunerated at the level of 0.9 of the NBP rediscount rate.

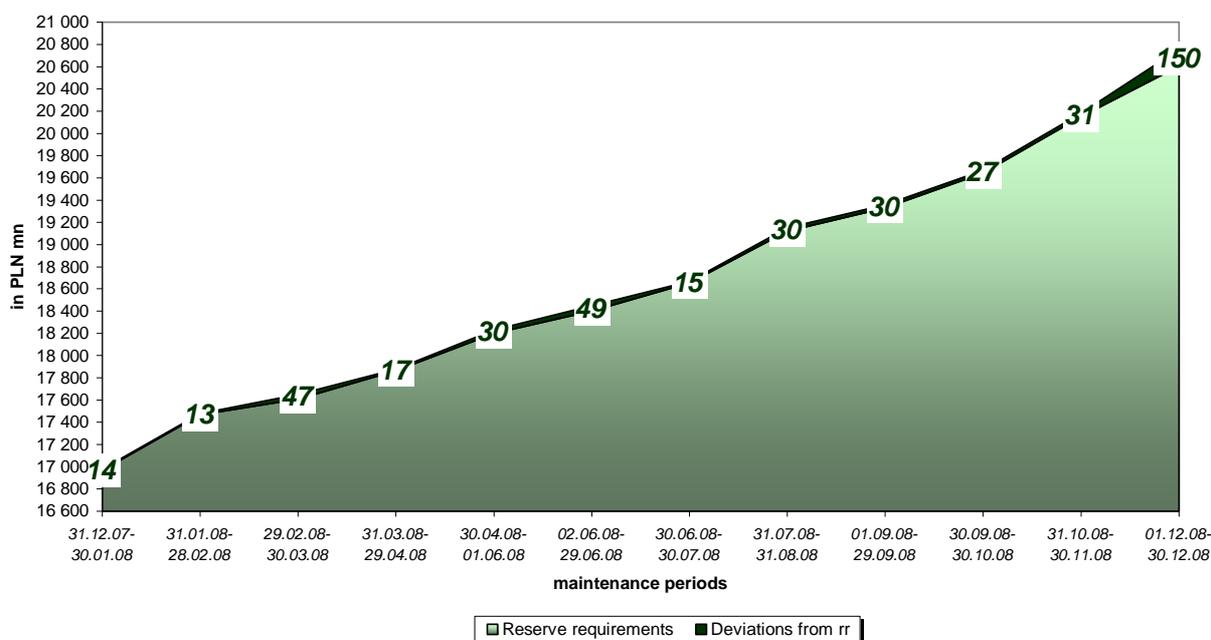
The amount of required reserves was PLN 21,089 million as of 31 December 2008, showing an increase of PLN 4,123 million (24.3%) as compared with 31 December 2007.

This rise in the required reserves level mainly resulted from a 23.4% increase of deposits that constitute the reserve base and to which the positive reserve ratio is applied.

There was a continuation in all the reserve maintenance periods of a surplus in the average balance of funds of PLN 38 million, on average, (i.e. 0.20%) in relation to the reserve requirements. In particular periods this surplus ranged from PLN 13 million in February (0.07%) to PLN 150 million in December (0.73%). The larger deviation of the reserve holdings from the required reserves in December 2008 resulted from cautious current liquidity management on the part of banks at the end of the year amid concurrent liquidity tensions in the world markets.

**Figure 7**

Changes of required reserves level and deviations from reserve requirements in 2008



Source: NBP data.

The minimal differences between the required and maintained reserves persisting throughout the year resulted from:

- proper asset management at banks,
- banks' use of instruments facilitating asset management in accounts with the NBP (intraday credit, deposit and Lombard facilities), and
- remuneration of reserve holdings only to the amount of the required reserves.

## **Standing facilities**

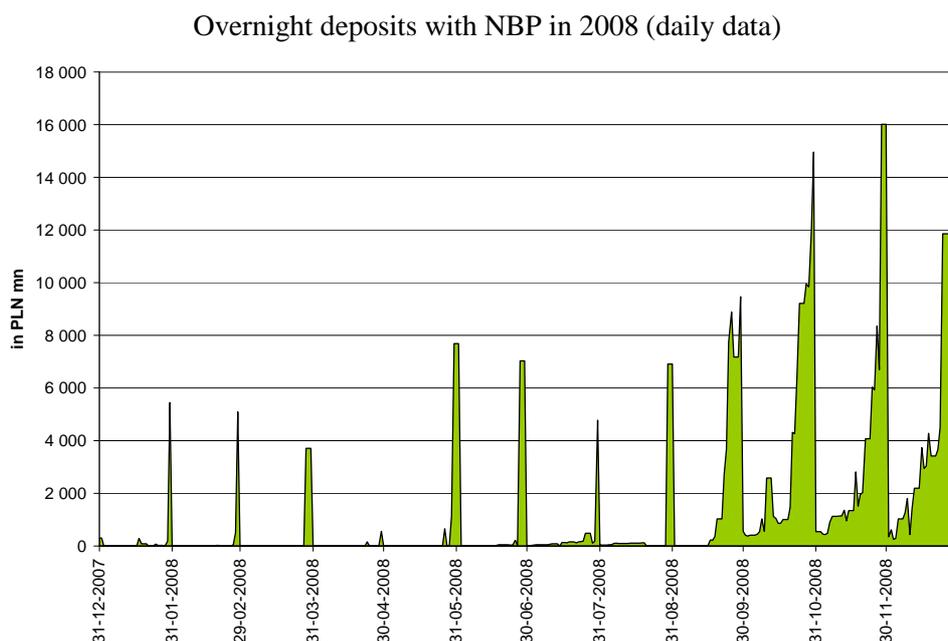
Lending and deposit operations performed at the initiative of commercial banks were meant to supplement short-term liquidity of the banking sector or to allow banks to deposit their free overnight funds with the NBP. These operations prevented excessive fluctuations of interbank rates. The main instruments categorised as lending and deposit operations include Lombard facility and deposit facility.

The Lombard facility interest rate determining the maximum cost of funding with the NBP also set a ceiling on fluctuations of interbank rates, while the deposit rate constituted the lower limit of the band for interbank rate deviations.

In 2008 banks made use of Lombard facility collateralised with securities thus supplementing their current liquidity on accounts with the NBP. To implement measures covered in the “Confidence Pact” starting from 27 October 2008 (Resolution no. 44/2008 of the NBP Management Board) the NBP extended the list of securities allowed as collateral for Lombard facility granted by the NBP to include securities deposited with the National Depository for Securities (KDPW S.A.), i.e. EIB bonds, mortgage bonds, utilities bonds, municipal bonds and corporate bonds of domestic issuers. A detailed list of these securities is published on the NBP's official website.

The total amount of credit used in 2008 was PLN 5.2 billion, compared to PLN 6.7 billion in 2007, while the average daily use of Lombard facility was PLN 14.3 million as compared to PLN 18.5 million in 2007.

The total amount of term deposits placed by banks with the NBP in 2008 amounted to PLN 520.1 billion (calculated for days of use) and was 2.5 times higher compared with the deposits placed in the previous year. The total value of overnight deposits placed by banks fluctuated between PLN 41 thousand and PLN 17.3 billion. The average daily level of overnight deposits amounted to PLN 1.4 billion, compared to PLN 0.5 billion in 2007. The highest amounts were deposited by banks in the last days of the required reserve maintenance periods.

**Figure 8**

Source: NBP data.

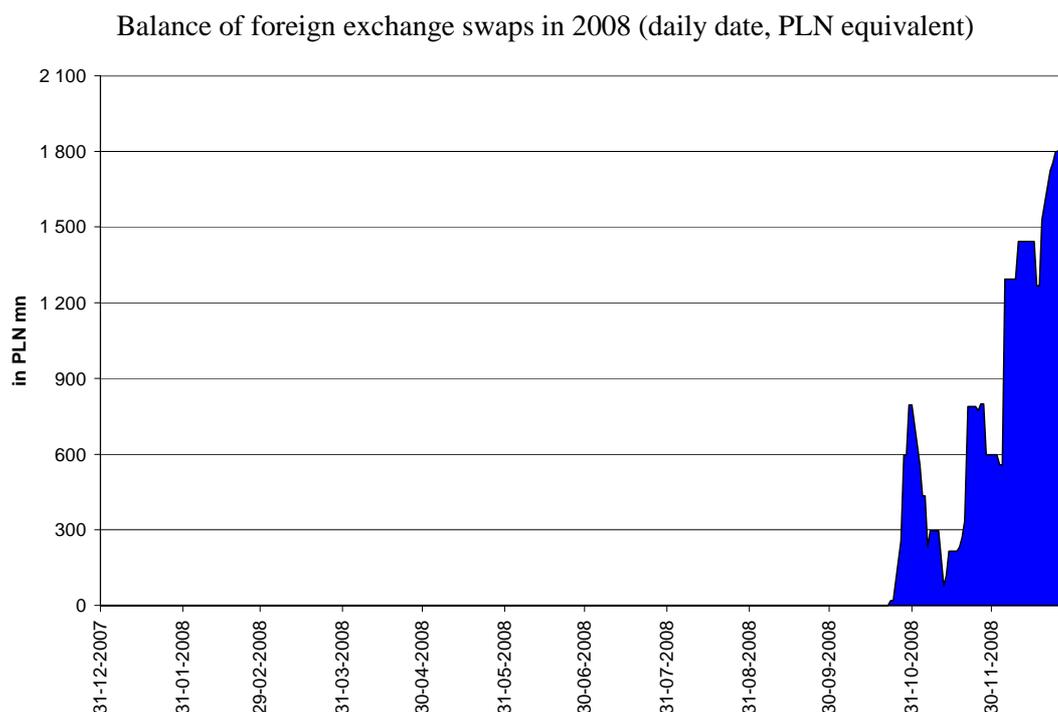
### Foreign exchange swaps

On 13 October 2008 the MPC modified the set of monetary policy instruments complementing it with the foreign exchange swap. As a result, using the foreign exchange swap the NBP could purchase (or sell) the zloty with foreign currencies in the spot market while simultaneously reselling (or repurchasing) it on a forward transaction basis on a specified date.

Starting from 17 October 2008 this kind of operations were offered to banks in USD/PLN and EUR/PLN currency pairs. The first foreign exchange swap was concluded on 21 October 2008. Till 7 December 2008 the transactions could be conducted on both pairs every day with 7-day maturity. Starting from 8 December 2008 transactions in EUR/PLN pair were offered once a week, but the frequency for USD/PLN pair remained unchanged.

Apart from that, on 17 November 2008 the NBP began conducting foreign exchange swap transactions in CHF/PLN currency pair. The NBP carried out two kinds of such operations. Operations with 7-day maturity were offered on a regular weekly basis. In agreement with the Swiss National Bank, on three occasions the NBP also conducted operations with 84-day maturity.

**Figure 9**



Source: NBP data.

In 2008 Q4 foreign exchange swaps reduced the banking sector liquidity in the domestic currency, on average, by PLN 75 million in October, PLN 476 million in November and PLN 1,410 million in December. In average annual terms the impact of foreign exchange swaps on the reduction of banking sector liquidity in 2008 amounted to PLN 162 million.

### **Other operations**

Intraday credit facility is an instrument facilitating liquidity management in the banking sector during the business day and, at the same time, ensuring the interbank settlement liquidity. It is a non-interest bearing credit collateralised with Treasury securities, taken and repaid during the same business day. In 2008 the daily injection of operational liquidity for banks ranged between PLN 11.3 billion and PLN 19.5 billion. The use of intraday credit facility increased by 17.4% in relation to 2007.

Intraday credit in the euro serves to ensure settlement liquidity in the SORBNET – EURO system. It is secured with Treasury bonds that have been previously accepted by the ECB. It is incurred and repaid during the same business day. In 2008 the daily injection of euro-

denominated operational liquidity to banks ranged between EUR 0.5 million and EUR 4.2 million. The use of the intraday credit in the euro rose by 61.0% in relation to 2007.

Moreover, a reduction of the haircuts in relation to the collateral for Lombard facility and intraday credit facility was one of the instruments included in the “Confidence Pact”. They were cut (Lombard facility starting from 27 October and intraday credit facility from 17 November) from 20% to 15% of the nominal value of securities issued by the State Treasury and the NBP.

This modification was aimed at increasing the liquidity pool available for banks in the form of Lombard facility and intraday credit facility with the given level of collateral. In view of the portfolios of Treasury securities and securities issued by the NBP held by banks, the potential amount of funds obtained from the central bank in the previous year was increased by approx. PLN 6.9 billion.

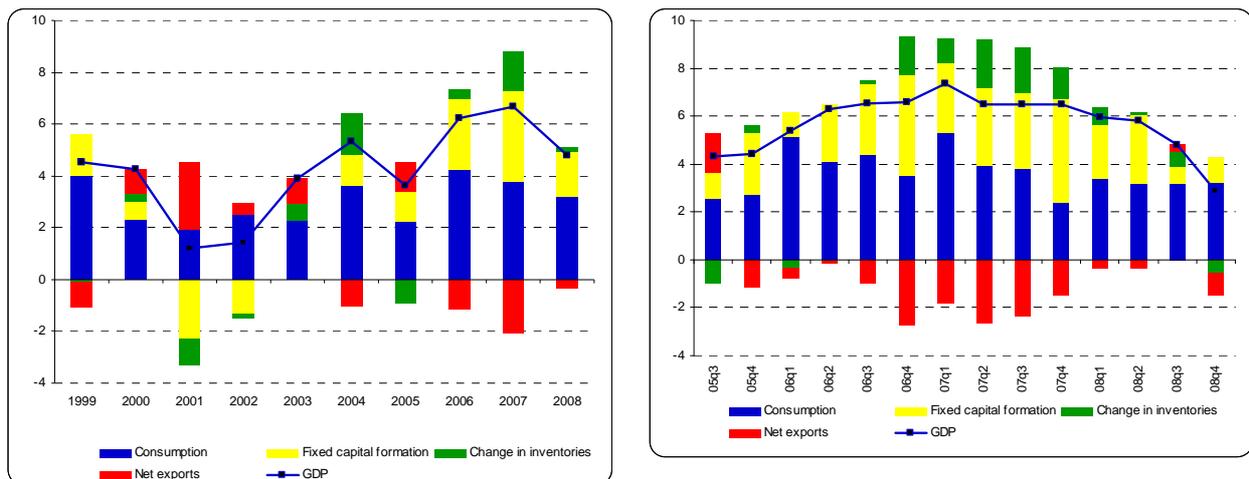
## Appendix 1. GDP and aggregate demand<sup>6</sup>

In 2008 domestic demand grew by 5.0% y/y, i.e., less than in the preceding year (8.6% y/y). The lower growth in demand was influenced above all by: growth in gross fixed capital formation which was markedly lower than in the preceding year (7.9% y/y, down from 17.6% y/y in 2007) and slower growth of total consumption (4.1% y/y as compared to 4.7% y/y in 2007). Whereas the growth rate of total consumption slowed down, most specifically reflecting the decline in the growth rate of public consumption (down from 3.7% y/y in 2007 to 0% y/y), private consumption slightly increased (from 5.0% y/y in 2007 to 5.4% y/y). In 2008 the growth rate of capital formation (7.7% y/y) stood close to that of investments (7.9% y/y). Exports rose at a slower pace than imports, just as in the period 2006-2007.

Gross value added rose<sup>7</sup> in 2008 at 4.9% y/y (as compared to 6.6% y/y in the preceding year). The decline in the growth of gross value added in 2008 was primarily the effect of slower growth in market services (down from 6.4% y/y in 2007 to 5.6% y/y) and in industry (down from 9.9% y/y in 2007 to 3.7% y/y). The growth in value added in construction declined only slightly (from 12.5% y/y in 2007 to 11.3% y/y) in comparison to the industrial sector as a result of still high outlays in residential construction and investments related to the inflow of EU structural funds.

**Figure 10**

**The contribution of aggregate demand components to GDP growth**



Source: NBP calculations based on GUS data.

<sup>6</sup> This Appendix takes accounts of data published until 20<sup>th</sup> April 2009.

<sup>7</sup> GDP equals total added value increased by taxes on products (including import duties) and product subsidies.

**Table 3****GDP and domestic demand 2001 – 2008**

	2001	2002	2003	2004	2005	2006	2007	2008
	Growth rate (in % y/y)							
GDP	1.2	1.4	3.9	5.3	3.6	6.2	6.7	4.8
Domestic demand	-1.3	0.9	2.7	6.0	2.4	7.3	8.6	5.0
Consumption	2.3	3.0	2.6	4.0	2.7	5.2	4.7	4.1
Private consumption	2.3	3.4	2.0	4.4	2.0	5.0	5.0	5.4
Capital formation	-13.4	-7.2	3.3	14.7	1.4	16.1	23.7	7.7
Gross fixed capital formation	-9.7	-6.3	-0.1	6.4	6.5	14.9	17.6	7.9
Exports	3.1	4.8	14.2	14.0	8.0	14.6	9.1	5.8
Imports	-5.3	2.6	9.3	15.2	4.7	17.3	13.6	6.2
Contribution of net exports to GDP growth (percentage points)	2.6	0.5	1.1	-0.8	1.1	-1.1	-2.1	-0.3
	GDP structure in current prices (in %)							
Domestic demand	103.7	103.4	102.6	102.4	100.7	101.8	102.8	103.4
Consumption	82.9	84.8	83.8	82.3	81.5	80.8	78.5	78.7
Capital formation	20.8	18.6	18.7	20.1	19.3	21.1	24.3	24.7
Net exports	-3.7	-3.4	-2.6	-2.4	-0.7	-1.8	-2.8	-3.4

Source: GUS data.

As a result of rising disposable income (by ca. 2.8% y/y) the growth rate of individual consumption in 2008 was marginally higher than a year before. The recovery in the labour market translated into the growth of income from paid employment in 2008 by ca. 6.1% y/y (in current prices, income data according to NBP estimates). The consumption level in 2008 was also determined by a higher than in the preceding year inflow of funds under the Common Agricultural Policy.

In 2008 gross investment outlays rose markedly slower than a year before. Following the recession in the world economy and the crisis in the global financial markets, the availability of credit to enterprises as well as the external demand for their products suffered a decline. Consequently, enterprises negatively assessed the anticipated demand and their development prospects. Despite their good financial situation and high profits in 2008 they markedly lowered the growth rate of investment outlays.

Both exports and imports continued to rise in 2008. However, the growth rate of trade tumbled down in comparison to the preceding year, and in 2008 Q4 both exports and imports dropped in comparison to the corresponding period of the preceding year. In 2008 the contribution of net exports to growth was close to -0.3 p.p. In consequence, the current account deficit widened slightly (in relation to GDP from 4.7% in 2007 to ca. 5.4% in 2008).

## **Appendix 2. Prices of consumer goods and services**

### **Price index of consumer goods and services**

In 2008, the average annual price index of consumer goods and services amounted to 4.2%, i.e. a level higher than the NBP's upper limit for deviations from the target (3.5%). In the first half of the year, the index, similarly to the preceding year, showed a rising tendency; in this period the annual growth in consumer goods and services prices rose from 4.0% in January to 4.8% in July and August 2008. In the next months the growth gradually decreased to reach 3.3% in December 2008. The following factors contributed to such a path of the consumer goods and services price index: the annual growth rate of prices of food and non-alcoholic beverages which was still high in the first half of the year and decreased in the second half, a significant rise in energy prices in the first half of the year and their slackening growth in the last months of the year, as well as the inflation index net of food and energy prices which was rising steadily almost throughout the whole reported period.

### **Prices of food and non-alcoholic beverages**

Strong price shocks observed in the market for agricultural commodities in the second half of 2007 had an impact on the annual growth of prices of food and non-alcoholic beverages in the whole of 2008. In the first months of 2008, the annual growth rate of these prices remained at a high level (6.8%-7.8%) and started decreasing in August to reach 3.2% in December. The decline in the annual growth rate of these prices was a result of, among others, the disappearance of the shocks (i.e. the disappearance of the negative base effect). It was also influenced by the decline in prices in international markets for a number of agricultural commodities, which was connected with a favourable supply situation and a global decline in demand, triggered by the global economic growth slowdown.

### **Energy prices**

In the first half of 2008 the annual growth of energy prices showed a rising tendency (from 6.9% in January to 9.9% in July 2008) and began decreasing gradually to 5.6% in December 2008. Three factors had a significant impact on energy prices in this period: changes in fuel prices linked to a great extent to changes in oil prices in the global markets, changes in prices determined by the Energy Regulatory Office, and changes to domestic prices of coal, which translated into the rise in heating-fuel prices.

The high growth rate of energy prices in 2008 was, to a great extent, the result of large rises in regulated prices (electric energy, gas and hot water prices), approved by the Energy Regulatory Office in various months of the year. On the other hand, fuel prices were determined by changes in oil prices in the global markets as well as changes in the zloty exchange rate vis-à-vis the US dollar in which oil contracts are quoted. The strong rise in world oil prices observed until July 2008 translated into a rise in fuel prices in Poland whereas the fall in oil prices observed from August to the end of 2008 contributed to a decline in fuel prices in the domestic market. The transmission of changes in international oil prices to fuel prices in Poland was mitigated by changes in the zloty exchange rate against the dollar in which fuel contracts are quoted. The strong appreciation of the zloty until July 2008 worked against the rise in fuel prices, while its depreciation in the next few months led to the decline in fuel prices in Poland being far weaker than the decline of oil prices in the world.

### **Inflation net of food and energy prices (core inflation)**

In 2008, the annual growth in prices of consumer goods and services net of food and energy rose gradually from 1.6% in January to 2.9% in November and decreased slightly to 2.8% in December. In the first half of 2008 monthly price changes in this group of goods and services were higher than in the second half of the year. A marked rise in the annual growth rate of services prices and a slight rise in the growth rate of non-food products were conducive to a rise in inflation net of food and energy prices.

The rise in services prices in the reported period was mainly caused by rises in prices connected with home maintenance, including charges for waste disposal<sup>8</sup>, sewage and water supply services as well as the costs of flat management and administration. In the first half of the year, prices of other services also rose significantly, mainly in the group “restaurants and hotels” and services connected with recreation, culture and health.

The strong rise in the annual core inflation index in August 2008 (to 2.7% from 2.2% in July) was caused, to a great extent, by the positive base effect linked to a fall in the price of Internet services in August 2007<sup>9</sup>. Price rises of tobacco products triggered by the rise in the excise tax<sup>10</sup>

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<sup>8</sup> From January 2008 to December 2008, the growth rate of waste disposal prices rose by 38.1% y/y which resulted from large rises in charges to local governments. Pursuant to the Regulation of the Council of Ministers of January 2008, most charges for the use of environment, including waste storage (up to PLN 75/ Mg in 2008, i.e. by around 200%) were raised.

<sup>9</sup> In August 2007 one of the internet providers introduced a promotional price reduction for its services.

<sup>10</sup> Under the process of adjusting excise tax rates in Poland to minimum rates required by EU legislation, in January 2008 a higher excise tax rate on tobacco products was introduced. The strong rise in their prices triggered by the excise tax rise was observed in the second half of 2008, which was the result of the fact that producers had large inventories of the products manufactured in the previous year.

also contributed to the rise in inflation net of food and energy prices observed in 2008. On the other hand, a factor that slightly pushed down the growth of prices in this group of products was a further fall in the prices of goods largely imported from low-cost countries (clothes, footwear and electronic equipment).

Table 4

## Changes in prices of the main groups of consumer goods and services in 2007–2008

	CPI	Food and non-alcoholic beverages	Energy	Of which:		Inflation net of food and energy prices	Of which:					
				fuels	Energy carriers		Goods	Excise products (alcohol, tobacco)	Other goods	Services	Home maintenance	Other services
<b>% structure of weights in CPI basket</b>												
2007	100.0	26.2	16.1	4.0	12.1	57.7	30.4	5.7	24.7	27.3	6.1	21.2
2008	100.0	25.7	15.0	4.2	10.9	59.3	31.4	5.7	25.7	27.9	6.0	22.0
<b>Change in relation to the corresponding period of the previous year (%)</b>												
2007 I	1.6	2.8	3.0	-3.9	5.2	0.7	-1.4	1.6	-2.0	3.0	2.9	3.0
II	1.9	3.2	3.5	-1.3	5.1	0.8	-1.2	1.7	-1.8	3.1	3.1	3.1
III	2.5	4.3	4.8	4.0	5.1	1.0	-1.0	1.8	-1.6	3.2	3.3	3.1
IV	2.3	4.6	2.9	2.6	3.1	1.1	-0.7	1.9	-1.3	3.2	3.6	3.1
V	2.3	4.3	2.5	0.8	3.1	1.4	-0.4	1.9	-1.0	3.4	3.7	3.3
VI	2.6	4.4	3.4	4.1	3.2	1.5	-0.2	2.5	-0.8	3.5	4.0	3.3
VII	2.3	4.4	3.1	2.7	3.2	1.1	0.1	3.6	-0.7	2.2	4.2	1.6
VIII	1.5	2.8	2.1	-0.5	3.1	0.8	0.3	4.4	-0.6	1.3	4.3	0.4
IX	2.3	5.1	2.8	2.5	2.9	0.9	0.4	4.8	-0.6	1.4	4.5	0.5
X	3.0	6.6	4.3	7.6	3.2	1.0	0.4	5.0	-0.6	1.6	4.6	0.7
XI	3.6	7.6	5.8	13.2	3.4	1.1	0.5	5.1	-0.6	1.8	4.7	0.9
XII	4.0	7.9	7.1	18.1	3.7	1.3	0.7	5.4	-0.4	2.0	4.8	1.2
2008 I	4.0	7.8	6.9	17.0	3.4	1.6	0.2	5.4	-0.9	3.3	8.8	1.8
II	4.2	7.3	8.6	13.8	6.8	1.8	0.3	5.6	-0.8	3.4	9.2	1.8
III	4.1	7.0	7.8	10.1	7.0	2.0	0.6	5.7	-0.5	3.5	9.5	2.0
IV	4.0	6.8	6.8	6.0	7.2	2.1	0.5	5.9	-0.6	3.8	9.5	2.3
V	4.4	7.0	9.0	7.0	9.8	2.1	0.4	6.0	-0.8	3.9	9.8	2.3
VI	4.6	7.6	9.3	7.5	10.0	2.2	0.4	5.8	-0.8	4.1	9.9	2.6
VII	4.8	7.8	9.9	8.2	10.6	2.2	0.2	5.6	-1.0	4.4	10.1	2.9
VIII	4.8	6.9	9.8	6.8	10.9	2.7	0.3	6.4	-1.1	5.5	10.3	4.2
IX	4.5	5.1	9.5	3.7	11.7	2.9	0.6	7.1	-0.9	5.5	10.2	4.2
X	4.2	4.0	9.7	1.9	12.7	2.9	0.6	7.5	-0.9	5.5	10.3	4.2
XI	3.7	2.9	8.2	-6.4	14.0	2.9	0.7	8.1	-1.0	5.5	10.3	4.2
XII	3.3	3.2	5.6	-15.0	13.8	2.8	0.5	8.2	-1.2	5.4	10.3	4.0
I-XII 2007	2.5	4.9	3.8	4.1	3.7	1.0	-0.2	3.3	-1.0	2.5	4.0	2.0
I-XII 2008	4.2	6.1	8.4	4.7	9.9	2.3	0.4	6.4	-0.9	4.5	9.9	3.0
<b>Share in CPI (in p.p.)</b>												
2007 I	1.6	0.7	0.5	-0.2	0.6	0.4	-0.4	0.1	-0.5	0.8	0.2	0.6
II	1.9	0.8	0.6	-0.1	0.6	0.5	-0.4	0.1	-0.5	0.8	0.2	0.6
III	2.5	1.1	0.8	0.2	0.6	0.6	-0.3	0.1	-0.4	0.9	0.2	0.7
IV	2.3	1.2	0.5	0.1	0.4	0.7	-0.2	0.1	-0.3	0.9	0.2	0.7
V	2.3	1.1	0.4	0.0	0.4	0.8	-0.1	0.1	-0.2	0.9	0.2	0.7
VI	2.6	1.1	0.6	0.2	0.4	0.9	-0.1	0.1	-0.2	1.0	0.2	0.7
VII	2.3	1.1	0.5	0.1	0.4	0.6	0.0	0.2	-0.2	0.6	0.3	0.4
VIII	1.5	0.7	0.3	0.0	0.4	0.4	0.1	0.2	-0.2	0.4	0.3	0.1
IX	2.3	1.3	0.5	0.1	0.4	0.5	0.1	0.3	-0.2	0.4	0.3	0.1
X	3.0	1.7	0.7	0.3	0.4	0.6	0.1	0.3	-0.2	0.4	0.3	0.1
XI	3.6	2.0	0.9	0.5	0.4	0.6	0.2	0.3	-0.1	0.5	0.3	0.2
XII	4.0	2.1	1.1	0.7	0.5	0.8	0.2	0.3	-0.1	0.6	0.3	0.3
2008 I	4.0	2.0	1.0	0.6	0.4	1.0	0.1	0.3	-0.2	0.9	0.5	0.4
II	4.2	1.9	1.3	0.5	0.7	1.1	0.1	0.3	-0.2	0.9	0.5	0.4
III	4.1	1.8	1.2	0.4	0.8	1.2	0.2	0.3	-0.1	1.0	0.6	0.4
IV	4.0	1.7	1.0	0.2	0.8	1.2	0.2	0.3	-0.2	1.1	0.6	0.5
V	4.4	1.8	1.3	0.3	1.1	1.2	0.1	0.3	-0.2	1.1	0.6	0.5
VI	4.6	1.9	1.4	0.3	1.1	1.3	0.1	0.3	-0.2	1.2	0.6	0.6
VII	4.8	2.0	1.5	0.4	1.1	1.3	0.1	0.3	-0.3	1.2	0.6	0.6
VIII	4.8	1.7	1.5	0.3	1.2	1.6	0.1	0.4	-0.3	1.5	0.6	0.9
IX	4.5	1.3	1.4	0.2	1.3	1.7	0.2	0.4	-0.2	1.5	0.6	0.9
X	4.2	1.0	1.5	0.1	1.4	1.7	0.2	0.4	-0.2	1.5	0.6	0.9
XI	3.7	0.8	1.2	-0.3	1.5	1.7	0.2	0.5	-0.3	1.5	0.6	0.9
XII	3.3	0.8	0.9	-0.7	1.5	1.6	0.2	0.5	-0.3	1.5	0.6	0.9
I-XII 2007	2.5	1.3	0.6	0.2	0.4	0.6	-0.1	0.2	-0.3	0.7	0.2	0.4
I-XII 2008	4.2	1.6	1.3	0.2	1.1	1.4	0.1	0.4	-0.2	1.3	0.6	0.7

Source: NBP calculations based on GUS data.

### **Appendix 3. Balance of payments<sup>11</sup>**

In 2008 the current account deficit of the balance of payments amounted to EUR 19.6 billion (as compared to EUR 14.6 billion in 2007). The current account deficit in relation to GDP rose from 4.7% in 2007 to 5.4% in 2008. The deterioration in the current account balance was connected with the deepening of the deficit in goods and – although to a lesser extent – with the lowering of the surplus in transfers. The positive balance of services and the negative balance of income continued at a level similar to the one reported in 2007.

Even though since 2008 Q2 the recession in EU-15 economies, Poland's major trading partners, has been deepening, in the first quarters of 2008 the growth of Polish export was slightly above the 2007 average, stimulated by relatively brisk sales to CIS and CEEC. Exports grew on the back of higher sales of machinery and transport equipment, i.a. because Polish branches of car manufacturers launched the production of new car models. On the other hand, a slight decline occurred in exports of goods most sensitive to changes in the business climate, i.e. car parts and consumer durables, these segments being dominated by foreign enterprises and corporate trade. Furthermore, the appreciation of the zloty in the first half of 2008 tended to contain the growth in exports of goods at a less advanced stage of processing.

Over the first three quarters of 2008 imports also grew relatively fast, reflecting the continuation of a strong domestic demand (both consumer and investment), relatively robust demand of export-oriented companies (primarily from the automobile sector) and the prices of commodities (especially oil) rising over the first six months of 2008.

A visible drop in economic activity in the world's major economies in 2008 Q4 which contributed to the decline in the value of international trade, led to a decline also in Polish exports and imports (by 5.0% and 0.8% y/y respectively). The drop in exports was observed across most product groups. A clear decline was recorded in the value of export of intermediate goods and cars. The scale of the decline in imports was lower due to the continuation of relatively robust imports of consumer goods coupled with lower imports of intermediate goods (due to a considerable reduction in exports) and investment goods.

In 2008 as a whole the value of exports rose by 12.5%<sup>12</sup> (the slowest growth since Poland's accession to the European Union in 2004), whereas the value of imports grew by 15.7%<sup>13</sup>. In

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<sup>11</sup> This Appendix takes accounts of data published until 20<sup>th</sup> April 2009.

<sup>12</sup> This was due to the growth in the volume of exports by 5.3% (as compared to the 9.4% growth in 2007) and in transaction prices by 6.8% (as compared to the 5.9% growth in 2007).

effect of the higher growth in imports than in exports, the foreign trade deficit in Poland deepened for the third consecutive year (up to EUR 24.8 billion as compared to EUR 18.6 billion in 2007 according to preliminary GUS data) primarily due to the deepening of the deficit in trade with China (by EUR 2.5 billion to EUR -10.4 billion) and with Russia (by EUR 2.0 billion to EUR -7.8 billion). Meanwhile, the positive balance of trade with the European Union member states remained broadly similar to that in 2007 (deficit deepened in trade with the EU-15 countries, whereas the surplus in trade with the new member states widened).

Although 2008 saw sizable fluctuations in the exchange rate, these had a limited impact on the changes in the value of Polish foreign trade due to the large significance of corporate trade. Between January and July 2008 the exchange rate of the zloty continued to appreciate (the nominal exchange rate strengthened vis-à-vis the euro and the US dollar by 11% and 17% respectively). August 2008 saw a change in the exchange-rate trends followed by currencies of a number of developing countries, including the zloty which began to depreciate (between August and December 2008 the nominal exchange rate of the zloty weakened vis-à-vis the euro and the US dollar by 39% and 69% respectively). In the whole 2008 the nominal exchange rate of the zloty weakened against the euro by 23% and against the US dollar by 41%. The real effective exchange rate<sup>14</sup> deflated by the index of unit labour costs in manufacturing (ULC)<sup>15</sup> strengthened by 11% in the first six months of 2008, but weakened by 11% in the second half of the year. In the whole 2008 the real effective exchange rate deflated by ULC depreciated by 2%.

In 2008 the main financial indices reflecting the external equilibrium of the Polish economy suffered deterioration as against the preceding years. However, the ratio to GDP of the current account balance, the current and capital account balance and the balance on trade in goods remained at a secure level. The growing use of funds from the European Union was conducive to improving the ratio of the current and capital account balance to GDP. In the context of the global financial crisis the conditions for access to foreign financing worsened, and the inflow of foreign direct investments weakened. In 2008 the current account deficit was financed in 44% with the inflow of foreign capital in the form of direct investments (as compared to 90% in 2007).

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<sup>13</sup> This was mainly due to the 5.7% rise in the volume of imports (compared to 15.1% in 2007) and the 9.5% increase in transaction prices (compared to 3.8% in 2007). As a result of higher growth in transaction prices in imports than in exports, the terms of trade in Polish foreign trade deteriorated to 97.5 (as against 102.0 in 2007).

<sup>14</sup> In the case of the effective exchange rate deflated by unit labour costs, the calculations were based on quarterly data.

<sup>15</sup> An index reflecting production costs is a measure to assess changes in the competitive position of domestic producers in international markets. Furthermore, as most trade has so far involved products of the manufacturing industry, the real exchange rate deflated by unit labour costs in manufacturing is an appropriate competitiveness measure. Calculations are based on ULC estimates for 2008 Q4.

**Table 5****Selected warning indicators for Poland**

<b>Warning indicator</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Current account balance / GDP	-4.0%	-1.2%	-2.7%	-4.7%	-5.4%
Current account balance + capital balance/GDP	-3.5%	-0.9%	-2.1%	-3.6%	-4.3%
Balance on trade in goods / GDP	-2.2%	-0.9%	-2.0%	-4.0%	-4.6%
Direct investment / current account balance	116.1%	184.4%	115.8%	90.3%	44.0%
(Current account balance+capital balance+direct investment) / GDP	1.1%	1.4%	1.0%	0.6%	-2.0%
Foreign debt servicing / exports of goods and services	35.4%	32.3%	29.7%	33.7%	34.1%
Foreign reserves expressed in terms of monthly imports of goods and services	4.0	4.7	3.9	3.9	3.4

Source: NBP calculations based on GUS data.

## **Appendix 4. Money and credit<sup>16</sup>**

In 2008 the growth of household loans slowed down gradually. This concerned both consumer and housing loans. The key factor affecting lending was the global financial crisis which started to intensify in September 2008, limiting the supply of CHF-denominated mortgage loans. On the demand side, lending was limited due to the deteriorating economic climate.

In 2008 the growth of corporate loans remained at a stable level. Yet, a change was observed in the structure of granted loans; the growth of housing loans noted a marked decline, while the growth of investment loans increased. The change in the debt structure reflects the process of enterprises continuing subsequent stages of started investments.

The intensification of the global financial crisis and the related falls in asset prices drove changes in the structure of households' financial assets. Slides in Warsaw Stock Exchange indexes contributed to the decline in the share of investment funds and stocks in the structure of households' financial assets. On the other hand, a growing interest in making bank deposits was observed, reinforced at the end of 2008 by the banks' policy aimed at increasing the deposit base by offering high interest on deposits. However, the growth of corporate loans gradually declined throughout 2008.

The growth rate of the M3 aggregate rose until July 2008 and then began to decline. Despite a considerable increase in currency in circulation in 2008 Q3 connected with a temporary decline in confidence in the banking system following the collapse of Lehman Brothers, a fall in M3 liquidity was observed throughout the year as a result of household and corporate funds being transferred to fixed-term deposit accounts (deposits for maximum 2 years).

### **Loans to households**

In 2008 the nominal value of households' bank debt increased by PLN 113.8 billion to approx. PLN 367 billion, while in 2007 the growth in households' bank debt amounted to approx. PLN 70 billion. Such a high rise in bank debt was largely driven by exchange rate

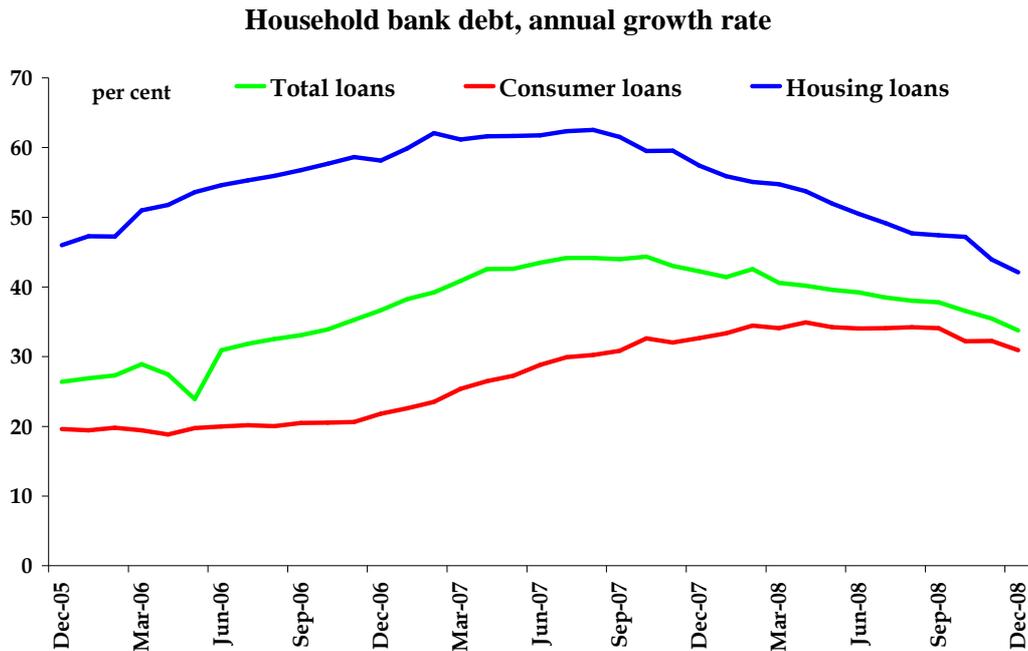
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<sup>16</sup> Official NBP monetary data remain under the influence of exchange rate developments. Due to the strong appreciation of the zloty until July 2008, followed by its considerable weakening, this factor was of considerable importance in 2008. Consequently, unless otherwise noted, monetary data presented in the Appendix refer to figures adjusted for seasonal fluctuations of the zloty exchange rate with respect to the main currencies.

fluctuations. After adjustment for exchange rate fluctuations, the rise in debt was lower by approx. PLN 28 billion<sup>17</sup>.

The fastest growth was recorded in housing loans. Yet, their growth rate gradually declined from 55.9% y/y in January to 42.1% y/y in December 2008, with the average annual growth rate in this loan category at 59.9%. As compared with 2007, this meant a decline in the average annual growth of housing loans by approx. 10 percentage points.

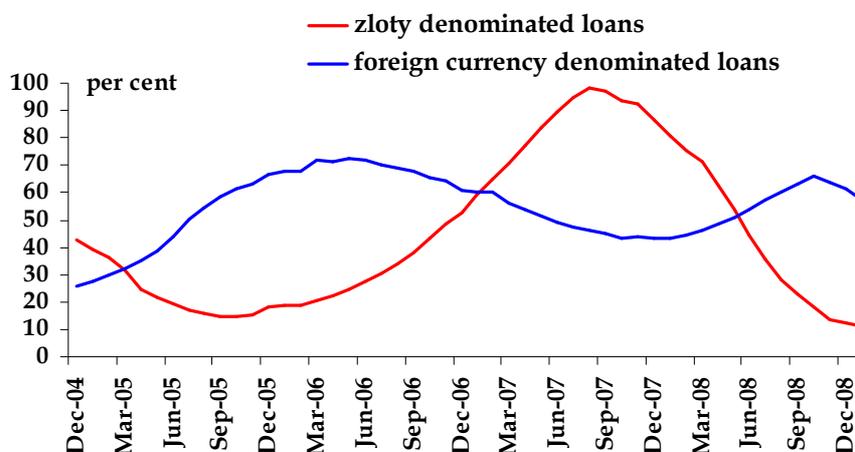
**Figure 11**



Source: NBP data.

The rapid rise in the value of housing loans in the first half of 2008 was mainly driven by higher household income and a high level of competition in this segment of the banking market, translating into a low cost of credit and a rising value of real estate used as mortgage collateral. However, as a result of the global financial crisis, in the second half of 2008 banks tightened their loan-granting policies and limited the supply of household loans. Banks justified their measures (inter alia, increased margins and non-interest costs of credit, lower LTVs), by rising credit risk connected with the anticipated deterioration of economic conditions, and by unfavourable assessment of their current and expected financial condition. However, the most important limitation on the supply side was the strong reduction – since October 2008 – in the availability of CHF-denominated loans, which was reflected in the changing structure of new loans.

<sup>17</sup> In 2007 after adjustment for exchange rate fluctuations, the rise in debt was PLN 17.0 billion higher than suggested by nominal values.

**Figure 12****Housing loans to households, annual growth rate**

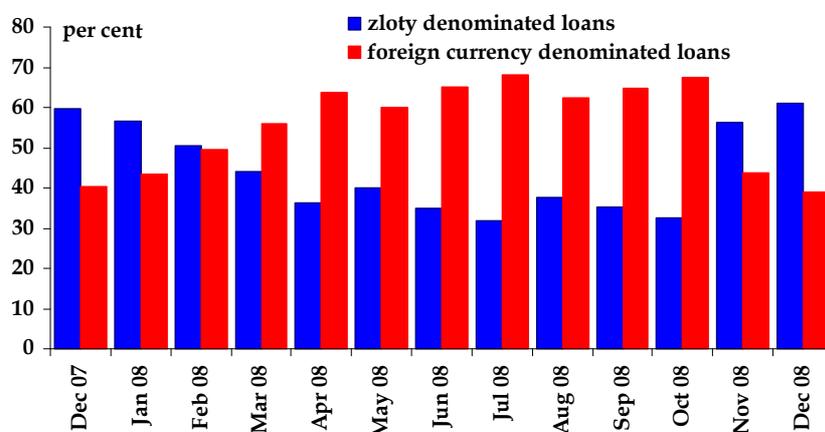
Source: NBP data.

The share of foreign-currency-denominated loans in housing loans to households increased from 43% in January to 67% in October 2008. Subsequent months brought a sudden decline in the share of foreign-currency-denominated loans in the number of total new housing loans (down to 39% in December 2008), driven, on the one hand, by their limited availability, and, on the other hand, by the considerable depreciation of the zloty.

2008 brought no significant changes in the growth of consumer loans, which noted only a slight decline from 33.4% y/y in January to 30.9% y/y in December 2008. The growth rate remaining at a relatively high and stable level was connected with the still good income situation of households.

**Figure 13**

**New housing loan agreements – currency structure**



Source: NBP – structure prepared on the basis of information obtained for interest rate reporting purposes from a sample of 20 selected banks whose share in the market for loans to the non-financial sector accounts for approx. 75%.

**Loans to enterprises**

The nominal value of corporate debt to banks increased in 2008 by PLN 48.3 billion to approx. PLN 216 billion (as compared to an increase of approx. PLN 32 billion in 2007). After adjustment for exchange rate fluctuations, the rise in debt was lower by approx. PLN 5 billion<sup>18</sup>.

In December 2008 the growth in corporate debt to the banking sector amounted to 25.0% y/y as compared with 28,2% in January. The highest growth rate was recorded in August (29.0% y/y), and since then a gradual decline could be observed. This was driven by the tightening of loan-granting criteria and increased uncertainty about future economic climate resulting from the turmoil in the global financial markets and its possible impact on the Polish economy.

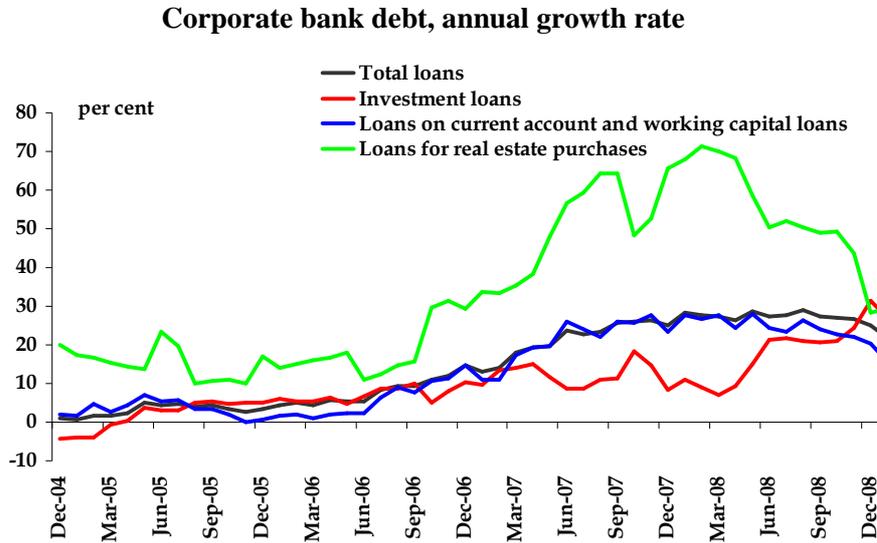
One of the main reasons for the sustained relatively high corporate demand for loans was the need to continue the already commenced investment projects. As suggested by the NBP's surveys<sup>19</sup>, in 2008 Q4 the investment continuation indicator remained at a high level (97.2%), showing only a slight decline of 0.8 percentage points as compared with 2007 Q4. The investment continuation process, involving the shift from the initial stage of investment projects (i.e. land and real estate purchases) to the stage of financing expenditures directly contributing to the increase in production capacity, was reflected in changes in the growth of various categories

<sup>18</sup> In 2007, after adjustment for exchange rate fluctuations, the rise in debt was PLN 3.2 billion higher than indicated by nominal values.

<sup>19</sup> See: *Information on the condition of the enterprise sector, including the economic climate in 2008 Q4*, NBP.

of corporate debt. The growth of property loans decreased from 68.1% y/y in January to 28.5% y/y in December 2008, coupled with a rise in the growth rate of investment loans from 10.9% y/y to 31.2% y/y. At the same time, the growth of working-capital loans and loans on current account decreased from 27.7% y/y in January to 20.5% y/y in December 2008.

**Figure 14**



Source: NBP data.

According to balance of payments data, foreign debt continued to be a major source of corporate financing. Yet, the growth rate of EUR-denominated foreign debt in 2008 was considerably lower compared to 2007 (11.7% y/y against 21.1% y/y respectively). This was a result of the data from 2008 Q4, when the value of debt fell by EUR 5.1 billion. This was connected with a significant tightening of lending conditions for the corporate sector. Enterprises were granted mainly non-trade loans which increased by 18.4% y/y in 2008. At that time, the value of trade loans declined by 1.8% y/y; a fall was also recorded in debt resulting from debt securities held by foreign portfolio investors (by 4.4% y/y).

### **Financial assets of households**

The crisis has not spared the household sector whose financial assets fell in 2008 by PLN 3.6 billion (0.6% y/y). As a result of the securities portfolio revaluation and the cancellation of investment-fund participation units, the value of investment funds' assets decreased by PLN 66.9 billion (52.1% y/y). On the other hand, the value of shares held by households declined by PLN 32.2 billion (52.4% y/y).

**Table 6****Financial assets of households****Financial assets of households - structure**

	Stocks in PLN billion					Change in 2008		Change in 2008 Q4	
	XII 2007	III 2008	VI 2008	IX 2008	XII 2008	w mld zł	w %	w mld zł	w %
1. Deposits (with banks and credit unions)	267.2	289.6	297.0	310.2	336.8	69.6	26.0	26.6	7.9
2. Shares <sup>1, 10</sup>	61.4	54.3	43.6	40.0	29.2	-32.2	-52.4	-10.8	-36.9
3. Investment fund assets <sup>2</sup>	128.4	102.6	90.8	80.4	61.6	-66.9	-52.1	-18.8	-30.6
4. Life insurance undertaking <sup>3</sup>	63.1	63.0	67.0	70.2	72.9	9.8	15.6	2.7	3.7
5. Treasury bonds <sup>4</sup>	10.4	10.5	10.3	10.3	12.2	1.8	17.6	1.9	15.3
6. Treasury bills <sup>5</sup>	0.3	0.2	0.3	0.3	1.3	0.9	291.5	0.9	72.7
7. Notes and coins circulation (excluding vault cash) <sup>6</sup>	77.2	77.8	81.9	82.5	90.7	13.6	17.6	8.2	9.0
8. Non-Treasury securities <sup>7</sup>	3.5	3.5	3.7	4.0	3.2	-0.3	-8.7	-0.8	-25.8
TOTAL (items 1 - 8)	<b>611.4</b>	<b>601.5</b>	<b>594.6</b>	<b>597.9</b>	<b>607.8</b>	<b>-3.6</b>	<b>-0.6</b>	<b>9.9</b>	<b>1.6</b>

1. Shares and allotment certificates deposited in accounts in brokerage offices and houses and in trust companies - for semi-annual periods according to GUS data and Polish Financial Supervision Authority (KNF) data, for the end of the Q1 and Q3 according to the KNF data, for remaining periods NBP estimates.
2. Does not account for data from funds known to be oriented at legal entities only.
3. Figures represent the value of technical provisions in life assurance (including provisions where investment risk is borne by the policy holder).
4. According to data of the Ministry of Finance.
5. According to data of the Domestic Operations Department.
6. It was assumed that the whole cash in the market was held by households.
7. According to data of the Domestic Operations Department based on money market dealers' reports (banks).
8. According to preliminary data.
9. Own estimates.
10. Data changed after revision by the Polish Financial Supervision Authority.

Source: NBP data.

During a bear market bank deposits became an attractive alternative to non-banking savings.. A factor that contributed to this was gradually rising interest on bank deposits which rose from 4.3% in January 6.5% in December 2008. As a result, the growth in household deposits amounted to PLN 69.6 billion (26.0%) in 2008, as compared to PLN 24.6 billion (10.1%) in 2007, and at the end of the year household deposits reached the total of ca. PLN 337 billion.

The bankruptcy of the American investment bank Lehman Brothers in September 2008 and the threat of other banks going bankrupt were of considerable importance. Faced with the ensuing global decline in confidence in the financial system and in fear of uncontrolled withdrawal of bank deposits, many countries, including Poland, decided to increase bank deposit guarantees. This was reflected in sizable monthly changes in household deposits. These deposits rose until the end of September 2008 but in October – when growing uncertainty about deposits' security was observed – funds deposited in bank accounts fell by PLN 2.2 billion. In subsequent months, when the situation calmed down, banks again noted a rise in deposits (by PLN 6.5 billion in November and PLN 15.3 billion in December).

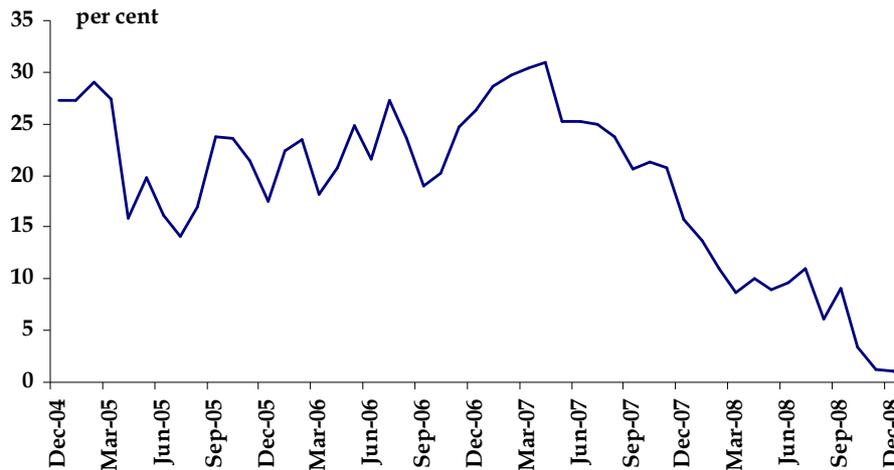
**Deposits of enterprises**

The negative impact of the global financial crisis on the Polish economy manifested itself in the corporate sector's worsening financial performance in 2008 Q4, which was reflected in a strong decline in the growth of corporate deposits in the last few months of the year – although

the growth in deposits displayed a downward trend throughout 2008 (from 13.7% y/y in January to 1.1% y/y in December 2008). As a result, in 2008 the growth in deposits amounted to PLN 1.6 billion (as compared with PLN 20.2 billion in 2007), and at the end of 2008 a total of PLN 150 billion was deposited in corporate accounts. Enterprises used the deposited funds to finance their day-to-day activities and to continue their investment projects.

**Figure 15**

**Corporate deposits, annual growth rate**



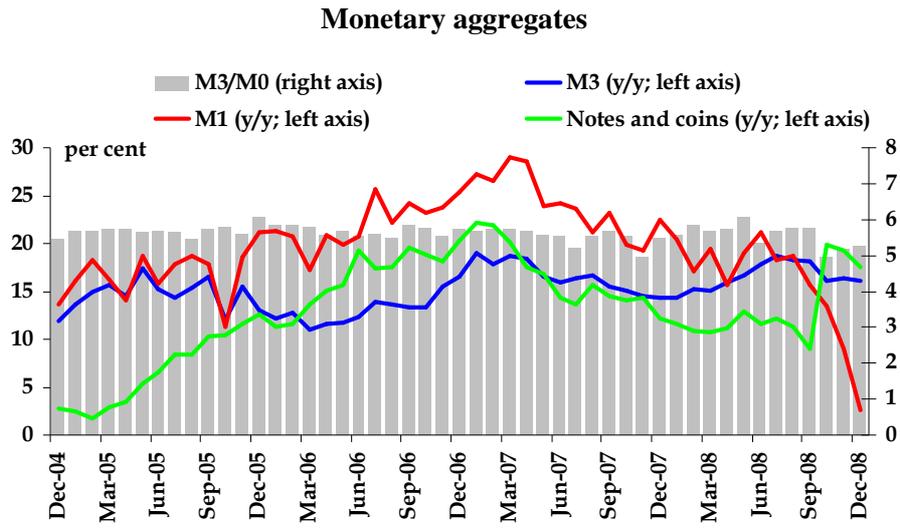
Source: NBP data.

### Monetary aggregates

In 2008 the initially observed increase in the growth of the M3 aggregate (from 14.4% y/y in January to 18.7% y/y in July) was followed by a decline to 16.1% y/y in December 2008. At the same time, significant changes in the structure of the M3 aggregate were observed. The level of currency in circulation rose steadily, with its largest growth being recorded in October (by PLN 8.1 billion), which was driven by a temporary fall in confidence in the banking system in response to the intensifying turmoil in international financial markets.

In the first half of 2008, the liquidity of M3 money, measured with the share of cash and current deposits (i.e. M1 money) in M3, reached approx. 57%, and began to fall gradually in the second half of 2008 (to approx. 52% in December). Although the strong growth in currency in circulation, particularly in the last few months of 2008, was conducive to a rise in M3 liquidity, the parallel considerable flow of funds from current accounts held by households and enterprises to higher interest bearing fixed-term deposits contributed to the growth in less liquid components' share in M3. The flow of household savings withdrawn from investment funds was an additional factor leading to the rise in fixed-term deposits (with maturities up to 2 years).

Figure 16



Source: NBP data.

## Appendix 5. Inflation projections of the NBP

The *Inflation Report* is an important instrument of the central bank's communication with market participants. The document presents the Monetary Policy Council's assessment of the current and future macroeconomic developments influencing inflation.

Starting from August 2004 *Inflation Reports* contain inflation projections which are one of the inputs into the Monetary Policy Council decision-making process concerning NBP interest rates. The publication of projection results along with the assessment of the balance of factors affecting inflation enhances the transparency of pursued monetary policy.

The projection presented in Chapter 4 of the *Inflation Report* is prepared by a team of NBP economists with the use of the NECMOD econometric model of the Polish economy (its earlier version – ECMOD – was used until February 2008)<sup>20</sup>. The horizon of each projection encompasses the year of its preparation and two subsequent calendar years. The projection is prepared with the assumption of unchanged NBP interest rates.

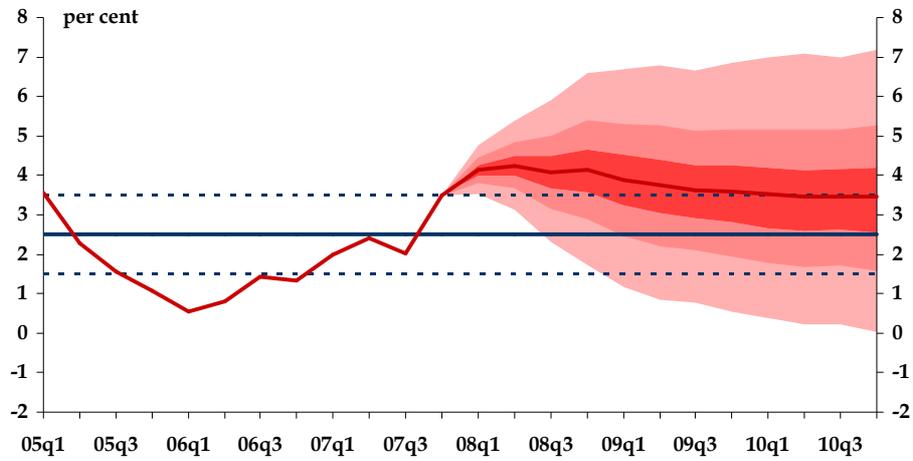
The fan charts presented below depict the results of projections published in 2008. The fan charts reflect the main sources of uncertainty (e.g. uncertainty connected with food price developments).

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<sup>20</sup>The description of the ECMOD model was published in Fic T., Kolasa M., Kot A., Murawski K., Rubaszek M., Tarnicka M., "Model gospodarki polskiej ECMOD"[ECMOD – a model of the Polish economy], *Materiały i Studia*, NBP, No. 194, May 2005. The description of the new forecasting model NECMOD is available online on the NBP official website at [http://www.nbp.pl/Publikacje/o\\_polityce\\_pienieznej/raport\\_o\\_inflacji/NECMOD\\_pl.pdf](http://www.nbp.pl/Publikacje/o_polityce_pienieznej/raport_o_inflacji/NECMOD_pl.pdf).

Figure 17

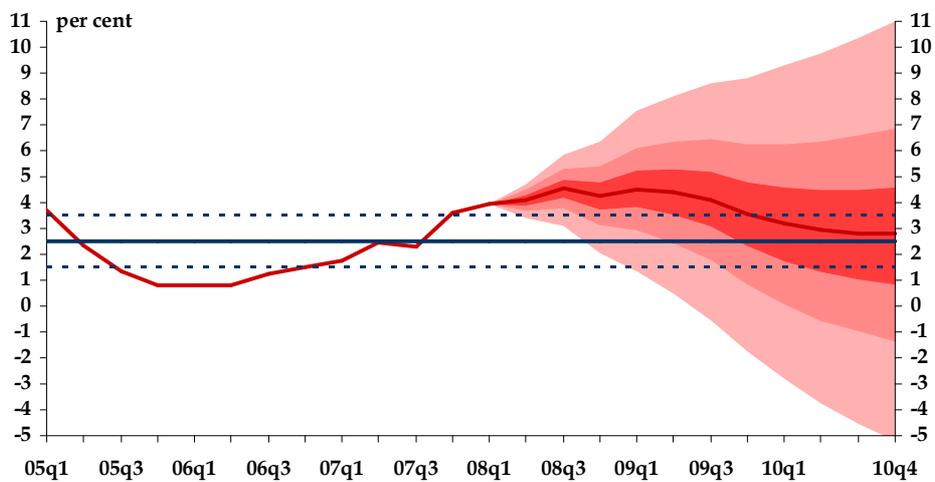
**Central inflation projection, fan chart of inflation and inflation target of MPC – February 2008**



Source: *Inflation Report*, February 2008, NBP.

Figure 18

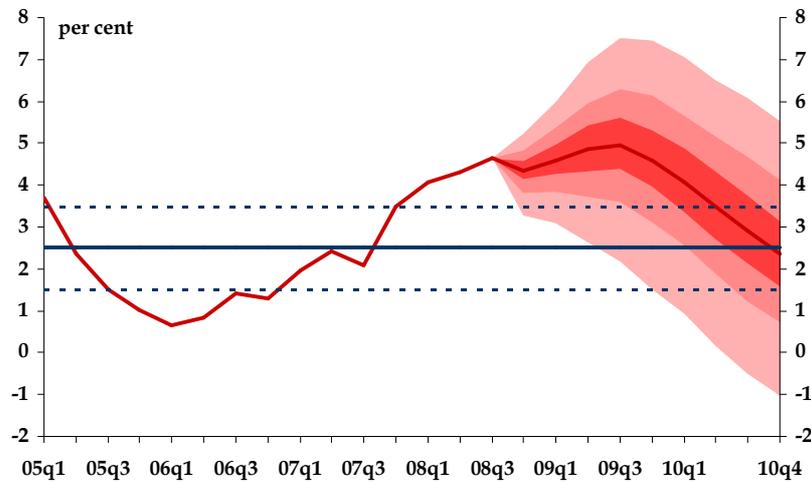
**Central inflation projection, fan chart of inflation and inflation target of MPC – June 2008**



Source: *Inflation Report*, June 2008, NBP.

**Figure 19**

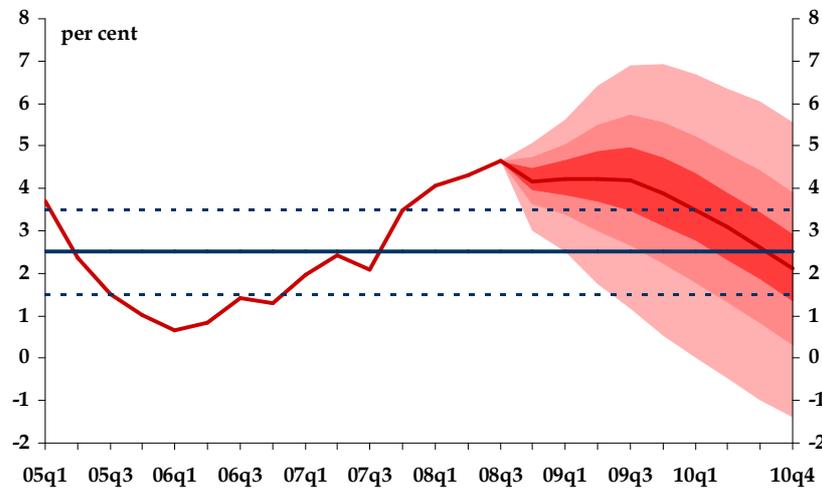
**Central inflation projection, fan chart of inflation and inflation target of MPC – October 2008**



Source: *Inflation Report* , October 2008, NBP.

**Figure 20**

**Central inflation projection and fan chart of inflation (after accounting for the quantification of risks for inflation primarily connected with deteriorating outlook of global economic growth between 26 September and 16 October 2008) and inflation target of MPC – October 2008**



Source: *Inflation Report* , October 2008, NBP.

### **How should fan charts be interpreted?**

Every projection of future values of economic indicators is subject to uncertainty. Central banks present the size and scope of quantifiable inflation projection risk through the use of fan charts. The width of the “fan” corresponds to the overall level of risk, which usually changes from quarter to quarter. The further ahead, the wider it gets, as the uncertainty of the assessment of the future usually grows proportionally to the length of the time horizon.

In inflation projections prepared by the NBP, the probability distribution of inflation’s possible realisations is determined for each quarter. The expected values of distributions in particular quarters are adopted as the central projection. At the same time, 30-percent confidence intervals are constructed around the distribution medians. These constitute the central band of the chart, indicated with the darkest shade of the fan. Thus, the probability of inflation settling within this band is equal to 30%. Next the fan is expanded on both sides so that the probability of the variable running within the extended boundaries increases by another 30 percentage points – 15 points from above, and 15 from below. The subsequent extensions create successive bands of the fan marked with increasingly lighter shades. The entire fan represents a 90-percent confidence band around the medians – there is a 90-percent probability of inflation running within the fan.

For example, the chart from the February 2008 inflation projection shows that the probability of inflation ranging in 2008 Q4 between 1.5% and 2.5% amounts to approx. 10%. Similarly, inflation will be ranging between 2.5% and 3.5% with approx. 20-percent probability. The inflation projection is characterised by slight asymmetry, which reflects approximately equal probabilities of inflation running above as well as below the central path.

The uncertainty presented in the fan charts is consistent with the historical errors of forecasts based on the ECMOD/NECMOD model, which ensures that most kinds of inflation projection uncertainty have been accounted for. The change in the projection’s uncertainty in relation to past forecasting periods is estimated based on the change of uncertainty of exogenous variables.

## **Appendix 6. Minutes of Monetary Policy Council decision-making meetings held in 2008**

### **Minutes of the Monetary Policy Council decision-making meeting held on 30 January 2008**

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

The discussion at the meeting focused on: current inflation developments, including food price changes, situation in the labour market, the outlook for economic growth and the level of interest rates in Poland and abroad. The Council discussed the influence of these factors on the future inflation in Poland.

While discussing current inflation, the Council analysed the causes of the annual growth of consumer prices in December increasing and remaining both above the NBP inflation target of 2.5% and the upper limit for deviations from the target set at 3.5%. It was pointed out that CPI growth in December was primarily driven by the further acceleration of food and fuel prices growth that resulted from global developments. It was emphasized that those developments were beyond the control of domestic monetary policy and that a rise in inflation driven by accelerating growth of food and fuel prices was also observed in many other countries. It was pointed out that in December net core inflation recorded a minor rise and remained relatively low. At the same time, it was emphasised that the remaining four core inflation measures also increased in December. In the opinion of some Council members, the upward trend in net core inflation recorded in the last months of 2007 reflected rising demand pressure. It was also indicated that the rise in inflation in December 2007 resulted also, among other things, from continuing high growth of prices of some services.

While discussing food price developments, some members of the Council indicated that the scale of food price acceleration and the ensuing rise in CPI inflation in Poland and in many other countries significantly exceeded expectations. It was pointed out that accelerating food price growth was driven by external factors, mainly by increased demand for food on the part of rapidly developing emerging economies and a rise in production of biofuels. Some Council members assessed that increased growth of food prices might continue over a longer period due to, among other things, persistently growing demand for food and limited possibilities to augment food supply in the short term. They pointed to the fact that changes in the growth rate of food prices were previously treated as temporary shocks. In the present situation they might prove to be relatively permanent and act asymmetrically, i.e. leading to persistently relatively high inflation. In the opinion of those members, net core inflation is currently less useful an indicator of inflationary pressure than in the situation when shocks on the food markets are relatively short-lived and symmetrical. Other members of the Council indicated that it was difficult to assess the sustainability of the increased growth rate of food prices.

While addressing the future inflation, some members of the Council assessed that in the months to come a rise in net core inflation should be expected, primarily as a result of growth of regulated prices, in particular energy prices, as well as accelerating growth of prices of certain services. Those members assessed that the rise in net core inflation and the continuing high growth of food prices will probably result in CPI inflation remaining above the inflation target throughout 2008. In this context, some Council members pointed out that accelerating inflation resulting from increased growth of food prices and a rise in regulated prices is beyond the scope of domestic monetary policy. Other members, however, emphasized that a rise in CPI inflation

might boost inflation expectations. Moreover, they indicated that certain deterioration in inflation expectations had already been observed. Attention was drawn to the fact that the deterioration in inflation expectations had come about amidst low unemployment rate and tight labour market, which might increase the likelihood of the so-called second round effects.

Some members of the Council assessed that Poland is likely to cease fulfilling the Maastricht price stability criterion within a short time. Other members, however, pointed out that meeting the price stability criterion would become relevant only after the scheduled date of Poland's joining the euro area had been fixed.

While discussing the labour market situation, it was pointed out that wage growth in the corporate sector in December 2007 was lower than in the preceding months, and its decline as compared with November 2007 was stronger than it might result from the statistical effect of the dates of bonus payments in certain sectors being different than in 2006. In the opinion of some Council members, this might suggest that wage pressure in the corporate sector was likely to diminish. Moreover, those members assessed that labour productivity growth in the enterprise sector should follow an upward trend in the coming period due to investments made in the past as well as employment growth lower than in 2007, which would be conducive to reducing unit labour costs in this sector. They also argued that high wage growth did not have to lead to growing inflationary pressure given the good financial standing of enterprises. In this context, they pointed out that, as suggested by the findings of enterprise surveys, the scale of wage increases scheduled for 2008 Q1 in the enterprise sector was moderate and that the wage rises would lead to price increases only in a small part of the surveyed enterprises. They also estimated that considerable pay rises in the public finance sector were rather unlikely as this would require amendments to the Budget Act for 2008.

Other members of the Council pointed out that in December the annual wage growth in the corporate sector continued to outpace labour productivity growth, which was conducive to rising consumption demand and inflationary pressure. Moreover, some members indicated that the recent period had been marked by intensifying wage demands in the public finance sector. They emphasised that a considerable rise in wages in this sector would lead to increasing domestic demand as well as demands of wage increases in other sectors of the economy, which would be conducive to growing inflationary pressure.

In the opinion of some members of the Council, tight labour market reflected in the rapid decline in unemployment rate and a swift labour demand growth would not diminish significantly in the time to come due to economic emigration of Poles and persisting differences in the level of wages between Poland and Western European countries. Other members argued that the expected slowdown in the economic growth in Western European countries might result in certain emigrants returning to Poland, which would be conducive to diminishing wage pressure.

While addressing the changes in external factors affecting the Polish economy, the discussants pointed at further deterioration in the outlook for economic growth in the United States. It was indicated that this increased the likelihood of a slowdown in the world economy, in particular in Great Britain and, consequently, the euro area. Attention was drawn to the simultaneous increase in the uncertainty about the outlook for growth in the world economy. It was argued that considerable drops in equity prices in the global financial markets might – similarly to 2001 – become one of the factors contributing to a deterioration in investor expectations and weakening economic growth in Europe.

While discussing the outlook for economic growth in Poland, it was pointed out that December data on industrial output and retail sales were significantly below expectations. In the opinion of some Council members, those data might point at a gradual decline in the economic growth in Poland, which would ease the demand pressure and, consequently, inflationary pressure. Those members pointed out that the likely slowdown in the world economy might lead to a slowdown

in economic growth in Poland. They indicated that the turmoil in the global financial markets in January 2008 also affected the Warsaw Stock Exchange and emphasised that the resulting possible deterioration in investor expectations might contribute to weakening the economic growth in Poland.

Other members of the Council thought it was currently difficult to assess whether the December data suggested a decline in economic activity in Poland and that only the data referring to the subsequent months would allow an assessment whether there was a decline in GDP growth. Those members pointed out that in 2007 Q3 domestic demand continued to grow faster than GDP suggesting an increase in inflationary pressure. In the opinion of those members, the increase in domestic demand was driven by high growth in lending. Moreover, they assessed that high growth in corporate lending indicated that investment growth might be sustained at a high level, which would be conducive to maintaining fast economic growth. Some discussants pointed out that the fast growth in bank deposits might possibly result in increased lending growth and stronger demand pressure. Moreover, some members of the Council indicated that the slowdown in economic growth in the United States would affect the economic activity in the euro area, and consequently in Poland, after a certain time lag. Those members assessed that the economic slowdown in emerging economies will have a smaller scale than in the United States and the euro area and that the weakening economic growth in Poland would not significantly reduce the labour market tensions.

While discussing exchange rate developments, some Council members pointed out that in 2007 the zloty exchange rate both against the US dollar and against the euro had appreciated, and that in January 2008 the nominal effective exchange rate had been stronger than accounted for in the October projection, which was conducive to diminishing inflationary pressure. It was emphasised that despite the turmoil in the international financial markets observed in January the zloty exchange rate remained stable. On the other hand, some discussants indicated that zloty appreciation might stem from the appreciation of the real equilibrium exchange rate related to the convergence process. Moreover, it was pointed out that it was currently difficult to assess the sustainability of factors which had led to zloty appreciation in the previous period. It was also argued that slump in the global financial markets might increase the likelihood of capital outflow from emerging markets which might be conducive to zloty exchange rate depreciation.

While addressing monetary policy, it was pointed out that in January 2008 interest rates were lowered considerably in the United States and further lowering of interest rates was expected, and that, as anticipated by financial markets, interest rates in the euro area would probably also be reduced. Some Council members indicated that certain central banks eased monetary policy despite high inflation being observed in those countries.

Some members of the Council emphasised that the real interest rate in Poland was high as compared with other countries of the region, and that interest rate increases by the NBP in 2007 were accompanied by zloty appreciation. They pointed out that in January 2008 zloty exchange rate continued to be stronger than accounted for in the October inflation projection. In the opinion of those members, as compared with other countries of the region, monetary conditions in Poland remained tight. They argued that monetary policy tightening increased interest rate disparity between Poland and the United States and the euro area, which might encourage the inflow of short-term capital to Poland and be conducive to zloty exchange rate appreciation. In the opinion of those members, this would weaken the competitiveness of the Polish economy and lead to further increase of external imbalance. Moreover, they pointed out that increasing interest rate disparity would lead to a growing share of loans denominated in foreign currency in total loans, which might weaken the impact of domestic monetary policy on domestic demand. Other Council members argued that as compared with other countries of the region, the share of foreign currency denominated loans in total loans in Poland remained relatively low.

On the other hand, the discussants pointed out that in 2007 the rise in CPI inflation in Poland was stronger than the growth of nominal interest rates, and thus the real interest rate decreased. Some of them also emphasised that in certain countries real interest rates were currently higher than in Poland. At the same time, it was pointed out that the reason for monetary policy easing by certain central banks was the expected economic slowdown and the financial market turmoil of January 2008.

While discussing the interest rates decision, the majority of the Council members believed that it was necessary to contain the risk of sustained increased CPI inflation and curb the expected growth in net core inflation and a possible boost in inflation expectations. In the opinion of some Council members, the inflation outlook justified a significant increase in interest rates at the January meeting. In the opinion of the majority of the Council, monetary policy tightening should be measured and proceed gradually due to, among other things, the increased uncertainty about the outlook for economic growth in Poland and abroad as well as uncertainty about the potential impact of interest rate increases on zloty exchange rate. In this context, the future path of interest rates in Poland was also discussed.

A motion to raise the key NBP interest rates by 50 basis points was put forward. The motion did not pass. A motion to raise the key NBP interest rates by 25 basis points was put forward and passed. The Council raised the interest rates to the following levels: the reference rate to 5.25%, the lombard rate to 6.75%, the deposit rate to 3.75% and the rediscount rate to 5.50%.

*Publication date: 21 February 2008*

## **Minutes of the Monetary Policy Council decision-making meeting held on 27 February 2008**

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

The discussion at the meeting focused on: current inflation developments, including changes in regulated prices and food prices, situation in the labour market, the outlook for economic growth and the level of interest rates in Poland and abroad. The Council discussed the influence of these factors on the future inflation in Poland in view of the February inflation projection.

While commenting on the current inflation, the Council analysed the reasons for annual consumer price growth accelerating – as indicated by preliminary information released by GUS (the Polish CSO) – and remaining above the NBP's inflation target of 2.5% and also above the upper limit for deviations from the target, which is set at 3.5%. It was pointed out that the high level of CPI inflation in January was, to a large extent, the result of increased growth of regulated prices, including prices of services connected with flat or house maintenance and energy. Inflation growth was also driven by accelerating prices of other services as well as a further increase in food and fuel prices related to global factors, which are also responsible for the heightened level of inflation observed in many other countries. It was emphasised that inflation growth resulting from increased growth of regulated prices and rising food and fuel prices was in a large part beyond the control of domestic monetary policy. At the same time, it was underlined that the increase in net core inflation in January was probably larger than that of CPI inflation, which was the result of a rise in regulated prices and prices of services.

The Council paid a lot of attention to the outlook for inflation over the monetary policy transmission horizon. It was pointed out that in the months to come a further acceleration in net core inflation should be expected, among other things, due to the rise in regulated prices,

particularly prices of energy and natural gas. It was emphasised that a one-off increase of those prices would be pushing up the annual CPI level for the next twelve months. It was emphasised that in view of the February inflation projection based on the ECMOD model, the forecast consumer price growth would remain close to or above the upper limit for deviations from the NBP's inflation target throughout the projection horizon, i.e. till 2010. At the same time, it was underlined that the expected continuation of CPI inflation above the inflation target in the time to come would largely result from factors that are independent from monetary policy, namely an increase in regulated prices and high growth of food prices. It was also pointed out that high inflation would probably continue in other economies of the region and also in the euro area and the United States. In this context, the Council discussed the optimal monetary policy in a situation when the external conditions are conducive to heightened inflation.

While discussing the probable path of food prices in 2008-2009, some Council members assessed that it was difficult to rapidly increase the global supply of food, and so the food price growth in 2008 and, consequently, CPI inflation might prove higher than accounted for in the February inflation projection. Other members of the Council believed that the food price growth should decelerate in the time to come, which was supported by futures quotations in food markets. They argued that the rise in food prices in 2007 had resulted not only from changes in the geographical structure of global demand but also from considerable supply shocks in global markets, and so the supply of food in 2008 may be significantly higher than in 2007.

Some Council members indicated that, despite a rise in CPI inflation in February, the percentage of respondents expecting faster price growth declined in the surveys of households' inflation expectations. In the opinion of those members, this may decrease the probability of the so-called second-round effects. Those members pointed out that the current structure of inflation expectations was more favourable than in the period of inflation growth in 2004. Other members of the Council, though, emphasised that the above mentioned data pointed to a persistently high percentage of respondents who expected CPI inflation to stabilise at its current, high level.

It was pointed out that even though Poland was still compliant with the Maastricht inflation criterion, there was risk that it might cease fulfilling the criterion in the coming period. At the same time, it was emphasised that except for Poland and Slovakia all the new member states of the European Union which remained outside the euro area failed to comply with this criterion. Attention was drawn to the fact that Poland's possible incompliance with the inflation criterion in the time to come would, in part, follow from the expected growth in regulated prices, which remained beyond the control of monetary policy. In this context, some Council members pointed to the need to appropriately coordinate the fiscal and monetary policies in the period preceding Poland's accession to the euro area.

While addressing the labour market situation, it was pointed out that the growth of employment and wages in the enterprise sector in January was higher than expected. It was argued that in line with the central path of the February projection of inflation and GDP based on the ECMOD model, the forecast wage growth would outpace labour productivity growth throughout the projection horizon. It was emphasised that the so-far observed and expected increase in unit labour cost was conducive to increased inflationary pressure. Some Council members emphasised that rising unit labour costs may reduce the competitiveness of the Polish economy and bring about further deepening of external imbalance. Moreover, they pointed out that the recently observed wage demands in the public finance sector may be conducive to wage demands in the private sector of the economy.

Other members of the Council believed that the January data on wages and employment in the enterprise sector were difficult to interpret due to the change in the statistical sample of enterprises at the beginning of the year. Those members argued that due to the good financial standing of enterprises the high wage growth did not have to fuel inflationary pressure.

Moreover, they pointed out that significant wage increases in the public finance sector in 2008 were rather unlikely, as they would require the budget deficit to be larger than the value assumed in the 2008 Budget Act.

While discussing the changes in external factors affecting the Polish economy, the discussants pointed out that uncertainty persisted as to the growth outlook of the global economy, particularly of the United States and the euro area. Some Council members assessed that the slowdown in the economic growth in the United States may prove rather deep and persistent, among other things, due to problems with access to corporate credit. Those members emphasised that the slowing economic growth in the United States could be conducive to a slowdown in the world economy, including the euro area and emerging economies. Moreover, they pointed out that irrespective from the growth outlook of the US economy, some Western European countries witnessed factors which could lead to slowing economic growth in those countries in the time to come. Other members of the Council, however, argued that the lower activity in the United States could be a short-lived and small-scale phenomenon, among other things, due to the weakening of dollar exchange rate amidst rising openness of the US economy, still relatively high profitability of enterprises in this country and the considerable contribution of the service sector in GDP.

While discussing the outlook for economic growth in Poland, it was pointed out that the January data on retail sales and industrial output were significantly higher than expected. Some Council members believed that this could be an indication of strong activity of the Polish economy being sustained in 2008 Q1. Those members assessed that GDP growth in emerging economies, including the Polish economy, may remain at a high level in the time to come despite the slowdown observed in developed economies. They emphasised that, in line with the central path of the February projection based on the ECMOD model, throughout the projection horizon domestic demand would be growing faster than GDP, and GDP would remain above its potential level, which should be conducive to increased inflationary pressure. They also pointed out that the rise in the domestic demand was additionally being fuelled by high growth of loans, particularly consumer loans, which had not decreased in any significant way despite NBP interest rate increases. Some Council members also pointed out that the recently observed fast growth in banking sector deposits might potentially result in increased credit growth.

Other members, however, believed that at the moment it was hard to assess whether the January data indeed indicated the continuation of strong economic growth in Poland in the near future and they argued that a more comprehensive assessment of the prospects for GDP growth would only be possible based on data for subsequent months. Moreover, those members pointed out that the likely slowdown in the world economy might contribute to a slowdown in economic growth in Poland.

When discussing exchange rate developments, the discussants indicated that, despite the persisting turmoil in international financial markets, zloty exchange rate was stable, and that the final days of February brought its considerable appreciation. Some Council members believed that it was currently difficult to assess the sustainability of factors which had led to this recent zloty appreciation.

While discussing monetary policy, it was pointed out that further interest rate lowering was expected in the United States and the United Kingdom and that, as anticipated by financial markets, interest rates in the euro area would most probably also be reduced in 2008. Some Council members emphasised that several central banks eased monetary policy despite high inflation being observed in those countries. They also pointed out that the real interest rate in Poland was relatively high as compared to other countries of the region and that, due to the appreciation of the real zloty exchange rate, monetary conditions in Poland remained relatively tight. They argued that monetary policy tightening in Poland would increase interest rate

disparity between Poland and the United States and the euro area, which might encourage the inflow of short-term capital to Poland and be conducive to zloty exchange rate appreciation. In the opinion of those members, this would weaken the competitiveness of the Polish economy and lead to further increase of external imbalance. They pointed out that in 2006-2007 in Poland – in contrast to some other countries of the region – the unfavourable trade balance was deepening with exports rising more slowly than imports. Moreover, some Council members assessed that rising interest rate disparity would be increasing the share of loans denominated in foreign currencies in total loans, which might weaken the impact of domestic monetary policy on domestic demand.

Other members of the Council pointed out that the reason for monetary policy easing by certain central banks was the expected economic slowdown and financial market turmoil. Those members emphasised that in Poland, similarly as in many other countries of the region, the level of nominal interest rates necessary to keep inflation at the target level was higher than in the euro area, among other things, due to the higher economic growth, resulting from higher labour productivity growth. They pointed out that in 2007 and at the beginning of 2008 CPI inflation in Poland increased more strongly than nominal interest rates and so the real interest rate had decreased. They also argued that a considerable proportion of foreign currency denominated loans to enterprises was concentrated in a relatively small number of large enterprises and thus changes in domestic interest rates should have noticeable impact on growth in loans granted to other enterprises and on domestic demand. Moreover, they pointed out that monetary policy was being tightened in some countries.

While discussing the interest rates decision, the majority of the Council members believed that it was necessary to contain the risk of sustained increased CPI inflation and curb the expected growth in net core inflation and a possible boost in inflation expectations. In the opinion of some Council members, the outlook for inflation outlined in the February projection justified a significant interest rate increase at the current meeting. In the assessment of the majority of the Council, monetary policy tightening should be measured and proceed gradually due to, among other things, the uncertainty about the potential impact of interest rate increases on zloty exchange rate and about the outlook for global economic growth. In this context, the future path of interest rates in Poland was also discussed.

A motion to raise the key NBP interest rates by 50 basis points was put forward. The motion did not pass. A motion to raise the key NBP interest rates by 25 basis points was put forward and passed. The Council raised the interest rates to the following levels: the reference rate to 5.50%, the lombard rate to 7.00%, the deposit rate to 4.00% and the rediscount rate to 5.75%.

*Publication date: 20 March 2008*

## **Minutes of the Monetary Policy Council decision-making meeting held on 26 March 2008**

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

The discussion at the meeting focused on: current inflation developments, including changes in food prices and regulated prices, the outlook for economic growth, situation in the labour market and the level of interest rates in Poland and abroad.

While discussing current inflation developments, it was pointed out that as a result of the annual revision of the CPI basket, the inflation data for January had been significantly revised

downwards (from 4.3% y/y to 4.0% y/y). It was also emphasised that in February inflation was significantly below expectations despite a rise up to 4.2% y/y. Lower than expected growth in prices in February was driven – apart from the revision of the CPI basket – by lower than expected growth in food and fuel prices. In the opinion of some Council members, a significant downward revision of the January inflation, together with markedly lower than expected inflation in February, allowed to assume that inflation might return within the limit for deviations from the NBP's inflation target sooner than accounted for in the February inflation projection.

When addressing the decline in the annual growth of food prices observed in February, some Council members pointed out that the decline had also been recorded in other countries of the region, which might suggest that the strong growth in food prices experienced since mid-2007 was beginning to slow down. A decline in the growth of food prices in the coming period is also suggested by prices of futures contracts in the world food markets, which reflect favourable forecasts of this year's crops. Other members of the Council pointed out that, due to the expectations that crops in 2008 would be higher than in 2007, prices of certain food products and agricultural commodities might even be expected to decline in 2008-2009.

It was pointed out that the rise in the annual inflation in February 2008 in relation to January 2008 was primarily driven by a strong growth in regulated prices. It was underlined that the CPI excluding regulated prices fell in February 2008 as compared to January 2008. Some members of the Monetary Policy Council indicated that regulated prices would be a major factor driving inflation in Poland both in 2008 and probably in the subsequent years. This is mainly related to the expected considerable rise in energy prices, which will result from the probable convergence of gas prices in Poland to those in other EU countries and from the need of the power generating sector to raise funds to finance the necessary investment (connected with a possible electricity shortage) and to cover the expenses incurred by the environmental protection regulations. Some Council members, however, pointed out that the ongoing liberalisation of the energy sector might curb the growth of energy prices.

While discussing the impact of tax policy on consumer price developments, some Council members pointed out that the adjustment of excise duty and VAT rates to the EU regulations, which is to take place after the expiration of the transition periods negotiated by Poland, might be an important factor driving inflation in Poland in the years to come. Nevertheless, it was emphasised that the timing of changes in indirect taxes is uncertain. The Council also paid attention to the fact that changes in indirect taxes might be of importance for Poland as regards its compliance with the Maastricht price stability criterion. In this context the members of the Council pointed to the need to appropriately coordinate the fiscal and monetary policies in the period preceding Poland's accession to the euro area.

When discussing net core inflation, some members of the Council argued that its strong rise in February was primarily the result of a surge in administered prices. Therefore, at least for a certain period of time, this measure may reflect the inflationary pressure stemming from changes in domestic demand only to a limited extent. Other members pointed out that a rise in the demand pressure is most clearly visible in some parts of the services sector. It was also argued that the growth in prices of market services had already been following an upward trend for a longer period, and its one-off drop in mid-2007 resulted from the way in which price promotions were accounted for in the price index.

Some Council members emphasised that a significant rise in administered prices, combined with previously recorded strong increases in food and fuel prices, might translate into a rise in perceived inflation and thus boost inflationary expectations of households. In this context, they pointed out that the monetary policy should account for the related increased risk of second-round effects.

While assessing the outlook for economic growth in Poland, it was pointed out that the growth of retail sales and industrial output in February were significantly higher than expected. In the opinion of some Council members, these data confirmed the continuation of strong activity in the Polish economy in 2008 Q1 suggesting, at the same time, that the global economic slowdown had thus far not deteriorated economic climate in Poland. Some members of the Council pointed out that GDP growth would remain at a relatively high level unless the negative impact of the slowdown in the world economy on the economic growth in Poland would rise. Certain members of the Council argued that in view of the estimates of potential GDP growth in Poland this meant that the output gap would remain positive in the coming period, which would, in turn, call for a further tightening of the monetary policy. It was also pointed out that despite previous interest rate increases high growth of credit aggregates continues, including growth of consumption loans granted to households.

Other members of the Council pointed out that the data on GDP in 2007 Q4 confirmed that, from the point of view of inflationary pressure, the structure of economic growth continued to be favourable and was better than expected (lower growth of domestic demand, including primarily lower growth of private consumption and lower negative contribution of net exports to GDP growth together with higher investment growth). They argued that if GDP growth in 2008 proved higher than assumed in the Budget Act, then the budget deficit, similarly to 2007, might be markedly lower than assumed, which would, in turn, curb inflationary pressure.

During the discussion it was pointed out that 2007 Q4 brought a decline in enterprises' profitability rate of gross turnover. Some Council members argued that this might result in enterprises assessing their financial condition less favourably, which amid growing production costs might urge them to increase prices of their products. Other members of the Council pointed out that deteriorating financial results of enterprises, combined with possible tightening of banks' lending policies, might result in lowering investment of enterprises and, in consequence, lead to a decline in GDP growth.

When analysing the situation in the labour market, it was pointed out that the data on wages in the enterprise sector in February were higher than expected, and the growth of employment remained at a high level. Some members of the Council indicated that the currently observed wage rise had been very high both in nominal and real terms as compared to that of the past few years, which confirmed persistently strong wage pressure in the economy. It was also emphasised that the dynamic growth in wages exceeded labour productivity growth, resulting in a further increase in unit labour costs.

While discussing external factors affecting the Polish economy, it was pointed out that uncertainty persisted as to the growth outlook for the global economy. Some members of the Council indicated that forecasts of the economic growth in the United States had recently been revised downwards despite a considerable easing in monetary and fiscal policies. The situation deteriorated also in the euro area, while in the opinion of some Council members, the pace of this process might indicate that economic slowdown in the euro area was not only driven by the recession in the United States but also by weak domestic demand in the euro area. Some members argued that a decline in the global economic growth, and particularly in the growth of Western European countries, might negatively affect the growth of Polish exports and, consequently, might lead to a decline in GDP growth in Poland. At the same time, faced with the uncertainty about the possibility of selling their products abroad, enterprises may limit their investment activity, which might also have a negative impact on GDP growth. Other members of the Council indicated that the negative impact of the slowdown in the world economy on the economic situation in Poland might be mitigated by the changing geographical structure of Polish foreign trade.

When discussing the monetary policy it was pointed out that too strong policy tightening, combined with interest rates cuts by the US Federal Reserve and the ECB interest rates kept unchanged, may be conducive to the inflow of speculative capital to Poland and to an excessive exchange rate appreciation. In turn, such an excessive strengthening of the zloty may lead to deteriorating the competitiveness of the Polish foreign trade, which amid a slowdown in the world economy may result in a decline in the growth of Polish exports and GDP. In this context, some Council members emphasised that possible consequences of a further increase in the interest rate disparity for the zloty exchange rate should be taken into consideration while taking decisions on interest rates.

While addressing the issue of the exchange rate, some Council members argued that despite the recently observed appreciation of the zloty, it should be treated neutrally in taking monetary policy decisions due to the possible considerable fluctuations of the exchange rate.

After discussion, it was assessed that primarily the following factors point to a significant probability of inflation remaining above the inflation target in the medium term: the continuation of the fast economic growth, probably exceeding the growth of potential GDP, significant surge in wages and employment and the risk of higher inflation expectations due to heightened current inflation and expected further growth in regulated prices. In the Council's assessment, these arguments justified monetary policy tightening at the current meeting. Members of the Council also discussed the scale and pace of the needed monetary policy tightening.

A motion to raise the key NBP interest rates by 50 basis points was put forward. The motion did not pass. A motion to raise the key NBP interest rates by 25 basis points was put forward and passed. The Council raised the interest rates to the following levels: 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%.

*Publication date: 24 April 2008*

## **Minutes of the Monetary Policy Council decision-making meeting held on 30 April 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: current inflation developments, including changes in administered prices and food prices, situation in the labour market, exchange rate developments, the outlook for economic growth and the level of interest rates in Poland and abroad. The Council discussed the influence of these factors on the future inflation in Poland.

While commenting on the current inflation, the Council analysed the reasons behind a slight decline in annual consumer price growth in March, which, however, remained above the upper limit for deviations from the NBP's inflation target set at 3.5%. It was argued that the fact that annual CPI inflation proved lower than in February followed from some decline in the annual food and fuel price growth. At the same time, it was pointed out that net core inflation increased in March, mainly due to a further acceleration in administered prices (prices of services connected with flat or house maintenance and some other services) and also because of an unexpected increase in prices of clothing and footwear. Some members of the Council emphasised that the heightened annual consumer price growth was mainly sustained by the continuing, despite some decrease, of the high growth of food and fuel prices and also by rises in administered prices in 2008 Q1. Those members also pointed out that the heightened inflation

was also observed in many other countries and stressed that in Poland its level was lower than in other Central and Eastern European countries.

While discussing the outlook for inflation in 2008-2009, it was pointed out that rising administered prices, especially those of energy and natural gas, would be a factor increasing inflation. Some Council members underlined that rises in administered prices, combined with the previously observed strong increases in food and fuel prices, might translate into a rise in perceived inflation and thus also boost inflationary expectations. Those members pointed out that the surveys of inflation expectations of households in April revealed an increase in the percentage of respondents expecting inflation to stabilise at its current high level or to rise further. In this context, they pointed out that the monetary policy should account for the related increased risk of second-round effects. Moreover, some Council members assessed that the increased growth of the prices of clothing and footwear in March may be signalling a weakening in the disinflationary impact of globalisation processes and intensified competition in the market of internationally traded goods on the Polish economy. Other members of the Council, however, believed that it was difficult to assess at the moment whether the increased growth of clothing and footwear prices would indeed prove permanent.

While discussing the path of food prices, it was assessed that the high growth of these prices observed since the second half of 2007 would most probably ease in the months to come, which was indicated, among others, by the prices of futures contracts in the world food markets and the positive forecast of this year's harvest in Poland and other European countries.

Some Council members emphasised that high current inflation and the already introduced and expected rises of administered prices might be of importance for Poland as regards its compliance with the Maastricht price stability criterion. In this context, the Council members pointed to the need to appropriately coordinate the fiscal and monetary policies in the period preceding Poland's accession to the euro area.

While analysing developments in the environment of the Polish economy, it was pointed out that the symptoms of a slowdown in the United States had deepened and the activity in some Western European economies had lowered. It was stressed that there had been a downward revision of growth forecasts for the global economy in 2008-2009, particularly the forecasts for the United States and the euro area. Some Council members emphasised that the appreciation of the euro against the US dollar and pound sterling observed over the past months was a factor strengthening the negative impact that the economic slowdown in the United States and the United Kingdom had on GDP growth in the euro area. They assessed that the deceleration of economic growth in Western European countries, in combination with the zloty appreciation observed over the past months, may be lowering the growth rate of Polish exports and, consequently, have a negative impact on GDP growth in Poland. They also argued that the weakening of the foreign demand might persuade enterprises to limit their investment, which would additionally decrease GDP growth.

While assessing the outlook for economic growth in Poland, it was pointed out that the growth of industrial output and retail sales in March was lower than in the previous two months and significantly below expectations. In the opinion of some Council members those data may be a signal of reduced activity in the Polish economy in the coming period. Other members of the Council believed that it was difficult to assess at the moment whether the weaker than expected data for March indeed suggested a weakening economic growth. Those members argued that the low industrial output growth in March could have been connected with the Easter holiday break and the growing propensity of Poles to take more days off work in the holiday period. They pointed to the results of business confidence surveys, according to which the overall economic sentiment in Poland was still good. In the assessment of those Council members, the extent of a

possible decline in economic growth in Poland would be significantly smaller than in the United States or the euro-area.

While addressing the situation in the labour market, it was pointed out that the wage and employment growth in the enterprise sector in March was still high, which was conducive to increasing the demand pressure. It was emphasised that wage growth was still exceeding productivity growth, resulting in a further rise in unit labour costs. Some Council members, however, pointed to the fact that the continuously high growth of wages would be conducive to deteriorating the financial standing of enterprises, which would make further high pay rises impossible. Moreover, some Council members argued that the wage pressure in the coming period may in fact be easing due to a probable reduction in the scale of economic emigration of Poles, connected with weaker economic growth and worsening situation in the labour markets of Western European countries, particularly the United Kingdom and Ireland. They pointed out that the scale of emigration may be reduced by the zloty exchange rate appreciation observed over the last months which decreased the zloty value of income of Poles working abroad.

Some Council members argued that, apart from high wage growth, domestic demand may be additionally driven by growth in credit aggregates, including consumption loans granted to households, which continued at a high level. Other members of the Council underlined that since the beginning of 2008 the deposits of households had been increasing rapidly, which might suggest an increased propensity to save and be conducive to easing the demand pressure. Moreover, they also argued that the positive balance of the central government budget in 2008 Q1 was additionally lowering the demand pressure.

While discussing the exchange rate developments, it was pointed out that in April the zloty exchange rate appreciated significantly both against the US dollar and against the euro and was stronger than accounted for in the February inflation projection. It was underlined that the zloty exchange rate appreciation was conducive to easing the domestic inflationary pressure, as it resulted in a reduction of prices of imported goods expressed in the zloty, and particularly that it weakened the impact of high fuel price growth in the world markets on the Polish economy. At the same time, however, some Council members pointed out that the zloty appreciation also reduced the zloty denominated value of EU structural funds allocated for the financing of investment projects, which may impede the implementation of those projects and lead to lowering investment growth.

While discussing monetary policy, some Council members stressed that against the background of other countries of the region the level of real interest rates in Poland was relatively high and that the monetary policy tightening in recent months had been effected at a relatively fast pace. Those members pointed out that some central banks had lowered their interest rates over the past months despite the persistently high inflation in those countries, and stressed that the appreciation of the real zloty exchange rate was additionally increasing the restrictiveness of monetary policy in Poland. They argued that a further monetary policy tightening in Poland would increase interest rate disparity between Poland on the one hand and the United States and the euro area on the other, which might encourage the inflow of short-term capital to Poland and be conducive to excessive zloty exchange rate appreciation. In the opinion of those members, this would weaken the competitiveness of the Polish economy and reduce the profitability of export production and thus would lead to further deepening of external imbalance. Other members of the Council, however, argued that, due to a large import intensity of export production, the zloty exchange rate appreciation did not significantly reduce the profits of exporters, which may be confirmed, among others, by the data on the financial results of enterprises in 2007. Moreover, some Council members thought that it was currently difficult to assess the sustainability of the factors which had led to the recent appreciation of the zloty. Some members of the Council also assessed that a rise in interest rate disparity would be increasing the share of loans denominated in foreign currencies in total loans, which might weaken the impact

of domestic monetary policy on domestic demand. They pointed out that since the beginning of 2008 an increase had been observed in the share of housing loans denominated in foreign currencies in the total housing loan debt of individuals.

While discussing the interest rate decision, the Council assessed that the continuing high growth of wages and employment, along with the possibility of increased inflation expectations resulting from higher current inflation and the expected further increase of administered prices, both pointed to the risk of inflation remaining above the inflation target in the medium term. In the opinion of some Council members, these factors justified an interest rate increase already at the April meeting. In the opinion of the majority of the Council, however, the risk of a decrease in economic growth in Poland and of an excessive appreciation of the zloty exchange rate, both of which would be reducing inflation in the medium term, justified no interest rate change at the current meeting.

A motion to raise the key NBP interest rates by 25 basis points was put forward at the meeting. The motion did not pass. The Council kept the interest rates unchanged: the reference rate at 5.75%, the lombard rate at 7.25%, the deposit rate at 4.25% and the rediscount rate at 6.00%.

*Publication date: 23 May 2008*

## **Minutes of the Monetary Policy Council decision-making meeting held on 28 May 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: current inflation developments, assessment of the risk of second round effects, situation in the labour market, the outlook for economic growth in Poland and abroad and exchange rate developments. The Council discussed the influence of these factors on the future inflation in Poland.

While commenting on the current inflation, it was pointed out that in April CPI inflation had decelerated slightly (to 4.0% y/y), which had been driven by a decline in the annual growth of fuel and food prices. On the other hand, further acceleration in the growth of prices of certain services was a factor increasing inflation. It was emphasized that inflation remaining above the upper limit for deviations from the NBP's inflation target set at 3.5% was mainly the result of the previously observed rise in food prices and increases in administered prices. It was also indicated that increased inflation negatively affects financial condition of households, mainly those less affluent, in particular, when it is related to high growth in food prices. Yet, it was emphasised that due to favourable forecasts of harvest further decline in the growth of food prices may be expected.

Members of the Council paid a lot of attention to the reasons behind inflation remaining at the increased level. They argued that inflation developments in many countries, including Poland, were largely affected by increases in prices of food and oil in the global markets leading to changes in relative prices – i.e. factors beyond the impact of domestic monetary policy. It was pointed out that in comparison with other countries of the Central and Eastern Europe, Poland recorded the lowest CPI inflation and as regards HICP index only Slovakia had lower inflation than Poland. Some members of the Council stressed that additional factors, that are also largely beyond the impact of monetary policy, conducive to growth in prices in the new EU member states include: price and wage convergence and harmonisation of indirect taxes.

While discussing the outlook for inflation, some members of the Council pointed out that considering the recently observed rise in oil prices in the world markets and the results of the NBP's short-term forecasts, inflation in the quarters to come may be expected to remain above the upper limit for deviations from the target. In the medium term, higher inflation would be driven by high growth in wages and unit labour costs. At the same time, some members of the Council pointed out that further growth in gas and energy prices related to growing prices of energy resources and liberalisation of energy prices in Poland might be a factor driving inflation in 2009. In the longer term, weakening growth of energy prices should be driven by liberalisation of the energy market. On the other hand, inflation should be curbed by: lower GDP growth abroad, observed exchange rate appreciation and previous increases of interest rate.

Some members of the Council pointed out that a situation of inflation running markedly above the NBP's inflation target for a longer time increases the risk of second-round effects. This is so because increased inflation may lead to more permanent heightened inflation expectations, which is suggested by a large share of respondents in household surveys expecting inflation to remain at the present level. Yet, other members of the Council pointed that inflation expectations of households observed in May had lowered. Moreover, some members of the Council assessed that the risk of second round effects is limited due to factors discouraging enterprises from further wage increases. In this context, members of the Council pointed at the expected slowdown in the economic growth reflected in a decline of business sentiment indicators in the corporate sector published in May, zloty appreciation and a deceleration in profit ratios of enterprises in 2008 Q1.

While addressing the situation in the labour market, some members of the Council pointed out that strong growth in wages continued to be the major risk factor for price stability. According to those members of the Council, the April data on wages and employment in the corporate sector and current estimates of unit labour costs in the economy for 2008 Q1 corroborated persistently high wage pressure. At the same time, some members of the Council pointed at a growing wage pressure in the public finance sector and related uncertainty about the 2009 budget. Attention was paid to the fact that increased inflation constituted one of the factors behind currently growing wage pressure in this sector.

While assessing the outlook for economic growth in Poland, some members of the Council pointed out that data concerning economic activity are currently characterized with large volatility related, *inter alia*, to a different calendar of holidays than in 2007 and restrictions imposed on retail trading on holidays. They argue that in such a situation more attention should be paid to business sentiment indicators which - although point at favourable economic situation - had declined in May. Those members also pointed out that in 2008 Q1 there was a decrease in the production capacity utilization. According to those members of the Council, economic growth in Poland in the quarters to come should decline to the level of potential growth. Other members of the Council emphasized that GDP growth in Poland continued to outpace the potential and signals of a slowdown are too weak to expect that inflation will return to the target without further adjustment of monetary policy.

Some members of the Council argued that the decline in profit ratios of enterprises might have a negative impact on investment growth. According to those members of the Council, also lower demand for Polish exports would be a factor curbing economic growth. Lower external demand related to economic slowdown abroad is corroborated by the results of the economic condition surveys for 2008 Q1 where indicator of export forecast declined again.

The meeting also focused on changes in the external conditions of the Polish economy. Some members of the Council pointed out that the data on GDP growth in 2008 Q1 for the United States and the euro area had proved better than expected. Other members of the Council argued that majority of economic indicators point at a serious slowdown in the American economy.

Whereas referring to the situation in the euro area some members of the Council indicated considerable differences in economic growth between particular countries. They also emphasized that weak domestic demand together with a risk of a decline in external demand connected both with appreciation of the euro against the American dollar and the British pound and with the slowdown in the American and British economies, continued to be risk factors for economic growth in the euro area. Those members argued that concerns related to economic slowdown were translated into higher risk premia included in interest rates on corporate loans offered by banks in the euro area. It was also pointed out that Poland is among the EU countries whose business cycles are most closely correlated with the business cycle in the euro area which means that the slowdown in the euro area would probably have a negative impact on economic growth in Poland. Moreover, some members of the Council pointed out that uncertainty persisting in the world economy might result in lower inflow of direct investment to Poland which would also bring a decline in economic growth.

While addressing the dilemmas faced by central banks, some members of the Council pointed at a risk of stagflation, i.e. a situation where weakening economic growth would be accompanied by high inflation. In this context, the Council discussed appropriate response of monetary authorities to inflation remaining at an increased level, in particular, when it results, to a great extent, from factors beyond the impact of a domestic monetary policy.

While discussing exchange rate developments some members of the Council pointed out that zloty strengthening was an important factor tightening monetary conditions in the recent period. At the same time, it was pointed out that further rise in interest rate differential might result in increased inflow of short-term capital to Poland, driving further appreciation of the zloty and deterioration of financial results of enterprises which would have a negative impact on investment activity and economic growth. Other members of the Council argued that expectations concerning Fed and ECB interest rates had been changed, which is of significant importance for the outlook of interest rate differential in the period to come. With regard to the United States, interest rates are expected to be raised at the end of the year, whereas with regard to the euro area it had become common to expect interest rates to be kept at the current level. Moreover, these members of the Council pointed out that it was difficult at that time to assess the sustainability of the factors which had recently contributed to zloty appreciation.

While analysing the impact of exchange rate fluctuations on the economy, some members of the Council pointed at a risk of growing external imbalance in case of excessive zloty appreciation. Yet, other members of the Council argued that it was difficult to assess to what extent widened current account deficit was connected with exchange rate appreciation and to what extent it might result from economic growth exceeding the potential GDP growth.

At the meeting, members of the Council discussed the usefulness of the so-called Taylor rule in monetary policy. According to some members of the Council this rule should be used in conducting monetary policy. However, other members of the Council indicated that this rule should rather be used in *ex post* assessments. In this context they pointed at problems of correct specification of this rule and the uncertainty of the estimates of natural interest rate and potential output growth for Poland.

While referring to the interest rate decision, potential further tightening of monetary policy was discussed. In the opinion of some members of the Council, the risk of permanently heightened inflation expectations, high growth in wages and employment and GDP growth remaining above the potential output as well as the absence of clear signs of economic slowdown pointed at the risk of inflation remaining above the inflation target in the medium term. According to those members of the Council, those factors justified an interest rate increase at the May meeting. Moreover, those members pointed out that withholding the decision to raise interest rates increased the risk of inflation remaining above the inflation target for a longer period which

would subsequently require more pronounced curbing of economic growth necessary to bring inflation down to the target. Yet, some members of the Council judged that the previous interest rate increases along with considerable appreciation of the zloty exchange rate and expected economic slowdown might prove sufficient to bring inflation down to the target in the medium term. The majority of the Council members argued, that a more comprehensive assessment of the risk of inflation remaining at an increased level will be possible after getting acquainted with the June inflation projection of the NBP. In their opinion, these arguments justified no interest rate change at the present meeting of the Council.

A motion to raise the key NBP interest rates by 25 basis points was put forward at the meeting. The motion did not pass. The Council kept the interest rates unchanged: the reference rate at 5.75%, the lombard rate at 7.25%, the deposit rate at 4.25%, at the rediscount rate at 6.00%.

*Publication date: 19 June 2008*

## **Minutes of the Monetary Policy Council decision-making meeting held on 25 June 2008**

During the meeting, the Monetary Policy Council discussed the outlook for inflation developments in the context of the past, current and, primarily, anticipated economic situation. 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: labour market situation, the outlook for economic growth and the exchange rate developments. The Council discussed the influence of these factors on the future inflation in Poland in view of the June inflation projection.

The Council paid a lot of attention to the outlook for CPI inflation in Poland in the coming quarters. Some members of the Council pointed out that according to the June inflation projection based on the NECMOD model, the forecast inflation would be gradually decreasing starting from 2009 Q1 and, in line with the central projection path, it would be approaching the inflation target faster than expected in the February projection. Those members emphasised that the increased inflation resulting from food and fuel price growth in the world markets is observed in many other countries, including the euro area. They assessed that – similarly to many other countries – the period of heightened inflation may prove longer than expected so far. At the same time, they pointed out that in May, despite a rise in regulated prices, inflation in Poland was still at the lowest level among the Central and Eastern European countries, which was, among others, due to the monetary policy conducted in Poland in the earlier period.

The Council members indicated that CPI inflation in May rose to 4.4% and that in the months to come it may be even higher, among others, due to the statistical base effect. They emphasised that at the beginning of 2009 a further increase in electricity prices triggered by their deregulation may be conducive to a rise in CPI inflation. Some Council members indicated that, in line with the June projection, core inflation net of food and energy prices would be gradually growing and in 2009-2010 it would run above 2.5%, which – in the opinion of those members – signals the build-up of demand pressure in the economy.

While discussing the outlook for economic growth in Poland, it was pointed out that in May the growth of industrial output was markedly lower than expected, which had been previously signalled by business sentiment indicators. In the opinion of some Council members, this may indicate a slowdown in the Polish economy in the nearest future. Those members argued that lower activity in the world economy, particularly in the euro area, together with the recently

observed appreciation of zloty exchange rate would both contribute to the slowdown of the economic growth in Poland. They emphasised that in view of the June projection based on the NECMOD model, the forecast GDP growth in the second half of 2008 would be lower than the growth of potential GDP, which would be conducive to easing the inflationary pressure. Moreover, they argued that the composition of GDP in 2008 Q1 was favourable in terms of inflation outlook, as private consumption growth was lower and investment growth higher than GDP growth. Other members of the Council, in turn, pointed out that GDP growth in 2008 Q1 was higher than expected and most probably higher than potential GDP growth. While assessing the outlook for economic growth, those members highlighted that the data on industrial output in May were difficult to interpret due to the different calendar of public holidays than in 2007 and that the retail sales growth in May was relatively high. Those members believed that the slowdown in economic activity in Poland would probably not be significant. They argued that in the time to come the consumption growth would not mark a significant decrease, among others, due to the continuously high growth of wages and loans to households and the rising share of consumer loans in total loans granted to households.

While addressing labour market developments, the continuation of a strong wage growth and unfavourable relation between wage and labour productivity growth were pointed out. It was emphasised that in May unit labour costs in industry increased significantly due to the drop in the industrial output growth and a high wage growth. It was underlined that in line with June projection based on the NECMOD model, the forecast wage growth in the economy throughout the projection horizon would be faster than labour productivity growth and thus unit labour costs would continue to rise. Some Council members pointed out that 2008 Q1 brought an increase in the share of wage costs in total costs of enterprises, which was conducive to raising the inflationary pressure. Those members assessed that the heightened pressure on wage growth in some public sector enterprises may be leading to wage increases in the coming period and, consequently, also to rising prices of products manufactured by those enterprises. They also argued that the heightened current inflation was one of the factors contributing to increasing the wage pressure in the public finance sector. In the opinion of some Council members, this raised the risk of second-round effects in the time to come.

Moreover, some Council members argued that high wage growth and the increased CPI inflation, due to the mechanism of old-age and disability pension indexation, would increase the expenditure of the state budget in 2009 and in subsequent years, which would be conducive to deepening the deficit of the public finance sector. In this context it was pointed out that the expected slowdown of economic growth and the ensuing decline in the growth of the central budget tax revenue would also be contributing to increasing the budget deficit.

Other Council members, however, assessed that the high growth of wages was to a large extent connected with the ongoing convergence of the Polish economy with richer EU member states. They pointed out that wage costs still made a relatively low contribution to the total costs of enterprises, and emphasised that in view of business tendency surveys the percentage of enterprises which reported rising costs of wages as an important factor behind the rising prices of their products remained low. In the assessment of those Council members, the risk of second-round effects was currently far lower than in the 1970s. They also argued that increasing employment under tight labour market conditions, at least in the short term, results in lowering the average labour productivity due to: declining capital-to-labour ratio, employing people whose qualifications are lower than those of the already employed and a high share of the services sector (where productivity growth is relatively low) in the employment growth, all of which had a joint effect of raising unit labour costs. They assessed that the expected activity slowdown in the Polish economy should, with some time lag, lead to curbing the wage growth. Moreover, some Council members believed that the demands of substantial pay rises in the public finance sector would not be satisfied in the nearest future.

While analysing the exchange rate developments and their impact on the economy, a significant appreciation of the zloty in the recent period was underlined. It was emphasised that the exchange rate appreciation tightened Poland's monetary conditions and was conducive to easing the inflationary pressure, as the prices of imported goods denominated in zloty were falling. In this context it was pointed out that the current zloty exchange rate was stronger than in the June projection based on the NECMOD model and thus future inflation might prove lower than it followed from the projection. It was argued at the same time that the currently observed zloty exchange rate appreciation would result, with some time lag, in a growing current account deficit. Some Council members believed that the rising deficit should be curbing inflationary pressure by stepping up the growth of the demand for imported goods at the expense of the demand for domestic goods. On the other hand, some Council members assessed that the expected slowdown in economic growth in Poland should be conducive to a reduction of the current account deficit.

Some Council members pointed out that the zloty exchange rate appreciation and rising unit labour costs were conducive to worsening financial results of exporters. They argued that this may lead to a decrease in the scale of investments undertaken by exporting enterprises and, consequently, a decrease in potential GDP growth. In the opinion of those members, in view of weakening activity in the economies of Poland's most important trade partners and the ensuing decline in the foreign demand for Polish products, enterprises will react to the worsening of their financial results by raising the prices of products destined for the domestic market, which in turn will be adding to the domestic inflationary pressure.

While addressing the developments in the environment of the Polish economy, the uncertainty concerning the economic situation in the United States, the euro area and the United Kingdom was pointed out. It was stressed that the decrease in indicators of economic climate in Germany was signalling a deteriorating situation in this economy. It was assessed that the slowdown of euro-area economic growth may be delayed in time but would certainly come. It was argued that the cycle of monetary policy easing in the United States most probably came to an end, while in the euro area signals emerged of a monetary policy tightening in the near future. It was emphasised that in case monetary policy was tightened in the euro area or the United States, an increase of the NBP interest rates would not result in a further widening of the interest rate differential between Poland and those economies. Some Council members assessed that the global level of interest rates was currently too low, which meant that in order to bring inflation down it was necessary to tighten monetary policy both in the developed and developing economies. In this context attention was drawn to the dilemmas of central banks facing the risk of stagflation, i.e. a situation when a decline in economic activity is accompanied by heightened inflation. The appropriate monetary policy response to a rise in inflation caused by factors independent of the domestic monetary policy was also discussed.

The members of the Council emphasised the lack of structural reforms, including the public finance reform, which are of great importance for shaping the long-term outlook for economic growth and inflation. In the opinion of the Council members, abandoning the public finance reform may lead to a non-optimal policy mix. It was also emphasised that without a clearly defined path of harmonising the rates of indirect taxes with the EU requirements and without a detailed liberalisation programme of the energy market, the assessment of future price growth path, particularly as regards administered prices, is problematic.

The Council also discussed an optimal communication policy of the central bank's decision-making body with the environment with a view to influencing the financial markets expectations as to the future monetary policy. On this occasion the great importance of the central bank's communication was stressed for the formation of inflation expectations in the situation when, due to strong and persistent price shocks in the commodity markets, inflation may remain at a heightened level for a longer period. In this context the Council emphasised that the lack of any

precise declaration on the part of the government about the planned date of Poland's accession to the euro area may in the current situation become a factor impeding the pursuit of the optimal monetary policy.

While considering the interest rate decision, the Council assessed that the probability of inflation remaining above the inflation target in the monetary policy transmission horizon is higher than the probability of inflation running below the target. This assessment was supported by the inflation outlook presented in the June projection and also by the latest data on inflation and high wage growth outpacing the labour productivity growth. Such an assessment justified raising interest rates at the current meeting. The Council also discussed the future path of NBP interest rates. In the opinion of some Council members bringing inflation down to the target in the medium term may require a further monetary policy tightening in the coming months. Other Council members, however, argued that a further monetary policy tightening might result in an excessive appreciation of zloty exchange rate. They pointed out that the increased current inflation was to a large extent the effect of factors beyond the influence of the domestic monetary policy and argued that the expected lowering of the economic growth should be conducive to easing the inflationary pressure.

A motion to raise the key NBP interest rates by 25 basis points was put forward at the meeting and passed. The Council raised the interest rates to the following levels: the reference rate to 6.00%, the lombard rate to 7.50%, the deposit rate to 4.50% and the rediscount rate to 6.25%.

*Publication date: 24 July 2008*

## **Minutes of the Monetary Policy Council decision-making meeting held on 30 July 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 exchange rate developments and their impact on economic growth, external balance and inflation, the outlook for economic growth in Poland, the labour market situation and the assessment of the risk of second-round effects. The Council discussed the influence of these factors on future inflation in Poland.

The Council paid close attention to the fact that as a result of the strengthening of the zloty so far, the present level of the exchange rate considerably outstripped that accounted for in the June inflation projection, which is likely to bring inflation down in the future. At the same time, some members of the Council pointed out that the recently observed appreciation of the zloty might have outpaced the appreciation of the equilibrium exchange rate. Some members of the Council argued that apart from the continuing interest rates differential between Poland and the euro area and the United States, expectations of further interest rate hikes in Poland, stimulating the inflow of short-term capital, might also have contributed to zloty strengthening. Given a low risk premium and favourable fundamentals of the Polish economy, subsequent interest rate hikes may, in the opinion of those members of the Council, bring further strong appreciation of the zloty. Other members of the Council argued that the anticipated economic slowdown in Poland might contribute to zloty depreciation. They also reasoned that at present it is difficult to assess whether factors which had led to zloty appreciation were of permanent nature. Those members pointed out that exchange rate developments are, to a great extent, affected by non-fundamental

and external factors whose impact on the exchange rate is hardly predicable. Therefore, in their opinion, a depreciation of the zloty exchange rate cannot be ruled out.

In the discussion about the consequences of zloty appreciation it was pointed out that it contributed to curbing inflation by decreasing imported inflation, including by easing the impact of oil price growth in the world markets on domestic prices. Some members of the Council pointed out that the appreciation of the zloty exchange rate surpassing the appreciation of the equilibrium exchange rate might, with a time lag, negatively affect economic activity in Poland by decreasing the competitiveness of Polish exports, which would be conducive to increasing the negative contribution of net exports to GDP growth and might curb corporate investment activity. In the opinion of those members of the Council, a worsening outlook for Polish exports is signalled by the findings of the NBP's economic condition survey indicating a marked drop in 2008 Q2 in margins of enterprises manufacturing export products, a fall in the number of export contracts and an appreciation of the actual exchange rate outstripping the appreciation of the average exchange rate ensuring exports profitability declared by enterprises. Attention was also paid to GUS data on foreign trade deficit in 2007 which after revision proved higher than previously estimated, which was mainly connected with stronger import growth. In the opinion of some members of the Council this means that zloty appreciation may have a stronger impact on Polish foreign trade than previously estimated. Those members pointed out that the zloty appreciation will in subsequent quarters further deepen the foreign trade deficit which would also be influenced by the economic slowdown abroad.

On the other hand, it was pointed out that according to preliminary national accounts data for 2008 Q1 export growth was maintained at a level close to the import growth despite the appreciation of the zloty exchange rate. It was also indicated that import growth might be connected not only with exchange rate appreciation but also with a strong growth of domestic demand. It was argued that wage growth outpacing labour productivity growth was also conducive to deteriorating competitiveness of Polish manufacturers.

The Council paid considerable attention to the role of the exchange rate in the conduct of monetary policy. Some members of the Council argued that in a small open economy, such as the Polish economy, changes in the exchange rate, in particular in relation to the equilibrium exchange rate, contribute significantly to a tightening of monetary conditions and should be taken into account in the decisions about interest rates. They pointed out that although the exchange rate appreciation is an effective channel of curbing inflation, excessive currency strengthening poses a risk of too severe an economic slowdown and of a worsening external balance. Other members argued that the recent strong appreciation of the zloty exchange rate could be temporary and therefore changes in the exchange rate should be treated as a neutral factor while taking decisions on interest rate. Some members of the Council pointed out that due to the specific character of exchange rate markets, the exchange rate can persistently deviate from the equilibrium exchange rate.

While discussing the outlook for economic growth, some members of the Council indicated that June data on lower than expected growth in industrial output, falling growth in retail sales and deteriorating economic conditions indicators in June and July together with information on lower capacity utilization in 2008 Q3 pointed to a gradual slowdown of the economic growth in Poland. Those members pointed out that limited investment and consequently lower GDP growth might also result from the likely deterioration of profit ratios of enterprises. Moreover, in the judgment of those members of the Council the second half of 2008 might be expected to see GDP growth below potential output growth which should be conducive to lowering the inflationary pressure. Yet, other members of the Council pointed out that the scale of the anticipated slowdown was limited and might not be sufficient to bring inflation down to the target over the monetary policy horizon. Moreover, despite a certain decline, credit aggregates

continued to display a high growth rate which, in the opinion of those members, supported the inflationary pressure.

In the discussion about the labour market situation, it was reasoned that high wage growth and growing unit labour costs continued to be major risk factors to inflation in the medium term. It was indicated that the economic slowdown had not curbed wage pressures yet. Some members of the Council pointed out that, as suggested by the findings of the NBP's business tendency survey, the outlook for employment and wage growth deteriorated in 2008 Q3 for the second consecutive time, and employment growth in enterprises was on a downward path. In the opinion of those members, 2008 H2 might see a gradual softening of the labour market which would be driven by the expected growth in economic activity and a lower scale of Poles' economic migration abroad. Some members of the Council also pointed out that an economic slowdown and related decreasing labour demand as well as worsening financial condition of enterprises should contribute to lowering the wage growth.

It was argued during the discussion that heightened current inflation together with adaptive inflation expectations posed a risk of inflation remaining at a relatively high level. It was also emphasized that the recent heated public debate about the price growth contributed to boosting inflation expectations. Yet, in the opinion of some members of the Council the impact of inflation expectations on wage growth should decrease together with weakening economic conditions. In the opinion of those members the recently observed strong appreciation of the zloty exchange rate bringing down inflation expectations constitutes an additional factor reducing the risk of second-round effects.

At the meeting the current inflation developments were also discussed. It was pointed out that despite the increase in the consumer price index recorded in June (being primarily the result of a higher growth in the prices of food, fuels and certain services), inflation in Poland, similarly as in Slovakia, was the lowest in the region. It was also emphasized that the 12-month moving average HICP inflation taken into account while assessing the compliance with the Maastricht price stability criterion, despite its increase, still had not exceeded the reference value, which was due to fact that the currently observed rise in inflation is global in character.

At the same time, it was pointed out that June had seen an increase in all core inflation measures which, in the opinion of some Council members, corroborated growing inflationary pressure. While analyzing core inflation measures net of food and energy prices, it was emphasized that since mid-2006 this indicator had been on a steady rising path, and the June inflation projection pointed to its further growth and persistently high level in 2009. It was also noted that the past few years had seen core inflation net of food and energy prices running considerably below CPI inflation which, in case this relation continued, might mean the CPI inflation will remain above the inflation target also in 2009 or even beyond. On the other hand, some members of the Council pointed out that the expected decline in economic growth, the recent strengthening of the exchange rate and the previous interest rate hikes could bring inflation down close to the inflation target in the monetary policy horizon, albeit the expected rise in administered prices would be a factor supporting increased inflation.

While discussing the changes in the external environment of the Polish economy, some members of the Council emphasized persisting uncertainty about the duration of the slowdown in the world economy and its impact on economic growth in Poland. The data on the United States suggest, in the judgment of those members, that the fiscal impulse implemented in the United States has been largely offset by rising fuel prices and will drive only a short-lived acceleration of economic growth. According to the latest forecasts, the second half of 2008 should bring further slowdown in the US economy which might continue also in 2009. Moreover, those members pointed to a deteriorating growth outlook in the European economy, particularly in Germany which so far had reported relatively high economic growth.

Some members of the Council pointed out that considering the sources of the currently elevated inflation, central banks pursuing inflation targeting strategy did not aim at bringing inflation down to the target fast as this might result in an excessive decline in economic growth. In this context, it was pointed out that in Poland the measures which could lower the inflationary pressure and consequently reduce the costs of bringing inflation down to the target were structural reforms, including the reform of public finances. The reform of public finances should limit the pro-cyclicality of fiscal policy.

Potential further increases in interest rates were discussed at the meeting. Some members of the Council emphasized that the risk of inflation expectations being maintained at a heightened level and a strong rise in wages and unit labour costs combined with the anticipated only slight slowdown in economic activity weighted in favour of increasing interest rates at the July meeting. It was argued that the outlook for inflationary processes was largely affected by the developments in real interest rates which, despite the previous interest rate increases, continued to fall. Yet, the majority of the Council members judged that the strong appreciation of the zloty exchange rate, the expected softening of the labour market and the anticipated slowdown in economic growth coupled with the already implemented interest rate hikes would constitute factors bringing inflation down to the target in the medium term, yet, a more comprehensive assessment of the risk of inflation continuing at a heightened level would be possible after analysing the data to be released in the coming months. Moreover, those members indicated that too large a scale of interest rate hikes might favour excessive appreciation which, coupled with a deteriorating outlook for economic growth abroad would constitute a risk of a significant weakening of exports and pose a risk of a considerable economic slowdown in Poland and further rising of external imbalance. These arguments, in the opinion of the majority of the Council members, justified keeping interest rates unchanged at the present meeting.

A motion to raise the key NBP interest rates by 25 basis points was put forward at the meeting. The motion did not pass. The Council kept the interest rates unchanged: 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%.

*Publication date: 21 August 2008*

## **Minutes of the Monetary Policy Council decision-making meeting held on 27 August 2008**

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

The discussion at the meeting focused on exchange rate developments and their impact on economic growth, external balance and inflation, the outlook for economic growth in Poland and abroad and the situation in the labour market. The Council discussed the influence of these factors on future inflation in Poland.

While analysing the impact of exchange rate developments on the outlook for inflation and economic growth in Poland, attention was paid to the depreciation of the exchange rate of the zloty and other currencies of the region, both against the US dollar and the euro, which was observed in August 2008. It was indicated that at present it was difficult to assess whether the observed zloty depreciation would be of permanent nature. Yet, some members of the Council pointed to the risk of zloty depreciation in the context of the anticipated economic slowdown in Poland. Moreover, they indicated that changes in the exchange rate of the euro against the US dollar might be important for future zloty exchange rate developments. Those members emphasised that in the case of further depreciation of the zloty, the exchange rate would cease to

be the factor curbing inflation in Poland. At the same time it was pointed out that the slowdown in the global economy, including in the EU economies, might result in lower demand for Polish exports which would contribute to the depreciation of the equilibrium exchange rate. Other members of the Council also pointed out that despite the recently observed depreciation, the exchange rate of the zloty continued to be considerably stronger than in the previous quarters. They argued that although exchange rate appreciation constituted a factor curbing imported inflation, further interest rate hikes might lead to a renewed appreciation of the zloty exchange rate, which could negatively affect the competitiveness of Polish manufacturers and, as a result, economic activity in Poland.

While analysing the developments of the zloty exchange rate, the Council discussed the impact of the appreciation on the external balance of the Polish economy. It was pointed out that according to preliminary data in the first half of 2008 the foreign trade deficit had deepened. Attention was also paid to the fact that preliminary data suggested changes in the structure of financing of the current account deficit of the balance of payments, reflected in a decline of foreign direct investment and a growth in portfolio investment in 2008 Q2. Some members of the Council argued that the rise in the foreign trade deficit had probably been driven by a strong appreciation of the zloty exchange rate leading to deteriorating competitiveness of Polish producers both on the domestic market as well as on foreign markets. Other members of the Council pointed out, however, that import growth outstripping export growth could have been connected with high growth in domestic demand, hence, considering the expected economic slowdown in Poland, import growth should be expected to decline. Besides, those members reasoned that in the longer term wage growth outpacing labour productivity growth might be a more important factor leading to deteriorating competitiveness of Polish exports.

While addressing changes in the external environment of the Polish economy, attention was paid to the persisting, despite relatively high GDP growth in 2008 Q2, unfavourable outlook for economic growth in the United States, as well as deeper than expected deterioration in economic conditions in certain EU economies. Particular attention was paid to strong economic slowdown, deteriorating economic conditions indicators and further worsening of consumer sentiment in economies which constitute the main markets for Polish exports – Germany, France, Italy and Great Britain. The worsening outlook for exports in the euro area was also pointed to, particularly for German exports, which, due to the strong trade links between Polish and German exporters, might translate into a decline in Polish exports.

During the discussion, attention was paid to a considerable drop in fuel prices in the global market observed since early July 2008, noting, at the same time, that at present it was difficult to assess whether this phenomenon was of permanent nature. Some members of the Council argued that due to the anticipated further deterioration in business conditions in the developed countries, the risk of further strong growth of fuel prices in the global market had declined. Moreover, those members indicated that slower growth in global demand might also translate into curbing the rising prices of other commodities which would be conducive to reducing global inflation.

While discussing the outlook for economic growth in Poland, it was pointed to the signs of economic slowdown i.e. lower than expected growth in industrial output and further decline in manufacturing orders in July 2008, deteriorating financial results of enterprises and growing share of semi-finished goods and work-in-progress, goods and finished products in the structure of inventories in the first half of 2008 as well as a deterioration of the majority of economic conditions indicators. Some members of the Council pointed out that a further decline in GDP growth might be triggered by limited investment, which could be driven by deteriorating profit ratios of enterprises. Moreover, they argued that further weakening in business conditions in the EU might – through falling demand for Polish exports – lead to a deeper-than-currently-anticipated decline in economic growth in Poland. Other members of the Council pointed out, however, that GDP growth in 2008 Q2 had probably been higher than anticipated in the June

projection, which suggested that the scale of subsequent decline in economic growth might be smaller than projected. They also indicated that drawing conclusions about changes in economic activity in Poland based on the monthly data on industrial output was subject to uncertainty, especially taking into account the growing share of services in the structure of the Polish economy.

While analysing the situation in the labour market it was pointed out that persistently high growth in wages and unit labour costs was running well above the level anticipated in the June projection. Some members of the Council argued that the relation between wage growth and labour productivity growth might deteriorate in the near future due to the expected economic slowdown and the resulting decline in labour productivity growth. On the other hand, other members of the Council reasoned that the economic slowdown would contribute to lower labour demand, and consequently, with a certain time lag, would curb wage pressure, whereas the persistently relatively high investment growth would be conducive to growth in labour productivity. They also paid attention to the diminishing importance of wage pressure as a growth barrier indicated by enterprises in the NBP's business condition surveys and gradually declining employment growth amidst continued growth in economic activity. Moreover, those members argued that tensions in the labour market would be eased as a result of declining migration outflows, due to, among other things, weakening in business conditions in Great Britain and other EU countries. It was also pointed out that high wage growth was partly related to the process of convergence of the Polish economy with richer countries of the EU.

When assessing the impact of the persistently high wage growth on inflationary processes, some members of the Council argued that amidst continuing fast growth in demand, entrepreneurs might tend to pass on the increase in labour costs to prices. Moreover, attention was paid to the fact that growing consumer demand driven by rising income of households was conducive to growing inflationary pressure as indicated by the rise in core inflation, including growth in the prices of services, which had been observed for several quarters. Those members also pointed out that the anticipated rise in CPI in August 2008 created a risk of a rise in inflation expectations. On the other hand, some members of the Council indicated that the previous month saw inflationary expectations stabilising and that an economic slowdown in Poland would limit the risk of second-round effects. They also pointed out that the impact of a rapid wage growth on inflation might be mitigated by the decline in the share of labour costs in the total costs of enterprises, observed in the previous years.

Some members of the Council pointed out that factors contributing to persisting demand pressure might include, apart from rapid wage growth, still high although declining credit growth, including high growth in consumer loans. Other members of the Council argued, however, that as a result of the declining value of financial assets of households and the growth in new loans, asset encumbrance had been growing which should limit households' future borrowing capacity. They also emphasised that an economic slowdown might have the same effect. At the same time it was pointed out that the possible growth in interest-rate differentials might have a limited impact on the growth in credit aggregates due to the possibility of zloty-denominated loans being substituted by foreign-currency-denominated loans. On the other hand, it was argued that an interest rate rise should be conducive to a decline in credit growth, among other things, through influencing the expectations of future income of households.

The meeting also addressed current inflation developments. It was pointed out that in July core inflation net of food and energy prices continued to run at the level recorded in June 2008, and the acceleration of CPI inflation as compared with the previous month had been driven by the increasing growth of food, energy and fuel prices. The attention was also paid to the fact that inflation in Poland, similarly as in Slovakia, continued to be the lowest in the region. It was also emphasised that the 12-month moving average HICP inflation taken into account while assessing

the compliance with the Maastricht price stability criterion, despite its increase, still had not exceeded the reference value.

While discussing the decision on interest rates, some members of the Council pointed out that the scale of economic slowdown might not be sufficient to bring inflation down to the target over the monetary policy horizon. Moreover, curbed appreciation of the zloty coupled with the risk of exchange rate depreciation connected with the expected slowdown in the Polish economy, falling real interest rates – despite the already implemented interest rate increases – and the risk of inflation expectations continuing at a heightened level justified, in their opinion, raising interest rates at the present meeting. In the judgement of those members, delaying subsequent interest rate increases might boost the costs of bringing inflation down to the target. In the opinion of other members of the Council, considerable economic slowdown abroad, signs of economic slowdown in Poland, the already implemented interest rate increases and the expected decline in wage pressure would constitute factors bringing inflation down to the target in the medium term. Those members also pointed out that interest rate rise could be conducive to the appreciation of the zloty exchange rate which would pose a risk of a deeper economic slowdown in Poland and further rising of external imbalance. Moreover, they argued that a more comprehensive assessment of the risk of inflation continuing at a heightened level in the medium term would be possible after analysing the data to be released in the coming months.

A motion to raise the key NBP interest rates by 25 basis points was put forward at the meeting. The motion did not pass. The Council kept the interest rates unchanged: 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%.

*Publication date: 18 September 2008*

## **Minutes of the Monetary Policy Council decision-making meeting held on 24 September 2008**

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

The discussion at the meeting focused on: the outlook for inflation and economic growth in Poland and in the world economy, situation in the labour market in Poland and the prospects of Poland's entry to the euro area.

When analysing the economic growth developments in Poland, it was pointed out that GDP growth in 2008 Q2 had been much higher and in 2008 Q3 would probably be also higher than expected in the June projection. Some Council members, however, pointed to the rise in contribution of gross fixed capital formation and a drop in contribution of total consumption to GDP growth in 2008 Q2, which might indicate easing the upward pressure on consumer prices. These members argued as well that the drop in industrial output, bigger than expected reduction of growth in construction and assembly output and marked deterioration of economic climate indices in the corporate sector in August 2008 signalled significant weakening of economic activity in Poland in the coming quarters. They also pointed out that a lowering of the demand for Polish exports, due to the significant deterioration of economic growth in countries which are Poland's main trading partners, would be conducive to the decline in GDP growth. The similar impact would be exerted by the appreciation of the zloty observed in the first half of the year, which reduces the competitiveness of Polish producers in foreign markets and in the domestic market, and the weakening of consumption demand related to the probable deterioration of situation in the labour market.

While discussing the situation in the external environment of the Polish economy, further marked deterioration of outlook for economic growth in the United States and the euro area was noted. The fall in industrial output in these economies as well as further deterioration of economic climate indices were underscored. Some members of the Council pointed out that the crisis in the housing market and financial markets would contribute to a significant drop in consumer demand in the US economy. These members also emphasized that the support granted to financial institutions by the government of the United States would reduce the possibility of further demand stimulation by means of fiscal policy. Demand might be further reduced by regulations tightening criteria for granting loans, which were likely to be introduced in the United States. It was pointed out that the intensification of turmoil in financial markets in the United States would probably translate to the situation in the banking sector of some of the EU economies and would be an additional factor dampening economic activity in these countries.

With respect to the situation in the labour market in Poland, attention was drawn to the continuous decline in employment growth since the beginning of the year and the decline in wage growth in the corporate sector in August 2008. Some members of the Council argued that it might indicate that declining economic activity in Poland would be accompanied by relatively fast easing of wage pressure. These members also pointed out that the growth in labour supply in Poland related to possible increased returns of Poles from EU countries in which the current and anticipated economic situation had significantly deteriorated might also be conducive to the decline in wage growth. Other members of the Council, however, emphasized that wage growth remained strong and might remain at a heightened level due to the lag between the weakening of economic activity and deterioration of the situation in the labour market. In their assessment, that effect, coupled with decreasing GDP growth, might lead in the nearest future to further drop in labour productivity and consequently to the increase in unit labour costs. Other members of the Council also pointed out that the decline in wage growth might be reduced by the process of convergence of the Polish economy to more developed EU economies where the share of compensations in GDP is much higher than in Poland. Furthermore, some members emphasized that a fast rise in unit labour costs might in the longer horizon significantly reduce the competitiveness of Polish enterprises, including exporters.

The development of monetary aggregates in Poland was also discussed during the meeting. Some members of the Council drew attention to a still very strong growth in consumer credits, emphasizing that it would probably support continuously high demand pressure. At the same time, these members pointed out that the high growth of broad money supply observed for the last several years might indicate the persistence of inflationary pressure in the economy. Other members of the Council, however, noted that credit growth might be reduced by possible tightening of criteria for granting loans, as well as by the decrease in creditworthiness of households related to their deteriorating financial situation as a result of a significant drop in value of their assets.

When analysing inflation developments in Poland, it was noted that the harmonized index of consumer prices (HICP) in Poland in August 2008 was still the lowest among the countries of the region and also lower than in the majority of the countries of the euro area. Attention was also drawn to the lower than expected CPI inflation in August 2008 and to the decline in food and oil prices in global markets, which should be conducive to lowering inflation over the following few months. Some members of the Council pointed, however, to a significant rise in core inflation net of food and energy prices in August 2008. At the same time, it was emphasised that this measure of core inflation had been lower till July 2008 due to the promotional Internet price reduction last year, and its level observed since August 2008 better reflects price processes in the economy. Some members of the Council drew attention to the risk of core inflation remaining in the coming quarters above the NBP inflation target and the CPI inflation above the upper limit for deviations from the target due to possible increases of administered prices. Other

members of the Council, however, pointed out that in the light of the probable resignation from the earlier announced deregulation of energy prices for households since the beginning of 2009, the energy price growth might be lower than earlier expected, and therefore the risk of inflation remaining at a heightened level might decline.

An important factor taken into account during the discussion was the result of the meeting between the Prime Minister and representatives of the government with the Monetary Policy Council held on 16 September 2008 concerning the perspectives of Poland's accession to the euro area. At the Council's meeting some members of the Council pointed out 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 in a later period. Some of the members observed that the need to meet this criterion in 2011 and by implication to stabilise inflation at an adequate level in 2010-2011 justified the tightening of monetary policy at the current meeting. According to other members of the Council the slowdown in the Polish economy would contribute to bringing inflation down to a level enabling meeting the Maastricht inflation criterion. Moreover, some members of the Council noted that due to the uncertainty with respect to obtaining the support of the required parliamentary majority for changes in the constitution necessary from the point of view of introducing euro in Poland, there was no need to consider the possible adjustment of the monetary policy to the necessity of meeting the inflation criterion at the current meeting.

The impact of the prospects of Poland's entry to the euro area on the zloty exchange rate was also discussed during the meeting. Some members of the Council pointed out that Poland's preparations towards joining the euro area might be accompanied by the appreciation of the nominal zloty exchange rate, which would be conducive to reducing inflation. Other members of the Council observed, however, that there was a risk of the zloty depreciation if the political consultations mentioned in the joint press release of the Prime Minister and the Monetary Policy Council, did not succeed, particularly in the context of increased global risk aversion due to the turmoil in financial markets.

While discussing the decision on interest rates, some members of the Council pointed out that the scale of economic slowdown might be insufficient to reduce inflation to the target over the monetary policy horizon. Moreover, according to these members of the Council, the risk of inflation remaining above the upper limit for deviations from the target in the longer run, the risk of the exchange rate depreciation related to the turmoil in global financial markets and the possibility of revising the assessments concerning the perspective of Poland's entry to the euro area, the risk of inflation expectations remaining at an elevated level and the decreasing - despite the already implemented interest rate increases - real interest rates justified rising interest rates at the current meeting. In the assessment of these members of the Council, such decision was warranted also by perspectives of Poland's entry to the euro area outlined after the meeting with the Prime Minister and by the ensuing necessity of meeting the Maastricht inflation criterion. Furthermore, these members also pointed out that delaying interest rate increases might raise the costs of bringing inflation down to the target. According to other members of the Council, significant weakening of the economic activity in the external environment of the Polish economy, signs of economic slowdown in Poland, the already implemented interest rate increases, as well as the fall in the prices of agricultural and energy commodities in global markets would support the return of inflation to the target in medium term. These members also indicated that interest rate increases might be conducive to excessive curbing of domestic demand and – by supporting the renewed appreciation of the zloty exchange rate – to decreasing the price competitiveness of exports, and as a consequence might create the risk of a significant weakening of economic activity in Poland. According to these members of the Council, the uncertainty related to turmoil in global financial markets and the lack of political consensus regarding the date of adopting the euro warranted abstaining from the possible adjustment of the

monetary policy to the necessity of meeting the inflation criterion. Moreover, they argued that a more comprehensive assessment of the risk of inflation remaining in the medium term at an elevated level would be possible after analysing the October projection of inflation and GDP and the data released in the coming months.

A motion to raise the NBP interest rates by 25 basis points was put forward at the meeting. The motion did not pass. The Council kept the interest rates unchanged: 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%.

*Publication date: 23 October 2008*

## **Minutes of the Monetary Policy Council 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%.

*Publication date: 20 November 2008*

## **Minutes of the Monetary Policy Council 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%.

*Publication date: 18 December 2008*

## **Minutes of the Monetary Policy Council 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%.

*Publication date: 22 January 2009*

## Appendix 7. Voting records of Monetary Policy Council members on motions and resolutions in 2008

Date	Subject matter of motion or resolution	MPC decision	Voting of MPC members
29 January 2008	Resolution on restoring the compliance of the organisational status with the Act on the National Bank of Poland.		<p><b>For:</b> J. Czekaj D. Filar S. Nieckarz M. Noga S. Owsiak M. Pietrewicz A. Sławiński H. Wasilewska-Trenkner A. Wojtyna</p> <p><b>Against:</b> S. Skrzypek</p>
30 January 2008	Motion to raise NBP interest rates by 0.50 percentage points.	Motion did not receive a majority vote.	<p><b>For:</b> D. Filar M. Noga H. Wasilewska-Trenkner</p> <p><b>Against:</b> S. Skrzypek J. Czekaj S. Nieckarz S. Owsiak M. Pietrewicz A. Sławiński A. Wojtyna</p>

30 January 2008	Resolution on the level of the reference rate, lombard rate, deposit rate and rediscount rate of the National Bank of Poland.	The MPC increased the level of all interest rates by 0.25 percentage points.	<p><b>For:</b> S. Skrzypek J. Czekaj D. Filar S. Nieckarz M. Noga S. Owsiak A. Sławiński H. Wasilewska-Trenkner A. Wojtyna</p> <p><b>Against:</b> M. Pietrewicz</p>
20 February 2008	Resolution amending the resolution on accounting policies, the structure of assets and liabilities in the balance sheet and the profit and loss account of the National Bank of Poland.		<p><b>For:</b> S. Skrzypek J. Czekaj D. Filar S. Nieckarz M. Noga S. Owsiak M. Pietrewicz A. Sławiński H. Wasilewska-Trenkner</p> <p><b>Against:</b> A. Wojtyna</p>
27 February 2008	Motion to raise NBP interest rates by 0.50 percentage points.	Motion did not receive a majority vote.	<p><b>For:</b> D. Filar M. Noga H. Wasilewska-Trenkner</p> <p><b>Against:</b> S. Skrzypek J. Czekaj S. Nieckarz S. Owsiak M. Pietrewicz A. Sławiński A. Wojtyna</p>

27 February 2008	Resolution on the level of the reference rate, lombard rate, deposit rate and rediscount rate of the National Bank of Poland.	The MPC increased the level of all interest rates by 0.25 percentage points.	<p><b>For:</b> S. Skrzypek J. Czekaj D. Filar M. Noga A. Sławiński H. Wasilewska-Trenkner</p> <p><b>Against:</b> A. Wojtyna S. Nieckarz S. Owsiak M. Pietrewicz</p>
26 March 2008	Motion to raise NBP interest rates by 0.50 percentage points.	Motion did not receive a majority vote.	<p><b>For:</b> D. Filar M. Noga H. Wasilewska-Trenkner</p> <p><b>Against:</b> S. Skrzypek J. Czekaj S. Nieckarz S. Owsiak M. Pietrewicz A. Sławiński A. Wojtyna</p>
26 March 2008	Resolution on the level of the reference rate, lombard rate, deposit rate and rediscount rate of the National Bank of Poland.	The MPC increased the level of all interest rates by 0.25 percentage points.	<p><b>For:</b> S. Skrzypek J. Czekaj D. Filar S. Nieckarz M. Noga S. Owsiak M. Pietrewicz A. Sławiński H. Wasilewska-Trenkner A. Wojtyna</p>

22 April 2008	Resolution on approving the <i>Annual Financial Report of the National Bank of Poland</i> prepared as of 31 December 2007.		<b>For:</b> S. Skrzypek J. Czekaj D. Filar S. Nieckarz M. Noga S. Owsiak M. Pietrewicz A. Sławiński H. Wasilewska-Trenkner A. Wojtyna
30 April 2008	Motion to raise NBP interest rates by 0.25 percentage points.	Motion did not receive a majority vote.	<b>For:</b> D. Filar M. Noga H. Wasilewska-Trenkner A. Wojtyna <b>Against:</b> S. Skrzypek J. Czekaj S. Nieckarz S. Owsiak M. Pietrewicz A. Sławiński
21 May 2008	Resolution on approving the <i>Report on Monetary Policy Implementation in 2007</i> .		<b>For:</b> S. Skrzypek J. Czekaj D. Filar S. Nieckarz M. Noga S. Owsiak M. Pietrewicz A. Sławiński H. Wasilewska-Trenkner A. Wojtyna

21 May 2008	Resolution on the evaluation of the activities of the NBP Management Board as regards the implementation of the <i>Monetary Policy Guidelines for the Year 2007</i> .		<p><b>For:</b></p> <ul style="list-style-type: none"> <li>S. Skrzypek</li> <li>J. Czekaj</li> <li>D. Filar</li> <li>S. Nieckarz</li> <li>M. Noga</li> <li>S. Owsiak</li> <li>M. Pietrewicz</li> <li>A. Sławiński</li> <li>H. Wasilewska-Trenkner</li> <li>A. Wojtyna</li> </ul>
27 May 2008	Resolution on approving the <i>Report on the Operations of the National Bank of Poland in 2007</i> .		<p><b>For:</b></p> <ul style="list-style-type: none"> <li>S. Skrzypek</li> <li>J. Czekaj</li> <li>D. Filar</li> <li>S. Nieckarz</li> <li>M. Noga</li> <li>S. Owsiak</li> <li>M. Pietrewicz</li> <li>A. Sławiński</li> <li>H. Wasilewska-Trenkner</li> </ul> <p><b>Against:</b></p> <ul style="list-style-type: none"> <li>A. Wojtyna</li> </ul>
28 May 2007	Motion to raise NBP interest rates by 0.25 percentage points.	Motion did not receive a majority vote.	<p><b>For:</b></p> <ul style="list-style-type: none"> <li>D. Filar</li> <li>M. Noga</li> <li>H. Wasilewska-Trenkner</li> <li>A. Wojtyna</li> </ul> <p><b>Against:</b></p> <ul style="list-style-type: none"> <li>S. Skrzypek</li> <li>J. Czekaj</li> <li>S. Nieckarz</li> <li>S. Owsiak</li> <li>M. Pietrewicz</li> <li>A. Sławiński</li> </ul>

25 June 2008	Resolution on the level of the reference rate, lombard rate, deposit rate and rediscount rate of the National Bank of Poland	The MPC increased the level of all interest rates by 0.25 percentage points.	<p><b>For:</b> S. Skrzypek J. Czekaj D. Filar S. Nieckarz M. Noga S. Owsiak M. Pietrewicz A. Sławiński H. Wasilewska-Trenkner A. Wojtyna</p>
30 July 2008	Motion to raise NBP interest rates by 0.25 percentage points.	Motion did not receive a majority vote.	<p><b>For:</b> D. Filar H. Wasilewska-Trenkner A. Wojtyna</p> <p><b>Against:</b> S. Skrzypek J. Czekaj S. Nieckarz M. Noga S. Owsiak M. Pietrewicz A. Sławiński</p>
27 August 2008	Motion to raise NBP interest rates by 0.25 percentage points.	The motion was not passed (due to tie vote, the Chairman's casting vote was decisive).	<p><b>For:</b> D. Filar M. Noga A. Sławiński H. Wasilewska-Trenkner A. Wojtyna</p> <p><b>Against:</b> S. Skrzypek J. Czekaj S. Nieckarz S. Owsiak M. Pietrewicz</p>

24 September 2008	Resolution on adopting <i>Monetary Policy Guidelines for 2009</i> .		<p><b>For:</b> S. Skrzypek J. Czekaj D. Filar S. Nieckarz M. Noga S. Owsiak A. Sławiński H. Wasilewska-Trenkner A. Wojtyna</p> <p>M. Pietrewicz was absent at the vote.</p>
24 September 2008	Motion to raise NBP interest rates by 0.25 percentage points.	The motion was not passed (due to tie vote, the Chairman's casting vote was decisive).	<p><b>For:</b> D. Filar M. Noga A. Sławiński H. Wasilewska-Trenkner A. Wojtyna</p> <p><b>Against:</b> S. Skrzypek J. Czekaj S. Nieckarz S. Owsiak M. Pietrewicz</p>
13 October 2008	Resolution amending the resolution on <i>Monetary Policy Guidelines for 2008</i> .		<p><b>For:</b> S. Skrzypek J. Czekaj D. Filar S. Nieckarz M. Noga S. Owsiak M. Pietrewicz A. Sławiński H. Wasilewska-Trenkner A. Wojtyna</p>

13 October 2008	Resolution on the principles for using currency swap transactions by the National Bank of Poland.		<p><b>For:</b> S. Skrzypek J. Czekaj D. Filar S. Nieckarz M. Noga S. Owsiak M. Pietrewicz A. Sławiński H. Wasilewska-Trenkner A. Wojtyna</p>
26 November 2008	Motion to lower the NBP interest rates by 0.50 percentage points.	Motion did not receive a majority vote.	<p><b>For:</b> S. Skrzypek M. Pietrewicz</p> <p><b>Against:</b> J. Czekaj D. Filar S. Nieckarz M. Noga S. Owsiak A. Sławiński H. Wasilewska-Trenkner A. Wojtyna</p>
26 November 2008	Resolution on the level of the reference rate, lombard rate, deposit rate and rediscount rate of the National Bank of Poland.	The MPC lowered the level of all interest rates by 0.25 percentage points.	<p><b>For:</b> S. Skrzypek J. Czekaj S. Nieckarz M. Noga S. Owsiak M. Pietrewicz A. Sławiński A. Wojtyna</p> <p><b>Against:</b> D. Filar H. Wasilewska-Trenkner</p>

16 December 2008	Resolution on approving the <i>Financial Plan of the National Bank of Poland for 2009</i> .		<p><b>For:</b> S. Skrzypek J. Czekaj D. Filar S. Nieckarz M. Noga S. Owsiak M. Pietrewicz A. Sławiński H. Wasilewska-Trenkner</p> <p><b>Against:</b> A. Wojtyna</p>
16 December 2008	Resolution on setting the ceiling for liabilities arising from loans and credits drawn by the NBP at foreign banking and financial institutions.		<p><b>For:</b> S. Skrzypek J. Czekaj D. Filar S. Nieckarz M. Noga S. Owsiak M. Pietrewicz A. Sławiński H. Wasilewska-Trenkner A. Wojtyna</p>
16 December 2008	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.		<p><b>For:</b> S. Skrzypek J. Czekaj D. Filar S. Nieckarz M. Noga S. Owsiak M. Pietrewicz A. Sławiński H. Wasilewska-Trenkner A. Wojtyna</p>

16 December 2008	Resolution amending the resolution on <i>Monetary Policy Guidelines for 2009</i> .		<p><b>For:</b></p> <ul style="list-style-type: none"> <li>S. Skrzypek</li> <li>J. Czekaj</li> <li>D. Filar</li> <li>S. Nieckarz</li> <li>M. Noga</li> <li>S. Owsiak</li> <li>M. Pietrewicz</li> <li>A. Sławiński</li> <li>H. Wasilewska-Trenkner</li> <li>A. Wojtyna</li> </ul>
23 December 2008	Resolution on the level of the reference rate, lombard rate, deposit rate and rediscount rate of the National Bank of Poland.	The MPC lowered the level of all interest rates by 0.75 percentage points (due to tie vote, the Chairman's casting vote was decisive).	<p><b>For:</b></p> <ul style="list-style-type: none"> <li>S. Skrzypek</li> <li>J. Czekaj</li> <li>S. Nieckarz</li> <li>S. Owsiak</li> <li>M. Pietrewicz</li> </ul> <p><b>Against:</b></p> <ul style="list-style-type: none"> <li>D. Filar</li> <li>M. Noga</li> <li>A. Sławiński</li> <li>H. Wasilewska-Trenkner</li> <li>A. Wojtyna</li> </ul>
23 December 2008	Motion to lower the NBP interest rates by 0.50 percentage points.	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.	

23 December 2008	Resolution on principles of conducting open market operations.		<b>For:</b> S. Skrzypek J. Czekaj D. Filar S. Nieckarz M. Noga S. Owsiak M. Pietrewicz A. Sławiński H. Wasilewska-Trenkner A. Wojtyna
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