Inflation Report
June 2008

National Bank of Poland
Monetary Policy Council

Warsaw, June 2008

The *Inflation Report* presents the Monetary Policy Council's assessment of the current and future macroeconomic developments influencing inflation. The projection of inflation and GDP presented in Chapter 4 was prepared at the Economic Institute of the National Bank of Poland. The projection was prepared with the use of the NECMOD macroeconomic model. Content-related supervision over the works on the projection was entrusted to a member of the NBP's Management Board, Mr. Zbigniew Hockuba. The NBP Management Board approved the submission of the projection to the Monetary Policy Council. The inflation projection is one of the inputs to the Monetary Policy Council's decision-making process.

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

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Summary

After a period of strong growth in 2007 Q4 the annual index of prices of consumer goods and services stabilized within the range of 4.0-4.2% in the period January–April 2008 and in May 2008 subsequently rose to 4.4%. The inflation indicator in the first five months of 2008 remaining above the upper limit for deviations from the NBP inflation target (3.5%) was mainly the result of acceleration of growth in the prices of services related to flat maintenance and energy prices, although the growth in prices of other groups of goods and services also showed a rising tendency. In this period, sustained high CPI inflation was also caused by a high growth of food prices.

In the period analysed some global factors reflected mainly in rising prices of commodities – especially energy – and increasing regulated prices dependent on the decisions of central and local government entities were contributing to a rise in inflation. The rise in inflation was also fuelled by rising domestic demand and cost pressures resulting from further improvement in the labour market. On the other hand, the disinflationary influence of decreases in the prices of goods imported form low cost countries persisted. Conductive to curbing inflation was also the appreciation of the nominal effective exchange rate of the zloty observed in that period.

In the period analysed all core inflation measures increased. In May 2008 the annual growth in three out of six core inflation measures exceeded the annual CPI growth. Core inflation excluding food and energy prices was gradually rising from 1.3% in December 2007 to 2.1% in April and May 2008.

Since December 2007 the inflation expectations of bank analysts' have remained at a level exceeding 3.0%, yet below the upper limit for deviations from NBP inflation target (3.5%). In the survey of households' inflation expectations the proportion of respondents expecting the price growth to pick up in the 12 months to come as compared with the growth observed at the moment of the survey and the proportion of respondents expecting the price growth to continue at the same level increased from 74% in December 2007 to 79% in May 2008 and subsequently in June 2008 declined to the level observed in December of the previous year. The objectified measure of inflation expectations of individuals increased to 4.7% in April 2008 (from 3.2% in December 2007), and fell subsequently to 4.3% in June.

2007 Q4 was the third consecutive quarter of falling zloty denominated import prices, which was supported by an appreciation of the zloty. After the rise in export transaction prices that had lasted since 2006 Q2, they fell in 2007 Q4. As a result of export prices falling in 2007 Q4 more quickly than import prices, the *terms of trade* deteriorated. The drop of transaction prices in imports took place despite a significant rise in year-on-year oil prices. A strong rise of oil prices in global markets observed since 2007 Q4 has only partially been offset by the appreciation of the zloty against the US dollar.

2008 Q1 brought an increase in the annual growth of the Producer Price Index up to 3.0% y/y. The growth in producer prices in the domestic market outpaced the overall producer price growth by over 2 percentage points, which was connected with export price decline in that period. This decline was the result of the appreciation of the nominal effective zloty exchange rate. Compared to the 2007 Q4 the growth of producer prices increased in all sections of industry.

The Polish economy is in the period of strong growth encompassing all its main sectors (i.e. services, industry and construction). According to GUS estimates, in 2008 Q1 the GDP grew by 6.1% year-on-year, i.e. slightly more slowly than in 2007 Q4 and in line with the expectations presented in the previous *Report*. The most important factor in GDP growth is still a dynamic rise in investment and consumption. Exports continue to rise significantly, yet due to the sustained strong domestic demand and the ensuing dynamic growth of imports, supported additionally by the zloty exchange rate appreciation, the contribution of net exports to growth has been negative since 2005 Q4. Strong economic growth is accompanied by accelerating employment growth and a falling rate of unemployment. The average wage in the economy is growing faster than labour productivity, which leads to a rise in unit labour costs. The high level of economic activity and labour market recovery are accompanied by a rise in core inflation and a growing current account deficit. The rise in CPI inflation is, to a large extent, fuelled by the strong growth in the food products and energy commodities prices in the global markets as well as the administered price increases in Poland.

In 2008 Q1 real GDP rose by 6.1% y/y (compared to 6.4% y/y in 2007 Q4), in line with the expectations presented in the previous *Report*. In 2008 Q1 private consumption growth was higher than the one observed in 2007 Q4 (5.6% y/y as compared with 3.6% y/y) and exceeded the expectations of the previous *Report*. According to GUS estimates, 2008 Q1 saw a decline in public consumption (by 1.1% y/y), while this category was expected to record a rise according to the February *Report*. In 2008 Q1 gross fixed capital formation continued to rise at a high pace – their growth reached 15.7% y/y. As a result, the investment rate (the ratio of investment to GDP) increased to 21.8%.

In 2008 Q1, in line with the expectations of the previous *Report*, the growth of gross value added in the economy declined as compared with the previous quarter, albeit remained high (5.5% y/y as compared with 6.3% y/y in 2007 Q4). Contributions of major sections of the economy (industry, construction and market services) to the total growth of value added in 2008 Q1 were slightly lower than in 2007 Q4. Value added in non-market services and value added in agriculture were conducive towards decreasing the growth of gross value added in the economy.

Despite some improvement in the external trade balance, the current account deficit in 2008 Q1 had deepened in relation to 2007 Q4. This was due to a decline in the positive balance on services and current transfers. At the same time, the negative balance on income had improved slightly. In consequence, the current account deficit in relation to GDP increased to 4.0% (compared to 3.7% in 2007 Q4).

According to preliminary estimates of the Ministry of Finance, in January–May 2008 the central budget recorded a deficit of PLN 1.9 billion. This significantly better then expected performance of the central budget (after the first five months of 2008, the Ministry of Finance envisaged a deficit of PLN 12.4 billion) was primarily the result of low expenditure realisation, due to delays in the implementation of some tasks, but also of high budget revenue, mainly driven by tax payments. The forecast presented by the European Commission (EC) in April 2008 suggests that in 2008–2009 the deficit of the public finance sector will stay below the reference value for the Maastricht fiscal criterion (of 3% of GDP). This induced the EC to submit a motion to the Council of the European Union recommending that the excessive deficit procedure for Poland, initiated in July 2004, be terminated.

In 2008 Q1 the growth rate of the number of persons working in the economy went up once again. The growing demand for labour was reflected in a swift increase in the number of working persons in the corporate sector and a further decline in unemployment. The unemployment rate and the number of the unemployed according to BAEL slid to the lowest levels in survey history, i.e. since 1992 (8.1% and 1,361 thousand, respectively, in 2008 Q1). There is still a high percentage of employers who are experiencing difficulties in hiring workers. From the beginning of 2006 till 2007 Q3 the growing number of working persons and decreasing unemployment rate was accompanied by a decline in the number of the economically active. In 2007 Q4 the economically active figure stopped falling and in 2008 Q1 it rose by 0.9% y/y. In 2008 Q1 there was also a rise in the participation ratio.

In 2008 Q1 the growth rate of nominal wages accelerated in the economy (reaching 10.1% y/y compared to 8.9% in 2007 Q4) and in the enterprise sector (11.4% y/y compared to 10.0% y/y in 2007 Q3 and Q4). In 2008 Q1 wages in the economy continued to grow faster than labour productivity. The growth rate of unit labour costs in the economy in 2008 Q1 was higher than in the previous quarter (8.5% y/y compared to 6.7% y/y) and at the same time the highest since 1998 Q4.

After the publication of the previous *Report* the yields on Treasury bonds in the United States and the euro area at first went down due to the uncertainty about the duration of the US recession and its negative impact on the economic activity in the euro-area. Then, starting from mid-March 2008, an increase in yields on those bonds was observed as the aversion to risk subsided in the global markets. Risk aversion, however, remains at a heightened level. Improvement in sentiment among global investors was conducive to halting the growth of yields on Polish Treasury bonds in April 2008. In May and June 2008 the yields on long-term Treasury bonds returned to the rising trend reaching a several-year high, which was a result of rising uncertainty about the target level of the NBP reference rate in the current cycle of interest rates hikes. Whereas, the situation in the domestic equity market reflected the sentiment prevailing in international markets. Since the publication of the previous *Report* share prices on the Warsaw Stock Exchange followed a horizontal trend, at levels of January's slump.

Since the end of February 2008 the expectations of the future path of US interest rates have changed significantly. According to forward market quotations it is currently expected that the federal funds rate will be raised to 2.50% over a six-month horizon. Also in the euro area the expectations of the future changes of the interest rates have been revised since February 2008 – the current forward market quotations suggest expectations of an interest rate hike in the euro area to 4.25% 2008 Q3 and to 4.50% by the end of this year. In Poland market expectations as reflected in FRAs adjusted for the liquidity/credit premium indicate that the NBP reference rate may rise in 2008 to 6.25–6.50%.

In 2008 Q1 the situation in the housing market did not change significantly in relation to 2007 Q4. High prices of flats, as compared to income, and deteriorating availability of mortgage loans proved an effective barrier curbing any significant real estate price hikes. Allowing for inflation, hidden promotions and a visible difference between asking and sale prices, prices have stabilised or even slightly decreased amid stabilising demand for apartments.

Since the publication of the previous *Report* the nominal exchange rate of the zloty has appreciated against the euro and the US dollar. In the same period the Czech koruna, Slovak koruna and Hungarian forint have appreciated against the euro as well.

Since the beginning of 2008, the growth of loans to enterprises remained slightly above 26% *y/y*. Loans to enterprises for the purchase of real estates continued to rise rapidly, accompanied by a decline in the growth of investment loans. On the other hand, the growth of loans for financing current business activity remained at a stable level and continued to considerably outpace the growth of investment loans. In the first months of 2008, lending to households continued to grow strongly which was the result of a very dynamic growth of housing loans and a fast build-up of consumption loans, observed despite the tightening of banks' lending policy in both segments.

During the meetings in February and March 2008, the Monetary Policy Council increased the NBP interest rates by 0.25 percentage points on each occasion. In April and May 2008 the Council decided to keep NBP rates unchanged. During the meeting in June 2008 the Council decided to increase the NBP interest rates again by 0.25 percentage point to the level: the reference rate 6.00%, the lombard rate 7.50%, the deposit rate 4.50% and the rediscount rate 6.25%.

Minutes of the MPC decision-making meeting held in February, March, April and May 2008 together with *the Information from the meeting of the Monetary Policy Council* in June 2008 are presented in chapter "Monetary policy in February – June 2008". *Minutes* from the MPC meeting held in June will be published on 24 July 2008 and so will be included in the next *Report*.

Chapter 4 of the *Report* presents the projection of inflation and GDP prepared by the NBP staff and based on the NECMOD model, which is one of the inputs into the Council's decision-making process on the NBP interest rates. The annual growth of consumer prices forecast in the June projection is higher than that in the February projection till the end of 2009, yet in 2010 it is lower than forecast in the February projection. Under constant interest rates, there is a 50-percent probability that inflation will remain within the range of 3.8-4.7% in 2008 (compared to 3.6-4.7% in the February projection), 2.5-5.8% in 2009 (compared to 2.6-4.9%) and 0.1-5.7% in 2010 (compared to 2.1-4.8%).

According to the June NECMOD-based projection, the annual GDP growth will remain, with 50-percent probability, within the range of 4.3-5.5% in 2008 (compared to 4.4-5.8% in the February projection), 3.4-6.2% in 2009 (compared to 3.5-6.1%) and 3.8-6.8% in 2010 (compared to 3.6-6.9%).

Inflationary processes

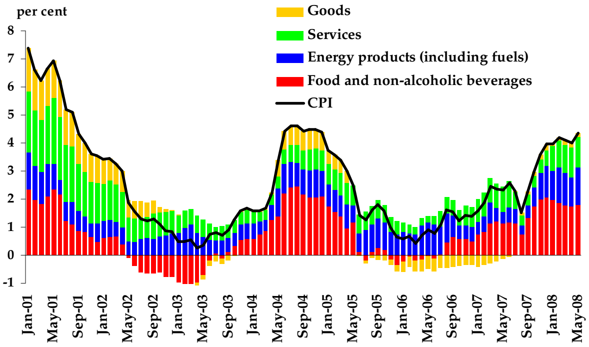
1.1 Inflation indicators

After a period of strong growth in 2007 Q4 the annual growth of prices of consumer goods and services stabilized within the range of 4.0–4.2% in the period January–April 2008 and in May 2008 subsequently rose to 4.4% (Figure 1.1)[1].

The inflation indicator in the first five months of 2008 remaining above the upper limit for deviations from the NBP inflation target (3.5%) was mainly the result of acceleration of growth in the prices of services related to flat maintenance and energy prices, although the growth in prices of other groups of goods and services also showed a rising tendency. In this period, sustained high CPI inflation was also caused by a high growth of food prices.

In the period analysed some global factors reflected mainly in rising prices of commodities - especially energy products - and increasing regulated prices dependent on the decisions of central and local government entities were contributing to a rise in inflation. The rise in inflation was also fuelled by rising domestic demand and cost pressures resulting from further improvement in the labour market. On the other hand, the disinflationary influence of decreases in the prices of goods imported form low cost countries persisted. Conductive to curbing inflation was also the appreciation of the nominal effective exchange rate of the zloty observed in that period.

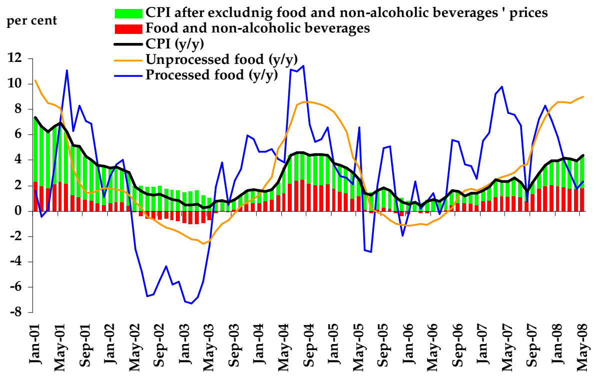
⊡ **Figure 1.1:**
CPI and main categories of prices (y/y).



Source: GUS data, NBP calculations.

[1] In March 2008 the CPI underwent annual revision by GUS according to the new weight structure in the CPI basket. As a result, the annual growth of consumer prices in January 2008 was revised downwards by 0.3 percentage point as compared with preliminary data published in February 2008 (from 4.3% to 4.0%).

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



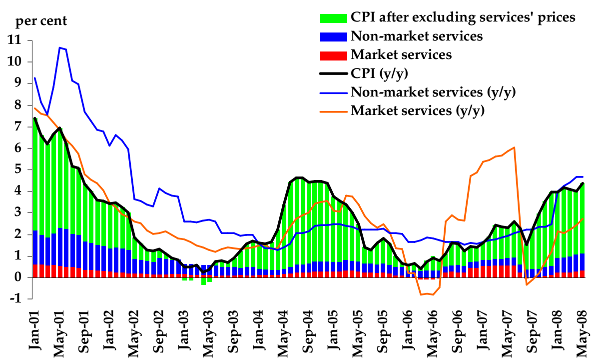
Source: GUS data, NBP calculations.

Prices of food and non-alcoholic beverages

Following the period of fast growth in 2007 Q4, in the first four months of 2008 the annual growth of food prices declined gradually and subsequently in May 2008 it rose slightly. The decline in the growth of food prices was mainly caused by a fall in the growth of prices of unprocessed food resulting from supply conditions more favourable than a year before (mainly in the vegetable market). At the end of 2008 Q1 rising tendencies in the prices of agricultural commodities in the global markets also weakened. Information on the possible rise in supplies of agricultural commodities in 2008 (*inter alia*, on the growth in the global crop harvest) translated into decreases of prices in markets for certain goods. After stabilization at a high level in 2008 Q1, in April and May 2008 the growth in the prices of processed food in Poland increased slightly. The factor behind the sustained high growth of prices of processed food was the rising costs of production, including basic agricultural products in the domestic market and energy prices.

It may be expected that in the remaining part of the year prices of agricultural commodities and food in the world markets, whose rapid growth in 2007 Q4 brought about a rise in current inflation in Poland (Table 1.1) and in many other countries; will remain at a high level, yet, the growth rate of those prices is expected to decrease. Unfavourable meteorological conditions (drought) may however contribute to the food price increases.

□ **Figure 1.3:**
CPI and main categories of prices – services (y/y).



Source: GUS data, NBP calculations.

Services prices

The period analysed saw a considerable increase in the annual growth of prices of services which was driven by an increase in the growth of both non-market and market services (Figure 1.3). The growth rate of non-market services rose to 4.7% y/y in May 2008 as compared with 2.5% y/y in December 2007. The increase in the growth rate of non-market services was primarily fuelled by a rise in the prices of services connected with flat maintenance, which resulted mainly from an

Table 1.1: CPI inflation (y/y) in selected countries.

Change y/y(per cent)	2007							2008				
	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Austria	2.0	2.1	1.7	2.1	2.8	3.1	3.6	3.2	3.2	3.5	3.3	3.7
Belgium	1.3	1.4	1.1	1.5	2.2	2.9	3.1	3.5	3.6	4.4	4.2	5.2
Finland	2.4	2.6	2.3	2.6	2.7	2.9	2.6	3.9	3.7	3.8	3.5	4.2
France	1.2	1.1	1.2	1.5	2.0	2.4	2.6	2.8	2.8	3.2	3.0	3.3
Greece	2.6	2.5	2.5	2.9	3.1	3.9	3.9	3.9	4.4	4.4	4.4	4.9
Spain	2.4	2.2	2.2	2.7	3.6	4.1	4.2	4.3	4.4	4.5	4.2	4.6
Netherlands	1.7	1.5	1.1	1.3	1.6	1.9	1.9	2.0	2.2	2.2	2.0	2.3
Ireland	4.9	5.0	4.8	4.6	4.8	5.0	4.7	4.3	4.8	5.0	4.3	4.7
Luxembourg	2.0	1.9	1.9	2.1	2.9	3.2	3.4	3.3	3.1	3.5	3.5	4.0
Germany	1.9	2.1	2.2	2.7	2.8	3.2	3.1	2.8	2.8	3.1	2.4	3.0
Portugal	2.4	2.4	2.4	2.1	2.1	2.6	2.8	2.7	2.9	2.9	3.1	2.8
Slovenia	3.6	3.8	3.5	3.5	5.1	5.7	5.6	6.4	6.5	6.9	6.5	6.4
Italy	1.7	1.6	1.6	1.7	2.1	2.4	2.6	3.0	2.9	3.3	3.3	3.6
USA	2.7	2.4	2.0	2.8	3.5	4.3	4.1	4.3	4.0	4.0	3.9	4.2
Denmark	1.4	1.2	1.1	1.2	1.7	2.5	2.3	2.9	3.1	3.1	3.2	3.4
Norway	0.4	0.4	0.4	-0.3	-0.2	1.5	2.8	3.7	3.7	3.2	3.1	3.1
Sweden	1.9	1.9	1.8	2.2	2.7	3.3	3.5	3.2	3.1	3.4	3.4	4.0
United Kingdom	2.4	1.9	1.8	1.8	2.1	2.1	2.1	2.2	2.5	2.5	3.0	3.3
Poland	**2.6**	**2.3**	**1.5**	**2.3**	**3.0**	**3.6**	**4.0**	**4.0**	**4.2**	**4.1**	**4.0**	**4.4**
Czech Republic	2.5	2.3	2.4	2.8	4.0	5.0	5.4	7.5	7.5	7.1	6.8	6.8
Slovakia	2.5	2.3	2.3	2.8	3.3	3.1	3.4	3.8	4.0	4.2	4.3	4.6
Hungary	8.6	8.4	8.3	6.4	6.7	7.1	7.4	7.1	6.9	6.7	6.6	7.0
Estonia	5.8	6.4	5.7	7.2	8.5	9.1	9.6	11.0	11.3	10.9	11.4	11.3
Lithuania	4.8	5.1	5.5	7.1	7.6	7.8	8.1	9.9	10.8	11.3	11.7	12.0
Latvia	8.8	9.5	10.1	11.4	13.2	13.7	14.1	15.7	16.7	16.7	17.4	17.9

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

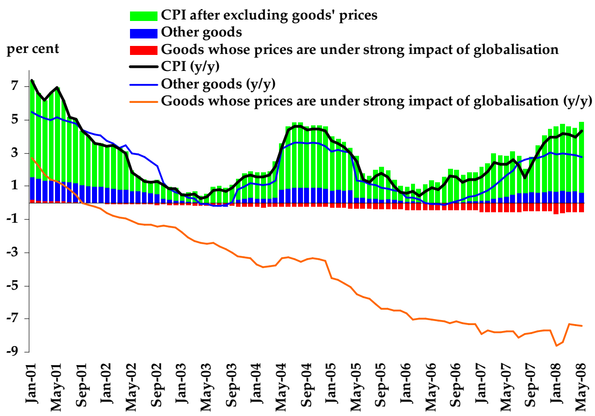
increase in the prices of waste disposal services driven by considerable increases of charges paid to local government entities (ecological tax)[2]. This group included also the prices of services related to water supply, sewerage services and costs of administration and management of flats. The annual growth of prices pursued a rising path also in the group of medical, educational and transportation services. The scale of growth of market services was lower than in the case of non-market services (2.7% y/y in May as compared with 1.2% y/y in December 2007). The rise in

[2]From January to May 2008, cumulatively, the growth of prices of waste disposal services amounted to 36.7%.

market services was mainly driven by further price growth in the group of restaurant and hotel services, organised travel services and prices of services connected with personal hygiene (hairdressing services, etc.), which are largely dependent on the changes of the income of households. The increase in the prices of market services results from the growing consumption demand and growth of unit labour costs in this sector.

The decline in the annual growth of prices of services in the period analysed continued to be driven by a fall in the prices of Internet services[3]. The annual growth of total services, Internet services excluded, increased in May 2008 to 4.8%, as compared with 2.9% in December 2007.

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



Source: GUS data, NBP calculations.

Goods prices

In the period analysed the annual growth in prices of goods remained low[4]. Developments in goods prices were largely affected by changes in the prices of clothes and footwear. After a seasonal decline in the growth of those prices recorded in the first two months of the year, March 2008 saw an unexpected rise in those prices[5]. As a

[3]August 2007 saw a sharp drop in the prices of Internet services (by 31.8% m/m), which resulted from a promotional decrease of those prices offered by one of the Internet service providers. In the period January – May 2008 the annual price index of Internet services continued to decrease the CPI growth rate. The statistical base effect connected with the drop of those prices in August 2007 will fade in August 2008, which *ceteris paribus* will fuel the annual CPI growth in that month. Despite the small share of prices of Internet services in the CPI basket, fluctuations in those prices observed since 2005 have been significant enough to cause considerable decreases or increases of the total CPI as well as those categories in which these services are classified. Changes in the prices of Internet services and their impact on inflation were also analysed in previous *Reports*.

[4]In accordance with the definition adopted in the *Report* the *goods* category does not include food, non-alcoholic beverages and energy products (including fuels).

[5]Increase in the prices of clothes and footwear by 1.0% m/m in March 2008 was an unusual phenomenon considering the developments of prices in this category in the past. The rise of prices in this group observed in March 2008 was largely driven by changes in the methodology of statistical registration of those prices connected with shifts of periods of off-season sales of goods.

result of faster growth of prices of clothes and footwear the scale of price decline decreased (in annual terms)

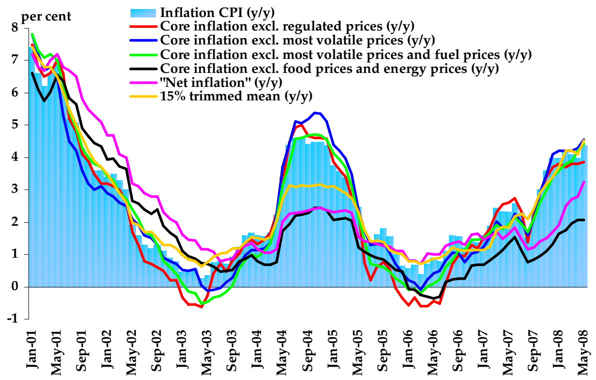
in the group of goods strongly affected by globalization[6], a major part of which is imported from low-cost countries, was lower (Figure 1.4).

In the period analysed the growth rate of prices of other goods levelled off, which was the result of two opposite trends. On the one hand, the growth in the prices of materials for flat maintenance declined, which may have been driven by both high statistical base effects of the previous year, and a weakening of the demand for flats. On the other hand, in the majority of groups of goods in this price category price growth accelerated, including – as a result of higher excise tax imposed in January 2008 - a considerable pick-up in price growth in the group of tobacco products.

Energy prices

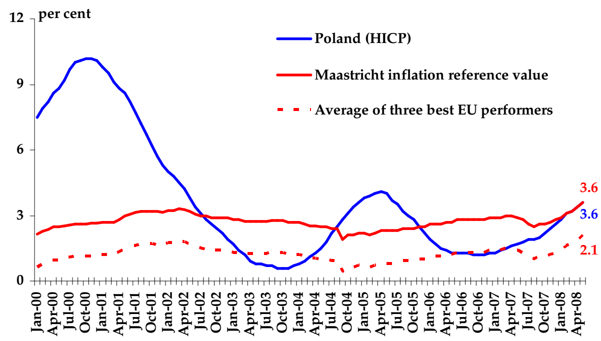
In the period January – May 2008 the annual growth of energy prices reached a high level, which was mainly driven by a marked increase in the prices of electricity (in January, February and May), gas (at the turn of April and May) and heating. In the first four months of 2008, the decline in the growth of fuel prices resulting from both the statistical base effect[7], and the appreciation of the nominal exchange rate, especially against the American dollar, had the opposite effect. In May 2008, however, domestic fuel prices grew significantly in response to the considerable increase in oil prices in the world markets. Due to the rise in current and forecast oil prices in the world markets and the already effected increases in the energy prices, the growth in those prices will remain at a high level in the nearest future.

Figure 1.5:
CPI and core inflation measures.



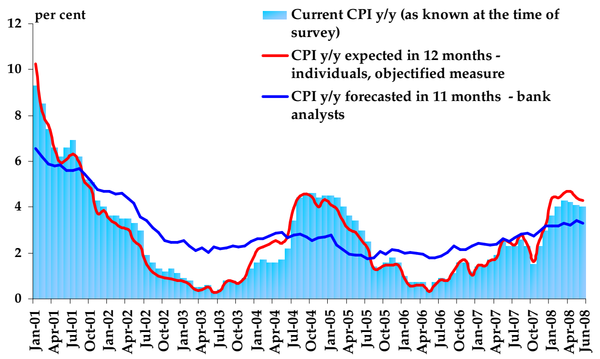
Source: GUS Data, NBP calculations.

Figure 1.6:
HICP inflation in Poland (12-month moving average) and the Maastricht criterion (y/y).



Source: Eurostat data, NBP calculations.

Figure 1.7:
Inflation expectations of individuals and inflation forecasts of bank analysts.



Source: Ipsos, Reuters, GUS, NBP calculations.

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

[7]In the period from January to April 2008, cumulatively, the prices of fuels on the domestic market fell 1.8%, whereas in the comparable period of 2007 they rose by 9.6%.

Table 1.2: CPI and core inflation indices.

Change y/y (per cent)	2007 Jun	2007 Jul	2007 Aug	2007 Sep	2007 Oct	2007 Nov	2007 Dec	2008 Jan	2008 Feb	2008 Mar	2008 Apr	2008 May
CPI	**2.6**	**2.3**	**1.5**	**2.3**	**3.0**	**3.6**	**4.0**	**4.0**	**4.2**	**4.1**	**4.0**	**4.4**
Core inflation indices excluding:												
Regulated prices	2.7	2.3	1.4	2.2	2.9	3.4	3.7	3.8	3.7	3.8	3.8	3.9
Most volatile prices	2.2	2.0	1.6	2.1	2.9	3.5	4.1	4.2	4.2	4.2	4.3	4.5
Most volatile prices and fuel prices	2.2	1.9	1.7	2.1	2.6	3.0	3.4	3.6	3.8	3.9	4.2	4.4
Food and energy prices	1.5	1.1	0.8	0.9	1.0	1.1	1.3	1.6	1.8	2.0	2.1	2.1
Food and fuel prices ("net" inflation)	1.8	1.5	1.2	1.2	1.4	1.5	1.7	1.9	2.5	2.7	2.8	3.2
15% trimmed mean	2.2	2.3	2.1	2.4	2.9	3.2	3.4	3.7	4.2	4.2	4.1	4.5
Change m/m (per cent)	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**
CPI	**0.0**	**-0.3**	**-0.4**	**0.8**	**0.6**	**0.7**	**0.3**	**0.7**	**0.4**	**0.4**	**0.4**	**0.8**
Core inflation indices excluding:												
Regulated prices	-0.2	-0.5	-0.6	1.0	0.8	0.7	0.3	0.9	0.1	0.4	0.4	0.6
Most volatile prices	-0.4	0.5	0.1	0.7	0.8	1.1	0.8	0.3	0.0	0.3	0.3	0.0
Most volatile prices and fuel prices	-0.6	0.5	0.1	0.7	0.9	1.0	0.9	0.4	0.1	0.3	0.3	-0.2
Food and energy prices	0.2	0.2	-0.3	0.1	0.2	0.1	0.2	0.5	0.1	0.3	0.3	0.2
Food and fuel prices ("net" inflation)	0.2	0.2	-0.3	0.2	0.3	0.2	0.2	0.7	0.6	0.3	0.2	0.6
15% trimmed mean	0.2	0.2	0.1	0.3	0.3	0.3	0.2	0.5	0.3	0.3	0.3	0.4
Core inflation indices – seasonally adjusted (TRAMO/SEATS):												
CPI	0.3	0.1	0.0	0.5	0.4	0.6	0.4	0.4	0.4	0.3	0.1	0.5
Core inflation excluding food and energy prices	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.4
"net" inflation	0.2	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.3	0.3	0.2

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

Core inflation

In the period analysed all core inflation measures increased (Figure 1.5). In May 2008 the annual growth in three out of six core inflation measures exceeded the annual CPI growth. Core inflation excluding food and energy prices was gradually rising from 1.3% in December 2007 to 2.1% in April and May 2008.

Inflation and the Maastricht criterion

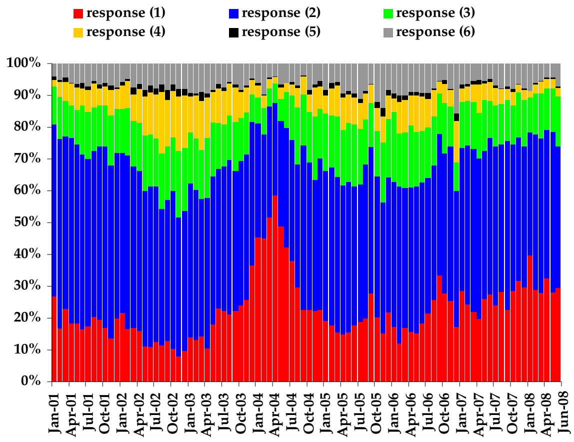
In the period January - May 2008 the 12-month moving average HICP inflation in Poland, taken into account in the assessment of compliance with the Maastricht inflation criterion by a particular country, did not exceed the reference value (Figure 1.6).

1.2 Inflation expectations

Since December 2007 the inflation expectations of bank analysts' have remained at a level exceeding 3.0%, yet below the upper limit for deviations from NBP inflation target (3.5%) (Figure 1.7).

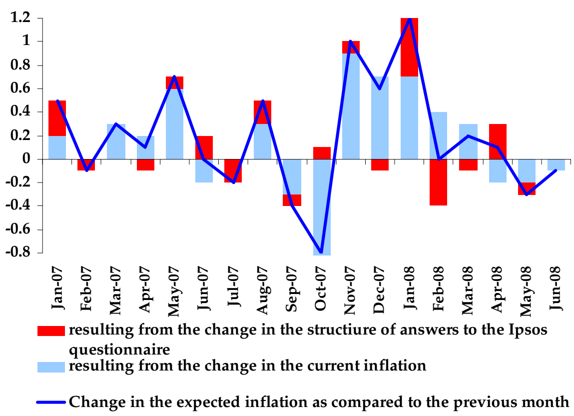
In the survey of households' inflation expectations the proportion of respondents expecting the price growth to pick up in the 12 months to come as compared with inflation observed at the moment of the survey and the proportion of respondents expecting the price growth to continue at the same level increased from 74% in December 2007 to 79% in May 2008 and subsequently in June 2008 declined to the level observed in December of the previous year (Figure 1.8). The objectified measure of inflation expectations of individuals increased to 4.7% in April 2008 (from 3.2% in December 2007), and fell subsequently to 4.3% in June (Figure 1.7). The increase in expected inflation by 1.1 percentage points in June 2008 as compared with December 2007 resulted in 82% from changes in current inflation and in 18% from changes in the structure of responses in Ipsos consumer surveys.

Figure 1.8:
Inflation expectations of individuals – responses to the question asked by Ipsos.



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

Figure 1.9:
Decomposition of changes in the objectified measure of inflation expectations of individuals



Source: Ipsos, NBP calculations.

Determinants of inflation

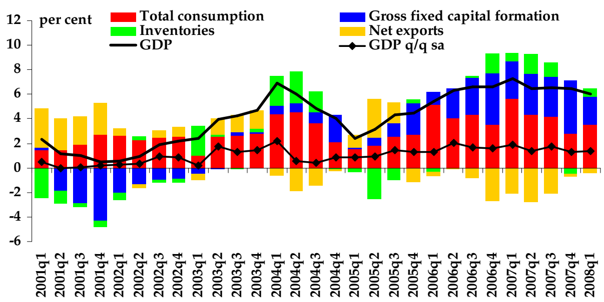
The Polish economy is in the period of strong growth encompassing all its main sectors (i.e. services, industry and construction). According to GUS estimates, in 2008 Q1 the GDP grew by 6.1% year-on-year, i.e. slightly more slowly than in 2007 Q4 and in line with the expectations presented in the previous *Report*. The most important factor in GDP growth is still a dynamic rise in investment and consumption. Exports continue to rise significantly, yet due to the sustained strong domestic demand and the ensuing dynamic growth of imports, supported additionally by the zloty exchange rate appreciation, the contribution of net exports to growth has been negative since 2005 Q4. Strong economic growth is accompanied by accelerating employment growth and a falling rate of unemployment. The average wage in the economy is growing faster than labour productivity, which leads to a rise in unit labour costs. The high level of economic activity and labour market recovery are accompanied by a rise in core inflation and a growing current account deficit. The rise in CPI inflation is, to a large extent, fuelled by the strong growth in the food products and energy commodities prices in the global markets as well as the administered price increases in Poland.

2.1 Demand

In 2008 Q1 real GDP rose by 6.1% y/y (compared to 6.4% y/y in 2007 Q4), in line with the expectations presented in the previous *Report* (Table 2.1[8], Figure 2.1). There was a significant increase in private consumption and a continuation to the very high growth rate of gross fixed capital formation. In consequence, domestic demand continued to rise (at the rate of 6.3% y/y in 2008 Q1 compared to 6.5% y/y in 2007 Q4). Imports were growing faster than exports, which added to the continued negative contribution of net exports to GDP growth.

In the NBP's assessment, the mid-term outlook for economic growth remains favourable, although

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



Source: GUS data.

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

Table 2.1: GDP and aggregate demand components growth rates.

Change q/q seasonally adjusted (per cent)	2006				2007				2008
	q1	q2	q3	q4	q1	q2	q3	q4	q1
GDP	1.3	2.1	1.7	1.6	1.9	1.4	1.7	1.3	1.4
Domestic demand	1.9	1.7	2.3	3.0	1.6	1.8	1.8	1.1	2.0
Total consumption	1.4	1.3	1.4	1.2	1.5	0.9	1.4	1.0	0.9
Private consumption	1.5	1.4	1.5	1.1	1.3	0.8	1.6	1.0	1.3
Gross capital formation	3.6	3.6	6.2	9.9	2.1	5.2	3.2	1.7	5.7
Gross fixed capital formation	2.2	5.6	4.3	4.6	5.4	2.9	3.6	3.5	4.3

Source: NBP calculations on the basis of GUS data.

2008 is expected to bring a weakening of GDP growth as compared to 2007. Nevertheless, the GDP growth rate will remain high and, similarly as in the previous quarters, it will be primarily fuelled by steadily rising private consumption and gross fixed capital formation. Due to a strong recovery in domestic demand and the accompanying rise in imports, amid falling rate of export growth, the negative foreign trade balance will continue to be a factor diminishing GDP growth.

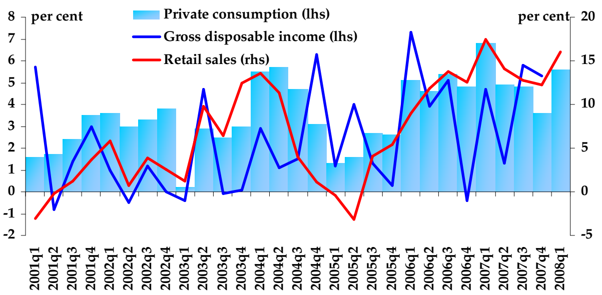
2.1.1 Consumption demand

In 2008 Q1 private consumption growth was higher than the one observed in 2007 Q4 (5.6% y/y as compared with 3.6% y/y) and exceeded the expectations of the previous *Report*. According to GUS estimates, 2008 Q1 saw a decline in public consumption (by 1.1% y/y), while this category was expected to record a rise according to the February *Report*.

The high growth in private consumption resulted from the steadily increasing household disposable income (Figure2.2), which was driven mainly by a strong growth in income from paid employment, especially in the corporate sector (nominal aggregate wage growth by 18.1% y/y). The purchasing power of households was additionally reinforced by continuing fast growth in consumption loans (see chapter 2.5.3 Credit and money). As a result, in 2008 Q1 growth of retail sales (in fixed prices) amounted to 16.0% y/y as compared with 12.2% y/y in 2007 Q4.

Given the slowdown in economic growth, in 2008

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



Source: GUS data.

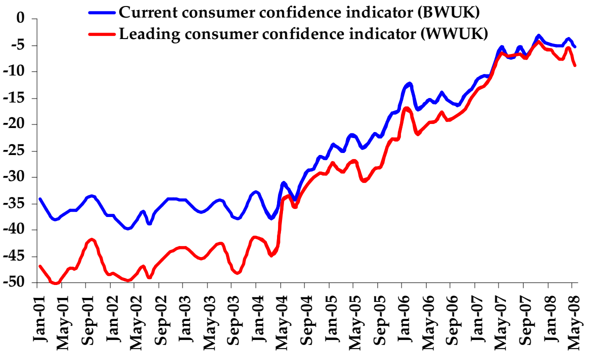
Q1 consumer sentiment deteriorated as regards expectations of the coming year in comparison to 2007 Q4, yet remained at a historically high level (Figure 2.3). Consumer expectations worsened as compared with the previous quarter mainly as a result of lower assessment of future economic situation of households. Thus, considering the persistently favourable outlook for growth, private consumption should be expected to continue to be one of the key factors driving GDP growth in the quarters to come.

2.1.2 General government demand

According to preliminary estimates of the Ministry of Finance, in January–May 2008 the central budget recorded a deficit of PLN 1.9 billion[9]. This significantly better then expected performance of the central budget[10] was primarily the result of low expenditure realisation, due to delays in the implementation of some tasks, but also of high budget revenue, driven mainly by tax payments. Budget expenditure rose in this period by 8.1% y/y, while tax revenue increased by 10.5% y/y. In the coming months of 2008, an accelerated growth in budget expenditure may be expected, which, amid a sustained rise in revenue at the level similar to that recorded in January–May 2008, will mean a gradual increase in the budget deficit. The budget deficit at the end of 2008 may, however, prove lower than the PLN 27.1 billion assumed in the budget.

2008 Q1 also marked a favourable financial situation of the other units of the general government sector. Due to high tax revenue and a low realisation of expenditure (mainly on funding EU projects and programmes), in 2008 Q1 local governments reached very high budget surplus (of PLN 10.2 billion)[11]. Good economic situation positively affected the revenue of special

Figure 2.3:
Consumer confidence indicators.



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

[9] In previous years, the same period was marked by much higher deficits: PLN 14.7 billion in 2006, PLN 4.3 billion in 2007.

[10] After the first five months of 2008, the Ministry of Finance envisaged a deficit of PLN 12.4 billion, i.e. 45.9% of the annual plan.

[11] In Q1 of previous years the budgets of local governments also recorded surpluses, though smaller. In 2006 Q1 the surplus amounted to PLN 5.8 billion, while in 2007 Q1 it was PLN 8.1 billion.

purpose funds from contributions, including the National Health Fund and the Labour Fund. In turn, the Social Security Fund, as expected, reported significant decrease in revenue from lowered disability pension contributions, combined with an increased level of benefit payments. Nevertheless, high growth of aggregate wages, which translated into high current revenue from contributions, and subsidies from the central budget allowed the Fund to fulfil its tasks without incurring loans at banks.

According to the *Convergence Programme, Update 2007* of March 2008, due to changes introduced to the fiscal policy[12], in 2008 the deficit of the public finance sector according to EU standards (ESA 95 with Open Pension Funds excluded from the sector) will amount to approx. 2.5% of GDP, compared to 2.0% of GDP in 2007. In turn, the sector's deficit reduction of 0.5 percentage point of GDP envisaged for 2009[13] is subject to considerable uncertainty, mainly due to the introduction of two reduced rates of the Personal Income Tax. Additional source of risk is a strong wage pressure in the public sector and the still legally undecided question of granting bridging pensions.

The forecast presented by the European Commission (EC) in April 2008 suggests that in 2008–2009 the deficit of the public finance sector will stay below the reference value for the Maastricht fiscal criterion (of 3% of GDP)[14]. This induced the EC to submit a motion to the Council of the European Union recommending that the excessive deficit procedure for Poland, initiated in July 2004, be terminated.

[12]The most important structural changes introduced in 2008 include: further reduction of disability pension contribution, indexation of tax thresholds, introduction of pro-family tax deduction in the PIT, return to the mechanism of annual indexation of old-age and disability pensions by the inflation rate increased by 20% of real wage growth in the national economy (particularly important in 2008 due to the cumulated indexation for two years) and earlier liquidation of the so-called old pension portfolio.

[13]Based on *Convergence Programme, Update 2007* of March 2008.

[14]The European Commission's forecasts point that the public finance sector deficit in 2008 will amount to 2.5% of GDP and in 2009 it will rise to 2.6% of GDP.

2.1.3 Investment demand

In 2008 Q1 gross fixed capital formation continued to rise at a high pace – their growth reached 15.7% y/y (Figure 2.4). As a result, the investment rate (the ratio of investment to GDP) increased to 21.8%[15] (Figure 2.5). The recovery in investment activity in 2008 Q1 was especially visible in the corporate sector. In non-financial enterprises employing more than 49 employees investment outlays on new fixed assets rose, in real terms, by approx. 24% y/y[16]. The situation in housing construction continued to improve, while investment outlays of the central and local government sectors decreased in comparison to the corresponding period of the previous year.

In 2008 Q1 the outlays on buildings and constructions in the non-financial corporate sector accounted for 35.5% of total investment outlays, while the purchase of machinery, equipment, tools and means of transport - for 63.3%. Thus, the contribution of outlays on buildings and constructions to total investment expenditure rose by 3.2 percentage point in comparison to 2007 Q1, which could be connected with a dynamic growth in prices of construction goods and services and lower purchasing costs of plant and machinery due to the zloty appreciation.

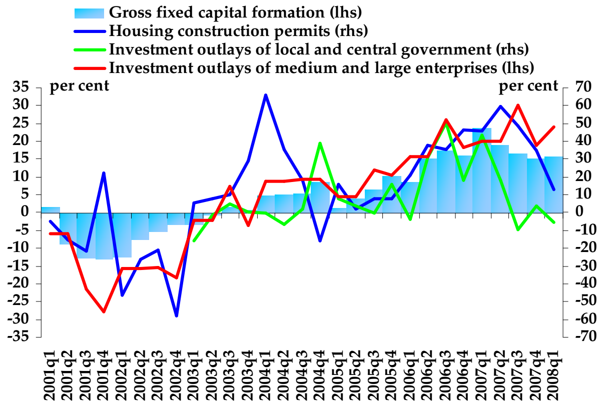
According to the NBP's economic climate survey, the outlook for investment in 2008 remains favourable, though the investment growth is expected to slow in relation to 2007. In 2008 Q2 respondents intend to embark on fewer new investment projects than in Q1 and than in the corresponding period of the previous year Enterprises were motivated to continue their investment activities by the still high, though decreasing, level of production capacity utilisation[17] (Figure 2.26). The high investment activity is also favoured by the fact that enterprises enjoy a high capacity of financing it, which is primarily supported by

[15]Investment rate is calculated on the basis of data for the past 4 quarters. Among the twelve new member states of the European Union, only three (Malta, Cyprus and Hungary) had a lower investment rate than Poland in 2007.

[16]See: *Information on socio-economic situation of the country. April 2008*, GUS.

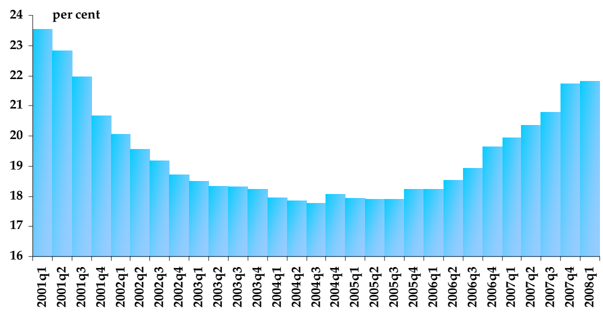
[17]See: *The Condition of the Non-financial Enterprises in the Second Quarter of 2008, NBP*

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



Source: GUS data, Ministry of Finance data, NBP calculations.
* Due to lack of data on investment outlays of enterprises in Q1 and Q2 of each year, the chart presents the growth for the first half of a year.

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



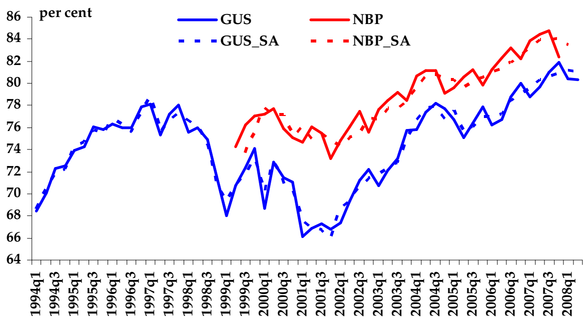
Source: GUS data, NBP calculations.

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

Contribution (per cent)	2006				2007			
	q1	q2	q3	q4	q1	q2	q3	q4
Products of agriculture, forestry and fisheries	0.0	0.0	0.1	0.1	0.2	0.1	0.2	0.1
Metal products and machinery	32.0	29.1	29.7	28.6	33.7	28.9	28.9	27.1
Transport equipment	13.4	14.3	14.0	11.4	11.1	12.0	12.1	11.3
Construction work: housing	20.9	20.7	18.8	13.1	14.7	14.2	14.5	10.1
Construction work: other constructions	30.2	31.2	33.5	43.0	37.4	41.2	40.6	47.5
Other products	3.6	4.7	3.9	3.7	2.9	3.5	3.7	3.8

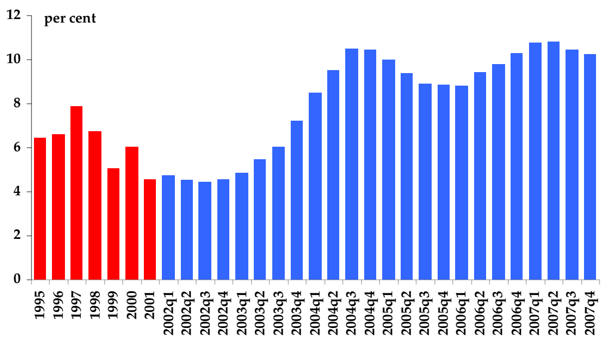
Source: Eurostat data.

☐ **Figure 2.6:**
Production capacity utilisation in industry (GUS) and in the corporate sector (NBP).



Source: GUS data, NBP business survey.
The production capacity utilisation obtained from the GUS business survey is significantly lower from one obtained from the NBP business survey. However, the changes in this indicator are similar in both surveys. The difference is due to the fact that the two surveys are based on different enterprise samples. The GUS sample includes ca. 3500 enterprises from manufacturing excluding waste processing. The NBP sample in March 2008, in turn, included 902 enterprises from the whole corporate sector. The difference may also reflect the over-representation of big enterprises in the NBP sample, while the GUS sample is representative with respect to enterprise size.

☐ **Figure 2.7:**
Return on capital employed in enterprises.



Source: GUS data, NBP estimates.
Return on capital employed calculated as operational profit to total assets minus short-term liabilities: annual data and quarterly data (cumulated over last 4 quarters)
Data for enterprises with at least 49 employees.

the still strong, though slightly deteriorating, financial situation of enterprises and the inflow of structural funds. Investing is additionally encouraged by a relatively high rate of return (Figure 2.7).

On the other hand, factors that will be negatively affecting corporate investment over the next few quarters include a bleaker sales outlook[18], a further tightening of banks' lending policy both in the case of large and medium and small enterprises[19], growing costs of business operations (including wages, materials, raw materials and energy) and, finally, increased costs of capital. Moreover, in the assessment of enterprises, the slumpening global economic climate increases the risk that the expected return on investment may not be obtained.

Growing inflow of EU funds contributes to persistently favourable outlook for investment activity in the central and local government sectors. In contrast, there is growing uncertainty as to the housing market's developments in the conditions of price stabilisation or even some price reduction.

[18] According to the NBP economic climate surveys optimism on the future demand has declined in the corporate sector; cf. *Senior Loan Officer Opinion Survey on Bank Lending Practices and Credit Conditions (2nd Quarter 2008).*

[19] *Senior Loan Officer Opinion Survey on Bank Lending Practises and Credit Conditions. 2008 Q2.* indicates tightening of banks' lending policy.

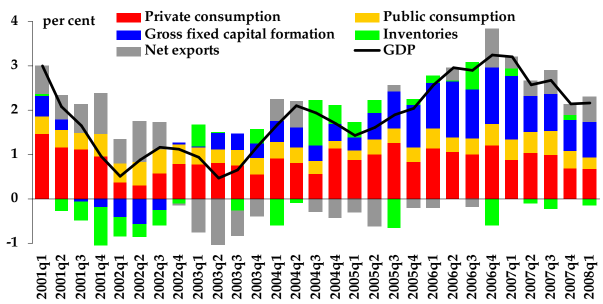
2.1.4 External demand and current account balance of payments[20]

External demand

In the euro area, which is Poland's largest export market, in 2008 Q1 economic growth amounted to 2.2% and was slightly higher than in 2007 Q4. This slight acceleration of GDP growth resulted from a significantly higher economic growth in Germany. In turn, GDP growth was being lowered by weaker economic activity in many other euro area countries[21]. In comparison to 2007 Q4 there has been a change in the structure of euro area economic growth: the contribution of net exports has risen significantly[22] (Figure 2.8).

The increase in net exports contribution to GDP growth was accompanied by acceleration in the growth rate of euro area exports and imports[23] (Figure 2.9). The acceleration in export growth was primarily connected with a relatively high rise in sales to CEE, CIS and Asian developing countries, i.e. regions where demand was still on a steep increase. At the same time, the exports

Figure 2.8:
Decomposition of the euro area GDP growth.



Source: Eurostat data.

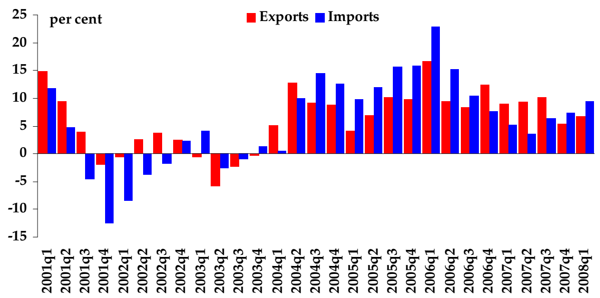
[20]Export and import data presented in this chapter refer to values expressed in EUR.

[21]In 2008 Q1 GDP in Germany rose by 2.6% y/y (compared to 1.8% y/y in 2007 Q4), while the average GDP growth in other euro area countries amounted to 2.0% y/y (compared to 2.3% y/y respectively). The rate of growth was highly differentiated in particular countries, e.g. in Greece GDP in 2008 Q1 increased by 3.6% y/y, while in Italy by mere 0.2% y/y.

[22]The contribution of net exports to euro area GDP growth in 2008 Q1 was 0.6 percentage point (compared to 0.2 percentage point in 2007 Q4). To a large extent this reflected a significant contribution of foreign trade to GDP growth in Germany; in 2008 Q1 this contribution amounted to 1.4 percentage point, while in the other euro area countries it was markedly lower (0.2 percentage point). Relatively good performance of the German exports is a result of a high competitiveness of German products, which is largely attributable to transferring particular production stages to new EU member states in order to cut labour costs and to strict wage discipline in the German economy over the past few years. As a result, German exporters became more competitive in relation to exporters from other euro area countries and can successfully compete with China in the international markets (which is reflected in Germany's growing share in global exports).

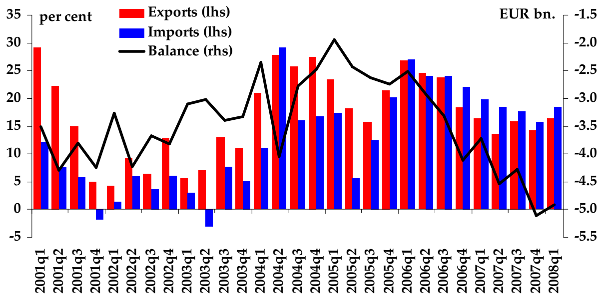
[23]The acceleration in import growth was primarily connected with oil price hikes. The rise in euro area imports net of fuels in 2008 Q1 amounted to 2.4% y/y (compared to 4.0% y/y in 2007 Q4).

□ **Figure 2.9:**
External exports and imports of the euro area (y/y).



Source: Eurostat data.

□ **Figure 2.10:**
Polish external trade (exports, imports: y/y).



Source: GUS data.

to developed countries declined, mainly due to decreasing value of sales to the United States and Japan and a significant slump in the growth rate of exports to the United Kingdom.

Since the publication of the previous *Report* there has been a further downward revisions in forecasts of economic growth in the euro area[24]. The slowdown of growth is signalled by deteriorating assessments of economic situation both from the perspective of enterprises and households. At the same time, the growth forecasts for the main trading partners of the euro area have been revised downwards, which may indicate the decline in the future growth of foreign trade in the region. Euro area exports may be negatively affected mainly by the falling demand on the part of the United States and the United Kingdom, which, apart from euro appreciation against the US dollar and British pound, is prompted by decreasing economic activity in those countries[25].

In 2008 Q1 the growth of imports to euro area from Poland accelerated[26]. There was also an acceleration in the growth of Polish exports to other countries, including, in particular, the CIS. As a result, the rise in the value of Polish exports in 2008 Q1 turned out higher than in previous three quarters (Figure 2.10). At the same time, the rate of import growth was on the rise, which is primarily due to the rising value of im-

[24]The consensus forecast published by *The Economist* in June 2008 assumes that the economic growth in the euro area in 2008 will reach 1.7% (compared to 1.8% forecast in February 2008).

[25]In 2008 Q1 the American GDP grew by 2.5% y/y (0.2% q/q) and the import demand diminished by 0.6% y/y (-0.7% q/q) compared to a rise of 2.5% y/y (0.1% q/q) and 1.0% y/y (-0.4% q/q), respectively, in 2007 Q4. In turn, the consensus published in June 2008 by *The Economist* assumes that the economic growth in the United States in 2008 will amount to 1.2% (against 1.6% forecast in February 2008). In 2008 Q1 the GDP in the United Kingdom rose by 2.5% y/y (0.4% q/q) against 2.8% y/y (0.6% q/q), respectively, in 2007 Q4. At the same time, the consensus of forecasts published in June 2008 by *The Economist* assumes that the economic growth in the United Kingdom in 2008 will amount to 1.7% (compared to 1.7% forecast in February 2008).

[26]According to Eurostat data, in 2008 Q1 the euro area imports form Poland increased by 21.9% y/y (compared to 16.5% y/y in 2007 Q4). Among main trading partners of the euro area, a higher rise of imports was only recorded in the case of Russia, which was related to higher oil prices.

Change (per cent)	2005				2006				2007			
	q1	q2	q3	q4	q1	q2	q3	q4	q1	q2	q3	q4
Export prices / Unit labour costs*												
y/y	-4.2	-14.8	-7.2	-6.3	0.4	7.9	11.4	12.5	11.5	5.9	5.7	1.2
q/q	-5.1	-1.6	0.4	-0.1	1.8	5.7	3.6	0.8	0.9	0.5	3.4	-3.5
Import prices / Domestic producer prices**												
y/y	-11.8	-13.7	-3.2	-2.2	-2.0	3.5	0.9	0.5	2.0	-3.0	-4.1	-4.8
q/q	1.8	-4.1	1.6	-1.5	2.1	1.3	-0.9	-1.8	3.5	-3.7	-2.0	-2.6
REER ULC***												
y/y	20.1	16.2	11.3	5.5	0.4	-0.2	-3.0	-1.1	-3.1	3.0	4.3	6.4
q/q	6.0	-2.9	1.8	0.6	0.9	-3.5	-1.0	2.5	-1.1	2.6	0.2	4.6

Table 2.3: Polish export and import competitiveness measures.
Notes:
* Unit labour cost (ULC) index is calculated as the ratio of payroll growth to labour productivity growth, measured as output (volume) in manufacturing per person employed in this sector.
** Domestic PPI in manufacturing.
*** Estimates on the basis of monthly GUS data and ECB data. REER ULC – real effective exchange rate deflated with unit labour costs in manufacturing. Minus denotes depreciation.
Source: NBP's calculations based on Eurostat, OECD and NBP data.

ported fuels and a further fast build-up in imports from China. As a result of the observed changes, there was a decline in the deficit in Polish foreign trade in 2008 Q1 compared to 2007 Q4.

2007 Q4 brought a deterioration of the competitive position of both domestic exporters and producers (Table 2.3). At the same time, NBP economic climate surveys show that the appreciation of the nominal exchange rate of the zloty is accompanied by a strengthening of the threshold exchange rate of export profitability (Figure 2.11), which is favoured by the high ratio of imports expenditure to revenue from exports sales[27].

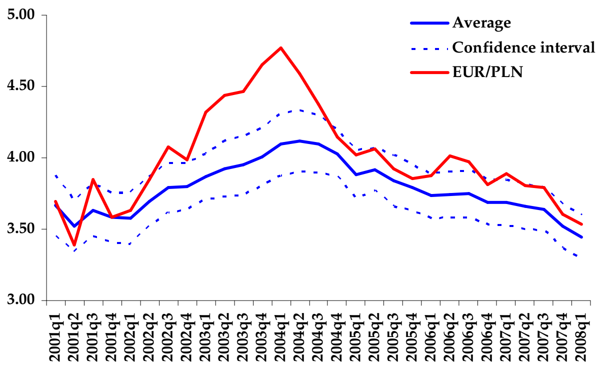
Current account balance[28]

Despite some improvement in the external trade balance, the current account deficit in 2008 Q1

[27] According to GUS F-01/I-01 reports, the ratio of imports expenditure to revenue from exports sales amounted to 89,4% in the examined population of exporters.

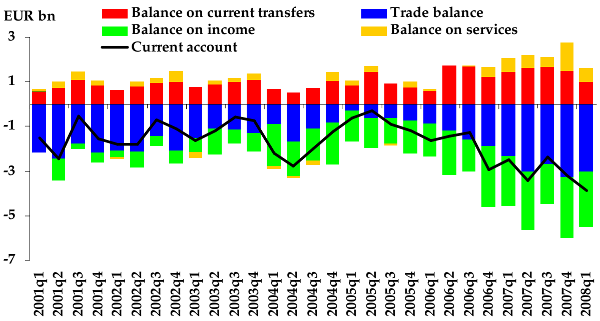
[28] Changes in the current account balance in 2008 Q1 were described on the basis of the NBP monthly estimates of the current account balance for January–March 2008. Data for 2008 Q1 will be released on 30 June 2008.

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



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

□ **Figure 2.12:**
Current account and its main components.



Source: NBP data.
Data for 2008 Q1 are based on NBP's monthly estimates of the current account for January–March 2008.

had deepened in relation to 2007 Q4. This was due to a decline in the positive balance on services and current transfers. At the same time, the negative balance on income had improved slightly. In consequence, the current account deficit in relation to GDP increased to 4.0% (compared to 3.7% in 2007 Q4).

2.2 Output

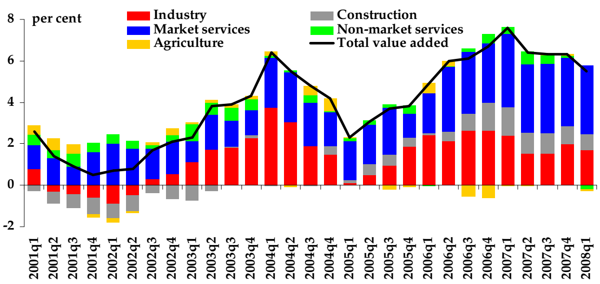
In 2008 Q1, in line with the expectations of the previous *Report*, the growth of gross value added in the economy declined as compared with the previous quarter, albeit remained high (5.5% y/y as compared with 6.3% y/y in 2007 Q4; Figure 2.13).

Table 2.4: Value added and its components.

Change q/q seasonally adjusted (per cent)	2006				2007				2008
	q1	q2	q3	q4	q1	q2	q3	q4	q1
Value added – total	1.3	2.2	1.5	1.6	2.1	1.1	1.5	1.3	1.1
Industry	3.0	2.7	2.4	1.6	2.1	1.2	1.7	2.0	0.6
Construction	-2.0	9.8	4.4	5.5	7.2	0.7	3.6	1.9	4.4
Market services	1.4	1.8	1.5	1.5	1.9	1.4	1.7	1.6	1.4

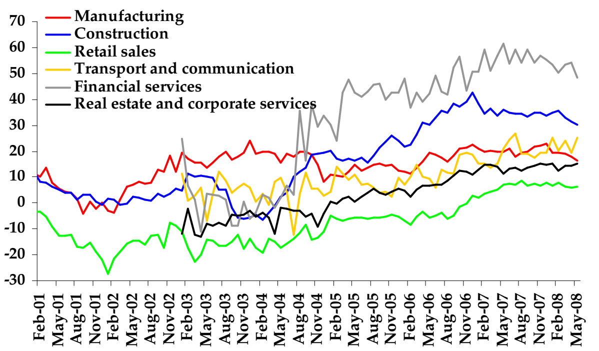
Source: NBP calculations on the basis of GUS data.

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



Source: NBP calculations on the basis of GUS data.

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



Contributions of major sections of the economy (industry, construction and market services) to the total growth of value added in 2008 Q1 were slightly lower than in 2007 Q4. Value added in non-market services and value added in agriculture were conducive towards decreasing the growth of gross value added in the economy.

In the NBP's assessment, 2008 will see a persistently high growth of value added, albeit lower than the record high 2007 level, which is suggested, *inter alia*, by the findings of GUS business tendency survey (Figure 2.14).

2.3 Labour market

2.3.1 Employment and unemployment

In 2008 Q1 the growth rate of the number of persons working in the economy went up once again (Figure 2.15 and Table 2.5). The number of working persons according to BAEL (Labour Force Survey) reached its highest value in survey history (i.e. since 1992), while the number of working persons according to data based on corporate reporting was the highest since 2000 Q3[29]. This acceleration in the growth of the number of working persons was primarily the result of a fast increase in the employment in industry, thanks to which 490 thousand new jobs were created over the year. In turn, the growth rate of the number of working persons in the services sector, which had generated most new jobs till 2007 Q4, eased down a little. The number of working persons in agriculture continued to fall.

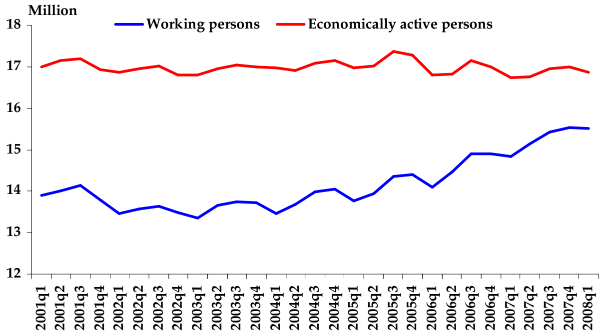
The growing demand for labour was reflected in a swift increase in the number of working persons in the corporate sector (Figure 2.17) and a further decline in unemployment (Figure 2.16). The unemployment rate and the number of the unemployed according to BAEL slid to the lowest levels in survey history, i.e. since 1992 (8.1% and 1,361 thousand, respectively, in 2008 Q1). The number of vacancies reported by employers to labour offices in 2008 Q1 was 300 thousand and so had not changed in relation to 2007 Q1 and was 18.6% higher than in 2007 Q4[30].

There is still a high percentage of employers who are experiencing difficulties in hiring both

[29] Data on the number of working persons based on corporate reporting from before 2000 are not comparable with later data due to a modification in the surveyed population of enterprises (data before 2000 include entities with more than 5 employees, while after 2000 – entities with more than 9 employees).

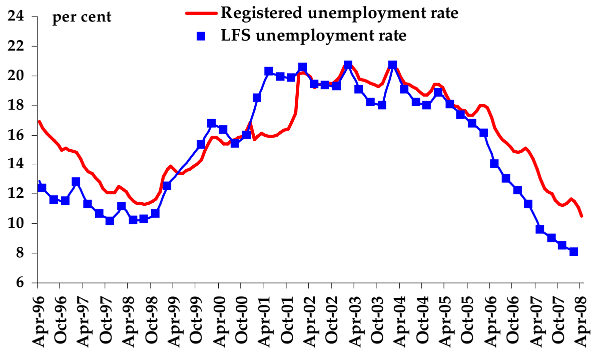
[30] In 2007 Q4 the number of vacancies rose by 4.6% y/y, compared to a rise of 19.6% y/y, on average, in the first half of 2007.

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



Source: GUS data.

□ **Figure 2.16:**
Unemployment rate registered by labour offices and BAEL (Labour Force Survey).



Source: GUS data.
Data in the whole sample are adjusted for the results of the 2002 National Census.
There are two reasons for the differences between the unemployment rate according to BAEL and the registered unemployment rate: (1) Different definition of unemployed person. Persons registered as unemployed in Labour Offices do not necessarily comply with the definition of unemployment used in the BAEL survey (unemployed, actively seeking employment and able to undertake employment immediately); on the other hand, not all the BAEL unemployed get registered in Labour Offices. According to historical data, in the periods of lower unemployment the registered unemployment rate was higher than the BAEL unemployment rate which may suggest that amidst higher demand for labour there is a growing number of persons failing to meet the criteria of unemployed person according to BAEL registered by Labour Offices. (2) Different definition of population to which the number of the unemployed is referred. While calculating the BAEL unemployment rate the number of economically active consists of the number of unemployed together with the number of persons qualified as employed in the BAEL survey. While calculating the registered unemployment rate the number of the unemployed is divided by the GUS estimated number of the employed in a particular month.

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

	Working persons in 2008q1		Growth in 2007q4		Growth in 2008q1		Growth in 2007q4	Growth in 2008q1
	thousands	structure	y/y thousands	y/y percent	y/y thousands	y/y percent	q/q seasonally adjusted (percent)	q/q seasonally adjusted (percent)
Total	15,515	100.0	627	4.2	676	4.6	1.3	1.4
Total excluding private agriculture	13,539	87.3	732	5.7	741	5.8	1.5	1.0
Place of residence								
urban areas	9,647	62.2	428	4.7	417	4.5	1.1	0.9
rural areas	5,868	37.8	199	3.5	259	4.6	1.5	1.4
Economic sector								
agriculture	2,137	13.8	-108	-4.7	-77	-3.5	-0.7	-0.7
industry	4,936	31.8	363	8.1	490	11.0	2.5	3.1
services	8,439	54.4	376	4.6	266	3.2	1.1	0.2
Ownership sector								
public	4,265	27.5	-21	-0.5	50	1.2	0.4	-0.5
private	11,250	72.5	647	6.1	626	5.9	1.7	2.0
Employment status								
hired employees	11,942	77.0	621	5.5	632	5.6	1.5	1.1
employers and self-employed	2,970	19.1	31	1.1	65	2.2	-0.2	0.4
contributing family workers	604	3.9	-26	-4.2	-20	-3.2	0.7	2.1
Type of job contract								
fixed-term contract	3,160	26.5	232	7.3	44	1.4	2.3	-1.4
permanent contract	8,782	73.5	389	4.7	587	7.2	1.4	2.2

BAEL data were seasonally adjusted with TRAMO/SEATS on a sample beginning 1995 Q1.
Source: GUS data, NBP calculations.

skilled workers[31] and workforce in general[32]. Also the NBP's economic climate survey in 2008 Q2 indicate that difficulties with finding employees remain one of the main problems signalled by enterprises, though the scale of those difficulties is no longer rising. The percentage of unfilled vacancies reported to labour offices rose once again[33].

[31]According to GUS business tendency survey, in May 2008 in construction the shortfall of skilled employees was declared by 54.5% of employers (as compared to 54.3% one year before), while the dynamic growth in the demand for labour in manufacturing industry pushed this percentage to 28,7% in 2008 Q2 compared to 27.8% in the corresponding period of the previous year.

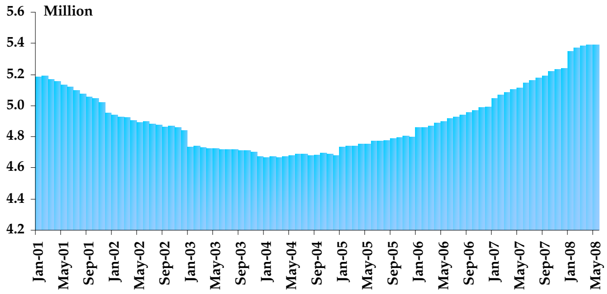
[32]In 2008 Q2 problems in finding workers in general were declared by 12.8% of manufacturing companies compared to 13.1% one year before.

[33]In April 2008 as many as 64% of vacancies reported to labour offices remained unfilled at the end of the month,

From the beginning of 2006 till 2007 Q3 the growing number of working persons and decreasing unemployment rate was accompanied by a decline in the number of the economically active (of 1.0% y/y in 2007 Q3). In 2007 Q4 the economically active figure stopped falling[34] and in 2008 Q1 it rose by 0.9% y/y to 16,876 thousand. In 2008 Q1 there was also a rise in the participation ratio (by 0.5 percentage point to 53.7%). These changes may signal a gradual increase in the supply of labour in Poland, most probably resulting from a decreasing scale of economic migration of young people and a rise in the percentage of people in pre-retirement age who are active in the labour market.

In line with the findings of both GUS business tendency and NBP economic climate surveys[35] indicate that favourable employment outlook will be sustained in 2008 Q2, especially in construction, trade and services. However, the NBP's economic climate indicators have deteriorated slightly in relation to the previous quarter.

Figure 2.17:
Employment in the enterprise sector.



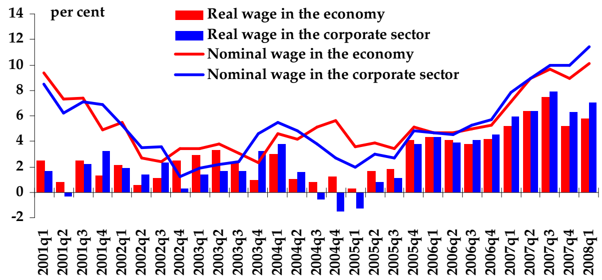
Source: GUS data.

2.3.2 Wages and productivity

In 2008 Q1 the growth rate of nominal wages accelerated in the economy (reaching 10.1% y/y compared to 8.9% in 2007 Q4) and in the enterprise sector (11.4% y/y compared to 10.0% y/y in 2007 Q3 and Q4; Figure 2.18)[36]. As the rise in the growth rate of nominal wages was higher than inflation increase, in 2008 Q1 the growth of real wages accelerated as well.

In 2008 Q1 wages in the economy continued to grow faster than labour productivity[37]. Due to the accelerated growth in the number of working persons amid slightly lower GDP growth rate, in 2008 Q1 productivity growth slowed in relation to 2007 Q4 (1.5% y/y compared to 2.1% y/y).

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



Source: GUS data, NBP calculations.

compared to 57% one year before.

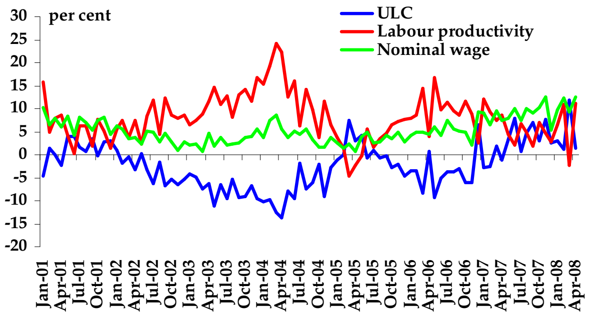
[34]The growth rate of the economically active figure in 2007 Q4 was 0.0% y/y.

[35]See: *The Condition of the Non-financial Enterprises in the Second Quarter of 2008*, NBP.

[36]In April 2008 nominal wages in the corporate sector rose by 12.6% y/y and in May by 10.5% y/y.

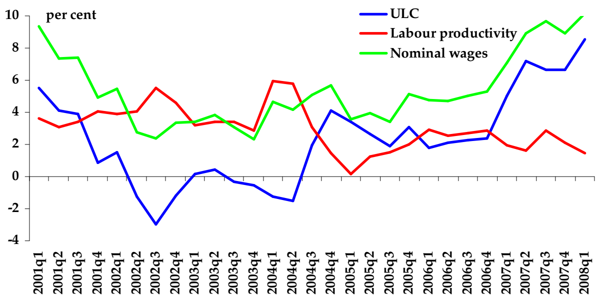
[37]Labour productivity in the economy: GDP in constant average annual prices from the previous year per one person working in the economy according to the BAEL.

☐ **Figure 2.19:**
Annual growth of labour productivity, nominal wages and unit labour costs (ULC) in industry.



Source: GUS data, NBP calculations.

☐ **Figure 2.20:**
Annual growth of labour productivity, nominal wages and unit labour costs (ULC) in the economy.



Source: GUS data, NBP calculations.

At the same time, the growth rate of wages in 2008 Q1 accelerated (10.1% y/y compared to 8.9% y/y in 2007 Q4). As a result, the growth rate of unit labour costs in the economy in 2008 Q1 was higher than in the previous quarter (8.5% y/y compared to 6.7% y/y)[38] and at the same time the highest since 1998 Q4 (Figure 2.20).

Since May 2007 growth in unit labour costs has also been observed in industrial enterprises (Figure 2.19)[39]. The upsurge in the growth of unit labour costs is conducive to increasing cost pressure in enterprises and may lead to inflation rise. Continued very good financial results of enterprises may be a factor limiting the impact of rising unit labour costs on inflation.

According to the NBP's economic climate survey[40]the percentage of enterprises intending to introduce pay rises in 2008 Q2 and the average amount of the planned rises are slightly lower than in the previous quarter, though still higher than one year before[41]. In the opinion of enterprises, the relationship between the growth rate of wages and productivity is deteriorating; survey studies also reveal that the wage pressure may be transmitted from more effective companies, which have already raised their salaries, to less effective ones. Moreover, in the decisive majority of surveyed enterprises two reductions of the disability pension contribution (in July 2007 and January 2008) did not ease the pressure on wage growth. On the other hand, according to NBP economic climate surveys the companies for which wage growth will constitute the main reason for raising the prices of their products still account for a small percentage – in 2008 Q2

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

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

[40]See: *The Condition of the Non-financial Enterprises in the Second Quarter of 2008*, NBP.

[41]The median of the planned pay rises in the group of enterprises which envisage them is at the level of 5.0%, while the average rise amounts to 6.4%.

4.8% of all companies declaring wage increases. In turn, further wage growth in the economy as a whole may be driven by escalating wage demands in the public sector.

2.4 Other costs and prices

2.4.1 External prices

2007 Q4 was the third consecutive quarter of falling zloty denominated import prices (Figure 2.21), which was supported by an appreciation of the zloty. The drop of transaction prices in imports took place despite a significant rise in year-on-year oil prices. In turn, the prices of other imported goods as a whole dropped more than in 2007 Q3. After the rise in export transaction prices that had lasted since 2006 Q2, they fell in 2007 Q4. As a result of export prices falling in 2007 Q4 more quickly than import prices, the *terms of trade* deteriorated.

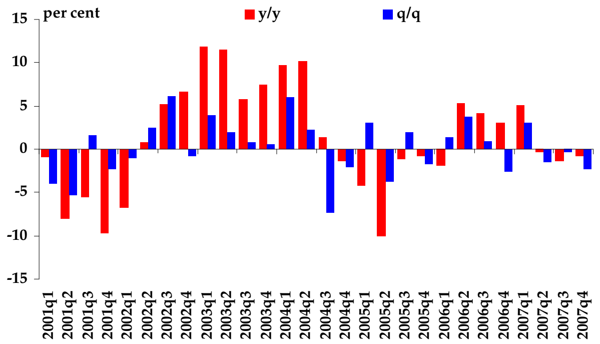
A strong rise of oil prices in global markets observed since 2007 Q4[42]has only partially been offset by the appreciation of the zloty against the US dollar (Figure 2.22). The increase in oil prices was driven mainly by the persistent high demand in the developing countries. The growth in demand exceeding the growth in oil production is conducive to the lowering of global stocks of this commodity. In this situation oil market has become attractive for speculative investment funds, in particular amid adverse trends in financial markets.

The current rise in oil prices has been accompanied by a significant increase in the forecasted prices[43]. Low stocks and small surplus production capacities in the nearest future will probably contribute to the continued high oil prices.

[42]Since the release of the previous *Report* oil prices in the world markets have followed a strong rising trend; since the end of February 2008 they grew by more than USD 30. On 16 June 2008 Brent oil prices reached a new historical maximum, exceeding 139 USD/b

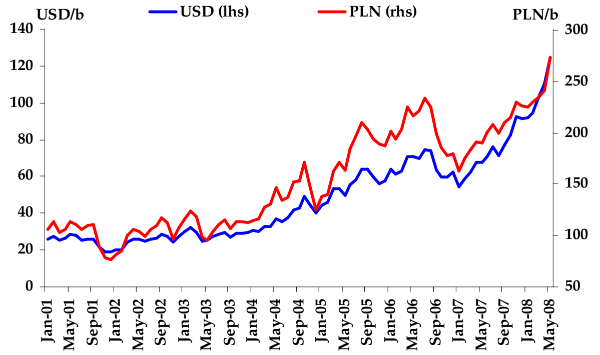
[43]Between January and June 2008 the US Department of Energy raised its forecast of oil prices for 2008 by USD 35 (to 122.2 USD/b) and for 2009 by USD 44.3 (to 126 USD/b).

Figure 2.21:
Zloty denominated import prices.



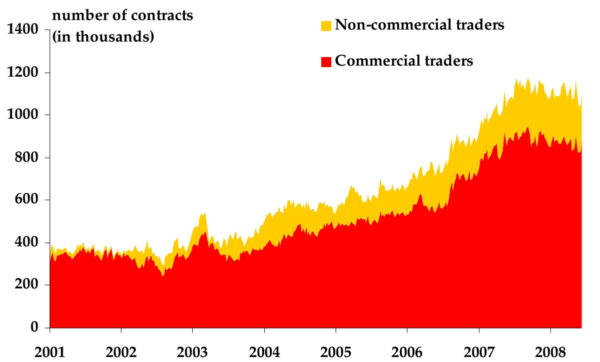
Source: GUS data.

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



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

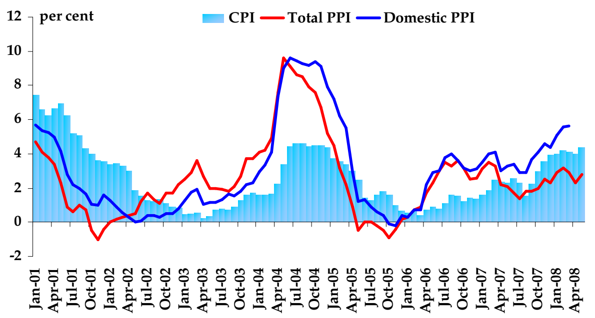
Figure 2.23:
NYMEX Crude Oil Futures (weekly data).



Source: CFTC – Bloomberg.

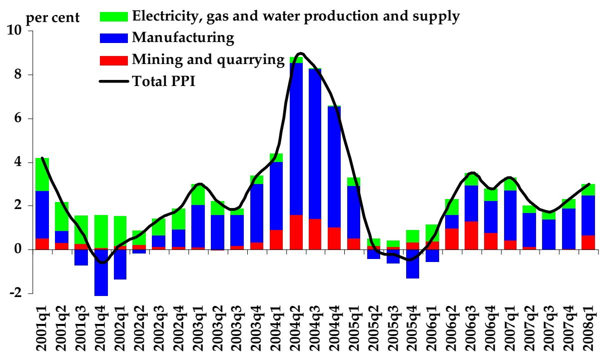
2.4.2 Producer prices in industry[44]

□ **Figure 2.24:**
CPI and PPI (y/y).



Source: GUS data.

□ **Figure 2.25:**
Contribution of producer prices growth in PPI total annual growth.



Source: GUS data.

2008 Q1 brought an increase in the annual growth of the Producer Price Index up to 3.0% y/y (Figure 2.24). The growth in producer prices in the domestic market outpaced the overall producer price growth by over 2 percentage points, which was connected with export price decline in that period. This decline was the result of the appreciation of the nominal effective zloty exchange rate. Compared to the 2007 Q4 the growth of producer prices increased in all sections of industry. In 2008 Q1 the highest growth of producer prices was recorded in *Mining*. Due to a large share of Manufacturing in the sold production of industry, this section continued to have the largest contribution to the total PPI growth (Figure 2.25). The division of industry which recorded the highest PPI growth in 2008 Q1 was production of coke and refined petroleum products (28.5% y/y).

[44]Total producer prices in industry and in three main sections (i.e. *Mining and quarrying, Manufacturing* and *Production and supply of electricity, gas and water*) referring to a specific month are published in the next calendar month, while the prices in particular divisions of *Manufacturing* and producer prices in the domestic market are available with a longer lag (of about two months). This is the reason why the time span of the analysis is not the same for all the discussed categories.

2.5 Financial markets[45]

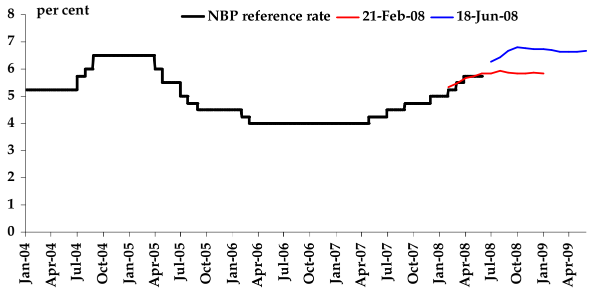
2.5.1 Asset prices and interest rates

Short-term interest rates

Since the publication of the previous *Report* the Monetary Policy Council raised the reference rate twice - to 5.75%. The increases, each of 25 basis points, were effected in February and March 2008, and at the meetings in April and May 2008 the Council decided to leave interest rates unchanged. Both the interest rate increases at the meetings in February and March 2008, and no interest-rate changes in April and May had been expected by the majority of analysts. Analysts surveyed by Reuters in June 2007 expected the reference rate to be raised this year to 6.00–6.25%[46]. In comparison to February 2008 analysts' expectations regarding the level of NBP interest rates in 2008 rose by 25–50 basis points. Analysts' expectations of an increase of domestic interest rates were formed under the influence of growing inflationary pressures connected with an improved situation in the labour market and rising oil and food prices as well as under the influence of high economic growth sustained in the first months of 2008. Market expectations as reflected in 3M WIBOR FRAs point to the possibility of larger interest rate increases by the end of 2008 (to 6.50-6.75%) than those expected by analysts, yet currently WIBOR quotations are distorted to some extent by the rise in the liquidity/credit premium in the interbank deposit market. FRAs adjusted for the liquidity/credit premium indicate that the NBP reference rate may rise in 2008 to 6.25–6.50%. In turn, IRS quotations indicate that the financial markets do not expect any interest rate changes in 2009.

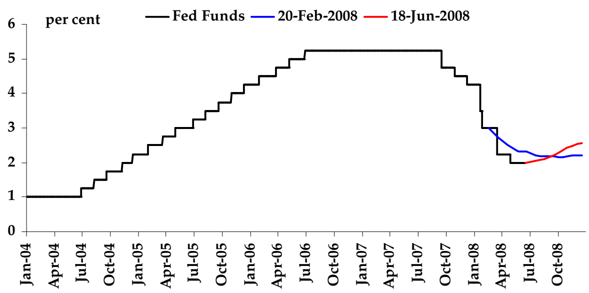
Since the publication of the previous *Report* the Fed lowered its target interest rate by a total of 100 basis points to 2.00%. The scale of cuts of the federal funds rate in the reviewed period was

Figure 2.26:
Monetary policy expectations in Poland – actual developments and expected NBP interest rate.



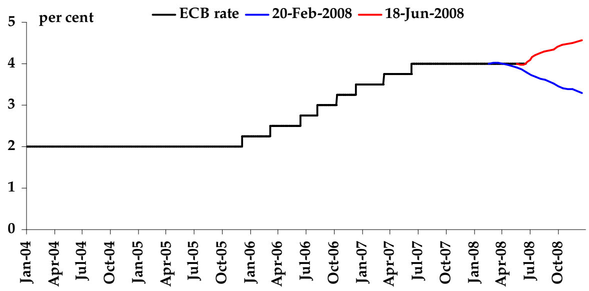
Source: Reuters data, NBP calculations.

Figure 2.27:
Monetary policy expectations in the United States – actual developments and expected Fed Funds rate.



Source: Bloomberg data, NBP calculations.

Figure 2.28:
Monetary policy expectations in the euro area – actual developments and expected ECB interest rate.

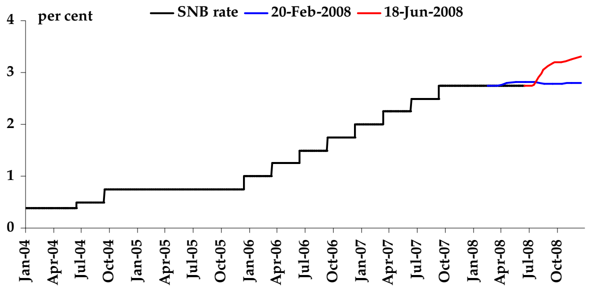


Source: Bloomberg data, NBP calculations.

[45] The cut-off date for the data presented in this section is 18 June 2008.

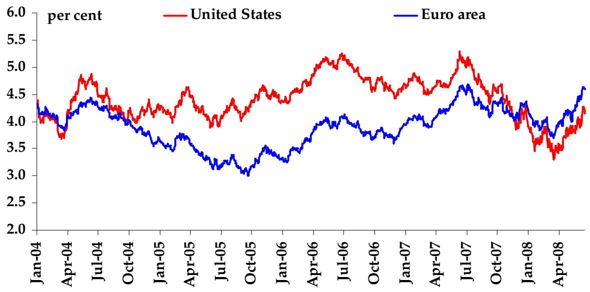
[46] In the survey of 9 June 2008 56% of analysts expected that the key interest rate of the NBP would reach the level of 6.00% in 2008, 39% of them saw it at 6.25% and 5% expected the rate to reach 6.50%.

□ **Figure 2.29:**
Monetary policy expectations in Switzerland – actual developments and expected SNB rate.



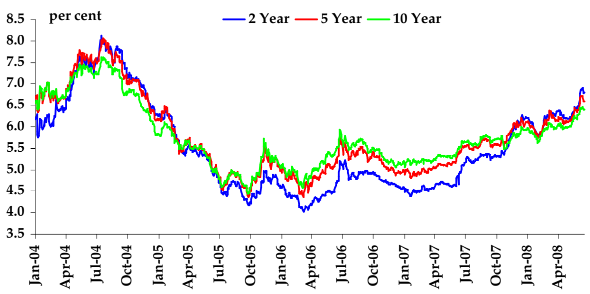
Source: Bloomberg data, NBP calculations.

□ **Figure 2.30:**
Yields of 10-year US and euro area bonds (y/y).



Source: Bloomberg data.

□ **Figure 2.31:**
Yields of the Polish benchmark bonds (y/y).



Source: Reuters data.

consistent with market expectations. The Fed's decision was justified by subsiding consumer and investment demand in the US economy and continuing disruptions in international financial markets.

Since the end of February 2008 the expectations of the future path of US interest rates have changed significantly. According to forward market quotations it is currently expected that the federal funds rate will be raised to 2.50% over a six-month horizon (Figure 2.27).

The European Central Bank (ECB) has kept its repo rate unchanged at 4.00% since June 2007. Its June 2008 decision to leave the interest rate unchanged was consistent with market expectations, which have changed since February 2008. The current forward market quotations suggest expectations of an interest rate hike in the euro area to 4.25% in 2008 Q3 and to 4.50% by the end of this year (Figure 2.28). The expectations of a repo rate increase result from high current inflation and persisting risks of inflation rise in the euro area in the medium term (improving situation in the labour market and still high capacity utilisation).

Since the publication of the previous Report the Swiss National Bank (SNB) has kept its interest rate unchanged at 2.75%. In the opinion of the SNB, the economic situation in Switzerland's external environment will most probably lead to some weakening of the Swiss economy. Market expectations point however to an SNB interest rate rise of 25 basis points to 3.00% in 2008 Q3 and suggest that this level will be kept unchanged over a six month horizon (Figure 2.29).

Long-term interest rates and the equity market

After the publication of the previous *Report* the yields on Treasury bonds in the United States and the euro area at first went down due to the uncertainty about the duration of the US recession and its negative impact on the economic activity in the euro area. Then, starting from mid-March 2008, an increase in yields on those bonds was observed as the aversion to risk subsided in the global markets. Risk aversion, however, remains at a heightened level.

Improvement in sentiment among global investors was conducive to halting the growth of yields on Polish Treasury bonds in April 2008 (Figure 2.31). The demand for domestic securities was generated mainly by domestic investors, as foreign investors continued to withdraw from the Polish Treasury bond market in the period analysed. In May and June 2008 the yields on long-term Treasury bonds returned to the rising trend reaching a several-year high, which was a result of rising uncertainty about the target level of the NBP reference rate in the current cycle of interest-rate hikes. Weak demand for Polish Treasury securities was reflected in bond tenders being cancelled by the Ministry of Finance.

Having climbed in March 2008 to the highest level in three years (over 230 basis points), the spread between the Polish 10-year Treasury bond and the corresponding German bond shrank in May 2008 to approx. 180 basis points.

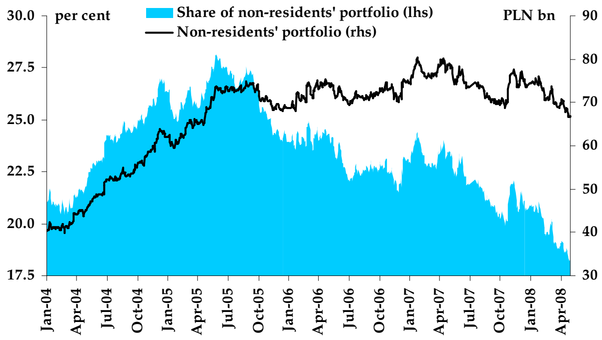
The yields on Polish long-term bonds in average annual terms, used to verify the compliance with the Maastricht interest rate criterion, have stayed at a stable level since April 2007 (Figure 2.34). Since the end of 2005 Poland has been complying with the interest rate criterion.

In January–April 2008 the value of Treasury bond portfolio held by non-residents decreased significantly. The decline in non-residents' involvement in the domestic securities markets that has continued since November 2007 resulted initially from high risk aversion among global investors and subsequently from expectations of further interest rate increases in Poland (Figure 2.32).

The situation in the domestic equity market reflected the sentiment prevailing in international markets. Since the publication of the previous *Report* share prices on the Warsaw Stock Exchange followed a horizontal trend[47], at levels of January's slump (Figure 2.35). After shares

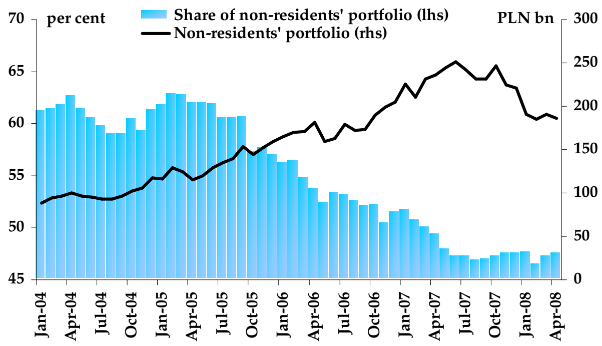
[47] A horizontal trend describes the horizontal price movement that occurs when the forces of supply and demand are nearly equal. A horizontal trend is often regarded as a period of consolidation before the price continues in the direction of the previous move.

Figure 2.32:
Non-residents' participation in the Polish Treasury bond market.



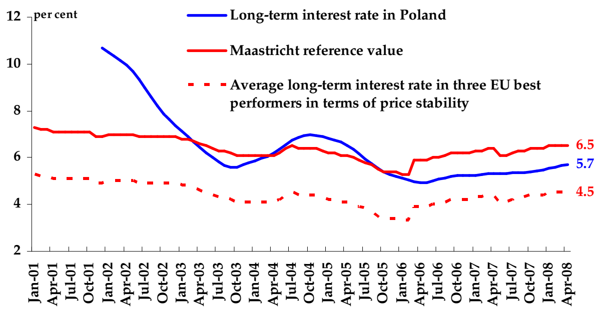
Source: National Depository for Securities (KDPW) data.

Figure 2.33:
Non-residents' participation in the Polish equity market – on the basis of market value of stocks.



Source: NBP data.

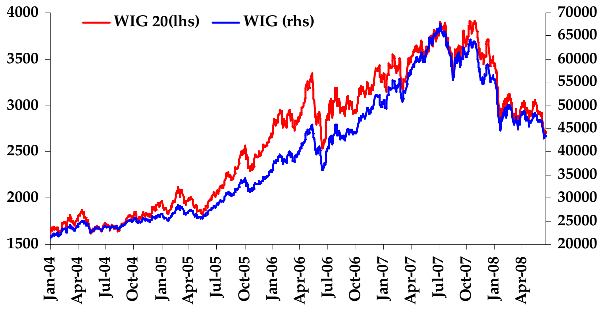
Figure 2.34:
Average annual yield (12-month moving average) for long-term Treasury bonds in Poland versus the reference value for the Maastricht criterion.



Source: NBP estimates based on Eurostat data.

plummeted in January, February brought stabilisation to the Warsaw Stock Exchange. Despite pessimistic reports from the US labour and real estate markets as well as an unfavourable sentiment in the euro area, the situation in the Warsaw Stock Exchange was relatively calm, similarly to global equity markets. This was the result of the Fed's rapid reaction to the panic selling of shares in the first half of January, namely two interest rate cuts by a total of 1.25 percentage points. Non-residents only slightly increased their portfolios in February. March brought moderate optimism back to the Warsaw Stock Exchange, which was supported by good macroeconomic data and information on growing profits of Polish companies, even though WIG and WIG20 indices followed a horizontal trend. At the same time, low activity of investors continued for the second consecutive month. Foreign short-term investors only slightly reduced their portfolios in March. In April major Warsaw Stock Exchange indices fell slightly, which stood in contrast with strong share-price growth in the world's major markets. Non-residents bought only a small number of shares in that month. From the perspective of investors settling in foreign currencies, primarily in US dollars, investments on the Warsaw Stock Exchange brought very high returns due to strong appreciation of the Polish zloty. In May share prices followed a horizontal trend, whereas in the first two weeks of June a downtrend dominated the market.

□ **Figure 2.35:**
WIG and WIG 20 stock exchange indices.

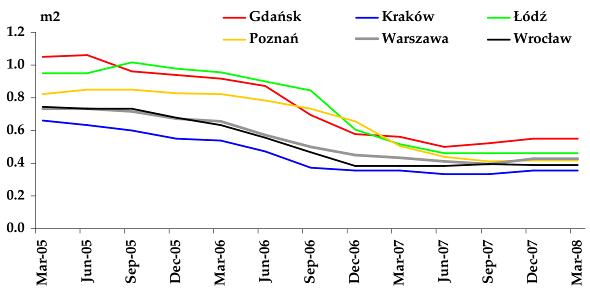


Source: Reuters data.

Home prices

In 2008 Q1 the situation in the housing market did not change significantly in relation to 2007 Q4. High prices of flats, as compared to income, and deteriorating availability of mortgage loans proved an effective barrier curbing any significant real estate price rises. Despite earlier declarations motivated by rising costs of land for construction and of construction and assembly works, developers did not decide to raise the prices of flats. Allowing for inflation, hidden promotions and a visible difference between offered and sale prices, prices have stabilised or even slightly decreased amid stabilising demand for flats.

□ **Figure 2.36:**
Availability of flats (number of square metres of a flat that can be purchased for local average gross monthly salary in corporate sector at average price in primary and secondary housing market).



Source: NBP, GUS data.

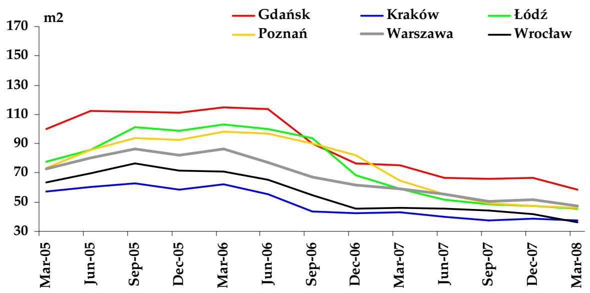
Table 2.6: Change in the average price of a flat in selected local markets.

	Dec 2004 y/y (per cent)	Dec 2005 y/y (per cent)	Dec 2006 y/y (per cent)	Dec 2007 y/y (per cent)	Jun 2007 q/q (per cent)	Sep 2007 q/q (per cent)	Dec 2007 q/q (per cent)	Mar 2008 q/q (per cent)	Mar 2008 Average price (PLN/m^2)
	Primary market								
Poland (total)	9.1	7.9	51.5	21.1	13.6	2.9	-1.8	1.4	7586
Most important housing markets in Poland†‡	8.9	12.6	56.1	19.7	7.7	2.5	-0.2	0.8	8217
Capitals of voivodships‡	9.1	15.0	45.2	22.7	11.9	3.5	-1.5	0.7	7948
Small and medium towns‡	10.6	7.0	10.4	95.7	33.3	14.0	-4.3	-0.1	6364
Warsaw	12.8	12.9	54.3	13.1	2.6	4.1	-1.7	2.7	8817
Cracow	13.1	22.3	67.4	15.7	12.5	2.9	-3.2	-1.9	8076
Wroclaw	4.8	17.9	101.2	8.1	8.3	-4.3	7.4	5.1	7888
Gdansk	12.0	15.7	63.7	22.6	5.0	28.2	1.0	-9.8	6863
Gdynia	6.6	8.5	46.0	48.5	5.2	6.0	5.8	-5.9	7704
Poznan	8.9	3.0	18.9	119.2	22.4	12.2	1.6	-5.2	8394
Lodz	4.7	-5.3	67.4	37.8	14.5	-0.6	-1.0	4.8	6366
	Secondary market								
Poland (total)	0.9	8.7	77.6	10.9	1.1	0.3	-2.7	-3.0	5400
Most important housing markets in Poland‡†	7.2	-1.6	84.1	4.6	3.4	1.1	-8.5	2.6	7205
Capitals of voivodships‡	2.2	4.5	82.2	3.6	0.2	-0.3	-3.4	-1.4	5883
Small and medium towns‡	7.4	9.6	49.4	47.7	11.6	1.0	0.4	1.8	4813
Warsaw	6.9	15.1	55.6	14.5	9.1	4.9	-7.8	6.4	9909
Cracow	12.5	31.3	62.4	8.4	2.4	1.9	-2.8	-10.6	7265
Wroclaw	16.6	13.8	74.8	11.1	-0.3	3.8	-1.5	0.9	7266
Gdansk	6.5	18.9	82.5	24.2	5.1	-4.4	7.4	1.6	7174
Gdynia	10.5	17.7	77.8	10.4	6.3	-6.5	3.3	4.8	7015
Poznan	14.8	4.5	49.4	36.7	13.0	1.7	-2.7	0.0	6395
Lodz	4.9	3.9	74.5	47.3	7.2	2.2	3.5	-6.3	4610

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

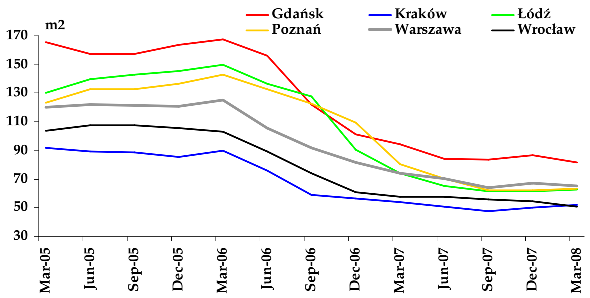
Even though the growth in costs of land for construction and prices of construction and assembly works is noticeable, it will probably not have any significant impact on profitability, as the fundamental conditions for real estate development are still very favourable. Some financial problems may be encountered by those enterprises which have purchased too much land for future construction projects or those which, in order to speed up the implementation of projects, have paid too much for areas for construction or for finished projects. The prices of new flats will continue to be curbed by the following factors:

⊡ **Figure 2.37:**
PLN credit availability of flats (number of square metres of a flat the purchase of which can be financed with a PLN-denominated housing loan, given the income equals local average salary adjusted for the social minimum)



Source: NBP, GUS data.

⊡ **Figure 2.38:**
CHF credit availability of flats (number of square metres of a flat the purchase of which can be financed with a CHF-denominated housing loan, given the income equals local average salary adjusted for the social minimum).



Source: NBP, GUS data.

declining availability of mortgage loans, growing number of completed dwellings and a growing interest in second-hand flats. The fall in both offered and sale prices was conducive to a recovery in the secondary housing market. A significant price drop primarily applied to large flats or those in worse locations and built in worse technology.

The values of availability-of-apartments and credit-availability-of-apartments indices have been stable for the third consecutive quarter (Figures 2.36, 2.37, 2.38).

GUS price indices of construction and assembly output indicate that the growth of the cost of building one square metre in housing construction has slowed down in 2008 Q1. In annual terms, the total cost of building one square metre of an apartment displays a rising tendency, driven mainly by growing prices of land, construction materials and labour.

Indicators used to assess imbalances in the housing market in Poland

Strong fluctuations of real property prices observed in many countries in the past few years and their consequences in the form of both disturbances in the financial markets and negative effects for the real economy of those countries have again revived the discussion about the emergence and identification of speculative bubbles in the real property market. It should be noted that speculative bubbles in the asset market were observed in the past on numerous occasions. One of the best known examples was the bubble in the real estate market in Florida in the 1920s where, in a short period of time, housing prices increased four times, subsequently falling to the initial level. The latest most spectacular example of a housing bubble resulting in strong turbulences in the international financial markets observed since the second half of 2007 was the bubble in the housing market in the United States connected i.a. with the development of subprime mortgage lending.

Asset market bubbles may lead to disturbances both in the financial sector and in the real economy. Firstly, excessively high asset prices do not play the signalling role properly, which causes improper allocation of resources. As a result, excessive volumes of resources are allocated in assets whose prices show stronger growth than indicated by fundamental variables. Secondly, the burst of the bubble brings losses to the financial sector, threatening financial stability and creating a risk of economic slump. In the case of real estate bubbles the impact of a bubble burst on the economy may be particularly strong due to the considerable share of real estate in household assets.

It should be noted that even a sharp growth in prices does not necessarily have to be followed by a subsequent strong decrease in nominal prices of assets and cause related disturbances. A decrease in real property prices may also occur gradually as a result of rising consumer prices and income growth.

It is believed that economic agents' expectations of asset price increases are the source of bubbles in asset markets, including the housing market. These expectations urge economic agents to make speculative purchases of assets, which combined with limited short-term supply leads to increases in prices. As a result, households' expectations self-fulfill, which, in turn, strengthens expectations of further increases. In this way the spiral of rising prices, price expectations and demand is triggered. The result of this spiral is the emergence of a bubble. Yet, it should be noted that not every dynamic increase in asset prices represents the emergence of a speculative bubble as the increase in asset prices may also be caused by fundamental factors. Thus, one can speak of a speculative bubble only in a situation in which asset prices are not justified by fundamental factors.

Fundamental factors affecting the prices of real estate on the supply side include availability of construction sites, costs of construction, legal framework and the country's housing policy. Fundamental factors determining the demand for housing include households' income, demographic structure of the population, migrations, development of the mortgage market, level of interest rates and legal framework. Non-fundamental factors affecting demand for real estate include price expectations of economic entities and related speculative motives as well as possibly excessive easing of the terms and conditions of granting housing loans.

Speculative bubbles are hard to identify ex ante as it is difficult to assess in real time to what extent asset price growth is the result of fundamental factors and to what extent it is caused by price expectations not justified by fundamental factors. Usually, bubbles can only be identified ex post when asset prices severely decrease.

The risk of a bubble in real time is usually assessed by measuring the deviation of economic indicators characterizing a particular market from their equilibrium level. Since the fundamental equilibrium level of those indicators is unobservable, the assessment of those deviations is subject to considerable uncertainty.

The simplest method to assess the existence of a possible bubble is to analyse selected indicators by comparing them with their past values. Those indicators usually take into account housing prices, credit costs (interest rates), households' income and market rents.

Assessment of the situation in the real estate market in Poland

The dynamic rise in the real estate prices observed since mid-2007 calls for an attempt to assess to what extent this rise resulted from fundamental factors and whether the present situation may be referred to as a price bubble. First, attention should be drawn to factors behind the growth in real property prices in the past few years. These may include the dynamic growth in housing loans related to sustained drop in inflation and real interest rates as well as the development of the mortgage market, considerable income growth resulting from economic recovery, improvement of the situation in the labour market, and remittances received from Poles working abroad. An important factor boosting the demand for real estate, and consequently increasing its prices has also been the inflow of foreign capital to Poland connected with the expectations of convergence of real estate prices in Poland to the level recorded in the most developed countries of the EU. On the supply side, price increases have also been driven by limited housing supply caused by low availability of construction sites, resulting, among others, from a limited number of areas suitable for construction having urban development plans.

It should be emphasised that due to the fact that the Polish housing market continues to be at the stage of development, the availability of credible statistical data (in particular, the data concerning market prices of flats and rents) is limited, which hinders current assessment of developments in the sale and rental prices of real estate in Poland.

The simplest and most common measure of imbalances in the housing market is the ratio of the price of an average flat in a particular market to the average annual household income (the so-called P/I ratio). In countries with flexible housing supply this ratio runs in the long-term at the level of 3.5-4.0, whereas higher values of this ratio may indicate an imbalance in the market. With regard to Poland (Figure R.1) this ratio – depending on the city – ranges from 6.0 do 10.0, which may be indicative of tensions in the housing market, although their scale varies from city to city. For Cracow and Wroclaw this ratio exceeds 9.0, i.e. the level recorded in the areas of the United States marked by considerable imbalances. Yet, it should be pointed out that such a situation is characteristic for countries where nominal convergence is faster than real convergence and is not necessarily indicative of the emergence of a speculative bubble.

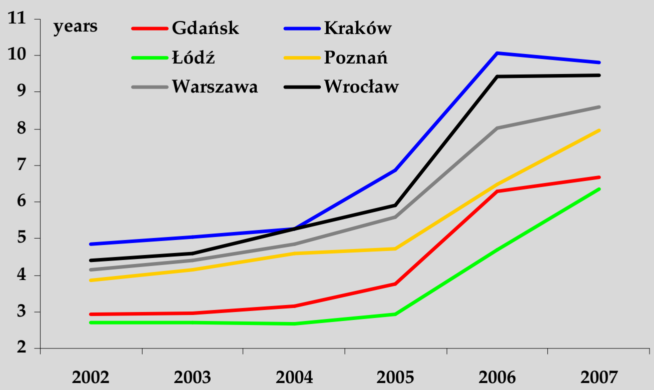


Figure R.1: Price of flat vs. disposable income (P/I ratio).
Source: GUS, NBP

Information on potential imbalances in the housing market may also be derived from the analysis of shifts in the structure of home building costs. At the moment when an imbalance arises, the structure of the dwelling's costs first changes towards a rise in the developer's profit but then the share of the costs of land grows as well. Available data (concerning Warsaw) indicate that such a situation actually occurred in the past few years (the share of developer profit in the cost structure increased significantly – Figure R.2), which may indicate that the rise in real estate prices in this period was in fact faster than accounted for by fundamental factors.

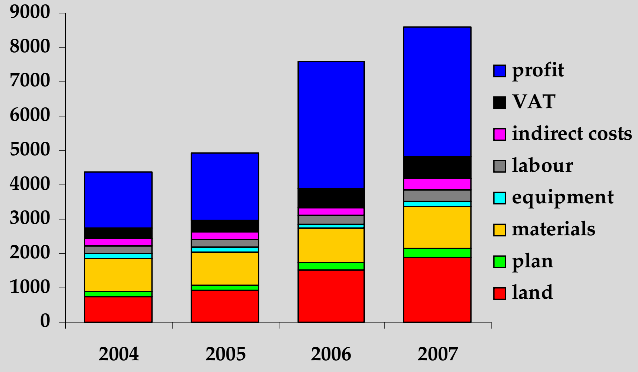


Figure R0.2: Price structure of a square metre of a flat in Warsaw.
Source: : NBP estimates based on Sekocenbud data.

Another method of identifying imbalances in the housing market is comparing the market price of a flat with its price calculated on an income basis (e.g. price of flat as a sum of the discounted flow of future rent payments and the resell value of a flat). A positive difference between the market value of a flat and its value determined according to the income formula is an indication of speculative expectations for flat price increase that is contained in the market price (precisely in the implied resell value of the flat). In some Polish cities (Cracow and Poznan - Figure R.3) there is a significant upwards deviation of the market price from the value estimated on the basis of the income formula, which may again point to the speculative component included in the market value of flats in those markets.

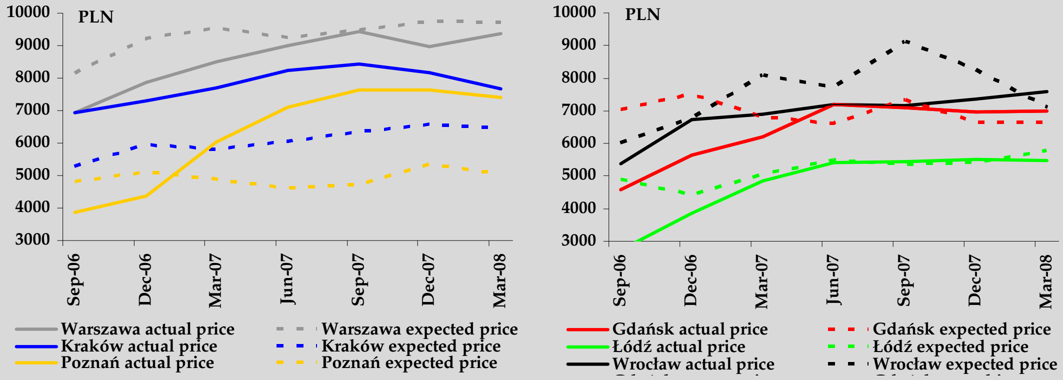


Figure R.3: Actual price of a flat and its value following from the income formula.
Source: NBP calculations.

Another measure of housing market imbalance is the ratio of the interest-rate cost connected with the purchase of a flat to the cost of its rental. The rental cost may be approximated with the amount of rent, while the interest-rate cost connected with the purchase of a flat is estimated based on the amount of the interest instalment payable on the housing loan. In the long-term equilibrium of the housing market, where renting a flat is a substitute for owning it, the ratio of these two values should be close to 1. In some Polish cities this ratio is currently markedly higher than 1 (Cracow, Poznan – Figure R.4), which may indicate that the market price of a flat contains the expectation for an increased value of the flat at the time of reselling it. Such a situation may suggest that the market price includes a speculative component, though at the moment it is difficult to assess whether this is not the result of justified expectations of flat price growth in those cities. Moreover, it has to be emphasised that, due to the relatively shallow market for rental flats in Poland (among others due to the provisions of the tenant protection act) and limited availability of reliable data for this market, the interpretation of the above indicators is subject to considerable uncertainty.

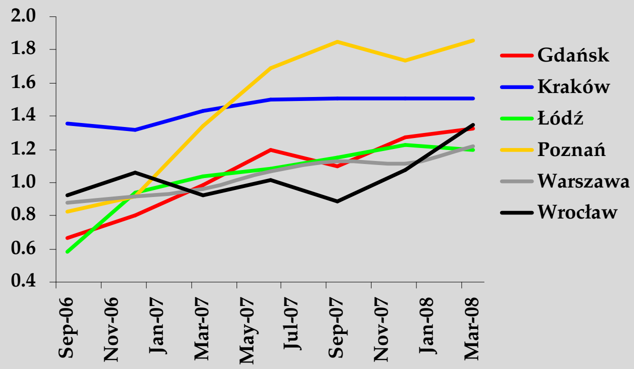
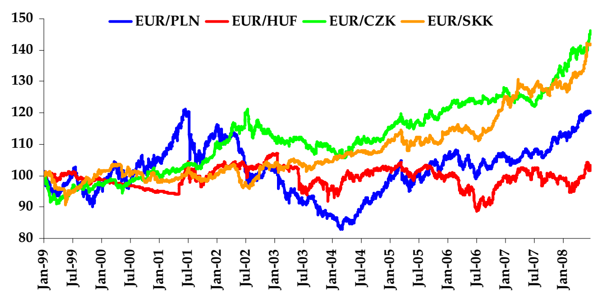


Figure R.4: Interest-rate costs connected with the purchase of a flat vs. cost of renting.
Source: NBP estimates based on Pontinfo data.

On balance, indicators of the Polish housing market, in particular housing price-to-income ratio, share of the developer's profit in the price of a flat and – in some cities – the relationship of the market price of a flat to its value estimated according to the income formula and the relationship of flat rental costs to the interest-rate costs connected with its purchase all suggest that the strong build-up in prices observed in the Polish housing market till mid-2007 was not only connected with the effect of fundamental but also speculative factors. At present, however, it is difficult to assess the relative strength of impact of these two groups of factors on the prices of real estate in Poland. Additionally, it has to be borne in mind that the assessment of the price developments in the Polish housing market is subject to considerable uncertainty following from the absence of complete statistical data and a shallow market of rental flats in Poland.

2.5.2 Exchange rate

□ **Figure 2.39:**
Nominal exchange rates of CEE-4 currencies against the euro (increase denotes appreciation).



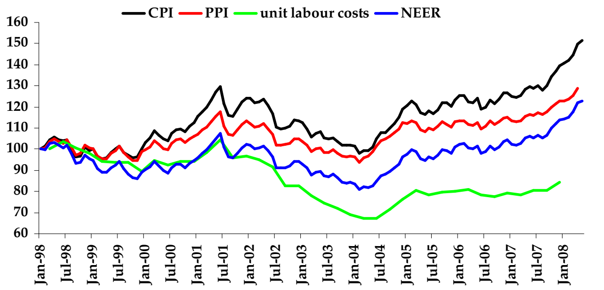
Source: EcoWin data.

Since the publication of the previous *Report* the nominal exchange rate of the zloty has appreciated against the euro and the US dollar. In the same period the Czech koruna, Slovak koruna and Hungarian forint have appreciated against the euro as well.

The shifts in the zloty exchange rate in the period analysed were determined by global and domestic factors. The factors that could have contributed to the appreciation of the zloty in the period between February and May 2008 were, among others, the widening interest rate disparity between Poland and the euro area and the sustained high economic growth. On the other hand, data and expectations regarding the worsening current account balance could have been conducive to the depreciation of the zloty. The zloty exchange rate was also affected by the situation in global currency markets. A positive assessment of the investment climate in the currency markets of the region by investors due, among others, to the European Commission's decision, which recommended the accession of Slovakia to the euro zone, constituted a factor conducive to the appreciation of the zloty.

Available data (covering the period ending in May 2008) indicate a continuing appreciation trend of the real exchange rate of the zloty, observed since the beginning of 2005 (Figure 2.40). In 2005-2007 this trend was accompanied by a significant reduction in the exchange rate volatility, particularly evident when compared with the period before 2005. A higher rate of nominal appreciation in recent months has also been reflected in real appreciation, which is particularly visible for the zloty exchange rate deflated with the CPI.

Figure 2.40:
Zloty real and nominal effective exchange rate (increase denotes appreciation).



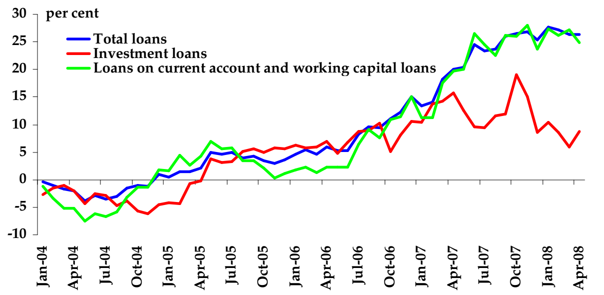
Source: NBP, European Commission, and EcoWin data.
For unit labour costs (in manufacturing): quarterly data, NBP estimates based on GUS, ECB, and European Commission data.

2.5.3 Credit and money[48]

Credit

Since the beginning of 2008, the growth of loans to enterprises remained slightly above 26% y/y. Loans to enterprises for the purchase of real estates continued to rise rapidly (Figure 2.42), accompanied by a decline in the growth of investment loans. On the other hand, the growth of loans for financing current business activity remained at a stable level and continued to considerably outpace the growth of investment loans (Figure 2.41).

Figure 2.41:
Loans to enterprises (y/y).



Source: NBP data.

The main factor stimulating in 2008 Q1 the rise in corporate demand for loans indicated by commercial banks[49] remains the growing demand for financing corporate investment. According to banks, rising demand for financing inventories and current assets reflected in increased activity in the segment of short-term loans to large enterprises, is another key factor boosting demand for loans. In 2008 Q2 banks expected further rise in demand which should be stronger in the case of loans to small and medium-size enterprises. The NBP's business condition surveys

[48] Data on credit and money presented in this chapter refer to values adjusted for the impact of zloty exchange rate fluctuations.

[49] *Senior Loan Officer Opinion Survey on Bank Lending Practises and Credit Conditions. 2008 Q2.*, www.nbp.pl.

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

Change (y/y) per cent	2006				2007			
	q1	q2	q3	q4	q1	q2	q3	q4
non-trade loans	17.2	16.3	22.3	31.1	31.4	35.6	27.5	19.2
trade loans	19.5	25.4	18.5	16.6	21.8	20.4	21.8	17.9

Source: NBP data.

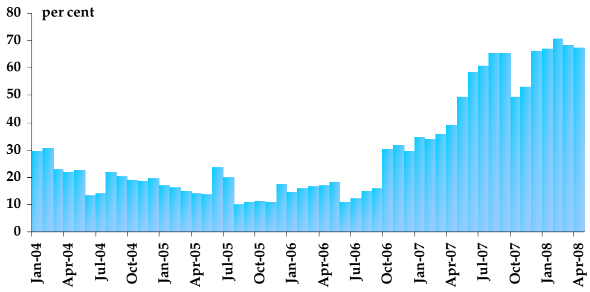
pointed at a slightly different trend[50]. Those surveys indicated that a decline in the growth rate of lending to smaller enterprises should have been expected coupled with continued high demand for lending among large enterprises. As a result, the synthetic indicator of bank indebtedness forecast (weighted with employment) remained in 2008 Q2 at a high positive level.

In the first months of 2008, lending to households continued to grow strongly which was the result of a very dynamic growth of housing loans and a fast build-up of consumption loans (Figure 2.43), observed despite the tightening of banks' lending policy in both segments. According to the surveyed banks, continued high demand for loans to households was favoured by sustained improvement in financial condition of households related to positive trends in the labour market and growing demand for financing of consumer durables.

According to surveys, 2008 Q2 is expected to bring further growth in demand for consumption loans and renewed[51] growth in the demand for housing loans which should be encouraged, in the banks' opinion, by the recent and shortly expected decline in the prices of flats stimulating growth in demand for housing.

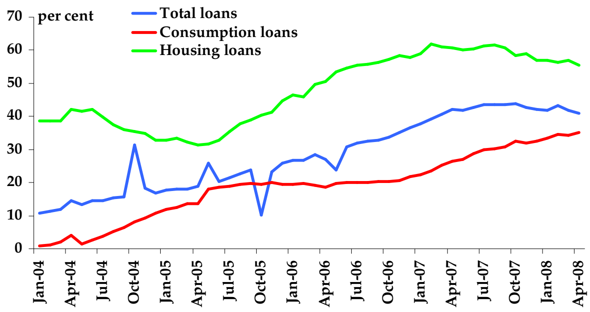
Since the release of the previous *Report* further growth in households' demand for housing loans denominated in foreign currency has been observed which has been encouraged by the widening gap between the interest on loans

□ **Figure 2.42:**
Loans to enterprises for the purchase of real estate (y/y).



Source: NBP data.

□ **Figure 2.43:**
Loans to households (y/y).



Source: NBP data.

[50] See: *Information Concerning the Condition of the Corporate Sector and the Economic Climate in 2008 Q2*, NBP

[51] In 2007 H2 and in 2008 Q1 banks recorded a considerable decline in demand for housing loans.

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

per cent	2007								2008			
	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
Households												
Total deposits	3.5	3.6	3.8	3.8	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1
Total loans	10.6	11.1	10.5	9.6	9.9	10.2	10.9	11.4	11.2	11.5	11.7	11.6
Consumption loans	14.2	14.1	14.4	14.4	14.1	14.2	14.3	13.7	14.6	14.7	14.7	15.1
Housing loans in PLN	5.7	5.9	6.1	6.3	6.4	6.6	6.7	6.9	7.0	7.2	7.4	7.7
Housing loans in CHF	3.9	4.0	4.3	4.3	4.6	4.5	4.5	4.6	4.6	4.6	4.6	4.8
Enterprises												
Total deposits	3.9	4.0	4.1	4.1	4.2	4.5	4.6	4.2	4.7	5.0	5.3	5.5
Total loans	5.9	6.0	6.3	6.2	6.6	6.4	6.7	7.2	6.9	7.3	7.3	7.8

Source: NBP data.

denominated in Swiss francs[52] and interest on zloty denominated loans. As a result, since the beginning of 2008 the share of zloty denominated loans in the total indebtedness has been on the decline. However, the *Recommendation S* limiting the availability of foreign currency denominated loans continues to curb the lending growth in this sector.

The rise in the NBP interest rates in January, February and March 2008 was accompanied by a similar increase in average interest on housing loans to households (Table 2.8). With regard to consumption loans in the period January - April 2008 the growth of interest was lower than the growth of the NBP interest rates, yet, taking into consideration other obligatory charges connected with granting loans, the real effective interest rate of consumption loans recorded a stronger rise. This is consistent with the surveys' findings, where banks indicated a rise in margins in this market segment as a result of deteriorating economic outlook. Similar trends have been observed in the case of interest charged on corporate loans where banks also increased their loan margins.

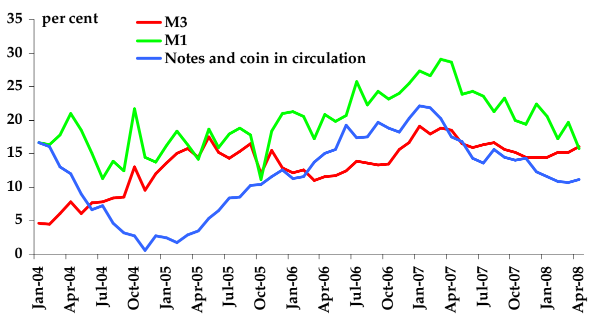
[52]The most popular foreign currency denominated loans to households are those denominated in CHF.

Deposits and monetary aggregates

2008 Q1 saw sustained high financial liquidity of enterprises. According to the NBP business condition survey percentage of enterprises timely settling their loan debt and non-bank debt liabilities also remained at a high level. The increased usage of enterprises' own funds in financing current and investment activities (almost half of respondents indicated this source as the main one of financing new development projects) was observed. There was a marked decline in the volume of funds crediting bank accounts which was translated into further decline in the growth of bank deposits of enterprises.

Since mid-2007 a gradual change has been observed in the funds allocation of households which tend to deposit more financial assets on bank accounts, limiting their investment in investment funds and other non-banking forms of saving. In the period January-April 2008 the value of shares in household portfolio decreased by PLN 8.7 billion and the value of investment funds' assets dropped by PLN 28.1 billion. At the same time, the growth in the volume of bank deposits amounted to PLN 22.3 billion. As a result, there was a strong acceleration of the annual growth of bank deposits of households. These trends may be expected to continue and increased popularity of bank deposits as an alternative to non-banking forms of saving may be triggered by the rise in interest on bank deposits. Thus far, the NBP interest rate increases have been accompanied by a similar-scale rise in the interest paid on deposits at commercial banks (Table 2.8). The growing need signalled by banks to provide funding for their lending activity should favour the decrease in the differential between the interest charged on deposits and WIBOR rates.

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



Source: NBP data.

Since 2007 a gradual decline in the growth of narrow money (M1) as well as notes and coin in circulation has been observed (Figure 2.44). Since 2007 Q4 the growth of broad money (M3) has remained at a stable level (approx. 15%), which is, to some extent, driven by the shifting of assets held by households from the capital market to bank accounts.

Monetary policy in February–June 2008

During the meetings in February and March 2008, the Monetary Policy Council increased the NBP interest rates by 0.25 percentage points on each occasion. In April and May 2008 the Council decided to keep NBP rates unchanged. During the meeting in June 2008 the Council decided to increase the NBP interest rates again by 0.25 percentage point to the level: the reference rate 6.00%, the lombard rate 7.50%, the deposit rate 4.50% and the rediscount rate 6.25%.

What follows in the next part of the chapter are *Minutes of the MPC decision-making meetings* held in February, March, April and May 2008 together with *the Information from the meeting of the Monetary Policy Council* in June 2008.

Minutes of the MPC 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 driven 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%.

Minutes of the MPC 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 then 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 then 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 then 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%.

Minutes of the MPC 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%.

Minutes of the MPC 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 that 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%.

Information from the meeting of the MPC held on 24-25 June 2008

The Council decided to increase the NBP interest rates by 0.25 percentage point to the level: the reference rate 6.00%, the lombard rate 7.50%, the deposit rate 4.50% and the rediscount rate 6.25%.

The Polish economy is still in the period of strong growth encompassing all its sectors. However, data released recently indicate that the economic growth is gradually slowing down, which is consistent with previous expectations. At the same time, information on labour market developments points to a sustained high growth of employment and wages and to an unfavourable relation between wage and labour productivity growth.

The latest information on the US economy signal that the slowdown of activity in this economy may be less deep than previously expected, though it may last longer. Uncertainty also persists as to the scale of the decrease of euro-area economic growth and of its impact on the Polish economy. In the past few months oil prices in the world markets have strongly increased. At the same time, many countries have recorded a rise in both the current and the forecast inflation.

In May the annual growth of consumer prices in Poland rose to 4.4%, remaining above the NBP's inflation target of 2.5% and also above the upper limit for deviations from the target set at 3.5%. The increase in inflation primarily resulted from a strong rise in administered prices (prices of gas and electricity) and from food and fuel price growth. The Council maintains its assessment that in the coming months inflation will remain above the upper limit for deviations from the inflation target, which, to a large extent, will be driven by increases of administered prices and high annual growth of food and fuel prices.

The Council got acquainted with the projection of inflation and GDP based on the new version of the ECMOD model (NECMOD), which has been prepared by the Economic

Institute of the NBP. The projection is one of the inputs into the Council's decision-making on the NBP interest rates. The annual growth of consumer prices forecast in the June projection is higher than expected in the February projection till the end of 2009, while in 2010 it is lower than forecast in the February projection. Under constant interest rates, there is a 50-percent probability that projected inflation will remain within the range of 3.8-4.7% in 2008 (compared to 3.6-4.7% in the February projection), 2.5-5.8% in 2009 (compared to 2.6-4.9%) and 0.1-5.7% in 2010 (compared to 2.1-4.8%).

According to the June NECMOD-based projection, the annual GDP growth will remain, with a 50-percent probability, within the range of 4.3-5.5% in 2008 (compared to 4.4-5.8% in the February projection), 3.4-6.2% in 2009 (compared to 3.5-6.1%) and 3.8-6.8% in 2010 (compared to 3.6-6.9%).

In the Council's assessment in the coming quarters the wage pressure and, consequently, the inflationary pressure will probably persist despite the expected slowdown in the economic growth. Increased inflation will, to a large extent, result from the growth of administered prices and also from the food and fuel price growth observed in the world economy and affecting the Polish market. Persistently increased inflation creates a risk of inflation expectations remaining at an elevated level and, consequently, feeds the risk of the so-called second-round effects. Moreover, the rise in prices of energy and food may be gradually passing through to other prices, particularly to prices of some services.

In the medium term inflationary pressure may be curbed by still good financial results of enterprises and continuously high investment growth conducive to productivity growth. Inflationary pressure may also be constrained by the slowdown in the global economy and, consequently, also in the Polish economy. The inflationary pressure may additionally be eased by globalisation, though its overall impact will probably be weaker than before. The previous increases of the NBP's interest rates and the zloty appreciation observed over the past few quarters will also be conducive to lowering inflation.

Considering the above factors and taking into consideration the results of the June inflation projection, striving to bring inflation down to the inflation target in the medium term, the Council decided to raise the NBP's interest rates.

The Council will be closely monitoring the growth and structure of domestic demand, the relation between wage and labour productivity growth in the enterprise sector and wage growth in the public finance sector, the degree of the expansionary fiscal policy stance, zloty exchange rate, developments of the current account balance and the impact of globalisation on the economy and on food prices. The Council will also analyse changes in the external factors affecting the Polish economy and their impact on the outlook for economic growth and inflation in Poland.

The Council has adopted the June 2008 *Inflation Report*.

Projection of inflation and GDP

The inflation and GDP projection was prepared at the Economic Institute of the National Bank of Poland. The content-related supervision over the work connected with the projection was entrusted to a member of the NBP's Management Board, Mr. Zbigniew Hockuba. The Management Board of the NBP approved the projection to be submitted to the Monetary Policy Council.

The works on the projection were coordinated by the Bureau of Macroeconomic Forecasts of the Economic Institute. The projection was prepared with the use of the macroeconomic model NECMOD[53]. The projection was an outcome of an iterative process in the course of which some of the variables were adjusted if they diverged from NBP experts' economic intuition based on the general state of knowledge of economic processes. The projection was prepared under the assumption of constant NBP interest rates and is one of the inputs to the Monetary Policy Council's decision-making process. The projection took into account data available before 26 May 2008.

External conditions

The scenario of developments in the world economy assumed in the projection foresees a temporary slowdown in economic growth in 2008 and 2009. Economic slowdown triggered by the recently observed turmoil in financial markets and falling prices of some assets, including real estates, will affect both the United States and Great Britain and, with a certain time lag, the euro area. It has been assumed that fiscal stimulation and a reduction of interest rates hitherto implemented by the Federal Reserve (FED) would limit the scale and duration of the economic slowdown in the United States, and consequently, the risk of considerable deterioration in economic conditions in countries having commercial links with the American economy. 2010 is expected to bring renewed acceleration in global economic growth.

It is also assumed that the interest rate-cut cycle in the United States has come to an end. In the first half of 2009, facing renewed acceleration in economic growth and growing risk of rising inflation, FED will start to tighten its monetary policy. Also in the euro area, the rising inflationary pressure will limit the scope for easing monetary policy in 2008. The European Central Bank (ECB) will not start the cycle of interest rate cuts before the beginning of 2009.

Despite the expected slowdown in economic growth in developed economies in 2008, the global prices of energy, including crude oil, will remain at a high level. High

[53]The use of the NECMOD model in the forecasting process is a result of a systematic development of the previous forecasting model of the NBP. NECMOD's documentation is available at the NBP's website.

demand in developing countries will continue to be a major factor determining the prices of commodities. Oil prices stabilising at the level of 120 USD/barrel in 2010 will be favoured by the forecast appreciation of the US dollar against the euro.

Supply adjustments and outflow of speculative capital from the agricultural commodity markets will ease the upward pressure on food prices. 2009 and 2010 are expected to see a gradual decline in the prices of agricultural commodities in the world markets, which will be a major factor decreasing the global inflationary pressure.

Aggregate demand

In 2008 the Polish economy is expected to record a temporary slowdown in the domestic demand growth below the level of 5% y/y. Starting from 2009 the growth of domestic demand will again accelerate and will be maintained at the level close to 6% y/y. Deceleration in the domestic demand growth in 2008 will mainly be due to a slower growth in gross fixed capital formation. This will be driven both by the slowdown in investment demand growth and a markedly lower than in the previous quarters contribution of increase in inventories to economic growth. To a lesser extent, the decline in domestic demand growth in 2008 will be driven by lower than the last year's growth in public consumption. Yet, lower growth in public consumption will be largely set off by a relatively strong growth of private consumption.

High growth of investment demand observed in the past few quarters will follow a gradual downward trend starting from mid-2008. Slowdown in the growth of gross fixed capital formation will be largely driven by a slowdown in the growth of residential investment. Lower demand for housing strengthened by the recent interest rate increases will be reflected in a house price decline. Yet, in 2010 favourable situation in the labour market and demographic factors will support demand recovery and further price increases in the housing market.

The uncertainty connected with the slowdown in the world economy, tightening of the monetary policy in Poland and increasing costs of commodities deteriorating the economic outlook of enterprises, will contribute to the decline in gross fixed capital formation in the corporate sector. Yet, the growth of corporate investment will be maintained at the level exceeding 5% y/y which will be favoured by a strong inflow of foreign direct investment and EU structural funds supporting the development of enterprises.

Positive impact of the EU structural funds on domestic demand growth, also in the years of slowdown in the economy, will additionally be reflected in a high growth of public investment. High utilization of infrastructural funds from the new financial perspective will allow to replenish public capital, ensuring high increase in production capacity of the economy and higher profitability of private investment. At the end of the projection horizon, the slowdown in the inflow of structural funds will be followed by a decline in the growth of public investment. On the other hand, upturn in the domestic economy will be accompanied by a recovery in private investment.

Private consumption growth in the years 2008-2010 will range between 5% and 6% y/y. In the short-term projection horizon, strong growth in disposable income of households will be a factor supporting high consumption growth. Growth in disposable income of households will be driven by favourable situation in the labour market, changes in fiscal policy advantageous for households as well as remittances from persons working abroad. The above changes in fiscal policy encompass the already implemented reduction in the disability contribution, unfreezing of personal income tax thresholds and introduction of a family tax relief in 2008 as well as the expected lowering of personal income tax rates in 2009. As a result of old-age and disability pension indexation, cumulated for the past two years, 2008 will see a particularly high increase in social transfers. In 2008 the growth in private consumption will additionally be encouraged by a relatively high growth in real estate prices which will have a positive impact on the valuation of households' assets. Following the decline in economic growth and labour demand, at the end of 2008 the growth of households' disposable income will start to decelerate which coupled with the real estate prices adjustments will, with a certain time lag, negatively affect the growth in private consumption at the end of the projection horizon.

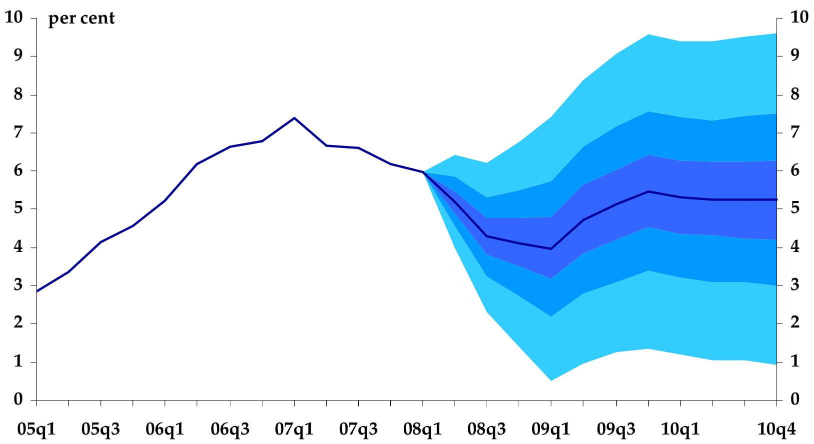
Despite the slowdown in the global economy in 2008 and 2009, growing integration of the Polish economy with the EU structures will contribute to maintaining the relatively high growth of exports. Due to considerable import intensity of exports, temporary slowdown in the economic activity in Poland will not translate into strong reduction of imports growth. Starting from mid-2009, due to renewed recovery in domestic and external demand and a positive supply impulse connected with increased participation ratio, the growth of both exports and imports will significantly accelerate. The contribution of net exports to economic growth will remain negative throughout the projection horizon and will affect the lowering of GDP growth most strongly at the end of 2008.

Macroeconomic equilibrium

The central path of GDP projection points to a slowdown in economic growth in 2008 H2 to approx. 4% y/y, followed by a gradual increase to over 5% in subsequent years of the projection (Figure 4.1). Starting from mid-2008, GDP growth will remain below the growth of potential product. The fast growth in potential product will be favoured by a high rate of productive capital formation and rising participation ratio. A smaller role will be played by the slight reduction of the equilibrium rate of unemployment and halting of the falling trend of population (aged above 15), among others, related to weaker intensity of migration outflows which originated following Poland's accession to the EU.

The output gap will be slowly closing in the projection horizon. Considerable deviation of the GDP from its potential level at the beginning of 2008 is mainly a reflection of the marked tensions in the labour market. In the projection horizon, the surplus of demand over supply in the labour market will be gradually reduced. It is expected that the low unemployment, high growth of real wages observed so far, minimal wage increase and the reduction of wage wedge will all constitute an incentive, primarily for young and older persons, to enter the labour market. The final regulation of early retirement entitlements, which is expected in 2009, should reinforce the impact of the good situation in the labour market on the participation of people in pre-retirement age. The rise in the participation ratio should also be supported by changes in the age structure of the population. The share of people in age groups with a traditionally high participation ratio (prime age) will increase. It is estimated that the demographic factor will be responsible for approx. 40% of the total rise in the participation ratio which will

⊡ **Figure 4.1:** Central projection and fan chart of GDP.



Source: NBP.

amount to 1.5 percentage point as forecasted for 2008-2010.

Because of a relatively high increase in the domestic demand and unfavourable terms-of-trade developments due to rapidly rising prices of energy commodities, the current account and capital account balance will slide to below 5% of GDP at the turn of 2009 and 2010. Stabilisation in world oil and natural gas prices along with a steady improvement in the contribution of net exports to GDP growth should be favouring the reduction of external imbalance since the beginning of 2010.

Cost pressure

High prices of agricultural and energy products in the world markets will be conducive, particularly in 2008, to building cost pressure in the domestic market. High prices of energy commodities will translate into a rise of import prices and production costs and directly into fuel and electricity prices which form part of CPI basket. In turn, the prices of agricultural products in the world commodity markets will be conducive to keeping a high growth of food prices in Poland.

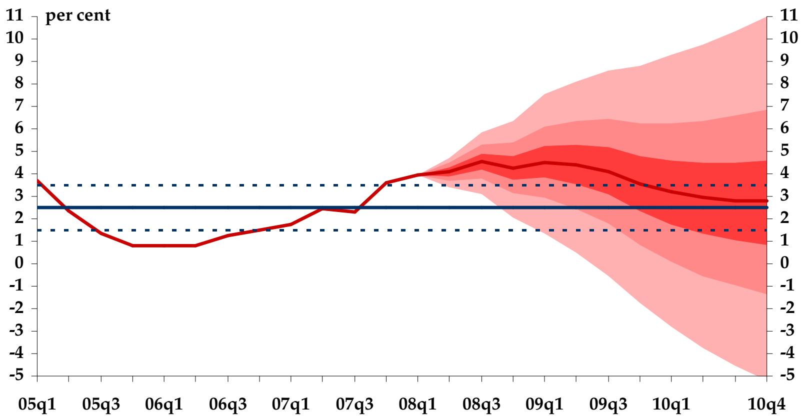
The cost pressure will be fading over the medium and longer-term projection horizon. With no significant changes in zloty exchange rate and stabilisation in prices of agricultural commodities in the world markets, a slight deflation of food prices in the domestic market may already be expected from the end of 2009. Due to the fact that regulation of some sectors of the energy market limit the pass-through of the prices of energy commodities in international markets to consumer energy prices, the adjustment of the latter will be spread over time. The expected deregulation of the energy market will accelerate the reduction of the energy market imbalance arising in the short-term projection horizon, which will translate into a high pressure for energy price growth also in the final two years of the projection, despite the stabilisation of energy commodity prices in the world markets.

The growth of real wages in the economy in 2008, similarly as in the previous year, will outpace the growth of labour productivity. In the longer projection horizon the growth of wages and unit labour costs will be pulled down by factors such as an increased effective supply of labour and, to a lesser extent, the weakening of the demand for labour connected with an economic slowdown at the turn of 2008 and 2009.

Inflation

In 2008 the growth of consumer prices as measured by the CPI is expected to accelerate. The central path of the projection indicates that inflation will stay above the NBP's inflation target of 2.5% throughout the projection horizon. Till the end of 2009 inflation will remain above the upper limit for deviations from the target, returning to the range for deviations from NBP's target in 2010 (Figure 4.2). The probability of inflation running above the target is gradually decreasing to approx. 0.52 in the last two quarters of the projection.

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



Source: NBP.

The inflation in 2008 will be raised primarily by a high growth of food and energy prices. According to the central path of the projection, in the first quarters of 2008, due to a surge in labour costs, core inflation will also start to accelerate. In the subsequent years, the growth of food and, to a lesser extent, energy prices is expected to fall markedly, amid a gradual stabilisation in the prices of agricultural and energy commodities in the world markets. Due to favourable supply changes in the labour market, core inflation will stabilise in the longer projection horizon and in 2010 it will already start to decrease.

The table below presents the most important characteristics of the probability distributions of the inflation path obtained in the June projection.

Table 4.1: Probability of forecasted inflation

	Probability of inflation:				
	below 1.5%	below 2.5%	below 3.5%	below central projection	within (1.5%; 3.5%)
2008q2	0.000	0.000	0.112	0.495	0.112
2008q3	0.000	0.006	0.123	0.486	0.123
2008q4	0.020	0.095	0.286	0.484	0.266
2009q1	0.059	0.146	0.291	0.487	0.232
2009q2	0.108	0.204	0.341	0.492	0.233
2009q3	0.172	0.279	0.405	0.492	0.232
2009q4	0.261	0.369	0.492	0.500	0.231
2010q1	0.326	0.425	0.533	0.498	0.207
2010q2	0.365	0.459	0.559	0.503	0.194
2010q3	0.387	0.477	0.565	0.505	0.178
2010q4	0.402	0.479	0.563	0.505	0.160

Source: Economic Institute of the NBP.

June projection compared to February projection

CPI inflation in the first two years of the projection runs above – and in 2010 below – the path of the February forecasting round. In turn, in 2008 GDP in the June projection is lower but in subsequent years higher than in the February projection.

Main factors responsible for shifting the inflation path between the two projections included: changed assessment of labour market situation and changed forecasts of the external environment. In the short-term projection horizon, the scale of labour market recovery proved stronger than it was anticipated in February. In 2008 unit labour costs are expected to be significantly higher. In subsequent years of the projection, the rise in the effective supply of labour will allow for a noticeable slowdown in the growth of unit labour costs below the forecasts formulated in the February forecasting round, which will be conducive to mitigating the inflationary pressure.

The higher actual growth of energy and agricultural commodity prices in the world markets than assumed for one quarter ago pushed up the forecast price growth of energy and food. Growing prices of commodities first translate into rising production costs and then into a rise in domestic producer prices, which with some delay also finds reflection in core inflation rise.

In the long-term projection horizon, the stabilisation of commodity prices and a stronger zloty exchange rate related, among others, to monetary policy tightening effected in-between the projections, contribute to lowering inflation below the level forecast in February.

In the June projection, the scenario of a stronger slump in global economic growth and a significantly higher growth in commodity prices in the world markets than those assumed one quarter before, amidst tightening of monetary policy in Poland, resulted in lowering the path of economic growth till the middle of 2009. In the final quarters of the projection, a clearly higher rise in labour supply than it was expected in February starts to positively affect the GDP growth.

Main areas of uncertainty

Developments in labour market

Future labour market developments remain an important source of uncertainty of the June projection. This uncertainty is primarily connected with the degree to which the economic recovery is going to impact the effective supply of labour (the number of the economically active and NAWRU) and also with the intensity and nature of migration flows, the scale of wage pressure in the public sector and the impact of the already introduced or likely changes in fiscal and regulatory policies on the labour market. The uncertainty related to the pursued fiscal and regulatory policies includes changes in the legislation regulating early retirement opportunities, shifts of the minimal wages and the effects of the reduction of disability pension contribution and changes in the PIT. It is estimated that the probability of a stronger than projected rise in the labour market tensions and, consequently, also higher inflation and lower GDP growth, is higher than the probability of a scenario under which the tensions in the labour market would ease down in relation to the central path.

Scale and nature of the world economic slowdown

The forecast of international situation assumes the continuation of a global slowdown of economic growth triggered by mortgage market crunch and disruptions in financial markets till the beginning of 2009. If the weaker rate of growth in developed economies proved more permanent and the effects of the financial market turmoil spilled over to the economies of developing countries (including Asian countries), then a stronger slowdown in economic growth should also be expected in Poland. In such circumstances, there would be a deterioration in labour market situation and reduction of unit labour costs. These processes would be conducive to lowering the currently forecast paths of GDP and inflation in Poland. Due to the fact that the current scenario of developments in the global economy accounts for the majority of risks presented in the February forecasting period, the projection risk connected with global economic slowdown is assessed lower than in February.

Market regulation and implementation of European standards

Some sectors of Poland's economy are still strongly regulated. Economic mechanisms in these sectors may be weak, especially in the horizon corresponding to the projection horizon. In view of the difficulties with determining the speed and scope of Poland's energy market deregulation the uncertainty applies, among others, to the forecast of the price growth of energy.

The integration of the Polish economy with the structures of the European Union requires gradual harmonisation of Polish regulations to EU standards. The lack of any specific dates set for the implementation of fiscal changes required by the European Union, including the unification of VAT rates on consumer goods, increases the risk of the projection. Similarly, it is difficult to assess the scale of the impact that new regulations on carbon dioxide emissions and possible further tightening of environmental protection requirements might have on the economic activity.

The uncertainty connected with the legal environment includes also the lack of final solutions in the area of spatial development plans and the difficulty with assessing the effectiveness of administrative actions aimed at increasing the degree of EU fund utilisation.

It seems that the outcome of those risks is a higher probability of a weaker outlook for growth and higher inflationary pressure in relation to the scenario presented in the projection.

Uncertainty of the path of agricultural and energy commodity prices

The June projection assumes the slackening of the growth of the world prices of agricultural and energy commodities and the stabilisation of those prices, and thus their reduction in real terms in 2009 and 2010. This scenario should be favoured by the forecast slowdown in the global growth and supply adjustments in response to the continuing high demand and commodity prices. However, should the rate of economic growth, especially in developing countries, remain at a relatively high level in the projection horizon and should supply adjustments not keep up with the demand growth, then it is possible that the forecast growth of commodity prices will in fact be higher than assumed in the projection. Additionally, an important source of uncertainty concerning the future growth rate of agricultural commodity prices is a permanent lack of a worldwide agreement and a coherent scenario that would regulate the bio-fuel market development. It is estimated that the probability of a stronger growth of agricultural and energy commodity prices than those assumed in the projection is higher than the probability of their running below this path.

Transmission of labour costs on inflation

Another source of the projection risk is the assessment of the capacity of enterprises to pass their growing labour costs through to the prices of their products in the conditions of globalisation. Intensifying integration of the Polish economy with the global economy adds to the competitive pressure, discouraging enterprises from increasing the prices of their products and services. Globalisation processes also support the reduction of non-wage production costs and costs of increasing the production potential. It seems that the scale of risk connected with the assessment of the sustainability of this process and its impact on the relationship between costs and prices decreased in comparison with the previous projection due to the update of the macroeconomic model used.

The zloty exchange rate

Due to difficulties in forecasting the exchange rate of the zloty, there is a high risk of significant deviations of its future course from the projected path. The uncertainty related to the exchange rate forecast remains close to the February projection, while the risks around the forecast path are distributed in an approximately symmetrical way.

Discussion of data released after 26 May 2008

Data released after 26 May 2008 signal better than expected economic situation of the world's major economies as well as a persisting risk of high inflation. In line with the market expectations, interest rate increases in the United States and in the euro area may start earlier than assumed in the projection. Oil prices in the world markets have continued on an upward trend, showing very strong volatility. Price increases in this period were mainly driven by changes in the exchange rate of the US dollar, forecasts of lower than previously expected growth in oil supply and related heightened concerns about security of oil supplies in view of the continued high political risk. It may be expected that oil prices will be, throughout the whole projection horizon, higher than assumed in the projection.

After the release of the national accounts data by the Central Statistical Office (GUS), GDP growth in 2008 Q1 proved consistent with the level assumed at the starting point for the June projection. Private consumption grew stronger than expected and the growth of gross fixed capital formation was lower than in the projection. Lower than expected contribution of net exports to GDP growth suggests that output gap may be closing slightly slower than suggested in the projection and the external imbalance may be growing at a slower pace.

The BAEL (Labour Force Survey) data for 2008 Q1 published by GUS point at better situation in the labour market than assumed at the starting point of the projection. In particular, the growth in the number of employed proved higher than assumed, the participation ratio increased significantly and the reduction of unemployment rate between 2007 Q4 and 2008 Q1 was lower. The data increase the probability of a faster materialization of the scenario presented in the June projection: labour supply growth coupled with slower reduction of unemployment rate.

CPI inflation data in May 2008 indicate that in the short projection horizon food and energy price indices may be running above the projection level.

Summary of risks to inflation projection external to the model

The most significant factors conducive to higher inflation than assumed in the present projection are stronger tensions in the labour market and higher growth in the prices of commodities in the world markets. On the other hand, the possibility of inflation running below the projection is indicated by the risk of a deeper than expected slowdown in the global economy. Considering the uncertainty factors external to the model, it can be assessed that the projection risk is almost symmetrical.

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

	2007	2008	2009	2010
CPI (per cent y/y)	2.5	4.3	4.3	3.1
Food prices (per cent y/y)	4.8	6.3	1.6	-1.9
Energy prices (per cent y/y)	3.8	8.5	9.9	8.4
Core inflation excl. food and energy prices (per cent y/y)	1.0	2.3	4.0	3.8
GDP (per cent y/y)	6.6	4.7	4.8	5.2
Domestic demand (per cent y/y)	8.3	5.4	5.7	5.7
Private consumption (per cent y/y)	5.0	5.0	5.8	5.2
Public consumption (per cent y/y)	5.8	3.4	4.0	3.9
Gross fixed capital formation (per cent y/y)	17.6	12.6	8.3	7.7
Contribution of net exports (percentage points y/y)	-1.8	-0.8	-1.1	-0.8
Exports (per cent y/y)	8.4	10.1	11.2	12.2
Imports (per cent y/y)	12.2	11.3	12.7	12.7
Average nominal gross wages (per cent y/y)	8.6	8.7	6.3	6.1
Number of working persons (per cent y/y)	1.6	1.1	0.5	0.9
Unemployment rate (per cent)	9.4	6.8	8.0	8.2
NAWRU (per cent)	11.9	10.6	10.3	10.2
Participation ratio (per cent y/y)	53.7	53.7	54.7	55.2
Labour productivity (per cent y/y)	5.0	3.6	4.3	4.2
Unit labour costs (per cent y/y)	1.7	3.6	1.8	1.8
Potential output (per cent y/y)	4.8	5.3	7.0	6.5
Output gap (percentage of potential output)	2.0	2.6	0.6	-0.9
Index of agricultural commodity prices (USD; 2006=1.00)	1.08	1.17	1.14	1.12
Index of energy commodity prices (USD; 2006=1.00)	2.0	2.3	2.1	2.0
Foreign price level (per cent y/y)	2.6	1.8	1.5	2.1
Foreign GDP (per cent y/y)	2.6	1.8	1.5	2.1
Current account and capital account balance (percentage of GDP)	-2.6	-4.1	-5.6	-4.5
WIBOR 3M (per cent)	4.72	5.88	5.95	5.95

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

Annex

The voting of the Monetary Policy Council members on motions and resolutions adopted in January–April 2008

- **Date:** 29 January 2008

  Subject matter of motion or resolution:
  Resolution on restoring the compliance of the organisational status with the Act on the National Bank of Poland

  Voting of the MPC members:

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

- **Date:** 30 January 2008

  Subject matter of motion or resolution:
  Motion to raise NBP interest rates by 0.50 percentage point

  MPC decision:
  Motion did not receive a majority vote.

  Voting of the MPC members:

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

- **Date:** 30 January 2008

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

  MPC decision:
  The MPC increased the level of all interest rates by 0.25 percentage point.

  Voting of the MPC members:

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

  Against: M. Pietrewicz

- **Date:** 20 February 2008

  Subject matter of motion or resolution:
  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

  Voting of the MPC members:

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

  Against: A. Wojtyna

- **Date:** 27 February 2008

  Subject matter of motion or resolution:
  Motion to raise NBP interest rates by 0.50 percentage point

  MPC decision:
  Motion did not receive a majority vote.

  Voting of the MPC members:

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

- **Date:** 27 February 2008

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

  MPC decision:
  The MPC increased the level of all interest rates by 0.25 percentage point.

  Voting of the MPC members:

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

- **Date:** 26 March 2008

  Subject matter of motion or resolution:
  Motion to raise NBP interest rates by 0.50 percentage point

  MPC decision:
  Motion did not receive a majority vote.

  Voting of the MPC members:

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

- **Date:** 26 March 2008

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

MPC decision:
The MPC increased the level of all interest rates by 0.25 percentage point.

Voting of the MPC members:

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

- **Date:** 22 April 2008

  Subject matter of motion or resolution:
  Resolution on approving the *Annual Financial Report of the National Bank of Poland* prepared as of 31 December 2007

  Voting of the MPC members:

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

- **Date:** 30 April 2008

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

  MPC decision:
  Motion did not receive a majority vote.

  Voting of the MPC members:

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