Inflation Report
August 2005

National Bank of Poland
Monetary Policy Council

Warsaw, August 2005

The Inflation Report presents the Monetary Policy Council's assessment of the current and future macroeconomic developments influencing inflation. The inflation projection presented in Chapter 4 is based on macroeconomic model ECMOD and has been prepared by a team of NBP economists led by Adam B. Czyżewski, Director of Macroeconomic and Structural Analyses Department. The NBP Management Board has approved the projection to be submitted to the Monetary Policy Council. The inflation projection is one of the inputs to the Monetary Policy Council's decision-making process.

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Summary

In the period May-July 2005, the annual growth rate in prices of consumer goods and services was decreasing and in July stood at 1.3%, i.e. below the lower limit for deviations from the inflation target. The drop in the annual inflation rate was expected both by the NBP and market analysts.

The inflation drop in the analysed period was, to a large extent, a result of the disappearance of the impact of price growth in the period preceding Poland's EU accession and in the first months of its membership. This rise led to keeping the annual inflation values at a temporarily higher level. In the Council's assessment a lower than expected growth of the actual GDP – at the unchanged estimate of potential output – contributed to diminishing inflation. Also conducive to the reduction of the annual price growth rate in May-July 2005 was a slowdown in the growth rate of food prices. Additionally, the year-on-year appreciation of the zloty – by lowering prices of imported goods – also helped pull down the annual price growth rate. Core inflation indices indicate the elimination of the joint inflationary impact of food and fuel prices on the annual CPI growth rate.

In line with expectations laid out in the previous *Inflation Report*, in May-August a drop in the level of inflation expectations of individuals was observed. Similarly decreased inflation forecasts of bank analysts.

In the analysed period, there also occurred a reduction in the growth rate of producer prices in industry. This was mainly caused by the wearing-off statistical reference base effect. In 2005 Q2 prices were rising at a much slower rate than in the corresponding months of 2004. Moreover, the year-on-year zloty appreciation in 2005 Q2 led to a reduction in the growth rate of export and import prices alike. A possible continuation of growth in commodity prices may be conducive to an increased growth of producer prices in industry.

In 2005 Q2 the nominal wages grew faster than in Q1, both in the enterprise sector and in the economy as a whole. The wages in the economy rose by 3.9% y/y in 2005 Q2 in nominal terms (compared with 3.6% in 2005 Q1). As a result of the accelerated growth in nominal wages and the decline in inflation, the growth rate of real wages has also increased. The findings of the NBP's economic climate survey suggest a moderate rise in corporate wages in 2005 Q3.

In June-August 2005, the exchange rate was broadly consistent with the path accounted for in the May *Report*. The rise in the real interest rates in the analysed period combined with the relative stability of the real effective exchange rate implies that the monetary conditions (as measured with the MCI) has remained unchanged despite the Council's nominal interest rates cuts.

According to GUS estimates Poland's annual GDP growth rate in 2005 Q2 amounted to 2.8%, i.e. more than in the previous quarter. A significant improvement occurred in quarter-on-quarter terms (seasonally adjusted). However, the annual GDP growth rate fell short of expectations in the May *Report*, which ensued from the fact that investment and consumption growth rates proved markedly lower than expected.

The data on economic growth in the first half of 2005 – assuming unchanged estimates of potential output – indicate that the period of a gradual closing-up of the output gap will be longer than anticipated in the May *Report*, which will be conducive to curbing inflation. The GDP growth structure, which is characterised by a moderate pace of consumption growth and a high growth of exports, should also be limiting inflationary pressure.

According to GUS estimates, 2005 Q2 saw a continuation of the low growth rate in private consumption, which amounted to 1.5% y/y. At the same time, in the NBP's assessment, there occurred an acceleration in the growth rate of real gross disposable income of households. This would indicate a build-up in gross reserves in the household sector, with part of the savings allocated to financing investments of this sector. Moreover, the GUS Consumer Sentiment Survey from 2005 Q2 suggests an improvement in the households' assessments of both their current and future financial standing in relation to 2005 Q1. In the view of the rise in real income of households and a slight recuperation in consumer sentiment, a gradual recovery in consumption demand may be expected.

2005 Q2 brought acceleration in the growth rate of gross fixed capital formation (up to 3.8% y/y). Yet, this result was well below expectations presented in the NBP's May *Inflation Report*. The lower than expected investment growth in the first half of 2005 may have resulted from a low consumption growth, delays in signing contracts and decisions on financing projects from EU funds as well as uncertainty as to the government's future economic policy.

Growing utilisation of EU funds expected in the coming quarters should contribute to the acceleration in investment outlays. The prevailing favourable conditions in the housing construction sector and revival in the whole section construction and assembly production observed since the middle of 2004 also indicate investment growth.

The factors which could limit investment in the second half of 2005 include political risk (unknown economic policy to be pursued after the election), rising oil prices, consumption growth lower than currently expected and euro area growth falling short of the present forecasts.

In 2005 Q2 the rise in inventories was insignificant and much slower than a year before. As a result, according to these estimates, domestic demand recorded a decrease in year-on-year terms, while at the same time the high growth rate in exports continued. As an effect, net exports were the main GDP growth factor in 2005 Q2.

In the period June-August 2005, the Monetary Policy Council lowered interest rates on three occasions: by 0.5 percentage point in June and by 0.25 percentage point in July and in August, but the rediscount rate in August was cut by 0.5 percentage point. In total the NBP's interest rates have been reduced by 1 percentage point (the rediscount rate by 1.25 percentage point) and at the end of this period the reference rate stood at 4.5%, the lombard rate at 6.0% and the deposit rate at 3.0% and the rediscount rate at 4.75%. In June 2005, the Council further reduced interest rates and changed its monetary policy bias from neutral to easing, thus signalling a higher likelihood of interest rates being cut than raised. The adoption of the easing monetary policy bias was justified by a clear change in the balance of risks for future inflation. The balance showed that the probability of the price growth rate running below the inflation target in the horizon of monetary policy transmission was considerably higher than the probability of inflation running above this target. In July and August the Council maintained its easing monetary policy bias.

According to the August inflation projection, the price growth should be lower than expected in the May *Report*. Assuming unchanged interest rates, there is a 50-percent probability that inflation will stay within the range of 0.9-1.5% in 2005 Q4 (compared with 1.1-2.2% in the May *Report*), 1.0-3.1% in 2006 Q4 (compared with 1.2-3.8%) and 1.2-4.1% in 2007 Q4 (compared with 0.7-4.3%).

Still, it has to be emphasised that the inflation projection presented in the *Report* does not account for all sources of uncertainty, such as the unknown economic policy of the government in the coming years and the effects of worsened outlook for public finance in connection to the bills passed by the Parliament largely impeding the necessary reduction of the public finance deficit and of the pace of public debt growth in the subsequent years. Moreover, the projection does not allow for the latest information which might have a significant bearing on the forecasted price growth. In view of the latest data the most probable path of oil prices for 2005-2007 lies approximately 15% above the path assumed in the August projection. A significant increase in forecasted crude oil prices is not only a source of an inflationary risk, but may also dampen economic growth.

In the Council's assessment, in the monetary policy transmission horizon the probability of inflation running below the inflation target is higher than presented in the August inflation projection, among others, due to possible acceleration in the structural changes ongoing in the Polish economy (probable increase in labour market flexibility, corporate restructuring and increased international competition).

The Council maintains its opinion that the most favourable for Poland would be to adopt an economic strategy focused on creating conditions that would guarantee the introduction of the euro at the earliest possible date. Implementation of public finance reforms leading to the meeting of the fiscal convergence criteria is the necessary condition for the euro area membership. However, the bills passed in July 2005 made

the achievement of this goal significantly more difficult in the coming years, which has a negative effect on the economic growth prospects and may postpone Poland's euro area membership.

Inflationary Processes

1.1 Inflation indicators

In May-July – just like in the previous months of 2005 – inflation was decreasing and in July 2005 reached the level of 1.3% y/y[1] (Figure 1.1, left-hand panel), i.e. stood slightly below the lower tolerance limit for deviations from the inflation target (1.5%). A decline in the annual inflation rate in May-July 2005 was expected both by the NBP and market analysts.

The price increase related to the EU accession caused the annual inflation rates to run at a temporarily heightened level in 2004 and at the beginning of 2005. The disappearance of the statistical base effect[2] resulted in a decline in annual inflation in the subsequent months of 2005. In the Monetary Policy Council's assessment,the actual GDP remaining below the potential output also contributed to the decrease in inflation. In the analysed period the GDP growth rate was slower than expected in the previous *Reports*. Furthermore, the annual price growth rate was also driven down by a fall in the growth rate of food prices. Moreover, the strengthening of the zloty also had an effect on the decrease of the annual price growth rate trough the reduction of the prices of imported goods. In the coming months inflation may be expected to remain below the target of 2.5% (in the range of 1.0-2.0%).

The annual food price growth in the analysed period was falling and in June 2005 it assumed a negative value (-0.8% y/y) (Figure 1.1, left-hand panel). The price drop was most pronounced in those groups which had recorded most significant increases in the previous year (i.e. in milk, cheese and eggs, sugar and confectionary products and also edible oils and other fats).

According to preliminary assessments, this 2005 crop harvest should be higher than its 5-year average, yet – due to this year's drought – lower than the 2004 level. Nevertheless, the considerable stocks accumulated due to the 2004 record-breaking crop

[1]The following abbreviations will be used throughout the Report:
y/y – analysed period compared with the corresponding period last year
q/q – quarter compared to the previous quarter
m/m – month compared to the previous month

[2]The base effect consisted in that the current price level was referred to a much lower level from the period preceding Poland's EU accession.

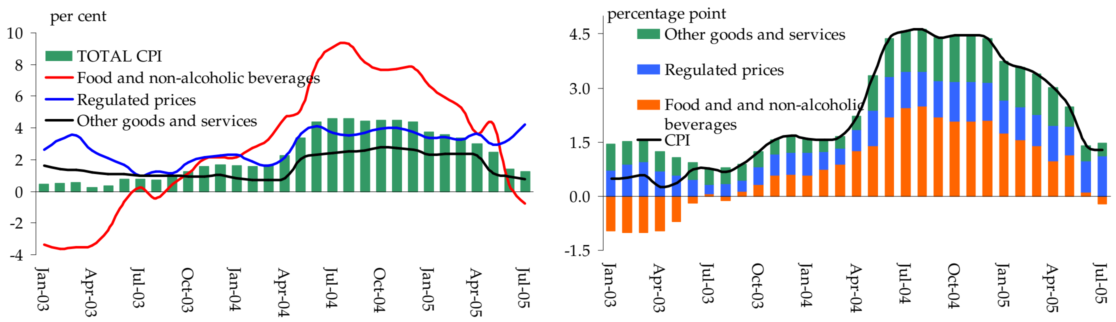


Figure 1.1: Consumer price index CPI. Left panel: CPI and main categories of prices. Right panel: CPI breakdown.
Source: GUS data, NBP calculations.

output as well as the rebuilding of livestock production should both be conducive to maintaining a slow growth rate of food prices.

The annual inflation in the group of regulated prices in May-July ranged between 3.0 and 4.2% (Figure 1.1, left-hand panel). In the analysed period the main factors contributing to the maintenance of the relatively high annual price growth rate in this group were the fuel price rises in the domestic market[3] (of 5.2% in May-July) and the increase in the prices of gas (of 3.3%), resulting from tariff changes. In the coming months, the regulated price growth rate will be primarily affected by the movements of fuel and gas prices, which in turn will be mainly conditioned by oil price movements in world markets and the behaviour of the exchange rate. In the analysed period inflation in the group of *other consumer goods and services*[4] decreased (to 0.8% y/y in July from 2.3% y/y recorded in April 2005) (Figure 1.1, left-hand panel). The reduction in the annual inflation recorded in this group resulted primarily from a drop in non-food product prices (of 0.4% y/y in May, 0.6% y/y in June and 0.8% y/y in July 2005). Also the growth rate of services prices followed a downward trend to reach 2.8% y/y in July 2005 (as compared to 3.5% y/y recorded in April 2005, 3.2% y/y in May and 2.9% in June 2005). The main reason behind the decrease in the annual price dynamics in the group *other goods and services* was the disappearance of the previously mentioned base effect[5].

The fall in the price index of consumer goods and services (CPI) was coupled with a decline in almost all core inflation indices (Figure 1.2, Table 1.1). The 12-month ″net″

[3]It has to be emphasised that in May-July the fuel price increases in the domestic market were primarily caused by world oil price hikes. The level of domestic prices was not affected by state regulation – the rate of excise tax on engine fuels remained unchanged throughout the analysed period.

[4]The group of other consumer goods and services includes prices of goods and services affected mainly by market mechanisms (excluding food prices), which means that it does not include the group of regulated prices.

[5]It should be borne in mind that Poland′s EU accession brought about an increase in the VAT rate (among others, on construction materials and child clothes), which led to a one-off price climb reflected in the rise of annual inflation rates persisting up to the end of April.

	y/y change in per cent											
	2004					2005						
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
CPI	**4.6**	**4.4**	**4.5**	**4.5**	**4.4**	**3.7**	**3.6**	**3.4**	**3.0**	**2.5**	**1.4**	**1.3**
Core inflation indices excluding:												
Regulated prices	5.0	4.6	4.6	4.6	4.6	3.9	3.6	3.4	2.8	2.3	0.7	0.2
Most volatile prices	5.1	5.2	5.4	5.4	5.1	4.4	4.2	4.0	3.5	2.4	1.7	1.3
Most volatile prices and fuel prices	4.6	4.7	4.7	4.7	4.6	4.1	3.9	3.7	3.1	2.2	1.4	0.7
Food and fuel prices ("net" inflation)	2.3	2.4	2.4	2.4	2.4	2.3	2.3	2.4	2.3	1.5	1.4	1.4
15% trimmed mean	3.2	3.1	3.1	3.2	3.1	3.1	3.0	2.9	2.7	2.3	1.8	1.4
	m/m change in per cent											
	2004					2005						
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
CPI	**-0.4**	**0.3**	**0.6**	**0.3**	**0.1**	**0.1**	**-0.1**	**0.1**	**0.4**	**0.3**	**-0.2**	**-0.2**
Core inflation indices excluding:												
Regulated prices	-0.6	0.2	0.6	0.3	0.3	0.0	-0.2	0.1	0.2	0.3	-0.4	-0.6
Most volatile prices	0.2	0.3	0.8	0.4	0.3	-0.2	-0.1	-0.1	0.2	-0.1	-0.7	0.3
Most volatile prices and fuel prices	0.1	0.2	0.7	0.4	0.4	0.0	-0.2	-0.2	0.0	-0.2	-0.8	0.2
Food and fuel prices ("net" inflation)	0.1	0.1	0.3	0.3	0.0	0.4	0.0	0.0	0.1	0.1	0.1	0.2
15% trimmed mean	0.1	0.2	0.2	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1
Core inflation indices - seasonally adjusted (TRAMO/SEATS):												
CPI	0.3	0.0	0.3	0.3	0.1	-0.3	0.0	0.0	0.0	0.1	-0.2	0.2
"Net" inflation	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.2	0.1

Table 1.1: CPI and core inflation indices in 2004 and 2005
Source: GUS data, NBP calculations.

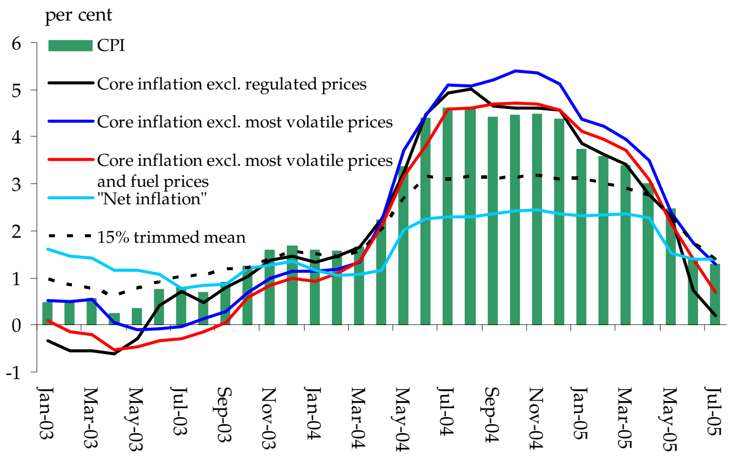


Figure 1.2: CPI and core inflation indices (y/y changes, per cent)
Source: GUS Data, NBP calculations.

inflation[6], which from June 2004 stood at 2.3-2.4%, decreased to 1.4% in July 2005. In May 2004 the VAT rate was raised, which was the main reason behind the increase in the ″net″ inflation of 0.8 percentage point in that month. The disappearance of the statistical base effect in May 2005 led to a strong decrease in this inflation measure (of 0.8 percentage point). In addition, the fact that in June 2005 both the analysed ″net″ inflation and CPI were equal (1.4% y/y) confirms the evaporation of the joint inflationary impact of food and fuel price developments on the CPI growth rate. This means that the inflationary impact of increasing fuel prices was mitigated by the accompanying decrease in the food price growth rate.

1.2 Inflation expectations

Inflation expectations of individuals

In the analysed period inflation expectations of individuals were decreasing steadily and in July they landed at 2.2%, i.e. slightly below the inflation target of the NBP (2.5%) (Figure 1.3, left-hand panel).

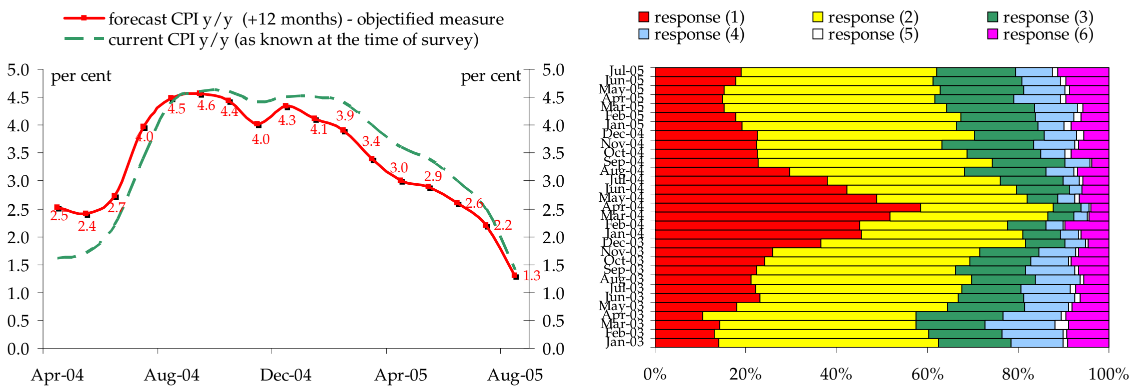


Figure 1.3: Inflation expectations of individuals. Left panel: Inflation expected in 12 months. Right panel: Responses to the question asked by Ipsos.
Source: GUS data, NBP estimates on the basis of Ipsos data.
Ipsos survey question: ″Considering the present situation, do you think that prices during 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?″

This drop in inflation expectations, which in the analysed period amounted to 0.8 percentage points, was fully the result of the reduced current inflation rate, which serves as the point of reference for respondents in formulating their estimates of future inflation[7]. In turn, the structure of responses to the survey question has not changed in any significant degree (Figure 1.3, right-hand panel).

[6] Inflation measure which represents the CPI net of food and fuel prices.
[7] So far, the path of expectations has shown that they are of strongly adaptive nature.

Inflation forecasts of bank analysts

In May-August 2005 bank analysts revised downwards their expectations for annual inflation in 11 months (1.8%) and at the end of 2005 (1.2%). In both cases it was lower than the NBP's inflation target (2.5%) (Figure 1.4, left-hand panel). Forecasts for the annual inflation in 11 months reached their lowest level in history of the Reuters survey (i.e. since October 1994) and the whole distribution of forecasts was shifted towards a lower rate of price growth (Figure 1.4, right-hand panel).

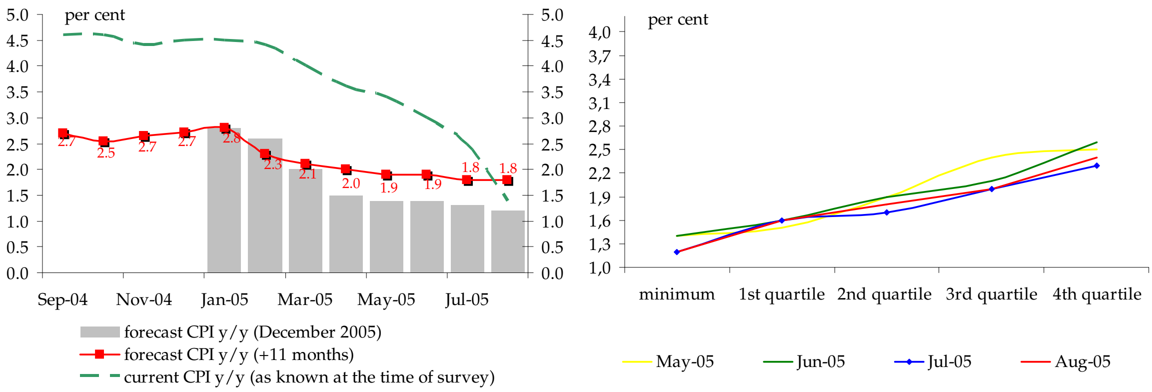


Figure 1.4: Inflation forecasts of bank analysts. Left panel: Inflation forecasted in 11 months and inflation forecast for December 2005. Right panel: Distribution of bank analysts' inflation forecasts of the annual inflation rate in 11 months.
Source: GUS data, Reuters data, NBP calculations.

1.3 Inflation and the Maastricht criterion

In a country intending to adopt the euro, the average annual inflation as measured by the harmonised index of consumer prices (HICP)[8] cannot exceed the reference value determined as the average inflation in the three EU countries with the lowest average annual price growth rate plus 1.5 percentage point[9]. Since August 2004 Poland

[8]The key difference between CPI and HICP is that the Harmonised Index additionally includes expenses incurred by foreigners buying goods and services in Poland, estimated expenses incurred by individuals staying at the so-called institutional households (for instance hospitals, prisons, rest homes) as well as expenditure on lotteries. Despite the fact that HICP and CPI baskets have different weight structure, in practice the differences between those two indices are insignificant.

[9]The assessment whether a given country may be included into the group of countries with most stable prices or not is made by the European Commission and the European Central Bank (ECB) on a case-by-case basis. According to the position taken by the Commission, presented in the 2004 *Convergence Report*, countries which recorded deflation are excluded from the reference group. It remains unknown, however, whether countries with very low inflation would be included by the Commission into the group with most stable prices. In turn, the ECB does not condition the exclusion of a given country from the reference group on whether it experienced deflation, but rather on whether its average annual inflation

has not been complying with this criterion (Figure 1.5). Nevertheless, in line with the expectations presented in the previous *Inflation Report* in 2005 Q2 the average annual value of the HICP started to fall down, which is the effect of the drop in the current inflation rate[10]. In the coming months further narrowing of the gap between the average annual price growth rate in Poland and the reference value for the Maastricht criterion can be expected.

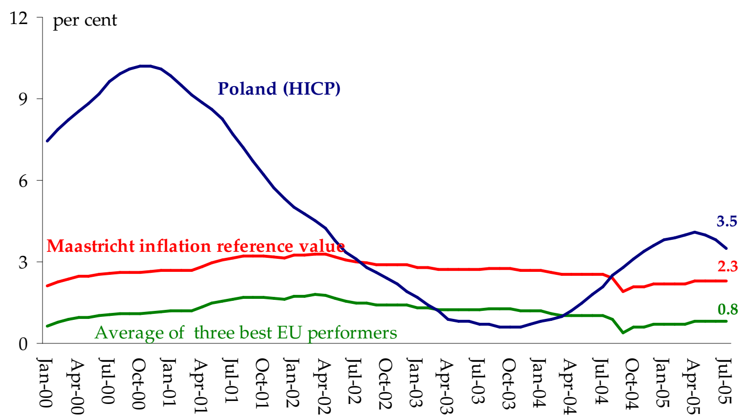


Figure 1.5: Inflation in Poland (HICP annual average) and the Maastricht criterion (y/y changes, per cent)
Source: Eurostat data, NBP calculations.

differs significantly from the price growth rate recorded in other countries. As a result, it is unclear whether Finland, where the average annual rate of price growth in February and March 2005, stood at the level of 0% and 0.1%, respectively, would be included into the reference group by the European Commission and the ECB (In August 2004 Finland was included in the group of reference countries with inflation at the level of 0.4%). Figure 1.5 1.5 presents estimates of the reference value on the conservative assumption that countries with a zero or very low average annual inflation rate could be included into the group of countries with the most stable prices. For more information about the Maastricht criteria see: *Report on the Costs and Benefits of Poland's Adoption of the Euro*, NBP, 2004.

[10]Due to the construction of the average annual index the slump in the current inflation rate in Poland observed since December 2004 found reflection in the reduction of the average annual inflation not earlier than in May 2005.

Determinants of inflation

2.1 Demand

According to GUS estimates, in 2005 Q2 the annual GDP growth rate was higher than in 2005 Q1 and amounted to 2.8%[11]. A significant improvement was recorded in quarter-on-quarter terms (the seasonally adjusted GDP growth amounted to 1.4%[12]). However, the annual GDP growth rate in 2005 Q2 fell short of forecasts in the previous *Report*, which resulted from the fact that the investment and consumption growth rates proved markedly lower than expected.

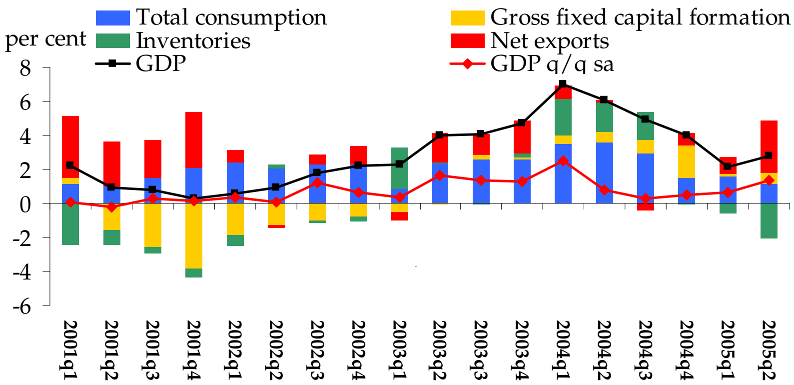


Figure 2.6: Contribution of aggregate demand components to GDP growth (per cent)
Source: GUS data.

According to GUS estimates, 2005 Q2 saw a continuation of the low growth rate in private consumption, which amounted to 1.5% y/y. There was a rise in the growth rate of fixed capital formation to the level of 3.8% y/y. As regards inventories, their rise was insignificant and much slower than a year before. As a result, according to these

[11] The analysis of the processes in the real economy presented in this chapter covers data available until 29 August 2005, and so comprises GUS estimates of the GDP in 2005 Q2. The short period between the release of the GUS GDP estimates and the publication of the *Inflation Report* made it difficult to provide a comprehensive analysis of the national accounts data

[12] According to NBP estimates prepared on the basis of the GUS data, at average annual constant prices from the previous year

Seasonally adjusted (per cent)	2003q1	2003q2	2003q3	2003q4	2004q1	2004q2	2004q3	2004q4	2005q1	2005q2
GDP	0.4	1.7	1.3	1.3	2.5	0.8	0.3	0.5	0.6	1.4
Domestic demand	0.4	0.8	1.2	1.3	2.0	0.9	0.5	0.1	-0.2	-0.2
Total consumption	0.2	1.0	1.0	1.1	0.9	0.8	0.5	0.2	0.4	0.3
Private consumption	0.2	1.4	0.8	1.3	0.8	0.8	0.5	0.1	0.4	0.4
Gross capital formation	0.7	-1.1	2.6	2.8	8.1	1.0	0.4	-1.5	-3.2	-2.1
Gross fixed capital formation	-1.1	1.0	1.1	-0.2	3.5	0.2	1.0	1.7	-0.3	1.6

Table 2.2: GDP and aggregate demand components growth rates (q/q, per cent, seasonally adjusted)
Source: NBP calculations on the basis of GUS data.

estimates, domestic demand recorded a decrease in year-on-year terms, while at the same time the high growth rate in exports continued. As an effect, net exports were the main GDP growth factor in 2005 Q2.

It can be estimated that the real GDP is currently lower than potential output. The data on economic growth in the first half of 2005 indicate that the period of a gradual closing-up of the output gap will be longer than anticipated in the May *Report*, which will be conducive to curbing inflation. The GDP growth structure, which is characterised by a moderate pace of consumption growth and a high growth rate of exports, should also limit the inflationary pressure.

2.1.1 Consumption demand

According to GUS estimates, in 2005 Q2 the annual individual consumption growth was lower than that recorded in 2005 Q1 and amounted to 1.5%. At the same time, in the NBP's assessment, lower consumption growth was accompanied by an acceleration in the annual growth in gross disposable income of households (in real terms), including income from paid employment and property. The increased real growth rate of income was driven by a decline in inflation in 2005 Q2.

As a result, in 2005 Q2, just like in 2005 Q1, the annual individual consumption growth was probably lower than the households' disposable income growth. This may signal a rebuild of gross savings in the household sector, part of which finances the sector investment.

During the first seven months of 2005, retail sales increased by 1.9% y/y. However, the low retail sales growth resulted primarily from a decrease in car sales (by 14.1%, y/y)[13], while the increase in sales of furniture, electrical household appliances and radio and television goods was substantial (43.2%, y/y).

The GUS Consumer Sentiment Survey for 2005 Q2 indicated an improvement in households' assessment of both their current and future financial situation as compared with 2005 Q1. A similar improvement was also recorded in current major

[13] The low car sales growth rate might have been influenced by considerable imports of used cars in this period

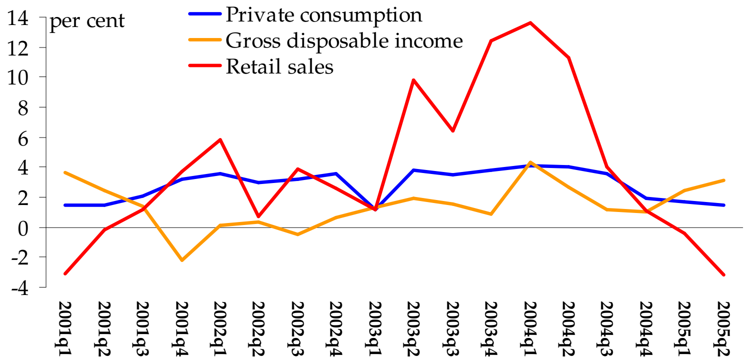


Figure 2.7: Growth of private consumption, gross disposable income and retail sales (y/y, per cent, constant prices)
Source: GUS data, 2005 Q2 – NBP estimates.

purchases made by households. At the same time, households' assessment of major purchases planned in the coming 12 months has remained stable since 2004 Q3.

Given the increase in households' real income and a slight recovery in consumer sentiment, a gradual revival in consumer demand may be expected. At the same time, GUS Consumer Sentiment Survey results suggest that with regard to saving conditions, households' assessment of the current situation in 2005 Q2, just like in 2005 Q1, was clearly more favourable than over the past few years. Households also evaluated their own possibilities and intentions to increase savings in the next 12 months as better than a year ago.

2.1.2 Government demand

In 2005 Q2 the central budget deficit amounted to PLN 5.5. In the first half of the year the deficit amounted to PLN 18.3 billion, which - according to the NBP's estimates - accounted for 4.1% of GDP[14].

In 2005 Q2 the central budget revenues showed a significant growth (17.3% y/y), which was connected with high revenues from individual and corporate income taxes. Also, indirect tax revenues were considerably higher than in the previous year, which mainly resulted from a low reference base. In 2005 Q2 indirect tax revenues were exceptionally low, which resulted, among others, from the extended period of the payment of due taxes after Poland's accession to the EU and led to a shift of some tax revenues.

In 2005 Q2 the central budget expenditure increased by 9.2% y/y (by 6.7% y/y in real terms compared to a fall of 3.7% in the corresponding period of the previous year).

[14]The ratio between the central budget deficit executed in the first half of 2005 and the GDP in the first half of 2005 at current prices.

In the NBP's assessment, all other government sector entities (mainly local governments and basic social contribution funds[15]) showed good revenues in 2005 Q2. As a result, the entities' debt at banks decreased temporarily and their assets held at bank accounts increased.

However, in the second half of 2005 some worsening in the financial standing of the Social Security Fund and Pension Fund is expected due to the fact that in the first half of 2005 a major part of the budget subsidy envisaged for the whole year was consumed (68% and 53% respectively of the budget subsidy for the Social Security Fund and the Pension Fund was consumed in the first half of 2005).

The coming months of 2005 are likely to bring acceleration in the rate of public spending with the upholding of the anticipated public finance sector deficit. This will be connected, among others, with the payment of cash subsidies to pensioners receiving the lowest benefits as well as the increased investment expenditure of local governments and inflow of EU funds as part of Structural Funds and funds allocated for the Common Agricultural Policy.

The outlook for the reduction of the public finance deficit and lowering the growth of the public debt in 2006 and following years has deteriorated. Some of the bills that have been passed recently will significantly hinder the indispensable reduction of the public finance deficit and curbing of the public debt growth in the subsequent years. This may deteriorate the long-term outlook for economic growth and delay Poland's fulfilment of the fiscal criterion for the membership of the euro area. The factors which dampen the prospects for stability in public finance may be conducive to increasing the yields on Treasury securities and also to increasing the zloty exchange rate volatility.

The worsening prospects for stability in public finance and as yet unknown direction of the future economic policy of the government after the parliamentary election occur in the situation of a still incomplete implementation of the *Public Expenditure Reform And Reduction Programme* (according to NBP estimates it has been implemented in 31%, and according to the government in 56%[16]).

2.1.3 Investment demand

According to GUS estimates, gross fixed capital formation increased by 3.8% y/y in real terms in 2005 Q2 and by 2.6% y/y throughout the first half of the year. Yet, this result was well below expectations presented in the NBP's May *Inflation Report*.

[15]The Social Security Fund, The Labour Fund, The National Health Fund.

[16]The difference in the estimates of the degree of implementation of the *Public Expenditure Reform and Reduction Programme* (the government Austerity Plan) consists in that the NBP estimate allows for the cost of liquidation of the so-called "old portfolio", yet does not take into account the tax revenues from the PKP and mining companies and the effect of the not implemented rise in excise tax on fuel oil. The above discussed factors cause the estimate of the NBP to be lower than that prepared by the Ministry of Economy and Labour.

According to GUS data, in non-financial enterprises employing over 49 persons, the nominal growth in gross fixed capital formation in the first half of 2005 reached 4.6% y/y, while the nominal calculated value of started investments rose by 4.5% y/y.

According to the data published by the Ministry of Finance, the investment outlays of the state budget entities in 2005 Q1 were, in nominal terms, 0.4% higher than in the corresponding period of 2004. In the next three months, however, investment activity of this group started to increase. Throughout the first half of 2005, investment expenditure was 7% higher than in the corresponding period of 2004. High growth in investment outlays in 2005 Q1 was maintained by local governments (a 19% increase y/y in nominal terms).

In the first half of 2005 the import of investment goods[17] grew at the slowest rate among the main groups of imports (a rise of 4.5% y/y). However, the relatively high growth in the import of investment goods in May and June 2005 (of 15% and 17% y/y, respectively) may be a positive sign pointing to some recovery in this group.

According to NBP business tendency surveys[18], the investment climate in the corporate sector will improve in the coming months of the second half of 2005. Just like in 2005 Q2, the 2005 Q3 forecasts of the surveyed enterprises suggest that more enterprises intend to embark on new investment than in the corresponding period of 2004. Good investment climate is also evidenced by a significant number of enterprises declaring their willingness to continue previously started development projects. An important factor pointing to investment growth is also the growing interest in borrowing shown by the NBP's surveyed enterprises[19]. The increase in bank lending to the corporate sector, after adjusting for exchange rate changes, has been observed since mid-2005 (in June 2005 corporate loans increased by 4.5% y/y). Also, good financial situation of enterprises should favour investment growth.

The investment growth in the first half of 2005 falling short of expectations presented in the May *Report* may have resulted from a low consumption growth, delays in signing contracts and decisions on financing projects from EU funds as well as uncertainty as to the government's future economic policy.

Growing utilisation of EU funds expected in the coming quarters should contribute to the acceleration in investment outlays. The prevailing favourable conditions in the housing construction sector and revival in the whole section construction and assembly production observed since the middle of 2004 also indicate investment growth.

The factors which could limit investment in the second half of 2005 include political risk (unknown economic policy to be pursued after the election), growing oil prices, individual consumption growth lower than currently expected, euro area growth falling short of the present forecasts.

[17]Excluding the means of transport.

[18]See: *Preliminary information concerning the condition of the corporate sector and the economic climate in the third quarter of 2005.*

[19]See chapter: *Credit and money.*

Inventories

According to GUS estimates, following a considerable (albeit lower than a year ago) increase in inventories recorded in 2005 Q1, 2005 Q2 saw a slight inventory build-up. Compared with the significant increase in inventories recorded last year, contribution of inventory build-up to the annual GDP growth in 2005 Q2 was strongly negative. The inventory data did not confirm the signs of excessive stock of finished products being held by enterprises as suggested by NBP business conditions surveys[20].

2.1.4 External demand and current account of the balance of payments

The first six months of 2005 saw a continued upward trend in the current account balance. It was positive in this period and – according to preliminary estimates – amounted to EUR 300 million (an improvement of EUR 2.7 billion as compared to the first six months of 2004). The surplus in the current account resulted, on the one hand, from a clearly lower deficit in the trade in commodities and, on the other, from an increased surplus in transfers and services. The only current account component which recorded balance deterioration was income which mainly resulted from large dividend payments to foreign investors. (Figure 2.8, left-hand panel). The continued improvement in the current account balance may favour the zloty appreciation and, as a result, drive inflation down.

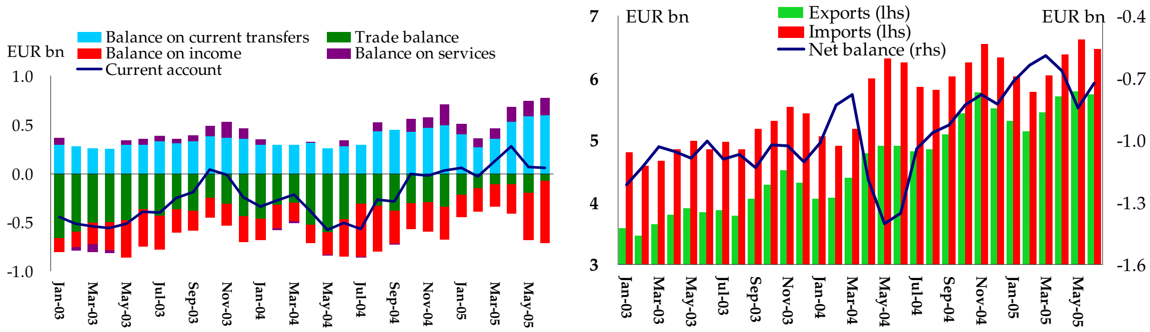


Figure 2.8: Polish foreign trade (three-month moving average). Left-hand panel: Current account balance. Right-hand panel: exports and imports of goods.
Source: NBP data – left-hand panel, GUS data – right-hand panel.

According to GUS data, the Polish foreign trade deficit in January-June 2005 amounted to EUR 4.0 billion, thus decreasing by EUR 2.4 billion compared with the corresponding period of the previous year. The balance improvement resulted from the continuing

[20] NBP surveys (See: *Preliminary information concerning the condition of the corporate sector and the economic climate in the third quarter of 2004*) suggest that the problem of excessive stock of finished products was declared by enterprises in 2005 Q2 more often than in 2005 Q1 and the current degree of the phenomenon (excessive inventories problem) approached the level recorded before the pre-accession boom.

higher growth in exports (increase by 20.2% y/y in EUR) than imports (increase by 9.3% y/y in EUR). While the export growth rate remained relatively high, the distinct drop in the growth rate of imports in comparison to the first six months of 2004 was primarily the effect of a high base of the period directly preceding Poland's EU accession[21].

The improvement in the Polish foreign trade balance was mainly driven by an increased surplus in trade with EU countries. At the same time, trade with EU countries decreased. The slowdown in export growth was driven both by a lower import demand of Poland's major trade partners and a lower export growth in major euro area economies[22]. The growth of trade with EU countries was outpaced by growth in trade with third party countries. The strong growth of exports to those countries (by 45% y/y) was favoured by a relatively high import demand experienced by those countries.

Export growth in the period January-May 2005 was mostly driven by increased sales of transport equipment and machines. In the case of imports, the highest growth rate in the first six months of 2005 was continued to be recorded in the imports of supply goods which was mainly driven by a marked increase in the value of fuels resulting from crude oil hikes[23].
The import growth rate was stepped up in most consumer products. It primarily applied to food and household appliances. A relatively high growth rate was also recorded in imports of clothes and footwear. The rising contribution in these imports of countries with lower production costs, especially China and India[24], was conducive to a considerable reduction of unit prices in this group of imported goods. The increase in the competitive pressure from these countries may be conducive to decreasing prices of consumption goods in the group clothes and footwear[25].

2005 Q1 saw deterioration in competitiveness indicators of domestic manufacturers, including exporters (Table 2.3), while 2005 Q2 witnessed improvement in cost competitiveness of Polish exporters as measured by real exchange rate developments. In 2005 Q2 the real effective exchange rate deflated with unit labour costs was depreciated by

[21] It concerns mainly March and April 2004 when the value of imports increased by 31.0% y/y – significantly faster than in the remaining months of 2004. As a result of such high base, the import value in the period March-April 2005 increased by mere 1.8% y/y.

[22] Polish exports to Germany, which is Poland's most important trading partner, concerns mainly supply goods, therefore it is German exports (rather than imports) that has the largest impact on the growth of Polish exports to this country (in the period January-May 2005, supply goods accounted for over 60% of Polish exports to Germany).

[23] The impact of the rise in crude oil prices on inflation was, on the one hand, offset by the year-on-year zloty appreciation - oil prices in import to Poland expressed in PLN in January-May 2005 were on average 15.4% higher than in the corresponding period of 2004 (while oil prices in EUR increased by 33.8%), and, on the other hand, by a reduction in the volume of oil imports (by 2.1% y/y). As a result, the PLN value of oil imports in this period rose by 13% y/y)

[24] In January-May 2005 the imports value of clothes from China increased by 17.2% (y/y), compared to the growth of a mere 2.6% from other countries. The imports value of footwear from China rose by 15.3%, compared to the growth of 1.7% from other countries.

[25] Prices of consumption goods in the group clothes and footwear have been falling in year-on-year terms since the beginning of 2002.

	2003q2	2003q3	2003q4	2004q1	2004q2	2004q3	2004q4	2005q1	2005q2
Export prices / Unit labour costs*									
y/y	18.7	11.2	21.0	25.7	32.6	12.8	7.7	-7.2	na
q/q	9.5	5.3	6.8	2.0	15.6	-10.5	2.0	-12.1	na
Import prices / Domestic producer prices **									
y/y	11.1	5.0	5.8	6.4	1.7	-8.2	-10.5	-17.5	na
q/q	2.5	0.4	0.0	3.4	-2.0	-9.4	-2.5	-4.8	na
REER ULC									
y/y	-19.8	-12.7	-22.8	-22.4	-16.8	-2.4	9.1	24.0	17.4**
q/q	-10.7	-6.9	-8.1	1.5	-4.1	9.2	2.7	15.4	-9.2**

Table 2.3: Polish export and import competitiveness measures (change in per cent)
Notes:
"*" – Unit labour cost index is calculated as the ratio of payroll growth per employee to the labour productivity dynamics, measured as output (volume) in manufacturing per person employed in this sector,
"**" – based on ECB and NBP estimations (ULC for Poland on the basis of GUS monthly data),
For REER ULC minus denotes depreciation.
Source: Own calculations based on NBP, GUS, EC, ECB and Eurostat data.

Warning indicator	2004q1	2004q2	2004q3	2004q4	2004	2005q1	2005q2
Current account balance / GDP*	-1.7%	-1.9%	-2.0%	-1.5%	-1.5%	-0.9%	-0.1%
Current account balance plus capital account balance/ GDP*	-1.7%	-1.9%	-1.7%	-1.1%	-1.1%	-0.3%	0.5%
Trade balance / GDP*	-2.4%	-2.6%	-2.6%	-2.3%	-2.3%	-1.9%	-1.2%
Direct investment / Current account deficit	204.3%	71.0%	-	-	143.8%	-	-
Current account balance plus capital account balance plus direct investment / GDP	1.6%	-0.8%	-0.8%	3.8%	1.1%	2.9%	0.1%
Foreign debt service / Revenue from export of goods*	32.3%	32.5%	37.8%	59.2%	35.2%	58.3%	na
Foreign reserves expressed in terms of monthly import of goods and services	4.4	4.3	4.3	3.8	4.0	4.0	4.6

* calculated yearly

Table 2.4: Main warning inidicators
The ratio of direct investment to the current account deficit (fourth line in the table) informs about the extent to which the current account deficit is financed by capital inflow in form of direct investment. In 2004 Q3 the direct investment balance was negative, in 2004 Q4 and 2005 Q1-Q2 there was a current account surplus. Hence, in all four cases this ratio has no economic interpretation, which is why the respective values are not presented
Source: GUS data, NBP data, NBP calculations.
Note: 2005 Q2 – preliminary data and NBP estimates

9.2% in relation to the preceding quarter, which caused the annual appreciation rate to decrease.[26]

2005 Q2 brought an improvement in the majority of warning indicators selected for the assessment of external imbalance (Table 2.4).

[26] The quarterly depreciation of the real exchange rate was mainly the effect of the drop in unit labour costs (q/q) and also of the nominal depreciation of the zloty exchange rate observed in this period.

2.2 Output

According to GUS estimates, in 2005 Q2 the growth of value added was accelerated both in year-on-year (2.8%) and quarter-on-quarter terms (an increase of 1.3%, seasonally adjusted). The acceleration in the annual growth rate was determined by a faster value added growth in market services, industry and construction (Figure 2.9).

According to GUS estimates, 2005 Q2 brought acceleration in the output in market services, both in quarter-on-quarter (seasonally adjusted – Table 2.5) and year-on-year terms. In the view of the GUS business tendency survey a further gradual step-up in market services can be expected. This acceleration will be also contingent on the expected recovery of investment demand, which will be raising the demand for business services (such as intermediation and consulting). Together with the growing income of households some enhancement should also be observed in both retail and wholesale sales.

After the level of industrial output had been stable for almost a year, 2005 Q2 marked a return of moderate rising tendencies. Due to the disappearance of the base effect connected with last year's pre-accession boom, there was also a considerable improvement in the output growth rate in year-on-year terms.

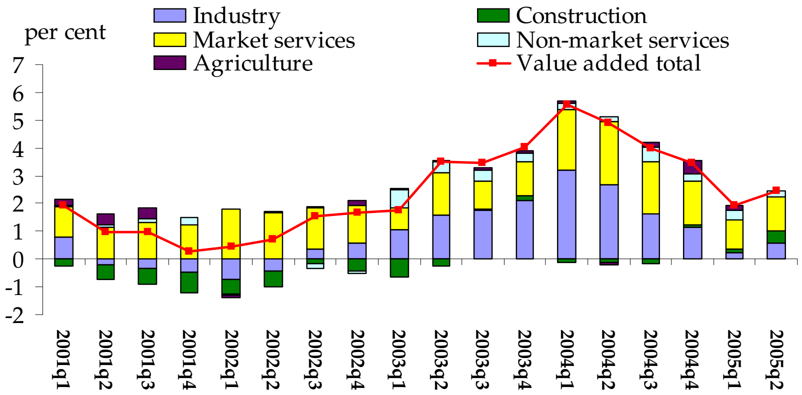


Figure 2.9: Sector contribution to annual gross value added growth (per cent)
Source: NBP calculations on the basis of GUS data.

Seasonally adjusted (per cent)	2003q1	2003q2	2003q3	2003q4	2004q1	2004q2	2004q3	2004q4	2005q1	2005q2
Value added - total	0.5	1.7	1.3	1.2	2.1	0.8	0.4	0.6	0.4	1.3
Industry	1.3	2.4	3.8	2.9	4.2	0.7	-0.6	1.2	-0.2	2.1
Construction	-0.3	0.7	0.9	-0.8	-0.9	-0.9	0.7	2.3	1.3	2.9
Market services	-0.2	1.3	0.6	1.2	1.9	0.9	0.4	0.5	0.7	1.0

Table 2.5: Value added and its components (q/q seasonally adjusted)
Source: NBP calculations on the basis of GUS data.

In July 2005 industrial output growth amounted to 2.6%, which means a rise of 4.7% y/y (seasonally adjusted). During the first seven months of 2005 industrial output grew by 1.6% y/y. The total dynamics of industrial output is an outcome of various tendencies in particular industrial sectors. A strong rising trend can be observed in the food industry (7.3% y/y in July 2005), in manufacture of fabricated metal products (6.3% y/y) and manufacture of machinery and equipment (17.9% y/y). The invariably high production capacity utilisation still remains a considerable obstacle to output growth in some sections (such as the manufacture of electrical machinery and apparatus, automotive industry). In turn, further fall is still being recorded, among others, in the textile industry and metallurgy, which to a large extent results from the deterioration in price competitiveness of Polish enterprises from these sectors in the domestic and external markets.

In the NBP's assessment, a gradual revival in industrial output can be expected in the coming months. The output growth should be positively affected both by supply factors (the aftermath of the last year's powerful investment surge in manufacturing) and demand factors (the expected gradual improvement in investment and consumption demand).

The construction revival, which had been observed since mid-2004, was further consolidated in 2005 Q2 (Table 2.5). Substantial acceleration was noted both in investment and renovation works. In consideration of favourable data on the construction and assembly production in July 2005, still optimistic signals arising from business tendency surveys and a very strong build-up in the activity of construction site development companies, it can be expected that the rising tendencies in the construction sector will be continued in the coming months. Moreover, an important growth factor here will be the infrastructural investments implemented within projects co-financed by the EU.

2.3 Labour market

2.3.1 Employment and unemployment

In 2005 Q1, according to BAEL (a Polish labour force survey) the number of working persons[27] was 302 thousand bigger than a year before (an increase of 2.2% in comparison to 2.5% in 2004 Q4). However, after adjusting for seasonal factors, in 2005 Q1 the number of working persons in the economy was close to that a year ago (Table 2.6). The halt in the increase of the seasonally adjusted number of working persons resulted primarily from a considerable drop in the number of farmers (Table 2.6). A significant increase in the number of working persons was recorded in industry, while a smaller rise was observed in services. There has been a continuation of the tendency

[27] For the definition of working persons adopted in BAEL (Badanie Aktywnoci Ekonomicznej Ludnoci – Survey of Economic Activity of Population) see: *Quarterly Information on the Labour Market*, GUS.

in that the rise in employment pertained almost exclusively to people working on a fixed term contract, while the number of those employed on a permanent-contract basis has been continuously decreasing (Table 2.6).

Figure 2.10: Working persons in the economy – according to BAEL and entities with more than 9 employees
Source: GUS data.

	Number of working persons in 2005q1 (thousands)	Growth in 2004q4 (y/y)	Growth in 2005q1 (y/y)	Growth in 2004q4 (q/q) seasonally adjusted	Growth in 2005q1 (q/q) seasonally adjusted
Total	13 767	2.5%	2.2%	1.1%	0.0%
Place of residence					
urban areas	8 504	2.9%	2.5%	0.8%	0.2%
rural areas	5 263	1.8%	1.8%	1.1%	0.2%
Economic sector					
agriculture	2 267	0.7%	-0.8%	-0.4%	-0.7%
industry	4 020	3.2%	4.9%	0.5%	2.0%
services	7 475	2.6%	1.7%	1.3%	0.3%
Ownership sector					
public	4 247	-3.3%	-1.5%	0.6%	1.0%
private (excluding farms)	7 417	6.8%	5.5%	2.5%	0.7%
private (farms)	2 103	1.7%	-0.8%	1.8%	-5.6%
Employment status					
hired employees	10 283	3.6%	3.0%	2.1%	1.1%
employers and self-employed	2 789	-2.0%	-0.9%	-1.3%	-1.3%
contributing family workers	695	2.4%	4.5%	4.9%	-0.8%
Type of job contract					
fixed-term contract	7 803	-0.4%	-1.9%	1.2%	0.1%
permanent contract	2 480	18.4%	22.3%	4.7%	2.6%

Table 2.6: Working population according to BAEL in selected sections
Source: BAEL data, NBP calculations.

According to the data reported by entities employing over 9 people, 2005 Q2 was the third consecutive quarter, after six years of falls, which brought positive annual growth in the number of working persons in the economy. The increase of working persons in the economy amounted to 95 thousand, i.e. 1.2% y/y (as compared to 1.2% y/y in 2005 Q1) (Figure 2.10). However, after adjusting for seasonal factors, in 2005 Q2 the quarterly rate of growth of the working persons in the economy stood at 0.3% q/q (in comparison to 1.3% q/q in 2005 Q1). The greatest rate of growth in employment (of at least 2% y/y) was observed in the following sections: trade and repair, hotels and restaurants, financial intermediation, education, manufacturing and public administration and national defence.

A gradual build-up in employment is to be seen in the monthly data on the enterprise sector. In 2005 Q2, employment in enterprises was 1.7% higher than a year before. A similar rate of employment growth in this sector was recorded also in July 2005 (1.8% y/y) (Figure 2.11). In total, by the end of 2004 the employment figure in enterprises had risen by 92 thousand people, while in the corresponding period of the previous year the increase only amounted to 17 thousand.

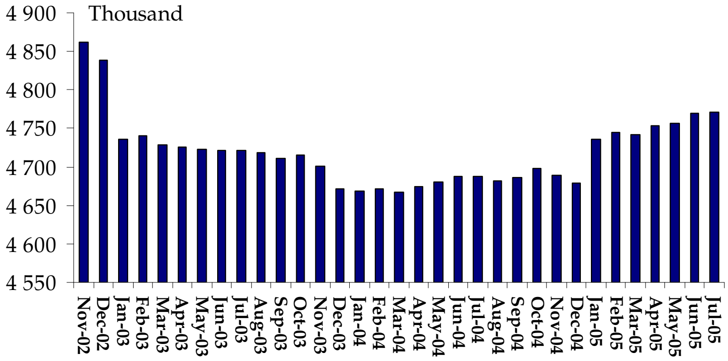


Figure 2.11: Employment in the enterprise sector (thousands)
Source: GUS data.

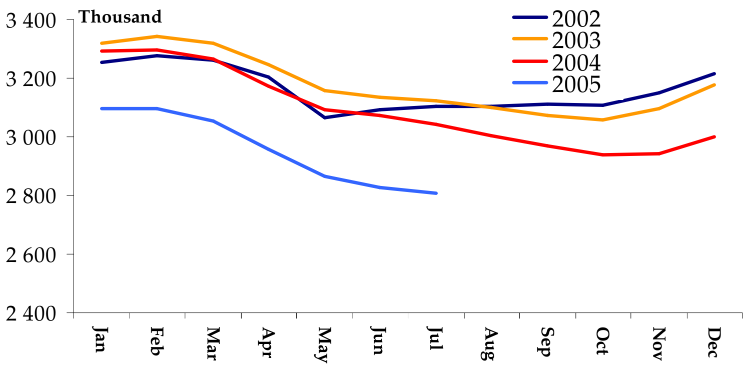


Figure 2.12: Registered unemployment according to labour office data (thousands)
Source: GUS data.

A gradual improvement in the labour market is indicated by data on unemployment. Although the jobless figure remains high, its slow but steady decline has been visible for six quarters (Figure 2.12). Both the labour office data published by GUS and the BAEL data indicate that unemployment is currently noticeably lower then one year ago. According to labour offices´ data, in July 2005 the jobless total was 2,809 thousand (a y/y decrease of 233 thousand), and the unemployment rate amounted to 17.9% (a y/y drop of 1.4 percentage points). According to the BAEL data, in 2005 Q1 the jobless total was 3,199 thousand (a y/y decrease of 310 thousand), and the unemployment rate amounted to 18.9% (a y/y drop of 1.8 percentage points). The number of new job vacancies posted in labour offices is also on the rise. At the same time, however, the number of unfilled vacancies (at the end of month) is rising faster than the number of jobs offered per month, which may be an indication of a mismatch between expectations and qualifications of the unemployed and the posed job vacancies amid a growing demand for labour.

According to NBP survey[28] the number of enterprises intending to increase their employment in 2005 Q3 surpasses the number of those planning to reduce it. The net balance of employment forecasts is the highest, except for 2004 Q3, in the survey history (since 2001). In addition, the balance improvement in relation to the previous quarter was largely the result of a harp falls in the share of entities planning to reduce their employment levels. A slight improvement in year-on-year terms was also signalled by GUS business tendency survey from 2005 Q2.

2.3.2 Wages and productivity

In 2005 Q2 the average wage was growing faster than in Q1, both in the enterprise sector and in the economy as a whole. In the enterprise sector nominal wages rose by 3.0% y/y, compared with 2.0% y/y in Q1. In turn, nominal wages in the economy grew by 3.9% y/y, compared with 3.6% y/y in 2005 Q1. The dynamics of wages in the economy were somewhat higher than in the previous quarter primarily due to the acceleration of the wage growth in the following sections: real estate and business activities, mining and construction.

The rise in nominal wages and the inflation decrease observed in 2005 Q2 brought about an increase in real wages. In the corporate sector, after three quarters of fall, real wages increased by 0.8% y/y, while in the whole economy – by 1.6% y/y as compared to zero growth in 2005 Q1 (Figure 2.13). In July 2005 the wage growth rate in the enterprise sector was close to that in 2005 Q2 (nominal rise of 3.2% y/y, i.e. 1.9% y/y in real terms). The NBP's survey of economic climate suggest a moderate rise in corporate wages in 2005 Q3[29].

From 2002 to the beginning of 2005 the labour productivity in industry has been growing faster than nominal wages, which has resulted in a decline of unit labour costs in this sector[30]. As a result of a decreased growth rate in industrial output

[28]See: *Preliminary information concerning the condition of the corporate sector and the economic climate in the third quarter of 2005*, NBP

[29]Enterprises surveyed by the NBP reported that 91% of them do not plan to increase wages in 2005 Q3 and the average wage growth in firms intending to rise salaries amounts to 4.3%). See: *Preliminary information concerning the condition of the corporate sector and the economic climate in the third quarter of 2005*, NBP.

[30]Unit labour cost in industry: the ratio between the average nominal wage in industry and the labour productivity in industry (labour productivity in industry: the ratio between industrial output in constant

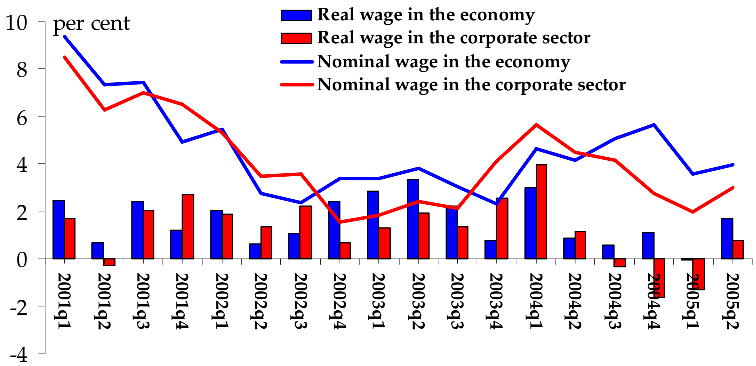
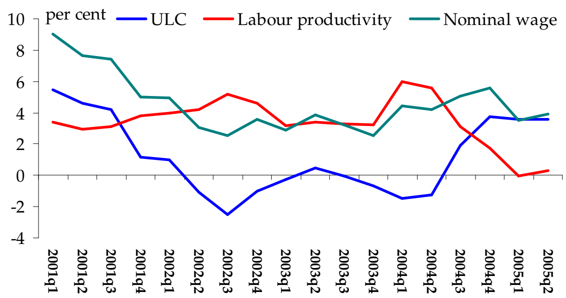


Figure 2.13: Annual percentage growth of wages in the economy and in the corporate sector (nominal and real)
Source: GUS data, NBP calculations.



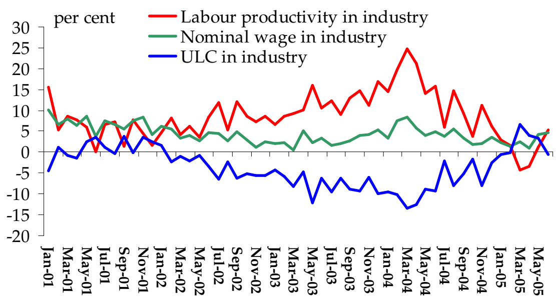


Figure 2.14: Annual percentage growth of unit labour costs (ULC), labour productivity and nominal wages - seasonally adjusted. Left-hand panel: Economy. Right-hand panel: Industry.
Source: GUS data, NBP calculations; Q2 2005 – NBP estimates.

and the resultant slide in labour productivity over four consecutive months (February-May 2005), the growth of unit labour costs was positive. Nevertheless, in June 2005 the annual rate of growth of industrial output and labour productivity increased once again and, as a result, the unit labour costs slightly decreased again in year-on-year terms (Figure 2.14, right-hand panel).

In the economy as a whole, a decline in the unit labour costs (on a year-on-year basis) was recorded from 2002 to 2004 Q2. Starting from 2004 Q3 the unit labour costs have been increasing. According to NBP estimates, in 2005 Q2 the annual rate of growth of unit labours costs was close to that in 2005 Q1 (Figure 2.14, right-hand panel)[31].

prices and the average employment in the sector).

[31]Unit labour cost in the economy: the ratio between average nominal wages in the economy and the labour productivity in the economy (labour productivity in the economy: the ratio between the GDP in constant prices and the average number of people working in the economy according to BAEL).

2.4 Other costs and prices

2.4.1 External prices

2005 Q2 saw further price increases in international commodity markets which were mainly driven by growing prices of fuels. The rise in oil prices was accompanied by a slight drop in non-energy raw materials (q/q) (Table 2.7).

	y/y change in per cent				q/q change in per cent			
	2004q2	2004q3	2004q4	2005q1	2004q2	2004q3	2004q4	2005q1
Total	**36.2**	**38.2**	**34.9**	**29.7**	**8.7**	**6.7**	**3.8**	**7.8**
Non-energy raw materials	**25.5**	**20.4**	**11.9**	**4.4**	**0.5**	**-3.9**	**2.2**	**5.8**
food	25.3	8.8	-4.9	-8.4	3.7	-16.0	-3.6	9.2
industrial raw materials	25.5	25.8	19.7	16.8	-1.0	2.1	4.5	10.6
agricultural	11.0	10.1	1.6	2.6	-0.4	-1.2	0.0	4.2
non-ferrous metals	41.3	37.4	29.9	15.6	-0.1	3.1	6.5	5.3
Energy raw materials	**42.0**	**47.0**	**47.0**	**40.8**	**13.1**	**11.7**	**4.4**	**6.8**
crude oil	32.7	42.0	46.0	44.8	11.4	13.3	6.1	8.1

Table 2.7: World prices of main raw materials´ groups in USD (y/y change in %)
Source: HWWA – Hamburg Institute of International Economics.

The upward trend in the crude oil markets has continued in 2005 Q3. Since the beginning of the year oil prices have increased by over 25 USD per barrel (i.e. by over 60%). The main driving force behind this climb is a high demand combined with limited possibilities to increase oil supply (Figure 2.15). As a result of the low level of spare production capacity in OPEC countries as well as limited production capacities of refineries, the market has become very sensitive to any symptoms of possible disruptions in the production and supplies of crude oil and its products[32]. Endangered security of supplies intensifies speculation activities, which further contribute to increased volatility in the prices of this commodity.

Compared with the previous *Inflation Report*, the expectations of growth in the world´s oil demand in 2005 have decreased. The International Energy Agency (IEA), the OPEC and the US Department of Energy all adjusted their forecasts downwards. These corrections resulted mainly from lowered demand forecasts for China and Europe[33]

[32]Numerous breakdowns in American oil refineries (being the result of their long-term underinvestment) drove fuel production down. This, combined with the increased demand, related to holiday travel in the USA, led oil prices in August 2005 to rise again to a maximum nominal level. Furthermore, the powerful activity of hurricanes churning across the Gulf of Mexico at the beginning of the summer raises the risk of hurricanes being a reason for major disruptions in oil supplies and fuel production in the coming months. Increased political risk faced by major oil producers - Saudi Arabia (the only producer to declare spare production capacity) and Iran - and disruptions in the oil supplies from Ecuador additionally pushed oil prices up.

[33]China markedly limited its oil imports as a result of strong oil price increase, while the lowered forecasts of oil demand in Europe result from lowered forecasts of economic growth for this region.

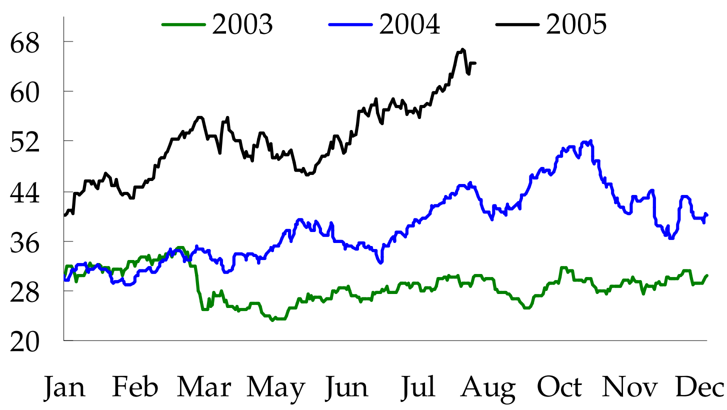


Figure 2.15: Brent crude oil prices in 2003-2005 (USD/barrel)
Source: Bloomberg data.

and a lower demand in the USA in the first half of 2005. In the opinion of the above mentioned institutions, demand growth will still be markedly higher than the average in the years 1990-2002, which will put further pressure on OPEC countries to increase their oil production and thus will hinder any fast and significant rebuilding in spare production capacities. The oil price increase recorded in the past three months of 2005 significantly raised the forecasts of these prices in the coming years. Although the majority of the institutions dealing with oil price forecasting do not expect further oil prices increases (the forecast prices are lower than the current spot market prices), they estimate the average oil price in 2006 to be higher than in 2005.
The developments in oil prices will be influenced primarily by growing demand for this raw material. According to the forecasts of the International Energy Agency (IEA), OPEC and the US Department of Energy the increase in the demand for crude oil in 2006 may be as high as in 2005, which may result in crude oil prices persisting at a high level and also their high volatility.

The increase in crude oil and non-energy raw material prices has brought further acceleration in the growth of producer and consumer prices in the world's largest economies in July 2005 (as compared to May and June 2005). However, despite this acceleration, in the United States both the PPI and CPI indices reached a level similar to that recorded at the beginning of 2005. The PPI growth reached 4.6% y/y (against 4.8% recorded in April), while the CPI grew at 3.2% y/y (3.5% in April). Similar trends were also observed in the euro area. In June 2005 the PPI reached 4.0% y/y (against 4.3% recorded in April), while in the same month the harmonised consumer price index (HICP) stood at the level of 2.2% y/y (2.1% in April).
Moreover, the statements of both Fed and ECB representatives point to the risk of elevated oil prices pushing up inflation and slowing down the economic growth.

2.4.2 Producer prices

In line with expectations presented in the previous *Inflation Report*, in the analysed period the annual growth rate of producer prices in industry decreased (from 0.9% in April 2005 down to 0.0% in July 2005) (Figure 2.16, left-hand panel). It can be expected that the PPI growth rate in the second half of 2005 will be rather stable. A possible continuation of the growth in commodity prices (crude oil and copper) may be conducive to an increased growth of producer prices in industry.

The drop in the growth rate of industrial producer prices, which was observed in May-July, was mainly driven by the disappearance of the statistical reference base effect. In 2005 Q2, prices were rising at a much slower rate than in the corresponding months of 2004. Moreover, the year-on-year appreciation of the zloty in 2005 Q2 resulted in a drop of import and export prices[34]. The growth of domestic producer prices in industry has been above the total PPI since June 2004, though ever since November 2004 it has been sliding down, together with the slide in the total PPI in industry (Figure 2.16, left-hand panel).

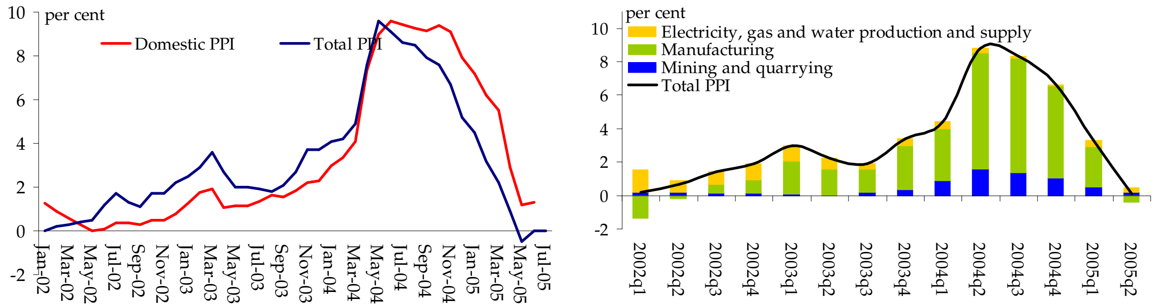


Figure 2.16: Producer prices in industry (PPI). Left panel: Total PPI and domestic PPI. Right panel: Contribution of producer prices in industry sectors in PPI total annual growth.
Source: GUS data.

The most significant impact on the reduced pace of PPI growth in Poland in 2005 Q2 was exerted by the drop in the growth rate of manufacturing prices – mainly due to the weight of this section in the index (Figure 2.16, right-hand panel). Among other, due to low purchase prices of food, prices fell in division *manufacture of food products*. Because it is the biggest division of industry (approx 18% of industrial output) the drop in these prices resulted in a strong decrease in PPI growth rate. Moreover, also the metal industry contributed to the reduction in the PPI's pace of growth, which was partly the effect of a reduced demand for the products of this industrial division and – consequently – a drop in their prices (of approx. 10% y/y). In turn, the largest increase in prices was observed in *manufacture of coke and refined petroleum products*. It was caused by the rise in oil product prices in international markets. However, due to low weight of this division in total industrial output (less than 6%) and also a low share

[34]For example, the zloty appreciation is responsible for sizeable deflation (of 12.8% y/y in May 2005) in section *manufacture of electronic equipment*, which is strongly export-oriented

of crude oil in the cost structure of other divisions of manufacturing, the inflationary stimulus of this commodity did not translate into any acceleration in the PPI.

2.5 Financial markets

2.5.1 Asset prices/Interest rates

Short-term interest rates[35]

Almost throughout the analysed period both the releases of macroeconomic data pointing at the lower than expected rate of economic growth and the statements of the Monetary Policy Council's members signalling the likelihood that interest rates could be reduced led to decreases in the money market rates (Figure 2.17). It was only the publication of the data in the second half of July 2005 concerning the industrial output and retail sales in June, which proved more favourable than expected, that limited the scale of the interest rate reduction anticipated by the market, which in turn led to money market rate increases. Throughout the analysed period interest rates on interbank deposits of longer maturities remained lower than the interest on shorter-maturity deposits (Figure 2.17, left-hand panel), which was a sign of the market's permanent expectations of NBP rate cuts.

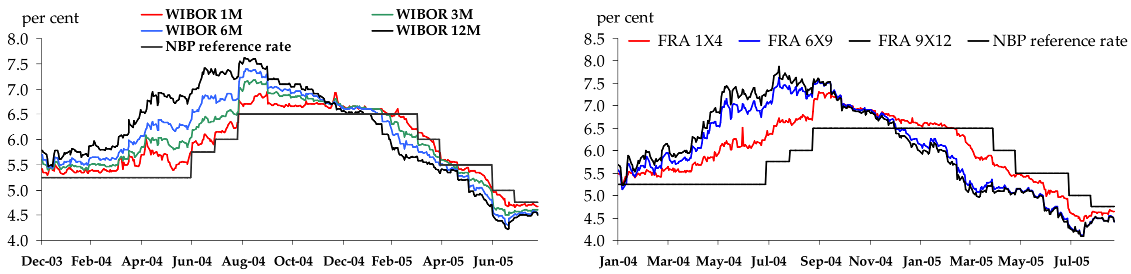


Figure 2.17: NBP reference rate and interest on interbank deposits (left-hand panel) and NBP reference rate and interest on FRA contracts for 3M WIBOR (right-hand panel).
Source: Reuters data.

The prices of financial assets were very strongly affected by the publication of GDP growth in 2005 Q1 on 31 May 2005, which amounted to 2.1% y/y and was much lower than the 3.0% y/y expected by analysts. Growing concerns about a possible economic slowdown increased the expectations of further cuts in NBP interest rates. The downward trend in the money market was strengthened by the data pointing at the absence of any visible inflationary pressure in the economy. The sharp decline in FRA rates and interbank deposits was brought about by higher than expected interest rate reduction by the Monetary Policy Council at its June meeting and the Council's decision

[35] The cut-off date for the data presented in this chapter is 24 August 2005.

to return to an easing monetary policy bias. Even though the change in the monetary policy bias does not necessarily imply interest rate cuts but only indicates they are more probable than increases, the adoption of an easing bias was interpreted by analysts as a harbinger of the continuation of interest rate cuts.

The change in the downward trend in the money market rates followed the publication of data on industrial output in June 2005, which proved better than analysts expected. This limited the scale of subsequent cuts of the NBP rates expected by the market, which was reflected in increases of the money market rates. At the end of the analysed period, FRA rates priced in yet another reduction of NBP rates of 25 basis points (down to the level of 4.50%) by the end of 2005 (Figure 2.18, left-hand panel). This is consistent with the results of the Reuters survey (dated 19 August 2005), in which most of respondents expected the NBP's reference rate to reach 4.50% at the end of December 2005 (Figure 2.18, right-hand panel).

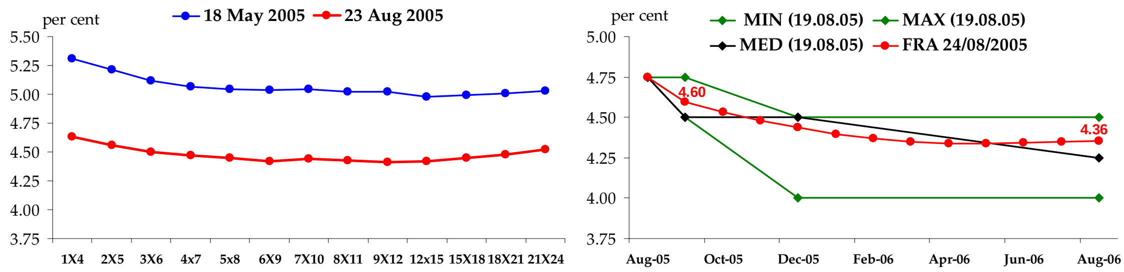


Figure 2.18: Three month forward curves (left-hand panel) and expected changes in NBP reference rate on the basis of FRA contracts and Reuters survey of 21 Apr 2005 (right-hand panel).
Source: Reuters data.

Trends in international financial markets

In line with market expectations, the Federal Open Market Committee (FOMC) at its August meeting raised its interest rates by another 25 basis points to the level of 3.50%. It was the tenth subsequent increase of this scale within the monetary policy tightening cycle started a year ago. In the press release after the FOMC meeting, the Fed declared again that it was going to continue its accommodating monetary policy and increase its interest rates at a balanced pace. FOMC representatives pointed out that the risk for economic growth and inflation was currently well balanced. As positive signals in the economy they named: the improvement in the labour market situation and the continuously high growth rate of spending, despite the persistently high crude oil prices. According to the Fed's assessment, the long-term outlook for inflation is stable, though at the moment some risk of a rise in inflationary pressure is indeed observed.

In a Reuters survey carried out in August, analysts expected the Fed to raise interest rates by 50-75 basis points (to the level of 4.0%-4.25%) by the end of 2005. The experts' forecasts seem to find support in the market expectations of Fed interest rate changes as reflected in the rates of Fed Funds Futures.

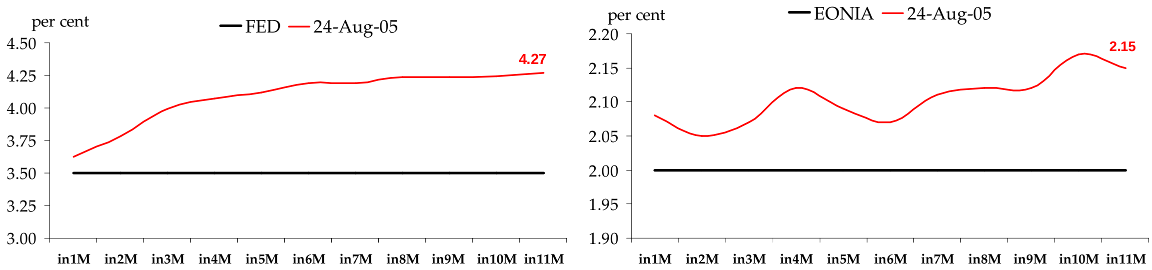


Figure 2.19: Expectations on the FED interest rate changes (on the basis of Fed Funds Futures) (left-hand panel) and expectations on the ECB interest rate changes (on the basis of EONIA swaps – overnight index swaps) (right-hand panel).
Source: Bloomberg data.

In line with market expectations, in the analysed period the European Central Bank (ECB) left its interest rate unchanged at the level of 2%. After is August meeting the President of the ECB pointed out that euro-area interest rates are at an appropriate level, while the region´s economy is sending out ever more positive signals. He emphasised that price stability is crucial for preserving long- and short-term interest rates in the euro area at a low level. He also added that economic reforms are necessary for enhancing the growth potential of European economies.

Market expectations of the ECB rates cut faded away following the statements of the ECB representatives and the publication of the macroeconomic data pointing at an economic recovery in the euro area. The Reuters survey of 24 August 2005 indicates that analysts expect an interest rate increase not earlier than in 2006 Q4, to the level of 2.5% – the median of expectations. At the same time market expectations as measured on the basis of EONIA swap contracts point to an increase of ECB interest rate at 25 basis points with the probability of 60% in a 12-month horizon.

Long-term interest rates[36]

In the analysed period the main factors affecting the developments in the domestic market of Treasury bonds were the changing expectations of financial markets concerning the future level of NBP interest rates, the decisions of the Monetary Policy Council and the changes in the yields on bonds in the so-called core markets, i.e. the markets in the USA and euro-area.

Just like in the case of money market rates, the sharp fall in the yields on Treasury bonds continuing until the beginning of July, was brought about by the release of macroeconomic data pointing to a weaker than expected rate of economic growth and the June decision of the Council to cut rates by 50 basis points and change the monetary policy bias to easing. Still, in the case of bonds this downward trend had been halted earlier on, already at the beginning of July, i.e. even before the encouraging data on industrial output and retail sales in June were published. This resulted from

[36]The cut-off date for the data presented in this chapter is 24 August 2005.

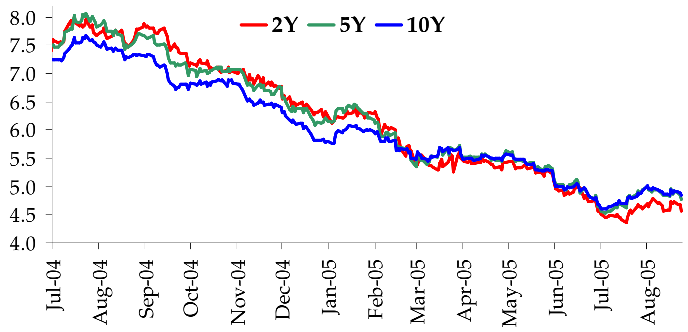


Figure 2.20: Change in the yields of the benchmark bonds
Source: NBP data.

a rise in the bond yields in core markets, which in that period was conducive to the lowering of prices of Polish Treasury securities. In the second half of July 2005, the rise in the return on Polish bonds was, just like in the case of money market rates, the consequence of the publication of the data on the real economy which were more favourable than expected. In August the Polish debt market, and especially longer-maturity bonds, was strongly affected by the behaviour of bond prices in the core markets, which were rising this time. Domestic factors, such as the drop of the annual inflation rate in July and also the weaker than expected data on industrial output in July 2005, additionally offset a rise in the yields on Polish Treasury bonds.

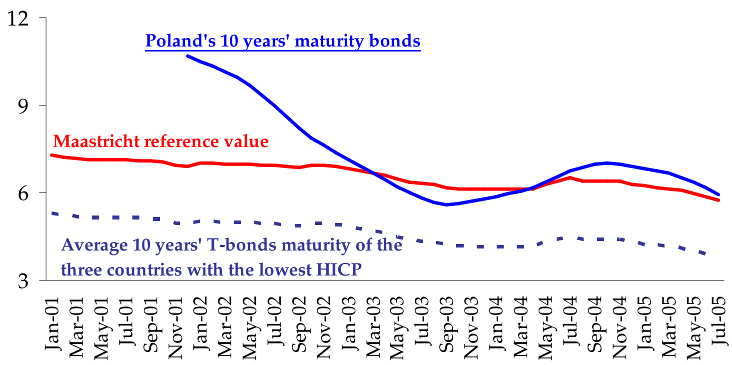


Figure 2.21: Average annual yield (12-month moving average) for long-term Treasury bonds in Poland versus the reference value for the Maastricht criterion
Source: NBP estimates based on Eurostat data.

The price movements of Polish bonds are also reflected in the steady decline of average annual yield on long-term Treasury securities (Figure 2.21). However, its level (5.9% in July 2005) still exceeds the reference value for interest rate criterion (according to NBP estimates: 5.8%), the compliance with which is one of the conditions for euro area membership[37].

[37] A given country complies with the criterion when its (12-month moving) average yield on long-term

In the analysed period the absolute involvement of non-residents into the domestic Treasury securities market stabilised at the level comparable to that from the end of May 2005.

2.5.2 Exchange rate

After the nominal effective exchange rate of the zloty had been strengthened in the period February 2004-February 2005, next months brought a depreciation of the Polish currency (in February-July the average monthly nominal rate of the zloty weakened by 4.2%). Due to the changes in the so-called cross rates (EUR/USD), the scale of depreciation was higher in relation to the American dollar (11.1%) than against the euro (2.8%). Ever since the middle of July 2005 the zloty has been appreciating again. The shifts in the nominal exchange rate were accompanied with similar tendencies in the path of the real rate: after the year-long appreciation, in February-July 2005 the real effective zloty exchange rate (deflated with consumer price index – CPI-REER) depreciated by 4.8% (Figure 2.22, left-hand panel).

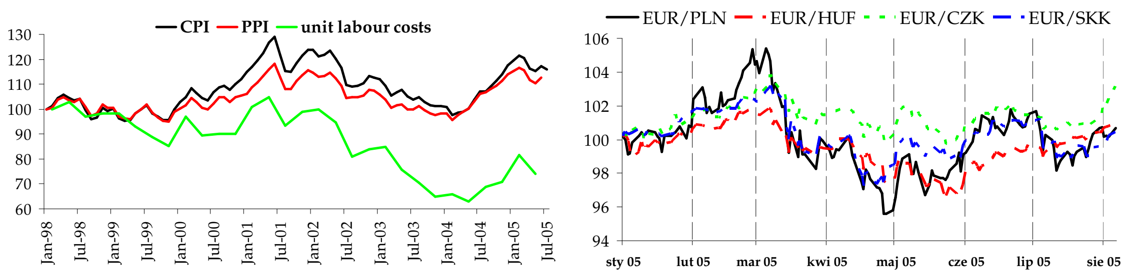


Figure 2.22: Zloty real effective exchange rate (left-hand panel) and nominal exchange rates of Central European currencies against the euro (right-hand panel). Increase denotes appreciation.
Source: NBP, European Commission and EcoWin data.
Note: For unit labour costs – quarterly data, NBP estmates based on NBP, EBC and European Commission data.

The movements of the zloty exchange rate in the past few months largely resulted from external factors, which can be attested by similar movements in the value of the currencies of other CEE countries (Figure 2.22, right-hand panel). The shifts in the value of the Polish currency were also conditioned by domestic factors. On the one hand, the zloty depreciation was encouraged by the persisting political risk connected with the pre-election period and shrinking of the interest rate disparity mainly resulting from the reductions of the NBP's interest rates. On the other hand, the recently observed zloty appreciation might have followed from better than expected data on

Treasury bond observed in the course of the year does not exceed the average arithmetic yield on bonds of three EU countries with the most stable prices by more than 2 percentage points. For more information about the Maastricht criteria see: *Report on the Costs and Benefits of Poland's Adoption of the Euro*, NBP, 2004.

the June 2005 payment balance and the announcement that big foreign companies (MAN, Volvo) intend to locate their investments in Poland.

In the nearest period, the value of the Polish currency will be mainly affected by political developments, data on the incoming foreign direct investment and data on economic growth. However, due to the persisting uncertainty surrounding many of the above mentioned factors affecting the exchange rate of the zloty, it may be subject to large volatility.

2.5.3 Credit and money

Corporate sector

There has been a continuation to the upward trend in the growth rate of bank loans to enterprises observed since mid-2004. In June 2005 their growth rate amounted to 4.9% y/y[38] (Figure 2.23). In 2005 Q2, the value of granted loans rose by approx. PLN 1.5 billion, as compared to a decrease of about PLN 2.5 billion in 2004 Q2.

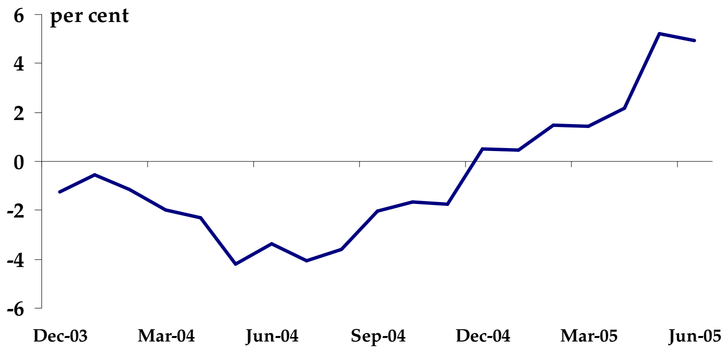


Figure 2.23: Credit for enterprises (y/y growth in per cent, data adjusted for the impact of exchange rate movements)
Source: NBP data.

Survey studies conducted by the NBP[39] point to a rising demand for credit, particularly in the group of companies employing between 250 and 2000 people. The net balance of forecasts for credit indebtedness (i.e. the percentage of forecasts expecting a rise minus the percentage of those predicting a fall) was positive for the first time in the

[38] All the data on the developments in loans and deposits that are presented in this chapter have been adjusted for the impact of exchange rate fluctuations, unless otherwise noted. The data on the corporate sector are based on the reports of commercial banks and do not cover loans and deposits of enterprises at Credit Unions due to the lack of sufficiently disaggregated data. However, the exclusion of Credit Unions from the analysis does not change the qualitative conclusions in any significant way, as almost all their operations are made with households.

[39] *Preliminary information concerning the condition of the corporate sector and the economic climate in the third quarter of 2005* – results of the survey study carried out at the very beginning of 2005 Q3 available at www.nbp.pl.

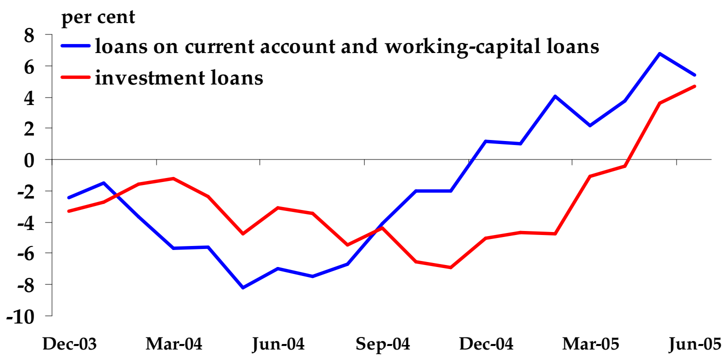


Figure 2.24: Loans to enterprises on current account, working-capital loans and investment loans (y/y growth in per cent, data adjusted for impact of exchange rate movements)
Source: NBP data.

survey history (i.e. since 2000 Q2). The share of enterprises reporting credit indebtedness rose as well. Moreover, the survey results indicate that that the significance of the use of own funds to finance investments, which has hitherto been perceived as the main factor behind a low growth rate in corporate loans, is weakening. The enterprises surveyed by the NBP report a rising importance of bank loans and a dwindling contribution of own resources in financing new investments, although own funds still constitute the main source of investment financing.

The assessment of the situation in the corporate credit market which is based on survey studies finds support in the data from the banking sector. The annual growth rate in the working capital loans and authorised overdraft facilities for enterprises started to rise in mid-2004 (Figure 2.24) and amounted to 5.4% in June 2005 (which represented an increase of approx. PLN 3.1 billion over the last 12 months). In the case of investment loans, the rebound came a little later – the acceleration in the annual growth rate in this category of loans has only been visible since 2004 Q4 (Figure 2.24). In the middle of 2005 it amounted to 4.7%. The observed changes in the corporate lending may reflect the rising investment activity of enterprises, although a high share of own resources still limits the need to seek finance in the form of bank loans.

The interest on zloty loans to the enterprise sector has been diminishing at a pace similar to the reductions of NBP rates (Table 2.8). The NBP's survey studies confirm that the cost of credit is not an obstacle to the development of corporate activity[40].

After a period of rapid growth in corporate deposits at commercial banks (of approx. 30% y/y), which lasted for more than a year, in 2005 Q2 a slowdown was observed. In June 2005 the annual growth rate in this category decreased to 16.3%. This direction of future changes to the dynamics of corporate deposits in the situation of expected

[40]In 2005 Q3 only 3.4% of surveyed enterprises named interest on loans as one of the factors limiting their activity (in the previous quarter the percentage stood at 3.9%).

	Loans			Deposits		
	total	households	enterprises	total	households	enterprises
Jul04	9.9	11.8	7.8	3.1	3.1	3.1
Aug04	10.3	12.2	8.2	3.5	3.5	3.2
Sep04	10.5	12.3	8.4	3.8	3.9	3.4
Oct04	10.7	12.5	8.4	3.8	3.9	3.4
Nov04	10.5	12.4	8.4	3.8	3.9	3.3
Dec04	10.4	12.1	8.3	3.7	3.8	3.4
Jan05	10.3	12	8.4	3.7	3.8	3.4
Feb05	10.2	11.9	8.2	3.7	3.8	3.3
mar-05	10	11.7	8	3.7	3.8	3.3
Apr05	9.6	11.5	7.4	3.4	3.5	3.1
May05	9.6	11.4	7.3	3.1	3.1	2.9
Jun05	9.2	11	6.8	3	3.1	2.8

Table 2.8: Average weighted interest rate on loans and deposits in commercial banks
Source: NBP data.

investment expansion, largely financed from own resources, was predicted, among others, in the previous *Inflation Report*.

The rising demand for credit and the easing requirements set for borrowers by commercial banks, both indicated by survey studies, should be conducive to the continuance of the upward trend in corporate lending. The good outlook for economic growth should also have a similar effect. Considering the still significant share of own funds in financing investments, it can be expected that the anticipated acceleration in the growth rate of corporate loans will be accompanied by a decreasing rate of growth in corporate deposits.

Household sector

Since the middle of 2004 a rapid growth in the bank lending to households has been observed. In June 2005 the annual growth rate of such loans amounted to 19.7%[41]. Although the highest rate of growth is still recorded in the housing loans, the contribution of credit incurred for consumer spending in the total growth of household indebtedness has been gradually increasing, as it was already signalled in the previous *Report*. For comparison, in the period June 2004-June 2005 the value of housing loans increased by approx. PLN 10.5 billion (32%), while the rise in consumption loans was only slightly lower at approx. PLN 9 billion (18,7%) (Figure 2.26, left-hand panel).

[41]In spite of some methodological changes in monetary statistics introduced in January 2005, which involved, among others, including Credit Unions into the population of commercial banks, Credit Unions have not been accounted for in the analysis of the movements in household lending due to the lack of sufficiently disaggregated data.

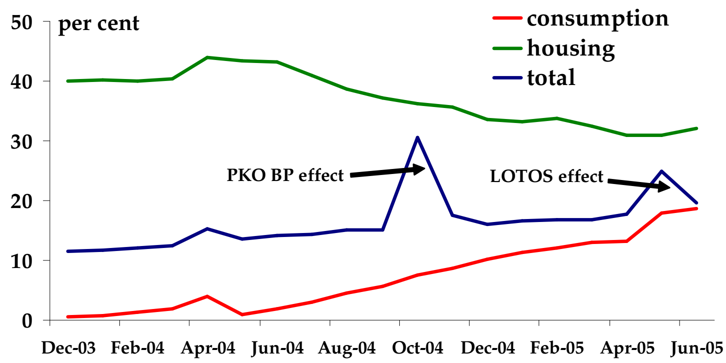


Figure 2.25: Households' credit (y/y growth in per cent, data adjusted for the impact of exchange rate movements)
Source: NBP data.

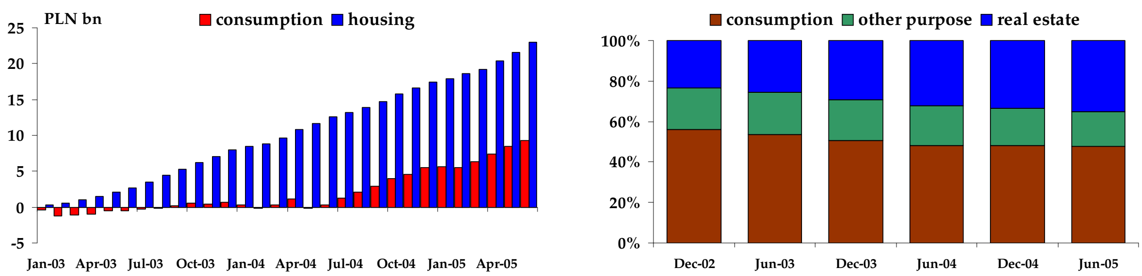


Figure 2.26: Structure of households' credit (data adjusted for the impact of exchange rate changes). Left panel: cumulative monthly changes of credits over the period from January 2003. It can be seen that the growth in consumption loans is almost the same as the growth in housing loans. Right panel: structure of households' credit volume in selected months.
Source: NBP data.

According to the NBP's survey[42] the main reason behind the rise in consumption lending has been the more liberal loan policies of banks. The increase in lending in this segment may also result from the fact that since the second half of 2004 households has continued to report positive assessment of the current and future financial situation reported by households, which is reflected in GUS consumer sentiment surveys[43]. The share of housing loans in household lending is still on the rise (Figure 2.26, right-hand panel), as its growth rate still exceeds the pace of growth in other credit categories (Figure 2.25). At the end of June, housing loans accounted for 35% of total household lending.

Commercial banks emphasise the strong surge in the demand for housing loans, which occurred in 2005 Q2. In their assessment, it even exceeded the level of demand recorded in the period preceding Poland's EU accession, when the increased activity

[42] *Senior loan officer opinion survey on bank lending practices and credit conditions (3rd quarter 2005)*, www.nbp.pl.
[43] *Consumer Sentiment Survey*, GUS, www.stat.gov.pl (Polish version only).

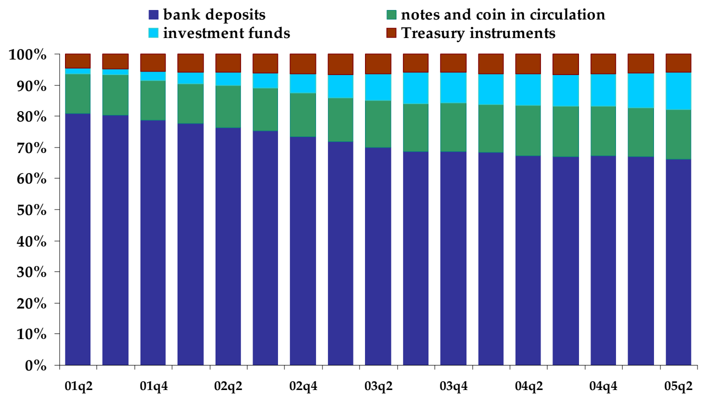


Figure 2.27: Structure of households' financial assets
Source: NBP data.

in the residential market had been strongly stimulated by expectations of a rise in value added tax on construction materials. Currently, the main reasons behind the robust demand for housing loans include the easing of the requirements banks put on borrowers, the prospect of increased taxation on new flats and the overall improvement of the financial standing of households. An additional factor increasing the availability of zloty housing loans is their steadily decreasing level of interest, which has been closely following the movements of interest rates in the interbank market. At the end of June the interest rate averaged 6.6%.

In the opinion of commercial banks, 2005 Q2 saw also a rise in the demand for consumption loans, despite the fact that interest charged in this credit category has remained high and its movements are smaller than the changes of the money market rates. Thus, the rising rate of growth in consumer loans does not result from their decreasing price, but – as signalled by banks – primarily from the liberalisation of conditions and criteria for granting a loan. This is fostered by increasing competition among banks and also by the already mentioned improvement in the financial situation of households.

After three quarters of growth in households' deposits in bank accounts, accompanied by a deceleration in the growth of notes and coin in circulation, in 2005 Q2 the volume of bank deposits decreased by PLN 0.05 billion, while notes and coin in circulation rose by PLN 2.5 billion. At the same time, since the beginning of 2005 an increase in the rate of growth of financial assets of households has been observed[44] (Figure 2.28); in June their rate of growth stood at 8.6% y/y. This rise may result form the improvement in households' income related to the economic revival observed since 2003. The structure of household savings is changing: the share of traditional bank deposits is shrinking and the contribution of alternative instruments is expanding at their expense (Figure 2.27).

[44]The financial assets of households are defined as the sum total of bank deposits, deposits in Credit Unions, investment fund units, T-bonds and other Treasury securities owned by households.

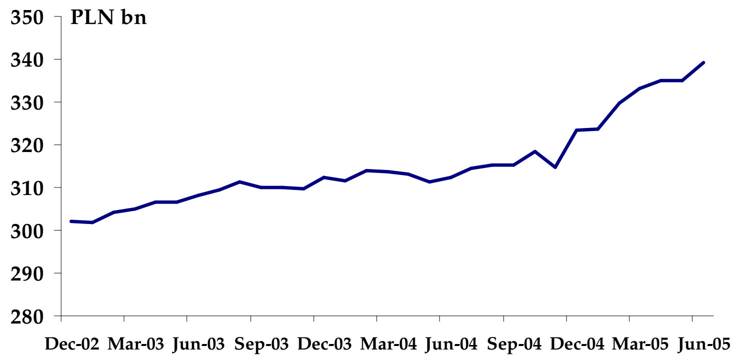


Figure 2.28: Households' financial assets (PLN bn, data adjusted for the impact of exchange rate changes, corresponds to the December 2002 level of exchange rate).
Source: NBP data.

Monetary aggregates

Changes in loans and deposits in the banking sector were reflected in the developments of the major monetary aggregates. Since the beginning of the 2003, an upward trend in the dynamics of the broad money M3 has been observed (Figure 2.29), whereas the rate of growth of the narrow monetary aggregate M1 has stabilized at about 13% since the end of 2004. In 2005 Q2 the downward trend in the rate of growth of notes and coin in circulation, which had been observed from the middle of the 2004, reversed. In July the annual rate of growth of notes and coin in circulation amounted to 8.4%, as compared to 2.7% in December 2004.

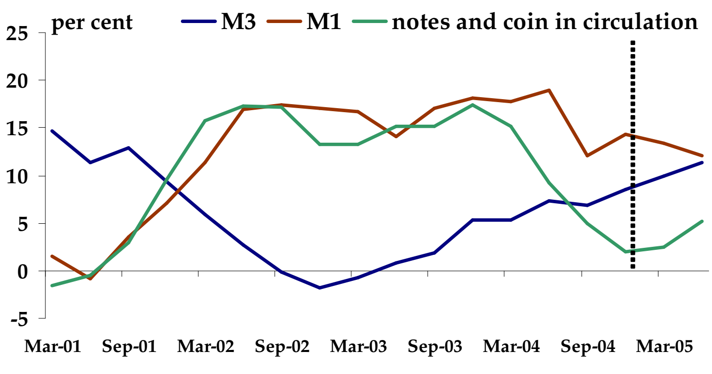


Figure 2.29: M1, M3 and notes and coin in circulation (nominal y/y growth in per cent)
Note: Methodological changes to monetary statistics introduced at the beginning of 2005 make it difficult to compare the 2005 figures with the earlier ones. The vertical line in the chart marks the boundary for data comparability.
Source: NBP data.

Monetary policy in June-August 2005

In the period June-August 2005, the Monetary Policy Council lowered interest rates on three occasions: by 0.5 in June and by 0.25 percentage point both in July and in August, but the rediscount rate in August was cut by 0.5 percentage point. In total the NBP's interest rates have been reduced by 1 percentage point (the rediscount rate by 1.25 percentage point) and at the end of this period the reference rate stood at 4.5%, the lombard rate at 6.0%, the deposit rate at 3.0% and the rediscount rate at 4.75%. While lowering the interest rates in June 2005, the Council changed its monetary policy bias from neutral to easing.

In the analysed period, there was a considerable decline in annual inflation. In July it stood at the level of 1.3%, i.e. below the lower limit for deviations from the inflation target. This was accompanied by a significant drop in inflation expectations of households, which – in the view of the available research – tend to have a strongly adaptive nature. The drop in inflation coupled with a decrease in all core inflation indices pointed to a risk of future inflation staying below target for longer than expected in the May projection. This was also confirmed by the fact that the 2005 Q1 GDP growth was significantly lower than expected in the May projection. The data on the GDP growth in 2005 Q2 also fell short of expectations presented in the May projection. Lower GDP growth in the first half of 2005 at the assumption of unchanged estimates of potential output indicated that the period of a gradual closing-up of the output gap would be longer than anticipated in May. The data on the growth rate and structure of GDP in 2005 Q2 published in August confirmed this assessment.

The structure of growth in 2005 Q1 did not match expectation and was characterised by a considerably higher contribution of net exports and lower than expected growth in domestic demand. The consumption, and primarily investment growth rate, fell short of expectations. In turn, the data for June, which were better than expected, might have suggested that the deceleration in domestic demand was only transitory, but the 2005 Q2 data did not confirm these expectations. Also the data on the balance of payments may signal low growth in domestic demand. The observed tendencies suggest that in consequence of the ongoing restructuring, the supply side of the economy has been strengthened over the past few years.

In the analysed period the Council paid a lot of attention to the assessment of the current and future investment growth. It was pointed out that an important reason behind the clearly slower than expected investment recovery might have been the low pace of consumption growth, lower than expected utilisation of EU funds and own funds of enterprises and also the uncertainty as to the future economic policy of the government. It was also emphasized that such investment developments persisted despite a high level of production capacity utilisation, continually high growth rate in the construction and assembly production and a favourable financial situation of enterprises.

In the last few months a gradual improvement in the labour market was taking place, which found reflection in the steady growth in employment and wages and also in a fall of the unemployment rate. At the same time it can be assumed that factors such as the still high unemployment, probable increase in the labour market's flexibility and the growing competition in the goods and services markets open for international exchange all limit the growth of unit labour costs.

While taking the decisions on rate cuts, the Council was also considering the possible impact of higher forecast oil prices on the prospects for inflation and economic growth. Up till now, the inflationary impact of elevated oil prices has been offset by a low rise in domestic demand, appreciation of the zloty and a low growth rate of unit labour costs. Available forecasts indicate that the oil prices may remain high for a longer period. In the Council's assessment, the sound financial standing of enterprises, the steadily closing up, yet still negative, output gap coupled with the competitive pressure from abroad may be limiting the extent to which enterprises will pass their higher production costs on prices of consumer goods and services. As a result, the increase in production costs, caused by rising oil prices, may deter enterprises from investing and also curb the wage growth. This means that in the monetary policy transmission horizon, the considerable rise in the forecast oil prices not only constitutes a source of inflationary risk, but also poses a threat to the economic growth.

In the first six months of 2005, despite a lower than expected economic growth, the implementation of the budget was proceeding without any disruptions. It is uncertain whether the rise in budgetary revenue, which has been better than expected, will be sustained in the longer period. The necessary reduction of public finance deficit and of the rate of public debt growth in the coming years will be significantly hampered by some of the bills passed in the analysed period. This may dampen the long-term prospect of economic growth and also delay the moment of Poland's compliance with the fiscal criterion of the euro area membership.

In June-August 2005, the exchange rate was broadly consistent with the path accounted for in the May *Report*. The rise in the real interest rates in the analysed period combined with the relative stability of the real effective exchange rate implies that the monetary conditions (as measured with the MCI) has remained unchanged despite the Council's nominal interest rates cuts.

In the Council's assessment in the monetary policy transmission horizon the probability of inflation running below the target is higher than presented in the August projection, among others because of the possible occurrence of accelerated structural changes ongoing in the Polish economy (probable increase in labour market flexibility, corporate restructuring and increased international competition).

Projection of inflation and GDP

The projection of inflation and GDP has been prepared with the use of the macroeconomic model ECMOD by a team of NBP economists led by the Director of the Macroeconomic and Structural Analyses Department Adam B. Czyżewski. The Management Board of the NBP has approved the inflation projection to be submitted to the Monetary Policy Council. The inflation projection is one of the inputs to the Monetary Policy Council's decision-making process.

The cut-off date for the assumptions of the projection was 28 July 2005. In consequence, the August projection is based on NBP estimates concerning GDP and its components in 2005 Q2. The estimates of the GDP growth in 2005 Q2 published by the GUS proved to be in line with the NBP estimates. The difference between these estimates consisted in that the GUS, as compared to the NBP, indicated a shift towards a much higher contribution of net exports in the GDP growth. The decrease in the contribution of domestic demand to the GDP growth resulted from a very deep decline in the growth of inventories. According to the NBP, the GUS estimates for the 2005 Q2 indicate that the demand structure is favourable for economic growth in the next quarters.

4.1 Introduction

In the May projection it was expected that economic growth in 2005 would amount to approx. 4%, and in the subsequent years will accelerate up to the level of 5-5.5% y/y. It was expected that apart from exports, whose presence in EU markets has been constantly growing, also investment would become a major factor stimulating economic growth. GUS preliminary data on investment growth in the economy in 2004 proved lower than expected by the NBP (and external agencies), yet they did not change the positive assessment of investment growth, especially in connection with favourable information on a higher-than-expected inflow of EU assistance funds. In the May projection it was assumed that the level of these funds' utilisation would be high. It was also expected that the process of alignment with the EU environmental regulations and catching up with the development of infrastructure necessary to increase the future production capacity would increase the capital intensity of production. The capital intensity of production will grow irrespective of the scale of the assistance funds′ inflow and the degree of their utilisation[45]. Thus, the growth of potential output will become more and more expensive.

Despite the low wage growth rate in the period immediately preceding the projection, it was expected that faster wage growth in relation to the labour productivity growth (the phenomenon of nominal wage convergence had been observed during previous EU enlargements) will accelerate the growth of disposable income and consumption and increase the unit labour costs.

As a result, due to the expected rise in unit labour costs and faster growth in domestic demand than in the production potential, starting from 2005 Q4 inflation was increasing gradually up to the target level (2.5%) at the turn of 2006 and 2007. The same factors were to lead to a deterioration in the trade balance, which was changing from the surplus at the beginning of the projection into a deficit, which consequently was conducive to reducing the GDP growth rate.

GUS data available after the release of the last *Report* and before 28 July 2005, revealed that the actual course of economic developments was different than it had been expected by the NBP and other external agencies. According to these data, the slowdown in GDP growth in 2005 Q1 was significantly stronger than estimated in the May projection. Also the growth structure in that period defied previous expectations. A very low investment growth and a continuously low individual consumption growth both came as a surprise. At the same time, the contribution of net exports to GDP growth proved higher than expected.

The situation in the labour market showed that the number of working persons was slightly higher than expected in the May projection, which was favoured by a slower than expected wage increase. The relationship between these variables was favourable for the future economic growth. Despite a decrease in labour productivity growth, the growth rate of unit labour costs in 2005 Q2 fell short of expectations. This slower growth rate of unit labour costs contributed to pushing inflation in 2005 Q2 below the May projection.

The fact that wage dynamics was relatively low in relation to labour productivity growth was treated in the May projection as transitory, and realated to, on the one hand, an increase in the competitive pressure in trade (EU accession effect) and, on the other hand, an increase in oil and fuel prices, which forced enterprises to cut their labour costs and employees to accept the situation, for fear of reduction in jobs. The zloty exchange rate ran at a stronger level than predicted in the previous projection. This contributed to lowering the growth rate of import prices in relation to the growth path in May. The stronger exchange rate of the zloty had, in particular, the effect of alleviating the consequences of strong increases in crude oil prices, which – so far – have not been fully reflected in consumer or producer price increases. However, this

[45] The necessity to catch up with infrastructure development and to adjust to the EU environmental standards should lead to increased capital intensity of production. This increase may be additionally heightened, if the spending on infrastructure or natural environment protection ″crowds out″ rather than merely complements the private sector investments.

continuing climb in crude oil prices raises the question of the limits to the absorbtion of the oil shock in this way.

Preliminary data pointing to a markedly lower than expected degree of assistance fund utilisation in the period since May 2004 indicate that their utilisation in 2005 may also be low. Moreover, these data emphasise that the assessment of the assistance funds′ utilisation degree in 2005 and the following years is burdened with considerable uncertainty.

4.2 Assumptions for the August projection of inflation and GDP

Since May 2005 new information has been released making it possible to update the forecasts of the paths of variables exogenous to the model. In the assumptions on the exogenous variables only data available as of 28 July 2005 (which was the cut-off of the projection) was taken into consideration.

Information that was released between 28 July and the publication date of the *Report* raise the risk of a change in the central path of the inflation projection, which has not been accounted for in the fan chart. One such development is a significant oil price hike. An attempt at assessing what would be the impact on the central projection if this and other important developments after 28 July were accounted for has been presented in the section *Uncertainty of projection*.

External demand and euro area inflation

In 2005 Q1 the rate of investment and private consumption growth in the euro area was reduced. In comparison to the data available in May 2005 some deterioration was also observed in confidence indicators of consumers and businesses alike. As a result, the forecast of economic growth in the euro area has been adjusted downwards in relation to the assumptions of the May projection and now foresees growth of 1.3% (against 1.6% in the May projection), 1.8% (2.0%) and 2.0% (2.1%) in the years 2005, 2006 and 2007, respectively. The main growth factor should be a recovery in domestic demand, especially investment demand, which is heralded by a low cost of capital, increased profits and an improvement in the balance structure of enterprises.

The low inflation prognosis for the euro area formulated in May has been upheld, with the expected inflation of 1.6%, 1.7% and 1.8% in subsequent years, respectively (GDP deflator). The main factors contributing to the reduction of inflationary pressure are the weak GDP growth rate and a low pace of growth in unit labour costs. In turn, the risk of inflation growth is connected with elevated crude oil prices, which may also be conducive to a further weakening of economic growth in the euro area.

Foreign interest rates

The interest rate path in the euro area accounted for in the projection is consistent with financial markets´ expectations, which have been reduced since May 2005. The forecast 3-month LIBOR rates for the euro are increasing throughout the projection horizon, reaching 2.83% in 2007 Q4 (against 3.20% anticipated in the May projection).

Crude oil prices

In the view of the observed rising tendency of prices in world crude oil markets, their forecast has been increased in relation to May. The scale of this rise corresponds to the developments in forward market prices and the adjustments made by institutions monitoring the oil market. In the present projection it has been assumed that the average price of an oil barrel will amount to approx. USD 52 in 2005 (in the May projection: approx. USD 48). In 2006 the average price of a barrel is expected to rise to approx. USD 54 (approx. USD 47), and in 2007 to drop slightly to approx. USD 53 (approx. USD 46). In experts´ assessment, the outlook for the average oil price is subject to a considerable asymmetry, which is to indicate a heightened probability of higher prices. Between the cut-off date for the projection and the publication date of the *Report* there occurred a significant hike in current and forecast oil prices. In the face of new data the most probable path of crude oil prices for 2005-2007 lies about 15% above the path accounted for in the August projection.

Absorption of EU funds

One of the factors affecting the dynamics of investment processes in the projection horizon is the extent of the absorption of EU funds, which depends on the absorption capacity of the Polish economy. In view of a considerable uncertainty of the current projection it has been assumed that 25%, 50% and 75% of available funds will be utilised in 2005, 2006 and 2007, respectively, while in the May projection it had been assumed that the degree of EU fund utilisation in the economy would be evenly spread in all years at approx. 80-90%.

Situation in the public finance sector

Just like in the previous projection, the present assumptions regarding the state budget expenditure only take into consideration the effects of laws currently in force. In particular, no account has been taken of the implications of the acts signed by the President of Poland after 28 July 2005. The expenditure connected with the old-age and disability pension indexation is estimated according to the statutory regulations passed by the Parliament in 2004, i.e. no indexation in 2005, in 2006 an indexation by the price growth rate as recorded in 2004-2006, and again no indexation in 2007.

The forecast revenue in main tax categories has been based on effective rates. All the effective rates, except for the personal income tax rate, have been assumed on their historical levels. The effective rate of the personal income tax allows for the abolition of the renovation relief in 2006, which will affect the PIT revenue in 2007.

Food prices

The forecasts by external centres on the output volume in main agricultural and horticultural crops indicate that this year's harvest should prove higher than its 5-year average, yet lower than in the record-breaking last year. Cyclical factors indicate a rise in the livestock production, which should last up till the mid-2007. The external demand for Polish food will be varied – it can be expected that the demand for poultry will rise and the demand for beef and dairy products will be sustained at its present level. The demand for other commodities will remain stable.

In such conditions it is assumed that the annual food price growth until the mid-2006 will be close to zero. Forecasting food prices is burdened with a significant risk of committing an error which has a direct impact on the CPI projection in the horizon of the next four quarters. Due to the lack of premises that would make it possible to forecast changes in food prices in the longer horizon, the model assumes that after this period food prices are rising at the rate of net inflation[46].

Demographic situation

Similarly to the previous projection, the assumptions as to the shifts in the economically active figure are based on the demographic structure of the population taking into account the 2004 economic activity rate. The economically active figure is gradually climbing up to approx. 17.2 million at the end of the projection horizon. The number of old-age and disability pensioners results from current legal solutions and the demographic structure of the population. It is estimated that there will be approx. 9.3 million old-age and disability pensioners at the end of 2007.

4.3 Projection of inflation and GDP

Like in the previous *Inflation Reports*, the present projection assumes that the NBP reference rate remains constant throughout the projection horizon. In the current projection it has been set at the level of 4.75%. As a result, the projection is conditional in nature and shows how inflation and GDP would develop should the NBP rates remain unchanged. Furthermore, at the time when the projection was prepared

[46]The inflation forecast under the ECMOD model is the sum of net inflation, described by the model's equation, and the prices of fuels and exogenous food prices.

only the data published before 28 July 2005 (the cut-off date for the assumptions of the projection) were available. Unavailable were, in particular, GUS data on national accounts in 2005 Q2.

GUS national accounts data for 2005 Q1 may suggest changes to the previously observed macroeconomic interdependencies, which makes it difficult to assess the determinants of inflation and increases uncertainty concerning the assessment of economic processes in 2005 Q2. Despite this uncertainty, available GUS data were used in the estimates of GDP and its structure in 2005 Q2. The uncertainty concerning statistical data increases the uncertainty surrounding the assessment of inflationary processes and the central projection.

In the assessment of the authors of the projection, individual consumption growth in 2005 Q2 remained at a low level, close to that recorded in the previous quarters. However, according to the present projection the consumption growth rate in the second half of 2005 should accelerate, mainly due to household's improved income situation. The increase in the household's disposable income should be favoured by a better situation in the labour market (among others, growing number of working persons), higher income of private businesses due to the economic recovery, the old-age and disability pension indexation in 2006 and the inflow of transfers within the framework of the Common Agricultural Policy. As a result, in the years 2006-2007 the individual consumption annual growth rate should be close to the values accounted for in the May projection. However, the private consumption level throughout the projection horizon will be running below the path anticipated in May 2005 due to a lower consumption growth rate in 2005. This is related to the wage growth rate in 2005, which proved lower than accounted for in the May projection.

According to the authors' estimates, 2005 Q2 saw an increase in rate of growth of gross fixed capital formation. This is suggested, among others, by good results in the construction and assembly sector, a high level of public finance investment and a higher employment rate. According to the current projection, the annual investment growth rate will increase to stabilise at a two-digit level at the turn of 2005 and 2006. Factors favouring investment growth will include good prospects of domestic and foreign demand, a higher absorption of EU funds, an expected increase in the inflow of direct investment and a lower cost of capital resulting from previous NBP interest rate cuts. However, throughout the projection horizon, the investment growth rate is lower than expected in the May projection.

The developments in investment processes is subject to considerable uncertainty resulting, among others, from the impact of high crude oil prices on economic growth and the degree of EU funds' utilisation. Moreover, uncertainty persists as to the GDP growth structure in the first half of 2005. At the same time, there are a lot of data showing that investment growth could have been higher than suggested by the GUS data.

In the projection authors' assessment, in 2005 Q2 net exports' contribution to GDP growth was higher than expected in the May projection. This resulted mainly from a lower than expected import growth. According to the current projection, the 2005-2007 export growth will stand at a high level, close to its forecast in the May projection. In the years 2006-2007 export growth will decrease slightly due to growing unit labour costs in 2005-2006 and foreign economic growth running lower than expected in the May projection. The growing domestic demand (mainly investment demand) will, in turn, be conducive to the raising import growth. The net exports contribution to GDP growth will remain positive throughout 2005. In 2006-2007 a deterioration in net exports will take place – their contribution to the GDP growth will be negative.

According to the present projection, the annual GDP growth rate will stand at around 3.5% in 2005, and in 2006 and 2007 will range between 4 and 5%. This means a downward shift in the growth path throughout the projection horizon as compared to the May projection.

According to the authors of the projection, actual GDP is running below the potential output. The expected acceleration in investment growth leading to an increase in capital stock and the capital-labour ratio, coupled with a higher labour productivity and a growing number of working persons will be conducive to increasing the potential output. However, the increase will be slower than expected in the May projection, which is mainly due to a downward adjustment of the investment path. At the same time, because of an even stronger decrease in the expected GDP growth (as compared with the May projection) throughout the projection horizon, the output gap will remain negative and will be closing up more slowly than expected in May. As a result, the demand factors will be acting towards an inflation decline in the projection horizon. It is worth noting that the estimates of the potential output and output gap are subject to large uncertainty.

The expected economic recovery will be accompanied by employment growth and pay rise acceleration. Even though in the present projection the wages growth rate is still on the rise, the lower pace of economic growth will be conducive to lowering its path in relation to the May projection. The pace of nominal wage increase will outstrip the growth rate in labour productivity. As a result, unit labour costs will be rising, but their growth rate will fall short of that predicted in the May projection up till the mid-2006, and will exceed it only after 2007. However, the expected path of growth in wages is subject to considerable uncertainty, which is, among others, indicated by the fact that in the first half of 2005 it proved lower than expected in the previous projection. This uncertainty is among others related to the way the effects of further oil price hikes will be absorbed in Poland and abroad.

The exchange rate of the zloty in 2005 Q2 proved higher than predicted in the May projection, which was conducive to a drop in inflation. The appreciation was among others the effect of the fact that the pre-election rise in risk premium proved lower than it had been indicated by previous estimates of the projection authors. The exchange rate path accounted for in the current projection is stronger than predicted in May. In line with the depiction of the exchange rate channel under the ECMOD model, the developments of the zloty exchange rate should be affected by factors such as:

faster GDP growth in Poland compared to the euro area, a favourable macroeconomic situation and a rise in the real interest rate disparity[47].

In line with the August projection, inflation will be lower than expected in the May *Report* throughout the projection horizon. The spread is the largest in the second half of 2005; later on the central projection is getting closer and closer to the May projection. Until the end of 2007 Q1, the probability of inflation running below the target is considerably higher than the probability of its rising above the target, while in the succeeding period both probabilities should be comparable.

The presented projections of inflation and GDP are subject to uncertainty. The uncertainty surrounding the assumptions concerning the variables exogenous to the forecasing model and the statistical accuracy of the model equations estimates has been illustrated in the fan charts presented below. These charts, however, do not account for all sources of projection uncertainty, such as the uncertainty related to possible changes in the economy's structure, the approximate nature of any replication of economic reality by means of a model or the potential instability of estimated relationships in time.

The greatest impact on the inflation projection uncertainty as presented on the fan chart is exerted by the uncertainty as to food price forecasts. Also significant is the impact of uncertainty surrounding the assumptions of future developments outside Poland, including in particular the GDP and inflation growth in the euro area and also the path of external interest rates. Large uncertainty as to the future oil prices in world markets also raises the uncertainty of the future inflation path in Poland. The considerable positive asymmetry of the oil price forecast is the main factor contributing to the positive asymmetry of the inflation projection. An important influence on the uncertainty of the inflation projection is exercised by the uncertainty as to the future ability of Polish economy to absorb EU assistance funds.

The extent of the EU funds' utilisation, by influencing the growth rate of future investments, also constitutes the main uncertainty factor in the anticipated path of the GDP growth rate. Additionally, a significant impact on the GDP projection uncertainty is made by the uncertainty of the forecast changes in the external environment of the Polish economy and as to future oil prices.

[47]The rise in the disparity of real interest rates, despite the nominal interest rate path in Poland being lower by 0.85 percentage point as compared with the May projection, follows from a lower assumed path of foreign interest rates, lower inflation projection of the GDP deflator in Poland and similar assumptions for the course of the GDP deflator abroad.

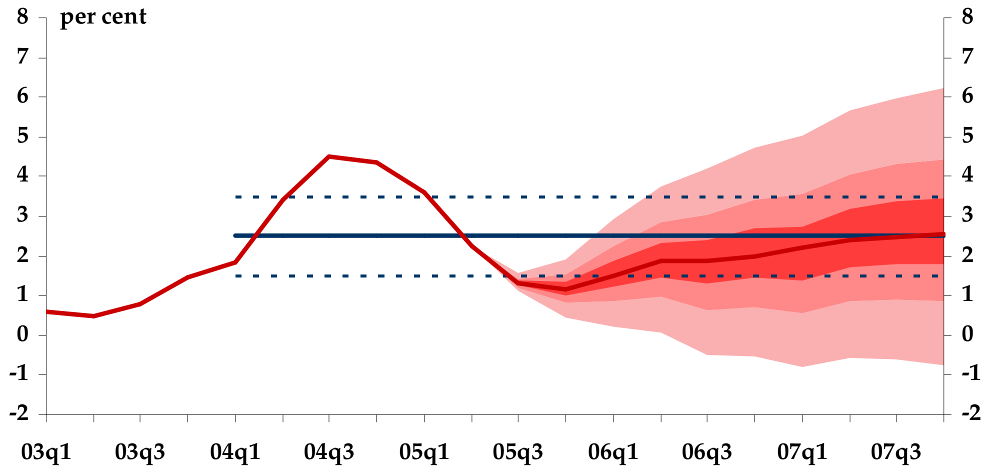


Figure 4.30: Inflation central projection, inflation fanchart and MPC's inflation target (y/y change in per cent)
Source: NBP.

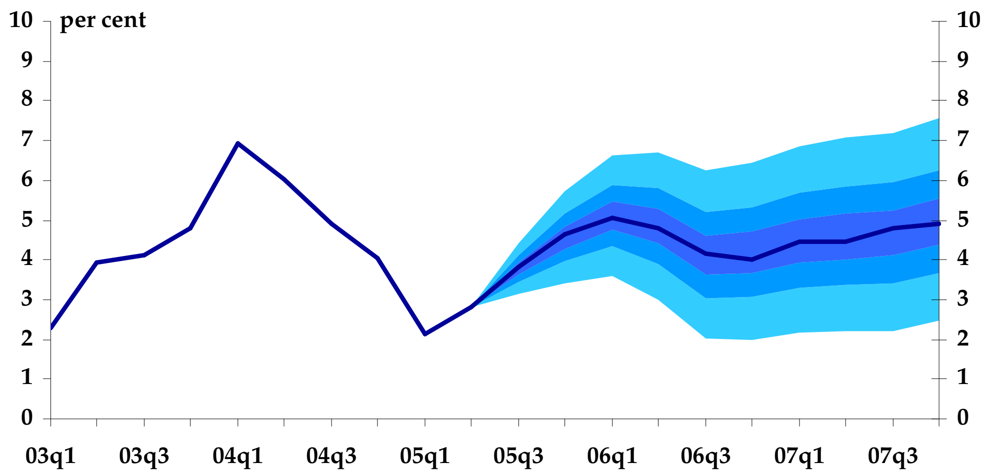


Figure 4.31: GDP central projection and GDP fanchart (y/y change in per cent)
Source: NBP.

How should fan charts be interpreted?

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

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

The chart shows, for example, that the probability that inflation in 2006 Q1 will stay within the tolerance band around the inflation target amounts to approx. 52%, the probability of higher inflation equals to approx. 1%, whereas the probability of lower inflation could be assessed at approx. 47%. For 2007 Q1 these probabilities correspond to 42%, 20% and 38%, respectively. Except for 2006 Q3 and 2007 Q1, the inflation projection is characterised with positive asymmetry, which accounts for a greater probability of inflation running above the central path than below it. The direction of the asymmetry of GDP projection varies from quarter to quarter, and its scale is generally small.

4.4 Uncertainty of the projection

The analysis of differences in inflation paths in the present and May projections reveals that the factors that most significantly contributed to lowering the inflation projection in relation to the May *Report* pertain to the endogenous variables of the model: the reduction in the forecast path of unit labour costs on account of a drop in the expected wage growth rate, a strengthening of the zloty exchange rate and a lower than expected performance of GDP and inflation in the first half of 2005. In turn, factors which contribute to the rise in expected inflation in relation to the May projection are the exogenous variables: the lower assumed path of NBP interest rates and a rise in current and forecast prices of crude oil.

The projection presented in August does not account for new information that was published after 28 July 2005. Between the cut-off date of the projection and the day of the publication of the *Report* there occurred a significant climb in crude oil prices. In the view of the latest data the most probable path of oil prices for 2005-2007 lies about 15% above the path accounted for in the August projection. The approximate multiplier analysis suggests that a rise in oil prices of about 15% leads to an inflation growth of about 0.3 percentage point; the strongest impact occurs in the second half of 2006 and the effect fades away after about three years. At the same time, the multiplier analysis shows that the inflation increase is accompanied by a weakening rate of economic growth.

The pass-through effect of exchange rate movements on inflation amounts to approx. 0.2, which means that a sustained appreciation (depreciation) of the exchange rate of approx. 1 per cent in relation to the projection path leads to a drop (rise) in inflation of approx. 0.2 percentage point towards the end of the projection horizon.

The acts signed by the President of Poland after 28 July 2005, by contributing to the increase in the public finance sector's expenditure, pose risk of inflation growth in relation to the path presented in the August projection. Moreover, in the longer perspective they may weaken the supply foundations of economic growth.

The latest GUS data show that the crop production in Poland will be slightly lower than allowed for in the assumptions for the August projection. This may lead to a growth in food prices at the beginning of the projection horizon. The spread of bird flu may have a similar effect.

GUS estimates of the GDP in 2005 Q2 indicate that there has been a shift on the structure of the GDP growth towards a considerably higher share of net exports, as compared to that assumed in the current projection. This may lead to a fall in inflation below the August central projection as a result of an improvement in the international investment position conducive to zloty appreciation and the domestic demand being somewhat lower than that accounted for in the present projection.

Annex

The voting of the Monetary Policy Council members on motions and resolutions adopted in 2005 Q2

- **Date:** 26 April 2005

  Subject matter of motion or resolution:
  Resolution on approving the Annual Financial Report of the National Bank of Poland prepared as of 31 December 2004

  Voting of the MPC members:

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

- **Date:** 27 April 2005

  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 reduced the level of all interest rates by 0.5 percentage point

Voting of the MPC members:

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

- **Date:** 27 April 2005

  Subject matter of motion or resolution:
  Motion to change the monetary policy bias from easing to neutral
  MPC decision:
  The MPC changed its monetary oplicy bias from easing to neutral

  Voting of the MPC members:

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

- **Date:** 24 May 2005

  Subject matter of motion or resolution:
  Resolution on approving the Report on Monetary Policy Implementation in 2004

Voting of the MPC members:

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

- **Date:** 24 May 2005

  Subject matter of motion or resolution:
  Resolution on the evaluation of the activities of the NBP Management Board as regards the monetary policy implementation in 2004

  Voting of the MPC members:

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

- **Date:** 24 May 2005

  Subject matter of motion or resolution:
  Resolution on approving the Report on the Operations of the National Bank of Poland in 2004

Voting of the MPC members:

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

- **Date:** 25 May 2005

  Subject matter of motion or resolution:
  Motion to change the monetary policy bias from neutral to easing
  MPC decision:
  The motion was not passed (due to tie vote, the Chairman´s casting vote was decisive)

  Voting of the MPC members:

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

- **Date:** 29 June 2005

  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 reduced the level of all interest rates by 0.5 percentage point

Voting of the MPC members:

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

- **Date:** 29 June 2005

  Subject matter of motion or resolution:
  Motion to change the monetary policy bias from neutral to easing
  MPC decision:
  The MPC changed its monetary oplicy bias from neutral to easing

  Voting of the MPC members:

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