Inflation Report
November 2004

National Bank of Poland
Monetary Policy Council

Warsaw, November 2004

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 models and has been prepared by a team of NBP economists led by Krzysztof Rybiński, Deputy President of the NBP. 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.

Contents

Summary

Since the publication of the previous *Inflation Report* in August 2004, the annual growth rate in prices of consumer goods and services, following a considerable increase, ranged between 4.4-4.6%, staying clearly above the upper tolerance limit for deviations from the inflation target. At the same time the core inflation indices stabilised over the period. This containment of inflation growth was accompanied by a reversal in the upward trend of inflation expectations, which over the analysed period fell below the current price growth rate for the first time in the year. The halting of inflation growth resulted mainly from the gradual wearing-off of factors which contributed to the strong price increases in the period preceding the accession and in the first months of Poland's EU membership. Also conductive to inflation decrease was the significant appreciation of the zloty. It indicated the rising probability of the inflation path running lower than it had been envisaged in the scenario presented in the August *Inflation Report*. Still, the sustainability of zloty appreciation remains the subject of considerable uncertainty.

Likewise, the situation in the labour market also contributed to the lowering of inflation. Here, the decreasing wage growth dynamics was accompanied by a continuing and high growth in labour productivity. Furthermore, a lower than expected increase in employment was also conducive to the decrease in private consumption dynamics, thereby lessening pressure on price growth. On the other hand, the persistent discrepancy between the current CPI and the "net inflation" pointed to the still significant contribution of growth in food and fuel prices in the total annual price increase in consumer goods and services. Invariably high dynamics of producer prices (PPI), in the context of a high level of capacity utilisation, signalled the continued risk of cost effects feeding through into consumer price growth. Moreover, a possible fall in inflation was hampered by the further growth in crude oil prices. Even so, their transmission into domestic fuel prices was, in the analysed period, effectively mitigated by the zloty's appreciation against the US dollar.

In the MPC's opinion, the currently available economic data as well as the results of the NBP's survey indicate that the so-far effected tightening of monetary policy, in the situation of a significant rise in the current inflation and also in inflation expectations, has successfully contributed to alleviating wage pressure (second-round effects). Nevertheless, inflation expectations of consumers still persist at a high level and, considering the fact that they are being strongly influenced by the current inflation rate, are likely to remain above the MPC target up until 2005 Q1 at the least. Thus, any fuller assessment of the second-round effects will only be possible in 2005 Q2. The recovery in the world economy continued in the period under review. Also, the growth rate of the Polish economy, despite some deceleration in relation to the first half of 2004, remains high and, according to NBP estimates, in 2004 Q3 it stood at slightly below 5% y/y. Even though economic climate indicators did see some deterioration, they point to the continuation of positive tendencies in the Polish economy. Still, between September and November, there occurred a rise in the uncertainty as to the future economic growth. This hike in the level of uncertainty primarily results from an unclear picture in the area of investment recovery.

In the MPC's opinion, economic processes in September-October 2004 indicated that the inflation rate in 2005-2006 would probably run lower than it was predicted in the August *Inflation Report*. Therefore in this period the MPC kept the NBP's interest rates unchanged and maintained a tightening bias. The November inflation projection confirmed that inflation will follow a path below the one presented in the August projection. In consequence also in November the Council decided not to change the NBP's interest rates and maintain a tightening bias.

According to the November projection, with the assumption of unchanged interest rates, the probability of inflation staying above the inflation target of 2.5% in 2005-2006 is lower than presented in the August Report. It is still higher, however, than the probability of inflation falling below the target in the same period. With 50% probability, inflation will stay in the range of 2.5-5.2% in 2005 Q4 and 1.3-4.8% in 2006 Q4 (in the August projection the values amounted to 2.8-5.5% for 2005 Q4 and 1.6-5.1% for 2006 Q4, respectively).

Inflationary Processes

1.1 Inflation indicators

In August-October 2004 the annual CPI growth rate stood at about 4.4-4.6%[1] (Figure 1.1). The deceleration in inflation growth primarily resulted from gradual waning of factors, which caused inflation to accelerate from 2004 Q2. This refers, in particular, to food prices, which, after a considerable rise in the period preceding Poland's EU accession and the first months of EU membership, decreased by 0.1% as compared to September. Nevertheless, annual inflation rate still remains at a temporarily increased level. This is due to the fact that the current level of prices is compared to their level in the period preceding Poland's entry into the EU. The factors which contributed to the strong increase in prices in the last months (the hike in food prices, changes in the indirect tax rates, new customs tariff) will influence the annual inflation rate staying at a relatively high level till 2005 Q2.

Despite the total reduction in food prices in the period under review, their annual dynamics still remain high (7.7% y/y in October 2004 – Figure 1.1). Because of a persisting intensification of external demand for selected Polish products, including milk, dairy produce and meat, a further increase in procurement prices of some food products should be expected. However, the latest forecasts of food prices point to the wearing-off of inflationary shocks in the market, and the current GUS (Central Statistical Office) assessment of this year's crop harvest is more optimistic than the data available in August. As a result, the annual rate of growth of food prices should be decreasing in the coming months, whereby a more pronounced downward trend should become visible from 2005 Q2.

The growth rate of prices of the remaining consumer goods and services[2] went up from 2.5% y/y in July and August to 2.8% y/y in October 2004 (Figure 1.3). The accel-

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

[2] The group of the prices of the remaining consumer goods and services comprises of the goods and services prices which are primarily shaped by market forces, i.e. the regulated prices have been excluded.

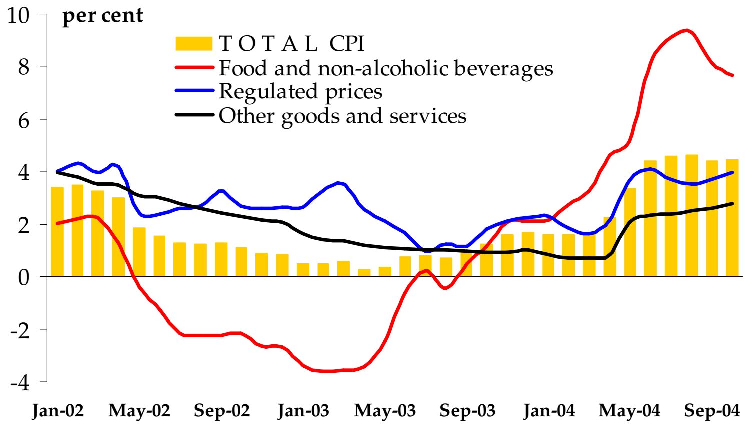


Figure 1.1: CPI and main categories of prices in 2002-2004 (y/y changes, per cent)
Source: GUS data, NBP calculations.

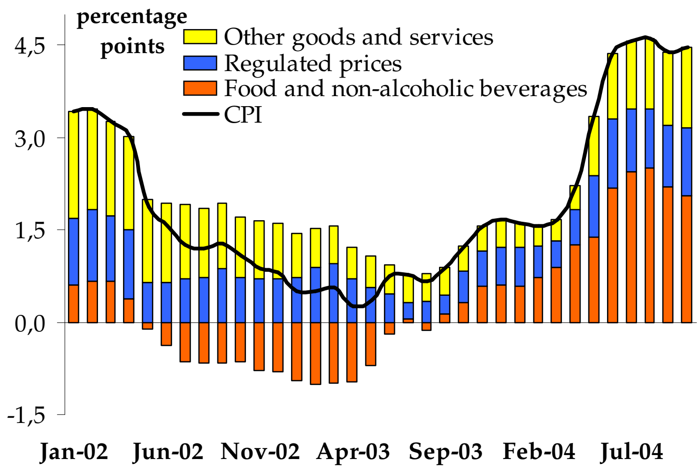


Figure 1.2: CPI breakdown in 2002-2004 (y/y changes, per cent)
Source: GUS data, NBP calculations.

eration in price growth observed in this group of goods and services was primarily caused by an increase in prices in education, restaurants and hotels.

The major factor leading to inflation growth in the group of regulated prices was the still continuing rise in fuel prices in the domestic market. Over the analysed period (August-October) their total growth amounted to 5.7%[3], which was primarily due to the hikes in crude oil prices in world markets (of 29.7%). Nevertheless, a factor mitigating the effects of growing oil prices on the domestic prices of fuels was the appreciation of the zloty against the US dollar, which has been recorded for many months.

[3]The annual growth rate of fuel prices amounted to 15.9% in September and 19.2% in October 2004.

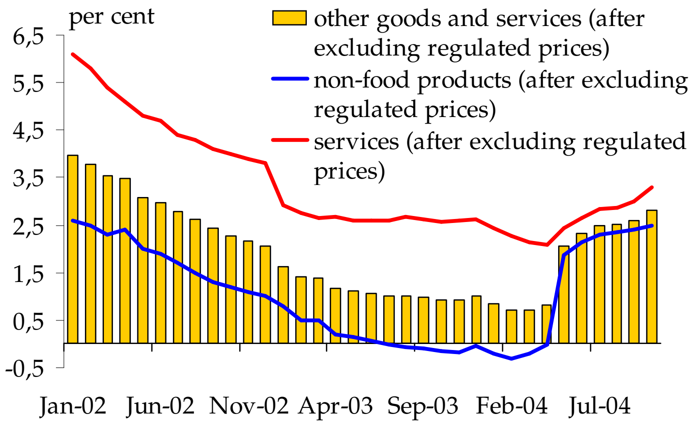


Figure 1.3: Prices of the remaining consumer goods and services in 2002-2004 (y/y changes, per cent)
Source: GUS data, NBP calculations.

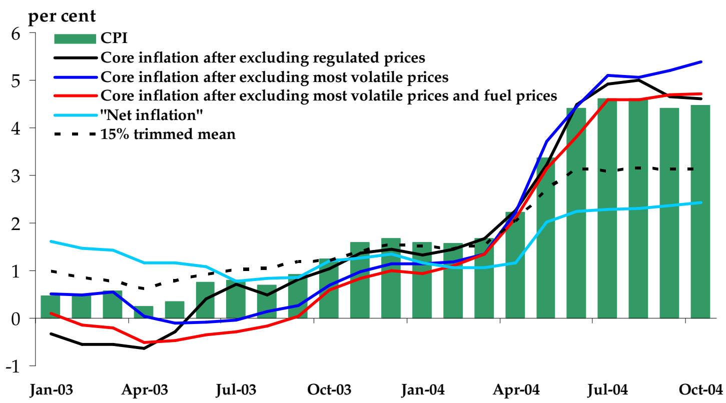


Figure 1.4: CPI and core inflation indices (y/y changes, per cent)
Source: GUS Data, NBP estimates.

Rising oil prices also result in increasing prices of oil-based energy carriers. In particular, this refers to the prices of gas, the total growth of which in August-October amounted to 2.7%. A stronger acceleration of gas prices may also occur next year in connection with the introduction of new grid gas tariffs (accepted by the Energy Regulatory Office – URE).

The price developments in August-October indicate that the price effects of Poland's EU accession, such as the effects of the customs union and indirect tax rises, are gradually wearing off. This is also reflected in core inflation indices. In the case of the 15% trimmed mean, which is characterized by less volatility, and the so-called ″net inflation″ the annual growth rates recorded were lower than current CPI dynamics (Table 1.1, Figure 1.4). The differential between the CPI inflation and the ″net inflation″

	y/y change in %										m/m change in %									
	2004																			
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	jan	feb	mar	apr	may	jun	jul	aug	sep	oct
CPI	**1.6**	**1.6**	**1.7**	**2.2**	**3.4**	**4.4**	**4.6**	**4.6**	**4.4**	**4.5**	**0.4**	**0.1**	**0.3**	**0.8**	**1,0**	**0.9**	**-0.1**	**-0.4**	**0.3**	**0.6**
Core inflation indices after excluding:																				
Regulated prices	1.3	1.5	1.7	2.3	3.2	4.5	4.9	5,0	4.6	4.6	0.3	0.1	0.3	0.9	1,0	1.2	-0.2	-0.6	0.2	0.6
Most volatile prices	1.1	1.2	1.3	2.2	3.7	4.5	5.1	5.1	5.2	5.4	0.1	0.1	0.2	0.7	1.1	0,0	0.8	0.2	0.3	0.8
Most volatile prices	0.9	1.1	1.3	2.1	3.2	3.8	4.6	4.6	4.7	4.7	0,0	0,0	0.1	0.7	0.9	0,0	0.9	0.1	0.2	0.7
Food and fuel prices (net inflation)	1.2	1.1	1.1	1.2	2,0	2.3	2.3	2.3	2.4	2.4	0.2	0,0	0.1	0.2	0.9	0.2	0.2	0.1	0.1	0.3
15% trimmed mean	1.5	1.5	1.5	2,0	2.7	3.2	3.1	3.2	3.1	3.1	0.2	0.1	0.2	0.2	0.4	0.2	0.2	0.1	0.2	0.2

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

is still significant, which attests to the persistently strong impact of food and fuel price growth on the annual growth rate of prices in general. Still, the deceleration in current inflation and the stabilisation of the differential between the CPI and the core ″net inflation″ point to the petering out of the influence of temporary factors associated with Poland′s EU accession on prices.

1.2 Inflation expectations

In the analysed period the inflation expectations of individuals remained above the upper tolerance limit for deviations from the NBP inflation target (Figure 1.5)[4]. The easing back of some factors contributing to inflation acceleration over the past few months was accompanied by a deceleration of inflation expectations and – in October and November – a fall in these expectations was recorded. As a result, in these months for the first time since September 2003, inflation expectations were lower than the current inflation rate known at the time of the survey. The decline in inflation expectations primarily resulted from the improvement of the structure of responses to the survey questions observed from May 2004[5] (Figure 1.6). The petering out of factors

[4]Inflation expectations of consumers and forecasts of bank analysts are not fully comparable because of different time horizons: bank analysts declare their forecasts for the month preceding the corresponding month of the following year, while consumers do so for the corresponding month of the following year. In addition, it should be taken into account that the inflation expectations of consumers are quantified on the assumption that the respondents perceive price movements against the background of official inflation statistics.

[5]The improvement in the sentiments of private individuals concerning the future price developments in July-October 2004 is manifested, inter alia, by a significant fall (of over 15 percentage points) in the percentage of the most pessimistic respondents, who expect that in the next 12 months prices will be rising faster than before.

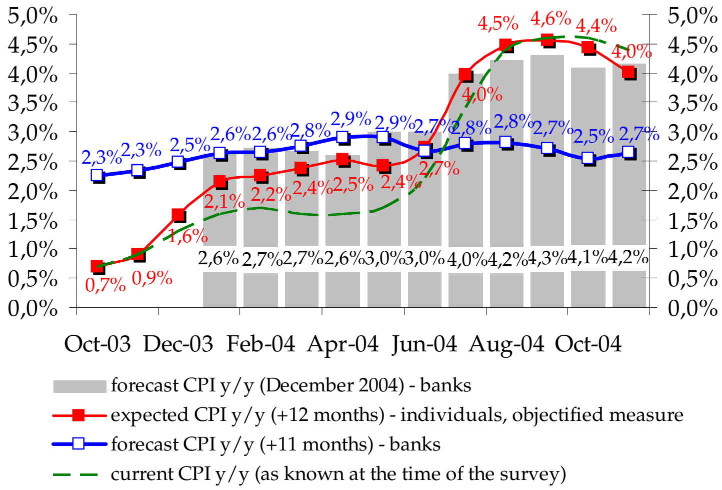
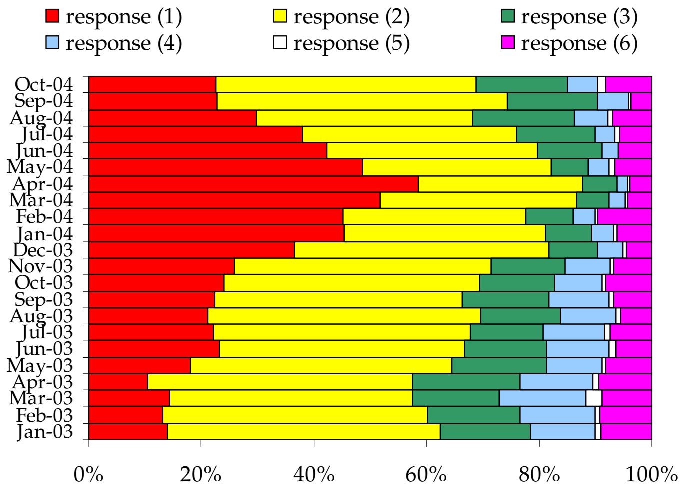


Figure 1.5: Inflation expectations of individuals and inflation forecasts of bank analysts between October 2003 and October 2004.
Source: Reuters data, NBP estimates on the basis of Ipsos data.



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?"

Figure 1.6: Responses to the question asked by Ipsos
Source: NBP calculations on the basis of Ipsos data.

leading to transient price growth in the first months of Poland's EU membership is also supported by GUS economic tendency survey (Figure 1.7).

In the period under review, the forecast of the annual inflation rate by bank analysts in 11 months' time was only slightly reduced and it now stays above the Monetary

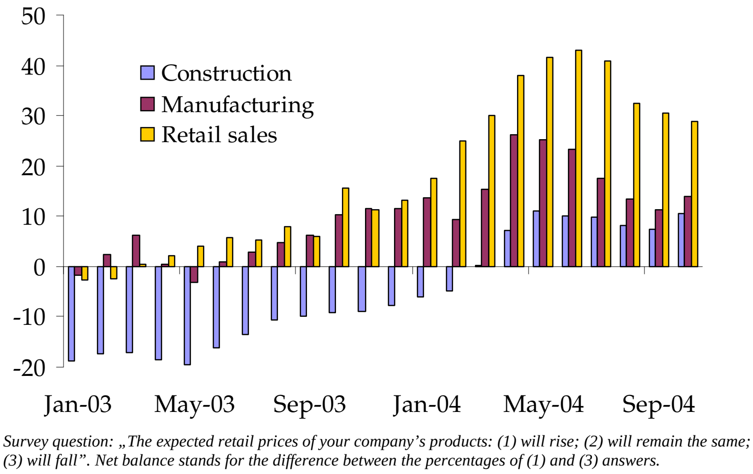


Figure 1.7: Forecasted price trend changes in construction, manufacturing and retail sales in the next three months – net balance
Source: GUS business conditions survey.

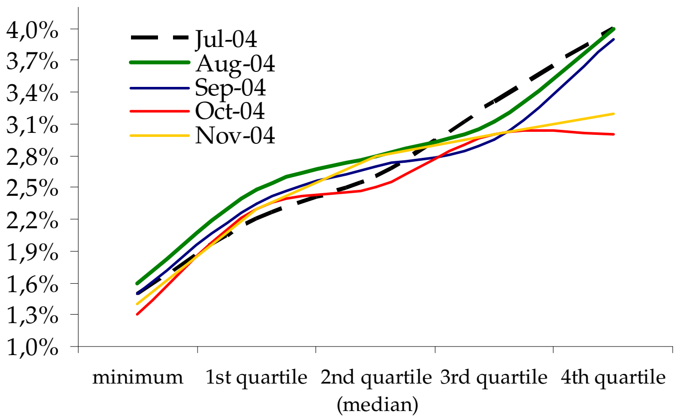


Figure 1.8: Distribution of bank analysts´ inflation forecasts of the annual inflation rate in 11 months
Source: NBP estimates on the basis of Reuters data.

Policy Council´s inflation target (Figure 1.5). At the same time the uncertainty around forecasts decreased, which is reflected in the diminished differential between the maximum and the minimum level of expected inflation (Figure 1.8).

It can be expected that over the horizon of the next few months the inflation expectations of consumers will be affected by three major factors. The first one will be the relatively high level of inflation, which according to forecasts will persist till the mid 2005. The second factor will be the, previously observed, tendency of inflation expectations to return quickly to the level of current inflation. It may point to an upward pressure on inflation expectations and cause them to increase somewhat above the level of 4% recorded in November. The third factor will be the possible further petering out of fears of price increases associated with Poland's EU accession, which may neutralise the above mentioned upward tendencies. As a result, it may be expected that the inflation expectations of consumers will most probably remain relatively stable in the near term, and a more pronounced decrease should only occur once the current price dynamics are diminished.

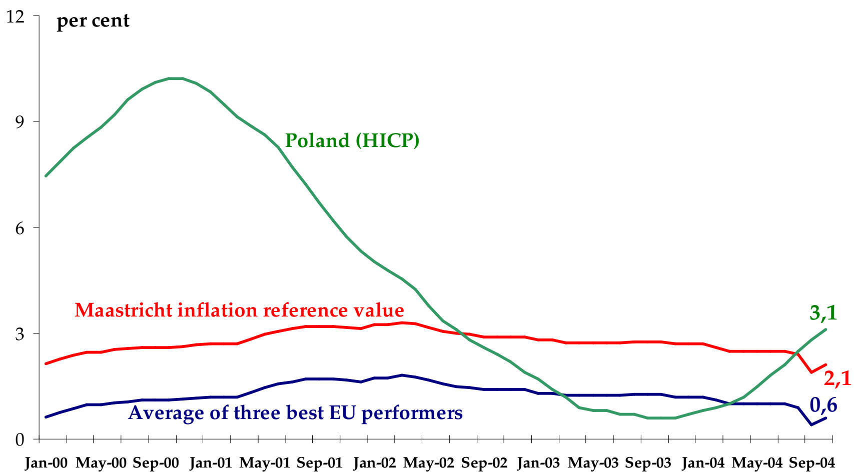


Figure 1.9: Inflation in Poland (HICP annual average) and the Maastricht criterion (y/y changes, per cent)
Source: Eurostat data, NBP.

1.3 Inflation and the Maastricht criterion

The acceleration of inflation in the period preceding Poland's accession to the European Union and then in the first months of its EU membership, as well as increased inflation later on, are all reflected in a steady rise in the average annual price growth rate as measured by the harmonised index of consumer prices - HICP[6](to 3.1% in October 2004). In consequence, in August 2004 Poland ceased to comply with the Maastricht criterion on price stability. The differential between the average annual inflation in Poland and the reference value[7] (Figure 1.9) was further enlarged by a decrease in average inflation in the group of reference countries, with the most significant drop in September 2004 (down to 1.9%)[8]

[6]The differences between CPI and HICP are discussed in: *Inflation Report*, August 2004.
[7]The notion of 'reference value' is discussed in: *Inflation Report*, August 2004.
[8]The foregoing estimates of reference value are consistent with the position taken by the European Commission as presented in the 2004 *Convergence Report*. However, in contrast to the European

Commission, the European Central Bank (ECB) does not condition its decision about the exclusion of a country from the group of three EU member states with the most stable prices on whether this country recorded deflation, but rather on whether its average annual inflation rate significantly diverges from the price growth rate recorded in other countries. The opinion on whether the situation of serious divergence exists or not is prepared in each individual case by the General Council of the ECB. Thus, although in August 2004 Lithuania, with 0.2% deflation, was not included in the group of reference countries and Finland with 0.4% inflation was, the level of 0.1% average annual inflation recorded in Lithuania in September does not automatically guarantee, in the ECB's opinion, that this country will already be taken into account while determining the reference value for the price stability criterion.

Determinants of inflation

2.1 Demand

According to the NBP's estimates, GDP growth rate in 2004 Q3 fell to somewhat below 5% y/y. It means a continuation of economic recovery, which started in 2003 Q3, but at a lower pace in comparison to the first half of 2004 (ca. 6.5%, y/y) which was affected by one-off factors related to Poland's EU accession. The weakening of the dynamics was mainly observed in domestic demand, mainly due to lower inventories growth. The higher-than-expected inventories growth in the first half of 2004 was associated with EU entry. In Q3 both exports and imports dynamics were slightly lower, resulting in contribution of net exports to GDP growth similar to that in the previous quarters.

As far as domestic demand is concerned, it is estimated that in 2000 Q3 the growth rate of gross fixed capital formation was higher than in 2004 Q2, but lower than expected by the NBP (slightly over 6,5% y/y). Along with the estimated significantly lower dynamics of inventories, this led to a deceleration of gross capital formation growth in 2004 Q3. Private consumption grew somewhat slower along with a sustained moderate growth of employment and nominal wages. Real value of wages decreased stronger than in the previous quarters by higher inflation. The growth of public consumption remained unchanged (ca. 2% y/y).

	2002q3	2002q4	2003q1	2003q2	2003q3	2003q4	2004q1	2004q2
GDP	1,1	0,7	0,4	1,5	1,3	1,5	2,4	0,4
Domestic demand	0,7	0,4	0,4	0,7	0,9	1,1	1,7	1,2
Total consumption	0,7	0,6	0,6	0,8	0,8	0,9	0,8	0,9
Private consumption	1,0	0,7	0,7	0,9	0,9	0,9	0,7	0,9
Public consumption	-0,3	0,5	-0,2	0,3	0,3	0,3	0,3	0,3
Gross capital formation	-0,3	0,4	-0,3	-0,8	2,2	2,9	6,1	2,3
Gross fixed capital formation	-1,2	0,5	-1,0	0,3	0,4	0,4	1,1	0,8

Table 2.2: GDP and aggregate demand components growth rates (q/q, per cent, seasonally adjusted[9]).
Source: GUS data.

[9]From this *Inflation Report* on, a lot of data will be presented as seasonally adjusted. Employing

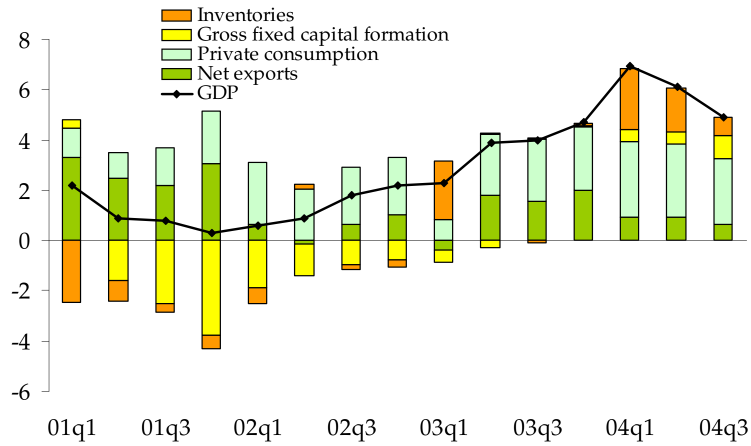


Figure 2.10: Contribution of aggregate demand components to GDP growth (per cent)
Source: GUS data, 2004 Q3 - NBP estimates.

It is assessed that the data for Q3 confirm that the economic expansion is sustained, as expected by the NBP. It is worth stressing that the investment recovery is gradual, yet its magnitude over the coming quarters is subject to large uncertainty.

2.1.1 Consumption demand

In 2004 Q3 there was a slight deceleration in the rate of growth of private consumption, which was in line with NBP expectations. This was primarily reflected in the lowering in sales dynamics in industries which had reported exceptionally good results before Poland's EU accession (i.e. until May 2004) as a result of the price rises expected after the accession. In 2004 Q3 retail sales of consumer durable goods (furniture, electronic and household equipment) was lower than a year before by 37.1%, while sales in the automobile industry grew by a mere 1.5% y/y (in Q1 and Q2 it grew by 24,6% and 12.9% y/y, respectively).

The weakening in the pace of consumption growth was affected by lower than in Q2 dynamics of the purchasing power of the gross disposable income of households. Even though in nominal terms the income growth was similar to that recorded in the previous quarters (ca. 6% y/y), in real terms it fell to 1.5% y/y due to the acceleration in the growth of consumer prices.

According to NBP estimates, the rise of income of private businesses and private

seasonally adjusted data in the analysis enables comparing values of given variables not only with the values from the corresponding period a year ago, but also values from subsequent periods. GDP data were seasonally adjusted by GUS. Other series presented in the *Report* were seasonally adjusted by the NBP, using TRAMO-SEATS (made popular by the Bank of Spain) and in some cases X.11 ARIMA or Census X.11 Multiplicative.

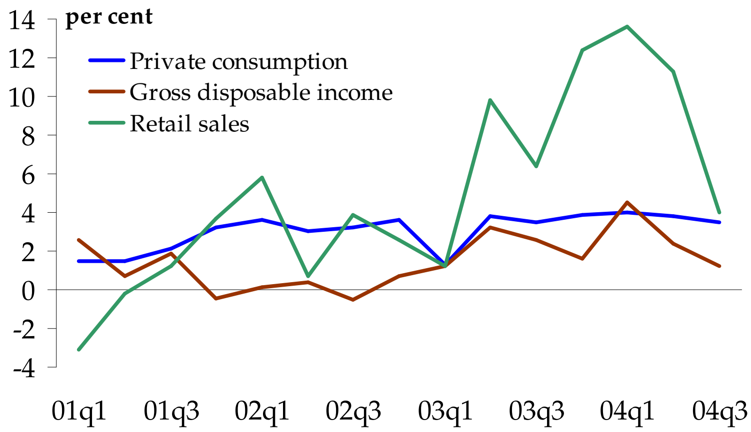


Figure 2.11: Growth of private consumption, gross disposable income and retail sales (y/y, percent, constant prices)
Source: GUS data, 2004 Q3 – NBP estimates.

	2003q4	2004q1	2004q2	2003q4	2004q1	2004q2
	q/q seasonally adjusted			y/y		
Employment in the economy	–0.5	0.0	0.0	–2.9	–1.3	–0.7
Average nominal wage	0.7	2.8	0.4	2.3	4.6	4.2
Average real wage	–0.1	2.9	–1.5	0.9	3.0	1.0
Payroll fund in the economy (in nominal terms)	0.5	2.7	0.7	1.3	4.4	4.5
Payroll fund in the economy (in real terms)	–0.4	2.7	–1.3	-0.2	2.8	1.2

Table 2.3: Growth of employment, average wage and payroll fund in the economy (per cent)
Source: GUS data, NBP calculations.

owners contributed to the growth in gross disposable income. In contrast, the increase in the income from paid employment and social transfers was slower than in Q1 and Q2. In the corporate sector, with a fall in average employment similar to that recorded in the previous quarter, the rise in average wage was lower. As a result of increased inflation real wages in the corporate sector were slightly lower than a year before. Similarly, the purchasing power of social benefit payments was lower than in 2003 Q3.

The simultaneous reduction in real gross disposable income of households and decelerated dynamics of private consumption indicates that the downward trend of gross household savings remained unchanged. Similarly to 2004 Q2, the savings were lower than a year before by about PLN 1 billion. What was changed, however, was the structure of savings. The growth of non-financial savings (i.a. devoted to house building financing), high in the previous two quarters, was diminished, while financial savings growth picked up.

2.1.2 Government demand

In July-September 2004 the central budget recorded further growth in deficit, which mainly resulted from higher growth of spending. At the end of September 2004 the central budget deficit reached 63.7% of the amount planned in the Budget Act, which was below values noted in the previous years.

Since August 2004 the situation in the state budget revenue has been gradually improving. The revenue from indirect taxes grew significantly as a result of two factors: the petering out of the "EU-effect" (i.e. the decline in revenues recorded after 1 May 2004 due to alterations in the way of revenue collection and clearing) and another, after the pre-accession one, increase in domestic demand. The revenue from corporate and individual income taxes also remained at a high level. In addition, since the accession the central budget has regularly, on a monthly basis, received support payments from the EU budget related to the special cash flow facility.

In 2004 Q3 the execution of central budget expenditure was accelerated. In comparable terms[10], it was 7.6% y/y higher in nominal terms in comparison to 5.1% y/y in Q2. At the same time, despite rising inflation, budget expenditure increased in real terms to approx. 3% y/y (from about 1.7% in Q2). The important item of budget spending is consumption expenditures, including current spending on, among others social benefits and wages (approx. 70%). During the analysed period there was a climb in Social Security Fund and the National Health Fund expenditure (of 10.4% y/y and 8.2% y/y in nominal terms, respectively), and probably a further increase in the expenditure of local governments[11]. The investment expenditure of the public finance sector during the period under review did not have any significant bearing on the increase in the domestic investment demand.

In the coming months of 2004 a further acceleration in the rate of public expenditure execution should be expected, leading to a faster, than in the previous months, deficit growth. This will be the result of an increase in investment spending, which was limited in first half of 2004, and committing domestic resources for projects co-financed from EU funds, and the implementation of direct payments to farmers, which started already in October 2004. There is no risk, however, that the general government deficit will exceed the amount planned for the current year.

The proposed draft of the 2005 Budget Act projects a reduction in the relation of central budget deficit to GDP of approx. 1.2 percentage points, which in combination with the assumed reduction in the budgets of other public sector entities will at best be just enough to halt the existing rising trend in general government deficit. What is more, the envisaged reduction in central budget deficit will not help to stabilise the ratio of public debt to GDP, either. It is expected that government expenditure in relation to GDP will decrease in 2005 by about 1.3 percentage points. However, the

[10]Central budget expenditure adjusted for budget subsidies to Social Security Fund as a compensation for the reduction of the social security contribution transferred to open pension funds.

[11]According to the reports on the execution of local governments' budget, these entities observed a nominal growth in their total spending of 4.2% y/y and 8.5 y/y in 2004 Q1 and Q2, respectively.

expenditure level will remain high and so unfavourable to long term economic growth. The share of mandatory and social expenditure in total public spending is persistently high, and its fall in 2005 should in principle be seen as a one-off effect. There is a considerable uncertainty as to the final shape of the 2005 budget due i.a. to the fact that its draft version has assumed the realization of the financial effects of laws from the *Program of public spending rationalization* which have not as yet been passed by the Parliament. The implementation of further consolidation measures is crucial for curbing the growth of public debt, for avoiding the breach of the constitutional debt limit and, above all, for the maintenance of a long-term and sustainable economic growth.

2.1.3 Investment demand

According to the NBP estimates, in 2004 Q3 growth of gross fixed capital formation was slightly below 7% y/y, which means acceleration in comparison to the first half of 2004, but by less than expected. According to GUS data for the first half of 2004, gross fixed capital formation rose by 3.3% y/y (0.8% q/q seasonally adjusted), i.e. less than in Q1 when the rise amounted to 3.5% y/y (1.1% q/q seasonally adjusted). In the GUS data on the first half of 2004 there is an apparent considerable discrepancy between growth of investment outlays in enterprises employing 50 and more people, which in real terms amounted to 8.7% y/y, and the corresponding dynamics for the economy at large. A slower growth in investment outlays in the economy at large in comparison to the corporate sector (enterprises employing 50 and more people) means that the investment climate in other sectors was worse than that in enterprises. According to NBP assessments this situation has changed in the second half of 2004. The investment climate and investment financing opportunities in other institutional sectors have been improved (thanks to, inter alia, EU funds). The favourable conditions for investment in the corporate sector have been continued. Rising investment financing opportunities together with a very high level of production capacity utilisation, which limits the possibilities of meeting the demand without supply-side adjustments (without investment), are conducive to further investment recovery (Figure 2.12).

Nevertheless, there still persists a significant uncertainty as to the current and future investment dynamics. In the light of NBP business survey the percentage of companies planning to embark on new investments has decreased for the second consecutive quarter. The largest share of new investors in the enterprises surveyed by the NBP was recorded in Q1 2004 (forecast for Q2). The declaration of new investment activity for 2004 Q4 is little different from the one a year ago. The shrinking share of new investors may be attributed to the present investment involvement initiated in the past, yet it may also point to deterioration in investment sentiment of enterprises, which is reflected in the signalled by the GUS business survey uncertainty about the economic situation in manufacturing (it covers about 50% of respondents). The balance of risks concerning investment indicates that the rise in investment activity of enterprises may be lower at present than it is expected.

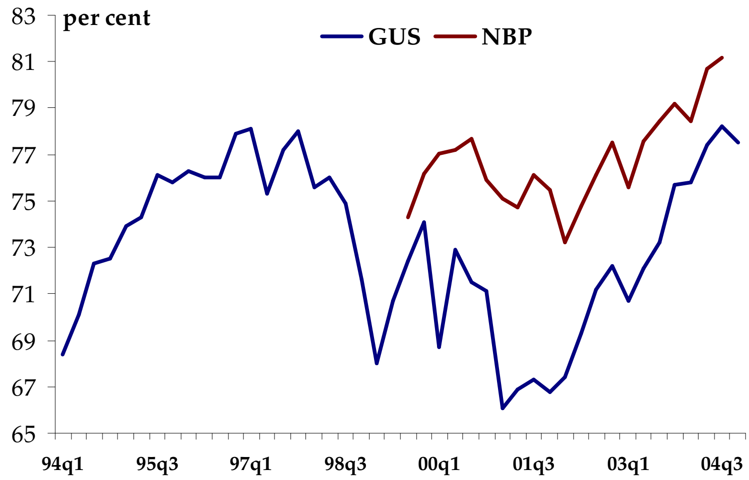


Figure 2.12: Production capacity utilisation in industry (GUS) and in the corporate sector (NBP) (per cent)
Production capacity utilisation obtained from the GUS business survey is markedly lower than that indicated by NBP business survey. The difference is due to the fact that the two surveys are based on different enterprise samples. The GUS sample includes ca. 2500 enterprises and covers only three sections of industry. The NBP sample, in turn, includes ca. 640 enterprises (in September 2004) from the whole corporate sector. The difference may also reflect the over-representation of big enterprises in the NBP sample, while the GUS sample is representative with respect to enterprise size.
Source: GUS data, NBP business survey.

Inventories

According to the data from GUS (F-01 forms), in 2004 Q2 total inventories of enterprises grew by (in current prices) 14% y/y (9.2% y/y in 2004 Q1), which is the highest dynamics since 2000. The main factor behind this growth was a high growth of materials (19.4%) and commodities (16.2%). There was only an slight increase in inventories of final products (3.2%) and unfinished production (5.9%), which was accompanied by a considerable acceleration of sales revenues (from 11.4% y/y in 2003 Q2 to 19.2% y/y in 2004 Q2). In consequence, in 2004 Q2 the ratio of final products and unfinished production to sales shrank over twelve months by 1.3 percentage points to 9.3%. Thus, inventories rose primarily due to a higher demand for commodities and materials, and not to excessive production. This may support the thesis that inventories increased over this period owing to the observed economic recovery, strengthened in the first half of 2004 by the EU accession effect.

2.1.4 External demand and current account of the balance of payments

In January-August 2004 the improvement in the current account balance was continued. In the first eight months of 2004 the current account deficit amounted to EUR bln 1.75 (according to preliminary estimates), while in the corresponding period of 2003 it stood at EUR bln 3.37. In January-August 2004 the current account balance was pushed up by the decrease in the negative trade balance and also by the rise in the surplus in services and transfers. On the other hand, a deepening of the negative balance on income acted towards the increase in the current account deficit (Figure 2.13).

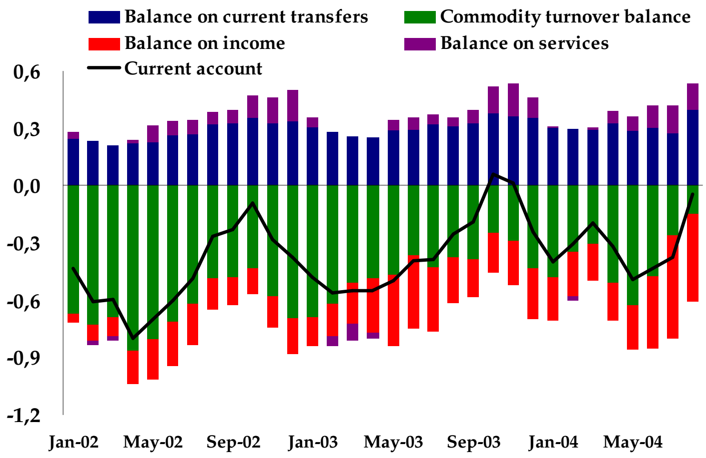


Figure 2.13: Current account balance – monthly data (three-month moving average, EUR mln)
Source: NBP data.

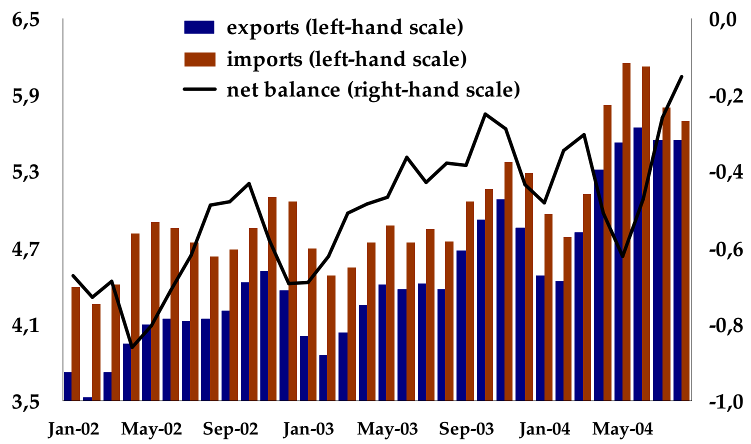


Figure 2.14: Polish foreign trade – monthly data (three-month moving average, EUR mln)
Source: NBP data.

The improvement in trade balance resulted from the fact that exports growth rate still outweighed import growth rate. In January-August 2004 the value of exports rose by 23.5% (y/y), while the value of imports grew by 19.0 %, which confirms significant acceleration in the growth of trade in comparison to the previous year (in January-August

	Total imports (y/y change in %)	Polish exports (y/y change in %)	Share in Polish exports (in %)
	I-VIII	I-VIII	I-VIII
1. Germany	6.1	15.1	31.0
2. Italy	6.5	38.6	6.2
3. France	7.0	21.5	6.2
4. G. Britain	7.6	31.0	5.3
5. Netherlands	7.5	18.1	4.5

Table 2.4: Changes of imports value of Poland's main trading partners (five countries to which Poland's exports are largest) and Poland's exports to these countries (in EUR)
Source: I column - Eurostat data, II, III columns - GUS data.

2003, the value of exports rose by 6.8% and the value of imports – by merely 1.6%)[12].

In May-August 2004 the dynamics of Polish exports saw significant acceleration[13]. It is difficult to say at present to what extent it was due to Poland's EU accession, especially when it was exports to the third countries (i.e. non-EU countries) that saw the biggest boost. There was a substantial rise of exports to Central and Eastern European countries[14]. Also, exports to developing countries and non-EU developed countries have been growing faster. In contrast, a slight weakening in exports dynamics was recorded in sales to EU countries. This weakening, however, might have been the result of a rise in Polish exports to the EU in the period preceding Poland's EU membership, which had been brought about by temporary problems to exporters anticipated in connection with changes in the rules in Polish foreign trade introduced after 1 May 2004. Nevertheless, the maintenance of a high 20% growth in sales to the EU (which in January-August 2004 constituted 80.6% of total Poland's exports) remains the main factor driving Polish exports expansion.

High exports dynamics is supported by economic developments of Poland's main trade partners. In Germany, foreign trade is one of the major factors behind GDP growth - a surge in German exports has been accompanied by a significant rise in imports[15]. There was also sizeable acceleration in euro-zone imports[16]. As a result, Polish exports to the euro-zone saw a substantial increase in 2004. In the first eight months

[12]Both NBP and GUS data point to high dynamics of the Polish foreign trade. However, the recent changes in the system of Polish foreign trade statistics, introduced after Poland's EU accession, make the analysis and assessment of the developments in exports and imports observed in 2004 extremely difficult (cf. Inflation Report, August 2004). At the current stage of the new system's implementation, the published data should be approached with great caution and treated as preliminary since they are subject to major adjustments in the subsequent months.

[13]GUS data indicate that in May-August 2004 the value of exports rose by 23% y/y (while in January-April – by 21%). In turn, the value of imports grew by 16% in this period, against 19% in the first four months of 2004.

[14]i.e. to Russia, Ukraine, Romania, Belarus, Bulgaria, Moldova and Albania. Out of these countries, Polish sales to Russia have been growing most dynamically.

[15]German import dynamics increased in each consecutive quarter of 2004: while in Q1 imports grew by 1.9% only, in Q2 they accelerated to 7.7% and in July-August they grew by as much as 13.5%.

[16]In January-August 2004 the value of euro-zone imports rose by 6.4% y/y with only 1% rise in January-

	2003q1	2003q2	2003q3	2003q4	2004q1	2004q2	2004q3
Export prices / Unit labour costs*							
y/y	13.1	18.6	11.1	20.8	25.6	33.1	lack of data
q/q	-1.8	9.4	5.3	6.8	2.1	15.9	lack of data
Import prices / Producer prices							
y/y	8.5	8.8	3.8	4.0	4.8	-1.1	lack of data
q/q	2.7	2.1	-0.1	-0.7	3.5	-3.6	lack of data
REER ULC							
y/y	-15.0	-19.5	-11.9	-23.2	-23.3	-18.4	-5.8**
q/q	1.0	-10.5	-6.4	-9.2	0.9	-4.7	8.1**

* 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.

** estimated on the basis of GUS quarterly data

"–" (negative value) stands for depreciation

Table 2.5: Polish export and import competitiveness measures (change in per cent))
Source: Own estimates based on NBP, EC and GUS data.

Warning indicator	2003q1	2003q2	2003q3	2003q4	2004q1	2004q2
Current account balance / GDP*	–2.7%	–2.4%	–2.4%	–2.2%	–1.7%	–1.7%
Trade balance / GDP*	–3.6%	–3.2%	–3.1%	–2.7%	–2.4%	–2.6%
Direct investment / current account deficit	78.1%	52.8%	104.2%	137.0%	142.7%	77.7%
(Current account balance plus direct investment) / GDP	–0.8%	–1.2%	0.1%	0.5%	0.6%	–0.6%
Foreign debt service /revenue from export of goods and services	29.9%	35.7%	24.9%	31.9%	28.9%	
Foreign reserves expressed in terms of monthly import of good and services	5.4	5.1	4.8	4.4	5.2	4.4

*calculated yearly

Table 2.6: Selected warning indicators
Source: GUS data, NBP data, NBP calculations.

of 2004 euro-zone countries´ imports from Poland rose by 13.6% y/y. The same data indicate that in 2004 Poland has achieved the fastest growth in exports out of all EU member countries and one of the highest levels of imports growth.

As regards the composition of traded goods, in May-August 2004 unprocessed products contributed to Polish exports dynamics to a greater degree than in the first four months of 2004. This was the result of two factors: acceleration in exports of agricultural products, including a robust climb in food exports (the effect of Poland´s EU accession was the most significant in this group of products) and a strong increase in exports of mineral products (due to rise in coal prices). In contrast, the exports dynamics in processed products decreased, which was most visible in machines and transport equipment.

April 2004 (Eurostat, 22nd Nov 2004).

A factor contributing to the improvement in trade balance was the observed increase in prices of raw materials. Even though rises in crude oil and natural gas prices puffed up the value of Polish imports, rises in copper and coal prices helped to raise the value of exports, which ultimately had a positive bearing on the trade balance[17]. The trade balance was also improved thanks to the relatively strong competitive position of Polish enterprises against their main trade partners (Table 2.4). This advantageous situation was supported by labour productivity growth in Poland still running higher than wage growth and also by still relatively favourable, despite recent appreciation, exchange rate level[18]. It should be expected, however, that the strengthening in the zloty in Q3 will lead to a weakening of the competitive position of exporters and an improvement in the price competitiveness of importers. According to the latest NBP business survey, exchange rate has recently become the problem that enterprises most frequently report as a barrier to their development. The PLN/EUR exchange rate as forecasted by enterprises has approached the minimum level ensuring exports profitability, though it still remains over this value[19].

In May-August 2004 the import dynamics was markedly lower than in the first four months of 2004. This may have been caused by lowering dynamics in domestic production on the one hand, and a weakening in consumption demand on the other (which is also attested to by a weakening in the growth rate of retail sales). The largest impact on the weakening of import growth was exerted by a decrease in the dynamics of imports from EU countries after Poland's EU entry, which (just as it was the case with exports) resulted from the previous acceleration of imports connected with the accession (especially in March and April 2004). Similarly to exports, the acceleration in imports applied to unprocessed products. On the one hand, it was brought about by the elimination of customs duties and other barriers in the import of agricultural products from EU countries, and on the other, by a hike in crude oil prices. In contrast, the growth rate of the import of processed products diminished.

In 2004 Q2 the growing deficit in the current account was accompanied by improving structure of its financing. Larger inflow of foreign capital in the form of direct investments (EUR bln 1.0 in comparison to 0.6 billion in 2003 Q2) financed the current account deficit in approx. 78% (in comparison to approx. 53% in 2003 Q2).

In 2004 Q2 only one out of six warning indicators chosen for the assessment of external imbalance (Table 2.6) maintained its level from the previous quarter. The remaining five, despite some deterioration, remain at a safe levels.

[17] According to GUS data, in January-August 2004 increased prices of exported commodities – copper and coal – induced an improvement of trade balance by PLN bln 2.661, while increased prices of imported commodities – crude oil and gas – induced a worsening of the trade balance by PLN bln 1.770. Overall, increased prices of the above mentioned commodities resulted in an improvement of the trade balance by PLN mln 891.

[18] See also section 2.5.2 *Exchange rate*.

[19] The minimum level of exchange rate ensuring exports profitability is meant here as the median of PLN/EUR exchange rate distribution, that is declared by the surveyed enterprises as the exchange rate at which exports become unprofitable. In the last NBP business survey it amounted to 4.15 PLN/EUR, while it was 4.20 PLN/EUR in the previous one.

2.2 Output

On the basis of preliminary data it can be estimated that the value added in 2004 Q3 exceeded its level from a year ago by approx. 4.5%. Just like in 2003 and in the first half of 2004, the rise in the value added was mainly generated by the industrial and market services sectors.

The growth rate of output in industrial enterprises declined to 9.2% y/y in Q3, while in Q1 these companies increased their sales by 19.0% y/y and in Q2 - by 16.4% y/y. The annual growth dynamics of industrial production are still determined by manufacturing enterprises representing industries with a large share of export sales, which in the second half of 2003 started production from investments they had made before. However, the rise in production in these industries has been gradually decreasing (from over 20% y/y in the first half of 2004 down to 10% y/y in Q3, and in automobile industry from over 70% y/y to 46% y/y), which, with a now relatively steady level of production, results from the increasingly higher output in the corresponding period of the previous year (base effect). In October 2004 industrial output was 3.3% higher than a year ago. Adjusting for seasonal factors its annual rate of growth amounted to 8%. As October dynamics of industrial production remain within the forecasted range, it may be expected that in Q4 the annual growth rate of output in industrial enterprises will be about 7%. GUS economic tendency surveys indicate that the overall economic climate in manufacturing remains at the level highest in many years, even if recently it has recorded a slight deterioration.

It can be assumed that in Q3 the upward trends in market services were continued, however the growth rate of the value added in the sector was lower. After retail sales had soared by over 10% y/y in 2004 Q1 and Q2 due to increased purchases of goods whose prices had been expected to rise after Poland's EU entry, in Q3 retail sales were 4% higher than a year before. An annual growth rate of over 10% was still recorded in the turnover of wholesalers and in telecommunication services. The service sales growth in transport enterprises decelerated from 8% y/y in the first half of 2004 to 4% y/y in Q3.

Data from enterprises with over 9 employees point to a continuation in the decline in construction and assembly output in 2004 Q3. Similarly to the first half of 2004 the sales of investment-type construction work decreased, while the renovation work was higher than a year before. Still, according to GUS business tendency surveys the overall economic climate in construction is improving. October was the third consecutive month, in which the construction and assembly output was higher than a year ago (4.1%). As compared to the corresponding period of the previous year, in January-September 2004 in the construction and assembly output there was an increase in the share of building construction (including residential buildings from 15.0% to 15.4%, non-residential buildings from 31.7% to 32.6%, of which industrial buildings and warehouses rose from 9.7% to 11.7%), and a decrease in the share of civil engineering works (of which road works fell from 20.7% to 18.7%).

2.3 Labour market

2.3.1 Employment and unemployment

Contrary to previous expectations data from the period up to October 2004 still do not indicate that the positive tendencies in the labour market are sustainable. On the one hand the number of unemployed has evidently started to decrease and, on the other hand, the increase in the number of employed has slowed down.

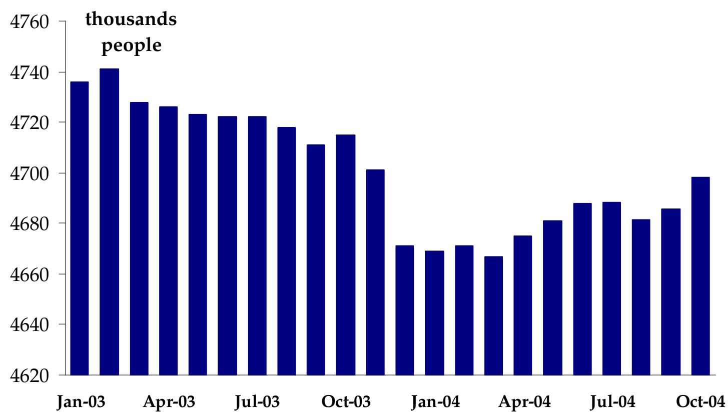


Figure 2.15: Employment in the corporate sector
Source: GUS data.

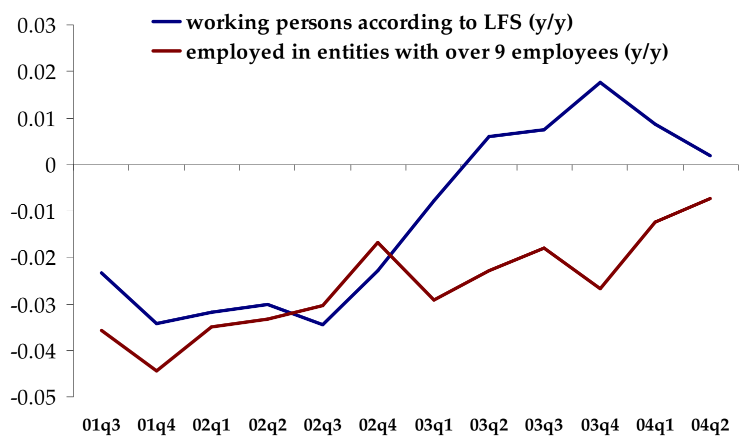


Figure 2.16: Number of working persons (y/y changes) according to LFS data and data submitted by entities with over 9 employees
Source: GUS data.

Despite a small rise in 2004 Q2, subsequent data do not point to any significant rise in employment in the corporate sector, apart from industries related to exports (Fig-

	Number of working persons in 2004 Q2 (thousands):	2004 Q1 (y/y)	2004 Q2 (y/y)	2004 Q1 (q/q seasonally adjusted*)	2004 Q2 (q/q seasonally adjusted*)
Total	13,682	0.90%	0.2%	-0.1%	-0.1%
Place of residence					
urban areas	8,420	0.2%	-0.5%	0.6%	0.6%
rural areas	5,262	2.1%	1.3%	0.1%	-0.5%
Economic sector					
agriculture	2,409	-3.0%	-3.1%	-1.2%	-0.3%
industry	3,973	2.1%	1.9%	1.3%	1.1%
services	7,300	1.5%	1.3%	0.5%	-0.6%
Ownership sector					
public	4,224	-3.7%	-4.5%	-1.3%	-1.5%
private (excluding farms)	7,205	5.1%	3.9%	1.0%	1.0%
private (farms)	2,253	-2.6%	-1.9%	-5.6%	-0.1%
Employment status					
hired employees	10,056	1.9%	0.7%	1.7%	-0.1%
employers and self-employed	2,892	-3.3%	-2.2%	-3.1%	0.5%
contributing family workers	734	3.9%	1.0%	-4.6%	-5.0%
Type of job contract					
fixed-term contract	7,788	-2.0%	-3.7%	0.5%	-1.3%
permanent contract	2,268	20.6%	20.1%	-0.3%	7.7%

*Seasonally adjusted with TRAMO/SEATS

Table 2.7: Working population according to LFS in selected sections
Source: LFS data, NBP calculations.

ure 2.15). In October 2004 the average employment in the corporate sector was 0.4% lower than a year before. Observations from the last few years indicate that bigger movements in the employment in the corporate sector usually occur in December and January. For that reason, probably only the data for the turn of 2004 and 2005 will allow more accurate assessment of employment trends in this sector.

The latest available LFS[20] data demonstrate that the rise in the working population observed in 2004 Q1 was halted in the following quarter. The number of people employed in entities with over 9 employees levelled off as well (Figure 2.16).

According to LFS, the weakening in growth or the further decrease in the number of working persons in most cases occurred irrespective of the place of residence (urban and rural areas), economic sector, ownership sector or the type of contract (Table 2.7), which is an indication that the labour market has not seen sustainable improvement yet.

[20]Last available LFS (Labour Force Survey) data refer to 2004 Q2

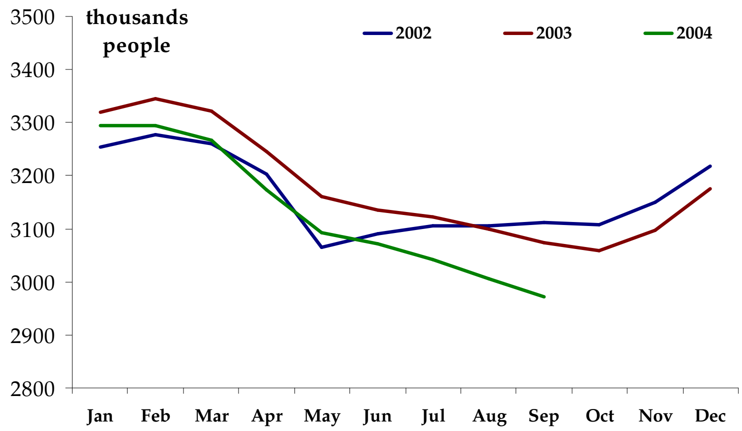


Figure 2.17: Number of registered unemployed in subsequent months of 2002, 2003 and 2004 according to labour office data (in thousands of persons)
Source: GUS data.

NBP business survey[21] indicates that the short-term outlook for employment growth in enterprises is better than a year before. Although, in contrast to the situation in the previous quarter, in 2004 Q4 more enterprises intend to reduce employment than to raise it, this is probably a result of seasonal factors. The only rise in the percentage of enterprises intending to raise employment that has been reported since the last quarter was in the group of enterprises which expect a sustainable increase in demand. What is more, the group where an increase in employment was declared more often than a reduction was the group of exporters. Considering the foregoing factors and the fact that in the same NBP survey the percentage of surveyed enterprises reporting low demand as the barrier to their development went up, and also in view of the fact that the role of exports as a factor of economic growth will be gradually diminishing, the outlook for employment growth is subject to considerable uncertainty.

At the end of September 2004 the official unemployment rate (according to labour offices´ registers) amounted to 18.9%, and the number of unemployed fell below 3 million for the first time in three years (Figure 2.17). However, both the labour office and LFS data indicate that the reduction in the number of unemployed and unemployment rate in the summer months was bigger than the usual seasonal decline in the period. According to labour office data, the percentage of people who cancelled their unemployment registration because they started working remains at the level from a year before (49.6%), which means that the decrease in unemployment rate does not result, in any significant extent, from rising employment. The majority of job-seekers were still the long-term unemployed (53.3% of all unemployed). Additionally, the percentage of unfilled vacancies is growing, which attests to the mismatch between the supply and the demand in the labour market.

[21]˝Preliminary information on the condition of the corporate sector with special regard to the general economic situation in 2004 Q4˝, NBP.

The fall in unemployment was accompanied by a decline in economic activity of the population. This means that some of the unemployed tend to leave the labour market rather than seek new employment.

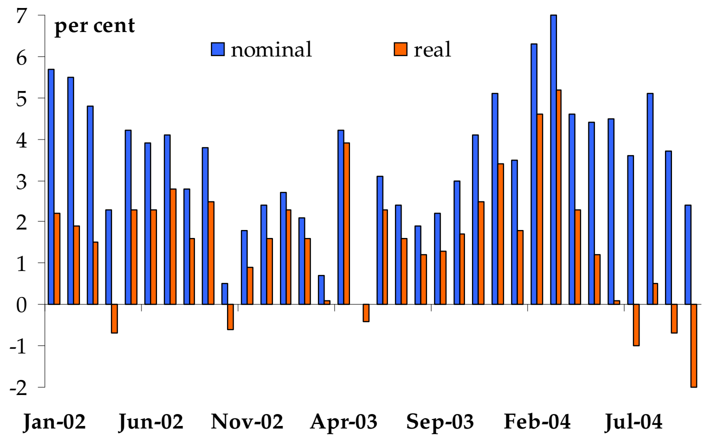


Figure 2.18: Average wage in the corporate sector (y/y changes, per cent)
Source: GUS data.

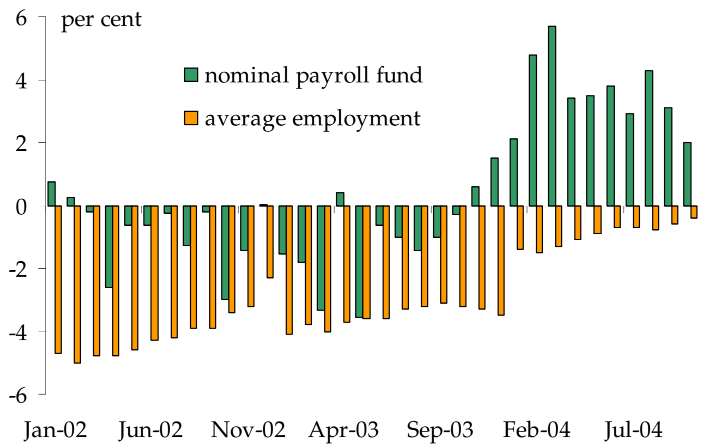


Figure 2.19: Payroll fund and employment in the corporate sector (y/y changes, per cent)
Source: GUS data.

2.3.2 Wages and productivity

During the analysed period the dynamics of the average wage in the corporate sector remained at a low level. In October 2004 a decrease in real wages was observed (of 2.0% y/y). The situation in the payroll fund of this sector was similar. In consequence, no second-round effects of the surge in inflation expectations have so far been observed

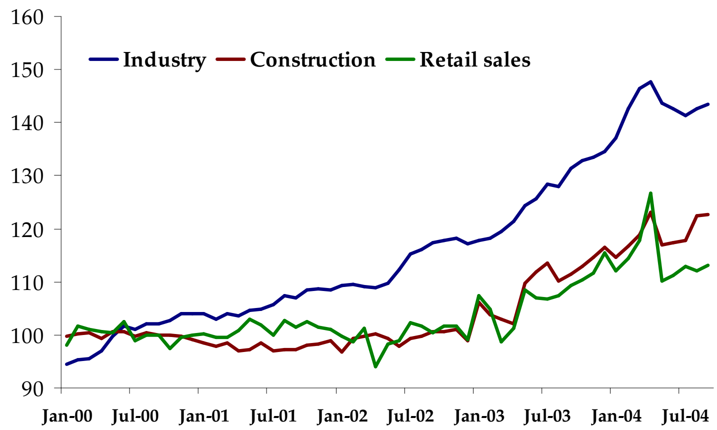


Figure 2.20: Labour productivity in selected sections of the corporate sector (2000 average = 100)
Source: GUS data, NBP calculations.

in the labour market. However, a comprehensive assessment of the extent to which the rise in inflation expectations translated into wages will only be possible after the publication of data on wages and payroll fund in the whole economy in 2004 Q3 and Q4 (currently available data on the dynamics of wages and payroll fund in the economy only cover the first two quarters of 2004).

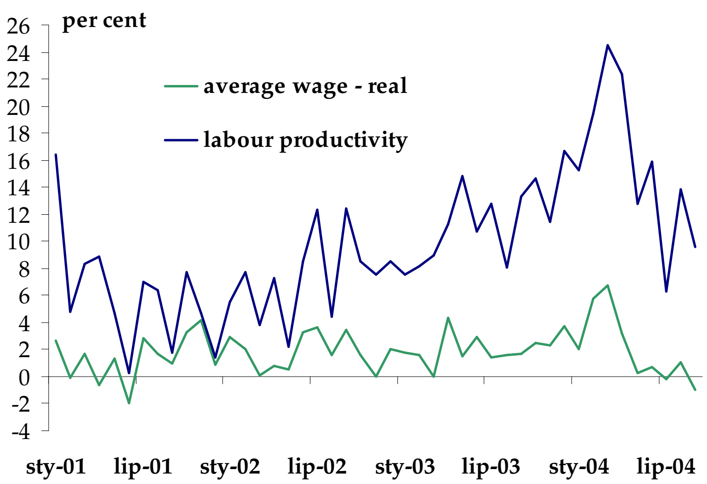


Figure 2.21: Labour productivity and average wages in industry (y/y changes, per cent)
Source: GUS data, NBP calculations.

The good financial situation of enterprises accompanied by the fast growing labour productivity may lead to higher wage demands in the future. Still, large unemployment and difficult situation in the labour market are factors curbing wage pressures

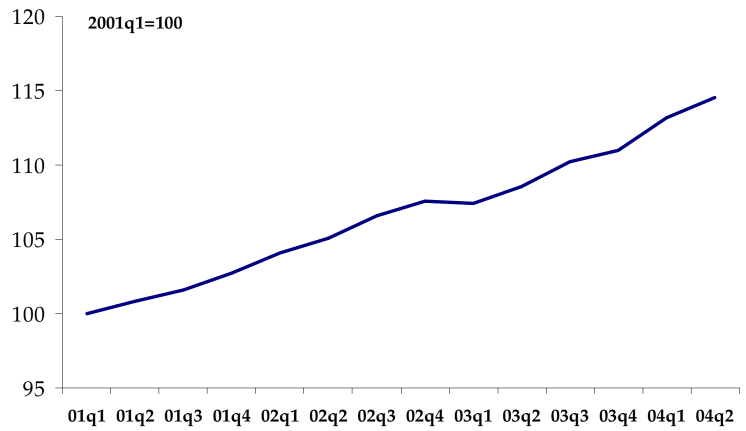


Figure 2.22: Labour productivity in the economy - measured as GDP (in 2002 constant prices - seasonally adjusted) per working person (according to LFS - seasonally adjusted)
Source: GUS data, NBP calculations.

in enterprises. NBP business surveys indicate that in 8.6% of all surveyed enterprises the pressure on wage rises has already increased[22]. At the same time, the majority of enterprises (54.4%) did not report any wage pressure. Moreover, as much as 82.8% of the surveyed enterprises do not intend to introduce any pay rises till the end of 2004.

The assessment of the future wage dynamics and the resultant inflationary pressure is hampered by considerable uncertainty concerning the situation in the labour market and particularly by difficulties in estimating the natural rate of unemployment and the potential influence of inflation expectations on wage growth.

2.4 Other costs and prices

2.4.1 External prices

In 2004 Q3 further price increase in international commodity markets was observed. In the case of metals the upward trend is mainly the result of a considerably higher demand for copper in comparison to its supply[23], which causes a steady decline in stocks.

Starting from 2004 Q3 there was a significant acceleration in crude oil prices growth. In October oil prices reached, in nominal terms, their highest level in international

[22]It was the first time that data on wage pressures were included in the NBP business survey, so the conclusions drawn from them should be treated with due caution.

[23]Supply of copper was additionally diminished due to strikes in the sector in countries which are largest copper producers.

markets in history[24]. Strong price increase primarily derives from a much higher than expected increase in world demand for oil, which is reflected in the fact that the International Energy Agency has already adjusted its forecasts[25] many times this year. Due to the high demand, stocks of oil both in the USA[26] and in the other industrialised countries remain well below their multi-year average. In addition, in the autumn months a significant upward pressure on prices has been exercised by low stocks of heating oil, whose level normally tends to build up with the approach of winter due to increased demand for this fuel.

The current year is quite extraordinary indeed from the perspective of potential oil supply disruptions. High political risk in important oil-producing regions (Iraq, Nigeria and Venezuela), coupled with unclear situation around the largest Russian concern Yukos, affects the producers of over 10% of total world oil supply. Oil price hikes driven by more psychological than market reasons created a situation where the oil market has become an attractive domain for arbitrage funds. It is estimated that their speculative operations led to price growth of over USD 10. In the future, however, the impact of speculation on crude oil prices is expected to weaken.

In the first half of November there was a sizeable drop in oil prices (of over USD 10 a barrel in full). The main reason for this fall was a rise in crude oil stocks in the USA. It is still hard to estimate if this drop is only temporary or will prove a more permanent trend. Research of leading analytical institution point to the persistence of large uncertainty in the oil market, which is mainly due to the low level of stocks of oil-based products, particularly heating fuel, and potentially higher than usual demand for these products in winter. Thus, it can be expected that oil prices will stay at high levels till the end of 2004. Lowering stocks of oil and oil-based products will undoubtedly act toward their prices´ growth. In contrast, in 2005 demand factors[27] should be conductive to oil prices declines. Nevertheless, the large uncertainty surrounding political situation in major oil-producing regions, low levels of stocks and low production capacity surpluses all sustain the large risk of oil prices staying high.

It has to be added that the hike in oil prices in October 2004 translated into the acceleration of inflation in major economies in the world[28].

[24]On 26 October 2004 the price of crude oil in London exchange (IPE) climbed to almost USD 52 per barrel, and in New York exchange (NYMEX) a barrel of WTI oil cost USD 56.

[25]Since January 2004 the forecast for world demand has been raised by the total of 2.8 million barrels a day, of which 1.3 million b/d resulted from adjusting the estimates of 2003 demand and 1.5 million b/d from expectations for 2004.

[26]The level of US crude oil stocks was declining from late July till mid-September 2004 for eight consecutive weeks (by a total of 30.9 million barrels, i.e. by over 10%).

[27]IEA estimates that the demand for oil will decrease by 1.5 mln b/d, that is to the level nearly half lower than in the current year, due to lowered growth forecasts of the world economy.

[28]In US economy the CPI for October 2004 rose to 3.2% from 2.5% in September, and the euro-zone HICP for the same period increased from 2.1% to 2.4%. The impact of high oil prices on euro-zone inflation was mitigated by the euro appreciation against the US dollar.

	2003q4	2004q1	2004q2	2004q3	jul2004	aug2004	sep2004	oct2004
Total	**13.4**	**13.1**	**36.2**	**38.2**	**34.4**	**37.2**	**43.1**	**45.5**
Non-energy raw materials	**16.4**	**25.4**	**25.5**	**20.5**	**24.6**	**20.0**	**16.9**	**12.2**
Food	3.7	18.4	25.3	9.0	19.4	7.1	0.5	-5.6
Industrial raw materials	23.4	29.1	25.6	25.8	27.0	25.9	24.6	20,4
agricultural	23.6	17.3	11.0	10.2	11.6	10.6	8.3	1.2
metals (non-ferrous)	24.8	39.8	41.4	37.4	40.0	35.2	36.9	35.1
Energy raw materials	**12.0**	**7.6**	**42.0**	**47.2**	**39.1**	**45.4**	**57.0**	**62.9**
Crude oil	10.8	3.0	35.2	42.2	32.1	40.6	53.9	61.5

Table 2.8: World prices of main raw materials´ groups in USD (y/y change in %)
Source: HWWA - Hamburg Institute of International Economics.

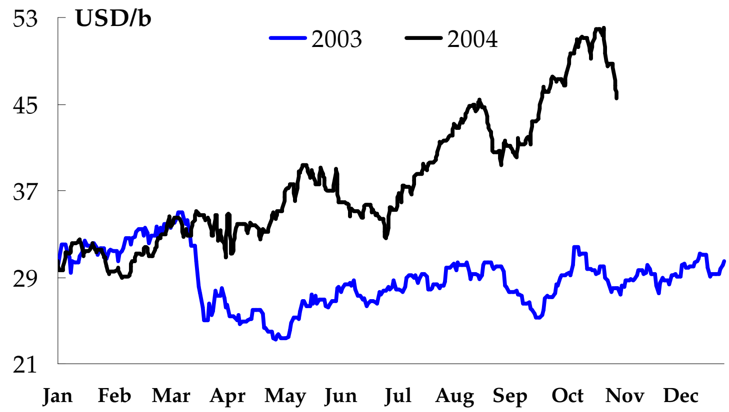


Figure 2.23: Brent crude oil prices in 2003-2004 (USD/barrel)
Source: Bloomberg data.

2.4.2 Producer prices

In line with the NBP's expectations the dynamics of producer prices in industry (measured with PPI) has been steadily lowering since May when it reached its highest level since 1997 (9.6% y/y - Figure 2.25). This tendency should also continue in the months to come. Yet, due to another wave of unexpected hikes in raw materials´ prices (crude oil and copper) the level of the producer price index will be dropping more slowly and in December 2004 y/y it is expected to amount to over 6%.

The growth in producer prices in industry still resulted to a large extent from the cost effects brought about by a rise in industrial raw materials, including non-ferrous metals and crude oil. The growth in PPI was significantly lower in industrial sectors which are less dependent on raw materials´ prices, and in some (such as motor vehicles production, electronics and tobacco products) even some year-on-year price drops were observed in August 2004. The situation in world markets of commodities and raw materials contributed to the growth of euro-zone producer prices, as well (Figure 2.24). In the United States, however, and also in Poland, a drop in the annual inflation of producer prices has been observed since May 2004.

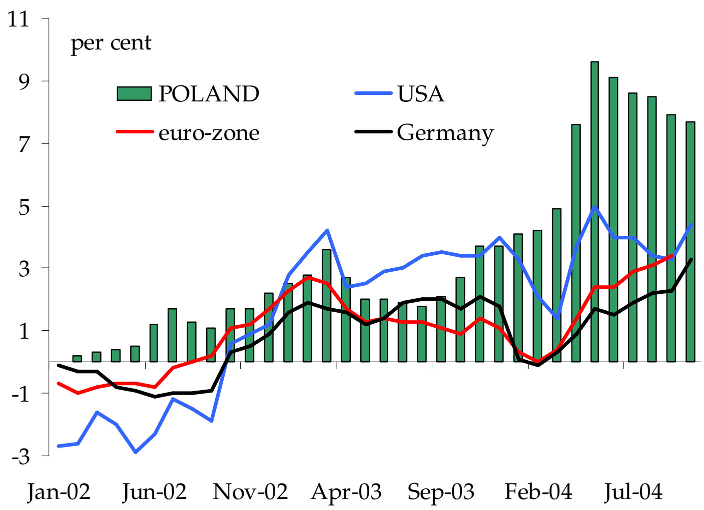


Figure 2.24: PPI in Germany, euro-zone, USA and Poland
Source: Bloomberg Data, GUS Data.

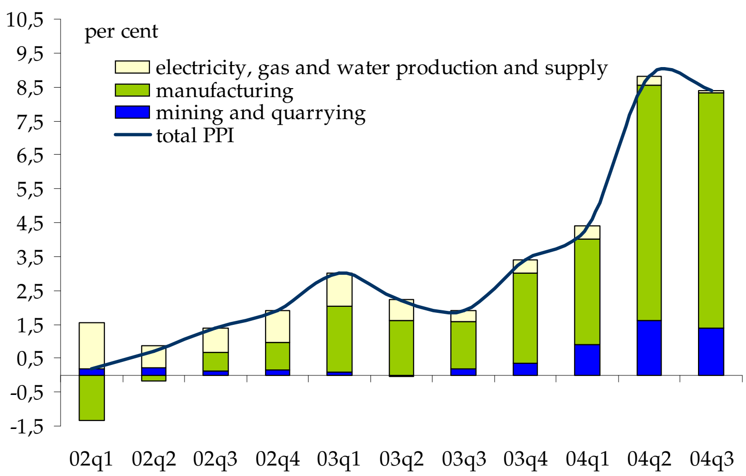


Figure 2.25: Contribution of producer prices in industry sectors in PPI total growth (y/y changes, per cent)
Source: GUS Data

Similarly to the first half of 2004, the PPI level in Poland in the analysed period was strongly affected by price shifts in manufacturing (due to this section's weight in the index), especially in *coke production and crude oil refining* (in August 50.8% y/y) as well as in *metal production* (33.7% y/y). Due to a large contribution of the food industry in total industrial output the price growth in *food production* (of 9.4% w August 2004) was still very important. Also, a significant impact on the PPI level was exerted by the price growth in mining and quarrying (Figure 2.25). A lack of producer prise rises in section *electricity, gas and water production and supply*[29] in July 2004 resulted in a drop in PPI to 1.0% in September in year-on-year terms. This situation should be sustained till the introduction of new tariffs scheduled for the early 2005.

The analysis in the PPI branch structure as well as the estimate of producer prices in the domestic market indicate that the appreciation of the zloty observed since April 2004 was putting a break on the growth of export prices. On the other hand, producer prices mainly resulted from the growth in domestic prices (Figure 2.26). In view of a high and incremental level of capacity utilisation there is a growing risk of cost effects passing through into rises in consumer prices.

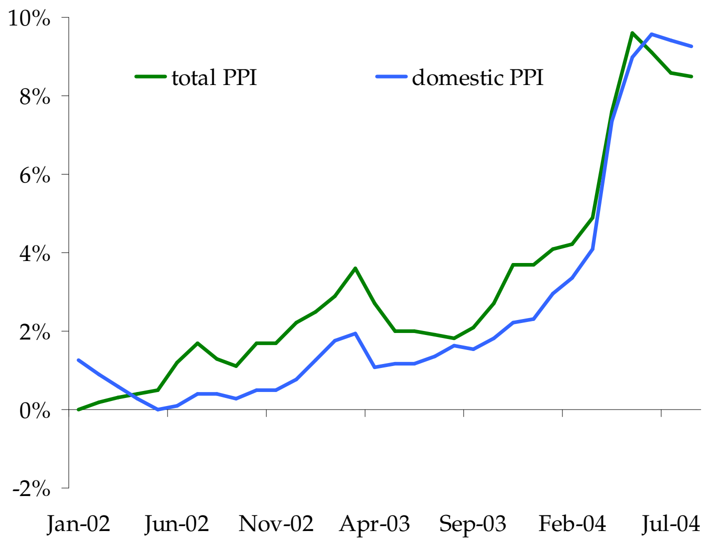


Figure 2.26: PPI in industry and PPI in domestic market
Source: GUS Data, Eurostat Data

[29]Prices it in electricity, gas and water production and supply are administered to a large extent, e.g. by the Energy Regulatory Office

2.5 Financial markets

2.5.1 Asset prices / Interest rates

Short-term interest rates[30]

The Monetary Policy Council, after increasing NBP key rates by 0.5 percentage point in August, maintained the reference rate at an unchanged level of 6.50%.

The MPC's decisions in August and September led to NBP rates being set at a level higher and lower, respectively, than expected by market participants in these months. This was reflected in increased volatility of rates on money market instruments (interbank deposits as well as WIBOR 3M forward contracts). The MPC decision taken at the end of October, i.e. maintaining NBP rates at their current level – a move expected by analysts – did not affect money market instruments.

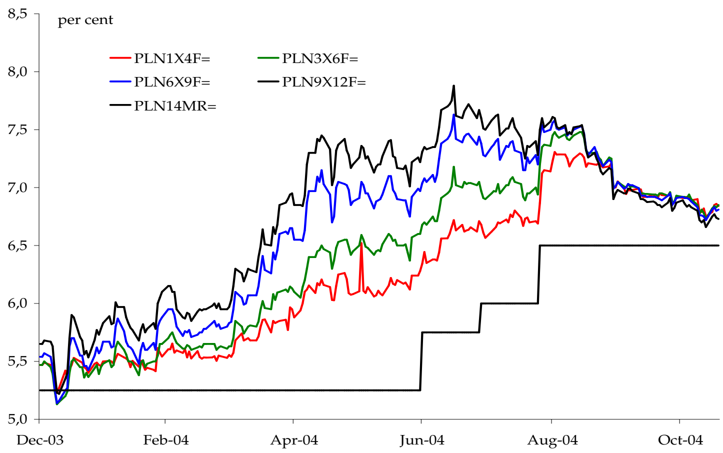


Figure 2.27: NBP reference rate and interest on FRA contracts for 3M WIBOR
Source: Reuters data.

Following the August increases and publication of inflation projection, the upward trend for short-term interest rates has reached its 2004 maximum (Figures 2.27, 2.28). In line with expectations, the August slowdown in inflation as well as other factors signalling the lessening of inflationary pressure, led to a drop in interest on money market instruments in September. The MPC decision to maintain NBP interest rates at an unchanged level contributed to its further decrease.

Further information related to current CPI as well as inflation expectations pointed to a gradual alleviation of factors which had led to the acceleration in inflation during the initial period of Poland's membership in the EU. This was reflected in further reductions of money market rates. The October MPC's decision to maintain the NBP reference rate at 6.5% did not surprise the market.

[30]The data presented in this chapter refers to the period from 14 August 2004 to 18 November 2004.

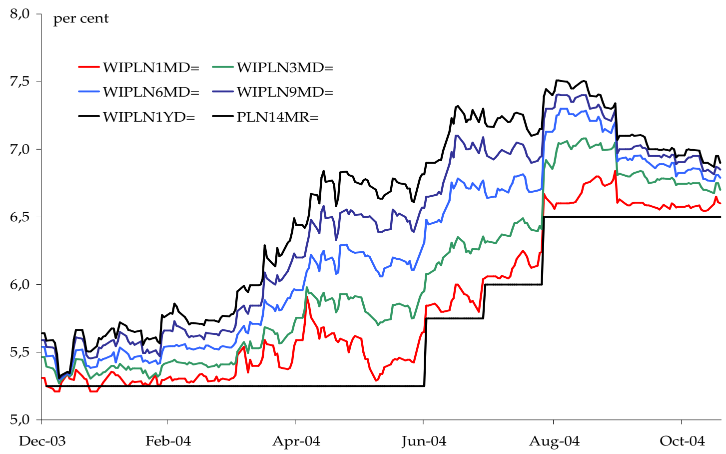


Figure 2.28: NBP reference rate and interest on interbank deposits
Source: Reuters data.

Only after the publication of inflation figures for October, which exceeded market expectations, did the declining tendency for FRA rates reversed leading to their increase by an average of 10 bp. Despite this, WIBOR 3M forward rates having the shortest settlement dates (FRA 1x4) remain relatively low, which indicates that the market expects an increase in NBP interest rates of 25 bp. in 2004.

The shape of the forward curve (based on 3M WIBOR FRA contracts - Figure 2.29) indicates both a decline in market expectations of subsequent rises in NBP rates and signals that the first reductions in interest rates are expected as soon as at the turn of 2005 and 2006. A November poll held by Reuters shows that 41% of the respondents expected a 25 bp. increase in NBP rates this year. About 41% of the surveyed analysts also expected further rises in NBP interest rates over the next year, with NBP rates predicted to exceed 6.75% (maximum of 7.5%). Still, money market participants do not estimate the subsequent interest rate increases in 2005 to exceed the level of 6.75%.

Trends in international financial markets

Since the Open Market Committee started to tighten the US monetary policy at its June meeting, the FED interest rate has been raised by a total of 100 bp. to the current level of 2.0%. Even though the latest macroeconomic data point to good outlook for the American economy, some anxiety persists among investors as to the negative impact high oil prices may have on economic growth.

According a poll conducted by Reuters just after the FED's decision in November, about 60% of the respondents expect interest rates to go up for the fifth time in December 2004, whereas 70% expect a subsequent increase in February 2005. The majority of respondents predict interest rates to reach a level of 3-3.5% by the end of 2005. These estimates are in line with expectations derived from FED rate futures contracts where the level of 3-3.5% is expected over a one-year horizon. A November survey conducted

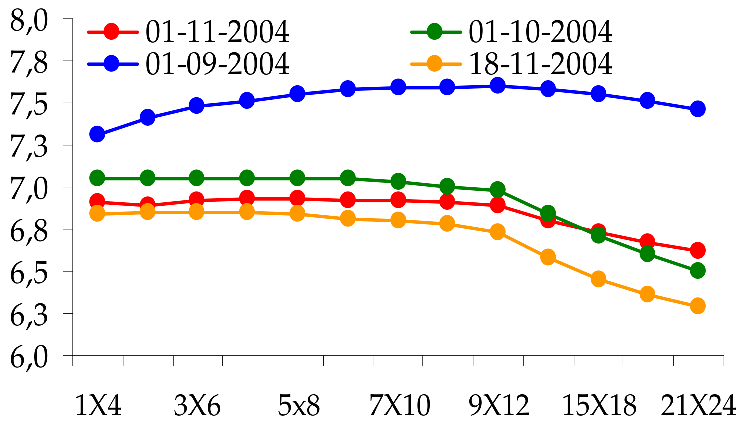


Figure 2.29: Three-month forward curves
Source: Reuters data.

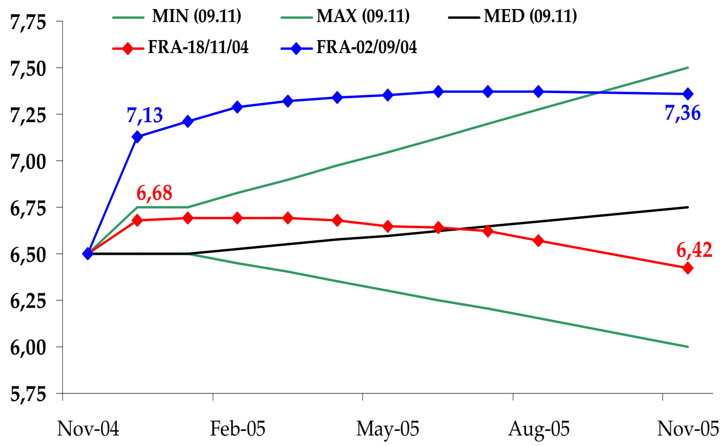


Figure 2.30: Expected changes in NBP reference rate on the basis of FRA contracts and Reuters survey of 9 Nov 2004
Source: Reuters data, NBP estimates.

by Reuters among institutional investors showed that the "neutral" rate for the US was estimated at 3%[31] (Figure 2.31).

In the period covered by the analysis, interest rates at the European Central Bank remained at a historically low and unchanged level of 2%. However, recent comments made by ECB representatives indicate that monetary policy will most likely be tightened during the first quarter of 2005. Almost all (95%) of the respondents to a Reuters poll conducted on 27 October expect that interest rates will remain at their current level until the end of 2004 and will be raised to 2.5% over a one-year horizon. These

[31] Based on Reuters survey of 10 November 2004.

forecasts find confirmation in market expectations as measured on the basis of interest rate forward contracts (EONIA swaps) (Figure 2.32). The November survey conducted by Reuters among institutional investors showed that the "neutral" rate in the euro zone is estimated at 2.8%. The majority of the respondents estimate that interest rates will remain unchanged in the upcoming 6 months.

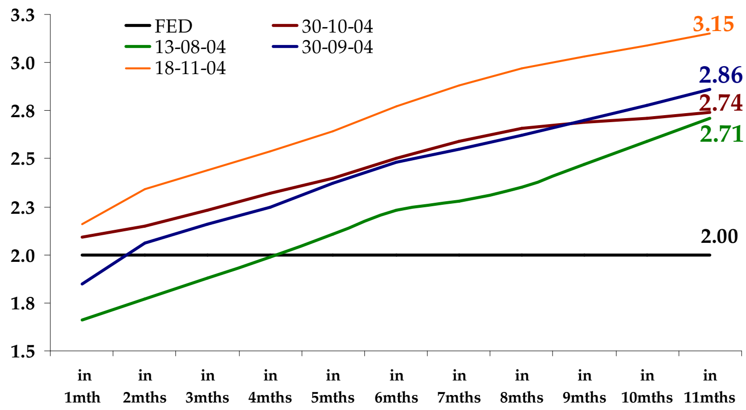


Figure 2.31: Expectations on the FED interest rate changes (on the basis of Fed Funds Futures)
Source: Bloomberg data.

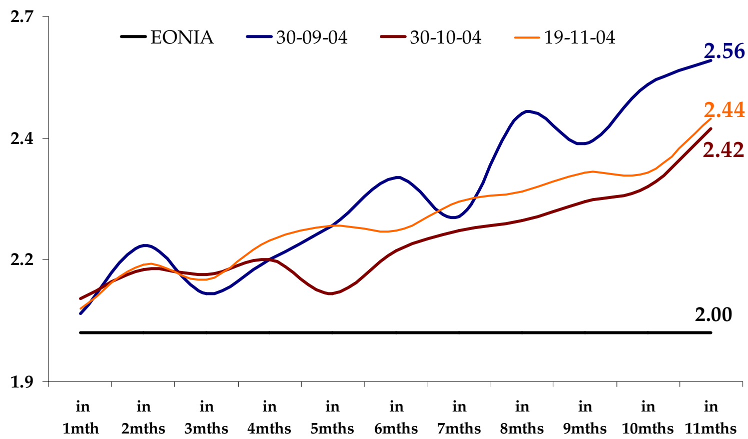


Figure 2.32: Expectations on the ECB interest rate changes (on the basis of EONIA swaps - overnight index swaps)
Source: Bloomberg data.

Long-term interest rates[32]

Changing assessment related to inflationary risk and associated expectations regarding future NBP interest rates were the main factor influencing the price of treasury bonds over the analysed period.

A decrease in the yield on Polish T-bonds has been recorded since mid-July (Figure 2.33). An increase in prices of 2-year bonds was related to, i.a., changed expectations regarding the future NBP interest rates. A short-term reversal of this trend took place following the August interest rate rise and the publication of inflation projection. However, later data as well as NBP comments and decisions confirmed a weakening in inflation threats, which resulted in a downward trend in the expected NBP rates and – in consequence – in the yields on two-year treasury bonds. In turn, the drop in yields on bonds of longer maturity pointed to a lessening of expected inflation pressure in the medium term as well. The October inflation figures, higher than expected by analysts, led to a temporary growth in yields across the yield curve. The drop in prices lasted until the auction for 5-year bonds was conducted with very good results (investor demand amounted to PLN 10.1 billion) thus contributing to the end of the two-day correction in the bonds market.

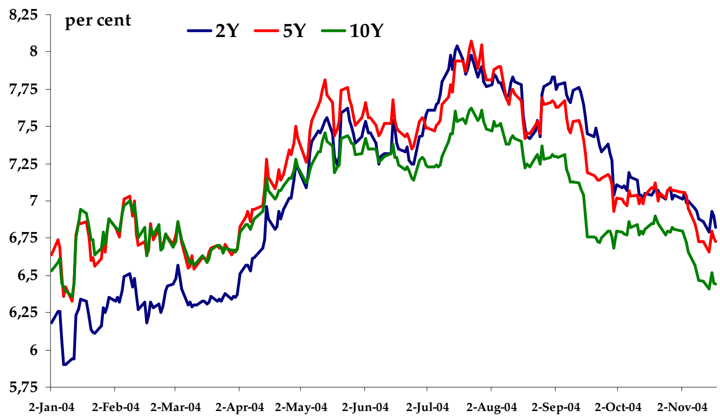


Figure 2.33: Change in the yields of the benchmark bonds
Source: NBP data.

A drop in political risk premium (due to the Parliament passing of parts of the Public Expenditure Reform And Reduction Programme, a vote of confidence for the government of Prime Minister Belka) as well as signals from rating agencies indicating the possibility of increasing the rating for Poland's debt should be noted as other factors having an influence on T-bonds valuation. The opinion of the rating agencies was justified by an improvement in the current and anticipated situation in public finances. On 8 October, Standard's&Poors increased its rating outlook for Poland from "negative" to "stable" and maintained its rating on debt both in foreign and domestic

[32]The data presented in this chapter refers to the period from 14 August 2004 to 18 November 2004 and do not take into account the MPC decision dated 25 November 2004.

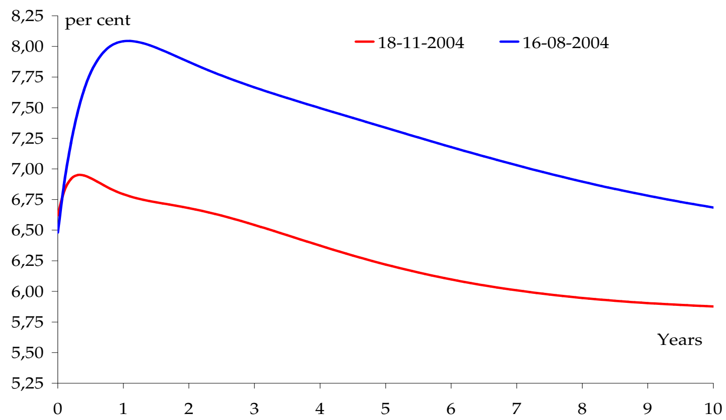


Figure 2.34: Three-month interest rate curves on the basis of Forward contracts
Source: Bloomberg data.

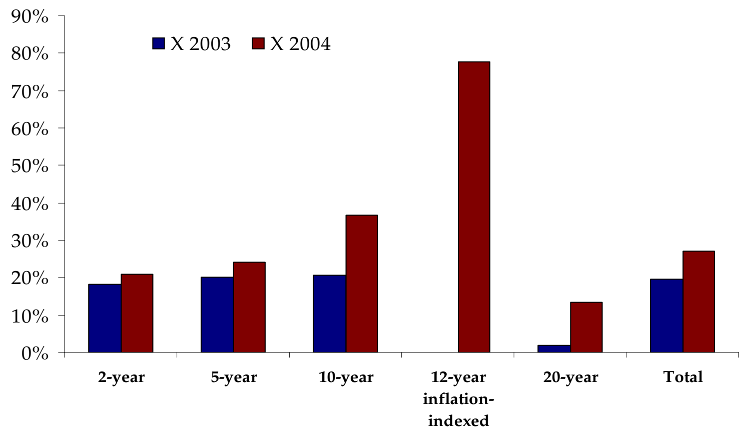


Figure 2.35: Non-residents´ involvement in Polish treasury securities market
Source: NBP data.

currencies. However, the announcement of the decision by S&P itself did not have a direct impact on the valuation of T-bonds, since it was based on information which had been accounted for in the price of assets earlier.

The drop in the risk premium as well as lower inflation expectations were reflected in a shift of the 3-month forward interest curve in both the short and the long term (Figure 2.34).

The lowered risk as well as the relatively high yield on treasury securities resulted in a continuation of the growing involvement of foreign investors in this segment of the market by non-residents, which reached its historical maximum in October 2004 (Figure 2.35).

2.5.2 Exchange rate

In the analysed period the appreciation trend of the Polish currency, observed from the first quarter of 2004, was sustained. The CPI-deflated real effective exchange rate (REER CPI) over the period February - October 2004 increased by 13.9% to reach the level recorded two years earlier (Figure 2.36). However, taking into consideration the significantly higher dynamics of labour productivity compared to wages, the real zloty exchange rated deflated by unit labour costs points to a continuation of the relatively high competitiveness of Polish exporters[33].

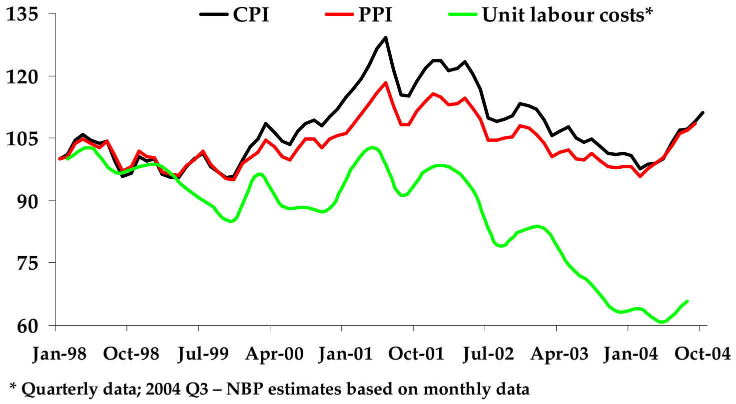


Figure 2.36: Zloty real efective exchange rate
Source: NBP data.

A number of factors had an impact on the appreciation of the Polish zloty, including such positive tendencies as a safe level of the current account, low unit labour costs dynamics and a strong economic growth. The increase in interest rates and the resultant enhanced attractiveness of zloty-denominated assets as well as positive information on the situation in the public finance sector also contributed to the strengthening of the Polish currency. The drop in the associated risk premium was reflected, i.a., in S&P increasing its rating outlook for Poland from ″negative″ to ″stable″. The high utilisation of EU funds may also have contributed to strengthening the zloty during the period under consideration. However, since the funds were exchanged into zloty in NBP and not in the foreign currency market, their inflow did not have a direct impact on the strengthening of the Polish currency (through an increased supply of foreign currency and increased demand for the zloty). On the other hand, the inflow of EU funds and the relatively high level of utilisation of the available amount indicate a large development potential of the Polish economy and point to improving outlook for the current account. These factors help strengthen the fundamental premises of zloty appreciation.

[33]For information regarding the impact of zloty appreciation on the competitiveness of Polish importers and exporters see Chapter 2.1.4: *External demand and the current account.*

Decisions related to execution of public finance reforms as well as changes in current and expected NBP interest rates will have the strongest influence on the zloty exchange rate in the near future. In the medium-term, a high level of expected direct foreign investments, in particular greenfield projects, as well as the net inflow of funds from the European Union should contribute to zloty appreciation. In the long-term, the appreciation of the Polish zloty should be supported by faster economic growth in Poland than in main trading partner countries.

2.5.3 Credit and money

Money supply

Up until September the growth in money supply, measured as M3, remained at a moderate level (Figure 2.37). This was accompanied by stagnation in loans to enterprises and the growth rate in claims on households staying at about 15%.

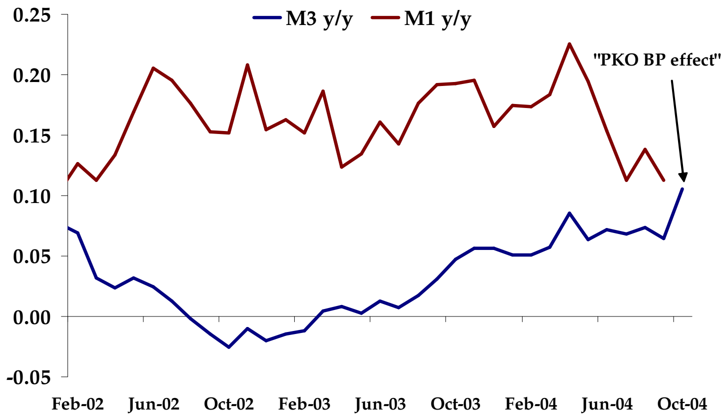


Figure 2.37: M1 and M3 monetary aggregates - nominal annual growth rates
Source: NBP data. October data on the basis of early information - may be subject to adjustment.

A sharp increase in money supply in October resulted from a wide interest in the shares of both the bank PKO BP and the publishing house *Wydawnictwa Szkolne i Pedagogiczne (WSiP)*. This demand was financed through a record-high growth in household loans. The majority of these funds were allocated in brokerage offices, which in turn transferred them to the banking sector resulting in an increase in deposits of non-monetary financial institutions.

In the period under review the value of the individual components of the money supply was "underestimated" due to the appreciation of the zloty observed over this period[34].

[34]The strengthening of the zloty results in a drop in the value of the foreign currency M3 components converted into zloty. The estimates of the impact of changes in exchange rates on the money supply are based on 7 currencies – the Euro, US Dollar, Swiss Franc, Danish Krone, Swedish Krona, Pound Sterling

	As of 30 Sep 2004	q/q change		y/y change (in relation to the corresponding period of the previous year)	
	billions zloty		%	billions zloty.	%
1. NOTES AND COIN IN CIRCULATION (OUTSIDE BANKS)	50.2	–0.3	–0.6	1.6	3.2
2. Deposits and other current liabilities	118.6	0.4	0.3	15.5	15.0
II. M1 (1+2)	168.8	0.1	0.0	17.1	11.3
3. Deposits and other liabilities with agreed maturity of up to 2 years, and blocked deposits	177.9	1.6	0.9	2.8	1.6
4. Deposits redeemable at notice of up to 3 months	0.0	0.0	–13.9	0.0	–43.7
5. Repurchase agreements	3.2	0.5	18.1	3.2	.
6.Debt securities issued with maturity of up to 2 years	2.3	0.1	7.0	–1.7	–42.3
III. M3 (1+2+3+4+5+6)	**352.2**	**2.3**	**0.6**	**21.4**	**6.5**

Table 2.9: Money supply
Source: NBP data.

Corporate sector

The ongoing economic recovery is still not reflected in loans to enterprises. The increase in corporate liabilties to banks by about PLN 2 billion in nominal terms over the last three months[35] may, however, indicate a gradual improvement in this sector. Nevertheless, the annual growth rate of this aggregate continues to be negative. In addition, results from NBP surveys[36] point to a deceleration in the upward trend in demand for loans in the banking sector recorded over the previous quarters. According to banks, this is due to the fact that companies use alternative sources of financing, mainly their own resources. This is the result of the extremely good financial results being recorded by companies, in particular exporters. NBP surveys[37] show that in Q3 corporate own recourses covered more than a half of the total current expenditures incurred by companies, whereas bank loans amounted to merely 16%. The importance of financing from own resources was even higher in investments underway, covering about 3/4 of total expenditure, bank loans financed only 14% of these outlays.

The period under consideration saw a further decrease in enterprises debt arising from investment loans, with the drop of PLN 1.2 billion in total during Q3. The annual growth rate in this category fell from -2.3% to its all-time low of -7.0%[38]. On the

and Japanese Yen. With regard to asstes and liabilities from other domestic sectors, the first three of the above mentioned currencies make up for about 99% of the currency structure.

[35] I.e., from the end of July until the end of October.

[36] *Senior loan officer opinion survey-on bank lending practices and credit conditions (4th quarter 2004)*, Warsaw, October 2004, www.nbp.pl.

[37] *Preliminary information on the condition of the corporate sector with special regard to the general economic situation in Q4 2004*, www.nbp.pl

[38] Nevertheless, it should be noted that the appreciation of the zloty had a relatively strong impact on

	As of 30 Sep 2004	q/q change		y/y change (in relation to the corresponding period of the previous year	
	billions zloty		%	billions zloty	%
LOANS AND OTHER CLAIMS	**266.3**	**3.0**	**1.1**	**11.0**	**4.3**
Households	**112.9**	**3.5**	**3.2**	**14.2**	**14.4**
of which individuals	**83.0**	**3.4**	**4.3**	**12.4**	**17.5**
Non-monetary financial institutions	**10.4**	**-0.4**	**–3.7**	**0.5**	**5.3**
Non-financial corporations	**127.8**	**-0.6**	**–0.5**	**-5.1**	**–3.8**
Non-profit institutions servicing households	**0.8**	**0.0**	**–6.1**	**-0.2**	**–22.3**
Local government	**10.4**	**0.3**	**3.4**	**0.5**	**4.9**
Social security funds	**4.0**	**0.2**	**6.1**	**1.0**	**34.0**

Table 2.10: Claims on other domestic sectors
Source: NBP data.

other hand, in Q3 banks saw continued growing demand for long-term loans. Greater demand for investment financing was one of the main factors contributing to the increase in the demand for credit[39].

Growing investment activity of enterprises will be accompanied by a gradual increase in their level of indebtedness in the banking sector, although the growth of loans to enterprises will be limited through the high level of corporate own resources. The strengthening of the rising trend in the demand for corporate credit, which is forecasted by banks for Q4, is also reflected in survey results.

Despite an increase in interest rates on loans resulting from the riser in NBP rates, their level still was not a substantial barrier to the development of business activity although the percentage of enterprises pointing to difficulties associated with high cost of credit increased to 6.4% during Q4 (from 3.6% in Q3). It should also be noted that interest rates on a number of loan categories (both for enterprises and other sectors) increased less or just slightly more than the interest rates on the money market. As a result, credit margins in commercial banks continue to decrease (Figure 2.38). This process may indicate that according to banks credit risk was diminishing and the competition from other banks and non-banking financial institutions was increasing, which is confirmed by results from the NBP surveys.

The growth in corporate deposits was particularly high during the period preceding Poland's EU accession as it was then accompanied by a rapid growth in industrial output[40]. The more pronounced decline in deposits recorded from September should

lowering the value of investment loans as the share of foreign currency denominated loans is the second largest one in this category, following export loans, and amounts to about 40%. Adjusting for exchange rate changes, the decline in investment loans was smaller by about PLN 0.7 billion.

[39]Among other factors, the single most significant one was the need for working capital and inventories financing

[40]A correlation analysis shows that there is a strong and positive relation between the 12-month changes in industrial output and in corporate deposits. A change in industrial output almost always

	as of 30 Sep 2004	q/q change		y/y change (in relation to the corresponding period of the previous year)	
	billions zloty		%	billions zloty	%
DEPOSITS AND OTHER LIABILITIES INCLUDED IN M3	296.6	1.9	0.7	18.3	6.6
Households	187.8	–0.4	–0.2	-2.6	–1.3
of which individuals	176.7	–1.1	–0.6	-4.4	–2.4
Non-monetary financial institutions	8.3	–0.2	–2.0	0.7	9.6
Non-financial corporations	76.5	1.3	1.7	15.8	25.9
Non-profit institutions servicing households	9.0	0.3	3.1	0.5	5.5
Local government	13.2	1.0	8.4	3.5	35.6
Social security funds	1.8	0.0	0.8	0.4	30.4

Table 2.11: Liabilities to other domestic sectors (included in M3)
Source: NBP data.

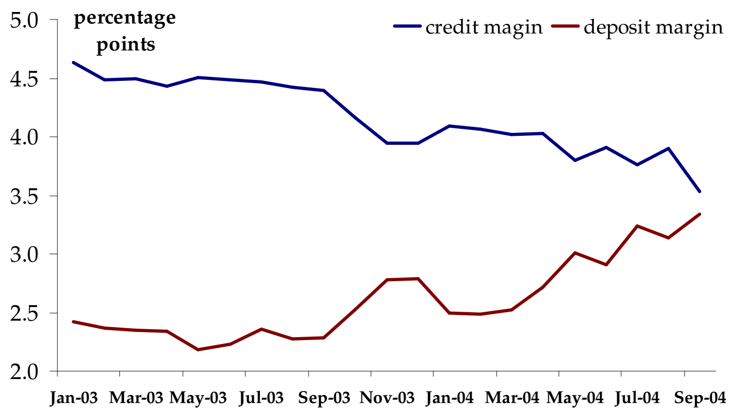


Figure 2.38: Average credit and deposit margins in commercial banks (differences between average weighted interest rate on loans/deposits and 3M WIBOR)
Source: NBP data.

be continued, both as a result of the statistical base effect[41] and the expected gradual increase in investment outlays by enterprises.

Household loans and deposits

Over the period under consideration the annual growth rate of household loans remained at a level of approximately 15%. An exception to this was October, when the record-high increase in loans to this group resulted form the fact that people secured

translates into a change in the level of deposits - the highest correlation coefficient (of about 0.7) is observed in the period in which there occurs an impulse in the form of changes in output growth rate. In subsequent months the impact of this impulse is considerably weaker.

[41]The strong increase in corporate deposits began in September 2003.

money for the purchase of PKO BP and WSiP shares. A significant bid-offers reduction as well as profit taking will lead to a sharp decline in household debt in November.

The growth in claims on households is mainly driven by the increase in housing loans, whose rate of growth remained at a level of about 30% y/y. During the Q3 2004, banks recorded a rise in this debt of PLN 1.3 billion. This level, though, was underestimated due to exchange rate changes which have a significant impact on this category of loans. Adjusting for that, the actual increase in housing loans amounted to PLN 2.1 billion. Housing loans are clearly the most important component in the structure of household loans. From the beginning of the year, their share grew from 30.1% to 32.6% in September. Starting from the middle of 2003 the currency structure of the housing loans started to change resulting in a growing share of zloty-denominated loans due to a drop in the interest rates on these loans. However, the weakening of the zloty during the first half of 2004 and the hikes in zloty interest rates observed recently brought a halt to this trend. At present, commercial banks are again recording growing interest in foreign currency denominated loans; also refinancing of zloty housing loans with foreign currency denominated loans is gaining popularity.

The gradual build-up of consumption may be indicated by the growing significance of other types of loans, including hire-purchase loans and cash loans. Banks also point to the growing demand for consumption credit during Q3 and expect this tendency to continue in the next quarter.

During the following months the dynamics of household loans can be expected to remain at its current level. Rising interest rates and the still difficult situation in the labour market may limit this growth due to consumers being less inclined to increase their level of debt. On the other hand, decreasing credit margins and more lenient loan policies will help to stimulate activity on the household loan market.

A deceleration in the downward trend in household deposits was observed during the period under consideration. Still, the annual growth rate in this category remained negative (at about -1.5%). Once again, the exception to this was October, when the increase in the value of deposits for the prospective purchase of PKO BP and WSiP shares as well as funds on retail customer accounts in brokerage offices operating within bank structures resulted in the first since June 2002 positive annual growth rate (0.1%) in household deposits.

It can be expected that in the following months the increase in deposits will be helped by rising interest rates, in particular those on term-deposits (Table 2.12). This will lead to higher opportunity costs associated with holding balances on demand deposits and in cash. These seem to be supported by the systematic decline in the growth rate of demand deposits (which fell from 14.7% y/y in November 2003 to 4.3% y/y in September 2004) and notes and coin in circulation[42] (which in the same period decreased from 18.2% to 3.2%), which is accompanied by a deceleration in the downward trend in term deposits.

[42]See *Inflation Report*, August 2004

	Credits			Deposits		
	total	households	enterprises	total	househol ds	enterprises
Jan-04	9.6	12.1	7.1		3.0	2.9
Feb-04	9.5	12.0	7.1	3.0	3.0	2.9
Mar-04	9.5	12.0	7.1	3.0	3.0	2.9
Apr-04	9.7	12.0	7.3	3.0	3.0	2.9
May-04	9.8	12.0	7.4	3.0	3.0	2.9
Jun-04	9.8	12.0	7.4	3.0	3.0	2.9
Jul-04	10.1	12.1	7.8	3.1	3.1	3.1
Aug-04	10.5	12.5	8.2	3.5	3.5	3.2
Sep-04	10.6	12.6	8.4	3.8	3.9	3.4

Table 2.12: Average weighted interest rate on loans and deposits in commercial banks
Source: NBP data.

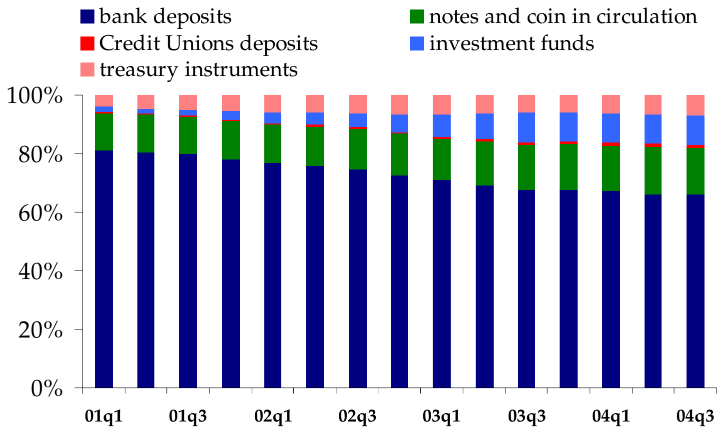


Figure 2.39: Structure of households´ financial assets
Source: NBP data.

Even though in Q3 the deposit margin in the commercial banking sector increased (Figure 2.38), some commercial banks raised their interest rates on deposits in parallel with NBP interest rate hikes. This can be a sign of growing competition for household deposits. It seems that the process of growing deposit margins is temporary and that they will decline in the longer term together with the growing competition among banks for new retail customers.

Obviously, households also hold savings outside the banking sector. Over Q3 the value of investment funds shares and units owned by households, Credit Unions (SKOK) and treasury bonds increased by PLN 1.2 billion (2.1%), i.e. 6.5% y/y. It seems that the high substitution of bank deposits for alternative forms of savings, which took place at the turn of 2001 and 2002 as a result of introducing the capital gains tax, has already abated. However, the value of financial assets being an alternative to deposits held by households continues to grow faster than the value of bank deposits, which is reflected

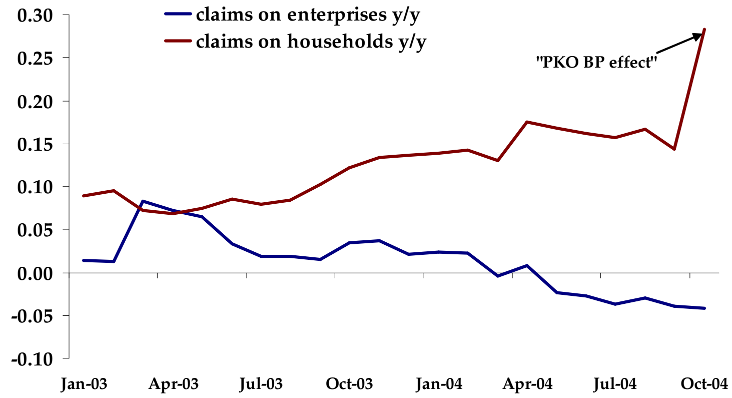


Figure 2.40: Nominal annual growth rate of commercial banks´ claims on enterprises and households
Source: NBP data. October data on the basis of early information - may be subject to adjustment.

in changes in the structure of household savings (Figure 2.39).

As has already been stated, the largest growth in the value of deposits in October was recorded in the sector of non-monetary financial institutions which, among others, consist of brokerage offices not belonging to banks. This growth resulted from the fact that these brokerage offices deposited in the banking sector as much as PLN 13 billion for the purchase of the shares of privatised companies.

Monetary Policy in September–November 2004

In September-November 2004, the Monetary Policy Council (MPC) did not change the NBP's key rates, maintaining the reference rate at 6.5%, the lombard rate at 8.0%, and the deposit rate at 5.0%.

Developments in the Polish economy in May-August 2004, analyzed in the previous *Inflation Report*, differed substantially from those examined in the current *Report*. Interest rate rises in June-August 2004, by a total of 125 basis points, were primarily to limit the second-round effects of adverse supply shocks and of transitory growth in inflation related to Poland's entry into the European Union. In particular, in the environment of a significant acceleration in both inflation and inflation expectations, lack of tightening of the monetary policy would have fed through into the higher risk of increased wage pressure and, consequently, the risk of persistence in inflation. Therefore, interest rate rises were to ensure that the increase in inflation will be temporary only. Moreover, according to the MPC, the then-available inflation projections indicated the necessity of tightening monetary policy in order to meet the inflation target of 2.5%. At the same time, the MPC maintained a tightening bias, as the probability of inflation exceeding the target level over the monetary policy transmission horizon was assessed as remaining higher than the probability of inflation falling below 2.5%.

In September 2004, the MPC published *Monetary Policy Guidelines for the Year 2005*. In this document, the MPC listed a number of factors that might either facilitate or impede bringing inflation back to the target within 5-7 quarters. Among those conducive to reducing inflation might be: (a) lower than the expected inertial impact of the EU accession shock, (b) favorable supply shocks, (c) labour productivity still exceeding the wage growth rate, (d) weakened ability of companies to transfer the increases in production costs to consumer prices. As a factor that might extend the period of bringing inflation down to the target level of 2.5% the MPC pointed to adverse supply shocks.

Economic developments in August-October 2004 indicated that some of the above-outlined factors did already occur. In particular, a wage growth significantly decelerated and remained below the growth in labour productivity. Moreover, lower than expected increase in employment, combined with a slow wage growth, were favorable

– through a decrease in the private consumption growth – to reducing inflation.

Another factor conducive to lowering inflation was a substantial appreciation of the zloty. It indicated an increase in probability that actual inflation path would be lower than that presented in the August *Inflation Report*. However, there was considerable uncertainty surrounding the sustainability of the zloty strengthening.

On the other hand, a trend of significant increases in the oil prices continued. In the short term it leads to higher inflation, largely through rising fuel prices, which was observed in the past months, October in particular. In the longer term, however, increased oil prices lower inflation through a decline in the economic growth. The total effect of the rise in oil prices on the future inflation depends on the outcome of the above-outlined counteracting processes.

In September-November 2004 new information on the gross fixed capital formation and corporate investment plans was revealed. Growth in investment in the second half of 2004 was assessed to be lower than expected and estimates of investment outlays in the first half of 2004 were subject to considerable uncertainty. Moreover, according to the NBP's surveys, companies did not plan to increase significantly investment spending in the forthcoming months. However, such signals were not consistent with a very high and still rising capacity utilization, which added to the uncertainty about the investment prospects, and thus, about the future economic growth.

In light of the current data and the results of the NBP's survey, the June-August interest rate rises have already contributed to limiting the second-round effects. The risk of the second-round effects occurrence seems to be lower also due to consumer inflation expectations declining for the second consecutive month, as well as due to slower than expected improvement in the labour market. However, despite lower inflation expectations, they remain at a level significantly exceeding the inflation target of 2.5%. Moreover, due to their adaptive character, they will most likely stay considerably above the target level also in 2005 Q1. Therefore, complete assessment of the second-round effects will only be possible in 2005 Q2.

The complete appraisal of the above-outlined factors indicated that in 2005-2006 inflation might follow a path below the one presented in the August *Inflation Report*. Therefore, in September and October 2004, the MPC decided not to change the NBP's interest rates. Moreover, the MPC took a stance that the November inflation projection would allow a better assessment of the balance of risks to the inflation outlook.

According to the inflation projection, outlined in the Chapter 4 of this *Report*, future inflation will be lower than expected in the previous *Report*. On the assumption that interest rates remain unchanged, the probability of inflation staying above the inflation target (2.5%) in 2005-2006 has declined relative to what was presented in the August *Report*, but it is still higher than the probability of inflation falling below the target.

Taking into account the most recent economic data, the MPC has decided that the balance of risks to the inflation outlook is more favorable than indicated by the November inflation projection. This assessment has been influenced by a continuing strong appreciation of the zloty, although the MPC recognizes that the sustainability of this process is subject to uncertainty. The second factor that has affected the MPC's appraisal is the continuing low growth in wages, which shows that the second-round effects are limited, if any. Nevertheless, according to the MPC, the probability of inflation exceeding the target level (2.5%) over the monetary policy transmission horizon remains higher than the probability of inflation falling below 2.5%. As a result, the MPC has decided to maintain a tightening bias.

Inflation projection

The inflation projection is based on econometric models and has been prepared by a team of NBP economists led by the Deputy President of the NBP. 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.

4.1 Introduction

The very high rate of economic growth recorded in the first two quarters of 2004 resulted, to a large extent, from Poland's EU accession. There is a significant degree of uncertainty as to the structure of this growth with a difficult to explain very large share of inventories in GDP growth. The accession has also contributed to the inflation acceleration in 2004 Q2 and Q3, mainly due to increased demand from the "old" EU countries for Polish food and stronger consumer demand arising from fears of price increases following Poland's entry into the EU. These, however, were not the only sources of higher inflation – two other factors which also played a certain role were the growth in oil prices in the world markets and the last year's depreciation in the exchange rate. The latter, being a stimulus for GDP growth, concurrently contributed to the increase of costs.

The economic situation at the projection starting point can be characterized as follows: GDP growth is mainly the result of a stable growth in private consumption, while the fast growth in investments expected in the previous projection is still limited to large companies. The expected rate of investment growth in the subsequent quarters of the second half of the year is currently lower than that predicted in the previous quarter and it does not exceed 8%. A significant contribution to GDP growth comes from net exports, although its role is expected to diminish by the end of 2004. GDP growth is expected to slow down to just below 5% during the second half of the year, although these estimates may be burdend with a significant error, especially due to the shortage of time-consistent export and import data. The estimates of the deceleration of GDP growth are also supported by the lack of recovery in the labour market – the decline in unemployment and wage increases are very moderate and the situation is not expected to change by the end of 2004.

The inflation projection has been prepared with the use of two macroeconomic inflation models[43] as well as the experience and knowledge of experts. Expert judgment has been drawn on both in the preparation of the assumptions regarding world economic trends (fuel market, financial markets, economic situation of main trade partners) and forecast changes in other factors having an influence on inflation in Poland (e.g. the situation in the agricultural products markets and public finances) as well as for a qualitative assessment of the latest developments in the Polish economy.

The projection presented herein has been based on information available as of 22 October 2004. For 2004 Q4 all variables used in the models, including inflation, have been estimated with the use of expert methods. The impact of potential errors in these estimates on the inflation projection usually unfolds over the first two to three projection quarters and then gradually vanishes. Such errors are of limited significance for the monetary policy – due to the monetary transmission lags the strongest impact of the monetary policy decisions on inflation is recorded in 6 to 8 quarters after NBP interest rates have been changed.

A technical assumption has been made, that over the entire projection horizon the NBP reference rate remains unchanged, i.e. it stays at 6.5%. This means that the projection – in particular in the longer term – is very likely not to show the actual level of future inflation since it does not take into account possible changes in NBP interest rates. The constant interest rates assumed are by 0.5 percentage points higher compared to those applied in the inflation projection published in August (the August projection did not take into account the August rise in interest rates – MPC decision of 26 August 2004).

4.2 Projection assumptions related to external environment

External demand and euro zone inflation

In the November projection it is assumed that up until the end of 2004 the economic recovery in the euro zone will be slightly faster than expected in the previous quarter. Economic growth is stimulated by external demand, but more importantly, domestic demand turned out to be higher than predicted. There are, however, no changes in the assessment of inflation developments. For 2005 and 2006 we expect GDP growth to exceed 2%, with 2006 growth being slightly faster than in 2005. The reasons for a weaker GDP growth in 2005 will be the lagged effects of the currently prevailing high oil prices and the appreciation of the euro against the US dollar. It has, therefore, been assumed that the world oil prices hikes will translate mainly into the GDP and not inflation growth. This can be primarily attributed to a lower than in the past energy-dependence of economic growth, better resistance of companies to price fluctuations (which are cushioned with changes in mark-ups) as well as more moderate

[43] A description of the models may be found in: B. Kłos, R. Kokoszczyński, T. Łyziak, J. Przystupa, E. Wróbel (2004): Modele strukturalne w prognozowaniu inflacji w NBP, Materiały i Studia nr 180, www.nbp.pl.

central bank reactions to supply shocks due to the enhanced credibility of monetary authorities. Therefore, the inflation will be easing slowly yet systematically over the projection horizon – from 2.1% in 2004 to 1.9% in 2005 and 1.7% in 2006.

Due to the small scale of expected changes in demand and inflation in Poland's main trade partner countries, the foregoing factors have a limited impact on the change in the inflation projection as compared to the previous one prepared in August.

Oil prices

The current oil price forecast differs significantly from the August one. Oil prices are now expected to exceed the previously assumed path over the entire projection horizon, with the most pronounced differences in 2004 Q4 and the first half of 2005. The difference, however, diminishes at the end of 2006, and so although the price level remains higher, the rate at which prices are expected to fall in 2006 is now faster than that assumed in the previous quarter. As a result, the inflationary impact of oil prices will primarily be felt towards the end of this year and in the first half of 2005. In subsequent quarters the fall in oil prices will be contributing to inflation deceleration.

EUR/USD exchange rate and foreign interest rates

The projection assumes the EUR/USD exchange rate and the foreign interest rates to follow market expectations. At the moment, the interest rates expectations are lower than in the previous quarter with the difference growing from approximately 0.2 percentage points at the beginning of 2005 to about 0.5 percentage points at the end of 2006. The cross rate expectations are only insignificantly different from those in the August projection. It is assumed that the cross rate will stand at a level of 1.23 to 1.24 over the projection horizon. This is a technical assumption based on the EUR/USD exchange rate recorded just before the data closing date for the projection, adjusted for the forward EUR/USD rates.

4.3 Projection assumptions related to domestic environment

State budget expenditures

No significant changes in assumptions have been made in the November projection compared to the August one. It has been assumed that state budget expenditures will stay in line with the draft of the 2005 Budget Act; also, Ministry of Finance estimates regarding the year 2006 have been applied. Central budget expenditures in 2006 are expected to increase significantly due to the indexation of the old-age and disability pensions deferred until this year (it has been assumed that these will take the form of budget subsidies to Social Security Fund). The uncertainty surrounding the state budget expenditures mainly derives from the unknown outcome of the upcoming 2005 parliamentary elections and the path for enacting the bills reducing and rationalising public spending.

Food prices

The current forecast regarding food prices differs from the previous one mainly in terms of the price change dynamics in the first four quarters of the projection horizon. Due to a certain improvement in the assessments regarding this year's crop harvest, the growth rate of food prices expected currently is lower by about 1 percentage point in relation to the August projection. The annual growth rate of food prices will approximate 7% in 2005 Q1 and then will start to quickly decrease. Similarly to the August projection, it is expected that the annual growth of food prices in 2006 will stand at about 2

4.4 Inflation projection

The current inflation projection is different from the August one primarily in the level of inflation in the first year of projection: the difference is highest in 2005 Q2 amounting to 1.9 percentage point, then it diminishes down to 0.4 percentage points in 2006. The differences during the first three quarters are almost entirely attributable to the 2004 Q3 inflation assumption of the August projection that turned out to exceed the actual inflation by 0.7 percentage point. The differences in the year 2006 arise above all from the shift in the assumed domestic interest rates (an increase of 0.5 percentage point over the entire projection horizon) which by increasing the disparity enforces greater appreciation of the zloty and in effect fall in inflation.

The nominal exchange rate path in the November projection is higher (more appreciated) than in the August projection. Compared to the Zloty exchange rate recorded in October, the models do not project a further strengthening but rather contrary - a slight depreciation. The GDP growth process reveals the same pattern as in the August projection, i.e. the relative role of the growth factors is shifting. It is expected that net exports will cease to be a major GDP driving factor by the second half of 2005. This role will be taken over by domestic demand, mainly investment demand. The high growth rate of investment in 2005-2006 – although lower than in the August projection – will be the result of both the low statistical base as well as the result of autonomous investments (financed from EU funds) along with the accompanying acceleration effect, the closing up of the output gap and a fall in real interest rates (cost of capital) over the first quarters of the projection. The output gap closing-up signifies a relatively high utilization of production capacity – investments are necessary in order to increase production. The uncertainty regarding prospects for the demand in the economy associated with a limited (average annual rise of less than 1%) increase in employment may slow down investment however. With such a scenario GDP growth in 2005-2006 will be slightly below the 4.5-5.5% projected in August.

The inflation acceleration in Poland recorded since 2004 Q2 stems to a large extent from Poland's accession to the European Union, and in particular from the increase in food prices due to stronger external demand for Polish food products as well as changes in indirect taxes. It is expected that the inflation effects of supply shocks associated with the accession, increases in indirect taxes and also with the oil prices hikes will gradually diminish in the first half of 2005 already. Inflation will begin to fall, in 2005 Q3 it will reach the upper tolerance limit for deviations form the inflation target, and then will stay in the range of 3.0% to 3.5% through to the end of 2006, thus remaining above the inflation target over the entire projection horizon.

Uncertainty of projection

Every projection is subject to uncertainty. The most important sources of it are the uncertainties of the assumptions themselves and the approximate character of economic reality replication by means of econometric models. Experts' assessments have been used to formulate the assumptions (exogenous variables) and to estimate the values of endogenous variables for 2004 Q4. In the short run, forecasts based on expert assessments usually perform better than those based on structural models, however the possibility of errors cannot be ruled out even in this case. Experts' judgments have also been applied to assess the extent to which the exogenous variables may deviate from the central paths assumed.

The largest uncertainty of the current projection regards the forecast of food prices' and oil prices' developments, budgetary expenditures in 2006 due to the 2005 parliamentary elections and future inflation in the Poland's main trading partners' countries. That these variables have been selected by experts to be the most uncertain appears quite obvious. It is still difficult to assess for how long and how strongly will the external demand impact food prices in Poland. The oil prices forecasting is hampered by the fact that low US oil reserves and uncertainty about deliveries result in oil prices being very susceptible to speculation and thus very volatile. The parliamentary elections outturn may result in changes in budgetary expenditures difficult to predict at the moment. A significant uncertainty is also associated with government proposals of limiting and rationalizing the public spending. It should be noticed that the strong dependency of the exchange rate on the risk factor associated with the budget deficit may result in a actual path of the exchange rate different from what is currently predicted. It may not be either ruled out that political events (parliamentary elections, constitutional referendum) will not create conditions favorable for investments and economic growth. Finally, Poland's main trading partners' inflation may to a greater degree than currently anticipated start rising due to the high oil prices.

An additional factor adding to the projection uncertainty is this year's data on the GDP components. The lack of exports and imports data has already been raised.

Following Poland's EU entry, this data is being prepared using a different system and in accordance with new principles. Due to a shortage of sufficient information it is also difficult to interpret the significant growth in inventories calculated by GUS for 2004 Q1 and Q2, and thus it is also difficult to estimate the GDP growth in 2004 Q3 and Q4.

The current projection is characterized by a significant asymmetry in 2005. The probability that inflation will exceed the central projection is essentially higher than the opposite. The asymmetry of the projection results mainly from the assumptions regarding future food prices and the expected developments in the fiscal sector. The greater probability that food prices will grow faster than the most probable path is mainly attributable to the possible further rise in external demand for Polish food that could translate into the faster price growth domestically. The greater probability of the pro-inflationary impact of changes in the fiscal sector arises from the evaluation of future fiscal reforms - experts feel that these changes will lead to a growth in the effective indirect tax rate.

The following fan chart has been prepared in order to present uncertainty regarding the projection. It should be stressed though that the fan chart reflects mainly the uncertainty of exogenous variables, whose paths are assumed for the entire projection horizon (food and oil prices, fiscal variables including in particular state budget expenditures, external demand and inflationary processes in Poland's external environment as well as foreign interest rates and the EUR/USD exchange rate).

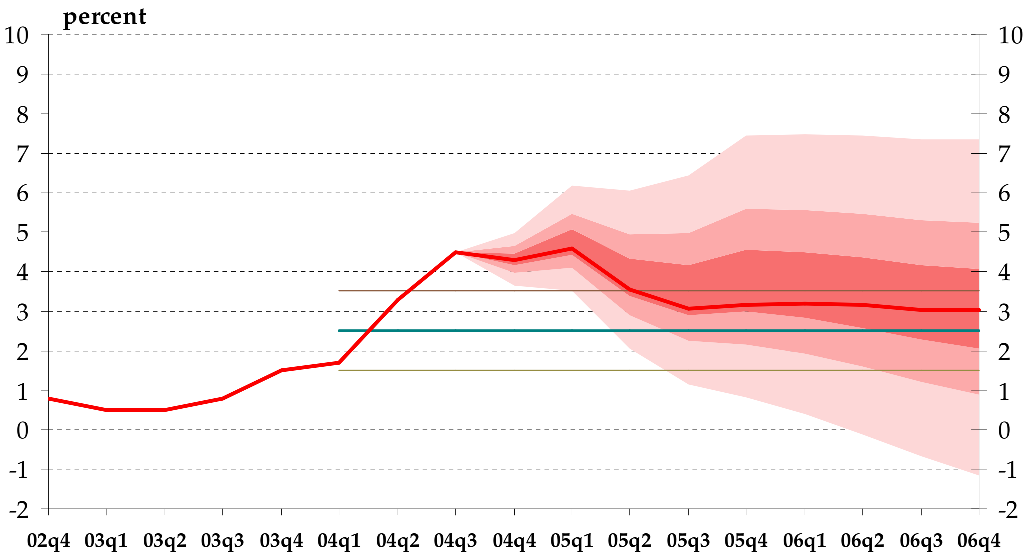


Figure 4.41: Fanchart, central projection and MPC's inflation target
Source: NBP.

How should the fan chart be interpreted?

Every projection of future values of economic variables is subject to risk and uncertainty. Central banks present the size and scope of quantifiable inflation projection risk through the use of so-called fan charts. The width of the ″fan″ corresponds to the overall level of risk which usually changes from quarter to quarter. For each quarter a central projection value is determined – this is the most probable rate of inflation – and an interval around it is built, such that the probability of inflation being inside equals 30%. This interval forms the central stripe of the fan, shown with the darkest shade of red on the chart. Next, for all the quarters this range is expanded on both sides for each quarter in such a manner, that the probability of inflation falling within the new boundaries increases by a subsequent 30 percentage points. The subsequent extension form new strips in the fan, marked with increasingly lighter shades of red. The entire fan shows a range within which the probability that inflation will fall is 90 percent. The chart shows for example that the probability of inflation falling into the tolerance band around the inflation target in 2006 Q4 is about 30%; the probability that it will be higher is 43% and the probability that it will be lower is 27%. In accordance with the current projection, the probability that inflation will stay above the inflation target of 2.5% in the years 2005-2006 is lower than that presented in the August *Report*, however, it still remains significantly higher than the probability that inflation will fall below the target. There is a 50% probability that inflation will stay within the 2.5-5.2% range in 2005 Q4 and the 1.3-4.8% in 2006 Q4. In the August projection these values were 2.8-5.5% in 2005 Q4 and 1.6-5.1% in 2006 Q4 respectively. The probability that towards the end of the projection horizon the inflation will stay within the tolerance limits for deviations from the inflation target or that it will be below 1.5% has increased slightly as compared to the August projection, and the probability that inflation will turn out higher than 3.5% somewhat dropped.

Annex

The voting of the Monetary Policy Council members on motions and resolutions adopted in 2004 Q3

- **Date:** 28th July 2004
  Subject matter of motion or resolution:
  Motion to raise all interest rates by 0.5 percentage point.
  MPC decision:
  Motion did not receive a majority vote.

  Voting of the MPC members:

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

- **Date:** 28th July 2004
  Subject matter of motion or resolution:
  Motion to raise all interest rates by 0.25 percentage point.
  MPC decision:
  Motion received a majority vote.

  Voting of the MPC members:

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

- **Date:** 28th July 2004
  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:
  Increase of all interest rates by 0.25 percentage point.

  Voting of the MPC members:

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

- **Date:** 25th August 2004
  Subject matter of motion or resolution:
  Motion to raise all interest rates by 0.5 percentage point.
  MPC decision:
  Motion received a majority vote.

  Voting of the MPC members:

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

- **Date:** 25th August 2004
  Subject matter of motion or resolution:
  Motion to raise all interest rates by 0.25 percentage point.
  MPC decision:
  Motion did not receive a majority vote.

  Voting of the MPC members:

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

- **Date:** 25th August 2004
  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:
  Increase of all interest rates by 0.5 percentage point.

  Voting of the MPC members:

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

- **Date:** 28th September 2004
  Subject matter of motion or resolution:
  Resolution on specifying the upper limit for National Bank of Poland liabilities resulting from loans and credits granted by foreign banking and financial institutions.

  Voting of the MPC members:

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

- **Date:** 28th September 2004
  Subject matter of motion or resolution:
  Resolution on establishing monetary policy guidelines for 2005.

  Voting of the MPC members:

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