



Inflation Report

First Quarter 2003

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SUMMARY

1. According to Central Statistical Office estimates (GUS), in the first quarter of 2003 GDP grew 2.2% when compared to the corresponding period for the previous year. This growth was attributable to an increase in capital formation relative to movements in inventory other than those recorded in previous years. It is estimated that real growth in consumer spending fell to 1.4% in the first quarter, while still being higher than disposable income growth.

2. The twelve-month Consumer Price Index in the first quarter remained low at 0.5–0.6%. The prime factor accounting for the difference in the course of inflationary processes over the discussed period and over previous quarters was a surge in fuel prices in the domestic market due to oil price rises in international markets. As a result, the twelve-month fuel price index grew faster from 7.6% in December 2002 to 17.4% in March this year. In the first quarter, prices of other groups of consumer goods and services followed the trends observed in the second half of 2002.

3. In the first quarter of 2003, the Producer Price Index (PPI) continued the climb observed since early 2002. PPI growth was caused by zloty depreciation and oil price increases in international markets. The highest PPI growth against the previous quarter was recorded in manufacturing. This could primarily be traced to oil price growth.

4. The current deficit on the balance of payments in the first quarter of 2003 was 1.2bn euro lower than in the corresponding period of the previous year. A decisive impact on the improved current balance had a reduction in commodity trade deficit and higher surplus on unclassified current transactions. From January to March, the commodity exports grew 6.6%, whereas imports dropped 2.5% (in euro terms, on a cash basis) in relation to the corresponding period of 2002.

5. In the first quarter, a slower than in 2002 fall in employment was accompanied by a limited salary growth. The average gross monthly salary in the corporate sector in that period recorded a nominal increase of 1.9% compared to the first quarter of 2002.

6. Central government deficit at the end of the first quarter came to 15.5bn zloty, i.e., it was 5.7% lower than in the corresponding period of the previous year. Slightly lower than in the first quarter of 2002 was also the status of its performance, at 40% as against 41.1% in 2002. Central government expenditure in the first quarter 2003 was 2.3% higher than a year before, whereas the original expenditure of central government budget, i.e., expenditure less costs of debt servicing, increased over 4.9%.

7. In the first quarter 2003, a slight decline was noted in the annual growth of the money supply measured with M3 broad monetary aggregate against the preceding quarter and the annual growth of notes and coins in circulation stabilised at a high level of approximately 13%.

The twelve-month growth of the M3 broad monetary aggregate in March was positive, for the first time since July 2002, and amounted to 0.5%. A small drop in the M3 money supply in the first quarter of 2003 against the fourth quarter of 2002 was chiefly due to shrinking corporate deposits held in banks. The deposits of other sectors also declined, except for those of local government institutions. Movements in deposits reflected movements in zloty deposits. Meanwhile, the level of foreign currency deposits expressed in zloty basically did not change compared to the figure at year end 2002, owing to zloty depreciation over that period.

The annual growth rate of household credits remained relatively stable in the first quarter 2003 and stood at 7.2% in March. A slowdown in consumer credit growth was accompanied by a significant increase in housing loans. The annual growth of corporate credits in that period also settled at approximately 1%, except for March when it rose sharply. This, however, could be accounted for by changes in the methodology of computing monetary aggregates introduced in 2002.

* * *

In the first quarter of 2003, the Monetary Policy Council lowered NBP base interest rates on three occasions. The NBP reference rate fell from 6.75% to 6.0%, and from 5.9% to 5.4% in real terms (when CPI-deflated).

The prime factors in favour of interest rate cuts in the first quarter 2003 included the persistent and relatively low growth of domestic demand, absence of symptoms of economic recovery in international markets, a further decline in current inflation rate, core inflation indices and inflation expectations, and, last but not least, a lack of threats to the performance of the 2003 inflation target and the growing likelihood of achieving it in 2004.

When taking decisions on interest rate cuts in the first quarter of the year, the Monetary Policy Council took account of the following factors which could undermine stabilisation of the inflation rate at a low level:

- high oil prices in international markets and the risk of their further growth in connection with the Iraqi war,
- systematic annual PPI growth totalling 3.4% in March,
- strong depreciation of the zloty (in particular in March); the Council deemed that in the context of internal and external political instability this may prove lasting enough to be reflected in price increases,
- likelihood of an excessive economic central government deficit envisaged in the 2003 draft budget and uncertainty accompanying fiscal policy in 2004.

In its decisions on interest rates, the Council also considered the scale of the cuts made so far which would have a delayed bearing on the gradual growth of domestic demand in the second half of 2003 and in 2004.

* * *

According to forecasts made in April 2003, GDP growth in 2003 would amount to 2.5%. At the same time, a moderate increase in consumer demand, slight improvement in investment expenditure and the high contribution of net exports to GDP growth were assumed. Meanwhile, forecasted GDP growth for Poland's immediate economic environment, i.e. the euro area, and Germany in particular, was systematically revised downward in the last months. In April, the relevant projections were lowered to 0.4% for Germany and 1.0% for the euro area.

After the end of the Iraqi war, the main forecasting centres significantly brought down their oil price forecasts for the year 2003. As a result, in April 2003 oil prices were expected to remain at US\$24–25 per barrel until the year's end.

Forecasts of domestic food prices from April assumed that by December these prices would be 0.5% higher than in 2002¹.

Based on the assumptions adopted for the 2003 budget law and announcements made by government agencies responsible for setting officially controlled prices, it may be assumed that the annual growth of officially controlled prices at the year's end will equal approximately 3%.

This year's inflation rate will also be impacted by earlier NBP interest rate cuts having a delayed bearing on gradual domestic demand growth.

In the *Monetary policy guidelines for the year 2003*, the Monetary Policy Council set this year's inflation target at 3% with a permissible band of deviations of 1%. At the end of April, the annual CPI stood at 0.3%. It is projected that slow growth in both internal and external demand will result in a slight acceleration of the inflation rate at the year's end. At the same time, it is expected that supply factors hampering price growth will become less relevant and the twelve-month inflation rate at the year's end will settle close to the lower bound of the inflation target.

¹ Due to higher than expected wheat collection price growth in May, the June forecast assumes that food prices in December will be 0.9% higher than a year before.

Basic macroeconomic indicators

	2001				2002				2003	
	Q1	Q2	Q3	Q4	2001	Q1	Q2	Q3	Q4	Q1
	Real growth									
GDP	2.2	0.9	0.8	0.2	1.0	0.5	0.9	1.8	2.2	2.2
Domestic demand	-1.0	-1.7	-1.5	-2.3	-1.7	-0.1	1.1	1.2	1.3	2.3
Total consumption	1.2	1.1	1.7	2.7	1.7	2.8	2.6	2.8	3.2	2.8
Personal consumption	1.5	1.5	2.1	3.2	2.0	3.5	2.9	3.1	3.5	3.3
Gross capital formation	-12.6	-12.2	-12.5	-13.0	-12.6	-17.9	-5.5	-5.6	-3.7	-6.9
Gross fixed investments	2.1	-8.0	-11.7	-12.0	-8.8	-12.8	-7.9	-5.9	-3.6	-6.8
Household savings rate (%) ¹	9.4	10.9	10.6	11.6	10.6	5.7	9.1	6.7	7.1	6.9
Household financial savings rate (%) ²	5.3	3.9	4.0	4.8	4.5	2.7	3.8	-0.3	-0.8	1.9
Unemployment rate (%)	16.1	15.9	16.3	17.5	17.5	18.2	17.4	17.6	18.1	18.7
Disposable income (corresponding period previous year = 100)	101.8	101.2	102.6	100.1	101.4	99.2	100.5	99.1	99.8	99.7
State Treasury indebtedness (PLN million, nominal) ³	273,192.9	271,584.9	291,795.1	283,939.5	283,939.5	309,388.4	320,880.1	331,205.4	327,924.2	327,923.8
Central government deficit (PLN million)	-14,992.5	-18,805.5	-21,865.0	-32,358.3	-32,358.3	-16,436.8	-24,922.5	-29,146.7	-39,112.5	-39,112.5
External indebtedness (USD million)	71,297.0	70,774.0	73,525	71,797	71,797	73,135	78,986	78,833	81,946	81,946

¹ Household savings to gross disposable incomes. Savings represent that portion of gross disposable incomes not allocated to consumption.

² Household financial savings to gross disposable incomes. Financial savings represent the growth in household money stocks (the total of bank deposit growth, notes & coins and investments in securities, less household borrowing growth).

³ Period end.

Source: GUS, Ministry of Finance and NBP figures, NBP estimates (gross savings rate, financial savings rate, disposable incomes).

Basic monetary indicators

	2001				2002				Q1 2003
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
	corresponding period previous year = 100								
CP1 ¹	106.2	106.2	104.3	103.6	103.6	101.6	101.3	100.8	100.6
PPI ¹	103.8	100.9	100.7	99.6	99.6	101.2	101.1	102.2	103.6
	Nominal growth rate of end-of-period figures (corresponding period previous year = 100)								
Money supply (M3)	114.7	107.8	112.6	109.2	109.2	102.5	98.5	98.0	100.5
Deposits and other liabilities of which:	116.4	108.9	113.6	108.9	108.9	100.5	96.5	95.7	97.7
Household deposits	119.9	115.9	117.0	106.7	106.7	100.1	95.2	96.1	94.2
Corporate deposits	105.1	99.8	105.3	116.4	116.4	112.9	110.8	101.4	111.4
Claims ²	114.1	104.8	111.4	109.3	109.3	109.4	105.1	105.2	108.7
of which:									
Claims on households	121.1	102.2	119.9	114.7	114.7	115.6	108.4	108.6	107.2
Claims on corporates	111.2	106.8	106.0	103.7	103.7	102.1	101.2	101.4	108.3
	Real growth rate ³ of end-of-period figures (corresponding period previous year = 100)								
Money supply (M3)	108.0	101.5	108.0	105.4	105.4	100.9	97.3	97.1	99.9
Deposits and other liabilities of which:	109.6	102.5	108.9	105.1	105.1	98.5	95.3	95.0	97.1
Household deposits	112.9	109.1	112.2	103.0	103.0	100.0	94.0	95.3	93.6
Corporate deposits	101.3	99.0	104.6	116.9	116.9	104.6	109.6	99.2	107.8
Claims	107.5	98.6	106.8	105.5	105.5	103.6	103.8	104.4	108.1
of which:									
Claims on households	114.0	96.2	114.9	110.7	110.7	113.7	107.0	107.7	106.6
Claims on corporates	107.2	105.9	105.3	104.1	104.1	97.9	100.9	99.2	104.8
Reference rate (%) ⁴	17.00	15.50	14.50	11.50	11.50	10.00	7.50	6.75	6.00
Lombard rate (%) ⁴	21.00	19.50	18.50	15.50	15.50	13.50	10.00	8.75	7.75

¹ In the last month of the quarter

² Claims are made up of claims on: households, non-monetary financial institutions, corporates, non-commercial institutions operating for the benefit of households, local government institutions, social security funds. They encompass all categories of loans and advances, purchased debt, enforced guarantees and warranties, due and outstanding interest, receivables on repurchase agreement transactions, debt securities, equity securities and other claims.

³ CPI deflated, PPI deflated corporate deposits and claims on corporates.

⁴ Period end.

Source: GUS and NBP.

Domestic demand and supply

1.1. Domestic demand²

According to preliminary GUS estimates, in the first quarter of 2003 marked acceleration was recorded in domestic demand growth due to an increased capital formation of over 12%. Consumption growth was distinctly lower than in any quarter of the previous year. The growth in capital formation was attributable to the maintenance at the end of March of a balance on the inventory of tangible working capital assets at a level similar to the balance recorded at the end of 2002. The first quarter of 2002 saw a dramatic fall in inventory levels. Investment expenditure on fixed assets remained at a level below that recorded in 2002.

To date, tendencies in consumption and capital formation growth in the first quarter were upset by one-off factors whose impact would not be visible in the following periods. The Easter shopping season scheduled at a later date than in 2002 contributed to a decline in goods sales in March, constituting one of the factors slowing down personal consumption growth. Still, it is estimated that consumption growth was still higher than growth in registered disposable household income, despite the spread between consumption and incomes being substantially smaller than in 2002. The long winter, colder than the previous year, made construction work difficult, leading to the maintenance of gross fixed investment at a level observed in the fourth quarter of 2002.

Domestic demand growth contributed to sustained GDP growth in the first quarter of 2003 at a level corresponding to the fourth quarter of 2002. The share of net exports in GDP growth was negligible and negative. GDP and domestic demand growth from Q12001 to Q12003 is depicted in Table 1, whereas the contribution of individual components of final demand to GDP growth is shown in Fig. 1.

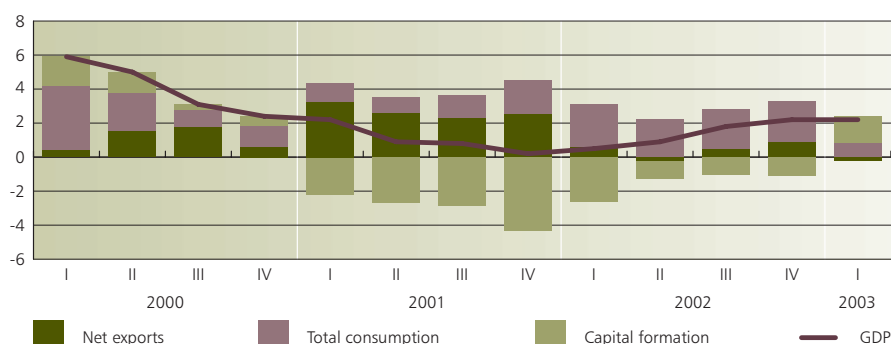
Table 1
GDP and domestic demand growth, 2001–2003

	2001					2002					2003
	2001	Q1	Q2	Q3	Q4	2002	Q1	Q2	Q3	Q4	Q1
Corresponding period previous year = 100											
GDP	101.0	102.2	100.9	100.8	100.2	101.4	100.5	100.9	101.8	102.2	102.2
Domestic demand	98.3	99.0	98.3	98.5	97.7	100.9	99.9	101.1	101.2	101.3	102.3
Consumption	101.7	101.2	101.1	101.7	102.7	102.8	102.8	102.6	102.8	103.2	101.0
Personal consumption	102.0	101.5	101.5	102.1	103.2	103.3	103.5	102.9	103.1	103.5	101.4
Capital formation	87.4	87.4	87.8	87.5	87.0	93.1	82.1	94.5	94.4	96.3	112.7
Gross fixed investment	91.2	102.1	92.0	88.3	88.0	93.2	87.2	92.1	94.1	96.4	96.4
Share of net exports in											
GDP growth	2.7	3.3	2.6	2.3	2.6	0.5	0.6	-0.2	0.5	0.9	-0.2

Source: GUS.

¹ If not indicated otherwise, all growth figures in this chapter are quoted annually, in real terms.

Figure 1
Contribution of final demand components to GDP growth



Source: GUS.

1.1.1. Consumption

Based on figures on the nominal growth in salaries and social benefits, it is estimated that in the first quarter of 2003 growth in registered **gross disposable household incomes** was slightly higher than in the fourth quarter of 2002. It is also estimated that incomes obtained outside the registered economy remained high.

The average monthly gross salary in the corporate sector in the first quarter grew by 1.9% in nominal terms compared to the corresponding period of the previous year. Given the fall in average employment of 4.1%, incomes from hired labour in this sector were nominally 2.3% lower than in 2002. In the last quarter of 2002, their decline amounted to 3.3%.

The earlier than in previous years appraisal of old-age and disability pensions (in March instead of June) contributed to an accelerated growth in social security benefits. In the first quarter, compared to the corresponding period of the previous year these grew nominally by 2.9% against 1.6% in the last quarter of 2002. Growth in other social transfers varied over that period. Disbursements of both unemployment benefits and family and nursing allowances continued to decrease, whereas those of social security allowances and pre-retirement allowances and benefits kept on expanding, though at a slower rate than in 2002.

It is estimated that in the first quarter 2003 the deteriorating ratio of prices of goods purchased by farmers as compared to prices of agricultural production contributed to a further decline in farmers' nominal income, following its recovery the previous year. At the same time, improved growth was recorded in the income from registered non-agricultural business activity pursued by the self-employed and the income generated on owned assets. All in all, it may be said that nominal growth of gross disposable income in the first quarter came to about 1.0% compared to the first quarter of 2002. Given the drop in quarterly CPI to 0.5%, the purchasing power of registered gross disposable household income in the first quarter of 2003 was approximately 0.5% higher than in the corresponding period of 2002. In the fourth quarter of 2002, real household income did not exceed the level recorded in the corresponding period of 2001.

The scale of the decrease in net household savings held in banks was reduced in the first quarter of 2003 and amounted to -1.9bn zloty against -6.5bn zloty in the fourth quarter of 2002, -5.0bn zloty in the third quarter of 2002 and -2.2bn zloty in the second quarter of 2002. At the same time, a significant increase in notes & coins in circulation was noted as well as that in other household financial assets (chiefly investment funds). As a result, household financial savings, negative in the third and fourth quarter 2002, became positive in the first quarter of this year and exceeded the level recorded in the corresponding period of the previous year (3.2bn zloty against 3.0bn zloty).

In this context, personal consumption growth, though still higher than that of the purchasing power of gross household disposable income, fell from the 3–3.5% recorded in the subsequent quarters of 2002 to 1.4% in the first quarter of 2003. This could be traced to the reduced sales of goods due to the Easter falling on a later day when compared to 2002. In March, retail sales of goods were nominally 1.7% lower than a year before, and 1.6% higher in the first quarter of 2003, while in the previous year in March an increase in sales was recorded of over 10%, and in the first quarter the corresponding figure was 7.0%, respectively.

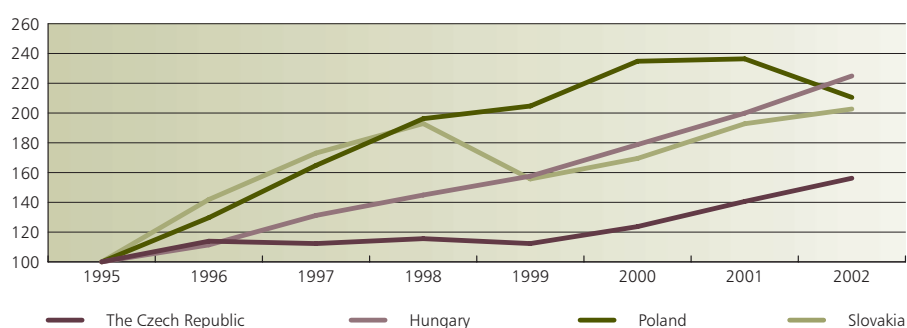
1.1.2. Capital formation

According to GUS estimates, a steep increase in gross capital formation was seen in the first quarter of 2003. This increase was fully attributable to a proportion of the tangible working capital inventory different than in the first quarters of the years 2001–2002. Gross fixed investment was lower than the previous year.

In the two previous years, corporates adapted their inventories of materials, half-processed goods and work in progress to decreasing sales. In anticipation of a further decline in orders, the inventories of finished goods also shrank. These adjustments, combined with seasonal falls in inventory levels in energy and foodstuffs industries, led to severe declines in tangible working capital assets (of – 3.0bn zloty in the first quarter of 2001, in current prices, and –4.0bn zloty in the first quarter of 2002). As a consequence, in the first quarter of 2001 capital formation was 12.6% lower than the previous year, despite an increase in gross fixed investment of 2.1% in real terms. A further decline in inventory in the first quarter of 2002 aggravated the decrease in capital formation as against the decrease in expenditure by 5.1 points (expenditure was 12.8% smaller, while capital formation fell 17.9%). With the usual seasonal declines in inventory levels in the energy and foodstuffs industries in the first quarter of 2003, other sectors recording higher output saw their inventories of materials, half-processed goods and work in progress increase. Inventory levels throughout the economy at the end of March 2003 were further raised by commodity build-up in anticipation of the pre-Easter peak shopping period (in 2002, goods inventories fell in the first quarter due to the earlier date of Easter). On the whole, tangible working capital assets expressed in current prices grew by 0.3bn zloty in the first quarter of 2003. The maintenance of inventory levels at a level recorded in the corresponding quarter of the previous year, against their decline a year earlier, resulted in an increase in capital formation of up to 12.7% in the first quarter, despite a simultaneous reduction in gross fixed investment of 3.6%.

In 2002, investment in the national economy decreased. Gross fixed investment dropped by 7.2% when compared to 2001. The main reason for this decrease should be sought in pessimistic expectations regarding prospects for domestic and external demand growth. A similar situation was observed in other countries, including the euro area. The severe decline in

Figure 2
Gross fixed investment (in euro) (1995=100)



Source: Eurostat – Newcronos data base.

investment in Poland was further aggravated by the high growth rate recorded in previous years. This resulted in an increase in corporate output capacity to levels significantly exceeding the enterprises' sales potential. Even taking into account last year's downward trend, cumulated growth of gross fixed investment in Poland in the years 1995–2002 was similar to that recorded in Hungary and Slovakia and constituted almost double the amount for the Czech Republic (Fig. 2). Thus, the reduction in investment expenditure may be interpreted as a revision of earlier, overly optimistic, expectations as to future demand growth.

According to GUS estimates, the falling trend in investment expenditure was maintained in the first quarter of this year. Gross fixed investment was 3.6% smaller on the corresponding quarter of 2002. The fall in investment analogous to the fourth quarter 2002 was possible because of increased investment purchasing, despite a steep decline in construction work. Investment-related construction work performed by medium and large construction enterprises in the first quarter was 22.9% lower than a year before. Construction output was influenced, to a large extent, by unfavourable weather conditions (average sub-zero temperatures were recorded in the first quarter 2003 and it was much colder than in the corresponding period of the previous year). The industrial output of enterprises manufacturing primarily investment goods was 4% higher in the first quarter than in 2002, whereas the volume of investment imports climbed 10.2%. Therefore, it may be estimated that investment expenditure on machinery and equipment was higher than a year before, even if the increase in the output of investment goods was partially attributed to increased exports.

1.1.3. Public finance situation

Pursuant to the 2003 budget act adopted on December 18, 2002, central government receipts and expenditure are to reach 155.7bn zloty and – 194.4bn zloty, respectively, resulting in a deficit of – 38.7bn zloty, or about 4.9 % of GDP. For yet another year, the Sejm resolved to expand budget spending by nearly 1bn zloty in relation to the government draft. However, the execution of these expenses is conditional on the generation of minimum receipts specified in the budget act for the end of the third quarter.

After the first quarter 2003, central government deficit stood at 15.5bn zloty, i.e., was 5.7% (or 6.3% in real terms) lower than in the corresponding period of 2002. Lower compared to the first quarter of 2002 was also the status of its performance: 40% as against 41.1% in 2002.

In the discussed period, central government receipts amounted to 33.3bn zloty, which represented a 6.6% growth in relation to the income generated in the corresponding period of the previous year (cf. Table 2).

Table 2
Performance of central government receipts in Q1 2003

	Q1		Growth		Performance/ plan after Q1	
	2002	2003	nominal	real	2002	2003
	zloty million				%	
RECEIPTS:	31,275.3	33,327.2	106.6	105.9	21.6	21.4
Taxation, of which:	28,557.7	30,200.3	105.8	105.1	21.7	21.8
– Indirect taxation	20,339.4	21,734.5	106.9	106.2	22.3	22.4
– Corporate income tax	3,462.3	3,270.0	94.4	93.9	25.0	22.7
– Personal income tax	4,755.1	5,195.8	109.3	108.6	17.9	19.0
Other income	2,717.6	3,126.9	115.1	114.4	20.3	18.3

Source: NBP calculations on the basis of Ministry of Finance data.

Tax receipts accounted for 90.6% of total income and were 5.8% higher compared to the first quarter of 2002. Higher receipts from indirect taxes were, among other things, derived from excise duty charged on electricity, not available in the first quarter of the previous year³. On the other hand, lower receipts from corporate income tax resulted primarily from the lowering of its rate from 28% in 2002 to 27% in 2003. A relatively high increase in receipts from personal income tax was attributable to the expansion of the taxable income to include some receipts from monetary capital (interest on bank deposits) and pay rises in the central government sector coming into effect as of January 1, 2003. Meanwhile, the high increase in other income (of 15.1%) was due to larger receipts from central government institutions and additional receipts from the restructuring charge⁴.

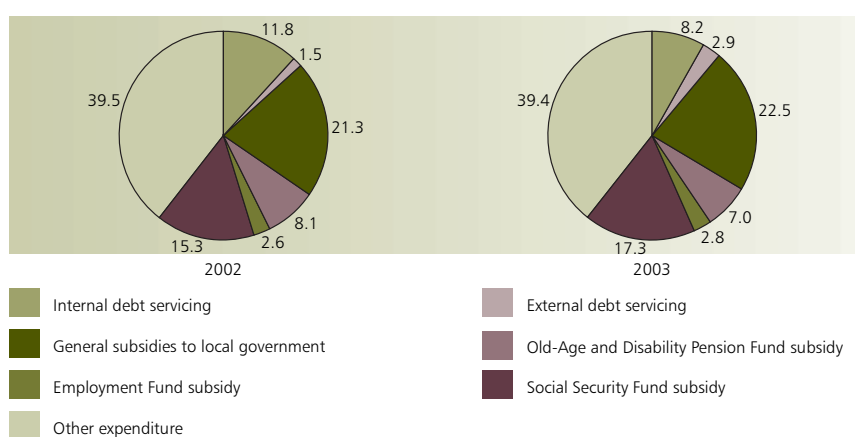
In the first quarter, central government expenditure was 2.3% (or 1.7% in real terms) higher than a year earlier, and showed only a slight decline against GDP compared to 2002 (from 26.8% to 26.7%). Original central government expenditure, i.e., net of the costs of debt servicing, was over 4.9% higher (4.3% in real terms) than the figure recorded in the first quarter of 2002.

The structure of central government expenditure in the first quarter 2003 changed in relation to the corresponding period of 2002, namely, costs of debt servicing and subsidies to the Old-Age and Disability Pension Fund were reduced, with more funds being allocated to local government institutions in the form of a general subsidy and to the Employment and Social Security Funds in the form of a subsidy (cf. Fig. 3).

Central government deficit in the first quarter 2003 was chiefly financed via issues of treasury securities in the domestic market (cf. Fig. 4). Given low privatisation receipts (0.2bn zloty, or 3% of the annual plan), additional funding was secured from external sources to cover central government liabilities.

The economic deficit of central government, i.e., budget deficit plus disbursements of compensations for central government sector, old-age and disability pensioners, and less social insurance contributions transferred by the Social Security Board (ZUS) to open-ended pension funds (OFE), came to 13.9bn zloty⁵ in the first quarter 2003 as against 14.1bn zloty a year before.

Figure 3
Structure of central government expenditure in Q1 2002 and 2003 (%)

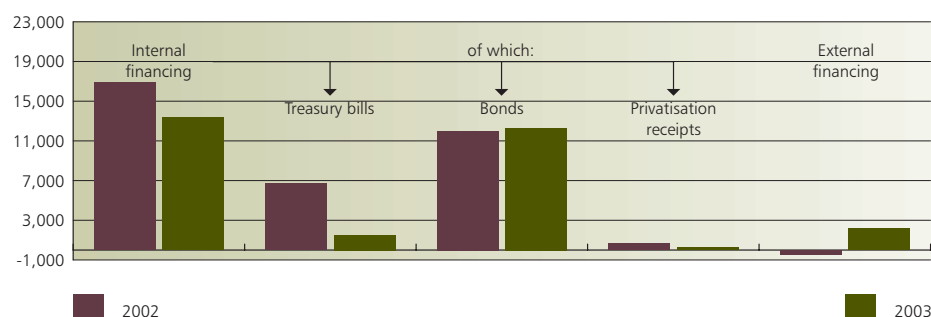


Source: Ministry of Finance.

³ Excise duty on electricity was imposed in March 2002 but first receipts were recorded in April.

⁴ Act on public assistance to entrepreneurs of special importance to the labour market of October 30, 2002, ("act on restructuring") enabled corporates to reduce their indebtedness with regard to key burdens under the public law through redemption of the outstanding and overdue amounts together with interest and prolongation charges. The initiation of the restructuring process involved contribution of obligatory charge of 15% of total claims covered by debt reduction scheme. This charge was reduced for the so-called sensitive sectors (e.g. arms production).

⁵ No figures are available on the deficit in other constituents of the public finance sector.

Figure 4**Financing of central government deficit in Q1 2002 and 2003 (zloty billion)**

Source: Ministry of Finance.

1.2. Domestic supply

According to GUS preliminary estimates, GDP growth in the first quarter 2003 was the same as in the fourth quarter 2002. Trends in GDP and added value growth across major groups of sections of the national economy are shown in Table 3.

As was the case in previous quarters, output growth in the first quarter could be traced to increased labour efficiency which exceeded salary growth. Falling employment was still recorded, though on a smaller scale than in 2002. Meanwhile, the registered unemployment rate rose but its growth remained within the bounds of seasonal change.

To a large extent, the high unemployment rate was the end result of structural mismatches of labour supply to labour demand, which was reflected in NAIRU (*non-accelerating inflation rate of unemployment*) estimates developed by the NBP for Poland⁶ and the analysis of dependencies between movements in the numbers of the unemployed and job offers (the Beveridge curve). The latter points to the aggravation of structural mismatches in the labour market in the first quarter of 2003⁷.

Table 3**GDP and added value growth, 2001–2003**

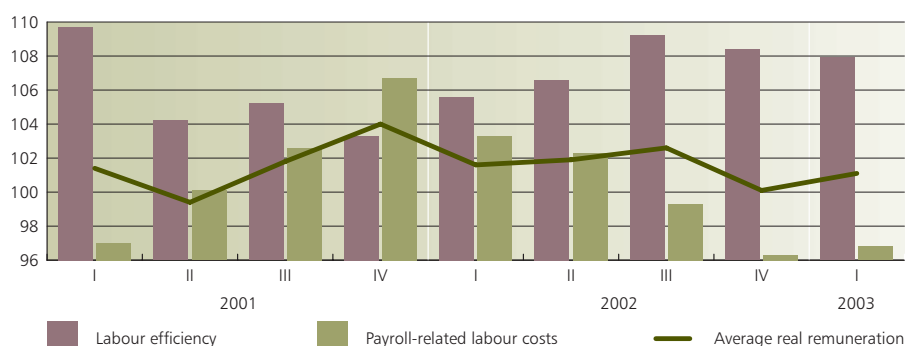
	2001					2002					2003
	2001	Q1	Q2	Q3	Q4	2002	Q1	Q2	Q3	Q4	Q1
Corresponding period previous year = 100											
Gross Domestic Product	101.0	102.2	100.9	100.8	100.2	101.4	100.5	100.9	101.8	102.2	102.2
Total Added Value	101.0	102.2	100.9	100.9	100.2	101.4	100.5	100.9	101.9	102.1	102.0
Industry	99.7	103.7	98.9	98.5	97.9	101.0	98.0	99.0	102.7	104.0	104.1
Construction	92.1	94.4	91.7	91.5	91.7	92.5	86.7	89.1	96.8	94.2	80.5
Market services	102.7	102.5	102.5	103.0	102.9	103.4	103.7	103.5	103.3	103.0	103.3

Source: GUS.

1.2.1. Output and GDP

According to NBP estimates, in the first quarter of 2003, total added value grew 2.0% (as against 2.1% in the fourth quarter 2002). The fourth quarter 2002 saw faster added value

⁶ Cf. Box 2.⁷ Cf. Box 1.

Figure 5**Remuneration, labour efficiency* and labour costs in industry (%)**

* Quotient of industry output and employment.

growth in market services and industry while a decline of added value in construction was further enhanced. GDP growth in the first quarter of the year was higher than that of added value and came to 2.2%. Similarly to previous quarters, GDP growth remained at a level below the potential one.

In the first quarter of 2003, the decrease in added value in construction was aggravated. In addition to low demand for construction work, this decline was due to weather conditions being significantly worse than in 2002. Output of medium-sized and large construction enterprises was 23.1% lower than the figure recorded in the first quarter 2002. Investment construction work dropped by 22.9%, whereas repair work decreased by 23.7%.

Table 4**Labour efficiency in Poland and in selected countries**

	Efficiency per employee			Relations		
	in thousand US dollars per year			Poland = 1		
	1999	2000	2001	1999	2000	2001
Poland	10.51	10.85	12.41	1.0	1.0	1.0
Belgium	64.36	57.62	56.70	6.1	5.3	4.6
Denmark	64.25	58.97	59.33	6.1	5.4	4.8
France	69.25	56.33	.	6.6	5.2	.
Ireland	59.28	56.19	58.88	5.6	5.2	4.7
Germany	55.43	48.46	47.85	5.3	4.5	3.9
Italy	57.15	51.06	50.65	5.4	4.7	4.1
Greece	30.56	28.54	30.50	2.9	2.6	2.5
Austria	55.90	50.66	60.27	5.3	4.7	4.9
Portugal	23.89	21.75	22.08	2.3	2.0	1.8
Spain	43.64	38.90	39.52	4.2	3.6	3.2
the United States	69.27	72.66	74.66	6.6	6.7	6.0
Japan	69.23	73.45	64.48	6.6	6.8	5.2
the Czech Republic	11.54	10.86	11.94	1.1	1.0	0.96
Hungary	12.60	12.09	13.45	1.2	1.1	1.08

Source: Economist Intelligence Unit, own calculations.

The faster, than in the fourth quarter of 2002, growth in added value of market services in the first quarter of 2003 was derived from a surge in sales of transport, storage and communication services, as well as real estate, renting and business activities. On the other hand, lower growth was recorded in retail sales. The corresponding figures in wholesale, on the other hand, declined when compared to the first quarter of 2002.

Industrial output in the first quarter of this year (of large and medium-sized enterprises) was 4.4% higher than in the corresponding period of 2002 (4.6% growth in the fourth quarter of 2002), of which 4.9% was attributable to manufacturing. Increased total output could be traced to continually increasing exports and consumption, and to the process of rebuilding inventories of materials and half-processed goods. Investment goods output, partially linked to exports, also expanded. In enterprises manufacturing primarily supply goods output surged by about 6%, in those producing consumer goods – by approximately 5%, and in those providing investment goods – by some 4%. Output growth rate was more pronounced in sectors considered carriers of technological progress (a 12.6% increase in relation to the first quarter of 2002) than in manufacturing.

In the first quarter of 2003, trends were maintained in labour efficiency growth and falling employment in industry. Nominal growth of average salaries was also slow. For the third consecutive quarter, labour costs in industry declined (cf. Fig. 5).

Since the beginning of the transformation period, labour efficiency in Poland has been improving rapidly. Nevertheless, it still remains several times lower than in western European countries (cf. Table 4) and is similar to the levels recorded by other countries of the region (the Czech Republic and Hungary).

1.2.2. *The labour market*

In the first quarter of 2003, no major change was recorded in tendencies observed in the labour market throughout 2002. Employment continued to fall, although at a slightly slower rate than a year before. The number of the unemployed kept on rising. Average employment in the corporate sector declined by 204 thousand persons compared to the first quarter of 2002, whereas the number of the registered jobless at the quarter's end increased in relation to the corresponding period of the previous year by 61.1 thousand persons.

In March, employers announced further layoffs. Still, the projected scale of job cuts is smaller than in 2002. More job offers (by some 25%) were reported than in the corresponding period of the previous year. Simultaneous growth in the number of job vacancies and the unemployed may point to growing mismatches of labour demand and supply (cf. Box).

Box 1. The Beveridge curve

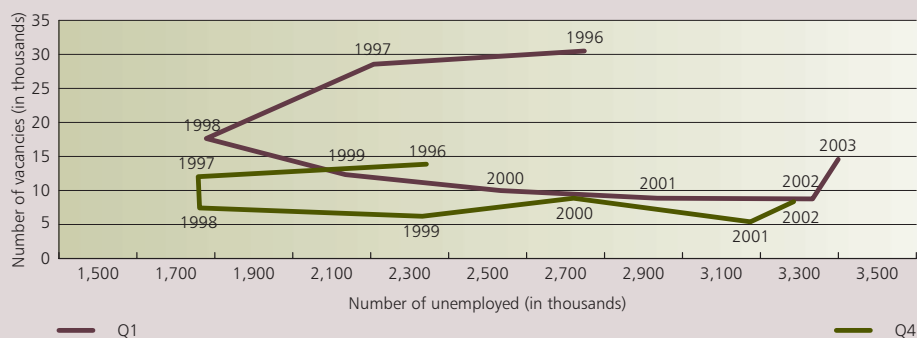
The Beveridge curve, depicting the dependency between the number of vacancies and the number of the unemployed, may serve to investigate structural matches in the labour market. The concurrent growth in the number of vacancies and unemployment reflects growing structural mismatches. The curve's value for Poland shows that in the years 1996–1997 there was both a decline in the number of job seekers and that of job offers, which may be interpreted as a reduction in structural mismatches in the labour market. Labour supply was better adapted to meet current market needs (cf. Fig. 6).

As of 1998, economic activity began to weaken gradually (the Russian crisis, downturn in global economy). At the time, unemployment increased dramatically, while the number of vacancies decreased.

In the second half of 1999, there was temporary growth in the number of vacancies, with concurrent increase in the number of job seekers. This suggested that mismatches in the labour market could become evident in that period. However, in the course of the following years the impact of adverse economic environment on the labour market was stronger than structural mismatches – faster growth of registered unemployment was accompanied by the shrinking number of job offers. In the first quarter of 2003, a slight increase was observed in the number of vacant jobs, accompanied by a further increase in the number of unemployed. This is indicative of growing mismatches.

For the figures from the fourth quarter of 2002, the Beveridge curve shows similar tendencies, though it remains at a lower level due to the smaller number of vacancies reported in that period (seasonal jobs, intervention and public works are nearly over).

Figure 6
The Beveridge curve, Poland in the years 1996–2003



Source: GUS.

Box 2. Estimated Non-Accelerating Inflation Rate of Unemployment (NAIRU)

The NAIRU rate corresponds to the level of unemployment which stabilises inflationary processes in the economy. It is assumed that the NAIRU rate depends primarily on structural factors, whereas the remaining portion of unemployment results from the operation of factors within the general economic environment. A key issue related to the NAIRU analysis is the incorporation of supply shocks affecting inflationary processes and the labour market. At this point, it is important to distinguish short-term temporary shocks (e.g., movements in oil prices) whose impact will disappear after a few years from relatively lasting long-term shocks (e.g., demographic changes in labour supply) which impact inflation rates until the moment the unemployment rate adapts to the new balance. The above assumptions allow the distinction of two types of NAIRU:

- short-term NAIRU – the unemployment rate at the moment of stabilising the inflation rate at its level over a given period of time (quarter or year). It depends on the NAIRU rate but is more volatile in time as it is additionally impacted by temporary supply shocks, expectations and inertia of inflationary processes and unemployment hysteresis*. Short-term NAIRU is strongly dependent on the current unemployment rate;
- long-term NAIRU – the unemployment rate after the economy's adaptation to all supply shocks and the long-term effects of monetary policy**.

NAIRU cannot be monitored. Therefore, for the purpose of its estimation econometric quantification methods are used (e.g., the Kalman filter) that are based, in most cases, on the Phillips curve. Because of the duration of supply shocks and the application of the Kalman filter procedure for estimating NAIRU rate, the short sample that we have at our disposal for the Polish economy proves a major obstacle and the generated results may not be fully reliable. Additionally, permanent structural changes render impossible estimates of the long-term NAIRU.

In order to arrive at short-term NAIRU estimates, the Phillips curve equation should be complemented with the variables which reflect shocks taking place in the economy (movements in real interest rates, import prices, prices of energy carriers, productivity and unit cost quotient). The system of relevant equations may then be written down as follows***:

$$\Delta\pi_t = \beta(L)\Delta\pi_t + \alpha(L)(u_t - u_t^*) + \delta(L)z_t + \xi_t, \quad (1)$$

$$u_t^* = u_{t-1}^* + \omega_t, \quad (2)$$

where:

π – inflation rate,

u – unemployment rate,

u^* – NAIRU,

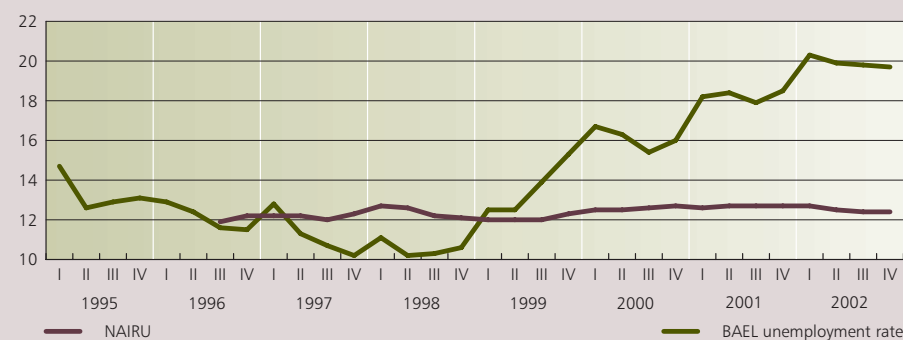
z – shocks,

α , β , δ – structural parameters of the equation (flexibility of the inflation rate against individual variables),
 ξ – random component.

The next step involved determining the optimum specification of the equation (1) and applying the Kalman filter procedure for equations (1) and (2).

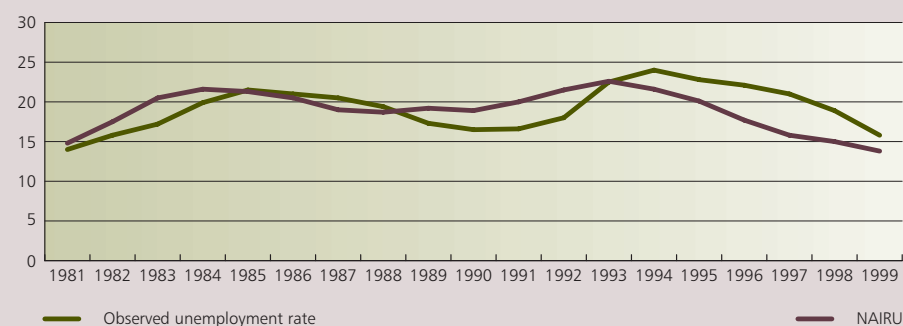
Following the estimation of such a system of equations for Poland (on a sample covering the period from Q1 1995 to Q4 2002), it was found that in the years 1997–2002 the NAIRU rate stood at 12–14% (cf. Fig. 7).

Figure 7
BAEL and NAIRU



Source: NBP and GUS.

Figure 8
Observed unemployment rate and NAIRU in Spain



Source: A. Estrada, et al. (2000) *Measuring the NAIRU in the Spanish economy*. Banco de España.

* Hysteresis is a phenomenon whereby movements in system parameters resulting from movements in external factors are determined by previous conditions of the system, i.e., its history. In the hysteresis model, NAIRU is determined by past unemployment levels, as cyclical unemployment may transform into structural unemployment (cf. M. Socha, U. Sztanderska (2000) *Strukturalne podstawy bezrobocia w Polsce [Structural foundations of unemployment in Poland]*, PWN, p. 62.).

** P. Richardson et al., (2000): The concept, Policy Use and Measurement of Structural Unemployment: Estimating a Time Varying NAIRU across 21 OECD Countries. OECD.2000, p. 8.

*** R. J. Gordon (1996): *The Time-Varying NAIRU and its implications for economics policy*. NBER Working Papers No. 5735; A. Meyler (1999): *The Non-Accelerating Inflation Rate of Unemployment (NAIRU) in Small Open Economy: The Irish Context*. Central Bank of Ireland Technical Paper.

Summing up:

- NAIRU rate in the years 1997–2002 remained at a very high level of 12–14%, which indicates a significant structural mismatch in the economy,
- as of mid-1999, NAIRU stays at a level considerably below the registered unemployment rate and BAEL, the end result of which is the absence of inflationary pressure on the part of the labour market,

- the difference between the observed unemployment rate and NAIRU (representing some 5 percentage points) indicates that factors within the general economic environment play a significant role in shaping the current labour market,
- the maintenance of high unemployment may contribute to the enhancement of the phenomenon of hysteresis and achievement of a still higher NAIRU rate in the future.

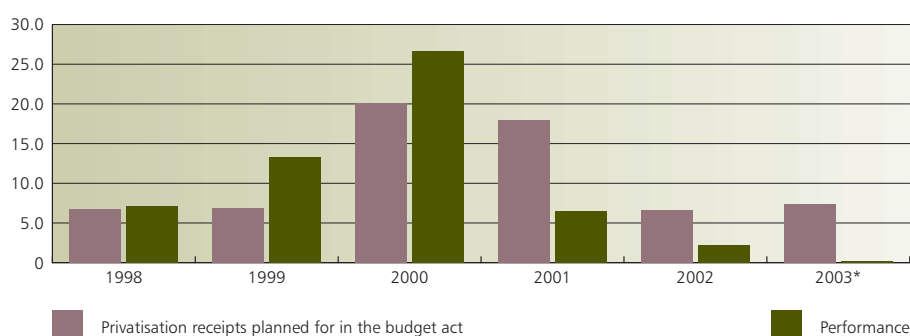
Such a high NAIRU rate was also recorded in other OECD countries. The results obtained for Spain⁸ suggest that it may exceed 20% (cf. Fig. 10) for a long time (of over 10 years). It was not until labour market reforms had been undertaken in the mid-nineties (such as the loosening of the approach to employment protection considered one of most restrictive in the world, reduction of the burden of social contributions, in particular in respect of low-paid employees, liberalisation of regulations on part-time employment) that both the NAIRU and observed unemployment rate could be lowered by over 5 percentage points within a relatively short time.

1.2.3. Privatisation processes

Although privatisation receipts provided for in the 2003 budget act (7.4bn zloty) point to a possibility that this year trends in privatisation processes will be altered, the performance of the first quarter of 2003 is all but optimistic. As it is, privatisation receipts for central government budget came to a mere 224.7m zloty, representing about 3% of the revenues planned for this year.

There is no specific time frame for initiating or finalising the privatisation of large state-owned companies (such as PKO BP S.A., PZU S.A., Rafineria Gdańska S.A., Elektrownia Bełchatów Rogowiec S.A., TP S.A., and PHS S.A.), which allows for the assumption that privatisation plans will not be executed in full for another consecutive year (cf. Fig. 9). In addition to the negative impact on the entire economy, this may also lead to lower than projected budget revenues. This, in turn, necessitates more extensive bond issues to finance the central government deficit.

Figure 9
Plans and financial impact of privatisation, 1998–2003 (zloty billion)



* Performance in the first quarter.

Source: Budget Acts 1998–2003, Ministry of Finance data.

1.2.4. Producer prices in industry and construction (PPI)

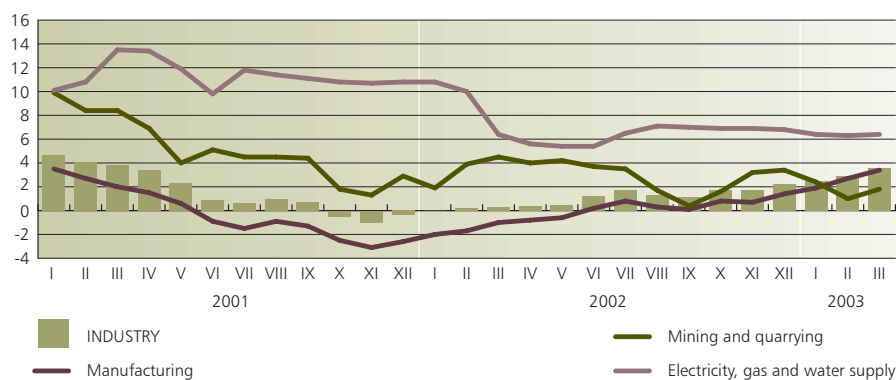
In the first quarter 2003, the PPI growth observed as of the first quarter 2002 was sustained, reaching 3% (cf. Table 5). Twelve-month PPI indices in the following months of the first quarter of 2003 also displayed growth trends (cf. Fig. 10). In March 2003, industrial output prices were 3.6% higher in relation to March 2002, including 3.4% in manufacturing.

⁸ A. Estrada, et al. (2000): *Measuring the NAIRU in the Spanish economy*. Banco de Espana.

Table 5
PPI in industry and construction

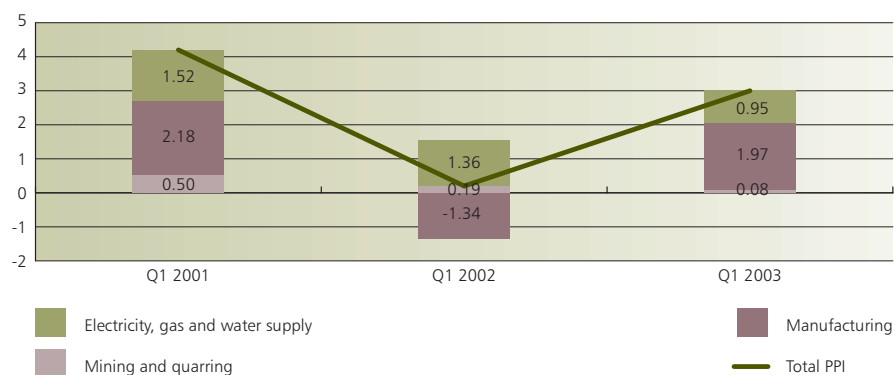
Item	2002				2003	
	Q1	Q2	Q3	Q4	Annual	Q1
	Corresponding period				Corresponding	
	previous year =100				perriod	
					previous year = 100	
INDUSTRY PPI,						
of which:	100.2	100.7	101.4	101.9	101	103.0
– mining and quarrying	103.4	103.9	101.9	102.8	103.0	101.7
– manufacturing	98.4	99.6	100.4	101.0	99.9	102.7
– electricity, gas and water supply	109.0	105.5	106.9	106.9	107.0	106.4
CONSTRUCTION	102.0	101.4	101.0	100.6	101.2	99.4

Figure 10
PPI in industry and its sections
(corresponding month previous year = 100)



Source: GUS.

Figure 11
Share of PPI price growth by industry section in PPI growth
(corresponding quarter previous year = 100)



Source: GUS.

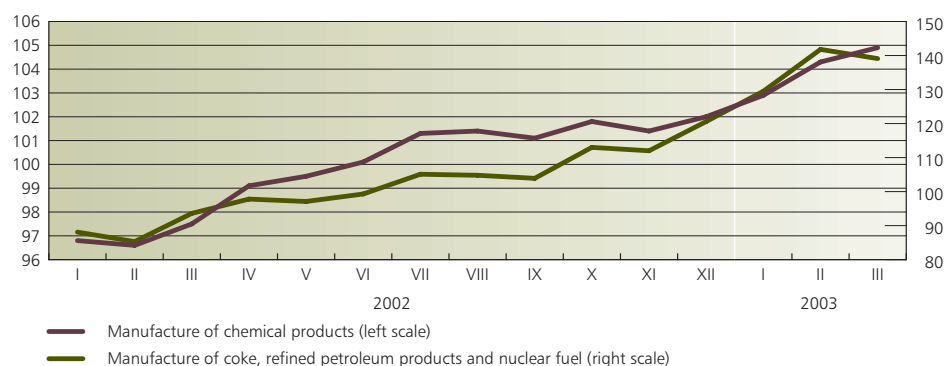
PPI growth in the first quarter 2003 was chiefly attributable to price growth in manufacturing and electricity, gas and water supply. Price growth in the manufacturing sector was mainly due to price growth in the “manufacture of refined petroleum products” sector (6.4% in January, 8.3% in February and 4.6% in March in relation to the previous month), among other things, as a result of oil price rises in international markets. The average monthly price of one Brent oil barrel in December 2002 was US\$ 28.5 (monthly growth of 17.4%), US\$ 31.2 in January (9.6% growth), and US\$ 32.8 in February (5.1%). Oil price growth in international markets was halted in March (a 7.7% decline to US\$ 30.3 per barrel). As a consequence, monthly price growth in March in the “manufacture of coke, refined petroleum products and nuclear fuel” sector was slower than a year before (6.6%).

In the first quarter, significant monthly price increases were also recorded in the “manufacture of chemicals and chemical products” (0.5% growth in January, 1.2% in February, and 1.4% in March). Price growth in this sector could also be traced to the higher prices of petrochemical raw materials (cf. Fig. 12).

Additionally, in the first quarter 2003 prices grew also in relation to March 2002 in the following sectors: “manufacture of base metals” (7.6%), “manufacture of pulp, paper and paper products” (5.0%) and “manufacture of chemicals” (4.9%). As a result, annual price indices in these sectors (cf. Fig. 13) were higher in March than in manufacturing. The sectorial structure of PPI price growth is reflected in the recently increasing impact of foreign exchange movements on the PPI index (for industries heavily dependent on external markets).

Figure 12

PPI in selected industry sectors (corresponding month previous year = 100)



Source: GUS.

Figure 13

PPI in selected sections and sectors (corresponding month previous year = 100)



Source: GUS.

In March, following a decline in previous months, an acceleration was recorded in price growth in mining and quarrying (1.8% growth compared to March 2002) derived from price growth in the “mining of metal ores” section (2.5% compared to February 2003).

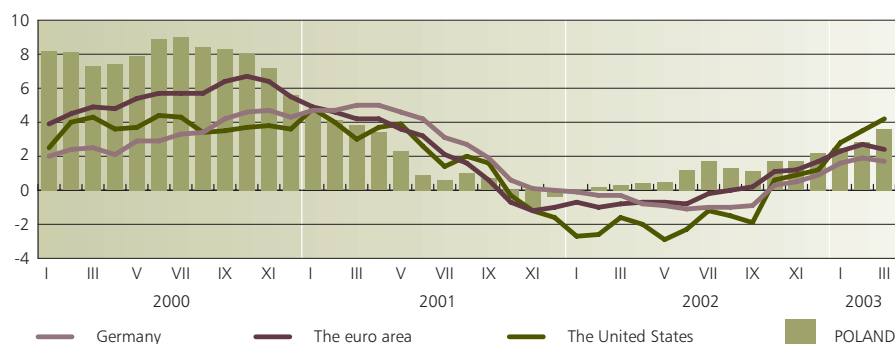
A relatively low price growth was recorded in the first quarter 2003 in the “electricity, gas and water supply” section (a 0.3% growth in the first quarter). The high annual price index in this section, remaining at a stable level for a number of months (averaging 6–7%), is derived from rapid growth in the period from April to August 2002 (of which 3.8% in July 2002).

In the first quarter, the falling construction output price growth, observed as of mid-2000, was sustained. In March, these prices were 0.9% lower than a year before when their index stood at 2.0%. Such weak price growth is due to the deepening crisis in construction⁹.

The high level of PPI indices was attributable primarily to oils price rises in most European countries and the US. PPI index growth in the United States in January 2003 came to 2.8%, 3.5% in February, and 4.2% in March. In the euro area, PPI price index stood at 2.3% in January, at 2.7% in February, and at 2.4% in March (cf. Fig. 14). A different trend can be observed in the Czech Republic where a PPI price decrease persisted in the first quarter of 2003. In Hungary, on the other hand, a PPI price growth occurred in February (cf. Fig. 15).

Figure 14

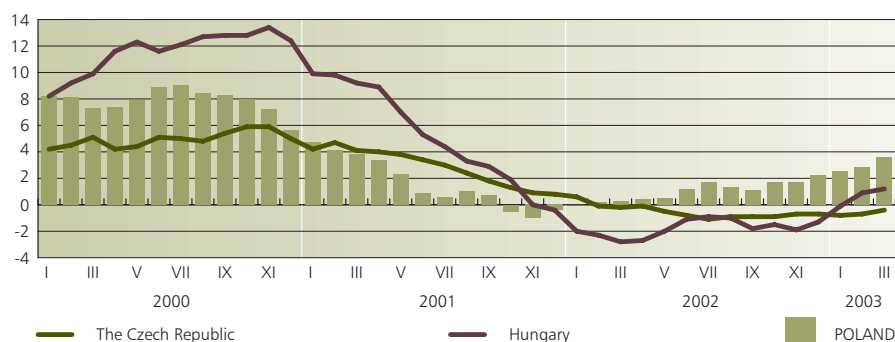
PPI in Germany, euro area, the US and Poland (corresponding month previous year = 100) (%)



Source: Bloomberg.

Figure 15

PPI in the Czech Republic, Poland and Hungary (corresponding month previous year = 100) (%)



Source: Bloomberg.

⁹ Construction output (in enterprises employing more than 9 persons) in the first quarter of this year was 20.9% lower than in the corresponding period of the previous year.

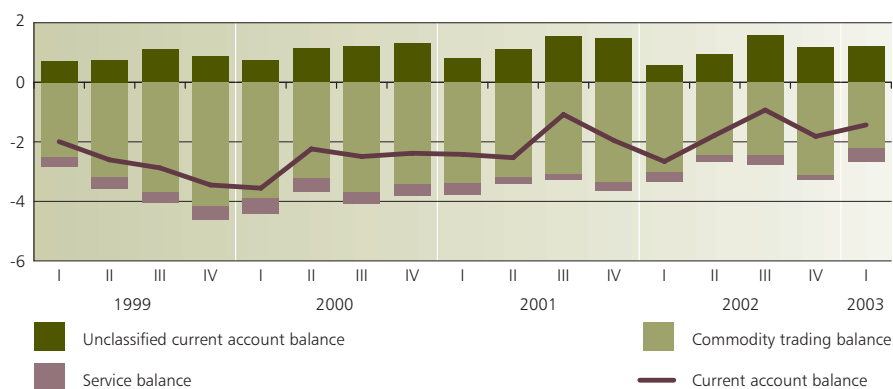
2 External factors

2.1. Foreign trade and the balance of payments

In the first quarter of 2003, the current deficit on the balance of payments amounted to 1.4bn euro and was 1.2bn euro lower than in the corresponding period for the previous year (cf. Fig. 16). A reduction in commodity trading deficit and an increase in the positive balance on unclassified transactions were decisive in improving the current account balance. Although a decline in negative balance of commodity trading has been observed as of the third quarter 2000, a growth in the surplus of unclassified transactions was recorded after a one-year break. The growing deficit on services and incomes

Figure 16

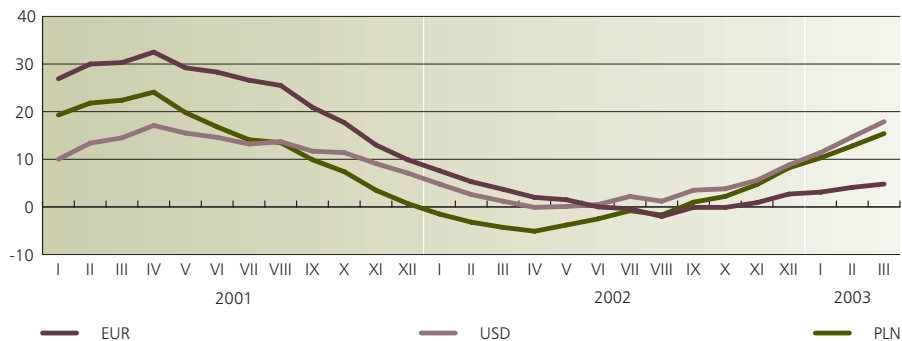
Current account balance, 1999–2003 (quarterly figures in EUR bn)



Source: NBP.

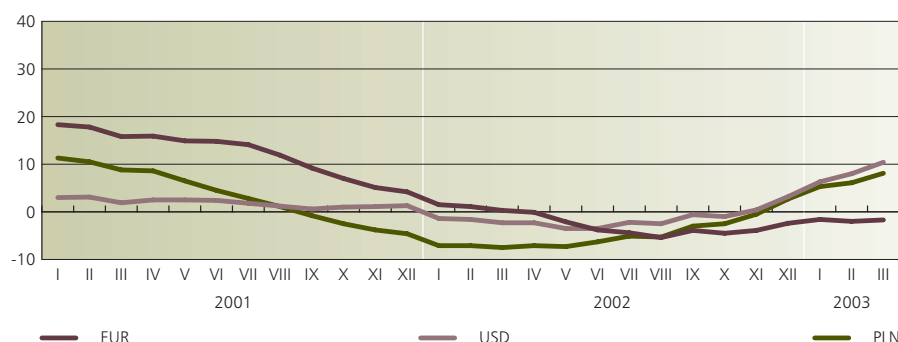
Figure 17

**Polish export growth, cash basis – 12-month progressing average
(percentage change on corresponding period previous year)**



Source: NBP.

Figure 18
Polish import growth, cash basis – 12-month progressing average
(percentage change on corresponding period previous year)



Source: NBP.

contributed towards aggravating the negative current balance. Negative balance on services (470m euro) was the highest for the last three years, and its growth was due to dramatically shrinking revenues (by 15.1% compared to the first quarter of 2002), with simultaneous stabilisation of expenditure.

The negative commodity trading balance, amounting to 2.2bn euro in the first quarter 2003, was the lowest for the last six years. Although it has been falling steadily since the second half of 2000, its decline (of 770m euro) was the most pronounced in the first quarter of this year. This could be attributed to the widening gap between the growth in export receipts and import expenditure. From January to March 2003, commodity exports grew by 6.4%, whereas imports dropped by 2.5% in relation to the corresponding period for the previous year (cf. Fig. 17 and Fig. 18).

In the first quarter of 2003, trade dynamics were materially affected by foreign exchange volatility. A strong appreciation of the euro against the US dollar significantly lowered the value of traded goods expressed in euro¹⁰.

Box 3. Impact of zloty depreciation against the euro on Polish foreign trade

1. Model-based analysis

On the basis of an econometric model of the external sector, an "impulse-response" analysis was carried out, where the impulse was assumed to be a 10% zloty depreciation against the euro, and monitored variables included prices, volumes and values of euro-denominated exports and imports. Depreciation of the zloty against the euro results in the lowering of prices expressed in euro and the growth of those expressed in zloty. Thus, the price competitiveness of Polish goods in international markets improves, while that of imported goods in the domestic market deteriorates.

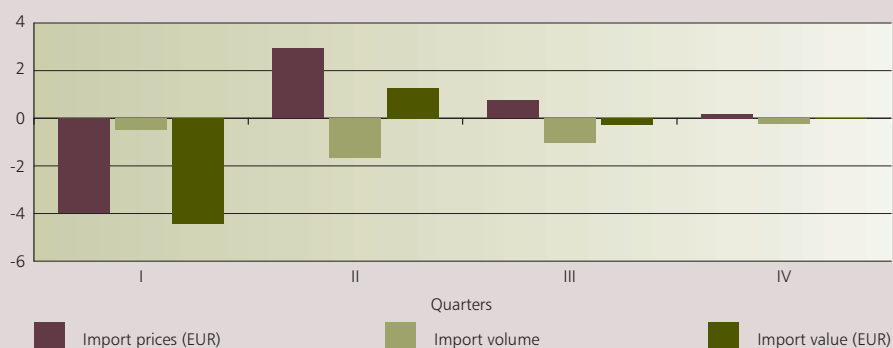
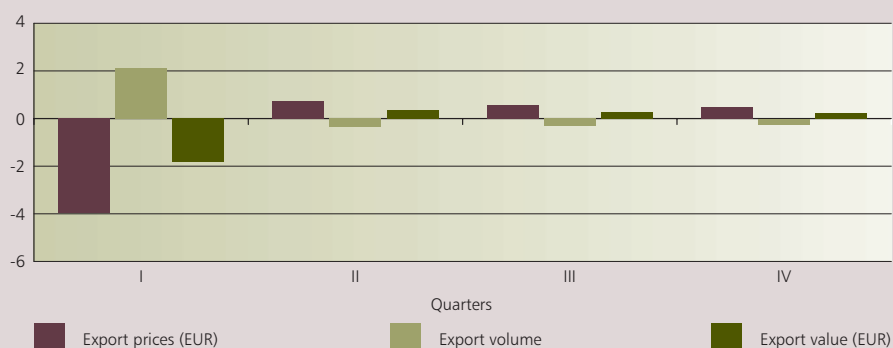
The following results were obtained:

Imports

In the quarter in which the zloty depreciated against the euro (such depreciation is to be understood as the lowering of the average quarterly PLN/EUR exchange rate in relation to the previous quarter), import prices expressed

¹⁰ In the first quarter of 2003, the value of export receipts expressed in US dollars grew 30.3%, whereas that of import payments increased 19.3% in relation to the first quarter of 2002. Meanwhile, the value of zloty-denominated exports expanded 23.3%, while that of imports climbed 12.8%.

According to customs statistics, in the course of the initial three months of 2003 the value of exports expressed in EUR, US dollars, and zloty grew 4.8%, 27.9% and 21.2%, respectively, against the corresponding period of the previous year. Meanwhile, the value of imports expressed in EUR, US dollars, and zloty expanded 2.7%, 25.3% and 18.7%, respectively, compared to the period January–March 2002.

Figure 19**Impact of 10% zloty depreciation on quarterly growth rate of (%):****Figure 20****Impact of 10% zloty depreciation on quarterly growth rate of (%):****Table 6****Impact of 10% zloty depreciation against the euro on annual growth rates (%):**

	Year 1	Year 2	Year 3
Import prices (EUR)	-1.33	1.30	0.00
Import volume	-2.28	-1.46	-0.32
Import value (EUR)	-3.61	-0.16	-0.32
Export prices (EUR)	-3.00	+1.19	0.00
Export volume	1.65	-0.64	0.00
Export value (EUR)	-1.35	0.55	0.00

in euro fell quarterly by an average of 4.0%. In the following quarters, these prices grew by 2.9%, 0.7% and 0.2%, respectively. As a result, in the year of zloty depreciation these prices decline by an average of 1.3%, and regain their former values the following year.

Meanwhile, the growth of import prices expressed in zloty leads to a decrease in the price competitiveness of imported goods in the domestic market. As a result, import volume declines. On the whole, during the first year import volume fell by 2.3%, and by a further 1.5% in the following year. Thus, a 10% depreciation of the zloty against the euro resulted in a decline in the annual growth rate of import value expressed in euro by 3.6% and 0.2% within the first and the second year of the impulse, respectively.

Exports

In the quarter in which the zloty depreciated against the euro, export prices expressed in euro declined on average by 4.0%. In the following three quarters, these prices grew by 0.7%, 0.6% and 0.5%, respectively. As a result,

in the year of the depreciation export prices declined by an average of 3.0%, whereas in the following year they rose by 1.2% and stabilised. The fall in export prices expressed in euro leads to a higher price competitiveness for Polish goods in international markets, and effectively results in an increase in the volume of Polish exports. In the course of the first year, export volume grew by an average of 1.7%, whereas in the second year (due to export price growth) it declined by 0.6%. In the case of exports, the price and volume effects of the euro appreciation were inverse, and price decrease was slightly more pronounced than volume growth. This means that following the zloty depreciation the value of Polish exports expressed in euro declined by 1.3% in the first year, and grew by 0.6% in the second.

2. Impact of zloty depreciation on Polish foreign trade in the years 2002–2003

Based on the model, an analysis was carried out of the impact of zloty depreciation in 2002 and in the first quarter of 2003 on the prices and volume of Polish foreign trade. Two scenarios were compared. Under the standard scenario, the zloty exchange rate was equal to its actual rate, while under the alternative scenario, it was assumed that the zloty rate for the entire period remained at a level recorded in the first quarter of 2002. A comparison of the results obtained for both scenarios led to the following conclusions. Following the zloty depreciation, import and export prices expressed in euro declined by 1.9% and 4.3%, respectively. The volume of imports shrank by 3.8%, while the volume of exports expanded by 1.9%. As a consequence, the value of imports and exports expressed in euro fell by 5.7% and 2.4%, respectively.

Table 7

Impact of foreign exchange movements in the period from Q1 2002 to Q1 2003 on foreign trade prices and volume

	2002				2003
	Q1	Q2	Q3	Q4	Q1
Scenario assumptions regarding average quarterly PLN/EUR rate:					
Standard scenario	3.62	3.71	4.08	4.00	4.18
Alternative scenario	3.62	3.62	3.62	3.62	3.62
Difference (%)	0.0	2.6	12.7	10.4	15.5
Impact of FX movements in a given quarter on:					
Import prices (EUR)	0.0	-1.0	-4.1	-0.2	-1.9
Import volume	0.0	-0.1	-1.2	-2.9	-3.8
Import value (EUR)	0.0	-1.1	-5.3	-3.1	-5.7
Export prices (EUR)	0.0	-1.0	-4.7	-3.0	-4.3
Export volume	0.0	0.2	1.1	1.6	1.9
Export value (EUR)	0.0	-0.8	-3.6	-1.4	-2.4

Similarly to cash basis statistics, equally customs statistics point to a reduction in the deficit on the Polish foreign trade balance in the first quarter of 2003. Compared to the January–March 2002 period, this figure shrank by 125m euro. The foreign trade balance also improved owing to export growth (4.8%) being faster than that of imports (2.7%). Still, trade growth was distinctly slower than in the fourth quarter of 2002 (by 12.7% and 6.1%, respectively).

One of the reasons for weaker export growth was a slower increase in sales to the European Union. In the period from January to March 2003, exports to the largest recipient of Polish goods grew by 6.1% when compared to the first quarter of 2002, while in the fourth quarter of 2002 they increased by 13.4% against the corresponding period of the previous year. Growth forecasts, consistently revised downwards, indicate that the economic situation in the European Union is not likely to improve substantially when compared to the previous year, which may still impair the growth of Polish exports. The spring forecast of the European Commission¹¹ provides for the GDP

¹¹ Spring 2003, Economic Forecasts, European Commission, Directorate-General for Economic and Financial Affairs.

Table 8

Movements in 2003 forecasts of the main GDP constituents in the European Union and Germany (percentage change in relation to the corresponding period for the previous year, constant prices)

	European Union				Germany			
	2002	2003 forecast			2002	2003 forecast		
		spring	autumn	spring		spring	autumn	spring
		2002	2002	2003		2002	2002	2003
Gross Domestic Product	1.0	2.9	2.0	1.3	0.2	2.7	1.4	0.4
Domestic demand	0.7	2.9	2.1	1.5	-1.5	3.8	1.7	0.4
Personal consumption	1.2	2.6	1.8	1.5	-0.6	2.1	1.1	0.2
Collective consumption	2.6	1.7	1.7	1.9	1.5	1.1	1.0	0.5
Gross fixed investment	-2.6	3.9	2.2	0.8	-6.7	3.6	1.6	0.0
Movements in inventories (as percentage of GDP)	-0.2	0.1	0.1	-0.1	-0.7	0.1	-0.2	-0.5
Exports	1.0	6.8	5.2	3.3	2.6	7.0	5.0	3.4
Imports	-0.1	7.1	5.7	3.8	-2.1	7.5	6.3	3.9

Source: European Commission.

growth of only 1.3% in the EU in 2003 (as against 1.0% in 2002 – cf. Table 8). Forecasts for EU imports were also revised downwards markedly. Positive developments include an accelerated growth in exports to Germany. In the first quarter 2003, their value increased by 6.0%, being definitely faster than during the entire of 2003.

The slower growth of exports to the EU was not compensated by a substantial increase in exports to CIS countries (cf. Table 9), as had been the case in the previous year. In the period from

Table 9

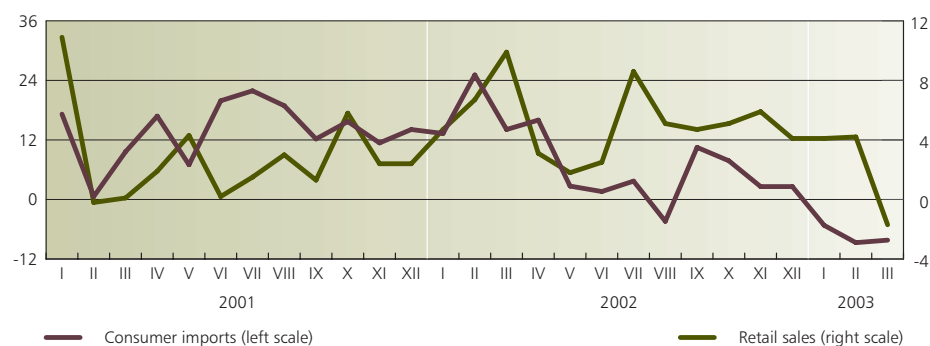
Movements in exports by major groups of countries (in EUR)

	Structure			Growth			Growth impact		
	2002			2002			2002		
	2002			2002			2002		
	2003			2003			2003		
	I-III	I-XII	I-III	I-III	I-XII	I-III	I-III	I-XII	I-III
Total	100.0	100.0	100.0	4.4	8.2	4.8			
Developed countries	75.9	75.1	76.3	1.8	8.3	5.4	1.4	6.2	4.1
EU	70.4	68.8	71.3	2.0	7.5	6.1	1.5	5.2	4.3
Germany	33.4	32.3	33.7	-3.3	1.8	6.0	-1.2	0.6	2.0
France	6.2	6.0	6.5	21.7	20.6	9.5	1.2	1.1	0.6
Great Britain	5.3	5.2	4.8	20.2	12.4	-6.1	0.9	0.6	-0.3
Italy	5.9	5.5	5.4	-1.5	10.4	-2.5	-0.1	0.6	-0.1
Central and Eastern Europe	12.0	12.8	12.7	11.0	12.5	11.0	1.2	1.5	1.3
CIS	6.9	7.2	6.4	31.4	11.2	-2.8	1.7	0.8	-0.2
Russia	3.3	3.3	3.0	49.0	19.7	-5.6	1.1	0.6	-0.2
Developing countries	5.0	4.8	4.4	0.5	-5.2	-7.6	0.0	-0.3	-0.4

Source: FTIC (as at June 12, 2003).

Figure 21

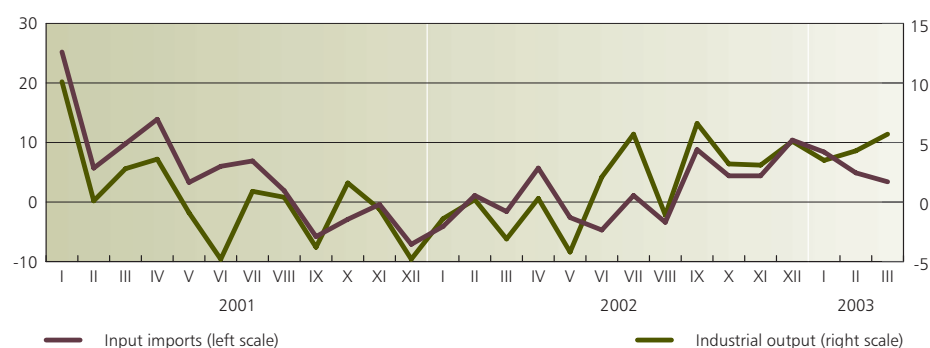
Growth of consumer imports (EUR current prices) and retail sales (constant prices)
(percentage change on the corresponding period for the previous year)



Source: FTIC and GUS.

Figure 22

Growth of input imports (EUR current prices) and industrial output (constant prices)
(percentage change on the corresponding period for the previous year)



Source: FTIC and GUS.

January to March 2003, the value of Polish exports to Russia decreased by 5.6% when compared to the corresponding period of 2002, chiefly due to the reduced import demand in that country.

In the analysed period, exports to the countries of Central and Eastern Europe appear fairly positive. Given the relatively small share of these two groups of countries in the structure of Polish exports, they could not have a significant influence on their general growth.

GUS customs statistics after the initial three months of this year attest to a distinct slowdown in import growth when compared to the fourth quarter of 2002. Import growth was weakened primarily due to lower imports of consumer goods (cf. Table 10). This reflects weak consumer demand, confirmed again by a marked slowdown in retail sales growth in that period (cf. Fig. 21). Meanwhile, raw material imports at the beginning of 2003 showed a relatively high growth, which was related mainly to the recovery observed in industrial output (cf. Fig. 22). Decline in the imports of investment goods was also less significant than in the fourth quarter of 2002.

A marked reduction in Poland's foreign trade deficit (both registered and not registered) in the first quarter of 2003 was due to zloty depreciation, mainly against the euro, initiated in 2002¹². Combined with the disinflationary tendencies persistent in the domestic market, it

¹² Cf. Point 6.3.2. *Exchange rates*.

Table 10
Movements in import distribution structure according to purpose (EUR)

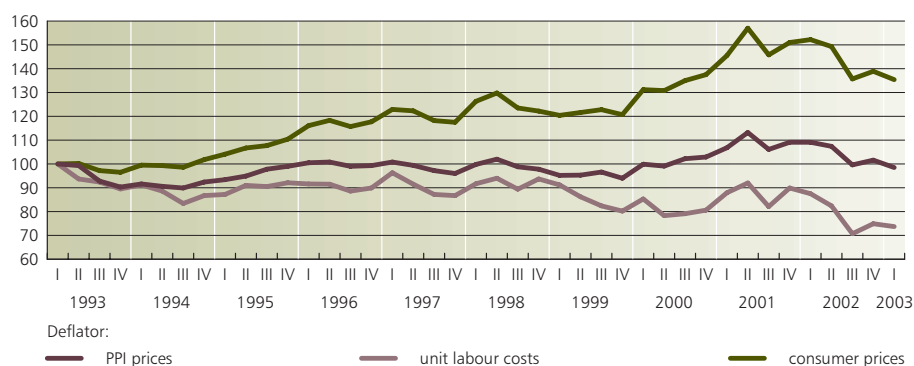
	Structure			Growth			Growth impact		
	(%)			(% change to previous year)			(%)		
	2002 I-III	2002 I-XII	2003 I-III	2002 I-III	2002 I-XII	2003 I-III	2002 I-III	2002 I-XII	2003 I-III
Total	100.0	100.0	100.0	1.4	4.4	2.7			
Investment goods	16.8	19.2	17.6	-6.5	9.8	7.8	-1.2	1.8	1.3
Investment goods, exclusive									
of means of transport	13.8	14.1	13.2	-4.8	-1.9	-1.5	-0.7	-0.3	-0.2
Industrial means of transport	3.0	4.9	4.4	-13.7	66.5	50.3	-0.5	2.1	1.5
Indirect wear and tear	59.5	59.1	61.0	-1.5	1.6	5.5	-0.9	1.0	3.2
Consumer goods	23.6	21.5	21.3	17.3	7.8	-7.5	3.5	1.6	-1.8
Foodstuffs and beverages	4.5	3.6	3.6	13.5	-1.0	-15.8	0.5	0.0	-0.7
Personal cars	5.1	4.6	4.9	32.6	20.6	-2.0	1.3	0.8	-0.1
Durable goods	2.7	2.7	2.3	5.7	0.0	-13.6	0.1	0.0	-0.4
Semi-durable goods	4.4	4.0	3.9	24.3	12.8	-7.7	0.9	0.5	-0.3
Non-durable goods	6.8	6.5	6.3	10.9	5.6	-4.7	0.7	0.4	-0.3

Source: FTIC (as at June 12, 2003).

improved significantly the terms of competition in the Polish foreign trade. The above phenomena were reflected in a strong depreciation of the real zloty rate (cf. Fig. 23, Fig. 24, and Table 11) and improved competitiveness indices of the Polish economy, with the latter mitigating the negative impact of the economic downturn in the European Union on the results of Polish foreign trade (cf. Table 12). A significant improvement in the ratio of transactional export prices to unit labour costs is noteworthy as it reflects increased profitability of Polish export output in relation to the profitability of the export output of our trade partners.

The current deficit in the first quarter of 2003 was financed in 62.1% by inward long-term foreign capital in the form of direct investment, totalling EUR 0.9bn. The maintenance of the ratio of current deficit financing by capital inflows on a level similar to that recorded in the previous quarter, despite a reduction in the current deficit, resulted from lower direct inward investment.

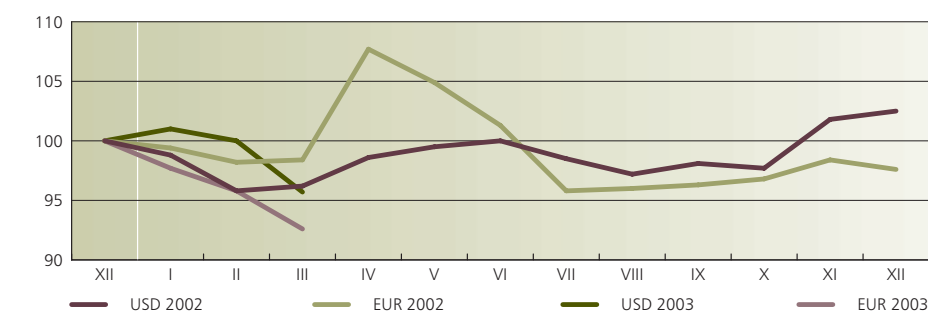
Figure 23
Real effective zloty exchange rate, 1993–2002 (quarterly figures, Q1 1993 = 100)



Source: NBP.

Figure 24

Real* zloty exchange rate against currencies of major trade partners
(December previous year = 100)**



* PPI deflated; ** increase in index value signifies appreciation.

Source: NBP.

Table 11

Effective zloty exchange rates, 2001–2002
(percentage change on the corresponding period previous year)

Zloty exchange rate index	2001				2002				2003
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Nominal	6.3	15.9	5.8	8.1	2.7	-5.3	-6.4	-6.6	-9.4
Real PPI deflated	6.9	14.2	3.8	6.1	2.1	-5.1	-6.1	-6.9	-9.7
Real deflated by unit labour costs	3.1	17.5	3.8	11.6	-0.4	-10.4	-13.9	-16.7	-15.8*

"-" – signifies depreciation of zloty exchange rate, * – an estimate

Source: NBP and GUS.

Table 12

Movements in exports price and cost competitiveness ratios
(percentage change on the corresponding period previous year)*

	2001				2002				2003
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Export prices to PPI prices	-1.9	-7.6	-2.1	-3.1	0.5	6.5	3.8	6.8	4.8
Export prices to unit labour costs	2.8	-10.0	-3.6	-10.7	0.5	10.5	11.9	19.7	14.2

* Increase in ratio value signifies improved competitiveness.

Source: GUS, own calculations.

Table 13

Selected prudential ratios

	2002				2003
	Q1	Q2	Q3	Q4	Q1
Current account balance to GDP (%)	-4.0	-3.6	-3.6	-3.6	-3.1
Commodity payment balance to GDP (%)	-6.1	-5.8	-5.5	-5.5	-5.2
Direct investment to current account balance (%)	42.9	51.7	69.2	71.5	62.1
(Current account balance less direct investment) to GDP (%)	-3.1	-1.7	-0.6	-1.0	-1.2
Foreign debt service to exports (%)	42.3	42.3	40.5	62.8	–
Official reserve assets expressed in months of imports	8.6	7.7	7.9	6.8	8.1

Source: NBP figures and estimates.

This decline was accompanied by an improvement in the structure of incoming capital dominated by funds contributed to enterprises in the form of equity stakes. Repayments of loans received from direct foreign investors exceeded the inflow of new loans in the first quarter. At the same time, net portfolio investment gained importance as a source of financing the current deficit, following the issue of foreign treasury bonds.

An assessment of external inequilibrium was carried out on the basis of selected prudential ratios (cf. Table 13). Except for those depicting the degree to which the current deficit is financed by direct inward investment, all indices have improved relative to the previous quarter.

2.2. External prices

In the first quarter of 2003, the price growth trend in international markets for raw materials, observed in the second half of 2002, was maintained (cf. Table 14). Among non-energy raw materials, the strongest relative growth was recorded in prices of industrial raw materials of agricultural origin and metals.

In the discussed period, oil prices were subject to further rapid growth. The average Brent oil price in the period from January to March 2003 came to US\$ 31.4 per barrel, i.e., US\$ 4.6 more than in the fourth quarter of 2002 and as much as US\$ 10.3 more than in the first quarter of 2002. At the same time, this constituted the highest average quarterly price since the fourth quarter of 1990. Today, just as it was the case then, oil prices are, to a great extent, affected by political developments in the Persian Gulf.

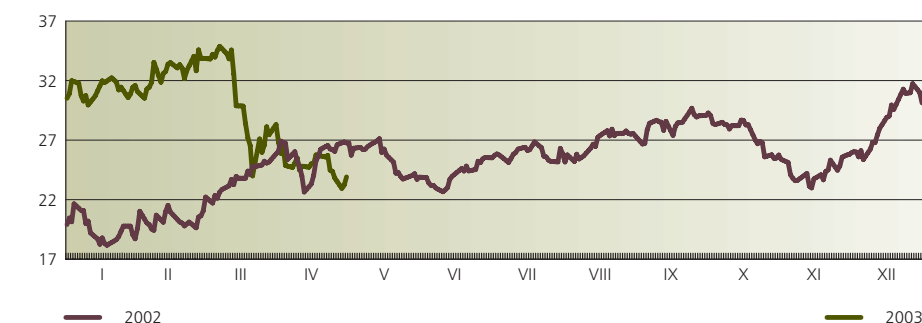
The prospect of an outbreak of hostilities in the Persian Gulf and the resulting potentially serious disturbances in oil production and supply not only in Iraq itself but also in the neighbouring countries contributed to the rapid growth in prices of this raw material as early as in December 2002. In early March 2003, the Brent oil price hit a record high, approaching US\$ 35 per barrel (cf. Fig. 25), with the war premium estimated at about US\$ 10. The announcement made by the American administration that the Iraq war would be a blitzkrieg and the subsequent quick progress made by the US and British troops on the first days of the military operation helped significantly reduce uncertainty in oil markets, and thus, led to a marked decline in oil prices. The end of hostilities and the limited damage to Iraqi oil installations were welcomed as a promise of a relatively rapid resumption of oil production in that country. These developments contributed to a further decrease in oil prices at the beginning of April 2003.

Table 14
Movements in prices of basic raw materials (in relation to previous year, expressed as %)

	In relation to the corresponding quarter for the previous year				In relation to the previous quarter			
	2002		2003		2002		2003	
	II	III	IV	I	II	III	IV	I
Non-energy raw materials,	-0.8	8.4	17.4	13.4	1.6	6.1	2.7	2.4
of which:								
Food	2.9	12.3	19.0	14.8	0.7	11.4	2.6	-0.3
Industrial raw materials,	-5.5	3.0	15.0	11.3	2.9	-1.2	2.8	6.6
of which:								
Raw materials of agricultural origin	-3.0	6.8	26.1	18.3	5.7	1.3	2.8	7.4
Metals	-7.5	-0.6	6.6	5.7	0.6	-3.7	3.0	5.8
Oil (Brent)	-8.1	6.4	38.7	48.5	18.6	7.5	-0.4	17.0

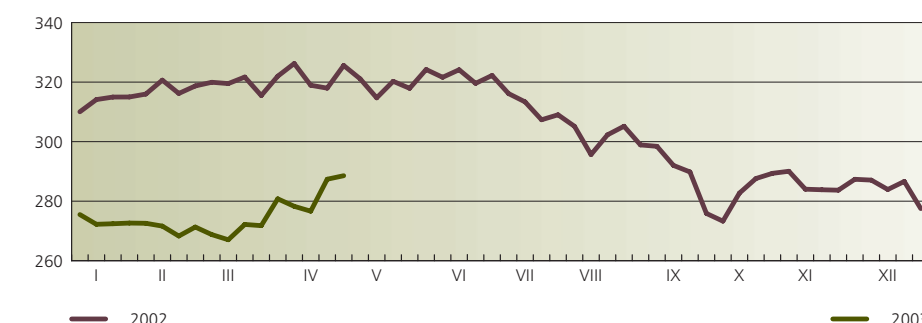
Source: "The Economist" and Reuters.

Figure 25
Brent oil prices, 2002–2003 (daily figures in USD per barrel)



Source: Reuters.

Figure 26
US oil reserves, 2002–2003 (end-of-week figures in millions of barrels)



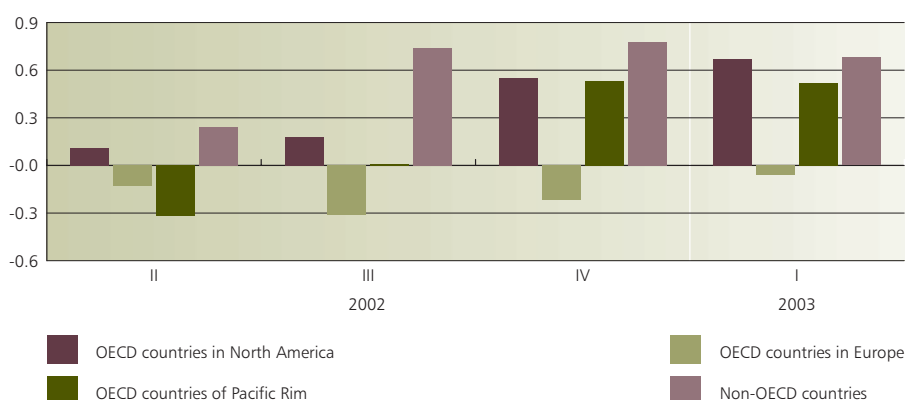
Source: American Petroleum Institute.

Until the outbreak of the Iraqi war, additional pressure on oil price growth came from shrinking oil (cf. Fig. 26) and oil product reserves due to growing demand¹³. This was chiefly attributable to higher demand for heating oil in North America because of a colder than usual winter season in that part of the world. Temporary growth in demand for oil was also due to larger orders being placed by the US and British armies fighting in Iraq. Additionally, demand for oil grew as a result of using it as a substitute of other sources of energy in industrialised countries (natural gas in the US and nuclear energy in Japan). Meanwhile, oil demand was weakened by a reduction in passenger air traffic caused by the Iraqi conflict and the SARS epidemic.

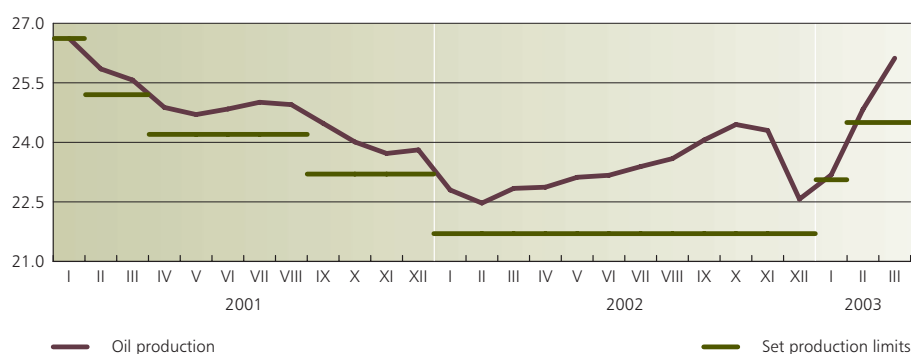
A lengthy strike in Venezuela's oil sector led to a substantial decline in the world's oil supplies at the turn of 2002 and 2003. In January 2003, oil production in this country fell to 630 thousand barrels a day, i.e., almost five times lower than in November 2002. In the context of a dramatic fall in oil production in Venezuela and rapidly growing oil prices in international markets, OPEC raised on two occasions production limits for its member states in the first quarter of 2003¹⁴ in an attempt to defend its trading position. As a result, OPEC output was 1.8m barrel per day higher in the first quarter of 2003 than in the corresponding period of the previous year. A significant surge in oil production in OPEC countries in February and March 2003 (cf. Fig. 28), chiefly due to increased output in Saudi Arabia and the gradual resumption of oil exports in Venezuela, enabled developed countries, especially the United

¹³ In late February and early March 2003, the US oil reserves fell below 270m barrels, i.e., they were over 50m barrels lower than in the previous year and hit their record low since 1979 when the US Fuel Institute had begun to monitor them.

¹⁴ For the first time in January 2003, by 1.3m barrels per day, and then in February, by another 1.5m barrels per day.

Figure 27**Movements in oil demand by world region (in millions of barrels a day)**

Source: International Energy Agency.

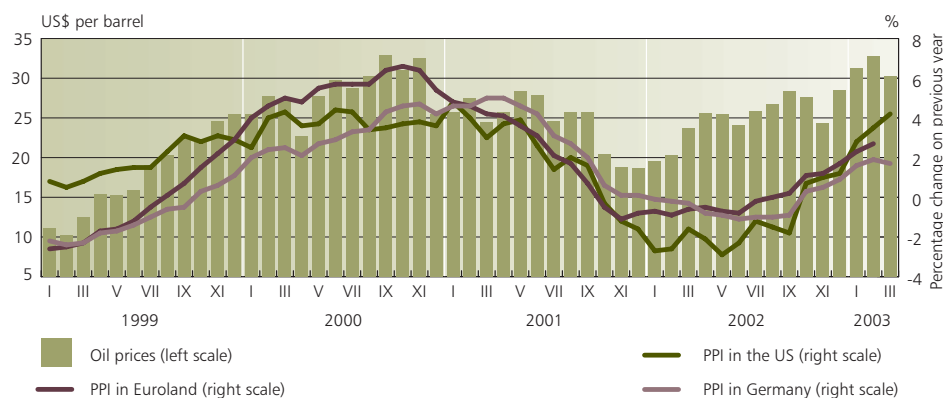
Figure 28**Oil production in OPEC countries, 2001–2003 (in millions of barrels a day)**

Source: Bloomberg.

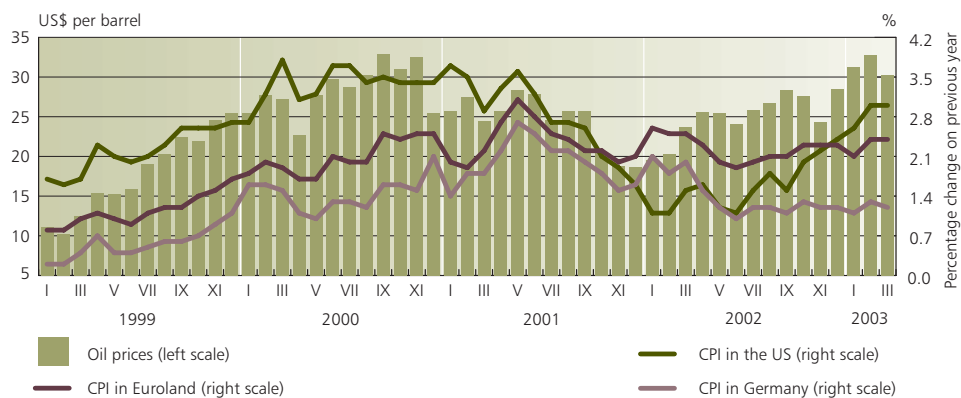
States, to replenish their oil reserves in mid-March. Higher oil output in OPEC countries also compensated for supply shortages caused by the withholding of oil production in Iraq after the outbreak of the war. Additionally, oil production in non-OPEC countries, in particular Russia, was also higher in the first quarter of 2003.

In the first quarter of 2003, oil price growth contributed to accelerated price growth in the world economy, including in particular PPI prices (cf. Fig. 29). In the US, the annual PPI index in March 2003 came to 4.2% (as against 2.8% in December 2002), whereas in the euro area it stood at 2.4% (1.7%). Meanwhile, the impact of oil price growth on consumer prices proved weaker than in previous years, in particular in the euro area (cf. Fig. 30). There, HICP reached 2.4% in March (as against 2.3% in December 2002), while in the US the annual CPI for the same period increased to 3% (as against 2.4% in December 2002).

According to the estimates of the International Energy Agency, in the first quarter of 2003 the world's oil supply exceeded demand by 1.5m barrels daily. Once the main political risk has been eliminated (the end of the Iraqi war), the surplus output will encourage further decreases in oil prices. The projected increase in oil demand in 2003 is relatively small, and its large proportion has already been achieved in the first quarter. Therefore, it should be expected that the impact of movements in oil prices on the inflation rate in the coming months will be limited.

Figure 29**Oil prices and PPI in the US, Euro area and Germany**

Soyrc: Reuters, Bloomberg.

Figure 30**Oil prices and CPI in the US, Euro area and Germany**

Soyrc: Reuters, Bloomberg.

3

Inflationary processes

3.1. Consumer prices

In the first quarter of 2003, the twelve-month CPI remained at a low, stable level of 0.5–0.6%. In March, the index value was 0.2 percentage points below the figure recorded in December 2002.

In the first quarter of 2003, steady CPI growth was sustained in the following circumstances:

- accelerated growth of officially controlled prices when compared to the previous quarter,
- further downward trend in food prices, and
- further slow weakening of the price growth of other goods and services.

The absence of stronger sudden movements in the annual CPI in the first quarter was also related to the steady rate of inflation in the corresponding period of 2002.

The primary factor diversifying the course of inflationary processes in the first quarter as against previous quarters were the steep increases in fuel prices on the domestic market. These were related to oil price rises on international markets faced with a growing threat and the subsequent outbreak of the war in Iraq. As a result, the relevant twelve-month index accelerated from 7.6% in December 2002 to 17.4% in March 2003.

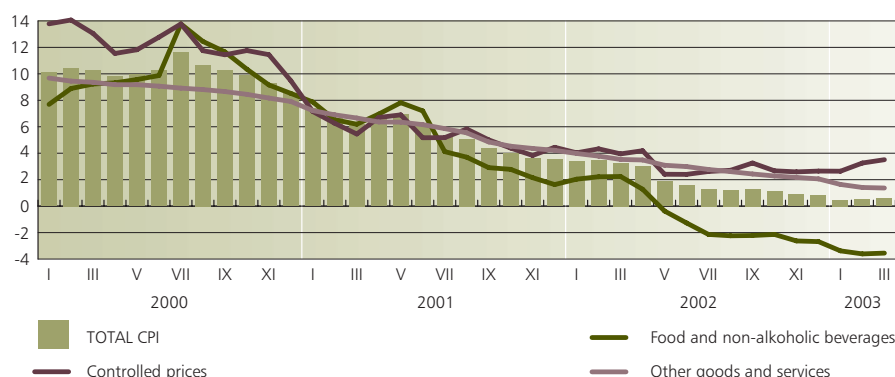
In the first quarter of 2003, prices within other groups of consumer goods and services followed the trends observed in the second half of 2002. The supply situation on the food market, still favourable to consumers, enhanced price decreases of most foodstuffs. Neither did major changes take place with regard to prices in non-food product groups. Persistent weak demand pressure did not result in raising retail prices of domestic goods, despite a gradual increase in PPI in manufacturing. The additional factor stabilising the inflation rate was the absence of stronger impulses to the growth of officially controlled prices, except for fuels (cf. Table 15, Fig. 31, Fig. 32).

Table 15
Price growth in basic consumer good and service groups

	2002	2003	2002			2003		
	Weight	structure	I	II	III	I	II	III
	%		Corresponding period previous year = 100					
Total	100.0	100.0	103.4	103.5	103.3	100.5	100.5	100.6
Food and non-alcoholic beverages	29.7	28.2	102.0	102.2	102.2	96.6	96.4	96.5
Officially controlled prices	27.1	27.2	104.0	104.3	104.0	102.6	103.3	103.5
of which fuel	3.7	3.7	91.9	92.0	96.2	109.8	114.8	117.4
Other goods and services	43.2	44.6	104.0	103.8	103.5	101.6	101.4	101.4
of which non-food goods	26.1	26.7	102.6	102.5	102.3	100.8	100.5	100.5
Services	17.1	17.9	106.1	105.8	105.4	102.9	102.8	102.7

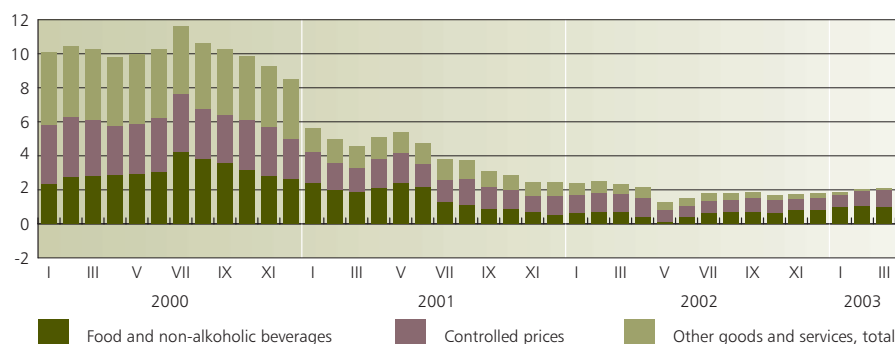
Source: GUS and NBP.

Figure 31
Movements in CPI and major price categories, 2000–2003
 (corresponding month previous year = 100) (%)



Source: GUS and NBP.

Figure 32
Share of individual price categories in CPI, 2000–2003
 (corresponding month previous year = 100) (percentage points)



Source: GUS and NBP.

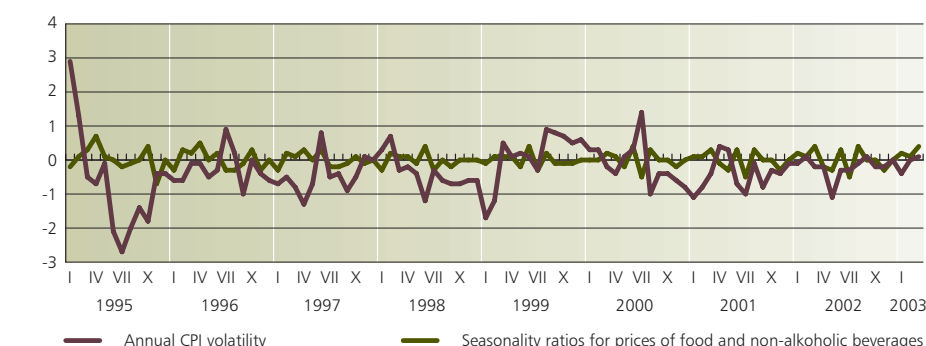
Annual *prices of food and non-alkoholic beverages* in the first quarter 2003, were lower than a year before by an average of roughly 4%. The most pronounced price fall was recorded in the “meat” group – about 8%, and “vegetables” group – almost 10%.

Movements in food prices in the first quarter of 2003 reflected favourable production conditions on the agricultural market. Similarly to the second half of 2002, this market was characterised by a high supply of cereals, pigs, and poultry, in particular. Although the utilisation of these products for consumption purposes increased, its growth rate was still slower than that of supply. This led to further declines in the prices of basic produce and, as a consequence, to falling retail food prices.

Nevertheless, a seasonal acceleration of monthly food price growth was recorded towards the end of the first quarter. This could be traced to a weaker decrease than in the previous months in the prices of cereal-based produce and meat, and a higher growth in the prices of fruit and vegetable. These changes were due to a slight seasonal growth in the prices of consumption cereals, additionally stimulated by a still high demand for feed cereals. Falls in pork prices were also contained following the intervention of the Agricultural Market Agency. Still, the persistently high supply of poultry suppressed meat price growth in retail trade. The new elements of the market situation presented above do not pose the threat of a sudden and dramatic price growth on the agricultural market.

Figure 33

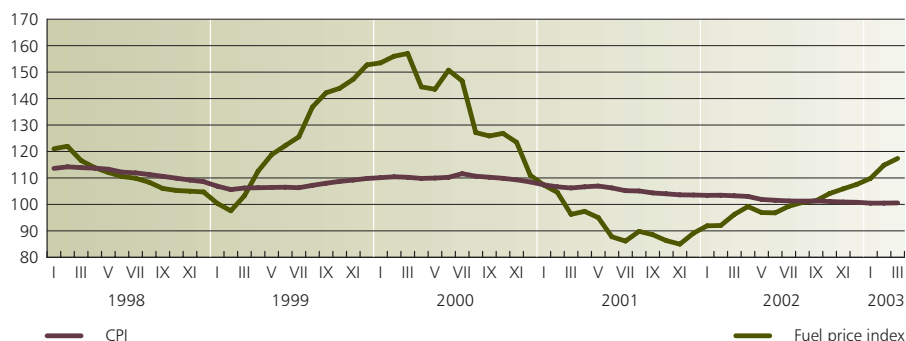
Annual CPI volatility and seasonality ratios for prices of food and non-alcoholic beverages



Source: GUS and NBP.

Figure 34

CPI and fuel price index (corresponding month previous year = 100)

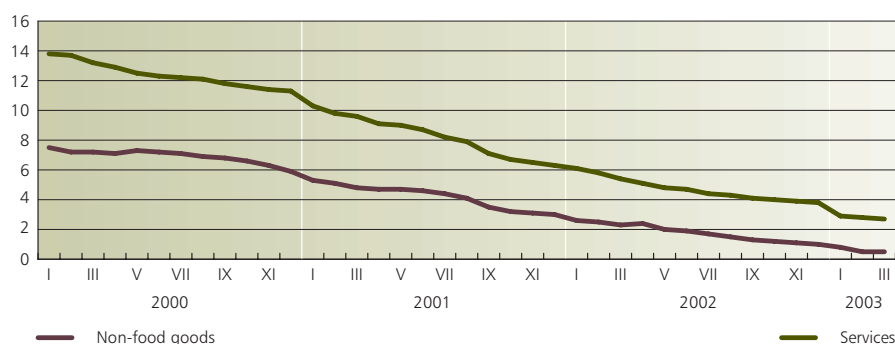


Source: GUS.

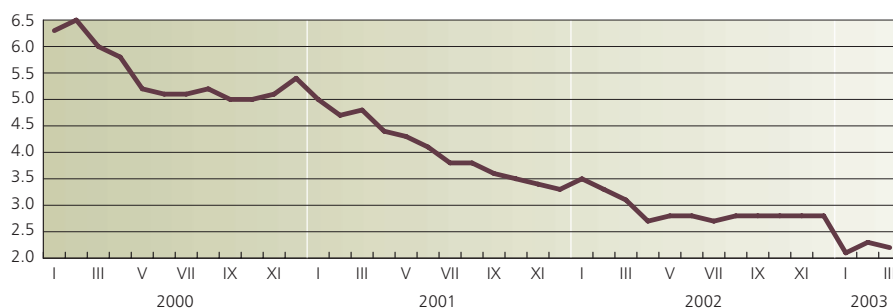
In the first quarter of 2003, the twelve-month growth rate of **officially controlled prices** fell about 1 percentage point in relation to the corresponding period for the previous year. At the same time, accelerated growth within this price group was observed when compared to the preceding quarter. Fuel price rises, increasingly intense in the course of the analysed period (a 9.4% growth between December 2002 and March 2003), acted as the prime factor upsetting the current tendency of waning growth in officially controlled prices.

As shown by the Nafta Polska data on the structure of fuel prices based on the example of EU 95 fuel, the main cause of domestic fuel price rises in the first quarter 2003 was a 18.4% increase in its import price (representing the product of the world price and USD/PLN rate). The January rise in excise duty of 2.3% had limited impact on fuel price growth. Meanwhile, reductions in fuel prices were encouraged in this period by a 13.3% fall in producer and distributor margins (computed as the difference between retail and sale prices).

Among the remaining groups of officially controlled prices, costs of district heating and hot water expressed in the rates approved by the Energy Regulatory Office for local suppliers, and not globally on a nationwide scale, as well as prices of basic energy carriers, rose in excess of the group's average of about 5%, due to the previous year's increases in electricity consumption rates, the imposition of excise duty as of July 2002, and increases in gas prices as of April 2002. The charges for television and radio subscription were also raised (ca. 6%), similarly to court and legal service fees (ca. 5%) and, to a lesser extent, to prices of tobacco products, following an excise duty rise in January 2003. A slight drop was recorded only in the price group of alcoholic beverages as a result of a sudden reduction in the applicable excise duty in October 2002.

Figure 35**Prices of other consumer goods and services (percentage change on previous year)**

Source: GUS and NBP.

Figure 36**Difference in price movements of other non-food goods and services (%)**

Source: GUS and NBP.

In the price group of *other goods and services* in the first quarter of 2003, the twelve-month price growth was on average more than twice slower than a year before. Prices of non-food products making up this group grew 0.5–0.8% on average, while prices of services climbed 2.7–2.9%. Worth noting is the gradual reduction in the spread of price growth of goods and services within this group.

In the group of *non-food goods* (allocated to other good and service prices), the downward trend in price growth, present throughout 2002, intensified in the first quarter 2003. A lasting slowdown in the price growth of non-food goods, most susceptible to demand and supply fluctuations, resulted from still low demand pressure. Both on an annual and monthly scale, prices of clothing and footwear were lower than in 2002. On the other hand, prices of furniture and household articles remained stable in the first quarter of 2003.

Growth of *service prices* (allocated to other good and service prices) in the first quarter followed a downward trend, although it was still significantly higher than growth of commodity prices.

The largest increases in this group were those involving charges related to the use of flats or houses and prices of healthcare and education services.

3.2. Core inflation

In the first quarter of 2003, the downward trend persisted in a twelve-month growth rate for all measures of core inflation. Its scale reached 0.2–0.8 points (cf. Fig. 37), and up to 0.2 points in the last two months of 2003 (cf. Fig. 38). Additionally, negative values for two

Table 16
CPI vs. core inflation

	2002											
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
	Change over the corresponding month for the previous year											
CPI	3.4	3.5	3.3	3.0	1.9	1.6	1.3	1.2	1.3	1.1	0.9	0.8
Core inflation excluding:												
Officially controlled prices	3.2	3.1	3.0	2.6	1.7	1.3	0.8	0.7	0.6	0.5	0.2	0.2
Most volatile prices	2.9	2.8	2.6	2.5	2.1	1.9	1.6	1.5	1.3	0.9	0.8	0.7
Most volatile and fuel prices	3.4	3.3	2.9	2.7	2.4	2.1	1.7	1.6	1.3	0.8	0.6	0.4
Food and fuel prices												
("net" inflation)	4.7	4.7	4.1	4.0	3.2	3.1	2.9	2.8	2.8	2.3	2.1	2.0
15% trimmed mean	3.5	3.2	2.9	2.6	2.0	1.9	1.7	1.7	1.5	1.3	1.3	1.2

Source: GUS and NBP.

Table 17
CPI vs. core inflation (change over the corresponding month for the previous year)

	2003		
	I	II	III
CPI	0.5	0.5	0.6
Core inflation excluding:			
Officially controlled prices	-0.3	-0.5	-0.6
Most volatile prices	0.5	0.5	0.5
Most volatile and fuel prices	0.1	-0.1	-0.2
Food and fuel prices ("net" inflation)	1.6	1.5	1.4
15% trimmed mean	1.0	0.8	0.8

Source: GUS and NBP.

core inflation measures were recorded for the first time in the discussed period, namely, core inflation excluding officially controlled prices and core inflation excluding the most volatile and fuel prices (cf. Fig. 44).

Core inflation excluding officially controlled prices (cf. Fig. 39) in March 2003 dropped 0.6% in relation to March 2002, thus reaching a level much lower than that of other measures of core inflation (cf. Fig. 44). Also when compared against CPI, this measure was significantly inferior (1% on average in the first quarter of 2003). This was due to a 3.6% annual growth in the prices of consumer goods and services subject to administrative control. Out of the excluded groups, the highest increases involved fuel prices (17.4%) and electricity charges (6.4%).

Core inflation excluding the most volatile CPI prices (cf. Fig. 40) in the first quarter of 2003 remained at a level very close to the official inflation rate. The exclusion from the CPI index of the most volatile prices did not, in fact, affect the growth rate of this measure of core inflation against CPI. This was due to the fact that among the excluded groups were both those stimulating inflation (such as charges related to the use of flats or houses, displaying a 3.4% growth, and electricity – 6.4%), and slowing down its growth (vegetables – a decrease of 8.9%).

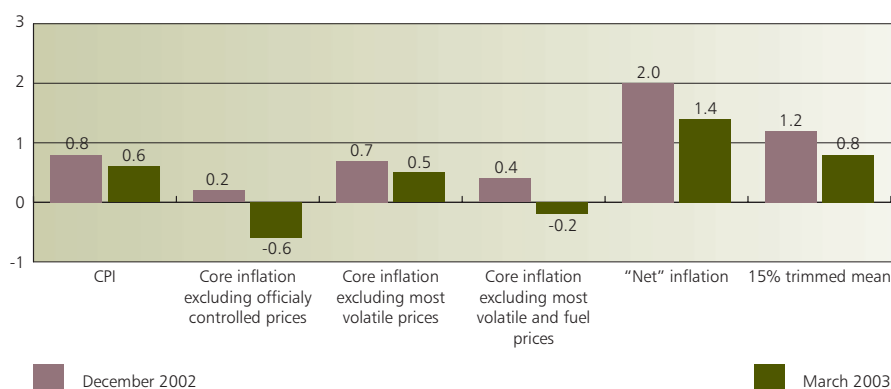
As far as *core inflation excluding the most volatile and fuel prices* (cf. Fig. 41) is concerned, an annual fall of 0.2% was observed in March. The difference between this

measure and core inflation excluding the most volatile prices only (inclusive of fuels) amounted to an average of 0.6% in the first quarter of 2003. This points to a growth tendency in fuel prices which account for the difference between the two indices and, to a large extent, affect the overall price growth.

Indices of *"net" inflation* (cf. Fig. 42), obtained through the exclusion of CPI from food and fuel prices, were higher than other measures of core inflation in the first quarter of 2003 and remained above the CPI index. This trend present since May 2001 indicates the anti-inflationary nature of food prices which in March 2003 were 3.5% lower than a year before. Meanwhile, fuel prices grew 17.4% over that period due to higher oil pricing on international markets.

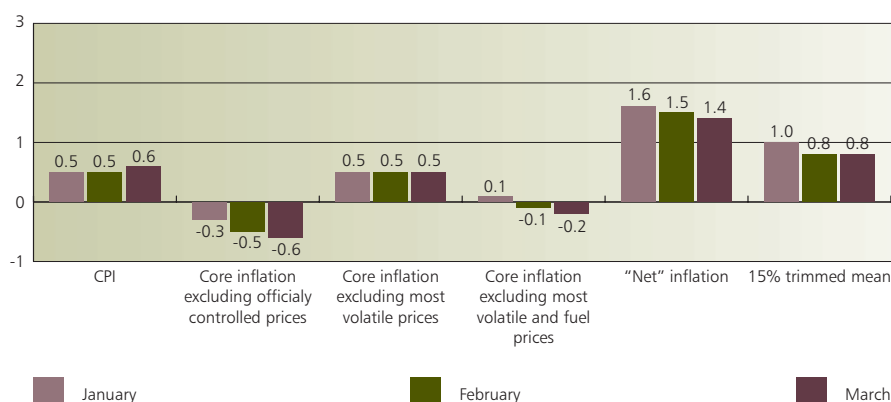
Similarly to *"net" inflation*, another measure of core inflation, so-called *15% trimmed mean* (cf. Fig. 43), remained above CPI and totalled 0.8%. In March, the following groups with the lowest price growth were excluded from this index: foodstuffs (meat, cured meat and vegetables), spirits, audiovisual and computer equipment, and the groups which appreciated the most, including fuels, charges related to the use of flats and energy carriers.

Figure 37
CPI and core inflation December 2002–March 2003
(change on corresponding month previous year)



Source: GUS and NBP.

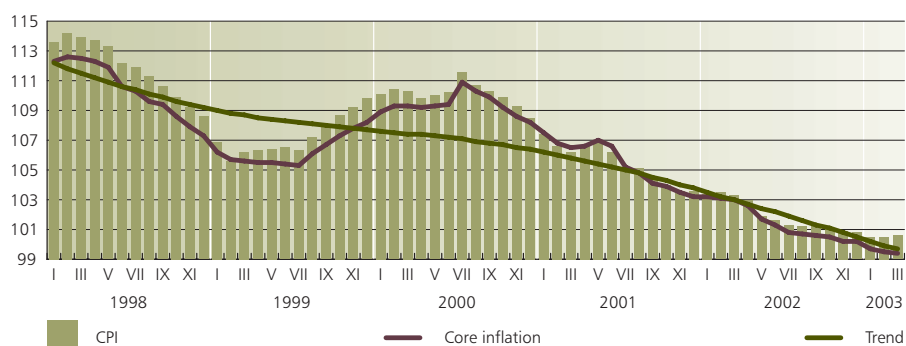
Figure 38
CPI and core inflation in Q1 2003
(change on corresponding month previous year)



Source: GUS and NBP.

Figure 39

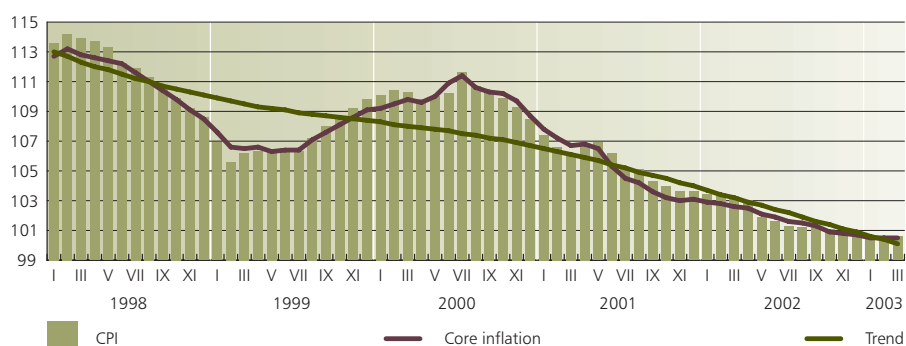
CPI and core inflation indices excluding officially controlled prices
(corresponding month previous year = 100)



Source: GUS and NBP.

Figure 40

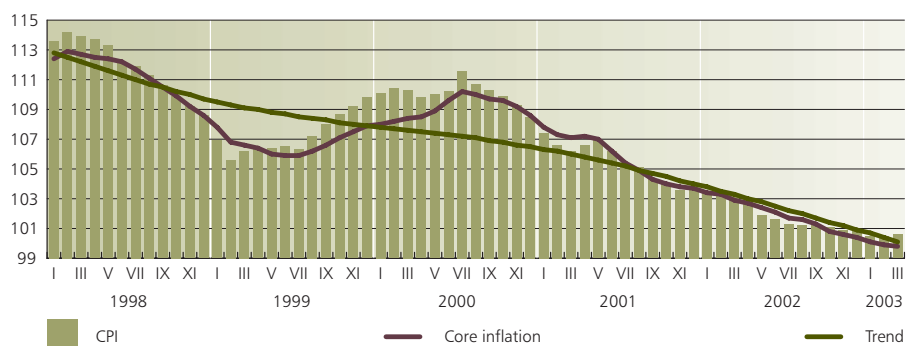
CPI and core inflation indices excluding most volatile prices
(corresponding month previous year = 100)



Source: GUS and NBP.

Figure 41

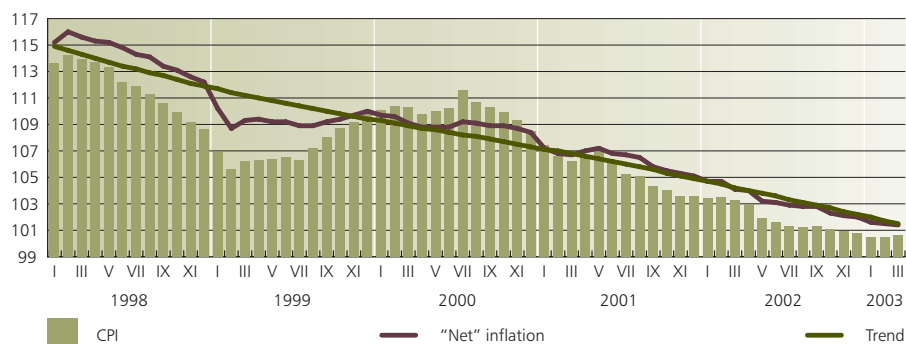
CPI and core inflation indices excluding most volatile and fuel prices
(corresponding month previous year = 100)



Source: GUS and NBP.

Figure 42

CPI and "net" inflation indices excluding food and fuel prices
(corresponding month previous year = 100)

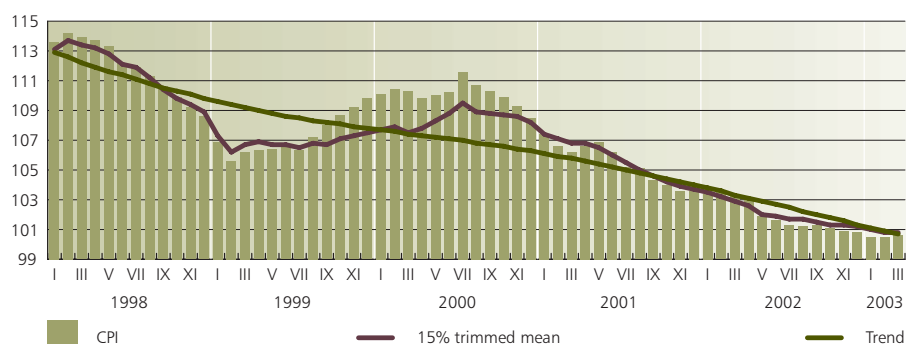


Source: GUS and NBP.

3

Figure 43

CPI and core inflation indices (15% trimmed mean)
(corresponding month previous year = 100)



Source: GUS and NBP.

Figure 44

CPI and core inflation indices (corresponding month previous year = 100)



Source: GUS and NBP.

4

Monetary policy and performance of the inflation target

4.1. Monetary policy in the 1st quarter of 2003

In the first quarter of 2003, the Monetary Policy Council lowered NBP base rates on three occasions (cf. Table 18). As a result, the NBP reference rate having key importance from the point of view of the assessment of the restrictive nature of monetary policy, dropped in this period from 6.75% to 6.0%, or from 5.9% to 5.4% in real terms (when deflated with current CPI). In total, under the current cycle of interest rate cuts, i.e., starting from February 2001 till March 2003, NBP interest rates were reduced on seventeen occasions. The reference rate decreased 13 points in this period.

In the first quarter of 2003, monetary policy was further eased. The scale of its relaxation is depicted by the indices of monetary policy's restrictive nature calculated at NBP which take account of changes in both short-term real interest rate and the real effective zloty rate¹⁵.

Table 18
Key decisions taken by the Monetary Policy Council in the first quarter of 2003

Date ^a	Decision taken
January 29	Minimum 14-day open market operation rate lowered from annual 6.75% to 6.50%
	Rediscount rate lowered from 7.50% to 7.25%
	Lombard rate lowered from 8.75% to 8.50%
	Deposit rate lowered from 4.75% to 4.50%
February 26	Minimum 14-day open market operation rate lowered from annual 6.50% to 6.25%
	Rediscount rate lowered from 7.25% to 6.75%
	Lombard rate lowered from 8.50% to 8.00%
March 26	Minimum 14-day open market operation rate lowered from annual 6.25% to 6.00%
	Rediscount rate lowered from 6.75% to 6.50%
	Lombard rate lowered from 8.00% to 7.75%
	Deposit rate lowered from 4.50% to 4.25%

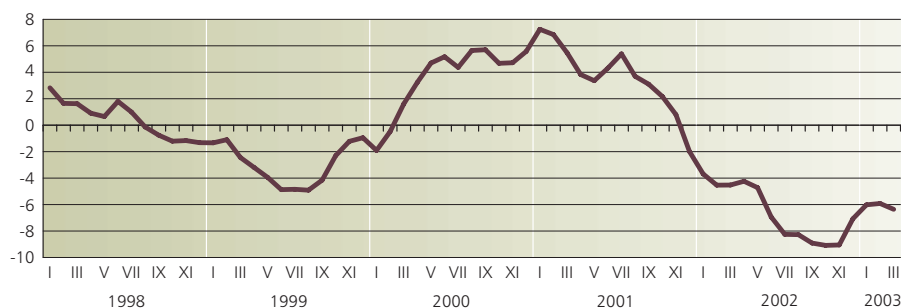
^a Date decision taken.

¹⁵ Growth in a time varying Monetary Conditions Index (MCI) in the initial months of 2003 was not due to growth in the restrictive nature of monetary policy in that period but to the statistical procedure employed for its determination. A varying-basis MCI represents a weighted average of the difference in the six-month mean rate of movements in real exchange rate in relation to the corresponding month of the previous year and in movements in real interest rates also in relation to the corresponding month of the previous year. Its growth in the initial months of 2003 was the effect of the impact of both factors:

- slower rate of decrease in real interest rates in the first quarter of 2002 as against their rate of decrease in the fourth quarter of 2001 (impact though reference base),
- reduction in annual difference in movements of exchange rate at the turn of 2003 as against the annual difference in movements of the exchange rate in October and November 2002.

Figure 45**Monetary Conditions Index (MCI) Base period: December 1994**

Source: NBP.

Figure 46**Monetary Conditions Index (MCI) Base period: corresponding month previous year**

Source: NBP.

The following factors counselled in favour of interest rate cuts in the first quarter of 2003:

- persistent low growth of domestic demand,
- lack of symptoms of recovery in the world economy, and
- a further decline in current inflation rate and core inflation indices.

Following a further decline in employment in the first quarter 2003, low salary growth was sustained in the corporate sector. As a result, hired labour income was nominally 2.3% lower in this sector than a year before. On the other hand, a 2.9% growth was recorded in income from social benefits and security in relation to the corresponding quarter of the previous year. All in all, it is estimated that in the first quarter of 2003 registered gross disposable household income grew some 1% in nominal and 0.5% in real terms when compared to the first quarter of 2002.

According to GUS estimates, personal consumption growth in the analysed quarter, though still higher than the growth of registered disposable income, declined from 3–3.5% in 2002 to roughly 1.4%.

Household deposits in the first quarter 2003 continued to shrink steadily. The scale of their decline was additionally enhanced by the incorporation of foreign exchange movements resulting from zloty depreciation. The downward trend in household deposits has persisted since mid-2002 and is attributable to low growth of registered disposable household income and increasingly smaller appeal of bank deposits (declining interest rates, further aggravated by the introduction of taxation on interest income). In the first quarter, these developments were additionally accompanied by stable annual growth in the notes and coins in circulation at a level below 15%.

Annual growth of household credits in the first quarter, similarly to the second half of 2002, remained stable at 9–7% (and net of the impact of foreign exchange movements – at 7–3%). The acceleration of the household crediting trend, in addition to persistently high real borrowing rates, was not encouraged by poor personal income prospects in the context of growing unemployment.

As a result of the above movements in deposits and credits, the decline in net household savings at banks in the first quarter 2003 shrank in relation to the previous quarter. At the same time, significant growth was recorded in notes and coin in circulation as well as in other financial assets of households (primarily investment funds). In effect, household financial savings, negative in the third and fourth quarter of 2002, became positive in the first quarter of 2003 and exceeded their level of the first quarter of 2002 (3.2bn zloty as against 3.0bn zloty).

Growth in consumer demand was accompanied by a further decline in investment expenditure (according to GUS estimates, it amounted to 3.6% in relation to the corresponding period of 2002). It was traced chiefly to a more pronounced decline in construction output due to unfavourable weather conditions (a considerably colder and longer winter than the year before).

Weak investment growth was reflected in the first quarter of 2003 in a persistently very low rate of increases in corporate credits. It stabilised at about 1% p.a. and was almost entirely attributable to the zloty depreciation observed in this period. Another reason for the March surge in corporate credit growth were changes in the methodology of computing monetary aggregates, introduced a year before.

Enterprises with export output were discouraged from undertaking investment activity in the first quarter 2003 by continuously poor assessments of external demand growth, including in particular the absence of symptoms of economic recovery in Germany and the subsequent downward revisions of economic growth projections for this country in 2003.

The increasingly distant prospects for higher demand in the countries of our major trade partners also constituted a material premise for the decisions of the Monetary Policy Council to reduce interest rates in the first quarter 2003. The Council was encouraged to do so by a further decline in current inflation, core inflation indices and inflation expectations, and, last but not least, by lack of threats to the performance of the 2003 inflation target and the growing likelihood of its performance in 2004.

From December 2002 to March 2003, the annual CPI fell from 0.8% to 0.6%. This decline was accompanied by a decrease in all measures of core inflation: down from the range of 0.2%–2.0% within which they fell in December 2002, to the minus 0.6% – plus 0.8% range in March 2003. At the same time, the low inflation expectations of both consumers and bank analysts were reinforced. In the case of the former, the annual inflation rate expected within the following twelve months and expressed in CPI index dropped from 0.8% in December 2002 to 0.4% in March 2003, while the annual inflation rate projected by bank analysts for 11 months ahead decreased from 2.5% to 2.4%, respectively.

In the first quarter, the following factors representing a potential source of inflationary pressure were taken into consideration when determining interest rate levels:

- high oil prices on international markets and the risk of their further growth in connection with the war in Iraq,
- systematic PPI growth which in March totalled 3.4% on an annual rate,
- strong zloty depreciation (in particular in March); the Council assumed that this may prove lasting enough to be reflected in price growth, in the context of internal and external political instability,
- likelihood of economic deficit in the public finance sector planned in the 2003 draft budget being overrun and uncertainty related to fiscal policy in 2004.

In its decisions on interest rates, the Council also considered the scale of the cuts made to date which had a delayed bearing on the gradual increase in domestic demand in the second half of 2003 and in 2004.

4.2. The money supply

Movements in money supply in the first quarter 2003 featured the following major tendencies:

- stabilisation at a low level of annual M3 money supply growth,
- stabilisation of annual growth in notes and coin in circulation (excluding vault cash),
- material impact of foreign exchange movements on deposit and credit levels.

M3 money supply declined by 0.6bn zloty, or 0.2% in nominal and 0.7% in real terms, in the first quarter of 2003 in relation to the balance at year end 2002. This was chiefly attributable to a decrease in banking sector's¹⁶ liabilities to corporates. This decrease was seasonal in nature and its scale in the discussed period was substantially smaller than a year before. The liabilities of the banking system towards other sectors, except for local government institutions, also decreased. Increase in the deposits of local government institutions over this period was also seasonal, related to the transfer of subsidies from central government institutions. The beginning of the year is usually characterised by a surge in the banking system's liabilities towards households in connection with the disbursements of extra salaries and other benefits in this period. In the first quarter of 2003, this was not the case, and the level of household deposits decreased.

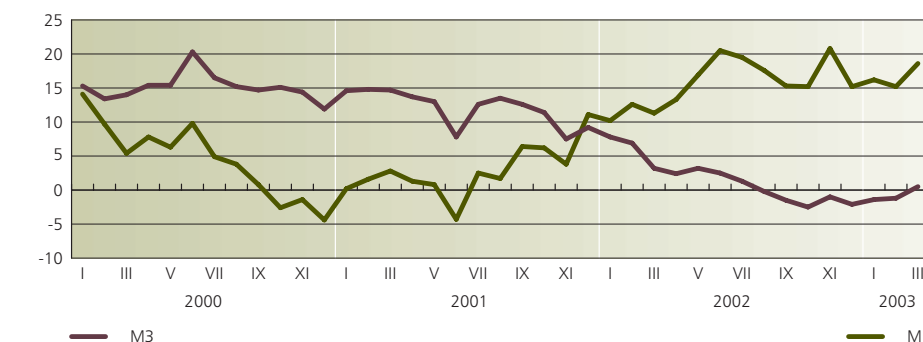
Movements in deposits and other liabilities representing M3 constituents reflected primarily movements in zloty deposits which dropped 3.9bn zloty (1.7%) in this period. Foreign currency deposits did not change substantially in zloty terms when compared to the year end 2002. This was

Table 19
Money supply in Q1 2003

Item	Balance at	Change over		Change over	
	March 31, 2003	March 31, 2002		December 31, 2002	
	billion zloty	%		billion zloty	%
I. M1 money supply	136.2	21.4	18.6	0.0	0.0
II. M3 money supply	320.9	1.5	0.5	-0.6	-0.2
1. Notes and coins in circulation (excluding vault cash)	44.2	5.4	13.8	2.0	4.7
2. Deposits and others liabilities	273.7	-6.5	-2.3	-3.9	-1.4
2.1. Households	195.6	-12.1	-5.8	-0.3	-0.1
2.2. Non-monetary financial institutions	6.6	0.8	14.5	-0.6	-8.1
2.3. Corporates	51.4	5.3	11.4	-3.6	-6.5
2.4. Non-commercial institutions operating for the benefit of the households	8.1	-0.8	-8.8	-0.1	-1.6
2.5. Local government institutions	10.2	0.6	6.4	1.8	21.0
2.6. Social security funds	1.6	-0.4	-19.2	-1.1	-39.6
3. Other M3 constituents	3.0	2.6	744.5	1.3	70.9

Source: NBP.

¹⁶ According to the methodology applied as of March 2002 the concept of the "banking system" was replaced with a wider concept of "monetary financial institutions", encompassing the central bank and other monetary financial institutions (formerly: the commercial banks). For greater clarity and transparency, formerly applicable terminology was employed in the document.

Figure 47**M3 and M1 nominal annual growth (corresponding month previous year = 100)**

Source: NBP.

attributed mainly to foreign exchange movements. Following their elimination the balance of foreign currency deposits would shrink 3.0bn zloty, or 6.4%.

The decrease in M3 money supply was limited in the first quarter of the year by the growth in notes and coins in circulation as well as in other M3 constituents. Significant increases in other M3 constituents could also be traced to the issue by some commercial banks of household bonds, initiated at the end of 2002 and continued in the first quarter of 2003. This form of saving proved popular among consumers as it offered an opportunity to avoid income taxation on interest.

The twelve-month growth dynamic of the M3 broad monetary aggregate in March 2003 was positive for the first time since July 2002 and stood at 0.5%.

The balance of narrow M1 aggregate, made up of notes and coins in circulation and current deposits in the banking system, remained unchanged in the first quarter of 2003. What did change was its structure, namely, notes and coin in circulation grew 2.0bn zloty (4.7%), while current deposits fell 2.0bn zloty (-2.2%). It should be stressed, however, that although the increase in notes and coins in circulation outside the banking sector was significantly higher than in the corresponding period of previous years, the twelve-month growth in this category in subsequent months of the first quarter of 2003 was lower than in all the months of 2002 (it fluctuated between 12.7% in February and 13.8% in March). Meanwhile, the fall in current deposits recorded in the first quarter 2003 was seasonal in nature and most pronounced in the corporate sector in January 2003. Still, their annual growth rate remained relatively high (totalling 21.1% in March).

Money supply factors

The table below presents movements in the structure of money supply factors in the first quarter of 2003 as against the fourth quarter of 2002 and the corresponding period for the previous year. In the discussed period, the primary source of money supply were net foreign assets and claims. Meanwhile, money absorption was caused by movements in the net indebtedness of central government institutions.

Following methodological changes implemented in March 2002, money supply factors encompass long-term financial liabilities of the banking system (negative value) and banks' fixed assets (exclusive of financial assets).

Claims

In the first quarter of 2003, total claims of the banking system grew 7.3bn zloty (2.9% in nominal and 2.4% in real terms) and constituted one of the main money supply factors. Unlike in 2002, when a systematic decline was observed in the twelve-month growth of claims, as of the beginning of 2003 this category has been following an upward trend.

Table 20
Money supply factors

Specification	Change in Q1 2003 in relation to year end 2002 in billion zloty	Change in Q1 2003 in relation to Q1 2002 in billion zloty
M3 MONEY SUPPLY (1+2+3-4+5+6)	-0.6	1.5
Money supply factors:		
1. Net foreign assets	11.9	6.3
2. Claims	7.3	20.0
3. Net indebtedness of central government	-5.3	-1.9
4. Long-term financial liabilities	3.1	11.4
5. Fixed assets (exclusive of financial assets)	0.2	2.5
6. Other net item balance	-11.6	-14.0

Source: NBP.

Table 21
Structure of claims in Q1 2003

Specification	Balance at March 31, 2003 %		Change over Q4 2002 billion zloty
Total claims on	257.8	7.3	2.9
1. Households	92.1	2.3	2.6
2. Non-monetary financial institutions	14.7	0.0	0.0
3. Corporates	136.6	5.3	4.0
4. Non-commercial institutions operating for the benefit of households	1.0	0.0	-3.9
5. Local government institutions	11.1	-0.2	-2.2
6. Social security funds	2.4	0.0	-2.9

Source: NBP.

Claims on households came to 92.1bn zloty at the end of the first quarter of 2003 and their increase in the discussed period was determined by movements in claims denominated in foreign currency. The share of claims on households denominated in foreign currency within the total claims on households grew from 22.9% in December 2002 to 24.6% in March 2003. Higher balance of foreign currency credits, totalling 2.1bn zloty (10.2%) in zloty terms for the discussed period, was chiefly attributable to foreign exchange movements. Once these are factored out, the actual increase in the sector's borrowings stands at 0.5bn zloty (2.4%). Credits denominated in foreign currency and incurred by households were primarily earmarked for housing purposes (59.3%). Credits taken out to finance purchases of residential housing property also represented the largest item in the structure of total credits extended to individual consumers (34.9%). In the meantime, individual entrepreneurs, included in the household category, incurred mostly investment credits (35.2%), working capital credits (26.6%) and current account credits (21.7%).

Movements in foreign currency credits expressed in zloty constituted the prime factor contributing to the significant increase in credits granted to the corporate sector. In relation to December 2002, these grew 4.9bn zloty (13.8%), and their growth was determined by foreign

exchange movements. Once these have been factored out, the actual growth of credits granted to this sector would stand at 2.4bn zloty (6.8%). Corporates used external funding chiefly to finance their operations (34.8%) and undertaken investment projects (32.4%).

Claims on other sectors shrank in the first quarter 2003 by 0.3bn zloty, with the largest contribution from falling claims on local government institutions totalling 0.2bn zloty (2.2%).

Net indebtedness of central government institutions

Similarly to 2002, also in the first quarter 2003 net indebtedness of central government institutions constituted the main monetary absorption factor. At the end of March 2003, net central government indebtedness stood at 60.6bn zloty, i.e. decreased in the course of the discussed period by 5.3bn zloty (8.1% in nominal and 8.6% in real terms). The reasons for this decrease included:

- a growth in banking sector liabilities towards central government of 6.6bn zloty (40.7%), and
- a growth in banking sector claims on central government resulting from credits and debt securities of 1.3bn zloty (1.5%).

The increase in liabilities in that period was determined, among other things, by the placement by the Ministry of Finance of surplus zloty time deposits at NBP in January 2003. The value of deposits in that month increased 9.2bn zloty.

Claims on central government increased in the discussed period chiefly as a result of a 1.4bn zloty growth in the volume of debt securities.

Net foreign assets

Net foreign assets of the banking system amounted to 143.9bn zloty at the end of March 2003 and grew 11.9bn zloty, or 9.0%, in relation to December 2002. This growth was attributable on the one hand to a foreign assets' increase of 18.2bn zloty (10.6%), and on the other to a 6.2bn zloty (15.5%) increase in foreign liabilities. These increases were primarily accounted for by FX differences. In US dollar terms, net foreign assets came to US\$ 35.5bn at the end of the first quarter of 2003 and recorded a growth of US\$ 1.1bn with respect to December 2002.

Movements in foreign assets represented the sum of a 4.2% growth in this category at NBP and a 9.6% one at commercial banks. Growth in foreign asset balances at NBP was attributable, among others, to the amount of 1.5bn euro obtained by the central government budget on issues of treasury bonds on foreign markets and deposited at NBP in a foreign currency account.

The foreign liabilities of the banking system grew in the first quarter of 2003 as a result of a 21.7% growth in NBP liabilities and a 8.6% growth in the liabilities of commercial banks. Thus, the share of commercial banks in this category dropped from 84.2% at the end of December 2002 to 82.6% in March 2003.

Other items (net) balance

In the first quarter 2003, negative (net) balance of other items increased 11.6bn zloty, or 20.7%, and amounted to -67.8bn zloty at the end of March. The scale and direction of changes within this category were determined by *other net assets at NBP* in the first quarter of 2003. In the course of the first quarter, the negative balance of *other net assets at NBP* further deteriorated by 8.5bn zloty, or 27.5%, and at March's end stood at -39.5bn zloty. This decrease was primarily due to a reduction in the balance of provisions to cover foreign exchange risk in connection with the valuation of foreign currency assets and liabilities converted into zloty. These changes resulted from technical book entries and had no direct impact on the M3 money supply.

Other elements that had substantial influence on the growth of the negative balance of other items (net) balance in the first quarter 2003 were interbranch and interbank settlements at

commercial banks which increased 1.9bn zloty, or 87.6 %, with their balance at March's end totalling -4.1bn zloty. Funds held by households, corporates, non-monetary financial institutions, local government institutions, and the social security fund, which were recorded as "in transit" items, i.e., on settlement accounts, contributed to a reduction of the M3 money supply.

Banks' fixed assets

The value of banks' fixed assets at the end of the first quarter of 2003 stood at 29.1bn zloty, that is 0.2bn zloty (or 0.6%) higher compared to the year end of 2002.

Long-term financial liabilities

Long-term financial liabilities of the banking system grew 3.1bn zloty, or 3.1%, in the first quarter of 2003 and reached 102.8bn zloty at the end of March. Growth of this category was determined by a 1.1bn zloty (5.2%) higher balance of deposits maturities beyond two years and a 2.0bn zloty (2.5%) higher balance of capitals and reserves.

The share of deposits with maturities beyond two years in long-term financial liabilities grew steadily to reach 21.3% at the end of March. Unlike time deposits with maturities of up to two years which had recorded negative annual growth since March 2002, twelve-month growth in deposits with maturities beyond two years was sustained in the discussed period at a relatively high level of 15.2% to 22.4%.

4.3. Monetary policy transmission mechanisms

4.3.1. Interest rates

Monetary policy and interbank rates

In the first quarter of 2003, the falling trend persisted in money market rates¹⁷. A direct cause of decreasing short-term interest rates were the expectations regarding subsequent NBP interest rate cuts (cf. Fig. 48 and Fig. 49).

From January to March 2003, the Monetary Policy Council lowered 2W reference rate on three occasions¹⁸ (a total of 75 base points (bps)), bringing it down 25 bps each time at three consecutive meetings. Prior to each MPC meeting, the market discounted the expected interest rate cut. This was most evident in the case of two-week (2W), monthly (1M) and three-month rates (3M). The scale of changes on market interest rates almost exactly corresponded to the expected change in NBP reference rate. Slight differences identified between them resulted from the fact that after each revision the market commenced to discount MPC's subsequent expected cuts.

In the first quarter of 2003, market uncertainty diminished as to future movements in NBP rates. This was reflected in the reduction of short-term volatility of interest on interbank deposits in relation to the previous quarter (cf. Fig. 50)¹⁹.

The persistence of expectations regarding subsequent NBP interest rate cuts attested to the existence of a negative difference between the interest charged on twelve- and one-month interbank deposits. As of mid-February until the end of March, this difference fluctuated from -40

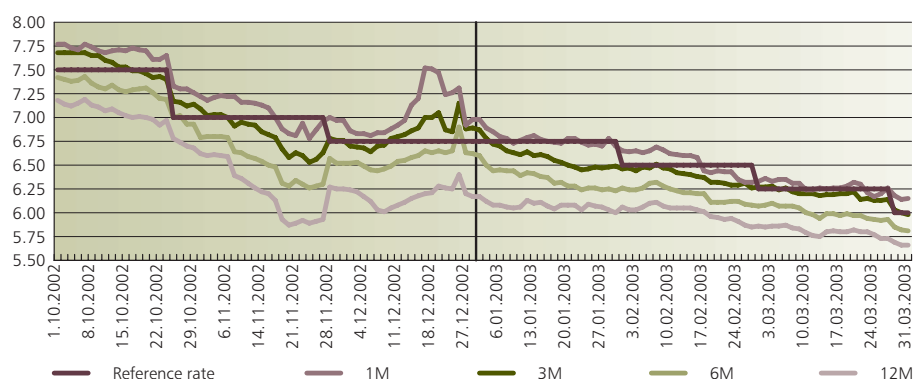
¹⁷ Money market rates represent interest rates on debt instruments (interbank placements, treasury bills, currency swaps) with maturities of up to 1 year.

¹⁸ As of January 1, 2003, the NBP replaced 28-day monetary bills used in open market operations with 14-day bills. This was attributable to the introduction of 14-day NBP reference rate. The change was neutral in its impact on the central bank's base rate.

¹⁹ Computed based on relative movements for the last 21 examinations.

Figure 48

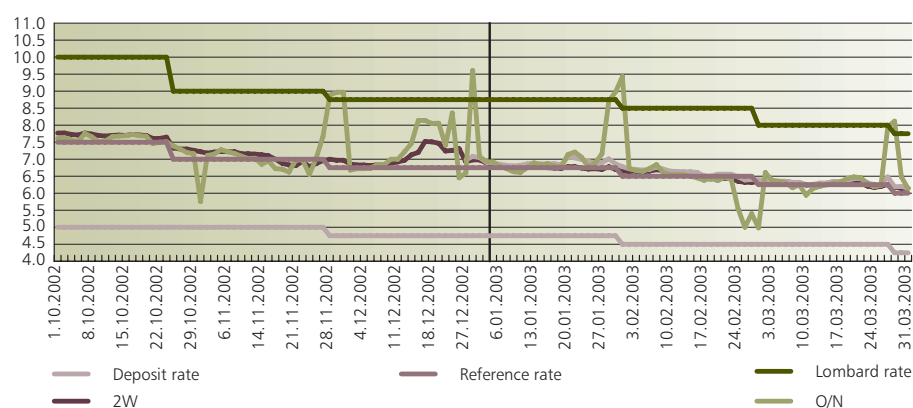
Reference rate and interest charged on 1M, 3M, 6M, and 12M interbank deposits



Source: Reuters and NBP.

Figure 49

NBP rates and interest charged on O/N and 2W interbank deposits (%)



Source: Reuters and NBP.

Table 22

Movements in WIBOR rate in Q1 2003

Q1 2003	NBP					
	reference	2W	1M	3M	6M	12M
	rate					
January 2	6.75	6.91	6.89	6.78	6.5	6.12
March 31	6.00	6.15	6.15	5.98	5.81	5.66
Change (in bps)	-75	-76	-74	-80	-69	-49

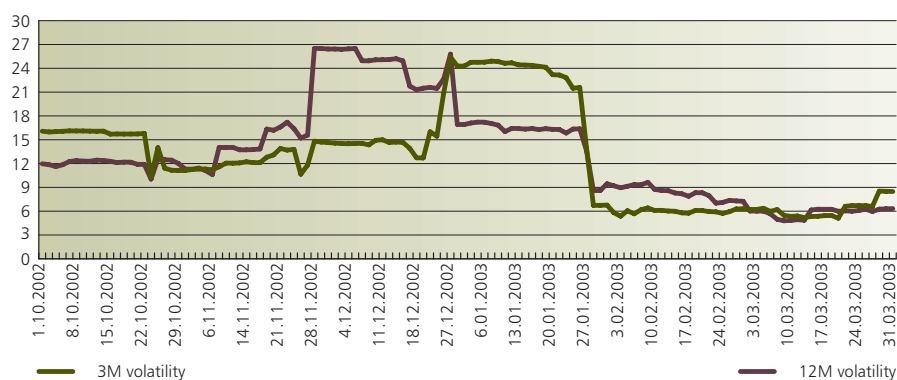
to -50bps. In spite of interest rate cuts totalling 50bps in February and March 2003, the market continued to look forward to further reductions in NBP rates. Such expectations derived from the absence of clear signals of economic recovery and low demand pressure (cf. Fig. 51).

Commercial bank reactions to central bank policies

An investigation into banks' reactions to date to NBP base interest rate cuts points to the following trends that are of material importance to the effectiveness of the monetary transmission mechanism:

Figure 50

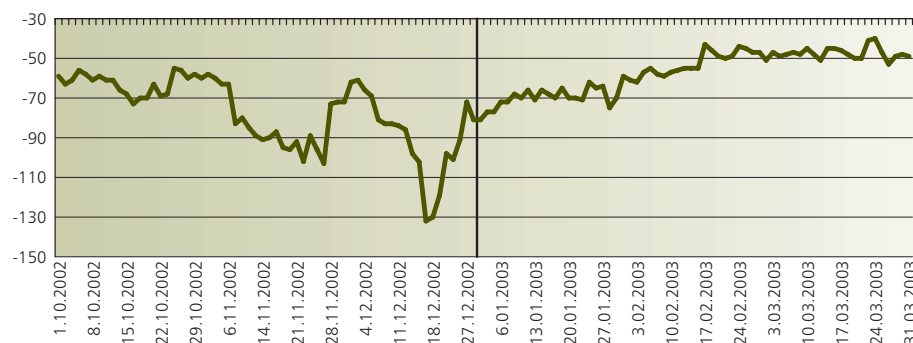
21-day volatility of 1M and 12M WIBOR rates



Source: Reuters and NBP.

Figure 51

Difference between interest rate on one- and twelve-month interbank deposits



Source: Reuters and NBP.

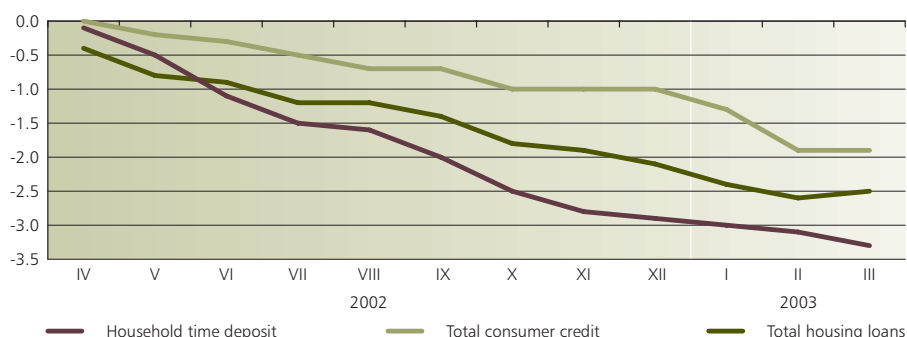
Table 23

Zloty household borrowing and lending rates, March 2002–March 2003

Type	III 2002	XII 2002	Change III 2002– –XII 2002	I 2003	II 2003	III 2003	Change XII 2002– –III 2003
Personal savings accounts	2.5	1.2	-1.3	1.0	0.8	0.6	-0.4
Time deposits declared for 3 months	6.8	3.9	-2.9	3.8	3.7	3.5	-0.4
Household time deposits	7.1	4.2	-2.9	4.1	4.0	3.8	-0.3
Current account credit	18.0	17.6	-0.4	17.5	17.5	17.3	-0.3
Consumer loans granted for 1 year	19.0	18.1	-1.0	17.9	17.2	17.2	-0.9
Total consumer loans	18.5	17.5	-1.0	17.2	16.6	16.6	-0.9
Housing loans granted for periods in excess of 5 years	12.4	9.4	-3.0	8.6	8.5	8.5	-0.8
Total housing loans	11.1	9.0	-2.1	8.7	8.5	8.6	-0.4

Source: NBP Department of Statistics.

Figure 52
Cumulated change in interest rates in relation to March 2002



Source: NBP Department of Statistics.

- diversification in revisions of lending and borrowing rates, and
- diversification in revisions of corporate and household lending rates.

In the first quarter of 2003, as in previous years, the banks responded to decreases in market interest rates with reductions in borrowing and lending rates (cf. Table 23).

In the course of the first two months of 2003, the most significant changes in borrowing and lending rates were recorded for consumer and housing loans. Interest charged on consumer loans fell 0.5%, whereas that on housing loans decreased 0.9%. In the very period, interest paid on deposits dropped 0.2%.

Following the March reduction in the central bank's interest rates, commercial banks more markedly lowered their borrowing rates, while revising their lending rates to a small extent only. In March, the average interest paid on deposits dropped 0.2%, while that charged on housing loans was reduced by 0.1%. Interest on consumer loans remained unchanged.

In the examined period, the least significant decline was recorded in interest rate on current account credit. This stemmed from continuing deterioration of households' credit capacity and the maintenance by the banks of a higher risk margin for this credit category. On the other hand, interest charged on housing loans decreased over the same period. This was so because banks have a better insight into the utilisation of funds granted under housing loans and the risk associated with these loans is reduced by the collateral accumulated on real estate property.

A comparison of movements in interest charged on corporate credits and consumer loans points to an asymmetry in the adjustment of interest rates by the banking sector, depending on customer type. This asymmetry stemmed, from among other things, from different assessments of credit risk.

Below (cf. Table 24) are presented movements in interest rates on zloty credits granted to corporates and individual entrepreneurs.

The surplus of the lending rate over interbank market rate (1M WIBOR) suggests that there are significant differences between the markets for corporate and household credits. This surplus is appreciably higher for household credits than for corporate ones (cf. Fig. 53).

In the period from March 2002 to March 2003, the average monthly 1M WIBOR rate decreased 4.35 points, whereas the average interest rate on corporate credits fell 3.6 points and that on total consumer loans dropped 1.9 points.

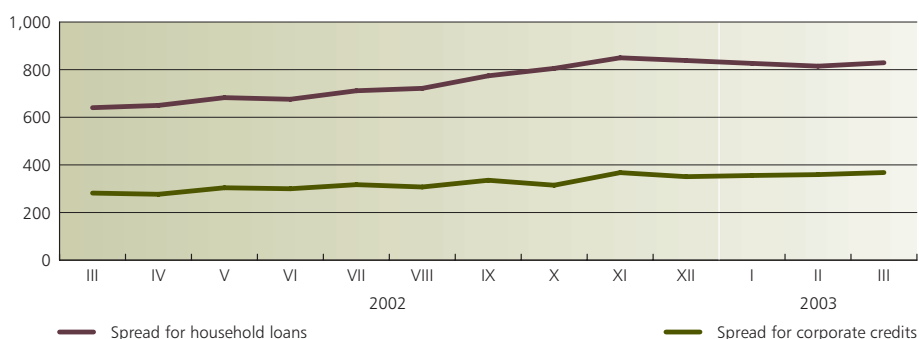
The growing spread between interest charged on household loans and corporate credits indicates that the banks perceive a higher risk in granting consumer loans to households.

Table 24**Zloty corporate credit rates, March 2002–March 2003 (%)**

Type	III 2002	XII 2002	Change III 2002– –XII 2002	I 2003	II 2003	III 2003	Change XII 2002– –III 2003
Corporate credits offered in current accounts	13.0	10.3	-2.7	10.1	9.9	9.8	-0.5
Corporate credits offered for 1 year	13.1	9.9	-3.2	9.6	9.4	9.2	-0.7
Total corporate credits	13.4	10.6	-2.9	10.3	10.1	9.9	-0.7
Credits for individual entrepreneurs							
1 offered for 1 year	14.5	12.2	-2.3	12.0	11.9	11.8	-0.4
Total credits for individual entrepreneurs	14.4	12.3	-2.1	12.0	11.9	11.7	-0.6

¹ Entrepreneurs employing up to 9 persons.

Source: NBP Department of Statistics.

Figure 53**Spread between the lending and 1M WIBOR rates (bps)**

Source: NBP Departments of Statistics and Customer Service.

Interest rates and credit demand

In the first quarter of 2003, nominal lending rates at commercial banks decreased. The cost of household consumer loans dropped from 17.5% in December 2002 to 16.5% in March 2003, whereas the cost of corporate credits fell from 10.6% to 9.9%, respectively. Housing loan rates declined from 9.0% to 8.5% in this period. Still, real interest rates decreased only for housing loans and corporate credits. The real interest rate on consumer loans remained at ca. 16%, a level recorded since the first quarter of 2002²⁰ (cf. Fig. 54).

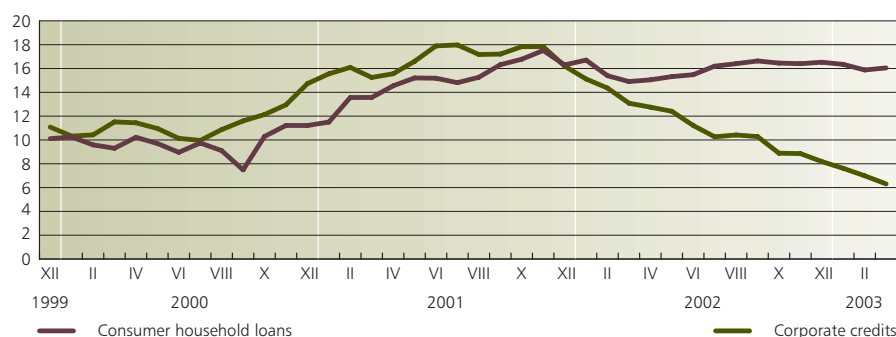
High real interest rates on household loans contributed to a reduction in their annual growth rate which nominally amounted to 7.2% in March 2003. However, net of foreign exchange movements which had a major impact in this period on the value of household loans, this figure is brought down to approximately 3.3%. At the end of the fourth quarter of 2002, the annual growth in household loans amounted to 8.6% and, net of foreign exchange movements, approached 6.4%.

The above figures point to a decline in the growth of household loans at commercial banks, which was primarily due to a steep fall in the growth of consumer loans. In the first quarter of

²⁰ The analysis was based on weighted average lending rates at the commercial banks. Real lending rates for household consumer loans were deflated with household inflation expectations (available on www.nbp.pl website), whereas corporate credits were deflated with the current PPI.

Figure 54

Real interest rate on corporate credits and household consumer loans



Note: Due to methodological changes introduced as of March 2002 in the statistics of interest rates, a direct comparison of interest rates prior to and after that period is not recommended. In March 2002, some small enterprises were incorporated into the household category. The above chart shows interest rates on credits offered to consumers until February 2002 and on household loans granted starting from March 2002.

Source: NBP.

2003, however, a significant increase was observed in housing loans where interest rates declined definitely faster than those on consumer loans. The value of extended housing loans expressed in zloty grew in this period 2.1bn zloty (after factoring out the impact of foreign exchange movements, this growth amounted to ca. 1.3bn zloty). Rapid growth in credits denominated in zloty was accompanied by a decline in the growth of credits denominated in foreign currency. This could be traced to the closing gap between interest charged on credits denominated in zloty and that on credits offered in foreign currency, which, in turn, resulted in the higher appeal of zloty credits that, unlike those denominated in foreign currency, were free of foreign exchange risk. In the first quarter of 2003, growth in foreign currency credits (following the neutralisation of foreign exchange movements) was equal to the growth in zloty credits, whereas since the beginning of 2001 (except for the third quarter 2002) quarterly increases in housing loans denominated in foreign currency substantially exceeded increases in zloty credits.

The annual growth of corporate credits in the first quarter of 2003 remained low (1.4–1.3%)²¹ despite falling interest rates and, net of foreign exchange movements, was close to zero²². The findings of studies on the general economic environment conducted by the NBP²³ indicate that the lending rates are no longer considered a barrier to corporate operations. Excessively high interest rates posed problems only to 5% of companies involved in the study. In their opinion, the key factor limiting the accessibility of credit financing for corporate entities continued to be their deteriorating credit capacity. The generally improving accessibility of corporate credits translated into the increased financing of companies' current needs instead of investment activity.

Enterprises may finance their operations by incurring liabilities in the domestic equity market or abroad. The value of bonds issued by corporates for the domestic market grew 0.3bn zloty (6.5%) in the first quarter of 2003. The figures on external corporate indebtedness at the end of the first quarter are not yet available.

Interest rates and deposit levels

In the first quarter of 2003, NBP interest rate cuts were accompanied by rapid reductions in deposit rates in the banking system. In March, average interest on current

²¹ Significant increase in its growth up to 8.3% in March 2003 could be traced to the changes in the methodology of computing monetary aggregates introduced a year before.

²² It amounted to 4.8% in March alone.

²³ General economic conditions investigated by the NBP in a poll involving a sample of 400 enterprises. A full analysis of its findings can be found on the Internet at www.nbp.pl/publikacje/inne.

household deposits dropped from 1.2% to 0.6%, whereas average interest on time household deposits shrank from 4.2% to 3.8%. In the meantime, average interest on corporate deposits amounted to 0.31% of current placements and 3.81% of time deposits. In real terms²⁴, interest on current corporate deposits remained negative at the end of the first quarter of 2003, totalling -2.99%. Interest on current household deposits was slightly positive at 0.06%, whereas interest on time deposits came to 3.24% for households and to 0.40% for corporates.

Yield rates on forms of saving alternative to bank deposits, such as purchases of treasury bonds or investment fund units, exceeded interest rates offered on bank placements. Annual nominal interest on 10-year treasury bonds amounted to 5.42% in March 2003. Meanwhile, potential yields on purchases of investment fund units were still superior, for example, from March 2002 to March 2003 some of the funds operating in the debt securities market generated a return in excess of 14%, while nominal interest on 10-year bonds in March 2002 stood at 8.3% and average interest on household time deposits was 7.13%.

Movements in interest rates in the first quarter of 2003 were reflected in the volume and structure of deposits in the banking system and of alternative forms of saving. One should keep in mind the fact that in the discussed period the value of foreign currency deposits expressed in zloty was also greatly effected by foreign exchange movements.

A slight nominal decline of 0.3bn zloty in household deposits making up the M3 aggregate was much deeper net of foreign exchange movements and amounted to some 2.5bn zloty. The falling tendency in household deposits present since mid-2002 was the effect of the deteriorating income situation of households, the lowering of interest rates on deposits and the introduction of interest income taxation. The financial assets of households, including alternative forms of savings, expanded in the first quarter of 2003 by 4.4bn zloty. Net of foreign exchange movements, this growth was modest and amounted to a mere 2bn zloty.

Fig. 55 presents the annual growth of household deposits making up the M3 aggregate and annual growth of deposits plus alternative forms of saving, set against average interest on household time deposits. The fall of interest rates below zero was accompanied by sustained annual growth of deposits making up the M3 aggregate, while the annual growth of this category plus alternative forms of saving remained positive. In the first quarter of 2003, bank deposits continued to be replaced with non-bank financial assets and slow growth was recorded in combined household financial savings. The replacement of relatively low-interest bank deposits with higher-yield investment fund units and treasury bonds accounts for active efforts being undertaken by households with the view to raising returns on funds held.

In many cases, such transfers of assets helped avoid the taxation of income derived from interest which significantly lowered the real interest rate²⁵.

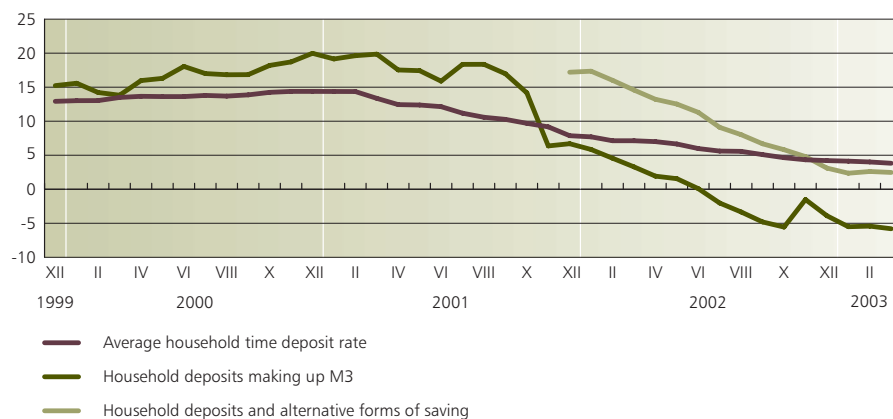
Corporate deposits respond to movements in interest rates in a less straightforward manner than household deposits as enterprises use them primarily for transactional purposes. In the first quarter of 2003, corporate deposits declined 3.6bn zloty in nominal terms, and 4.3bn zloty net of the impact of foreign exchange movements. The fall in corporate deposits in the first quarter of the year was a seasonal phenomenon. In 2003, relevant trends did not differ greatly from those observed in previous years. However, nominal annual growth of corporate deposits grew in March to 11.4% up from 1.4% in December 2002. Even if one were to take into account the fact that in about 22% this was due to foreign exchange movements, it may still signal the beginning of a growth trend in this category.

²⁴ Household deposits were deflated with current CPI, whereas corporate deposits were deflated with current PPI.

²⁵ Bank bonds, which allowed for avoiding taxation of interest income, were of a particular appeal in the period from October 2002 to January 2003. Bank bonds differ from deposits in formal terms. Still, they constitute de facto almost ideal substitutes. Bank bonds acquired by households are not recorded in books as their deposits but as other M3 constituents, which formally contributes to a reduction in deposit volume. At the end of March 2003, the value of other M3 constituents stood at 3bn zloty, of which about 75% represented the very bank bonds held by households.

Figure 55

**Annual growth of household deposits (two perspectives)
and average household time deposit rates**



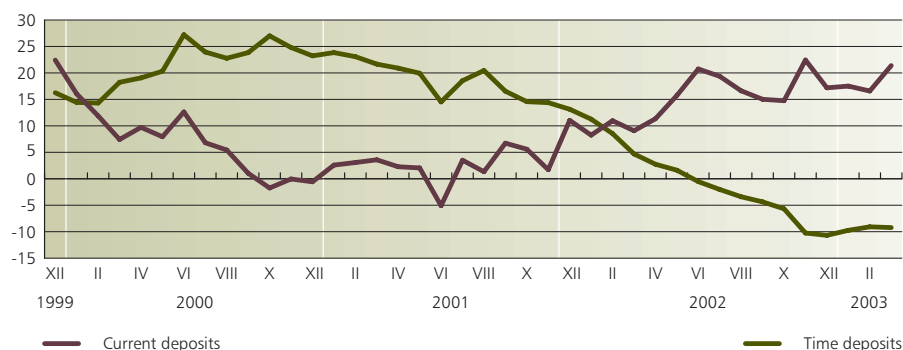
Note 1: Comparability of household deposit rates prior to and after March 2002 is limited due to changes in the methodology of interest rates statistics.

Note 2: Forms of household savings alternative to deposits making up M3 aggregate include investment fund units, treasury securities and deposits held at SKOK savings fund.

Source: NBP.

Figure 56

Annual growth of current and time deposits



Source: NBP.

Progressive decline in interest rates also contributed to shifts in the structure of bank deposits aimed at enhancing their liquidity. In the first quarter of 2003, strong divergence was still observed in the annual growth of current and time deposits. Current deposits expanded at an average annual rate of 20%, while annual growth of time deposits in March came to minus 11.1% (cf. Fig. 56). Deposits with the longest maturities continued to grow rapidly. In the first quarter of the year, their annual growth stood at 15.2%.

The substitution of deposits with long maturities by current deposits and notes & coins in circulation contributes to a growing share of the M1 narrow monetary aggregate in the M3 aggregate. At the end of the first quarter of 2003, this share amounted to 42.4% and was the highest since December 1997.

Interest rate levels and the behaviour of households and corporates in the first quarter 2003 was indicative of the continuation of the processes initiated in late 2001. Falling interest rates, combined with interest income taxation, encouraged changes to the structure of financial assets with the view to maximising yields and increasing liquidity.

Expected interest rates

Short-term expectations

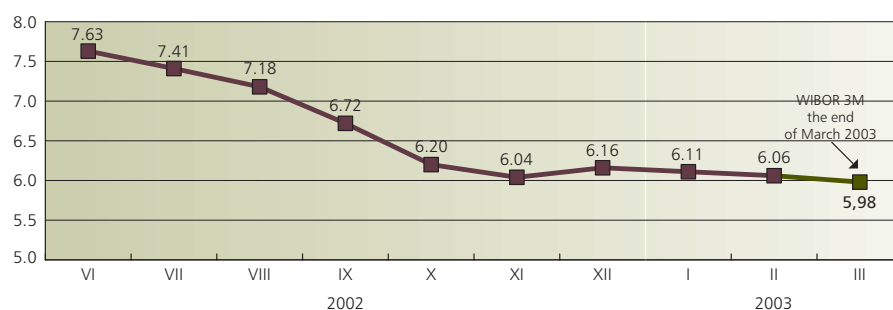
Market expectations regarding further NBP interest rate cuts were reflected in the levels of time interest rates in the FRA market.²⁶ At the end of December 2002, the current 3M WIBOR rate stood at 6.88%, and the market expected that it would amount to 6.16% by the end of March 2003. Clearly, market analysts anticipated NBP interest cuts in the first quarter of 2003. (cf. Fig. 57).

The stability of expectations regarding the scale of future NBP interest rate cuts until the end of the first quarter 2003 was expressed by their small spread, totalling only 10 bps²⁷. Market participants were not even sure whether the MPC would perform two or three cuts in the NBP reference rate during the period in question.

What differed were the expectations regarding interest rate levels in the six- and nine-month time horizons. From January 2 to February 5, 2003, the interest rate on 9x12 contracts grew about 30bps, while that on 6x9 contracts increased some 15bps. FRA 9x12 contracts were revised to the

Figure 57

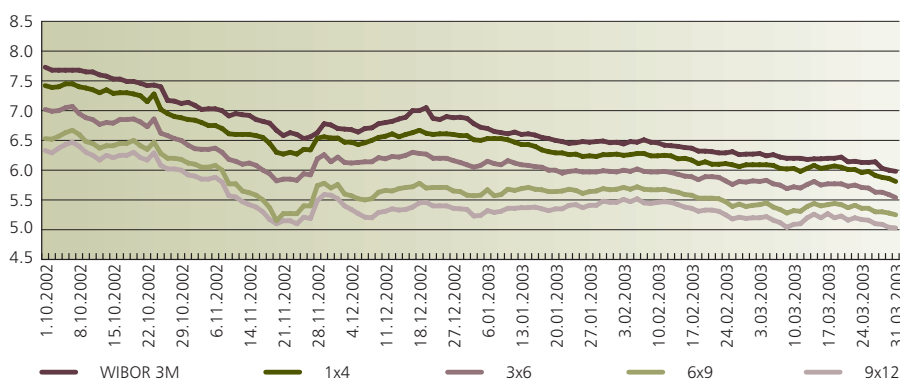
3-month time deposit rate based on contracts with maturities at the end of March 2003



Source: Reuters and NBP.

Figure 58

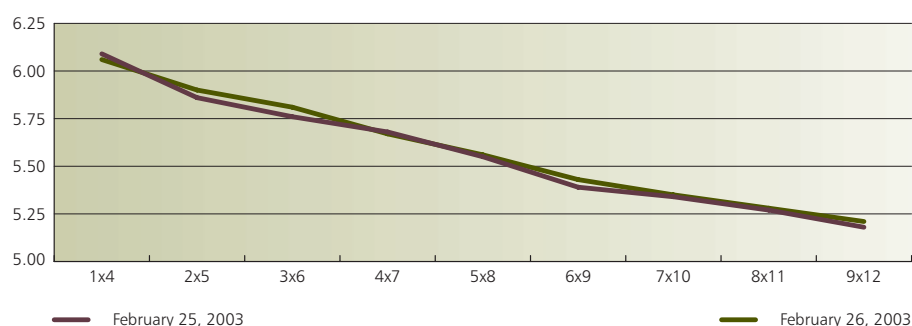
FRA contract rates for 3M WIBOR



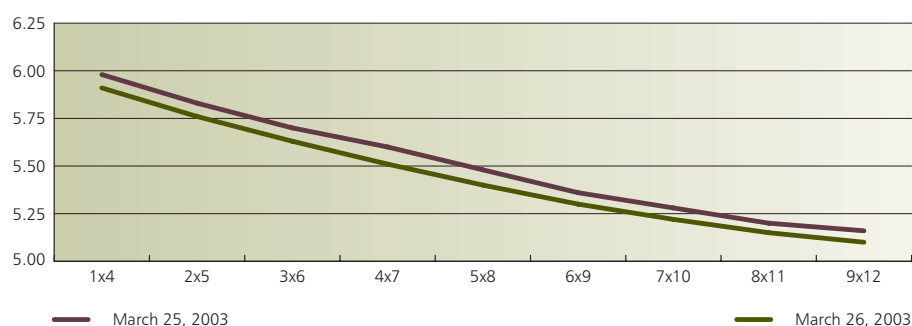
Source: Reuters and NBP.

²⁶ FRA market is an interbank market where FRA (Forward Rate Agreement) transactions are concluded. These are forward contracts for short-term interest rates (1M, 3M or 6M WIBOR). FRA 1x4, 2x5 and 3x6 contracts are forward contracts for 3M WIBOR based interest rates, whose settlement date was agreed within one month (1x4), two months (2x5) and three months (3x6), counting from the date on which a given contract was concluded.

²⁷ One base point (bp) represents one-hundredth of a percentage point (0.01%).

Figure 59**Change in position of 3-month forward interest rates, following MPC meeting in February 2003**

Źródło: dane Reuters.

Figure 60**Change in position of 3-month forward interest rates, following MPC meeting in March 2003**

Źródło: dane Reuters.

greatest extent, which suggested that the increase in their interest rates was related to the adoption by the NBP of the new scale of interest rate cuts (25bps). The impact of changes in the scale of interest cuts on market expectations was shown in their response to the January reduction in NBP base rates. Following its announcement, interest on FRA 9x12 contracts climbed 7bps. According to market participants, continuing NBP interest rate cuts of 25bps, initiated in November 2002, limited the potential scope of combined NBP interest cuts in 2003 (cf. Fig. 58).

The publication of the inflation figures in January (0.4% year-on-year, figures prior to revision) resulted in resumption of the falling trend in interest rates on FRA 6x9 and 9x12 contracts. Their decrease proved lower than that forecast by bank analysts. For that reason, the February cuts in NBP interest rates did not come as a surprise to the market. In response to the MPC decision, the 3-month forward interest curve moved downward by a mere 3–4bps.

The intensity of market expectations regarding further interest cuts by the NBP in subsequent quarters of 2003 became evident towards the end of the first quarter of 2003 when the interest rate on FRA 9x12 contracts reached its historic minimum. In March, another impulse to intensify expectations of further reductions in interest rates, in addition to the information on low inflation in February (0.5% year-on-year), turned out to be the MPC decision to perform yet another cut. Once it had been made public, the forward interest rate curve dropped 6–7bps (cf. Fig. 59 and Fig. 60).

At the end of March 2003, FRA market participants assumed that interest rates would be lowered within the following three quarters approximately by a total of 100bps. The maintenance of the inflation rate at a low level in the first two months of the year was interpreted as a lack of threat to the performance of the 2003 inflation target and justification for the continued pursuit of the cycle of the central bank's rate cuts.

Long-term expectations

In the first quarter of 2003, the fall was halted in bond yield rates. (cf. Fig. 61).

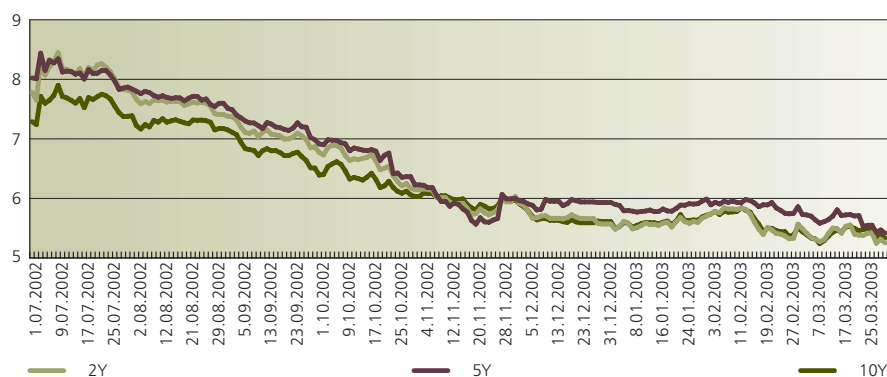
Movements in the yield rates of selected bonds are shown in the table below.

The basic reason for the discussed trend was lower demand for bonds in January and in the first half of February 2003. Decreased propensity to purchase treasury securities displayed by investors was clearly reflected in poor sales performance in the primary market. Both at the January tender for five-year bonds and the February one for two-year bonds, the nominal value of sold bonds was lower than the value of supply. Additionally, at the February tender for twenty-year bonds none of the submitted offers was approved by the Ministry of Finance.

Decreased demand for bonds in January and in the first half of February 2003 was attributable to two basic issues. Firstly, the convergence process providing a portion of market participants (in particular foreign ones) with a basis for formulating investment strategies was, to a great extent, completed in 2002²⁸. The difference in yields on ten-year Polish and German bonds, which at the year end 2001 amounted to 470bps, shrank to 168bps at the year end 2002. Equally rapid was the decline in the spread of yield rates on relevant five- and two-year bonds. Secondly, in February and March 2003 uncertainty among market participants caused by developments in internal politics and the prospect of an armed conflict in the Middle East, increased gradually. As a result, premium for political risk grew, which was the likely reason for a temporary fall in investors'

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Figure 61
Treasury bond yield rates



Source: Reuters and NBP.

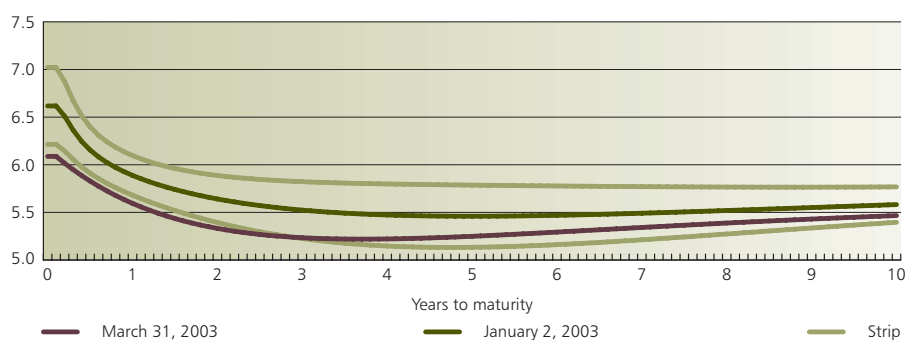
Table 25
Movements in bond yield rates in Q3 and Q4 2002, and Q1 2003 *
(quarter-end figures as against preceding quarter-end figures)

	Maturity		
	2 years	5 years	10 years
Q3 2002	-109	-108	-81
Q4 2002	-105	-130	-90
Q1 2003	-51	-32	-28

* The table lists absolute changes (in bps) in yields on tradable bonds with maturities close to 2, 5 and 10 years.

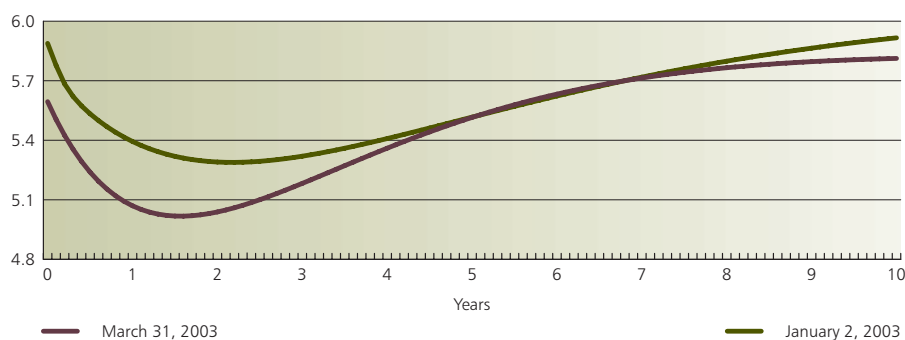
²⁸ This process consisted in reducing the difference between the yields on Polish long-term government bonds and corresponding instruments issued in the euro area to a level equivalent to approximately 200 base points. At the end of 2002, this barrier was overcome on a permanent basis.

Figure 62
Fluctuations of zero-coupon yield curve in Q1 2003



Source: Reuters and NBP.

Figure 63
Forward annual interest rate curves in Q1 2003



Source: Reuters and NBP.

interest in purchasing Polish bonds. Paradoxically, both the disintegration of the ruling coalition in early March, and the outbreak of war in Iraq in the second half of the month, did not lead to dramatic falls in bond prices. Some analysts interpreted these two events as factors reducing previous uncertainty. This encouraged foreign investors to commit their resources to the domestic bond market²⁹.

Growth in the zero-coupon yield curve³⁰ in the first quarter of 2003 was affected by a number of factors, each of them impacting a different segment of the curve (cf. Fig. 62).

The short end of the curve (short-term instruments with two-year maturities) moved downwards by an average of 33bps, i.e., on a statistically meaningful scale³¹. This was due to three NBP interest rate cuts performed in the analysed period, although the extent of reference rate cuts

²⁹ It should be noted that at the time of increased uncertainty investors are more likely to invest funds in safe instruments, such as government bonds. This approach was reflected in price trends on the bond market both in Poland and in the euro area that were monitored on the eve of the war in Iraq and during the conflict. It is noteworthy that in the analysed period a significant increase was recorded in short-term volatility of yield rates on relevant Polish and German bonds (measured by the correlation coefficient).

³⁰ The zero-coupon yield curve illustrates the relation between yield rates on zero-coupon bonds and their maturities. The primary model employed at the National Bank of Poland for the purpose of estimating the zero-coupon yield curve is the Svensson model (1994).

³¹ Statistical relevance of the curve's shift in a given period is determined by its final position against the confidence range (95%) constructed on the basis of data on the volatility of the curve. In particular, if the curve estimated at period end falls within the set confidence range, this signifies that there is a 95% likelihood that no material changes were made to the shape and location of the curve compared to the beginning of the period.

was not fully reflected in the growth of the short end of the zero-coupon yield curve. This phenomenon can be explained by prior discounting by investors of expected reference rate cuts, in the absence of clear signs of economic recovery and inflationary pressure.

The central section of the curve (instruments with 3- to 7-year maturities) dropped in the first quarter of 2003 less than its short end (21bps on average). The lack of statistical importance in this transfer was primarily determined on the basis of the significant width of the confidence range. The high volatility of the central section of the curve was attributable to the fact that bonds with maturities close to 5 years, especially popular among foreign investors, represented the most liquid segment of the bond market and were most sensitive to both positive and negative factors bearing on treasury securities.

The long end of the yield curve (instruments with 8 to 10-year maturities) was relatively the most stable in the first quarter of 2003. Its drops (13bps on average) were not statistically meaningful. Additionally, lack of dramatic changes in the course of the analysed period was attested by a relatively low (when compared to the central section) width of the confidence range (cf. Fig. 62). This points to the growing conviction of investors in the gradual convergence of short-term interest rates in Poland with the levels applicable in the euro area.

The curve of annual time interest rates shifted downward in the first quarter by 19bps on average, and its long end (annual time yield rates within 7 to 10 years) – by a mere 10bps (cf. Fig. 63). These movements also illustrate the reinforcement of market expectations regarding convergence of domestic interest rates with those in force in EMU countries.

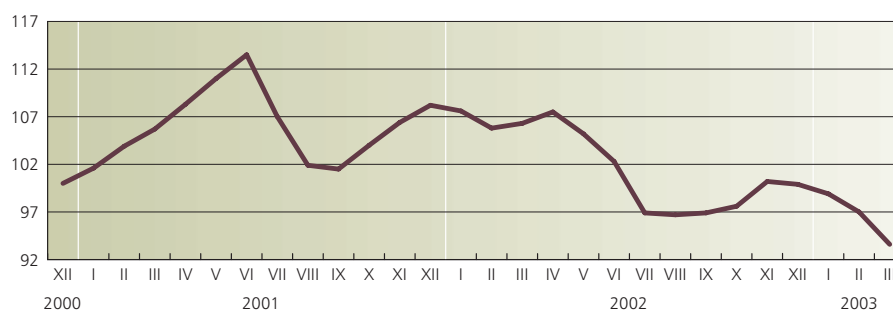
4.3.2. Exchange rates

In the first quarter of 2003, the zloty depreciated markedly. The Polish currency weakened both in nominal and in real terms³². The nominal effective zloty rate against a basket of the currencies most important to the Polish economy dropped 2.7% on the previous quarter, and 9.4% in the first quarter of 2002 (cf. Fig. 64).

In the discussed period, the zloty rate was strongly affected by movements in the USD/EUR rate. Due to the euro appreciation in international markets, the zloty depreciated to a much larger extent against the single European currency than against the US dollar (cf. Fig. 65). Depreciation of the nominal EUR/PLN rate was further aggravated throughout the quarter and came to 4.7% in relation to the previous quarter and to 15.5% in relation to the first quarter of 2002. Meanwhile, in March alone the zloty depreciated distinctly against the US dollar, whereas in the entire quarter it appreciated by 2.4% in relation to the previous quarter and by 5.6% in relation to the first quarter of 2002.

Figure 64

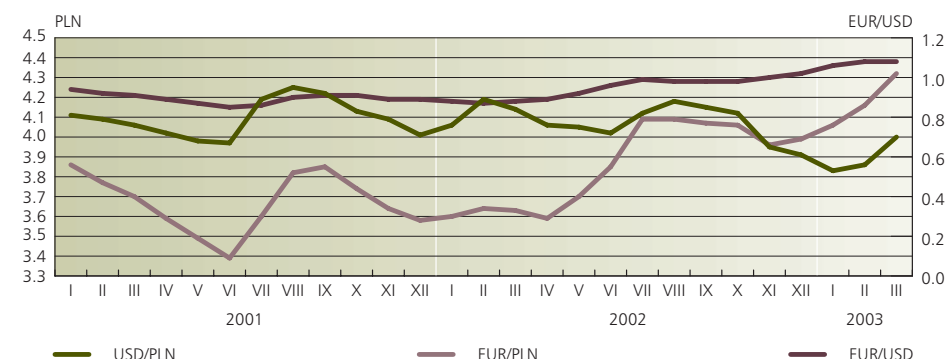
Nominal effective zloty rate, 2001–2003 (monthly figures, December 2000 = 100)



Source: NBP.

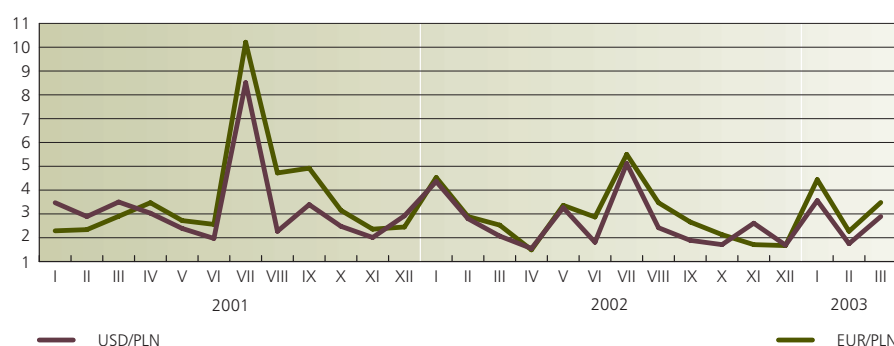
³² Movements in the ratios involving real zloty exchange rate are presented in the Chapter *Foreign trade, balance of payments*.

Figure 65
Zloty rate against USD and EUR and EUR/USD relation



Source: NBP.

Figure 66
Volatility of zloty exchange rate against USD and EUR



Source: NBP.

The zloty depreciation trend was most pronounced in March when the Polish currency weakened both against the euro and US dollar. This was reflected in a temporary surge in its volatility (cf. Fig. 66).

The prime factor depreciating the zloty in the first quarter of 2003 was higher uncertainty related to the intensification of conflicts in internal politics (including the disintegration of the ruling coalition). On the other hand, strong growth in geo-political risk connected with the outbreak of the Iraqi war, had no bearing on zloty rate levels³³.

* * *

The long-term **pass-through coefficient** determining the impact of movements in the nominal effective zloty rate on the price growth of consumer goods and services, estimated on the basis of monthly figures for the years 1998–2002, stands at 0.28, with 54% of the pass-through effect cumulated in the first two quarters, and 89% in the first year.

Given the value of the pass-through coefficient and the time structure of the responses of internal prices to movements in the exchange rate, it may be estimated that in the first quarter of 2003 CPI growth (with the average annual figure totalling 1.2% at the end of March) amounted to 0.41% due to exchange rate movements. If the pass-through effect on the CPI of movements in

³³ In January 2003, external factors contributing to zloty depreciation became temporarily evident. The attitude of foreign investors to the currencies of our region deteriorated temporarily due to the defence of the forint currency band.

external prices, estimated at 0.63%, were to be taken into consideration (as evidenced by Brent oil prices), one would find that almost the entire CPI growth in the first quarter of 2003 could be traced to changes in the zloty exchange rate and external price movements.

Still, the period from January 1998 to March 2003, for which the pass-through effect was estimated, was far from homogenous. The years 1998–2000 were characterised by a high growth of internal demand and relatively high and unstable inflation expectations correlated to actual price movements. In the period from 2001 to March 2003, on the other hand, internal demand growth slowed down and the inflation rate dropped, correlated with lower inflation expectations stabilising at a low level. In the conditions of low demand growth and stable inflation expectations, the corporate potential to determine prices decreases and so does the pass-through coefficient.

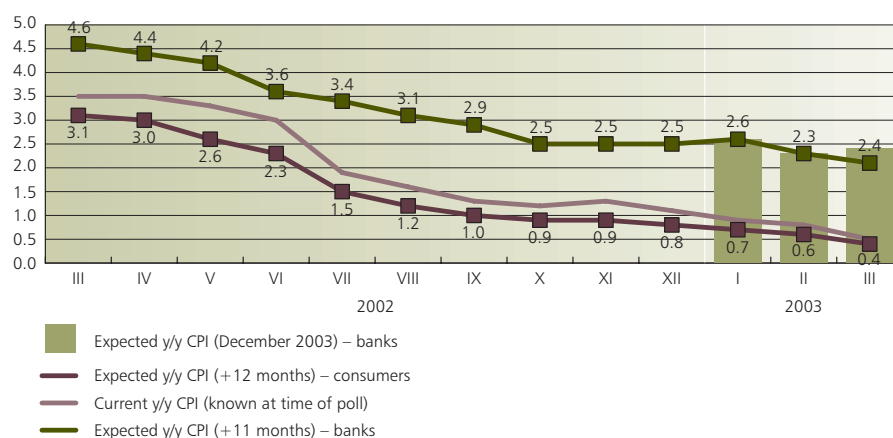
The pass-through adjustment coefficient may be derived from inflation models³⁴. The calculated adjustment coefficient for the average pass-through coefficient stands at 0.68. The exchange rate pass-through coefficient would then amount to 0.19, whereas the total coefficient (involving both exchange rate and external prices) would reach 0.29. With pass-through coefficients computed in this way, the average annual CPI at the end of the first quarter 2003 grew 0.28% due to movements in exchange rate and 0.41% due to external price movements, i.e., a combined 0.69%³⁵. This signifies that 57% of CPI growth in the first quarter may be traced to movements in exchange rate and external prices.

It seems that the pass-through effect adjusted for movements in inflation expectations and cyclical fluctuations in general economic conditions is a more accurate measure of the impact of movements in exchange rate and external prices on the inflation rate than the annualised coefficient.

4.3.3. Inflation expectations

In the first quarter of 2003, inflation expectations of both consumers and bank analysts continued to decline (cf. Fig. 67). In the case of consumers, this was due exclusively to the falling current inflation rate to which respondents of the Ipsos-Demoskop poll refer when answering the

Figure 67
Inflation expectations of consumers and bank analysts in 2002 and in Q1 2003



Source: Reuters, GUS, own calculations based on Ipsos-Demoskop data.

³⁴ Models are stable if values of roots of unity (characterising distortion suppression force) fall within a circle of a <1 radius. Higher suppression force corresponds to lower root value.

³⁵ Meanwhile, CPI in the first quarter of 2003 in relation to the corresponding quarter of 2002 (0.5%) grew 0.14% as a result of movements in nominal effective zloty rate and 0.20% due to movements in external prices.

question regarding expected future price growth. The second factor impacting quantified measures of expectations of this group of entities, namely, shifts in the pattern of replies to the poll's questions, points to a deterioration in the manner of formulating inflation expectations, especially pronounced in January 2003.

Inflation expectations of consumers and bank analysts are not fully comparable. Among other things, this is attributable to a different time horizon adopted for formulated projections. Bank analysts tend to declare their opinions on price growth in the month preceding the corresponding month of the following year and for December the current year, whereas consumers make relevant projections for the twelve months ahead. Additionally, it should be kept in mind that the inflation expectations of consumers are objectified, i.e., quantified on the assumption that respondents perceive the course of price processes through the prism of official inflation statistics³⁶.

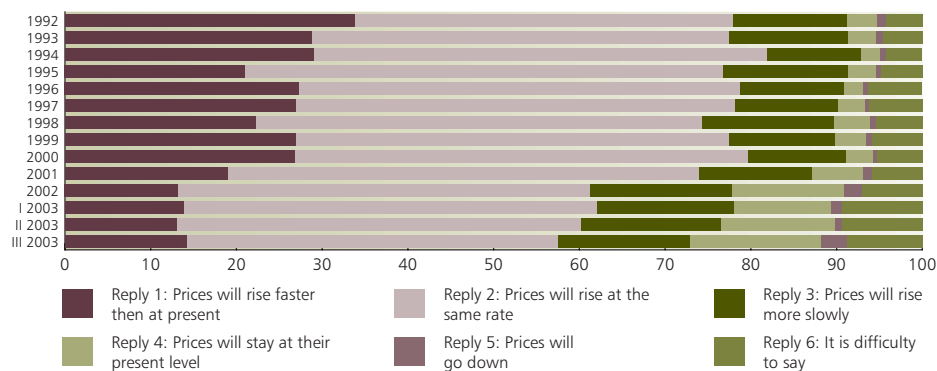
Consumer inflation expectations

Since the beginning of 2001, the pattern of replies to the questions of the Ipsos-Demoskop poll was subject to significant transformations suggesting consumers' growing confidence in the sustainability of price stability. Still, in January 2003 the distribution of replies to the poll's questions deteriorated. This situation persisted in the subsequent months of the first quarter. Along with the growing proportion of relatively more pessimistic respondents foreseeing price growth within the following 12 months to be at the same or faster rate than to date, the share of respondents projecting that prices would grow at a slower rate, would remain unchanged or be lower than at the time of the poll decreased (cf. Fig. 68)³⁷.

Despite the deterioration in the manner of formulating inflation expectations by consumers, the objectified measure of expectations declared by this group of entities (which is the function of the pattern of replies to the question of the Ipsos-Demoskop poll and the current inflation rate) in March 2003 fell to 0.4%, i.e., 0.4% in relation to the figure at the year's end 2002. The decline in consumer inflation expectations over the discussed period may be fully attributed to the slowdown

Figure 68

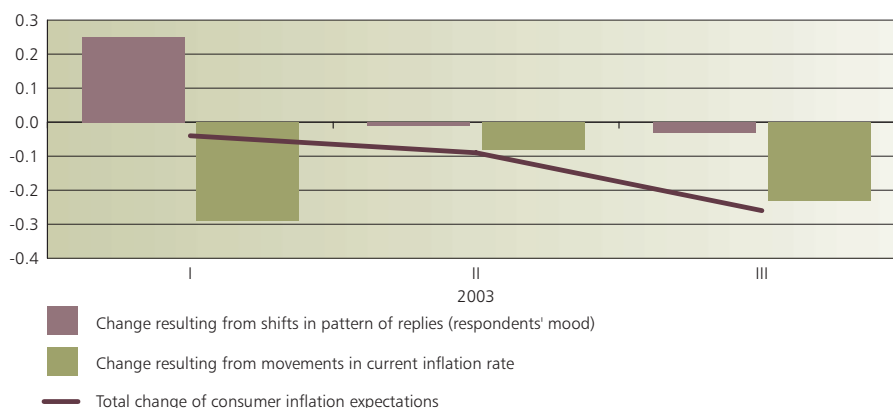
Pattern of replies to the question of the Ipsos-Demoskop poll for the years 1992–2001 (annualised), for 2002 and for Q1 2003 (monthly figures)



Ipsos-Demoskop poll question: "Given what is currently happening, do you believe that over the next 12 months prices will: (1) rise faster than at present, (2) rise at the same rate, (3) rise more slowly, (4) stay at their present level, (5) go down, (6) difficult to say"

³⁶ For further information on the subject, see the 2001 Inflation Report.

³⁷ Poll researchers put forward a hypothesis that deterioration in the manner of formulating inflation expectations by consumers in January may result from frequently voiced in the public debate (though unfounded) concerns that Poland's accession to the European Union would entail domestic price growth. The Copenhagen summit had a major impact on the results of the January poll by Ipsos-Demoskop and it largely contributed to growth in the Consumer Optimism Index. Therefore, it may be assumed that the Copenhagen summit, widely discussed in mass media, could also reinforce fears of price growth following Poland's EU membership, as shown in the results of the poll.

Figure 69**Decomposition of movements in consumer inflation expectations in Q1 2003 (%)**

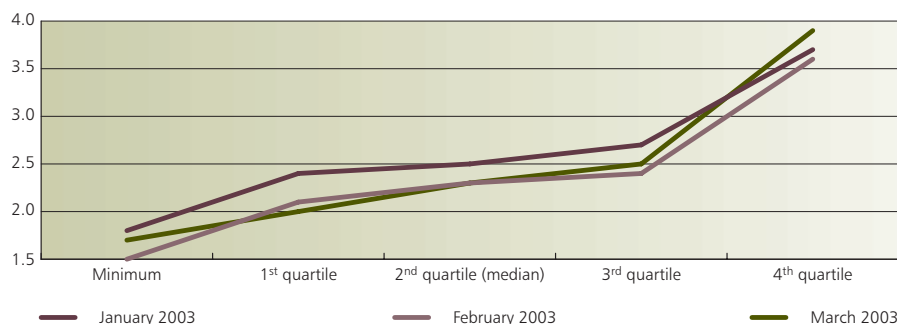
Source: own calculations based on GUS and Ipsos-Demoskop data.

in price growth (cf. Fig. 69). If the current inflation rate in the individual months of the first quarter of 2003 had remained at the level of December 2002, in March 2003 the price growth rate expected by respondents in the following 12 months would have amounted to 0.9%, thus exceeding by 0.1% the projections made in December 2002.

Inflation expectations of bank analysts

The figures obtained from the Reuters poll indicate that in the first quarter of 2003 the inflation expectations of bank analysts decreased. The distribution of expectations, formulated both in respect of the annual inflation rate in December 2003 and the annual inflation rate in the month preceding the corresponding month of the following year, shifted towards lower rates of price growth (cf. Fig. 70 and Fig. 71)³⁸.

In the discussed period, the annual inflation rate in the month preceding the corresponding month of the following year declined 0.4% in relation to the figures for December 2002 and came to 2.1% in March 2003. Meanwhile, the annual price growth rate expected at the end of 2003 stood at 2.4% in March and was lower than the forecasts made in January 2003 by 0.2%.

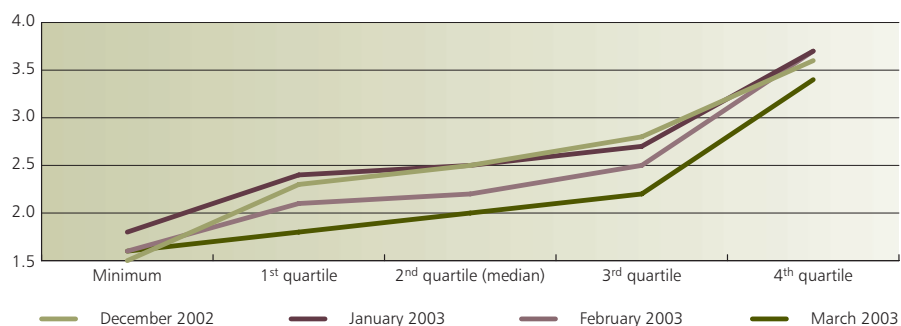
Figure 70**Distribution of bank analysts' inflation expectations formulated with regard to annual inflation rate in December 2003 by month of Q1 2003**

Source: Reuters, and NBP calculations.

³⁸ As far as the expected inflation rate in December 2003 is concerned, the only exception was the maximum value of distribution which increased slightly in the period from January to March 2003.

Figure 71

Distribution of bank analysts' inflation expectations formulated with regard to annual inflation rate in the month preceding the corresponding month of the following year by month of Q1 2003



Source: Reuters, and NBP calculations.

4.3.4. The wealth effect

The main elements affecting the situation in the equity market on a global scale in the first quarter of 2003 were the war in Iraq and concerns about the spreading of the SARS epidemic. Both undermined the confidence of entrepreneurs, investors and consumers, thus delaying potential acceleration of economic growth.

The above factors also influenced investment preferences of the household sector which kept most of its equity savings in the safe market for treasury bonds. The volume of funds placed by this sector in the Polish equity market is presented in Table 26.

Table 26

Direct and indirect forms of household investment in the equity market
(balances at period end, in PLN billion)

Type of involvement in equity investment	December 2002	March 2003
1. Direct portfolio investment – securities (combined)*	24.3	24.4
Shares	8.1	7.3
Treasury securities (combined)	16.2	17.1
a) tradable bonds	5.9	7.0
b) savings bonds	7.7	7.5
c) treasury bills	2.6	2.6
2. Indirect portfolio investment (combined)	55.9	62.1
Open-ended investment funds (household investment assets)**	20.1	24.1
Open-ended pension funds (net assets)	31.6	33.6
Life assurance (life assurance placements, whereby placement risk is borne by the insuring party)	4.2	4.4
Total (1+2)	80.2	86.5
<i>Above investment forms (combined) to deposits and other liabilities</i>		
<i>towards household in the banking system</i>	<i>37.7</i>	<i>40.5</i>

* securities in clients' investment accounts held in brokerage houses and offices.

** NBP estimates; data on funds known to address their offer exclusively to legal persons were not incorporated.

Source: materials of Ministry of Finance, NBP, GUS, open-ended pension funds.

In the first quarter of 2003, the assets of pension funds continued to grow. Given the Polish economic environment, they became the primary channel through which household savings could access the equity market. The second channel of this kind were investment funds which represent an alternative to direct household investment in the equity market. Basic trends in household investment in the Polish equity market included:

- significant growth in the equity potential of institutional investors (pension funds, investment funds, insurance firms) at the expense of the limited role of individual investors,
- low yields on investment in the equity market in the segment of shares and bonds reducing the impact of the equity market on domestic demand (operation of the wealth effect).

5

Prospects of inflation

In the *Medium-term monetary policy strategy for the year 2003*, the Monetary Policy Council set this year's inflation target (measured by annual CPI growth in December 2003) at 3–4%.

According to forecasts made in April 2003, GDP growth in 2003 will reach 2.5%. A moderate increase in consumer demand and only a slight improvement in investment expenditure have also been assumed. Despite progressing economic recovery in 2003, low growth in registered household income will be sustained. Employment will continue to fall, although at an increasingly slower rate. Salary growth in the corporate sector, and consequently also in income from hired labour, will be slower than in 2002. With low valorisation and reductions in the number of persons entitled to social benefits, growth of income from social benefits will also be lower. On the whole, however, it is expected that growth in disposable household incomes in 2003 will continue to exceed growth in their registered components. Growing personal consumption will be accompanied by a slight increase in gross fixed investments. The following factors speak in favour of such a course of affairs: upgrading needs conditioning sustainable competitiveness of the output of Polish enterprises, Poland's imminent membership of the European Union, and the commitment of EU financial assistance to central and local government investment projects. Meanwhile, investment growth will be hampered in this period by a relatively low level of corporate own funds, persistently poor assessment of external and internal demand growth, and low domestic savings.

The contribution of the public finance sector to consumer (collective consumption) and investment demand growth in 2003 cannot be accurately determined for the time being. Although the performance of the central government budget does not suggest that the statutory limit for this deficit, adopted for 2003, could have been overrun, the poor financial standing of other segments of the public finance sector (mainly the Social Security Board and the Agricultural Market Agency) may contribute to the widening deficit in excess of the adopted level. In this context, it seems likely that the economic deficit of the public finance sector planned in the 2003 draft budget law will be overrun.

As shown in most recent forecasts on global economic development, prospects for economic recovery in 2003 are bleak. As far as our immediate economic environment, i.e., the euro area, and Germany in particular, GDP growth forecasts have been systematically revised downwards in recent months. In April, they were reduced to 0.4% for Germany and 1.0% for the euro area.

Oil price forecasts for the year 2003 were substantially lowered by the main forecasting centres following the end of the Iraqi war. This was possible because no major damage was done during the hostilities to Iraqi oil installations and the war did not, as some feared, spread to other countries of the Persian Gulf. Additionally, the downward revision of growth forecasts for the world economy entailed a reduction in forecasted oil demand. As a result, according to April forecasts oil prices will remain at US\$24–25 per barrel until the year's end.

Projections of domestic food prices from April 2003 foresaw that these prices would be 0.5% higher in December than a year before³⁹.

On the basis of assumptions adopted for the 2003 draft budget and announcements made by government agencies responsible for setting officially controlled prices, it may be estimated that the annual growth of officially controlled prices at the year's end 2003 will be approximately 3%.

³⁹ Due to higher than expected growth in wheat purchase prices in May, in the June forecast it has been assumed that food prices in December will be 0.9% higher than a year before.

It should be kept in mind that the level of this year's inflation rate will also be influenced by earlier NBP interest rate cuts which bear with a lag on gradual increase in domestic demand.

At the end of April 2003, the annual CPI came to 0.3%. It is forecasted that slow growth in both internal (among other things, following the relaxation of monetary policy in the course of the last two years) and external demand will lead to a slight acceleration of the inflation rate towards the end of the year.

At the same time, supply factors bringing down inflation are expected to lose their importance and the annual inflation index is expected to approach the lower band of the inflation target at the year's end.

Appendix A

Voting of the Monetary Policy Council members on motions and resolutions adopted in the first quarter of 2003

Date of resolution	Subject	Decision taken by MPC	Voting of Council members	
29.01.2003	Lowering interest rates by 0.5 percentage point	Motion failed to receive a majority of votes	For:	J. Krzyżewski
				D. Rosati
				G. Wójtowicz
				W. Ziółkowska
			Against:	L. Balcerowicz
				M. Dąbrowski
				B. Grabowski
				C. Józefiak
				W. Łączkowski
				J. Pruski
29.01.2003	The rediscount rate, the reference rate, the refinancing rate and the NBP term deposit rate	To lower all interest rates by 0.25 percentage point	For:	L. Balcerowicz
				B. Grabowski
				C. Józefiak
				J. Krzyżewski
				W. Łączkowski
				D. Rosati
				G. Wójtowicz
				W. Ziółkowska
			Against:	M. Dąbrowski
				J. Pruski
25.02.2003	"Monetary policy strategy beyond 2003"		For:	L. Balcerowicz
				B. Grabowski
				C. Józefiak
				J. Krzyżewski
				W. Łączkowski
				J. Pruski
				D. Rosati
				G. Wójtowicz
			Against:	M. Dąbrowski
			Absent:	W. Ziółkowska

26.02.2003	Lowering the reference rate	Motion failed	For:	D. Rosati
	by 0.5 percentage point,	to receive a majority		G. Wójtowicz
	the credit refinancing rate	of votes	Against:	L. Balcerowicz
	by 1 percentage point,			M. Dąbrowski
	and leaving the NBP			B. Grabowski
	time deposit rate			C. Józefiak
	unchanged			J. Krzyżewski
				W. Łączkowski
				J. Pruski
			Absent:	W. Ziółkowska
26.02.2003	The rediscount rate,	To lower the reference rate	For:	L. Balcerowicz
	the reference rate,	by 0.25 percentage point,		B. Grabowski
	the refinancing rate	the rediscount rate and		J. Krzyżewski
	and the NBP term	refinancing credit rate		J. Pruski
	deposit rate	by 0.5 percentage point,		D. Rosati
		and to leave the NBP time		G. Wójtowicz
		deposit rate unchanged	Against:	M. Dąbrowski
				C. Józefiak
				W. Łączkowski
			Absent:	W. Ziółkowska
26.03.2003	The rediscount rate,	To lower all interest rates	For:	L. Balcerowicz
	the reference rate,	by 0.25 percentage point		B. Grabowski
	the refinancing rate			J. Krzyżewski
	and the NBP term			W. Łączkowski
	deposit rate			D. Rosati
				G. Wójtowicz
				W. Ziółkowska
			Against:	M. Dąbrowski
				C. Józefiak
				J. Pruski