National Bank of Poland

Monetary Policy Council

REPORT OF INFLATION
First quarter 2000

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Design:
Ryszard Piwowar
Piotr Chodorek
Ed Polinski

Layout and Print:
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Office of the President
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00-919 Warszawa, ul. Świętokrzyska 11/21
Tel: (0-22) 653 23 35, Fax: (0-22) 653 13 21

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SUMMARY

During the particular months of the first quarter of 2000, annualised inflation ran at over 10%. Thus, at the beginning of the year, inflation in Poland returned to double figures after an interval of almost one and a half years. This level of inflation had been forecast by the NBP in autumn 1999.

The development of inflationary processes in the first quarter of 2000 represented a continuation of the upward trend seen in the second half of 1999. The analysis presented in the present report indicates that the acceleration of price growth in the first three months of this year was attributable to four principal factors. As is traditionally the case, the first months of the year brought a substantial increase in administratively regulated prices, in the broad sense of the term. A large impact on price growth was also exerted by higher world oil prices. Next, the domestic market for agricultural produce experienced a further rise in foodstuff prices. Finally, cost push pressure persisted in those areas of manufacturing marked by rigid demand and monopoly business structures, or by an absence of competition from world markets.

The fact that indices of underlying inflation remained lower than overall price growth implies that the maintenance of a relatively high rate of inflation was still being determined by growth in the most volatile prices and in officially controlled prices, which are less sensitive to monetary policy measures, or indeed completely insensitive to them.

The tendency for inflation to pick up speed led to a major tightening of the monetary stance in autumn 1999. This year, that restrictive stance has been maintained. Expressions of this in the first quarter of 2000 included the decision of the Monetary Policy Council, meeting on February 23, to raise base interest rates by 100 bps. The monetary policy being pursued slowed the pace of price growth in the first quarter of the year, and will continue to contribute to bringing inflation down gradually in the future. These developments were encouraged by a contraction in the money supply in the first quarter, with money stocks down 0.6% in nominal terms at the end of March compared to year end 1999, and down 4.0% in real terms.

Another factor acting to curb price growth in the first quarter was the improved state of public finances relative to the situation a year previously. However, this improvement was not strong enough to prevent a further deterioration in the external disequilibrium of the Polish economy. On an annualised basis, the current account deficit can be estimated at 8.3% of GDP in the first quarter, as against 4.5% in the first quarter of last year and 7.6% in 1999 as a whole.

Poland's high current deficit is chiefly rooted in structural factors that are independent of monetary policy. Measures to reduce that deficit should primarily focus on intensifying structural reform with a view to enhancing business competitiveness. In terms of macroeconomic policies, given the deregulation of capital flows, it is solely a further tightening of fiscal policy that can effectively contain the deficit on Poland's current account.

The months to come may witness a temporary relapse into double-digit inflation, although inflation should clearly decline in the final five months of 2000.

The present *Inflation Report* was developed on the basis of statistical data available up to June 20, 2000.

Basic macroeconomic indicators

	Q1 1997	Q2 1997	Q3 1997	Q4 1997	1997
GDP	6.4	7.5	6.7	6.4	6.8
Domestic demand	7.8	8.9	9.2	10.7	9.2
Total consumption	6.0	6.3	6.3	5.7	6.1
Personal consumption	6.7	7.1	7.0	6.6	6.9
Capital formation	18.6	20.3	20.6	22.3	20.8
Gross fixed investment	19.6	21.0	21.2	23.2	21.7
Savings ratio (%)	13.6	13.6	12.7	12.9	13.2
Financial savings ratio (%)	9.5	8.2	6.7	10.3	8.6
Unemployment (%)	12.6	11.6	10.6	10.3	10.3
Disposable incomes					
(corresponding period previous year = 100)	104.8	108.1	110.0	105.4	107.1

Basic monetary indicators

Consumer prices[1]	116.6	115.3	113.6	113.2	113.2
Industrial producer prices[1]	111.8	112.2	113.0	111.5	111.5
M0	125.5	124.9	135.4	123.7	123.7
M1	124.7	128.4	125.3	118.2	118.2
M2	128.0	129.8	131.6	129.1	129.1
Non-financial sector deposits	130.0	132.1	134.3	131.9	131.9
personal	129.1	131.5	134.1	136.3	136.3
corporate	132.6	133.6	134.7	122.1	122.1
Claims on non-financial sector	147.7	147.3	144.7	133.6	133.6
persons	200.3	189.6	174.5	156.2	156.2
corporates	141.4	141.4	140.1	129.7	129.7
M0	107.6	108.4	119.2	109.3	109.3
M1	106.9	111.4	110.3	104.4	104.4
M2	109.8	112.6	115.8	114.0	114.0
Non-financial sector deposits	111.5	114.6	118.2	116.5	116.5
personal	110.7	114.1	118.0	120.4	120.4
corporate	113.7	115.9	118.6	107.8	107.8
Claims on non-financial sector	126.7	127.7	127.4	118.0	118.0
persons	171.8	164.4	153.6	138.0	138.0
corporates	121.3	122.6	123.4	114.6	114.6
Minimum reverse repo rate (%)[2]					
Rediscount rate (%)[2]	22.0	22.0	24.5	24.5	24.5
Lombard rate (%)[2]	25.0	25.0	27.0	27.0	27.0

[1] final month of quarter

[2] period end

Source: GUS (Central Statistical Office) figures, NBP figures, NBP estimates.

Q1 1998	Q2 1998	Q3 1998	Q4 1998	1998	Q1 1999	Q2 1999	Q3 1999	Q4 1999	1999	Q1 2000
		real growth								
6.4	5.4	5.0	2.9	4.8	1.6	3.0	5.0	6.2	4.1	6.1
7.4	5.9	6.3	6.6	6.5	3.3	4.6	5.6	5.8	4.9	5.1
5.5	3.7	3.9	3.9	4.1	3.7	4.1	4.5	4.6	4.2	3.9
6.4	4.2	4.5	4.6	4.7	4.4	4.9	5.4	5.4	5.0	4.6
17.4	14.9	14.6	12.0	13.8	1.1	6.5	9.0	7.9	6.8	11.2
17.8	15.2	14.8	12.6	14.2	6.1	6.8	7.0	7.3	6.9	5.5
12.0	14.9	10.8	15.4	13.3	11.0	11.5	9.8	13.3	11.4	.
8.6	7.8	7.1	7.1	7.7	10.7	2.5	3.3	3.2	4.9	.
10.4	9.6	9.6	10.4	10.4	12.1	11.6	12.1	13.0	13.0	13.9
104.4	103.7	102.5	107.2	104.5	104.1	103.0	102.3	102.2	102.8	.
		corresponding period previous year = 100								
113.9	112.2	110.6	108.6	108.6	106.2	106.5	108.0	109.8	109.8	110.3
109.2	107.7	106.4	104.8	104.8	104.7	105.2	106.2	108.1	108.1	107.3
		nominal growth, period end								
		(corresponding period previous year = 100)								
117.6	120.6	112.7	126.8	126.8	121.5	118.9	92.9	98.4	98.4	83.6
116.5	113.7	112.6	113.0	113.0	121.7	119.3	119.1	122.0	122.0	105.1
127.4	126.7	125.4	125.2	125.2	127.6	122.9	120.9	119.3	119.3	113.8
130.9	130.2	128.6	127.8	127.8	129.5	124.6	122.3	118.3	118.3	115.5
134.0	131.0	129.6	126.3	126.3	127.5	123.4	120.8	115.2	115.2	114.2
122.8	127.8	126.1	131.5	131.5	135.0	128.0	126.2	125.5	125.5	119.1
130.4	129.2	128.2	127.9	127.9	129.5	127.6	127.8	127.1	127.1	123.9
145.3	135.3	133.8	130.0	130.0	135.8	141.1	147.6	153.1	153.1	152.1
127.9	128.1	127.1	127.5	127.5	128.2	125.0	123.8	121.6	121.6	118.1
		real growth, period end								
		(corresponding period previous year = 100)								
103.3	107.5	101.9	116.7	116.7	114.4	111.6	86.0	89.7	89.7	76.0
102.3	101.4	101.8	104.0	104.0	114.6	112.0	110.3	111.1	111.1	95.3
111.9	112.9	113.4	115.2	115.3	120.2	115.4	111.9	108.7	108.7	103.2
114.9	116.0	116.3	117.6	117.6	121.9	117.0	113.2	107.7	107.7	104.7
117.7	116.8	117.2	116.3	116.3	120.0	115.8	111.9	104.9	104.9	103.5
107.8	113.9	114.0	121.0	121.0	127.1	120.2	116.9	114.3	114.3	108.0
114.5	115.1	115.9	117.8	117.8	121.9	119.8	118.3	115.7	115.7	112.3
127.6	120.6	121.0	119.7	119.7	127.9	132.5	136.6	139.4	139.4	137.9
112.3	114.1	114.9	117.4	117.4	120.8	117.3	114.6	110.8	110.8	107.1
24.0	21.5	18.0	15.5	15.5	13.0	13.0	14.0	16.5	16.5	17.5
24.5	23.5	21.5	18.3	18.3	15.5	15.5	15.5	19.0	19.0	20.0
27.0	26.0	24.0	20.0	20.0	17.0	17.0	17.0	20.5	20.5	21.5

INFLATIONARY PROCESSES IN THE FIRST QUARTER OF 2000

Consumer prices

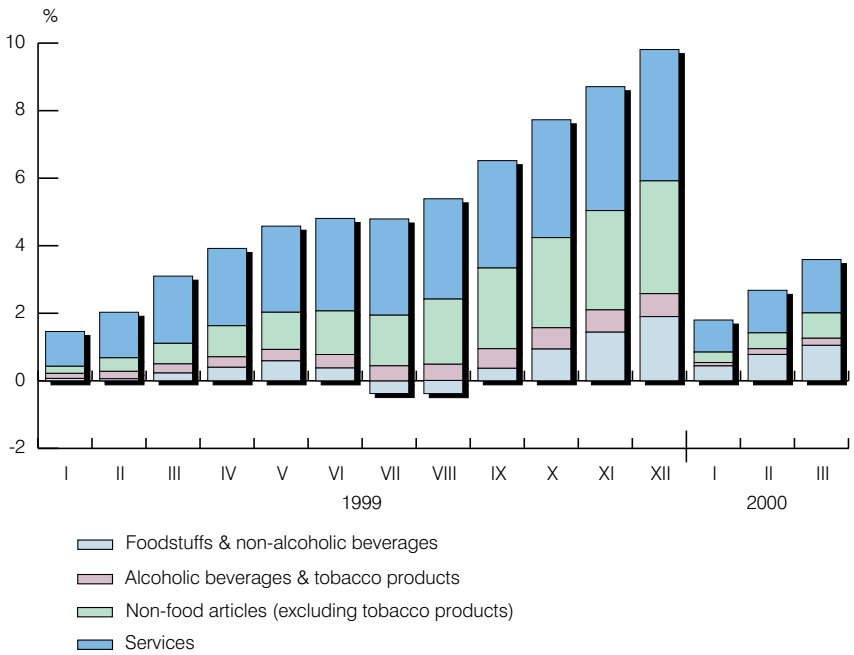
The first quarter of 2000 brought higher year-to-date inflation, measured from December 1999 to March 2000, than recorded twelve months before; consumer price growth came to 3.6%, as against 3.1% in the corresponding period of 1999 (cf. Fig. 1).

Whereas monthly consumer price growth in January and February 2000 stood at 1.8% and 0.9%, respectively, representing an increase of 0.3 points on the corresponding month of the previous year, the price growth reported in March (0.9%) was down 0.1 points on March 1999.

An analysis of the inflationary processes recorded in the first quarter demonstrates that the acceleration of price growth in this period was principally the result of the following factors: an increase in administratively regulated prices, in the broad sense of the term; a rise in

Figure 1

Contribution of product categories to overall CPI growth *(December previous year = 100)*



Source: NBP calculations based on GUS figures.

retail fuel prices produced by higher world oil prices; a deterioration in certain segments of the domestic market for agricultural produce, yielding further growth in foodstuff prices; and cost push pressure in those areas of manufacturing marked by monopoly business structures or by rigid demand for the goods produced.

The prime factor conditioning overall price growth was the increase in officially controlled prices. In the first quarter of 2000, these prices rose 4.6%, accounting for some 1.2 points of total inflation during this period (a year previously, these prices had gone up 6.7%, contributing 1.6 points to overall price growth). Increases in officially controlled prices have traditionally been concentrated in the first quarter of the year. In recent years, there has been a progressive change in the way these prices are controlled, moving away from direct control (administered prices) to indirect control (via excise duty). As a result, each year has brought a weakening of the powerful, one-off inflationary impulse issuing from increases in these prices. In the first three months of 2000, the strongest inflationary effect engendered by officially controlled prices was seen in January (when these prices rose 2.4% over the month) and in March (1.5%), while in February monthly growth in officially controlled prices came to 0.7%. Factors

Figure 2
Growth in average retail price vs factory-gate price of EU 95 petrol, Q1 2000
(December 28, 1999 = 100)

Source: NBP calculations based on data from Nafta Polska SA (Polish Oil SA).

behind the increase in officially controlled prices in the first quarter included higher prices for mains gas (up 6.1%), transport services (up 8.4%) and postal services (up 7.7%). Within this category, fuel prices continued to rise significantly, going up faster than in the corresponding period of last year (up 7.2% this year, as against 4.2% in Q1 1999). The increase in fuel prices contributed 0.2 points to overall price growth in the first quarter (compared to 0.1 points a year before).

Thus, domestic retail fuel prices continued to rise in the first quarter of 2000. Although these prices came down slightly in January, and right up to the end of February rose more slowly than in 1999, a surge in the first week of March meant that over the quarter as a whole they climbed over 7% (cf. Fig. 2). This pattern of growth in retail fuel prices was influenced by factory-gate prices at the refineries, world oil prices, and increases in excise duty.

The Polish wholesale market comprises seven refineries, three of which belong to the PKN (Polish Oil Corporation) Group. The market is dominated by two companies, PKN and the Gdańsk Refinery. Commanding a strong position within the market as a whole, they alter their fuel prices almost in parallel with each other. In the first quarter, the refineries raised factory-gate prices five times, and on three occasions lowered them, with the price rises being larger than the price cuts (all the information quoted here on factory-gate prices and the "import parity" refers to unleaded petrol). The end result was that factory-gate fuel prices went up 10.8%.

The refineries base their factory-gate prices on an "import parity" that represents the price of imported fuel, translated at dollar exchange rates plus a spread of 1%, with the addition of excise duty, customs duty, and banking/financing costs. In the first quarter of 2000, the level of this import parity rose almost 14%.

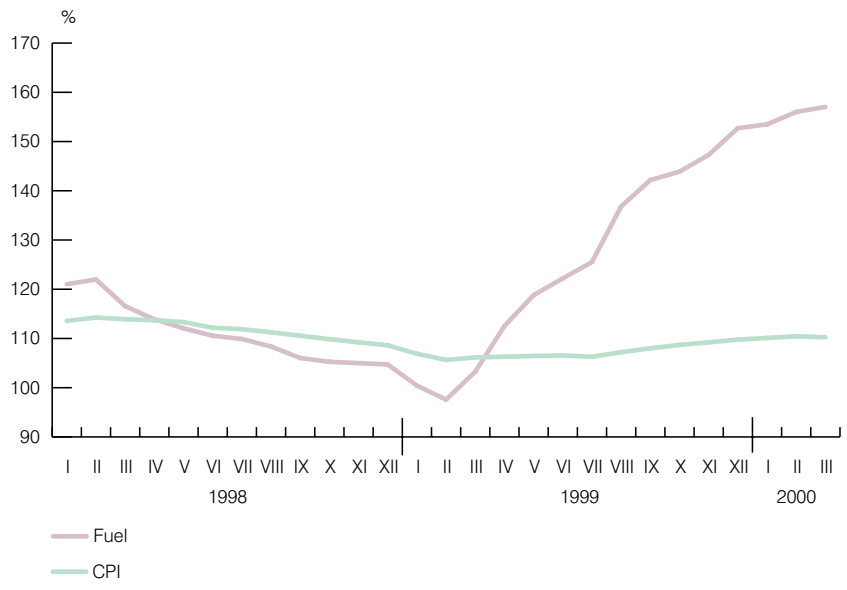
Excise duty, which constitutes around 58% of parity, went up around 8%. This represented the combined effect of two rises, one averaging 4.9% in January, and another of 4.7% in March. In relation to unleaded petrol, for which the calculations of import parity are given, these rises amounted to 4.4% and 3.4%, respectively. Import prices themselves climbed 24.6%, the end result of a 27.7% increase in world petrol prices together with a 2.5% decline in the dollar exchange rate used to determine parity. The import price makes up around

39% of the parity value. The dollar exchange rate taken in computing this parity value is the rate published by the NBP plus a spread of 1%. The remaining 3% of parity consists in customs duty and banking/financing costs; relative to year end 1999, these decreased around 10%. This decrease was due to a reduction in customs duty from 5% to 3%, although banking/financing costs rose.

The growth in the value of import parity in the first quarter was more rapid than that of factory-gate prices. As a result, while parity at the beginning of January had been 4% lower than factory-gate prices, by the end of the first quarter it had drawn level with them.

From mid-February onwards, Premium petrol prices began to rise considerably faster than crude oil prices (this refers to maximum prices for the two). By the end of March, price growth for Premium petrol was 29 points higher than for oil. Oil prices had swung sharply in the preceding period on speculation concerning possible decisions on new production quotas to be taken by the OPEC countries at their meeting on March 27. The swifter increase in the price of petroleum products, on the other hand, can be traced to dwindling stocks of both oil and refined fuels. As of mid-March, the market responded to expectations that production quotas would

Figure 3
CPI vs fuel prices *(corresponding period previous year = 100)*



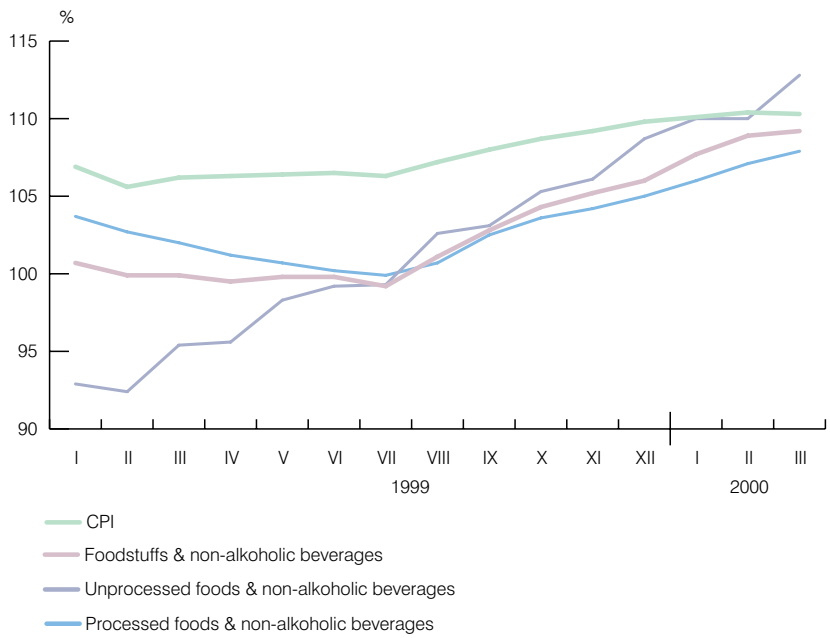
Source: GUS.

be raised by lowering oil prices. Indeed, the OPEC meeting ended with a decision to increase oil output by 7%. The expectation that this would happen, and the decision itself, had the effect of taking oil prices down from over USD 30 per barrel at the beginning of March to USD 23 per barrel at month end. On a twelve-monthly basis, first-quarter fuel price growth was much faster than consumer price growth, coming to 57% at the end of March (cf. Fig. 3).

Prices of foodstuffs and non-alcoholic beverages were up 3.5% in March compared to December 1999, contributing an estimated 1.1 points to consumer inflation in the first quarter. A year earlier, foodstuffs and non-alcoholic beverages had shown year-to-date price growth of 0.7%, equivalent to 0.2 points of overall price growth.

From January to March, the greatest increases in food prices were seen for sugar (up 13.8%), vegetables (11.0%), poultry (6.1%) and milled grain products (5.8%). Below-average price growth was displayed by bread and grain products (up 3.4%), fruit (2.7%), oils and other edible fats (2.6%) and fish (1.1%). A drop was seen in prices for butcher's meat (down 0.1%), including

Figure 4
CPI vs prices for foodstuffs: processed foods & unprocessed foods
(corresponding month previous year = 100)



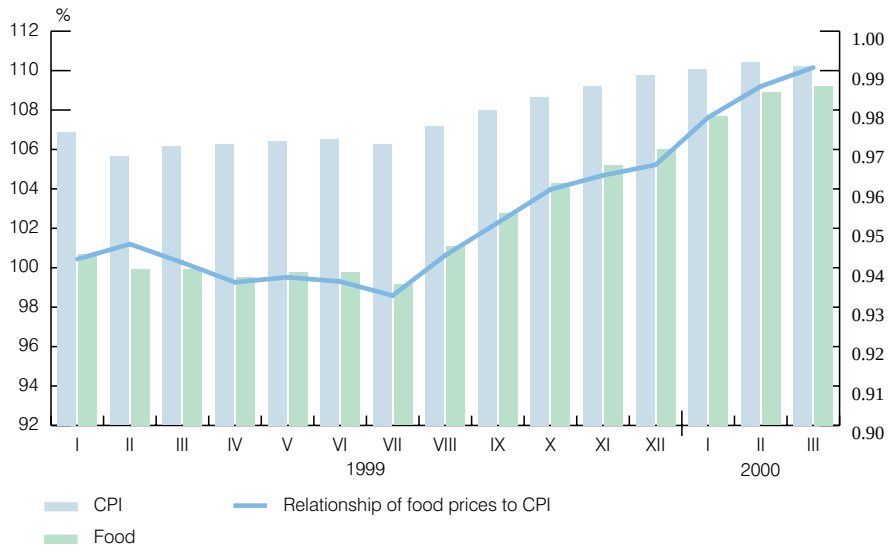
Source: NBP calculations based on GUS figures.

pork (down 0.7%). An analysis of the relevant price indices, broken down by processed and non-processed foods, clearly points to non-processed foodstuffs continuing to rise in price more rapidly (cf. Fig. 4). These developments in food prices stemmed from a gradual reduction in the supply of certain agricultural products on the domestic market.

In recent years, food price growth has been well below overall inflation. This situation began to change in the second half of last year, one reason being the policy of official intervention on the market for agricultural produce. The relationship of food price indices to total consumer price indices is charted in Figure 5.

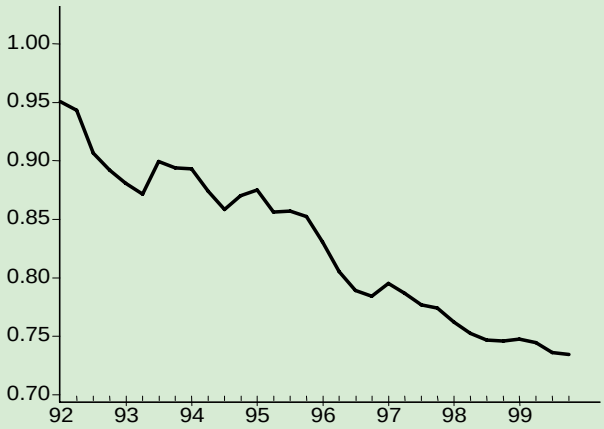
Generally speaking, the dominant tendency on the market for agricultural produce in the first quarter of 2000 was one of rising prices, including both procurement prices and prices at open-air markets. Prices for most products, particularly grain, potatoes and milk, were much higher than the very low levels seen a year before. Slow but steady growth was observable in prices for fat cattle and table poultry. After declining of prices for fat pigs also went up towards the end of the first quarter. However, following a mild improvement at the beginning of the year thanks to rising prices for most basic agricultural produce, the situation on the markets

Figure 5
Food price indices vs consumer price index
(corresponding month previous year = 100)



Source: NBP calculations based on GUS figures.

Service price movements: verification of the Samuelson-Balassy effect in Poland



Internal terms of trade

A tendency observable in the highly-developed countries is that of the appreciation of the "internal terms of trade", i.e., of the price relationship between tradables and non-tradables. An empirical verification of Polish data supports the conclusion that the effect in question is also applicable to this country. The theoretical explanation of this tendency, known as the Samuelson-Balassy effect, is that the index of internal terms of trade reflects the relationship between the marginal productivity of labour in those sectors of the economy not subject to international competition and in those that are. This can be expressed as follows:

$$\frac{P_T}{P_N} = \frac{MPL_N}{MPL_T},$$

where *P* is the level of prices, *MPL* is the marginal productivity of labour, *N* refers to the non-tradables sector, and *T* refers to the tradables sector.

The first sector primarily involves services, since the overwhelming majority of these are local in character and are non-tradable, while the second sector consists of those industries producing tradable goods. In contrast to manufacturing, for example, where technological progress allows rapid productivity gains, achieving similar results is impossible in services (e.g., hairdressing, cleaning). In consequence, the marginal productivity of labour in services declines relative to that in industry. Assuming a flat level of wages throughout the whole economy, and assuming that real wages in each sector correspond to the marginal productivity of labour for that sector, the Samuelson-Balassy effect allows us to infer that this situation causes service prices to grow faster than those of tradable goods. It is worth noting that the appreciation of the internal terms of trade is independent of the state of business activity, is unrelated to the ease with which costs can be passed through to prices in the service sector, and is not conditioned by any temporary impulse. Instead, it mirrors a certain fundamental economic process that will continue for as long as labour productivity keeps rising in industry.

for produce began to worsen in the subsequent months of the first quarter. It was chiefly caused by slower growth in farm-gate prices. This produced a slight slackening of food price growth at the end of the quarter.

In order to alleviate the shortage of domestically produced grain and restrain grain price growth on the domestic market, the Agricultural Market Agency continued sales of rye from its emergency stocks, which it had began at the end of November 1999. As of the beginning of February, the Agency also drew on its stocks of food wheat, selling this wheat at auction.

In the initial months of the year, the meat market experienced an excess of supply over demand. In these circumstances, the Agricultural Market Agency began buying up pork via meat-packing plants right from the beginning of the year. This made it possible to limit the fall in fatstock prices. However, given the continued increase in feedstuff prices, and particularly in grain prices, the profitability of pig breeding declined, which - in conjunction with rising prices for other feed crops - could lead to a further contraction in pig farming and an increase in procurement prices.

Consumer service prices (excluding officially controlled prices) rose 5.0% in the first quarter of 2000 (cf. Box), whereas twelve months before they had gone up 5.9%. The growth reported in these prices during the first quarter was responsible for 0.8 points of total CPI growth (in Q1 1999, it had represented 1.0 points). Certain service prices climbed steeply in these period, including charges for housing occupancy, refuse collection and cold water supply; the services concerned are characterised by fairly inflexible household demand, and the price increases involved thus had a substantial impact on household expenditures.

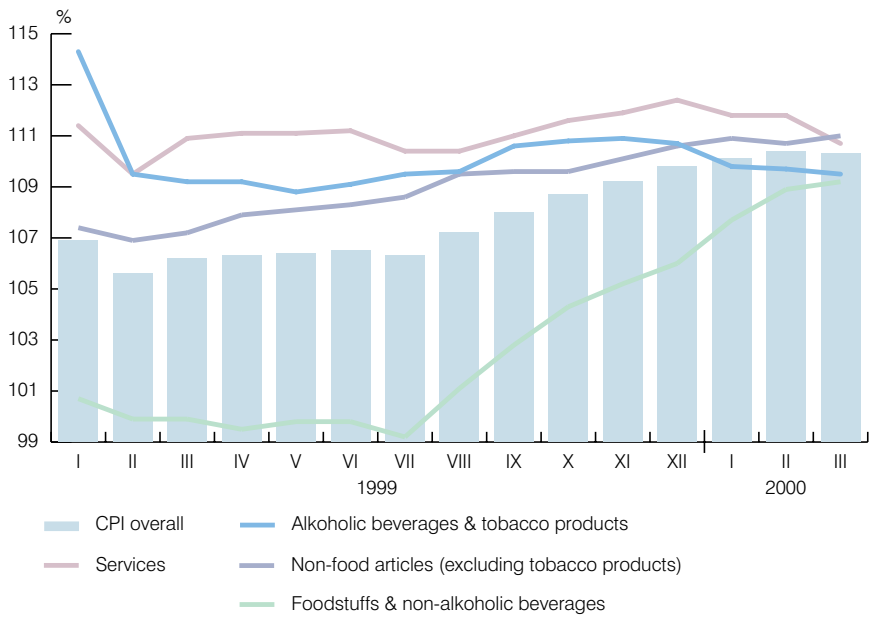
Prices of non-food articles (excluding officially controlled prices) moved up 1.8% in the first quarter of 2000, accounting for 0.5 points of consumer inflation. A year previously, the same prices had gone up 1.7%, also contributing 0.5 points to consumer price growth. The first quarter saw a substantial increase in the price of durable goods, of books, newspapers and magazines, and of medicines. Price growth in this category is most associated with continuing pressure from producer prices in numerous divisions of industry, including energy production.

During the first quarter of the year, inflation in each month, as measured by annualised consumer price

growth, ran higher than in each of the corresponding months of 1999, rising from 9.8% in December 1999 to 10.4% in February 2000, and then edging down to 10.3% in March. At the end of the first quarter, inflation was 4.1 points higher than it had been twelve months before (cf. Fig. 6).

An analysis of the pattern of annualised price growth for basic categories of consumer goods and services indicates that in the particular months of the first quarter prices of non-food articles rose faster than the overall CPI, with the annualised increase in these prices speeding up slightly in the final month of the quarter. Growth in consumer service prices was also above CPI growth in all the months of the first quarter, although growth in these prices, in contrast to the former category, began to falter somewhat at the end of the quarter. As regards prices of foodstuffs and non-alcoholic beverages, these continued to rise more slowly than the CPI in each month of the first quarter, yet there has been a noticeable and uninterrupted upward trend in food price growth since August 1999 (at year end 1999, food price growth stood at an annualised 6.0%, yet by the end of March this had risen to 9.2%).

Figure 6
Consumer price growth
(corresponding period previous year = 100)



Source: GUS.

On the other hand, in examining movements in consumer prices in the first quarter of 2000 in terms of price growth in the preceding quarters, a certain slowdown can be seen in price growth for foodstuffs and non-alcoholic beverages compared to the fourth quarter of 1999, while consumer service prices showed a seasonal acceleration of growth (cf. Table 1).

Table 1
Quarterly consumer price growth, 1999-2000

Quarter	CPI	Foodstuffs & non-alcoholic beverages	Alcoholic beverages & tobacco products	Non-food articles	Services
			period change in prices, %		
Q1 1999	3.1	0.7	4.3	2.0	6.4
Q2 1999	1.7	0.5	1.9	2.1	2.3
Q3 1999	1.7	0.0	2.6	3.5	1.2
Q4 1999	3.0	4.7	1.5	2.6	2.0
Q1 2000	3.6	3.5	3.2	2.4	5.0

Source: GUS.

Underlying inflation

Three measures of underlying inflation in the first quarter of 2000 are presented below, namely:

1) the rate of underlying inflation as adjusted to exclude from the CPI those consumer prices that exhibit the highest volatility,

2) the rate of underlying inflation as adjusted to exclude from the CPI officially controlled prices (i.e., those groups of prices that are subject to various forms of administrative regulation, whether direct or indirect),

3) the rate of underlying inflation obtained by excluding from CPI data the outlying 15% of exceptionally high or low consumer price movements (a "15% trimmed mean").

All these measures of underlying inflation, calculated on an twelve-month basis (as presented in Figs. 7, 8 & 9), were below overall price growth in the first quarter of the year. This signifies that growth in the prices excluded from the overall CPI for the purposes of calculating each of the three measures of underlying inflation was the determining factor causing consumer price growth to exceed underlying inflation in this period. All three measures of underlying inflation displayed a common

Figure 7
CPI vs underlying inflation, excluding officially controlled prices, January 1998 - March 2000
(corresponding month previous year = 100)

Source: NBP calculations based on GUS figures.

Figure 8
CPI vs underlying inflation, excluding most volatile prices, January 1998 - March 2000
(corresponding month previous year = 100)

Source: NBP calculations based on GUS figures.

Figure 9
CPI vs 15% trimmed mean, January 1998 - March 2000,
(corresponding month previous year = 100)

Source: NBP calculations based on GUS figures.

tendency to gather speed in the first two months of the quarter, as did the CPI. It was not until March that the indices of underlying inflation diverged from total consumer price growth.

The level of annualised underlying inflation as measured by excluding the most volatile prices was closest to that of the CPI in the first quarter. While the negative discrepancy between this measure of underlying inflation and the CPI held steady for the first two months, in the final month of the quarter this index of underlying inflation rose strongly to approach the CPI.

Another measure of underlying inflation, that obtained by excluding officially controlled consumer prices (cf. Fig. 7), generally ran around 1.3-1.5 points below the CPI during the first two months of the quarter, although in March this gap narrowed to 0.9 points. This attests to the impact of officially controlled prices on overall consumer inflation becoming relatively weaker in March.

Underlying inflation as adjusted to exclude consumer prices exhibiting the highest volatility (cf. Fig. 8) trended constantly upwards during the period in question, despite the decline in annualised consumer price growth

seen in March. As a result, this measure of underlying inflation drew closer to the CPI in the final month of the quarter, thereby confirming that in March less volatile prices rose almost as rapidly as those marked by the greatest volatility.

The index of underlying inflation obtained by excluding from CPI data the outlying 15% of exceptionally high or low consumer price movements (the "15% trimmed mean"), which is charted in Figure 9, moved in parallel with the CPI in all months of the first quarter. At the same time, this index ran lower than overall consumer inflation. This could be taken to reaffirm the hypothesis that, of all first-quarter price indices, it was the index of both the highest and lowest outlying values of consumer price movements (15% at each end of the price spectrum) that drove movements in the overall CPI.

Producer prices in industry and construction

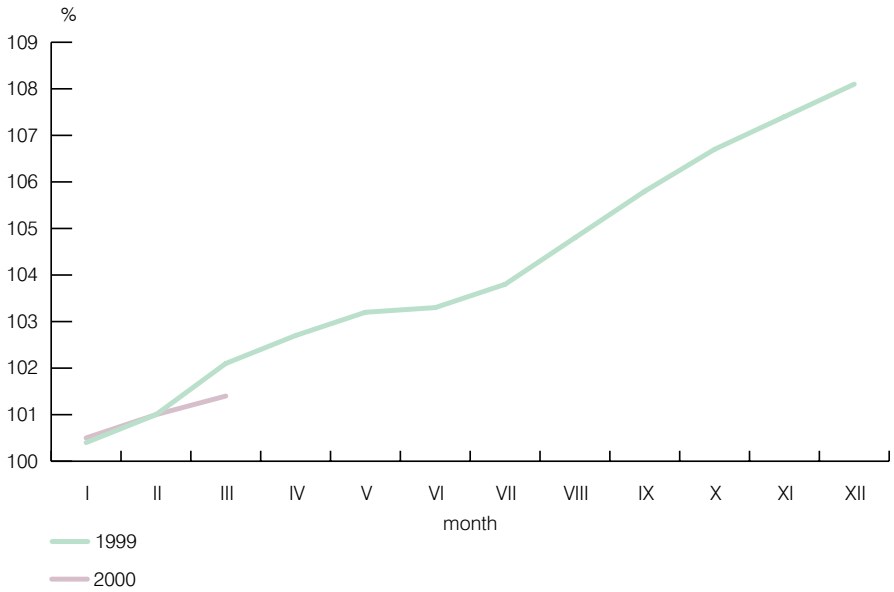
In March 2000, the industrial producer price index[1] was 7.3% higher than it had been in the corresponding period of 1999 (compared to annualised growth of 4.7% a year before). This increase represented the combined effect of price rises of 8.6% in mining and quarrying (as against 2.8% in March 1999), 7.4% in manufacturing (as against 4.2%), and 5.3% in electricity, gas and water supply, with the latter falling from 8.7% in March 1999.

At the end of the first quarter of 2000, year-to-date industrial producer price growth[2] came to 1.4%, compared to 2.1% twelve months before (cf. Fig. 10). The differential between the growth of consumer prices and that of industrial producer prices thereby widened, to 2.2 points (as against 1.0 points a year earlier).

The lower increase in industrial producer prices than seen in 1999 was produced by smaller price growth in each of the sections of industry, with price growth down 0.1 points to 1.4% in manufacturing, down 5.4 points to 1.7% in electricity, gas and water supply, and down 0.2 points to 1.6% in mining and quarrying. Given that, by value, manufacturing output constituted the lion's share

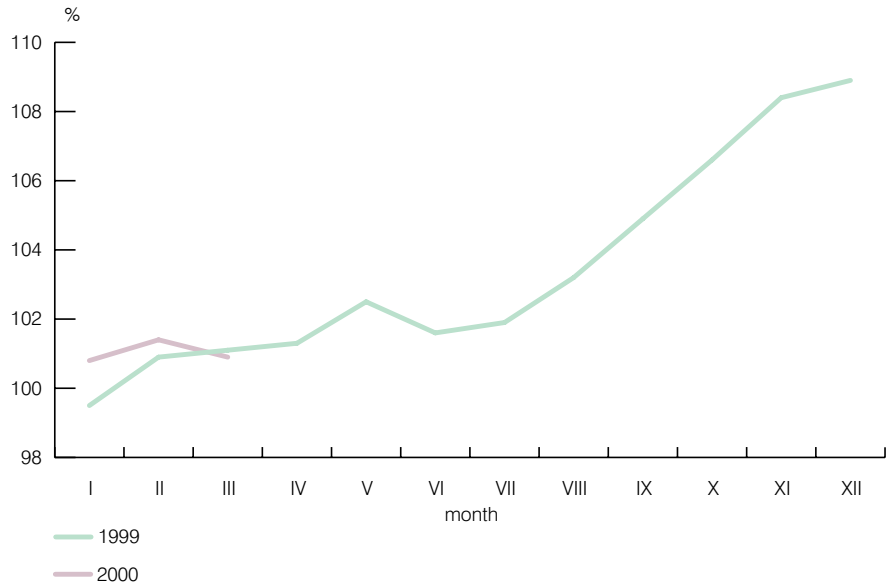
[1] Corresponding month previous year = 100.
[2] Unless otherwise stated, December previous year = 100.

Figure 10
Industrial producer prices, overall indices *(December previous year = 100)*



Source: GUS.

Figure 11
Producer price indices, mining & quarrying *(December previous year = 100)*



Source: GUS.

of total industrial output (84.3%), the fact that price growth in this section was lower than a year previously had the largest impact on overall producer price growth within industry. The changes involved are shown in Figures 11 and 12.

Year-to-date producer price indices in manufacturing were higher than a year earlier in the first two months of 2000, to dip slightly below the previous year's indices in March (cf. Fig. 12). Of the price indices published for 24 divisions of industry, 5 divisions showed higher quarterly indices than twelve months before[3]. In the first quarter of 1999, there had been 11 divisions of this sort.

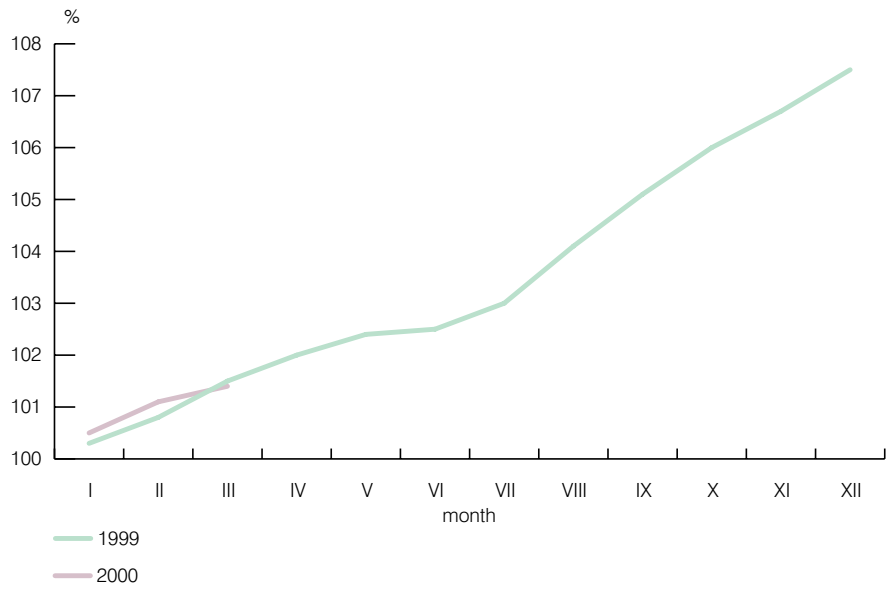
Those divisions that reported rising quarterly producer price indices are presented in Table 2.

In 19 divisions of industry, producer price indices were lower than they had been in the corresponding period of the previous year. Table 3 presents those divisions where the relevant price growth dropped by over 1 point.

In these divisions, price growth was also lower than in the fourth quarter of 1999, with the exception of the first four divisions listed in the above table, where price growth was faster.

Figure 12

Producer price indices in manufacturing *(December previous year = 100)*



Source: GUS.

[3] Quarterly producer price indices calculated as products of three separate monthly indices.

Table 2
Divisions of industry reporting rising quarterly producer price indices

	Division	Q1 1999	Q4 1999	Q1 2000
			previous quarter = 100	
1	Mining of hard coal	99.6	103.9	100.2
2	Manufacture of food products & beverages	100.2	101.9	102.3
3	Manufacture of leather & leather products	101.1	101.8	101.2
4	Manufacture of pulp, paper & paper products	101.4	105.0	102.2
5	Manufacture of metals	101.2	102.0	102.2

Source: GUS.

In construction, producer prices were up 7.7% in March 2000 compared to the corresponding period of 1999 (a year earlier, the increase had come to 9.0%). This represented the end result of 7.5% price growth in the division of "building of complete constructions or parts thereof; civil engineering" (as against 8.5% a year before), and 9.2% price growth in the division of "building installation" (as against 11.4%).

Table 4 sets out quarterly producer price indices in construction.

Construction price growth in the first quarter was slower than twelve months previously, remaining flat compared to the fourth quarter of 1999.

Table 3
Divisions of industry reporting falling quarterly producer price indices

	Division	Q1 1999	Q4 1999	Q1 2000
			previous quarter = 100	
1	Manufacture of other transport equipment	103.1	100.6	101.2
2	Collection, purification & distribution of water	106.9	100.1	105.2
3	Manufacture of tobacco products	102.9	100.6	101.4
4	Electricity, gas, steam & hot water supply	107.1	100.2	101.4
5	Manufacture of radio and television equipment & apparatus	103.2	101.4	100.2
6	Manufacture of wearing apparel; dressing & dyeing of fur	101.9	100.8	99.1
7	Manufacture of chemical products	103.6	102.5	102.2
8	Manufacture of machinery & equipment	101.6	100.5	100.2
9	Manufacture of coke, refined petroleum products & related products	104.4	110.9	103.2
10	Manufacture of furniture	101.4	101.9	100.3

Source: GUS.

Table 4
Producer price indices, construction

Division	Q1 1999	Q4 1999	Q1 2000
		previous quarter = 100	
Construction	103.3	102.1	102.1
- building of complete constructions or parts thereof;			
civil engineering	103.0	102.2	102.1
- building installation	104.2	102.5	102.5

Source: GUS.

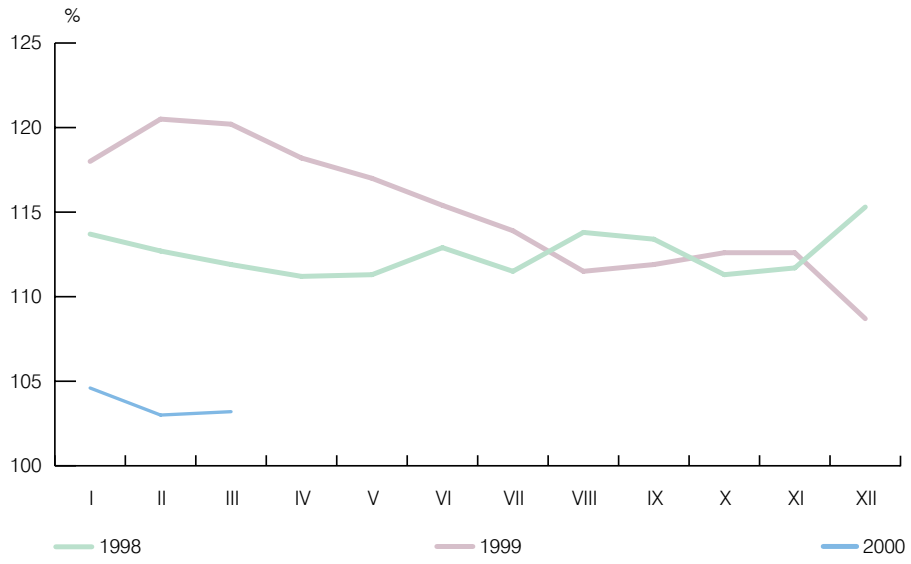
FACTORS CONDITIONING INFLATION IN THE FIRST QUARTER OF 2000

The money supply and prices on financial markets

The money supply

At the end of the first quarter of 2000, the total money supply stood at 262.0bn zloty[4]. This constituted a decline of 1.5bn zloty relative to year end 1999, representing a decrease of 0.6% in nominal terms and 4.0% in real terms. By comparison, money supply growth in the first quarter of 1999 came to 9.5bn zloty, which signified nominal growth of 4.3% on year end 1998 and real growth of 1.2%. Slackening

Figure 13
Total money supply growth, real terms (corresponding month previous year = 100)



Source: GUS and NBP.

[4] The total money supply is defined as the sum of domestic money stocks and foreign currency deposits taken from the non-financial sector. Domestic money stocks represent the sum of notes and coin in circulation (excluding vault cash) and zloty balances held at banks by the non-financial sector (corporates and persons).

monetary expansion is visible in examining indices of annualised growth in the total money supply (cf. Fig. 13). The low increase in total money stocks in the first quarter of 2000 (with annualised growth not exceeding 5% in any month) represents the continuation of a trend begun in the second quarter of 1999.

The slow growth in the total money supply is largely a consequence of the absolute decrease in the volume of notes and coin in circulation. At the end of the first quarter, the supply of notes and coin (excluding vault cash) stood at 33.0bn zloty. Compared to the end of 1999, this shows a decline of 5.1bn zloty, representing a fall of 13.5% in nominal terms (16.5% in real terms). By comparison, in the first quarter of 1999 the volume of currency in circulation rose by a nominal 6.0% (2.8% in real terms).

Each of the first three months of 2000 witnessed an absolute decrease in the volume of notes and coin in circulation. Cash stocks contracted most sharply in January (down 4.6bn zloty), which is traceable to the after-effects of concerns over Y2K. A portion of the bank balances converted into cash in December 1999 were at this point redeposited at the banks. This automatically reduced the amount of cash in circulation. The subsequent absolute decline in the volume of notes and coin seen in February and March was probably a consequence of the development of non-cash settlements involving both persons and corporates.

The first quarter of 2000 did not bring any wage rises for government sector employees. Nor were there any index-linked increases in non-civilian pensions (for the military, police, etc.). As a result, the growth of cash stocks was additionally restricted.

The lower increase in the total money supply recorded in the first quarter of 2000 was also related to slow growth in the banks' zloty liabilities to non-financial customers. The zloty deposits taken by the banks from persons and corporates totalled 186.9bn zloty. Compared to year end 1999, this constitutes an increase of 1.1bn zloty. In nominal terms, growth came to 0.6%, although in real terms this represented a drop of 2.9%. In the first quarter of 1999, these deposits had risen 4.2bn zloty, giving nominal growth of 2.7% on year end 1998, and a small 0.4% decrease in real terms. It should be emphasised here that, while

a systematic decline in real annualised zloty deposit growth was registered throughout 1999, this growth picked up in the first quarter of 2000.

The restrained growth in total non-financial sector zloty deposits seen in the first three months of 2000 was largely the result of a decrease in absolute terms in corporate zloty deposits. At the end of March, the corporate balances held on account at the banks stood at 52.1bn zloty. Relative to year end 1999, this signifies a fall in corporate zloty deposits of 9.5bn zloty, giving a nominal first-quarter decrease of 15.5% (18.4% in real terms); these deposits trended downward in each month of the quarter.

The outflow of funds from corporate accounts seen in January was seasonal in character. It involved the application of funds temporarily deposited at the banks on the final day of the previous year (as part of overall inter-company settlements in closing their books at year end). On the other hand, the fall in corporate balances observed in February and March could have been linked to the relative increase in company portfolios of other financial assets used as investment alternatives to bank deposits[5].

The value of personal zloty deposits at the end of the first quarter of 2000 stood at 134.8bn zloty. These deposits had risen 10.7bn zloty on year end 1999, equivalent to nominal growth of 8.6% (4.8% in real terms). In the corresponding period of 1999, these deposits had gone up 7.0bn zloty, rising 6.3% in nominal terms (3.1% in real terms). The relatively rapid growth in these deposits reported at the beginning of the first quarter of 2000 could largely have been the result of the redepositing at the banks of funds withdrawn at the end of 1999 because of fears of Y2K.

Monthly indices of personal zloty deposit growth trended downwards during the particular months of the first quarter (cf. Fig. 14). However, there was also a reversal of the downward trend in annualised growth (in

[5] Figures from GUS (the Central Statistical Office) indicate that the value of the equities, bonds and Treasury bills held on the brokerage accounts of domestic businesses (at brokerage houses and offices) rose 1.6bn zloty in Q4 1999, going up from 4.5bn zloty to 6.1bn (figures are not available after year end 1999). Further, the Ministry of Finance reports that in Q1 2000 the debt outstanding on Treasury securities sold to domestic investors stood at 5.7bn zloty. In Q1 1999, the corresponding figure had been 2.5bn zloty.

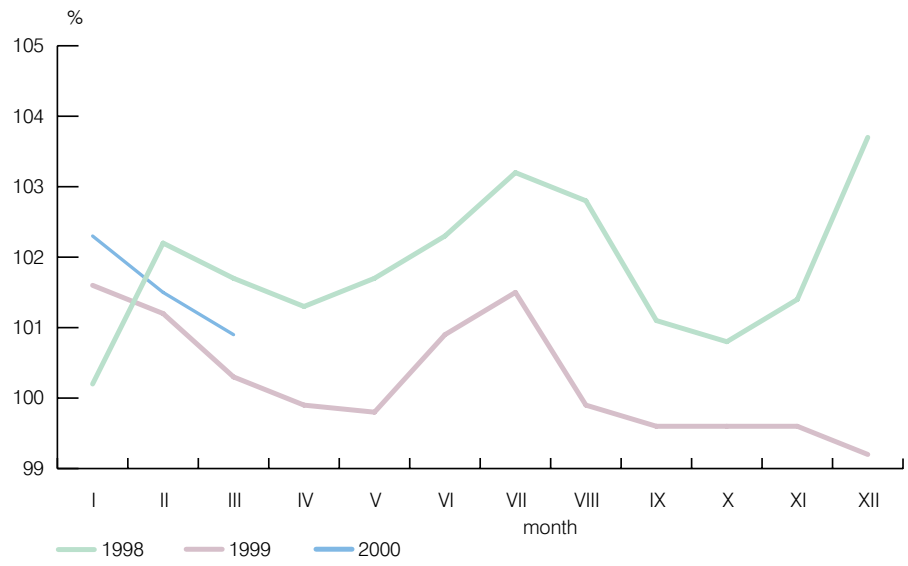
both nominal and real terms) noted throughout last year. Real annualised growth in personal zloty deposits came to 3.1% at year end 1999, the lowest level seen during the entire year. By contrast, the particular months of the first quarter of 2000 saw this growth rise to 3.8%, 4.2% and 4.8%, respectively.

The foreign currency liabilities of the banks to non-financial customers totalled USD10.2bn at the end of March. This represents an increase of USD 0.6bn on the end of 1999. The growth of these liabilities was basically determined by a rise in corporate foreign currency deposits (up USD 0.6bn, from USD 2.3bn to USD 2.9bn). The foreign currency balances held at the banks by persons remained unchanged over this period at USD 7.3bn.

The foreign currency deposits of the non-financial sector amounted to the zloty equivalent of 42.2bn, having risen 2.5bn zloty since year end 1999[6]. Nominal growth thus came to 6.2% (2.5% in real terms), whereas the corresponding period of 1999 had seen nominal

Figure 14

Personal zloty deposits growth, real terms *(previous month end = 100)*



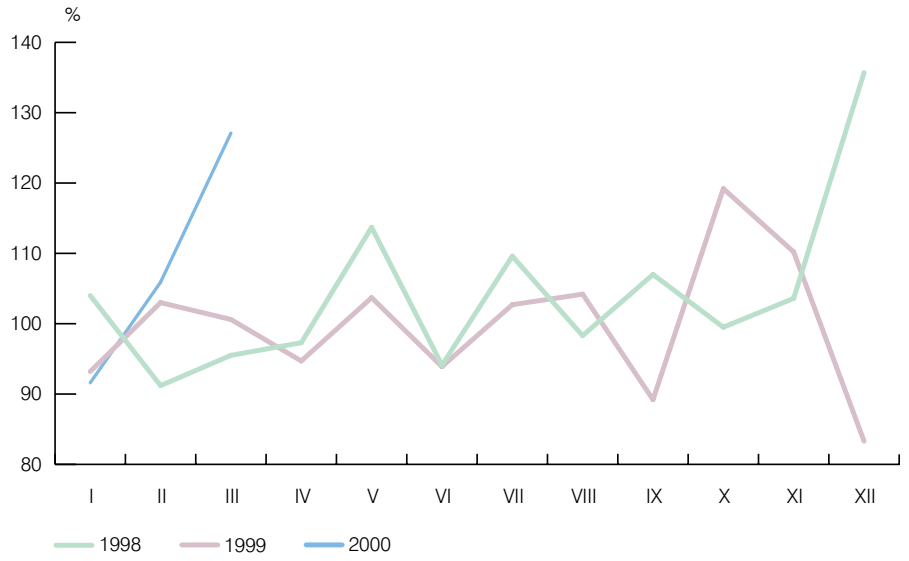
Source: GUS and NBP.

[6] At the end of March, the exchange rate for the zloty against the dollar stood at USD/zloty = 4.1483, while the exchange rate at December 31, 1999, had been USD/zloty = 4.1428. The appreciation of the zloty during this period was thus minor (0.6 groszy). Were no allowance to be made for movements in the dollar value of non-financial sector foreign currency deposits, they would have diminished in zloty terms by some 0.1bn.

growth of 10.2% (real growth of 6.9%)[7]. The increase in the first quarter of 2000 in the zloty value of total foreign currency deposits taken from non-financial customers can primarily be ascribed to the strong growth of corporate foreign currency deposits. At the end of March, these deposits totalled 11.9bn zloty. Compared to the end of December 1999, they had risen 2.6bn zloty, i.e., 27.8% (23.4% in real terms)[8].

During the first quarter, monthly growth in corporate foreign currency deposits trended steadily upwards (cf. Fig. 15). The surge in these deposits witnessed in March (nominal monthly growth of 28.2%, real growth of 27.1%) was the result of an inflow of foreign currency proceeds from a corporate issue of Eurobonds[9].

Figure 15
Corporate foreign currency deposit growth, real terms
(previous month end = 100)



Source: GUS and NBP.

[7] However, in Q1 1999 the growth of these deposits in zloty terms stemmed exclusively from the weakening of the zloty against the dollar, which raised the zloty value of these deposits by 4.9bn. This was accompanied by a decrease in the dollar value of those deposits. The net result was that the foreign currency deposits of non-financial customers rose 3.4bn zloty.

[8] As was already underlined, the minor movements in exchange rates in this period mean that the growth in corporate foreign currency deposits in Q1 2000 can basically be put down in its entirety to movements in the dollar balance of those deposits. The same effect applied to the foreign currency liabilities of the banks to persons.

[9] It should be noted that corporate foreign currency balances fluctuated sharply throughout last year. This can be explained by greater corporate activity in accessing funding though the issuance of bonds denominated in foreign currencies.

The foreign currency balances held at the banks by persons, as expressed in zloty, amounted to 30.2bn at the end of the first quarter. Compared to year end 1999, these deposits had declined 0.1bn zloty, going down 0.5% in nominal terms (down 3.9% in real terms). Growth in personal foreign currency deposits slowed steadily during the whole period under examination.

In the first quarter of 2000, the total money supply was impacted by several key factors. Over this entire period, corporate zloty deposits dwindled in absolute terms. At the same time, the zloty liabilities of the banks to personal customers were marked by slackening monthly growth. The low level of money supply growth, as measured by the M2 monetary aggregate, was also associated with the absolute decline in the volume of notes and coin in circulation. The contraction of the money supply caused by falling corporate zloty deposits and shrinking cash stocks was offset by a substantial increase in corporate foreign currency deposits.

Counterparts to changes in money stocks

The first quarter of 2000 brought a contraction in the money supply. This was the result of a reduction in general government indebtedness and in "other items (net)". By contrast, factors contributing to growth in the money supply continued to be **claims on persons and corporates** and net foreign assets. This is illustrated by Table 5.

Claims on persons and corporates[10] constituted the equivalent of 70.3% of total money stocks in the banking

Table 5
Counterparts to changes in money stocks, Q1 2000

	Growth, Q1 1999	Growth, Q1 2000
	million zloty	
Total money supply	**9,476.1**	**-1,475.7**
Net foreign assets	9,967.4	4,738.2
Claims on persons & corporates	10,091.6	8,105.7
General government sector debt	2,712.4	-9,441.9
Other items, net	-13,295.3	-4,877.7

Source: NBP (Banking System Statistics).

[10] These claims consist of all categories of loan irrespective of risk classification, and also of purchased debt, funds disbursed under guarantees and endorsements, interest receivable, and claims arising on interest subsidies to preferential agricultural loans.

system[11] at the end of March 2000, with corporates contributing 55.6% and persons 14.7%.

The total volume of debt outstanding under claims on persons and corporates rose 23.9% at the end of March compared to March 1999, while a year previously growth had come to 29.4%. In 1999, rapid year-on-year growth in these borrowings had been maintained until November, when it stood at 28.5%. In December, growth slipped to 27.0%, and this downward trend persisted in the particular months of the first quarter (26.2%, 24.4% and 23.9%, respectively). At the end of March, corporate borrowings had risen more slowly year-on-year than personal borrowings (with the former up 18.1%, and the latter up 52.3%). While twelve-month growth in outstanding claims on corporates had been declining systematically since March 1999, the growth in claims on persons accelerated until last December, and then slowed slightly form January onwards.

The lower increase recorded in claims on corporates in the first quarter of 2000 (up 4.5%, as against 7.5% in Q1 1999) was related to improved corporate finances, which meant that businesses had greater amounts of funds available. Corporate liquidity ratios were also better than at the end of 1999. The rise in corporate borrowings in the first quarter (6.2bn zloty) principally stemmed from growth in zloty lending to corporates, which grew much faster than lending in foreign currency.

First-quarter growth in personal borrowings (5.2%) mainly involved consumer loans, chiefly to finance the purchase of cars, audio and television equipment, and household appliances. The strongest growth was seen in personal overdrafts and bank card lending, a consequence of the simplified procedures associated with these types of personal finance and the wide product range on offer from the banks. Housing loans displayed a tendency to increase, one which should continue due to the development of the specialised mortgage banking industry. Figures on personal borrowings are presented in Table 6.

The effect of growing demand for bank loans among private individuals has been that, as of mid-1999, personal loan outstandings have steadily increased as a proportion of total borrowings at the banks, although this proportion has held stable since December. At the end of

[11] Including "other items (net)".

Table 6
Claims on persons, growth & structure

	Q1 growth		Structure of Q1 growth		Growth rate %	
	1999	2000	1999	2000	March 1999	March 2000
	million zloty		%		(corresponding month previous year = 100)	
Total loans outstanding						
of which:	**1,406.2**	**1,898.6**	**100.0**	**100.0**	**135.8**	**152.1**
- overdrafts & bank card lending	226.9	449.8	16.1	23.7	208.9	212.5
- housing loans	274.8	579.8	19.6	30.5	162.4	196.8
- other*	904.5	869.0	64.3	45.8	125.6	135.3

* In line with the classification employed in Banking System Statistics, this item represents the sum total of claims on persons under bills discounted, other loans and advances, purchased debt, funds disbursed under guarantees and endorsements, and interest receivable. The current system of bank reporting does not allow a determination of the proportion of car loans in "other loans and advances", although some sources suggest that this proportion was very considerable.

Source: NBP (Banking System Statistics).

March 2000, these loans constituted 20.9% of total borrowings, as against 17.0% twelve months before.

First-quarter growth in zloty claims on persons and corporates, at 5.2% and 1.0%, respectively, was faster than that of foreign currency claims. Zloty claims also increased as a proportion of total outstandings, indicating greater interest in zloty loans, which is partly related to the exchange-rate risk associated with foreign currency loans, and also with more difficult access to this form of finance.

Short-term claims on the non-financial sector (maturing in up to one year) grew faster in the first quarter than long-term claims[12]. This was mainly due to the swift increase in authorised overdrafts, chiefly utilised by corporates, but also by persons. Whereas the particular quarters of 1999 had seen the relative weight of short-term claims decline within the total growth in outstanding borrowings (going from 48.9% in Q1 to 23.2% in Q4), in the first quarter of 2000 this rose to 64.5%. Corporate borrowers made greater use of short-term loans (75.5% of growth in corporate borrowings), employing these to

[12] Claims on the non-financial sector are smaller than claims on persons and corporates, since they exclude claims on insurance companies and other non-bank financial institutions, and also the value of debt securities held and repurchase transactions performed.

finance their current operations, while the growth in short-term personal lending was smaller (36.0%).

Net foreign assets[13] rose USD 1.2bn in the first quarter of 2000, to total USD 27.9bn at the end of March[14]. The trend seen here was the opposite of that in the first quarter of 1999, when the foreign counterpart to changes in money stocks fell USD 1.0bn. This increase in net foreign assets in the first quarter of 2000 was linked to an influx of foreign investment, primarily portfolio investment. This played a considerable part in funding the rising deficit on the current account of the balance of payments.

In the first quarter of 2000, the current account deficit amounted to USD 3.5bn, up USD 1.3bn on the current deficit reported in the corresponding period of 1999. This performance on the current account was primarily the result of the growing deficit on merchandise trade and services. In addition, the net surplus on revenues from unclassified current transactions was also lower than in the same period of 1999.

The deficit on income yielded by the foreign assets and liabilities of domestic counterparties came to USD 0.2bn. The servicing of Poland's foreign debt in the first quarter of the year totalled USD 1.2bn, with USD 0.7bn representing principal repayments.

The surplus earned on current transfers, at USD 0.4bn, was chiefly the result of a positive balance on non-official transfers, which came to USD 0.3bn. The surplus earned on non-official transfers was primarily due to remittances from Poles resident abroad to their families at home.

The surplus on the capital and financial account in the first quarter of 2000 was three times that registered in the corresponding period of 1999, totalling USD 3.3bn, compared to USD 1.2bn in the first quarter of 1999.

The net inflow of foreign direct investment (FDI) was 38.1% higher than a year previously, standing at USD

[13] Net foreign assets comprise the gross official reserves administered by the NBP and other foreign assets denominated in convertible currencies, less short-term bank liabilities and IMF loans, and other claims on non-residents, such as outstanding loans, securities issued and outstanding, subordinated loans, borrowings with original maturities of over one year, claims in non-convertible currencies, and other illiquid assets.

[14] The level of the gross official reserves, which make up the overwhelming portion of net foreign assets, is affected by the precise movements in the exchange rates of the US dollar against other currencies. The gross official reserves rose USD 0.1bn, to come to USD 25.6bn; assuming that currency cross rates were constant, however, the reserves would have risen USD 0.6bn. The increase in net foreign assets was thus largely the result of growth in the net foreign assets held by the commercial banks.

1.6bn. This was connected with the continuation of privatisations, and with the maintenance of an external perception of Poland as an attractive destination for investment.

Compared to both the first and fourth quarters of 1999, the first quarter of 2000 saw a substantial rise in inward portfolio investment. This incoming foreign investment mainly targetted Polish debt securities, with the net inflow coming to USD 2.0bn, as against a net outflow of USD 0.1bn in the first quarter of 1999. The factors at work here primarily included the substantial improvement in yields obtainable on investing on Polish markets owing to the interest rate rises in November last year and February this year, and two Eurobond issues at the turn of February and March (these yielded around half of the incoming foreign investment in Polish debt instruments). As regards foreign investment in Polish equities, this came to a positive USD 0.4bn in the first quarter, compared to a negative USD 0.1bn in the corresponding period of 1999. In terms of Polish portfolio investment abroad, turnover here rose due to the transactions carried out by Polish banks on derivatives markets. All in all, the first quarter brought a net inflow of portfolio investment, both foreign and Polish, of USD 2.5bn (as against a net outflow of USD 0.3bn in Q1 1999).

Drawings of long-term credits amounted to USD 0.7bn (compared to USD 0.6bn in the same period of 1999), while repayments totalled almost USD 0.7bn (as against USD 0.6bn).

The first quarter saw foreign deposits at Polish banks drop USD 0.2bn (a fall of USD 0.2bn had also been recorded in Q1 1999). At the same time, Polish banks increased their placements at foreign banks, a development already noticeable in February, but most marked in March. The overall balance of outflows and inflows of currency and deposits held by Polish banks at banks abroad came to a negative USD 0.6bn (by comparison, Polish assets abroad had declined USD 0.5bn in Q1 1999). This represents a trend began in the third quarter of 1999 and would seem to be mainly linked to expectations of devaluation. This trend was impacted to a certain extent by the National Bank's abolition of the operational (trading) character of the foreign exchange fixing as of June 7, 1999.

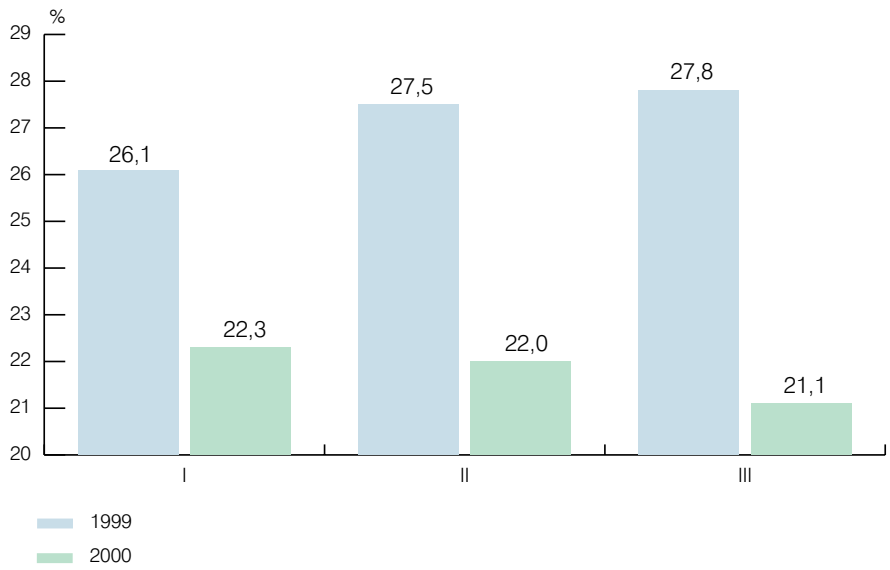
Net general government indebtedness at the banks stood at 55.1bn zloty at the end of March, having fallen considerably from the 64.6bn zloty recorded in December 1999. This means that net general government debt to the banks declined 9.5bn (14.7%) over the first quarter. This unusually large reduction in net debt compared to the corresponding periods of previous years was caused by a 5.6bn zloty decline in the banks' claims on general government (primarily stemming from lower holdings of T-bills in bank portfolios), together with a major, 3.9bn zloty increase in government balances on account at the banks (this includes balances held by both central and local government).

The movements seen in the net indebtedness of the whole general government sector were most influenced by the financial condition of the primary component of that sector, i.e., central government. The decrease in central government net debt in the first quarter amounted to 7.5bn zloty, whereas in the first quarter of 1999 this debt had risen 5.5bn zloty. This steep decline in the net debt of central government was the result of a large inflow of funds to finance its borrowing requirements, which were in fact considerably lower than in the first quarter of last year. In the first quarter of 2000, the main funds providers were domestic and foreign non-bank organisations investing on the domestic Treasury market; in consequence, central government debt to the non-banking sector climbed 6.9bn zloty (in Q1 1999, this sector had supplied 4.0bn zloty). In addition, privatisation receipts were higher than last year, with the Treasury receiving 3.7bn zloty in the first quarter from sales of privatised national assets, as against 1.9bn zloty in the first quarter of 1999. Furthermore, the Ministry of Finance carried out a Eurobond issue for the first time since 1997. The revenues obtained from these Eurobonds were earmarked for the repayment of principal instalments on Poland's foreign debt falling due at the end of March. Although central government borrowing requirements were large in this period (the fiscal deficit at the end of March stood at 6.9bn zloty, i.e., 45.1% of the annual target), the funding thus secured was sufficient both to meet those requirements and to place the remaining balance on account at the NBP. At the end of March, central government had some 13bn zloty on current accounts at the NBP, of which 5.1bn zloty (around 39%) constituted funds temporarily on hold.

As in previous years, the decrease in the net indebtedness of general government observed in the first quarter of the year was also connected with the finances of local government. This component of the general government sector saw a sharp fall of 2.5bn zloty in its net liabilities. Only special-purpose funds reported an increase in their net liabilities (of 0.6bn zloty), which was principally the result of the continuing difficulties faced by the Social Insurance Fund. Although this Fund was holding less on account at the banks, its liabilities in the first quarter remained at a level similar to year end 1999. This was due to the Social Insurance Board, which operates the Fund, availing itself of an "open line of credit"; having paid off its debt to three banks, to a total of 1.5bn zloty, the Board then drew down another 1.7bn zloty.

Thanks to the strong funding provided from non-bank sources, the role of central government in generating money supply growth can be said to have declined significantly in the first quarter of 2000. The reduction in the net debt of the entire general government sector at the banks signifies that monetary expansion by this sector diminished, whereas the same period of 1999 had seen the general government sector contribute a sizeable 28.6% to total money supply growth.

Figure 16
General government debt (net) in the total money supply



Source: NBP.

The share of net general government debt in the total money supply in the particular months of the first quarters of 1999 and 2000 (period end figures) is charted by Figure 16.

Transmission mechanisms

The interest rate channel

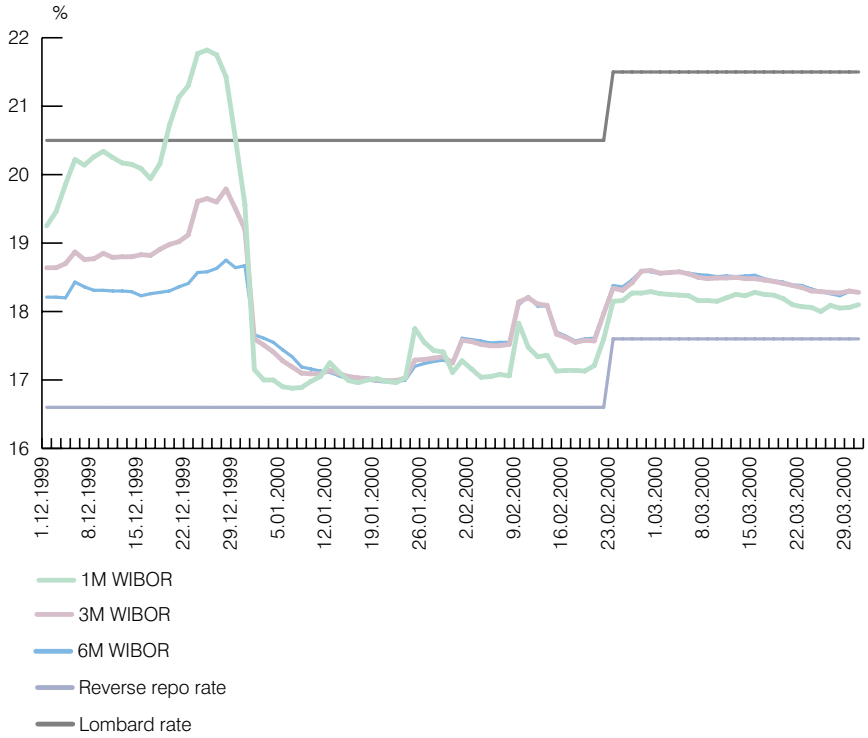
The central bank impacts the level of interest rates on financial markets by influencing rates on short-term interbank deposits. This influence is strongest in relation to the rates payable on instruments with maturities comparable to those of the operations carried out by the central bank. Yields on other instruments, especially Treasury securities, largely move in line with the expectations of market players themselves. Observing shifts in yield trends for these instruments provides the central bank with information on market expectations regarding the future direction of monetary policy, on the feasibility of achieving the inflation target, and on the market's approisal of investment risk.

Interbank rates

Given that interbank deposits constitute the principal short-term vehicle for managing liquidity at the banks (at the end of March, 70.5% of all interbank deposits had maturities of no more than 3 months), movements in the rates payable on these deposits primarily reflect expectations concerning central bank interest rates (the NBP minimum reverse repo rate), and also mirror the changing relationship between the supply of, and demand for, liquid funds.

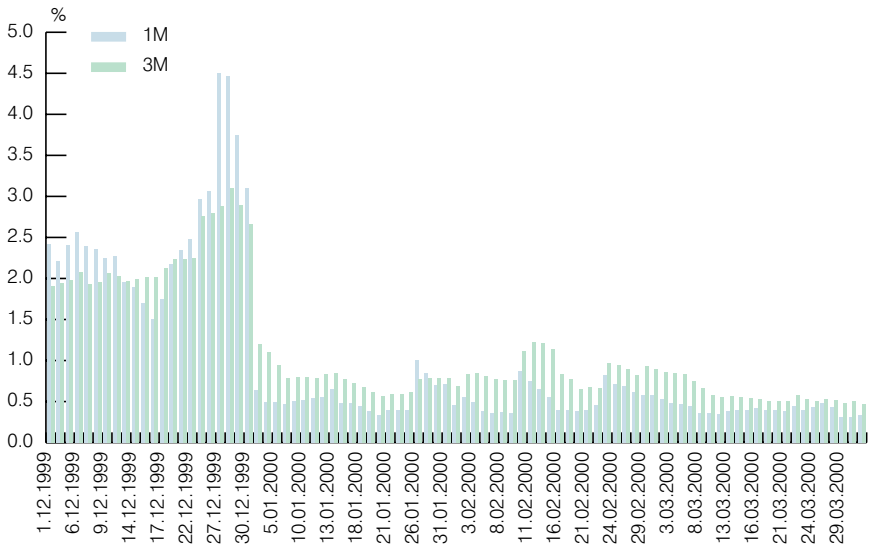
Compared to year end 1999, the first quarter of 2000 brought a decline in interbank rates (i.e., WIBOR rates - Warsaw Interbank Offered Rates). These rates slumped in the first week of the New Year as demand for reserve money fell. This was related to the disappearance of the "Y2K factor". WIBOR rates then rebounded to a level similar to the NBP minimum reverse repo rate (cf. Fig. 17). The evaporation of Y2K concerns on the interbank market meant that, compared to December, the degree of market uncertainty lessened considerably, as seen by a narrowing of spreads between WIBOR and WIBID (Warsaw Interbank Bid Rates). The average spread on

Figure 17
Money market rates



Source: Interbank rates - Reuters; remaining rates - NBP.

Figure 18
Interbank deposit spreads



Source: NBP calculations based on Reuters figures.

rates for 1-month money was in January 4.7 times smaller than it had been the month before, while for 3-month deposits it was 2.9 times smaller (cf. Fig. 18).

From the end of January onwards, WIBOR rates began generally trending upwards, although this trend was not to last. Rates fluctuated due to periodic contractions in bank liquidity (the very end of January) and changes in bank expectations concerning future movements in NBP interest rates (mid-February). January's increase in rates stemmed from higher tax liabilities than the banks had anticipated, which came directly prior to the date for meeting reserve requirements. In February, on the other hand, money market rates rose on public statements regarding a possible increase in interest rates. The market at this point priced in the likelihood of a rate hike, as demonstrated by 1-, 3- and 6-month WIBOR climbing some 40 bps on the day the Monetary Policy Council met. The Council's decision on February 23 to raise the National Bank's rates by 100 bps then produced a further, lasting rise in interbank rates. Following this decision, WIBOR rates clearly steadied. There was also a narrowing of the differential between average rates for 3- and 6-month deposits and those for 1-month deposits. In March this differential averaged 27 bps, while in February it had averaged 42 bps. This attests to the market reducing its expectations, over this short space of time, that rates would again be put up.

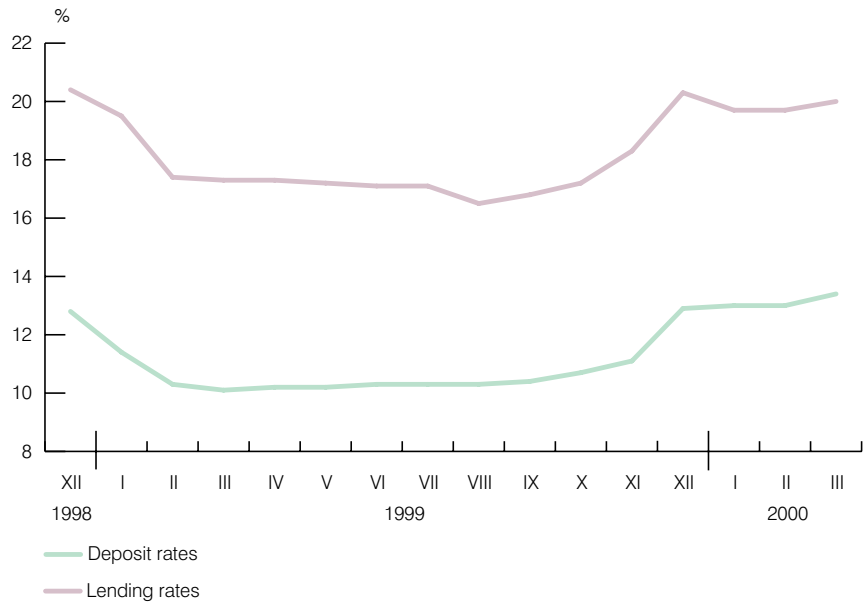
Reaction of commercial bank interest rates to central bank policies

The primary factor determining the level of interest rates at the commercial banks in the first quarter of 2000 was the 1-point upward adjustment in NBP rates carried out by the central bank in February. The increase in NBP base rates performed in November 1999 was of lesser importance. The banks had responded to this fairly quickly, in December 1999. Several large banks did not adjust their rates until January, although these adjustments were minor, at least as concerns deposit rates.

In the course of the first quarter, the rates offered by the 15 largest banks on personal zloty time deposits went up 0.6 points, with rates on 3-month

deposits and on those with long maturities, i.e., 12- and 24-month deposits, going up more steeply than those on 1- and 6-month deposits. Personal lending rates dipped slightly in January and February; in March, however, these increased 0.7 points in the wake of the rise in base rates, to end the quarter up 0.3 points on December 1999. Rates on corporate time deposits rose similarly to those on personal deposits (going up 0.5 points), with the largest increase seen in 1-month rates. Owing to low corporate loan demand, the rise in NBP base rates was followed by only a modest increase in lending rates for corporate customers (up 0.3 points). Since corporate lending rates had come down in the first two months of the quarter, at the end of March they remained lower than in December 1999. The spread between rates on time deposits and on loans narrowed somewhat; in December, this had stood at 7.4 points, while in March it came to 6.6 points. It should be borne in mind, however, that in December lending rates could have been influenced not only by the National Bank raising its base rates in November, but also by the increase in WIBOR rates caused by Y2K (cf. Fig. 19).

Figure 19
Deposit & lending rates, weighted averages



Source: NBP.

Interest rates and loan demand

The growth in bank claims on persons, which had continued uninterrupted since the beginning of 1999, was curtailed in the first quarter of 2000. In real terms, year-on-year growth in personal loan outstandings fell from 39.3% in December to 37.4% in March, i.e., almost 2 points. One factor in this was undoubtedly the high level of real interest rates (cf. Fig. 20).

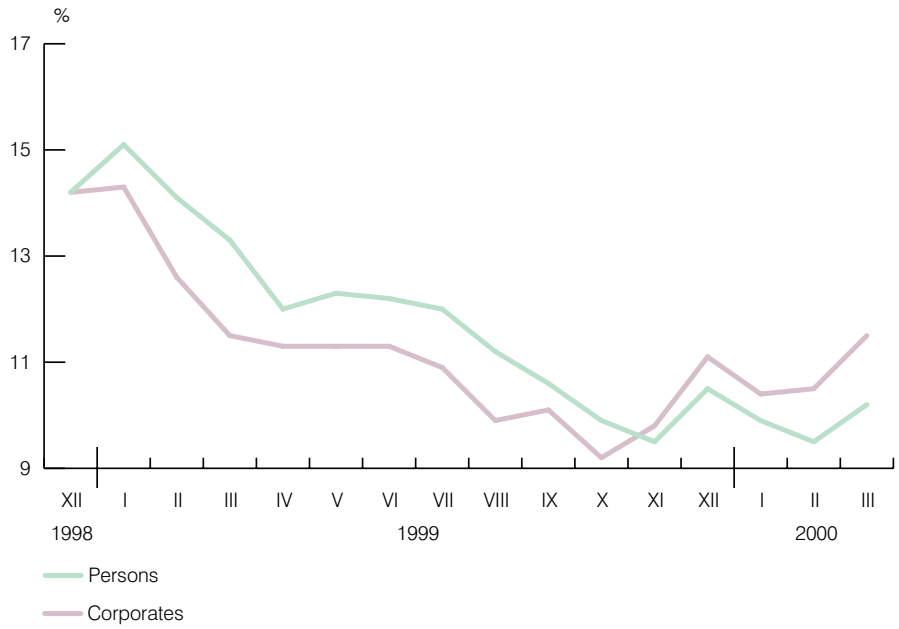
The inelasticity of personal loan demand may stem from the fact that loan amounts to individual borrowers are relatively small. This particularly applies to authorised overdrafts and hire purchase finance. These two forms of loan finance account for almost 54% of all bank claims on persons. Given the small amounts involved, borrowers are not particularly sensitive to movements in lending rates. An additional factor reinforcing the rigidity of household loan demand is the growing ease of access to credit, with a large number of non-bank intermediaries offering hire purchase loans and setting modest security requirements. Nor is it irrelevant that households are growing increasingly accustomed to the use of credit.

As in 1999, the impact of strong lending growth on inflation was indirect rather than direct. Given that a large proportion of the goods usually purchased under loan finance are either imported or manufactured using imported production supplies, high growth in outstanding lending was one of the factors contributing to Poland's mounting current deficit, which heightened the vulnerability of the zloty to depreciation.

Corporate loan demand declined slightly more sharply in the first quarter than personal loan demand. In real terms, the growth in claims on corporates dropped from 12.5% in December 1999 to 9.9% in March, coming down 2.6 points. This decline in loan demand occurred despite Poland's relatively rapid economic growth, which should have increased the need for external financing.

Figures on outstanding corporate debt on issues of commercial paper indicate that companies are increasingly willing to access funding directly from the money markets, bypassing the banking sector. This primarily refers to relatively large companies that are well known on the markets. Over the quarter, corporate borrowings under CP issues rose 22.9% in nominal terms, while year-on-year the increase came

Figure 20
Real lending rates



Source: NBP calculations based on NBP and GUS figures.

to a nominal 28.4%, or 19.6% in real terms. High lending rates are undoubtedly one of the factors diminishing corporate loan demand and enhancing the appeal of accessing funds outside the banking industry. Should this tendency develop rapidly, it will impact the functioning of the credit channel as a transmission mechanism.

The exchange rate channel

In the first quarter of 2000, the exchange rate regime for the zloty remained unchanged. This involved a crawling band mechanism, with 0.3% crawling monthly devaluation against a reference currency basket, in conjunction with a trading band of ±15% for permissible deviations of market exchange rates relative to central parity.

As it had throughout 1999, in the first quarter of the year the central bank refrained from direct intervention on the forex, and movements in zloty exchange rates were therefore conditioned solely by market trends.

During this period, the appreciation of the zloty visibly gathered momentum. Over the quarter, the

average divergence of the fixing rate from central parity widened from one month to the next, going from 3.0% on the upside of parity in January to 3.7% in February and 6.2% in March. The largest upside deviation from central parity occurred in March, at 7.4%, with the smallest in January, at 1.2% (cf. Fig. 21). Over the quarter as a whole, the average deviation came to 4.4%, as against 2.9%, also on the upside of parity, in the corresponding period of 1999.

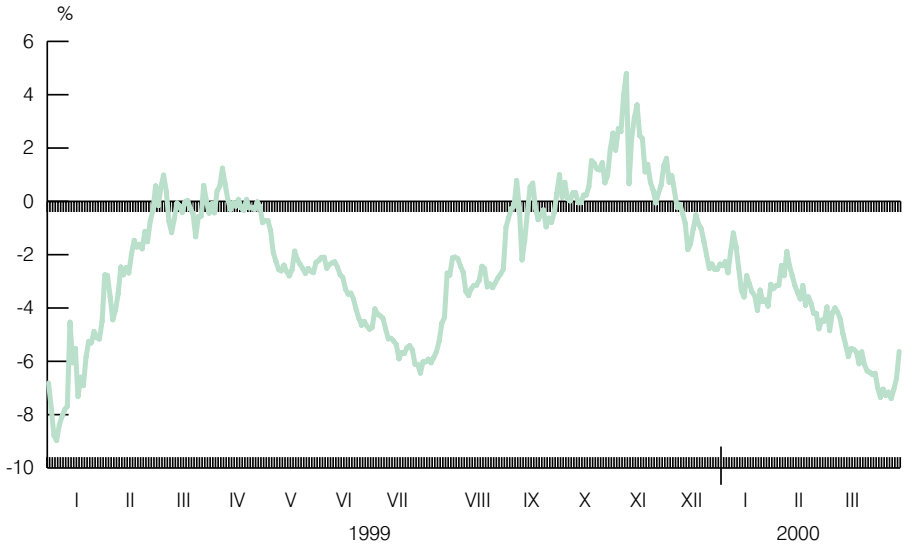
The volatility of zloty/dollar exchange rates in the first quarter of 2000, measured by monthly standard deviations[15], ranged from 2.33% to 2.96% (Q1 1999 had seen higher volatility, of 3.06%-3.81%) - cf. Fig. 22.

The amplitude of zloty exchange rate fluctuations in this period shrank to 6.2%, as against 10% in the first quarter of 1999 and 7.4% in the fourth quarter of 1999. The prime factor acting to strengthen the zloty was the inflow of foreign portfolio investment, drawn by the substantially higher yields on Polish Treasuries. The upward trend in zloty exchange rates was reinforced in March by the large demand from foreign investors for the Eurobonds issued by the Polish Government, which testifies to Poland being well perceived by international financial markets.

The external environment was also favourable during this period. Thanks to the continuing favourable assessment of the development of emerging markets, the interest shown in this region by foreign investment funds was clearly higher than in the corresponding period of 1999. Thus, the increased appeal of Polish debt relative to similar instruments carrying comparable risk, especially those available on other Central European markets, was not just the result of higher Polish interest rates. Given that the Hungarian central bank cut its base rates by 250 bps in all at the beginning of 2000, lowering them to 9.75%-13.75%, the first quarter of the year saw a substantial widening of interest rate differentials between Poland and Hungary (cf. Fig. 23). International investors frequently view their assets in Hungary, the Czech Republic and Poland as one portfolio, changing the country mix of this portfolio in search of the best rates of return. Due to the strong

[15] Volatility measured on the basis of daily log rates of return.

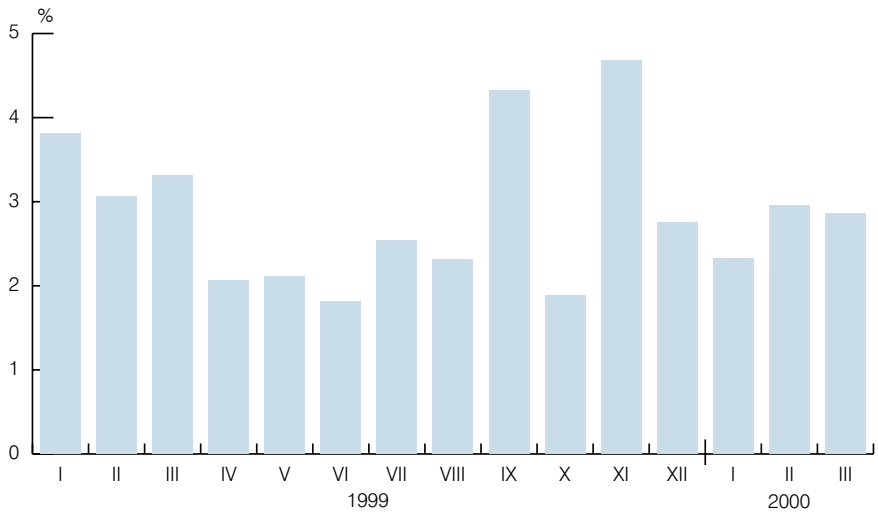
Figure 21
Deviation of market zloty exchange rates from central parity, 1999-2000*



* mid-rate at fixing against euro and US dollar.

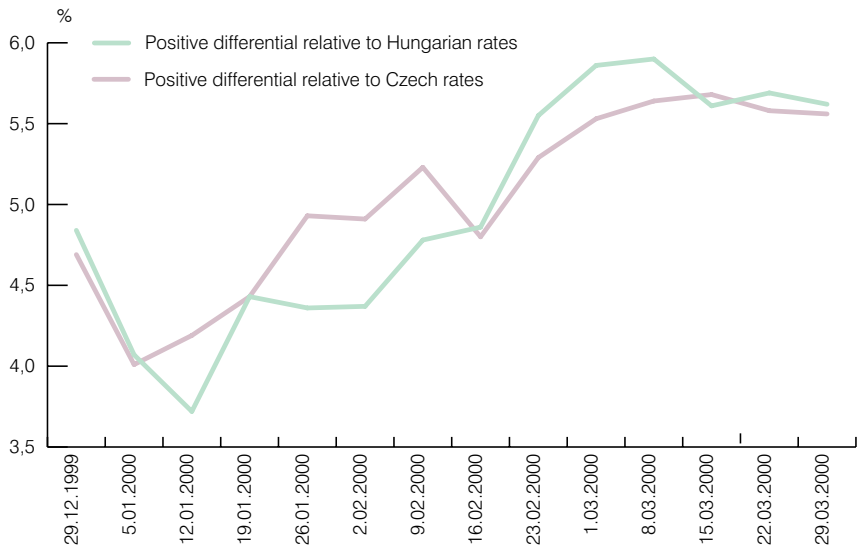
Source: NBP calculations.

Figure 22
Monthly standard deviations, rates of return on PLN/USD exchange rate



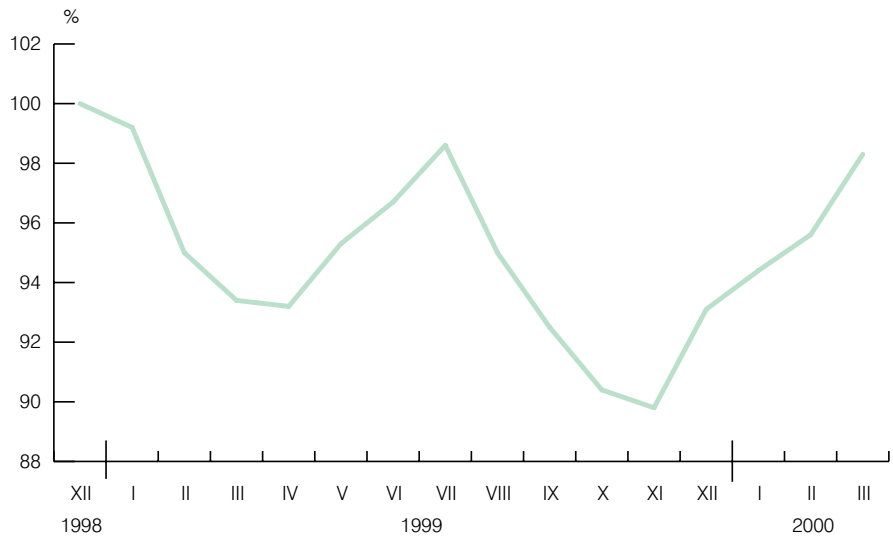
Source: NBP calculations.

Figure 23
Positive differential between 3M WIBOR and corresponding Hungarian & Czech interest rates
(estimates adjusted for domestic inflation)



Source: NBP calculations based on Reuters figures.

Figure 24
Nominal effective zloty exchange rates, 1999-2000
(monthly figures, December 1998 = 100)



Source: NBP calculations.

yields obtainable on Polish instruments, Poland was seen by the markets as the most attractive investment prospect in this region of Europe.

The influx of foreign capital seen in this period mitigated the potentially adverse impact on the zloty of unfavourable news on the Polish economy, the prime aspect of this being the deepening of external disequilibrium. This information was therefore not reflected in any reversal of the prevailing trend for the zloty to strengthen.

The upshot of the situation on the FX market in the first quarter of the year was a firming of nominal effective zloty exchange rates, which rose 5.6% by the end of March (compared to year end 1999), as against a softening of 6.6% in the corresponding period of 1999 (cf. Fig. 24); thus, the trend observable in these two periods was completely opposite.

It should be stressed that the growing appreciation of the zloty recorded in the first quarter of 2000 took place despite the heightening external disequilibrium of the Polish economy. The lack of response to the state of Poland's current account on the part of zloty exchange rates, already floating virtually freely, resulted in the markets raising the risk premium they required for FX exposure. At the same time, the likelihood of an exchange rate adjustment increased, thus also increasing expectations of zloty depreciation.

Inflation expectations

Central banks monitor inflation expectations within the economy using two sources of information: survey questionnaires and analyses of movements on financial markets. The National Bank of Poland employs both methods, although in view of the insufficient development of Polish financial markets the latter analyses are in the main utilised to draw up qualitative assessments, one purpose being to judge the level of uncertainty which economic agents associate with the development of inflationary processes. Analyses of financial markets also provide an opportunity to investigate expectations of future changes of interest rate policies. The information thus gathered reduces the extent of uncertainty in taking decisions by the central bank.

The surveys conducted by the National Bank of Poland indicate that consumer inflation expectations

basically tend to be static in character[16]. This applies to a situation where inflation is gradually coming down. In these circumstances, consumers declare that the rate of inflation in a year's time will be equivalent to the current rate of inflation. In an environment of rising inflation, however, consumers project that inflation in a year's time will be higher than current inflation.

In the first quarter of 2000, due to the gradual increase in the current inflation rate, consumer inflation expectations rose in parallel. In January 2000, with current inflation running at 9.2%[17], consumers predicted that inflation in January 2001 would come to 9.8%. It should be noted that the expected inflation rate has been higher than the current rate since August 1999. In February 2000, consumers expected prices to rise 10.4% over the next twelve months. February's inflation expectations were 0.6 points above the current inflation rates. This difference widened in March, when expectations of twelve-month price growth went up to 11.2%, giving a difference of 1.1 points (cf. Fig. 25).

At the same time, the inflation expectations of the banks gradually decreased. In January, the banks expected prices to go up 6.8% over the coming twelve months. In February and March, the annualised inflation rates forecast for the corresponding month of next year stood at 6.7% and 6.6%, respectively. Let us note, however, that the range of inflation expectations expressed by the banks broadened. In January, the inflation expectations of the banks ranged from 5.9% to 7.6%, in February they ranged from 5.8% to 7.6%, and in March they stretched from 5.7% to 7.9%. In January and February, the mode in the distribution of bank inflation expectations was 7%. This inflation rate was projected by around 22% of the banks surveyed in January and by over 19% in February. In March, the distribution of bank inflation expectations markedly flattened, with no single value predominant. Leaving aside those expected inflation rates expressed by fewer than 5% of the banks, the distribution of bank inflation

[16] Estimates of expected inflation rates, on the basis of polls conducted by the Demoskop company, are performed using an adjusted version of the probabilistic method developed by Carlson and Parkin.

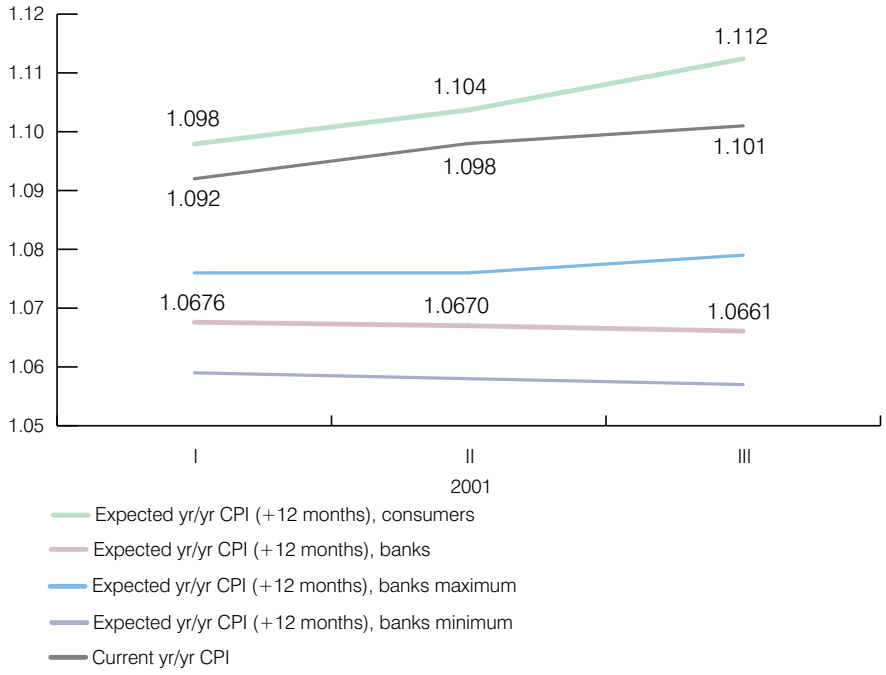
[17] Since the polls in question are carried out by the Demoskop company before the 15th of each month, i.e., prior to the release of figures on inflation in the preceding month, the current inflation rate is taken to be equivalent to year-on-year CPI growth two months previously (e.g., on January 10 of a given year, current inflation is represented by the previous November's CPI).

expectations in March was equivalent to a uniform distribution.

The extended range of expectations presented and the flattening of the probability distribution may be interpreted as a symptom of growing uncertainty among the banks as to future price growth. This inference is reaffirmed by the standard deviation of the inflation rates expected by the banks in the period in question, and also by the coefficient of variation. The standard deviation in January and February came to around 0.5 percentage points, signifying that the expected inflation rate in these months on average deviated 0.5 points from the mean. In March, the standard deviation rose to over 0.6 points. The coefficient of variation, which in January stood at 7%, went up to 8% in February, and then to over 9.5% in March.

On the basis of the data presented above, it can be concluded that in the first quarter of 2000 both groups polled were characterised by uncertainty as to future inflation. As in previous periods, in formulating their expectations consumers primarily based themselves on past information, and were therefore predominantly

Figure 25
Inflation expectations of consumers and banks, I quarter of 2000



Source: Demoskop and Reuters figures; NBP calculations.

influenced by the fact that current inflation was rising. The banks took into consideration the anticipated consequences of the central bank raising its base rates, which is why their inflation expectations, on average, were gradually reduced during the first quarter, yet the scale of this reduction was relatively modest, and it was at the same time accompanied by an increase both in the range of projections made and in the maximum inflation rates expected.

The **inflation expectations** of economic agents (which condition their expectations of future interest rates) are also reflected in the **price of debt instruments**. The level of these prices is impacted by the expectations of various agents, including foreign investors, banks, non-bank financial institutions, businesses and households. Generally, bond prices principally mirror the expectations of those agents that are most active on the market and possess the largest financial resources. In Poland, these expectations are for the most part those of the banks and foreign investors, since, within an economy open to capital flows, the price of financial assets also reflects the expectations of foreign agents investing on the domestic market. This factor is particularly important on less developed markets, the Polish market included.

Bond prices are a function of three fundamental factors, namely, inflation expectations, the premium demanded for market risk, in the broad sense of the term, and the real rate of return required by the market. An analysis of inflation expectations thus requires that bond prices be broken down into these three factors, with certain simplifying assumptions adopted (regarding the stability of the real rate of return required, and also the absence of high time volatility of the risk premium). In Polish circumstances, the second of those assumptions may be open to question. The Polish market is neither liquid nor efficient, the attributes assumed by *expectations theory*. Speculation is too weak to smooth out the yield curve and cause interest rates to reflect overall supply and demand on the market for Treasury securities. On a shallow and poorly integrated market, the level of interest rates is to a relatively large extent an expression of the changing relationship between supply and demand on particular segments of the market. For this reason, an analysis of price movements on the Polish bond market (yield curve analysis) only has limited uses, serving mainly to verify information on inflation expectations

taken from other sources (e.g., Reuters polls), and also to analyse the extent and sources of market risk. The latter is important because of the connection between the level and source of market uncertainty and the way in which the central bank conducts its monetary policy.

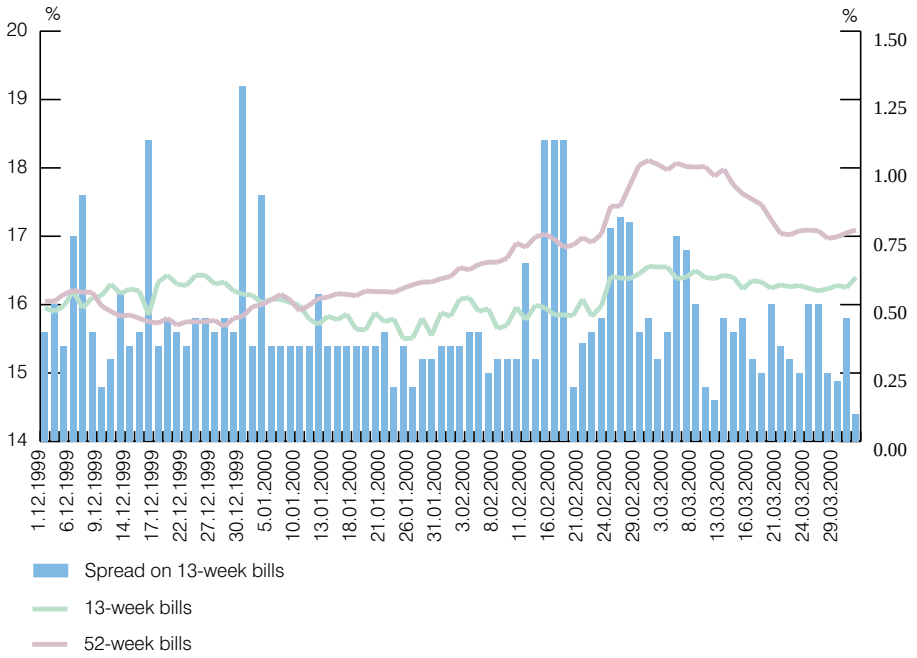
Yield curve analysis can also be utilised to track the evolution of expectations concerning future money market rates. Assuming a stable relationship between certain market rates and central bank rates, this can permit information to be gathered on expectations regarding future monetary policy.

The first quarter of 2000 brought a noticeable increase in uncertainty as to the future direction of interest rate policy. This found expression on the Treasury bill market. January saw a clear drop in demand for these instruments and a rise in indicators that reflect the level of market uncertainty. This process continued right up until the beginning of March. The decline in demand, coming at a time of large central government funding requirements and an increase in the supply of T-bills on the primary market, pushed up yields on these instruments (cf. Fig. 26). The rise in yields was greater for bills of longer maturities, chiefly due to greater supply. The result was a distinct increase in the yield differential between bills with short and long maturities, and a steepening of the yield curve at its short end (on the day of February's meeting of the Monetary Policy Council, the difference between yields on 13- and 52-week bills came to over 100 bps, whereas at year end 1999 13-week yields had been around 30 bps higher than 52-week yields).

In February, the state of uncertainty on the primary T-bill market clearly became more acute. This was attested to by an increase in the slope coefficient of the auction demand function[18]. The average value of this coefficient was almost three times higher in February than in January in the case of 13-week bills, and over twice as high for 52-week bills (cf. Fig. 27). The slope coefficient of the auction demand function for 13- and 52-week bills at February's tenders was determined by a relatively broad scatter of weighted average prices in the bids forthcoming from investors and by falling demand for bills. Although uncertainty heightened in February, it

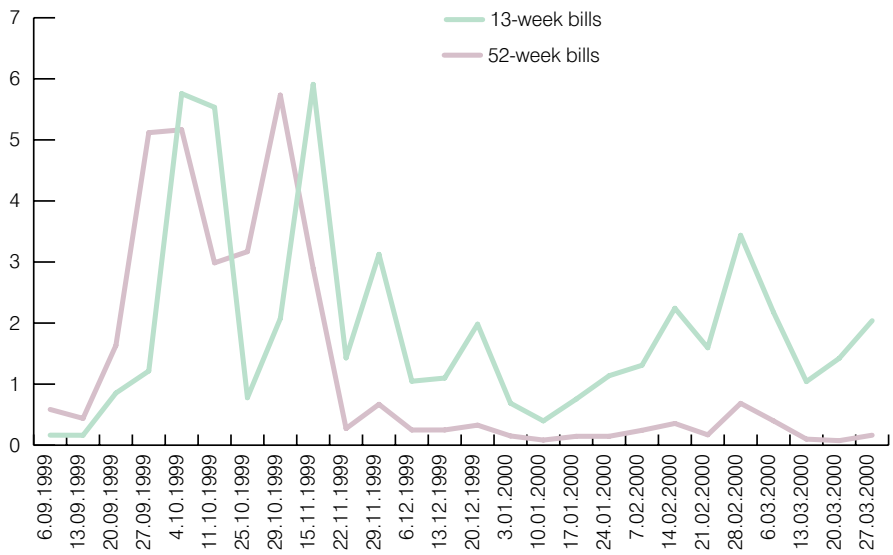
[18] Explanatory remarks on the composition and interpretation of this indicator are given in the *Inflation Report*, 1999.

Figure 26
T-bills yields & spread on secondary market



Source: NBP figures and calculations.

Figure 27
*Slope coefficient of auction demand function, primary T-bill market**



* In calculating the slope coefficient of the auction demand function, cumulative nominal bid values are expressed in billion zloty.

Source: NBP figures and calculations.

was still at a moderate level compared to last October, a time of serious market fears of interest rates rising. Relative to October, the average value of the slope coefficient of the auction demand function for 52-week bills was over 23 times lower in February.

The increase in interest rates carried out by the central bank in February initially produced a further rise in T-bill yields, especially on 52-week bills. At the beginning of March, the differential between 13- and 52-week yields had risen to over 150 bps. The inflation figures for February, which proved to be in line with market expectations, helped to bring 52-week yields down at the end of the quarter.

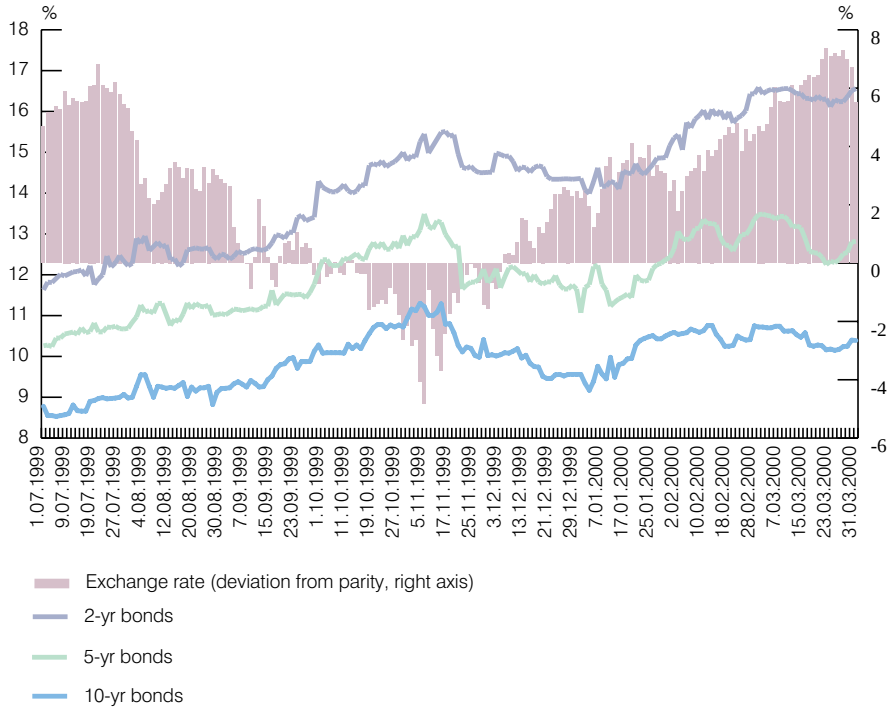
The interest rate rise acted to reduce the level of uncertainty. The largest decrease in the slope coefficient of the auction demand function was seen for 52-week T-bills. The average value of this coefficient for 52-week bills was almost halved in March compared to February. The fall in the slope coefficient stemmed from a narrowing of the weighted average bid values at tender and from a marked increase in demand for bills. Both of these factors point to an easing of investor concerns regarding the possibility of another rate rise in the immediate future.

A similar situation obtained on the Treasury bond market. Yields on T-bonds rose from the beginning of the year until the end of February (cf. Fig. 28). The rising yields on these long-dated instruments were primarily related to inflation, which had been gathering speed rapidly since August (i.e., an inflation premium was being demanded). This factor exerted the strongest influence up to the publication by GUS in mid-May of figures on monthly inflation in January, which turned out to be in accordance with market expectations.

Following the decision to raise NBP interest rates taken by the Monetary Policy Council on February 23, the yield curve shifted upwards along its entire length[19], with the exception of the furthermost end, representing yields on 10-year T-bonds (cf. Fig. 29). The response of the market on this occasion differed from that seen following November's rate rise. The shift at the short end of the yield curve was relatively small, corresponding to

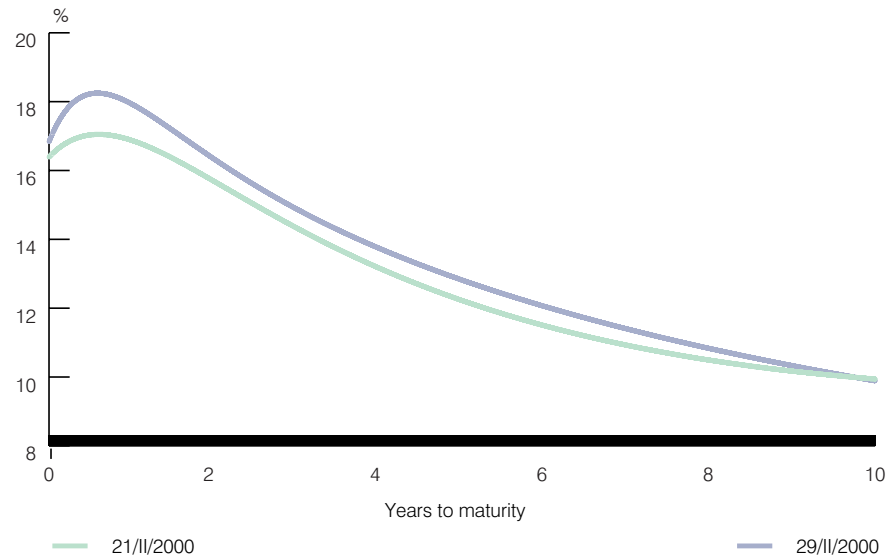
[19] The analysis presented herein of the shape of the yield curve and shifts in that curve refers to a zero-coupon yield curve estimated using the econometric model described in the *Inflation Report*, 1999.

Figure 28
Yields on 2-, 5- & 10-yr fixed-rate T-bonds and deviation of zloty from central parity



Source: T-bonds - bank information systems; exchange rates - NBP.

Figure 29
Zero-coupon yield curve before & after base rates raised by Monetary Policy Council on February 23, 2000

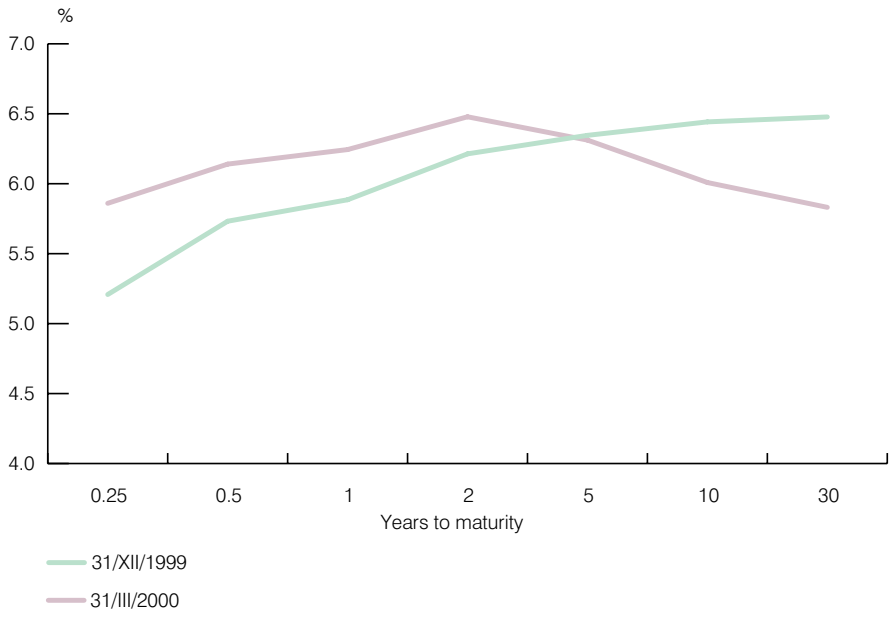


Source: NBP calculations based on figures from bank information systems.

the size of the adjustment to NBP rates, yet the curve did not shift downwards in the middle and at the long end, as it had done previously. This is attributable to two factors: an increase in the premium required by the market for the risk of Treasury prices falling, which was linked to an expected rise in supply, and an increase in the exchange-rate risk premium demanded by investors. Both of these factors had also been present in January, yet had not made themselves felt as strongly as in February and March.

The supply effect mentioned above constitutes a market anomaly that is liable to arise when market participants believe that the total supply of particular instruments, or the pattern of supply, differ from the total demand for those instruments or the pattern of that demand. An example of this are movements in yields on US Treasuries (cf. Fig. 30). Owing to a projected budget surplus, the US Administration announced a plan to cut the national debt by a net redemption of part of the debt outstanding (particularly long-dated T-bonds). The result of this was that the yield curve took on a negative slope from two years out. In Poland, on the other hand, where the market was expecting a substantial increase in the supply

Figure 30
Yield curve on american market on December 31, 1999 and on March 31, 2000



Source: NBP calculations based on figures from bank information systems.

of Treasury bonds, the opposite effect was seen. In anticipating that supply would rise, the banks based themselves on the following:

- the large funding requirements of central government associated with financing the fiscal deficit (in the first half of the year alone, the Ministry of Finance offered for sale on the primary market T-bonds to a total nominal value of some 16.1bn zloty, while redeeming bonds to a value of 4.6bn; the scale of the funding obtained through T-bond issues was thus much greater than in previous years);
- the fact that in the same period the Ministry of Finance was converting the outstanding debt of the health service carried over from prior years to Treasury bonds (totalling around 6-12bn zloty);
- the declaration from the NBP in the *Monetary Policy Guidelines for the Year 2000* that it would be performing outright sales of 16.4bn zloty of T-bonds from its own portfolio to drain off surplus operating liquidity from the commercial banks.

The market had already known for some time of the plans of the Ministry of Finance and NBP concerning debt conversion and outright sales. However, investor attention was drawn to the risk inherent in these operations by the limited information from the Ministry on the structure of financing the central government borrowing requirement. Given that the face value of Treasury bonds outstanding at the end of 1999 stood at 71.1bn zloty, implementing the above plans would have signified a major increase in the supply of T-bonds. Since market players knew neither the structure of supply of instruments issued by the Ministry, nor the timetable for NBP bond sales, it attached the appropriate price risk to all bonds available on the market. As a result, there was a virtually parallel upward shift along the whole length of the yield curve. To reduce uncertainty, the Monetary Policy Council, meeting in March, released the information that outright sales of bonds from the National Bank's portfolio would commence in the third quarter, i.e., not until after the period when central government demand for funds is relatively high. By that time, the Ministry of Finance might also have completed the conversion of health service debt.

The occurrence of this supply effect makes it additionally difficult to define the extent to which

expectations of a rise in NBP base rates and the inflation expectations of financial institutions impacted the yield curve in the first quarter of the year.

The second factor driving up T-bond yields in the first quarter of 2000 and causing the yield curve to respond in a different fashion than previously to February's rate adjustment by the Monetary Policy Council was the higher exchange-rate risk premium now being demanded by the market. Long-term interest rates climbed up despite the large increase in foreign portfolio investment (particularly on the market for 2- and 5-year fixed-rate bonds). The substantial influx of capital to this market stemmed from the optimism of many investors concerning an improvement in the prospects for the Polish economy in 2000 (projections of declining inflation, and an ensuing fall in interest rates, and of the maintenance of a sustainable current account deficit, easily financed by inward FDI), and also from speculative trading (with a view being taken on the zloty strengthening due to the inflow of foreign capital from privatisations and expectations of the zloty being floated freely). Given that domestic bond prices were freely set by the market, with no central bank intervention on the forex, the current yields available on bonds reflected equilibrium between the return expected on investment and the attendant risk. This risk mainly involved any further widening of the current deficit.

Owing to the impact of both the factors outlined above, by the end of February there had been an upward parallel shift in the yield curve, in the maturity bands from two to five years, averaging 200 bps relative to the end of December. The maintenance of a positive slope at the short end of the yield curve could have indicated that there was still a certain risk of interest rates rising in this time frame, although this could also have been the result of market segmentation. The negative curve for maturities beyond one year demonstrates that the market was expecting rates to fall in the longer term.

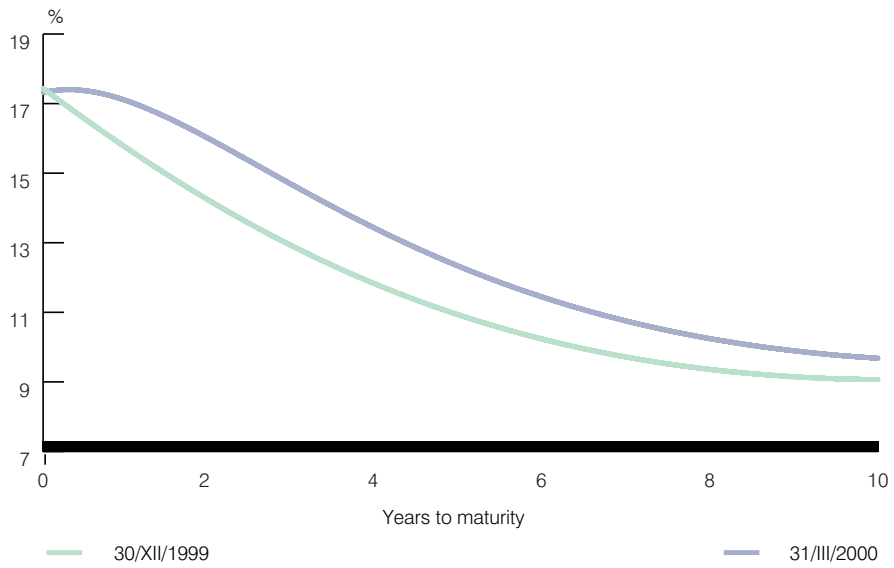
March saw further growth in the demand for Polish T-bonds, including the demand from foreign investors. An uneven distribution of demand caused yields to drop on Treasuries maturing in five years or less, at the same time steepening the yield curve in the maturity bands from two to five years. This process continued following the publication on March 15 of inflation figures for February. At the end of March, the yield curve had descended by an

average of 50 bps compared to the end of February, with the largest move seen for 1-year Treasuries (cf. Fig. 31).

The implied 28-day forward yields on Treasury paper based on the yield curve at March 30 (these yields represent market expectations of future interest rates) reaffirmed the existence of expectations that inflation and interest rates would come down in the second half of the year, although these expectations were no longer as strong as they had been in the first half of February (cf. Fig. 32). Implied annual forward yields on Treasuries indicated that participants in the financial markets were also expecting a systematic decline in interest rates over the longer time horizon (cf. Fig. 33).

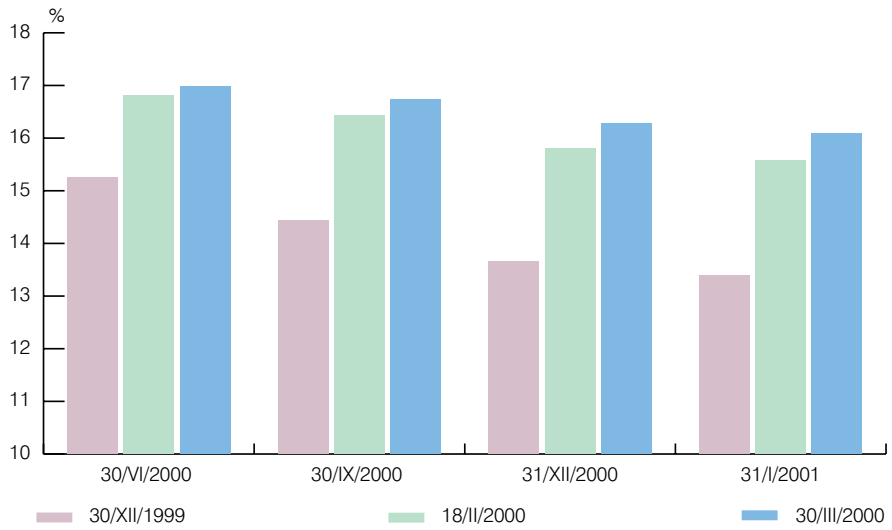
Events abroad also constituted a major factor in developments on Polish financial markets. In the first quarter of 2000, monetary policies were tightened further in both the United States and the euro area. The Fed funds rate was raised by the Federal Reserve on two occasions, going up 50 bps in all, to 6%. The European Central Bank also carried out two 25 bps upward adjustments of its repo rate, thereby lifting its key rate to 3.5%. Other rate rises on developed markets failed to have any great impact on domestic interest rates during the period in question.

Figure 31
Zero-coupon yield curve at month end December 1999 & March 2000



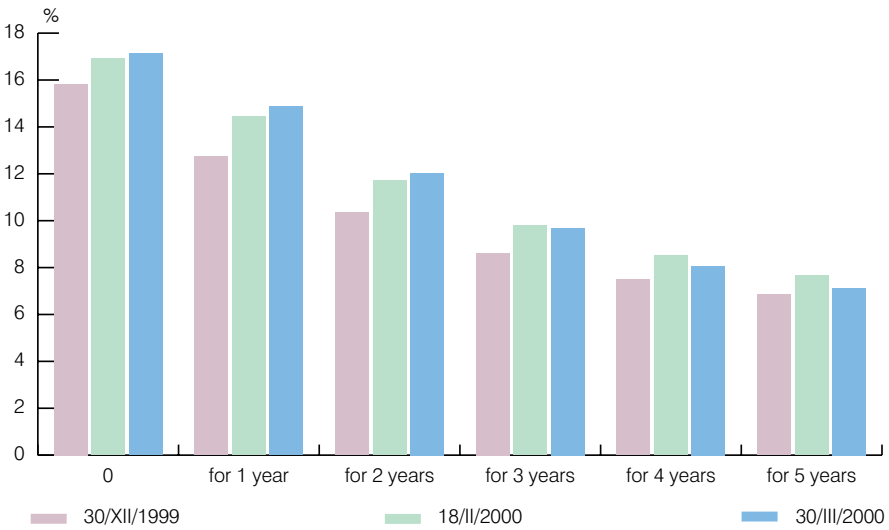
Source: NBP calculations based on figures from bank information systems.

Figure 32
Expected level of short-term interest rates
(based on yield curve)



Source: NBP calculations based on figures from bank information systems.

Figure 33
Expected level of long-term interest rates
(based on yield curve)



Source: NBP calculations based on figures from bank information systems.

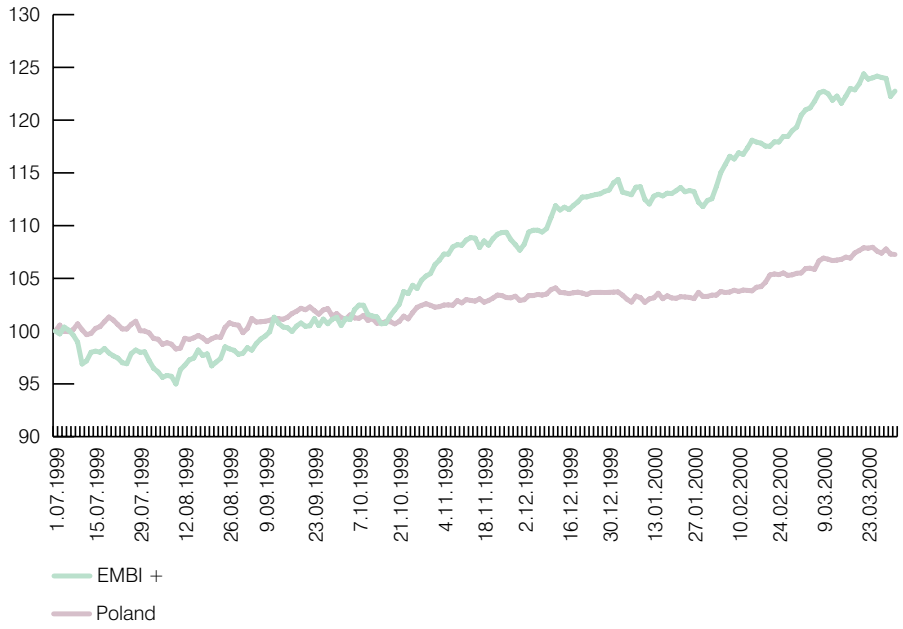
A more powerful influence on the state of the Polish market was exerted by the overall improvement in the condition of emerging markets and by factors of an institutional nature.

As had been the case in the two preceding quarters, the first quarter of the year was marked by positive sentiment on emerging markets, which was reflected in a rise in the Emerging Market Bond Index Plus (EMBI+) published by the investment bank JP Morgan[20], which charts the return obtained on holding a portfolio based on this index (cf. Fig. 34). The fall in US long-term interest rates produced by the supply effect described previously led to mounting demand for assets carrying higher risk, but also offering potentially higher returns. The period examined here therefore witnessed a considerable inflow of capital to emerging markets, including Poland.

Another factor stimulating demand for Polish assets was the growing tendency to distinguish those of the countries termed "emerging markets" that hold investment grade ratings. These are countries rated above BBB/Baa. Some of these countries, Poland being one of them, have been included in "global bond portfolios", a fact which has come to the attention of newly-founded "global investment funds". These organisations have a lower risk profile and a longer investment horizon than dedicated emerging market funds. On the one hand, this should be viewed as a positive development (imparting greater stability to financial markets), while on the other hand certain negative side-effects are possible (such as the over-appreciation of the zloty). The Polish bond market is an attractive one for funds of this type due to the above-average yields obtainable on the instruments available. Given a sufficiently long investment horizon, any short-term exchange-rate risk is not a crucial factor. Default risk assumes greater significance. However, in the case of Poland, this risk is considered modest, as demonstrated by the Eurobond issue carried out by the Polish Government on international markets in March. This issue (the first on international markets since 1997, and the first Polish government debt denominated in euro) comprised 10-year fixed-rate bonds and generated large investor demand.

[20] Explanatory remarks on the composition and interpretation of this index are given in the Inflation Report for the first and second quarters of 1999.

Figure 34
***EMBI+ Index** (Poland vs emerging markets)*

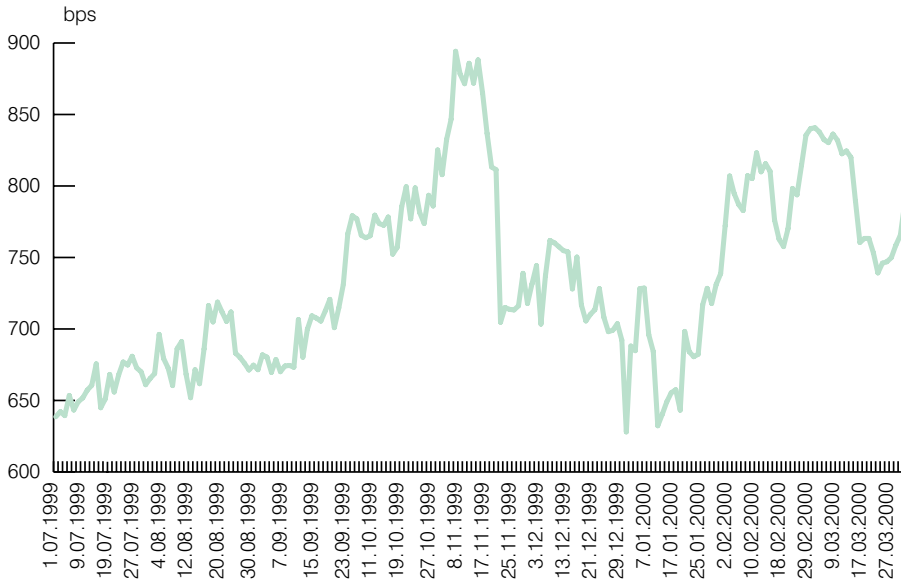


Source: NBP calculations based on JP Morgan figures.

The cost involved proved relatively small, with a spread of only 82 bps above the cost of funds to the German Government. At the same time, however, the yield gap between 5-year Polish and German government bonds issued on the respective domestic markets reached a record high in the first quarter of 840 bps on March 1. This was close to the level seen prior to November's meeting of the Monetary Policy Council, when the gap on November 15, 1999, stood at 888 bps. In the second ten-day period of March, this gap narrowed as a consequence both of the ECB decision to raise all interest rates in the euro area, and of increased foreign investor demand for Polish T-bonds (cf. Fig. 35).

In analysing the inflation expectations of banks and investors on the Treasury market, an overall conclusion that can be drawn is that, although inflation was expected to go down in the second half of the year, there was growing uncertainty as to its future level. The prime reason for that mounting uncertainty was the rising deficit on the current account and associated concern over exchange rate movements. In the case of the banks, this heightening uncertainty regarding future inflation was reflected in the constant increase in the coefficient of variation, which rose from 7% in January to 9% in

Figure 35
Yield differential, 5-yr Polish & German T-bonds, July 1, 1999 - March 31, 2000



Source: NBP calculations based on Bloomberg figures.

March. Meanwhile, growing investor uncertainty was reflected on the Treasury market by an increase in the slope coefficient of the auction demand function with respect to Treasury bills, and also by a rise in bond yields, which took place despite continuing expectations of a gradual decline in inflation, as illustrated by the very shape of the yield curve.

The securities channel (the "asset price effect")

If it is assumed that consumption is conditioned not by current incomes, but by the incomes collected by households over a whole lifetime, then household demand will also be influenced by stocks of financial assets, i.e., equity and debt securities. An increase in the value of those securities, by increasing household assets, may therefore contribute to a rise in household demand. This process may occur where a substantial part of households own securities, and where the value of the instruments they hold is relatively large. In Poland, however, the value of capital market instruments held by households is small, and movements in the value of these personal securities portfolios do not therefore have any greater impact on consumer demand.

At the end of March 2000, households owned Treasury securities to a total value of 5.1bn zloty, of which 2.3bn zloty constituted Treasury bills, and 2.8bn zloty Treasury bonds[21]. There were around 100,000 personal brokerage accounts actively used for trading on the Warsaw Stock Exchange. The capital held by domestic investment funds was estimated to be no more than several billion zloty.

The market capitalisation of the Warsaw Stock Exchange climbed in the first quarter of the year from 123.4bn zloty to 151.7bn zloty (this includes the National Investment Funds quoted on the Exchange). As a proportion of GDP, the capitalisation of the Exchange rose to almost 25%, although the main reason for this was an increase in share prices, with new issues being of no greater importance. Despite this increase in market capitalisation, however, the amount of capital circulating freely has gone down due to intensified mergers and acquisitions and the withdrawal of some companies from the Exchange. Movements in the Warsaw Stock Exchange Index, the WIG, are shown in Table 7.

The basic factors influencing share prices on the Warsaw Exchange during the period in question were the following:

- the disappearance of fears related to Y2K,
- strong share price gains on the US market, particularly with respect to "new economy" stocks, which produced similar effects on the Polish market,

Table 7
Warsaw Stock Exchange Index (WIG), Q1 2000

Month end	WIG (points)
December 1999	18,083.6
January 2000	19,398.0
February 2000	21,536.8
March 2000	21,255.9

Source: Warsaw Stock Exchange.

[21] Data pertaining to Treasury bills was obtained from NBP data source covering twenty three commercial banks, most active on the money market, acting as dealers of the money market or aspiring to that role where as data on Treasury bonds comes from GUS.

- rising US interest rates,
- mergers and acquisitions within the Polish banking industry,
- periodic symptoms of political risk (caused by tension within the ruling coalition),
- macroeconomic problems (adverse trade figures and rising inflation).

In the first quarter of the year, a major source of support for the development of the stock market became open-ended pension funds. Their involvement on this market was estimated at 0.6bn zloty at the end of 1999, and 1.3bn zloty at the end of the first quarter of 2000. In relation to the total size of the Exchange, these investments are still of minor importance; at the end of the first quarter they constituted around 1% of market capitalisation. However, given the constant growth in the assets held by these institutions, they should be recognised as an important component in the long-term stability of the Polish capital market.

The factors that had the predominant influence on the behaviour of financial markets in the first quarter of 2000 were domestic macroeconomic indicators. External factors played a lesser role in this period.

Developments on the financial markets were on the one hand conditioned by the negative view being taken of a series of regularly published economic indicators (especially as regards the worsening trend in the current deficit, and to a certain extent also inflation), and on the other hand were impacted by expectations that these indicators would improve over the course of 2000. The resulting uncertainty meant that, due to higher investment risk (mainly exchange-rate risk), rising demand for financial instruments was accompanied by an upward shift in the yield curve.

In the first quarter of the year, there were a number of factors at play that could have increased inflation expectations. However, the conclusions that can be drawn from this by an analysis of the situation on financial markets (yield curve analysis) are subject to considerable uncertainty due to the supply effect on the bond market in this period.

Impact of external prices on inflation

The first three months of the year brought a continuation of the trend seen in 1999 for commodity prices

to rise on world markets. The dollar index of commodity prices (including energy feedstock) compiled by the HHWA institute shows that in the first quarter of 2000 these prices were 75.1% higher than they had been in the first quarter of 1999[22]; by contrast, a year previously these prices had fallen 15.5% year-on-year. As in 1999, rapid growth was mainly observed in the price of oil and metals. Much slower price growth was displayed by agricultural produce and agricultural commodities used in industry. In the first quarter of 2000, non-energy commodity prices had risen 10.8% year-on-year, while in the corresponding period of 1999 they had gone down 13.2%.

World oil prices were subject to sharp price swings in the first quarter. In January and February, oil prices soared. In January, average oil prices (for Brent and WTI) climbed 11.4% relative to December, while in February they rose another 10.9% compared to January. These price movements were produced by deepening imbalance on the market for this strategic commodity, in the context of the OPEC oil cartel pursuing a policy of limiting production, which was accompanied by the depletion of world oil stocks. Oil prices also rose on statements that the agreement on limiting oil production by the OPEC countries was to be extended past the original expiry date of March 2000. On March 7, average prices for two types of crude, Brent and WTI, hit a peak of USD 33.05 per barrel, which represented year-to-date price growth of 30.5% (cf. Fig. 36).

Over the rest of March, oil prices slumped, dropping back to the levels recorded at the beginning of the year. In all, the average price for Brent and WTI thus sank 17.5% in March (compared to February). This was primarily related to market speculation concerning the policy that would now be conducted by the OPEC countries, which had been making declarations on the need to increase output. Indeed, at the OPEC conference in March, the major oil producers did agree to raise oil production, albeit not to an extent that would satisfy market demand.

The persistence of swift oil price growth on world markets fanned inflation in the first quarter of 2000 in those economies reliant on imports of this strategic commodity. This was very clearly visible in the euro area, where the

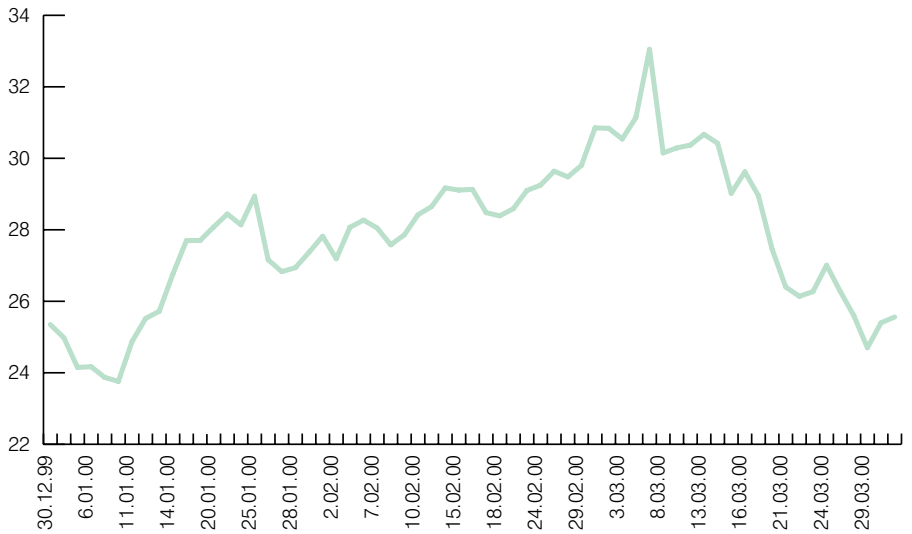
[22] *World Commodity Prices 2000-2001.* AIECE, May 2000.

acceleration of domestic price growth was also fuelled by the depreciation of the euro. In March, manufacturers' producer prices in the euro area countries were up by an annualised 6.2%, whereas in March 1999 producer prices had come down 1.8% over the preceding year. The harmonised Consumer Price Index for the euro area came to 2.1% in March 2000, while a year earlier it had stood at 1%.

In the first quarter of 2000, rising world oil prices contributed to a deterioration in Poland's terms of trade. The data available from GUS indicate that in the first two months of the year export transaction prices went up 4.2% (year-on-year), while import prices were 9.6% higher. This yielded unfavourable terms of trade, with the relevant index standing at 95.1 (as against 105.8 in the same period of 1999).

To summarise, in seeking external price impulses that could have fed inflation on the domestic market in the first quarter of 2000, the prime factor that has to be identified are world oil prices. Zloty exchange rates did not act to stimulate domestic inflation. However, given the time lag of 2-3 months with which exchange rates affect prices for non-food articles and services, January could still have felt some minor impact on these prices of zloty depreciation in 1999.

Figure 36
*Oil prices**



* Average prices for Brent (North Sea) & WTI (USA), USD per barrel.

Source: Reuters.

Aggregate supply and demand

Preliminary estimates indicate that in the first quarter of the year the volume of domestic demand still exceeded that of supply, although - as in the fourth quarter of last year - the gap between the two was growing at a slower pace than at the turn of 1998 and 1999. First-quarter GDP growth is estimated to have come to 6.1% year-on-year. Value added was high in industry and in commercial services, while in construction it was lower than in the previous quarters. One factor behind this relatively rapid GDP growth was greater external demand in comparison with the very low level seen a year earlier, although it can be inferred that domestic demand, which fell in January and February, once again rose in significance in March. Preliminary estimates of growth in GDP and domestic demand are given in the Table below.

Table 8
GDP & domestic demand growth

		1999				2000
	Q1-4	Q1	Q2	Q3	Q4	Q1
	corresponding period previous year = 100					
Total value added	**103.8**	**101.4**	**102.8**	**104.7**	**105.9**	**105.9**
Industry	104.6	104.2	104.3	104.8	104.9	105.6
Construction	104.7	97.3	101.6	107.5	111.5	110.3
Commercial services	103.8	102.1	103.2	103.6	105.1	104.0
Gross Domestic Product	**104.1**	**101.6**	**103.0**	**105.0**	**106.2**	**106.1**
Domestic demand	**104.9**	**103.3**	**104.6**	**105.6**	**105.8**	**105.1**
Capital formation	106.8	101.1	106.5	109.0	106.8	111.2
Gross fixed investment	106.9	106.1	106.8	107.0	107.3	105.5
Consumption	104.2	103.7	104.1	104.5	104.6	103.9
Personal consumption	105.0	104.3	104.9	105.3	105.4	104.6

Source: GUS (figures for 1999), NBP estimates (Q1 2000).

Domestic demand

Domestic demand growth over the whole of the first quarter would appear to have been similar year-on-year to that observed in the fourth quarter of 1999. Consumption growth slackened slightly, with slower growth also seen in gross fixed investment, although growth in capital formation picked up.

The more subdued increase in consumer demand was linked to a slower rise in household incomes. Growth would seem to have diminished in all basic components of disposable incomes with the exception of farmers' operating surplus. Real growth was modest in old-age and disability pensions (employee pensions up 0.1% and farmers' pensions down 0.6%); even with other benefit payments rising, this led to an overall slowdown in growth of incomes from social benefits. Despite relatively rapid growth, in real terms, in average corporate-sector employee earnings (the purchasing power of these earnings in March was over 3% higher than a year before), the large decline in average employment in this sector (down 3.6%) translated into slower growth in incomes from employment. There was no significant change in the weak earning power of private farmers' households. With relatively low growth in disposable incomes in January and February, the increase in outstanding household borrowings was also small. However, March again saw a considerable rise in personal borrowings, with growth similar to that noted in the final months of last year. Given the simultaneous decrease in cash stocks, it can be estimated that gross household savings declined overall in the first quarter of 2000 compared to the corresponding period of 1999. The financial savings ratio was lower than a year before[23].

In these circumstances, it is believed that growth in **personal consumption** was just slightly down on that seen at the end of last year. At the same time, figures on retail sales growth point to the beginnings of a change in the pattern of consumption. Companies in the motor trade reported lower sales than in the first quarter of 1999. Thus, first-quarter consumption growth was not stimulated by growth in car sales, which had been accelerating very rapidly in previous years. Sales growth continued to be relatively high in furniture, audio and television equipment, and household appliances, and also in pharmaceuticals and cosmetics. Owing to the constant increase since the mid-90s in the level of retail sales at very large, non-specialist outlets mainly selling foodstuffs, it is difficult to assess movements in the relative proportion of other basic categories of goods sold.

[23] This ratio represents the relationship between household financial savings and gross disposable incomes. Financial savings constitute the sum total of growth in cash stocks, bank deposits and investments in securities (equities, bonds, units in mutual funds, etc.), less the growth in household borrowings.

On the basis of other research, however, it can be concluded that, while the consumption of foodstuffs remained at a level similar to that of previous years, purchases of clothing and footwear again decreased, as did spending on recreation, culture and education. The fact that output rose more slowly than in previous quarters at companies primarily manufacturing consumer goods, while consumption growth was running at approximately the same level as before, indicates that, following a decrease in the second half of 1999, the role of imported goods in supplying the domestic market again increased.

At the moment of writing, figures were not available on fixed **investment**, although other indicators providing indirect information on the scale of capital expenditure suggest a continuing decline in the impact of investment on domestic demand growth. With weather conditions very favourable, construction output was up 4.3% year-on-year in the first quarter, while capital construction increased 9.6%. Given the very low level recorded a year previously, this growth rate indicates the lack of any major increase in the demand for investment in new buildings and works. Weaker investment demand is related to poorer capacity to finance capital expenditure. The reduction in expenditure on tangible assets provided for in the national budget, and also (according to general indications) in local government budgets, will entail a drop in fixed investment in the general government sector. In the corporate sector, on the other hand, capital expenditure could suffer as a result of very poor financial performance in 1999.

The estimated growth in capital expenditure was faster than that in gross fixed investment, which is attributable to high growth in inventories compared to the very low growth seen in the first quarter of 1999. At that time, the decline in output led to destocking of materials and intermediates, merchandise and work in progress. As sales then rose in the following months, companies also built up their inventories.

The **fiscal deficit** amounted to 6.9bn zloty in the first quarter of 2000[24], which represented 45% of the target annual deficit written into the Budget for 2000. In the corresponding period of 1999, central government

[24] *Sprawozdanie operatywne z wykonania budżetu państwa za okres styczeń-marzec 2000 roku* (Operating report on the performance of the national budget, January-March 2000). Ministry of Finance, May 2000.

finances were in worse condition, with the deficit already equivalent to 68.1% of the annual target, which was principally the result of the Treasury having to shoulder the burden of the high expenditures involved in launching a number of structural reforms within a very short space of time.

Central government receipts stood at 30.9bn zloty at the end of March, which constituted 22.0% of the receipts projected for the entire year. Particularly high revenues had been collected in indirect taxation and corporate income tax, these coming to 21.8% and 26.6%, respectively, of the amounts targetted in the Budget. This can be traced to swifter economic growth and rising inflation. However, it should be noted that, due to a cut in tax rates, the total receipts planned from corporate income tax this year are 2.2bn zloty less than last year. By contrast, slow progress was made in the period in question in collecting personal income tax. These tax revenues stood at 17.4% of the annual amount projected in the Budget, while twelve months previously the corresponding ratio had been much better, at 23.3%.

Central government expenditures over the first three months of the year totalled 37.9bn zloty, equivalent to 24.2% of the target for 2000. In analysing the composition of central government expenditures, it can be seen that the largest item are still subsidies and grants (60.5%), a spending item that functions as a social benefit boosting consumption. Performance of the subsidy to the Social Insurance Fund stood at 23.0% of the amount planned (compared to 39.1% a year previously), which may indicate that this Fund is in healthier condition this year. It should be stressed, however, that the sum which the Fund is to receive under this year's Budget is 68.5% higher than last year. What is alarming, on the other hand, is the large proportion already disbursed of the subsidy to the Employment Fund. During the first quarter, this Fund received 28.9% of the amount projected, while last year it did not draw on its central government subsidy at all until the end of March. Fixed spending items, connected with servicing the national debt, accounted for 12.3% of overall expenditures in the first quarter of the year. Although this spending represented a lower proportion of total expenditures than it had in the same period of 1999, disbursements were already far advanced in relation to the total annual amount budgeted, coming to 24.5%.

There were no difficulties in the first quarter in financing central government borrowing requirements. With these requirements lower than a year before, with the domestic Treasury market holding strong, as evidenced by the high demand for Treasury paper[25], and with additional funding provided by privatisation receipts and a Eurobond issue on international markets, central government was able not only to cover its ongoing spending needs, but also to bank the temporary "surplus" in funds. At the end of March, central government deposits on account at the NBP totalled 5.1bn zloty.

A positive development in the first quarter was the reduced role played by the banking sector in financing the borrowing requirements of central government. The primary lender to government remained the non-banking sector. During the first quarter, the outstanding debt of central government to domestic and foreign investors purchasing Treasury securities went up 6.9bn zloty, with 67.6% of this representing debt to domestic non-bank investors. Foreign investors chiefly placed their funds in long-term paper, a desirable circumstance in terms of economic stabilisation policies. In addition, central government funding needs were financed by receipts from the sale of privatised assets, totalling 3.3bn zloty, and a Eurobond issue, which yielded around 2bn zloty.

The fact that the financial performance of central government in the first quarter of 2000 was sounder than in the corresponding period of 1999 indicates that this component of the general government sector played a lesser role in generating domestic demand.

External disequilibrium and inflationary threats

The first quarter of 2000 witnessed a substantial deepening of the external disequilibrium of the Polish economy in relation to the same period of 1999. The current account deficit was 57% higher than a year

[25] During the first quarter, demand for Treasury securities (T-bonds and T-bills sold at tender) came to twice the volume of supply. Yields on these securities trended upwards over this period. Weighted average T-bill yields stood at 16.1% in January, and 17.5% at the end of March. Yields on zero-coupon T-bonds climbed from 15.3% in January to 17.2% in March.

previously (by comparison, the deterioration in the current balance seen in the first three months of 1999 was much less severe, at 12%). However, in comparing the first-quarter current deficit in 2000 with the deficit registered in the fourth quarter of 1999, a slight improvement can be identified, with the deficit narrowing 1.3%. It is estimated that, on an annualised basis, the current deficit represented 8.2% of GDP in the first quarter of 2000, as against 4.5% in the first quarter of 1999.

This current account performance is mainly attributable to marked growth in the deficit on merchandise trade. Whereas the trade deficit had fallen USD 0.4bn in the first quarter of 1999 compared to the same quarter of 1998, this year it rose USD 1.0bn relative to last year. Export receipts, as expressed in dollars, slipped 9.8% (compared to Q1 1999), while the equivalent import payments showed an increase of 3.4%. In comparison with the trade figures recorded in the fourth quarter of 1999, the first quarter of 2000 brought a decline in both exports and imports, of 7.5% and 8.8%, respectively.

Nevertheless, it should be clearly emphasised that reporting merchandise trade in dollar terms and on a balance of payments basis significantly understates first-quarter growth[26]. Information on physical movements of goods, disclosing the real trends present in foreign trade, is provided by the customs statistics compiled by GUS.

It is estimated that the strengthening of the US dollar resulted in export growth in the first quarter of 2000 being under-reported by some 7.2 points (compared to Q1 1999), while import growth was under-reported by 8.4 points. In value terms, this means that export receipts were around USD 0.5bn

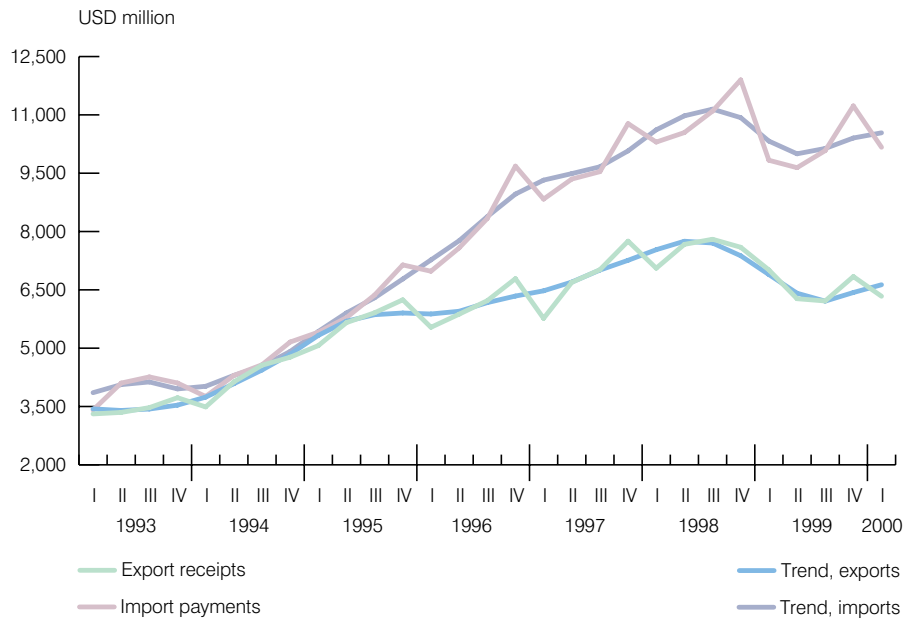
[26] Since 1999, a marked increase has been recorded in the proportion of Polish foreign trade settled in euros, as opposed to dollars, while at the same time this period has seen a major depreciation of the single currency against the dollar. Over the first quarter of 1998, the average proportion of monthly exports settled in dollars came to 45.6% (compared to a combined 33.9% for the euro and the currencies of the 11 EMU countries, and 20.5% for all other currencies). In Q1 1999, the dollar's share of Polish trade settlements had sunk to 33.4% (52.7% for the euro and the currencies of the 11 EMU countries, 13.9% for other currencies), and in Q1 2000 this stood at 36.6% (54.8% for the euro and the currencies of the 11 EMU countries, 8.6% for other currencies). With respect to imports, the proportion settled in dollars has been more stable, amounting to some 35% in the period under discussion, while the combined share of the euro and the currencies of the 11 EMU countries came to around 56%.

lower due to movements in currency cross-rates, with import payments some USD 0.8bn lower. When expressed in euros, however, exports rose 2.6% year-on-year in the first quarter of 2000, while imports went up 17.5%. In March, the trade figures as reported in euros soared, with export receipts up 11.5% on March 1999, and import payments up 26.4%. The first quarter of 2000 was the second quarter in succession to see foreign trade settlements trend upwards (cf. Fig. 37).

The clearly faster pace of both export and import growth is demonstrated by customs statistics. Over the first three months of the year, exports rose by the dollar equivalent of 9.2% year-on-year, with imports up 9.3%. The trade deficit amounted to USD 4.2bn (as against USD 3.9bn a year earlier). Strong growth in foreign trade is also confirmed by figures on the physical volume of trade, which show exports in the first two months of the year up 15.7% year-on-year, with imports rising 17.4%.

Data on the geographical pattern of visible trade indicate that growth was primarily driven by trade with Eastern markets. The volume of exports to the countries of Central and Eastern Europe in the first two months of 2000 was up 23.4% year-on-year, with the

Figure 37
Foreign trade, balance of payments basis



Source: NBP calculations.

volume of imports having increased 18.7%. By dollar value, exports to Russia rose 16.6% in the first three months of the year (compared to the corresponding period of 1999). Meanwhile, imports from Russia in the period January-March 2000 shot up 99.7% year-on-year, which was the result of a large rise in the value and amounts of oil imports, and also of imported commercial fertilisers.

In the first two months of the year, the volume of exports to the EU countries went up 15.1%, with imports from those countries rising 17.5%. In the first quarter as a whole, the fastest growth in imports, up 109.6% by value, was seen in the product category of fuels and mineral oils.

A rapid increase in purchases abroad of oil and refined petroleum products, both on Eastern markets and in the EU countries, led to a significant acceleration of import growth in this product category; imports in the sub-category "petroleum oils and oils obtained from bituminous minerals (crude)" leapt up 229%, while in another sub-category, "petroleum oils and oils obtained form bituminous minerals (other than crude)", they rose 56.2%.

In terms of trade in services and unclassified current transactions, the first quarter of 2000 brought a slower deterioration in performance (compared to Q1 1999). Net debits on services in this period came to USD 0.5bn, thus rising USD 0.1bn relative to the corresponding period of 1999. By comparison, the first quarter of 1999 had seen the negative balance on services grow USD 0.2bn on the same period of 1998. As regards unclassified current transactions, the surplus of revenues over payments amounted to USD 0.7bn in the first quarter of this year, representing a maintenance of the surplus registered twelve months before.

The acceleration of Polish export growth was encouraged by the upturn in the economies that constitute Poland's most important sales markets. Figures from the Russian office of statistics show Russian GDP going up around 7% in the first quarter of 2000[27]. In Germany, the clear quickening of economic growth (yielding Q1 GDP growth of 3.3% year-on-year) was accompanied by faster growth in imports. The volume of imports rose 11.9% year-on-year in the first quarter of

[27] *The Wall Street Journal*. April 25, 2000.

2000 (as against 7.9% in Q4 1999)[28]. The business climate in the euro area countries was looking up in the first quarter, indicating that the upturn begun in the second half of 1999 was being continued. The index of industrial confidence rose in the first quarter to 10 points, as against a negative 3 points in the first quarter of 1999[29].

Nominal effective euro exchange rates relative to the other currencies most important to the euro area were down 11% in the first quarter of 2000 compared to the first quarter of 1999[30].

By the end of the first quarter of 2000, real effective zloty exchange rates[31], adjusted by producer price growth in manufacturing, were up 1.8% relative to December 1999 (as against a 5% decline in the corresponding period of 1999). Real zloty exchange rates also rose as adjusted by consumer price growth, going up 6.7% in the period in question, compared to a 4.0% fall in those exchange rates a year previously. The changes that occurred in indices of real effective zloty exchange rates in the first quarter of the year signify a general deterioration in the competitiveness of the Polish economy (cf. Fig. 38). Against the US dollar, real zloty exchange rates (as compared to producer prices in manufacturing) rose 1.5% in the first quarter of 2000 (relative to March-December 1999), while against the euro they moved up 2% (cf. Fig. 39). The appreciation of the zloty against the euro was weakened by the steep acceleration of growth in manufacturers' producer prices in the euro area. The above factors, by cutting import costs, particularly as regards imports from the euro area, stimulated the increase in the volume of imports registered in the first quarter of 2000[32].

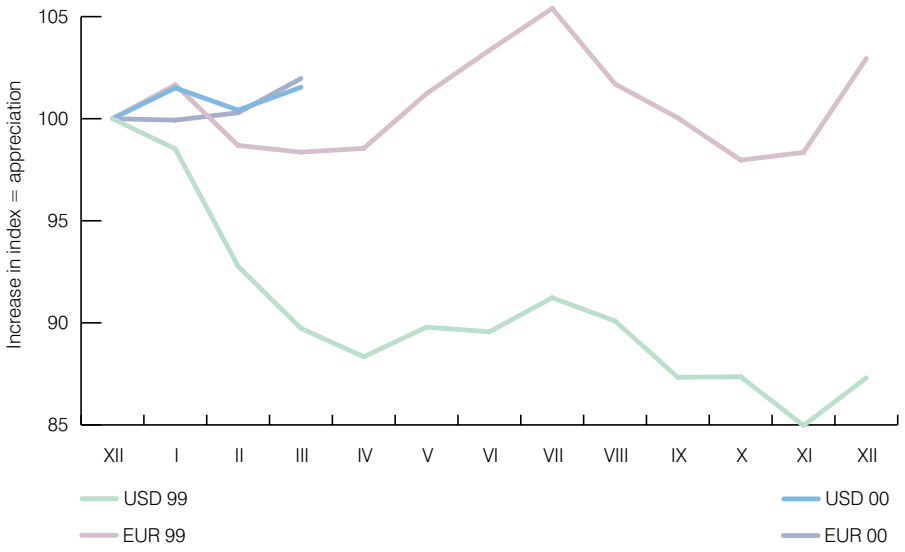
In the first quarter of the year, the net inflow of FDI financed 44.2% of the current deficit; by comparison, the same ratio in the corresponding period of 1999 came to 50.2%. However, the structure of foreign direct investment improved significantly. In the first quarter of 2000, virtually the entire net inflow involved contributions to equity. Thus, a major advance was made

[28] *Handelsblatt*, May 31, 2000, figures taken from German Office of Statistics.
[29] *ECB Monthly Bulletin*. April 2000.
[30] Ibid.
[31] Based on estimates of inflation rates abroad.
[32] NBP analyses based on quarterly data indicate that the exchange rate impacts imports very quickly, acting with a time lag of one quarter, while the time lag with respect to exports is much larger, at around three quarters.

Figure 38
Real effective zloty exchange rates

Source: NBP calculations.

Figure 39
Real zloty exchange rates against currencies of major trading partners



Source: NBP calculations.

Euro depreciation

The falling value of the euro against the US dollar that has persisted since the beginning of 1999 has had an adverse effect on the competitiveness of Polish exports and on the size of Poland's current account deficit. This negative effect is compounded by the fact that the euro is used to settle the majority of Poland's foreign trade. The most frequently quoted reasons for the weakening of the single currency have been the interest rate disparity between the euro area and the USA, and the better growth prospects of the US economy. For example, the differential between the Fed funds rate and the key refinancing rate of the European Central Bank fluctuated in the first quarter of 2000 in the region of 2.25-2.75 points. Further, the anticipated acceleration of GDP growth in the euro area to around 3% in 2000 and 2001 provides insufficient incentive to invest in the EU countries given the much faster growth of the US economy.

However, a proper interpretation of the progressive softening of the single currency would appear to be more complex. While the balance of foreign direct investment in the euro area worsened markedly in 1999 compared to 1998, the balance of portfolio investment, which includes investment in equities and debt securities, showed a significant improvement. Although both of these balances were negative, the major recovery seen in portfolio investment, together with the fact that an outflow of capital on both these items is inevitable in conditions of freely floating exchange rates and a current account surplus, means that there is no unequivocal basis for inferring that the exchange rate movements currently being observed are traceable to a deteriorating investment climate in the euro area. Neither is this hypothesis corroborated by balance of payments statistics for the first two months of 2000, which show a swelling inflow of direct investment to Euroland.

However, one factor that is incontestably exerting a negative influence on euro exchange rates is the constantly diminishing surplus on the current account. In 1999, this surplus was almost halved compared to 1998, while the year-to-date surplus at the end of February 2000 was also much worse. One reason for this is that the euro area countries are still suffering from the consequences of the Russian and Asian crises, which were then aggravated by the sharp rise in oil prices in 1999. The decline in the current surplus produces a lower supply of currency to the FX markets and an ensuing exchange rate adjustment via the depreciation of the euro. Nonetheless, the fall in real effective euro exchange rates, which amounted to 12% over the period from January 1999 to February 2000, can be expected to allow an improvement in euro area trade performance in the near future, thereby laying a sound basis for the strengthening of the single currency.

in funding the shortfall on the current account by means of the most stable component of long-term inward foreign investment; in the first quarter of 2000, 41.7% of the current deficit was financed by equity contributions, as against 25% in the first quarter of 1999.

Aggregate supply

Preliminary estimates carried out by the NBP put the increase in value added in the first quarter of the year at over 6%. In industry, value added rose over 10%, although it had been low a year before, while in construction value added went up around 4%. It is estimated that the growth in value added in commercial services was faster than in the preceding quarters.

Industrial sales were up 10.7% on the first quarter of 1999. This increase primarily came from much stronger manufacturing output (up 11%), particularly at companies principally manufacturing production supplies and capital equipment (up 19% and 14%, respectively), with low growth reported by companies manufacturing consumer goods (2%). In electricity, gas and water supply, production was up 12.2%, while output in mining and quarrying rose 3.2%. This growth in industrial output was achieved with a simultaneous 6.5% decline in employment, yielding an impressive rise in output per employee of some 18% compared to the first quarter of 1999.

Mixed performance was recorded in the sector of commercial services. Sales continued to grow very rapidly in communications (up 20%), and slowly in transport (up 2%). Sales volumes at retail and wholesale firms rose more slowly than twelve months before. At time of writing, full figures were not available on performance in the section of financial services and insurance, although the fragmentary information obtainable suggests that growth in value added in this section of activity was no lower than it had been in the second half of 1999. All in all, initial estimates are that the growth rate of value added in the sector of commercial services was slightly higher than recorded in the particular quarters of last year.

Output at construction firms employing more than nine people rose 4.3% year-on-year, with capital construction and modernisation works up 9.6% and repair and maintenance works down 10.7%. A relatively high proportion of the works performed entailed the construction of residential buildings and infrastructure projects involving technical or service facilities. Works on industrial or storage facilities represented only 11.5% of the total value of construction output.

Owing to the rapid growth in procurement of agricultural produce, it is believed that value added in agriculture, having fallen last year, rose again in the first quarter of 2000. Increased fatstock procurement was largely connected with the downsizing of pig herds; due to the low profitability of pig fattening and low stocks of farm fodder as a result of last year's poor harvest, farmers sold off pigs of low weight and sows which in other economic conditions would have been earmarked for breeding. As a result, the coming quarters could see a decline in livestock production. The adverse weather conditions for

farming that persisted in May could also lead to a decrease in crop production. In these circumstances, this year would be the second in succession to witness a reduction in value added in agriculture, which would necessitate lowering the relevant estimates for the first quarter of the year (in accordance with the quarterly accounting methodology applied, value added in agriculture is determined by proportionally assigning the annual level forecast to particular quarters of the year, using indices of proportional labour inputs).

Trends in industrial costs and prices[33]

The cost-push pressure on prices exerted by domestic producers depends on the following factors:

- the degree of openness of the economy,
- the share of Gross Domestic Product attributable to the sector producing tradables,
- the level of competitiveness on the markets for particular goods and services, in particular on the markets for non-tradables.

In terms of tradables, price levels and price growth are mainly contingent on price trends on world markets and on movements in exchange rates. The relationship on these markets between the growth in domestic producer costs and prices chiefly impacts profit margins, having a very limited effect on factory-gate prices.

Cost growth influences inflationary processes to a much greater extent in relation to non-tradable goods and services. Just how strong this influence is depends primarily on the level of competitiveness on the market for particular goods or services.

The National Bank of Poland does not possess data on cost growth, nor on price growth broken down by tradables and non-tradables. What it does possess, on the other hand, are data on industry, where the proportion of tradables produced is the highest. Within industry itself, however, the openness of the economy differs significantly (e.g., in mining compared to car manufacture). With the above considerations in mind, an analysis of industrial costs and prices is outlined below.

[33] The data presented here conform to the Polish Classification of Activity (PKD), which as of January 2000 replaced the previously applied Europan Classification of Activity (the NACE); as a result, the names of certain sections and divisions of activity have altered.

High production costs have for years constituted one of the most difficult problems facing most Polish companies, which is especially true in industry[34]. The impact of excessive costs is principally visible in the negative earnings reported by many businesses. This problem particularly intensifies at times when growth in sales volumes is curbed, since fixed unit costs then exert a more powerful influence on cost/output ratios.

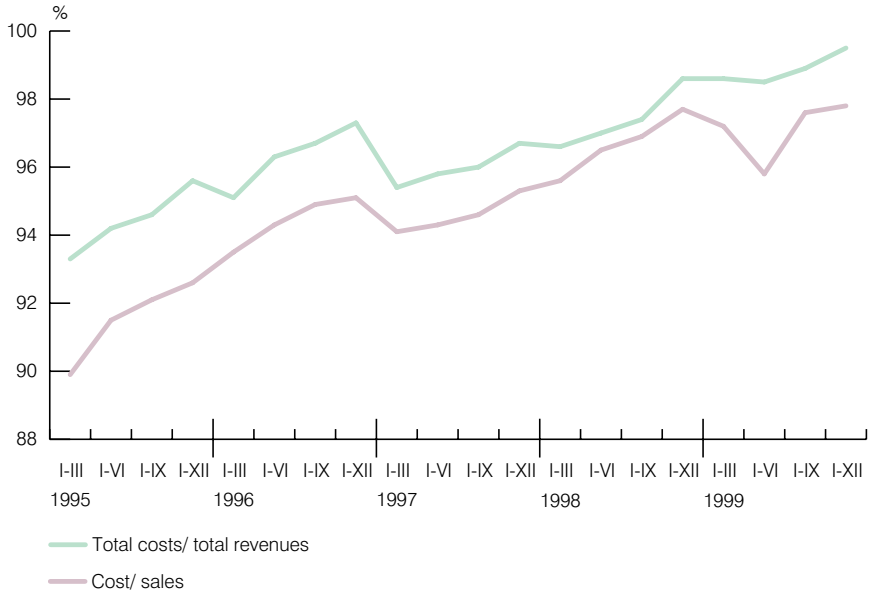
Both ratios of cost of goods sold/sales (the cost/sales ratio) and total costs/total revenues have been rising steadily in industry for some years[35]. In 1999, these ratios stood at very high levels, at 97.8% and 99.5%, respectively. In mining and quarrying, both were well above the critical value of 100%. Ratios of total costs/total revenues are substantially worse than cost/sales ratios (cf. Fig. 40). This leads to the conclusion that companies should be seeking economies not just in their production operations, but also in other areas of their activity.

Of the overall growth in industrial producer prices recorded in the first quarter of 2000 (107.9%), some 7% of this growth was caused by higher prices in the section of mining and quarrying, around 80% by higher prices in manufacturing, and some 13% by higher prices in electricity, gas and water supply[36]. In comparison to the first quarter of 1999, the contribution to the total Producer Price Index made by rising prices in electricity, gas and water supply fell by around 4.6 points.

As is traditionally the case, the largest impact on the PPI in the first quarter of 2000 was in general terms exerted by producer price growth in the section of industry (impact on the PPI by 79.8%). The more particular impact on the PPI was in the section of industry, especially in four specific divisions, namely: manufacture of coke, refined petroleum products and related products; manufacture of food products and beverages; electricity, gas, steam and hot water supply; and manufacture od chemical products. It is estimated that price growth in these four divisions accounted for as much as 71% of overall PPI growth in the first quarter of the year, whereas a year previously the corresponding ratio stood at some 49% (cf. Fig. 41).

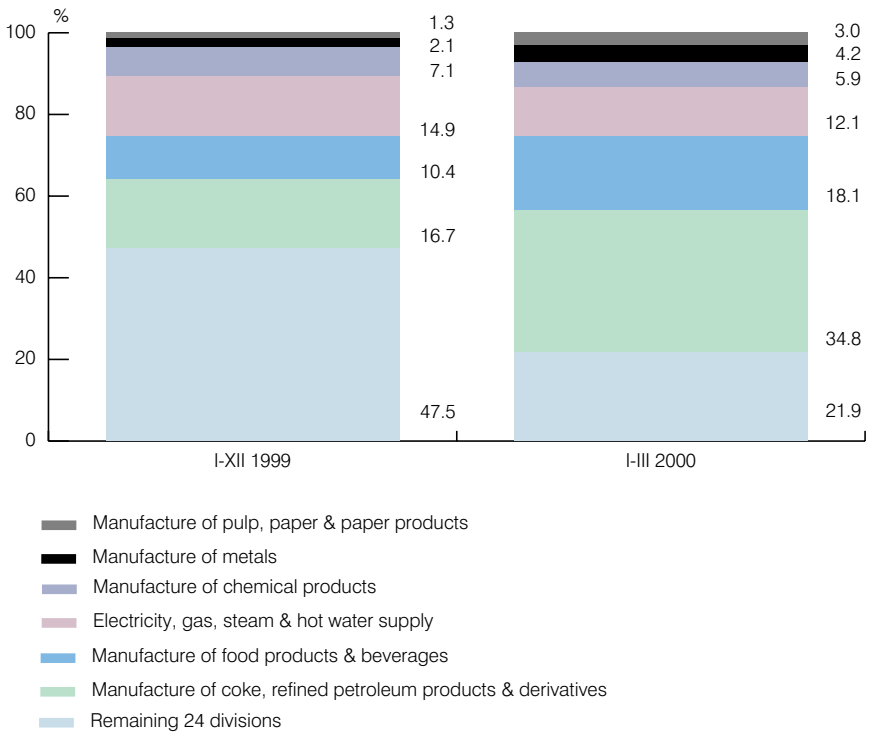
[34] Industrial companies account for around 66% of revenues from the sale of goods.
[35] The comments on corporate costs presented here are based on figures for companies that submit quarterly financial statements to GUS using the F-01 form.
[36] Estimates based on data concerning industrial producer price indices and structure of output in Q1 2000.

Figure 40
Cost factors, industry
(year-to-date, corresponding period previous year = 100)



Source: individual GUS figures; aggregation & calculations by NBP.

Figure 41
Contribution to PPI of producer prices in divisions of industry
(year-to-date, corresponding period previous year = 100)



Source: *Biuletyn Statystyczny* (Statistical Bulletin) nos. 4/2000 & 1/2000, GUS, Warsaw; calculations & estimations by NBP.

Prices in the division "manufacture of coke, refined petroleum products and related products" rose very steeply, going up 56.7% in the first quarter of 2000 compared to the same period of 1999. This caused the relative weight of this division within total producer price growth to move up to 34.8% in the first quarter of the year, as against 16.7% twelve months previously. In 1999, particularly towards the very end of the year, this division recorded an exceptionally sharp increase in unit cost/output ratios. The deflators for most cost categories were from a dozen to almost 40 points higher than the relevant producer price index. This particularly applied to the cost of material inputs and to taxes and official charges (these two cost items accounted for 50% and 36% of total production costs, respectively). It is worth noting that total cost growth in the division of manufacture of coke, refined petroleum products and related products was faster than price growth throughout the whole of 1999, which was especially apparent in the case of taxes and official charges (cf. Fig. 42). By contrast, growth in the cost of material inputs did not gather strong momentum until the second half of the year. It is estimated that over 58% of total cost growth in this division (after adjusting those costs to eliminate the influence of movements in output volumes) was generated by the increased cost of material input consumption, while some 31% came from taxes and official charges. Prices in this division were on the one hand conditioned by the prices dictated by the world market, and on the other by government fiscal policy. World prices affected producer prices in the division both through the price of crude oil used as feedstock, and through the price of imported finished products (petrol, petroleum oils and other refined petroleum products). Rising excise duty also left its mark on the division's producer prices.

Price growth in the division "manufacture of food products and beverages" accounted for 18.1% of PPI growth in the first quarter, an increase of over 7 points in relation to the year before. This was undoubtedly related to the acceleration of year-on-year price growth from 2.9% in 1999 to 7.6% in the first quarter of 2000. Production cost deflators in this division, particularly as regards external service costs and total labour costs, rose far faster than producer prices. Although energy costs were also marked by high deflators, their impact on total costs was muted due to their negligible share in production costs.

In the division "electricity, gas, steam and hot water supply", cost/output ratios were healthy in 1999 thanks to earlier measures regulating prices, traceable to the monopoly position held by energy producers (energy prices are only partially subject to government control). Thus, this division could afford to let producer price growth slow in the first quarter of 2000 in comparison to that registered in 1999. As a result, the contribution made by producer price growth in this division to total PPI growth came down almost 3 points, from 14.9% in 1999 to 12.1% in the first quarter of 2000.

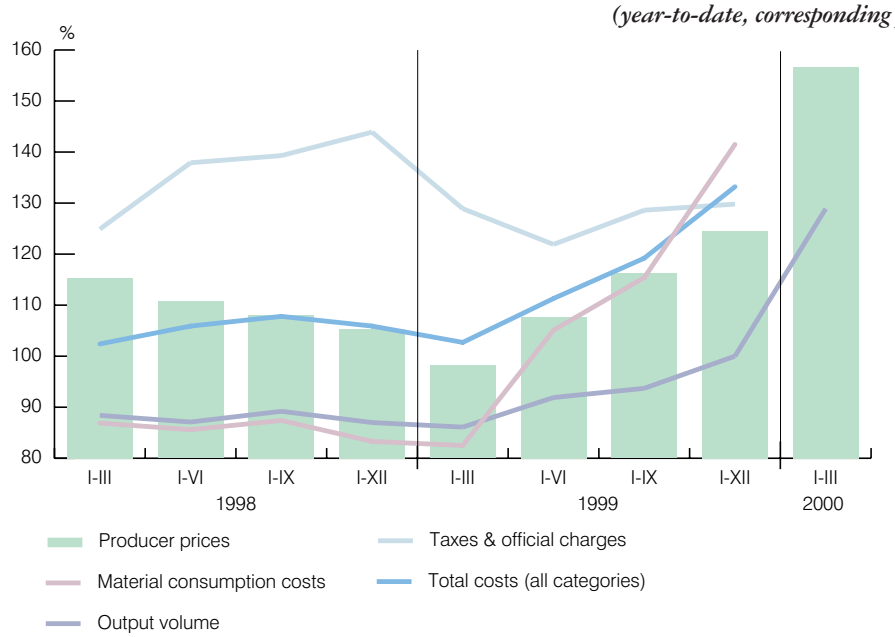
Price growth in the division "manufacture of chemical products" accounted for some 6% of overall PPI growth in the first quarter, which is less than in 1999. Producer price growth in this division in the first quarter was only slightly above that seen in 1999. The cost deflators in this division were generally lower in 1999 than producer price indices. The deflators for external service costs and depreciation charges were the only ones higher than producer price indices in the manufacture of chemical products.

The share of first-quarter PPI growth attributable to producer price growth in each of the remaining 24 divisions of industry was no greater than 2.7%. In most

Figure 42

Manufacture of coke, refined petroleum products & related products, selected figures

(year-to-date, corresponding period previous year = 100)



Source: individual GUS figures & *Biuletyn Statystyczny* (Statistical Bulletin) no. 4, GUS, May 2000; aggregation & calculations by NBP.

cases, the relevant share was fractionally above 1%. Analysing the costs incurred in these divisions is therefore of less significance, although cost/output ratios were high in most of them.

Labour market, unemployment and incomes

Employment and unemployment

The adverse trends observed on the labour market throughout 1999 subsequently persisted from the beginning of 2000. The monthly decline in average employment seen in the particular months of the first quarter proceeded at a rate similar to that seen in the corresponding periods of 1999. Over the first quarter as a whole, average employment in the corporate sector was down 3.6% year-on-year, while a year previously the decrease had come to only 0.2%. Nonetheless, a slight easing of the pace at which average employment was falling compared to the preceding periods and to the corresponding ones in 1999 may constitute a sign that the drop in employment may be becoming less acute. As is the case each year, increased demand for construction workers should become visible in the coming period, one of heightened construction activity, and there should also be a greater requirement for seasonal staff in the retail trade, catering and other services as the summer season approaches.

Compared to the first quarter of 1999, the first quarter of 2000 brought a fall in average employment in almost all divisions of industry, ranging from 1.6% in "manufacture of furniture and manufacturing not elsewhere classified" to 19.3% in "manufacture of metals".

Within the section of industry overall, average first-quarter employment was down 6.5% year-on-year (with employment in March down 6.3% year-on-year). Over this period, average employment also fell 3.7% in construction (in March the year-on-year decrease stood at 4%), which reflects the poor level of activity in this section, the worse for four years. Despite this decline in employment, the first quarter saw construction output rise 4.3% compared to the same period of 1999, mainly due to productivity gains (of over 8%). However, given that the seasonal peak for construction employment is in

the months from April to October, a gradual increase in employment here can be expected.

A constant rise in employment is being experienced solely in the service sector (with the exception of transport and storage). In the first quarter, employment was up 1.8% year-on-year in wholesale and retail trade and repairs, 1.1% in hotels and restaurants, and 9.7% in real estate and business activities. However, the rate of increase was markedly lower than in the corresponding period of 1999. Nevertheless, the further growth of the service sector does provide hope for curtailing unemployment, as was the case in the developed countries, particularly since the restructuring of old companies has been coupled with improved labour productivity, and a reduction in overstaffing is still to be expected in certain divisions of industry, with foodprocessing being one example.

The market mechanisms that are now operational on the Polish labour market, albeit to a limited extent, mean that employers have themselves been regulating their internal labour supply by reorganisation, changes in professional hierarchies, the promotion of particular occupations, and finally also by redundancies or provision for early retirement.

As employment sank in the first quarter of 2000, the number of jobless grew. At the end of March, the jobless total was 363,200 higher than a year previously. The largest monthly increase in the number out of work was in January, almost 128,000, with 50,400 in February and only 5,600 in March. At the end of March, the rate of unemployment stood at 13.9%, the same as in February, but 0.9 points higher than at year end 1999 and 1.9 points higher than a year before.

Of the total number of people deleted from the jobless register in the first quarter, over 50% (218,300) took up employment (a year previously the corresponding number had been 193,400, or 46.3%), despite the fact that over 7,000 less job vacancies were referred to employment offices.

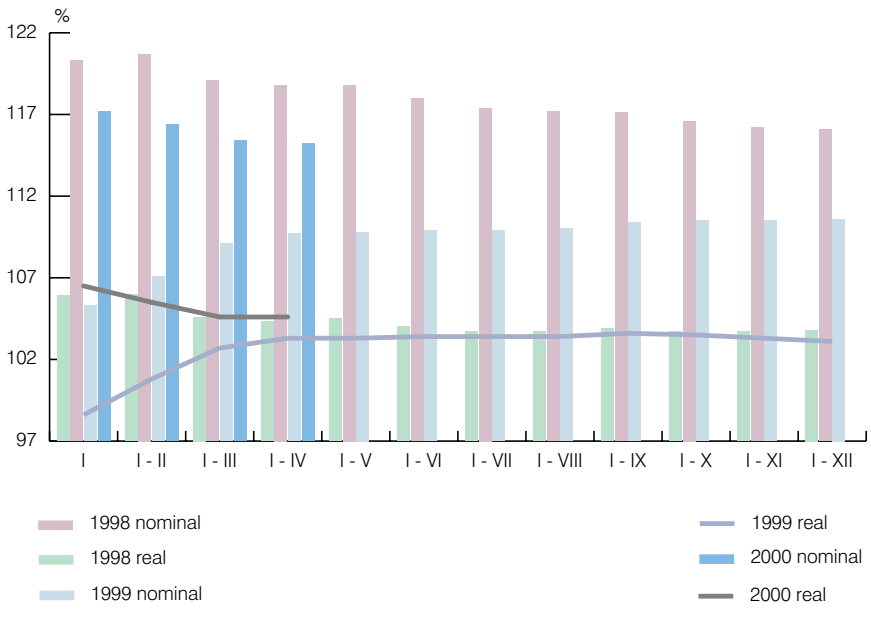
As was the case throughout 1999, only around 23% of the total number of unemployed were entitled to claim benefit in the particular months of the first quarter, although by the end of March the number eligible for benefit was already 278,000 greater than a year before. The vast majority of the remaining number of registered unemployed receive social assistance. This not only raises welfare

spending, but also creates a danger than certain social groups will become permanently marginalised (due to the lack of good education opportunities for their children). Above all, however, the very low income levels of some 2.5m job seekers (of which almost 2m do not even receive benefit) curtails consumption. Since unemployment in Poland is long-term in character (around 40% of all unemployed have been out of work for at least a year, or two years or more) this could in the long run cause output to be scaled down, and thus lead to further cuts in employment.

Employee earnings

Average monthly employee earnings in the corporate sector rose slightly faster in the particular months of the first quarter of 2000 than they had in 1999 (cf. Fig. 43), going up by an average of 4.6% over the quarter in real terms. However, given that in 1999 a large number of employers began grossing up wages in their statistical reports later than they should have, beginning to do so not only in January, but often in February, March or even April, this resulted in a lower reference base used to calculate indices of wage growth. For purposes of comparability, it therefore seems more appropriate to take

Figure 43
Growth in average real employee earnings (gross), corporate sector



Source: GUS.

the index of average corporate-sector employee earnings in March 2000 in relation to that in March 1999; this shows year-on-year growth in real wages of 3.1%.

The increase in average wages occurred in all sections of the corporate sector, primarily as a cost item expensed against earnings, since profit-sharing bonuses represented a mere 0.5% of total average employee earnings. The largest first-quarter growth, year-on-year, was seen in services (with the smallest increase in this sector reported in wholesale and retail trade and repairs), and also in construction. In terms of particular divisions, the strongest wage growth in the first quarter was in post and telecommunications, with wages up 9.6% in real terms. In March, year-on-year real wage growth here came to 13.4%. The lowest first-quarter growth was recorded in the section of industry (which accounts for almost 53% of total corporate-sector employment), where wages rose 3.2% in real terms.

At the same time, the first quarter of the year brought a large increase in labour productivity in industry (as measured by output per employee), which stood at 18.4% compared to the corresponding period of 1999. A substantial part in these productivity gains has been played by restructuring. The year 1999 had seen the closure of numerous old industrial enterprises marked by obsolete technologies and low productivity levels. An increasing number of the companies that have survived on the market now boast high productivity, having been restructured to reduce overstaffing.

The liquidation of unproductive enterprises and staff downsizing, coupled with technological and organisational change, have all contributed to the strong productivity gains being recorded in Polish industry.

The rise in consumer inflation expectations observable in the first quarter of 2000 may pose the danger of pressure being generated for wage growth. Whether this danger was in fact becoming a reality in the first quarter of 2000 is very difficult to judge due to the disarray in statistical data concerning year-on-year wage growth in this quarter as a result of last year's grossing up of employee earnings. Real wages in Poland appear to be every sensitive to the condition of the economy, with wage rises taking place at periods when economic growth accelerates. An analysis of the impact of movements in nominal wage levels on movements in prices indicates that in the short term changes in nominal wage levels have a major effect on changes in prices.

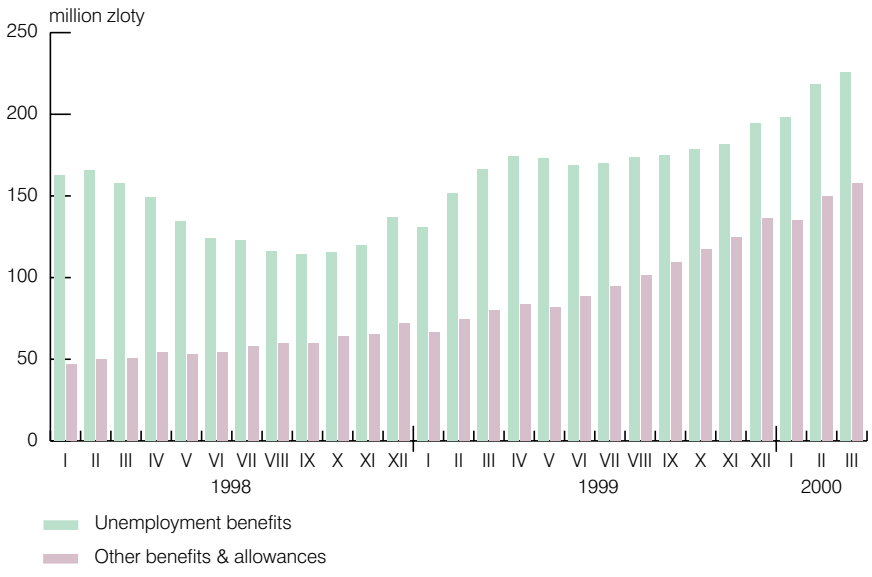
However, the wage growth recorded in March should be viewed in the context of the rapid increase in labour productivity in industry. The first quarter also saw a decline in employment, which meant that, despite wages rising, growth in incomes from employment in fact slowed. In addition, the financial difficulties faced by companies and the higher rate of unemployment relative to 1999 do not provide a favourable environment for successful wage claims.

Social benefits

In the first quarter of 2000, employee old age and disability pensions went up 0.1% in real terms compared to the first quarter of the previous year, while the purchasing power of farmers' pensions dropped 0.6%.

The first quarter of the year brought an increase of 43.1% (193m zloty) in sums paid out in unemployment benefit (with corresponding growth in social insurance contributions for persons registered as unemployed, paid from the Employment Fund and the Treasury), and an increase of over 100% (222m zloty) in other benefits and allowances, excluding pensions (with social insurance contributions for the recipients also being paid by the Treasury) (cf. Fig. 44).

Figure 44
Unemployment benefit and other benefits & allowances (excluding pensions)



Source: GUS.

Given that benefit payments have risen so much, and that their scope is increasingly broad, they are beginning to be ineffective as a flexible instrument for restructuring employment (as they were used in restructuring the armaments industry, metal manufacturing or Polish State Railways), and may reproduce mechanisms that reduce the labour force (in previous periods this involved early retirement) and cause people to withdraw from the labour market permanently.

* * *

Taking into consideration the trends visible in average employee earnings and social benefits in the first quarter of the year, and also the level of unemployment in Poland and the tendencies seen in the size of the employed labour force, the current situation on the labour market does not appear to have been acting as a source of inflationary pressure.

MONETARY POLICY IN THE FIRST QUARTER OF 2000 AND PERFORMANCE OF THE INFLATION TARGET

Performance of the monetary policy target

In January 2000, inflation in Poland reached 10.1%, thereby returning to double figures after an interval of almost one and a half years. This level of inflation had been forecast by the NBP in autumn 1999. At the same time, however, the deterioration in other measures of price growth, such as the Producer Price Index and underlying inflation, together with projections that inflation would continue to run high in the coming months, created a risk that inflation expectations would rise and that the monetary policy target, set at 5.4%-6.8% inflation in December 2000, would again be overshot. For these reasons, the Monetary Policy Council took the decision on February 23 to raise base interest rates by 100 bps. In addition, in order to curb the inflation expectations being awakened, the Council underlined its determination to work towards achievement of the monetary policy target and gave notice of the possibility of the monetary stance being tightened further were adverse inflationary tendencies to persist.

Monetary policy instruments

The information available in the first quarter of the year supported expectations that at year end December-on-December inflation would be in the region of the upper limit of the target range set for 2000. Due to the possibility of that inflation target being jeopardised, on February 23 the Monetary Policy Council resolved to raise NBP interest rates by one percentage point. The minimum reverse repo rate was increased from 16.5% to 17.5%, the lombard rate from 20.5% to 21.5%, and the rediscount rate from 19% to 20%.

An analysis of the development of inflationary processes had indicated the maintenance of the sharp price growth observable since August 1999. Twelve-

month consumer price growth had exceeded 10% in January, with industrial producer price growth also picking up speed. While inflationary pressure was at this time largely being fuelled by rising prices for commodities and foodstuffs, the increase in various measures of underlying inflation attested to supply impulses being transmitted to the prices of other categories of goods. Inflation expectations were also mounting.

The forecasts were for high inflation to persist in the first half of the year, although there was still a danger of inflationary processes being subject to the cumulative impact of higher indirect taxes and higher prices for fuels, energy and foodstuffs. The Monetary Policy Council concluded that this could cause a further rise in inflation expectations and endanger performance of the inflation target for 2000. On this basis, the Council decide to adopt a firmer monetary stance.

In line with the *Medium-Term Monetary Policy Strategy for the Years 1999-2003*, the lombard rate defines the overall direction of monetary policy, while the minimum reverse repo rate sets out the current direction. Raising not only the reverse repo rate, but the lombard rate as well, signified reinforcing the restrictive character of monetary policy. The markets had taken into account the possibility that interest rates might be raised, but the fact that the NBP once again took preemptive measures was not generally expected. The rise in market interest rates encouraged the maintenance of a strong zloty, thereby boosting the appeal of investing in zloty-denominated instruments despite the heightened risk ensuing from the increase in the current account deficit in proportion to GDP.

Meeting on March 29, the Monetary Policy Council issued instructions, in performance of the *Monetary Policy Guidelines for 2000*, for the sale of the National Bank's portfolio of Treasury securities, to a value of 16.4bn zloty, beginning in the third quarter of the year. This decision represents a continuation of moves to induce a shortage of operating liquidity within the banking industry. A situation of surplus liquidity weakens the impact of a rise in central bank interest rates on the pricing behaviour of the commercial banks, since these rates determine alternative investment yields rather than the cost of funds. On the other hand, when the banks are experiencing a shortage of operating liquidity, they have to factor in the possible

need to access funds at the price set by the central bank. Thus, measures to limit excess liquidity help increase the effectiveness of interest rate policy as a basic monetary policy instrument.

The timing of the commencement of Treasury bond sales by the NBP was intended to restrict any possible disruption to the financial markets. The National Bank expects that the level of surplus operating liquidity at the banks will decline substantially in the second half of 2000. In the third quarter, the supply of T-bonds to the primary market should also diminish, since it is anticipated that this period will see an increase in privatisation receipts and a seasonal improvement in central government finances. Further, by this time the Ministry of Finance should complete the conversion of outstanding health service debt into Treasury bonds. The decrease in supply resulting from the above factors should make this a convenient time for the NBP to sell the securities it obtained through the previous conversion of non-negotiable central government liabilities. Nevertheless, although the most favourable moment possible has been chosen to commence these sales, the very large sum involved may cause this operation to generate pressure on the market price for T-bonds. In order to lessen the uncertainty of market participants, the Monetary Policy Council decided to advise the financial markets in advance of the planned timing of the beginning of T-bond sales from the National Bank's portfolio.

PROSPECTS FOR INFLATION

In the autumn of 1999, in an environment of rising inflation, the Monetary Policy Council tightened its monetary stance. This monetary policy approach was continued in the first quarter of 2000.

The information currently available makes it possible to expect that December-on December inflation will this year be in the region of the upper boundary of the target range adopted for 2000, i.e., somewhere around 6.8%. The inflation factors susceptible to central bank influence do not at present appear to be creating a danger of inflationary pressure intensifying. However, the existence of a series of elements independent of the central bank that could affect price growth heightens the risk of the inflation target being overshot at the end of 2000.

The factors that could fuel inflation in 2000 primarily include the tendencies on the market for foodstuffs. Lower supplies of pork could mean that the seasonal decline in food prices this year will be smaller than a year ago. Adverse weather conditions may also push up grain prices, and thereby also the prices of grain products. An additional factor hindering achievement of the inflation target may be the adoption of legislation imposing 3% VAT on unprocessed foodstuffs.

Fuel prices could also have a negative effect on inflation this year. Contrary to earlier forecasts, world fuel prices have remained very high in the second quarter of 2000. Further, a certain stimulus to inflation may be provided by movements in zloty exchange rates. Any signs of political instability that call into question Government resolve to tighten fiscal policy could increase the risk of a nervous response on the currency market.

By contrast, monetary policy may act to reduce inflation. Any strengthening of the zloty due to the inflow of foreign currency in privatisation receipts would also represent a factor acting to hold down inflation. Given the possibility of supply shocks on the markets for foodstuffs and fuels, the Monetary Policy Council is determined to uphold its restrictive monetary stance in order to prevent any rise in inflation expectations and ensuing pressure for wage growth.