National Bank of Poland

Monetary Policy Council

INFLATION REPORT
Second quarter 2000

Warsaw, September 2000

Design:
Ryszard Piwowar
Piotr Chodorek
Ed Polinski

Layout and Print:
NBP Printshop

Published by:
National Bank of Poland
Office of the President
Promotion and Information Division
00-919 Warszawa, Świętokrzyska 11/21
Tel.: (48-22) 653 2335, Fax: (48-22) 653 1321

ISSN 1640 - 0755

CONTENTS

NBP

SUMMARY

In the second quarter of 2000, annualised consumer price growth continued to run at around 10%. The relatively high level of inflation recorded in the second quarter, despite monetary aggregates being held in check and the ebbing of domestic demand that has been visible since the last quarter of 1999, confirms that an extremely serious obstacle to lowering price growth in Poland is the existence of non-competitive market structures, which result in supply shocks (these recently chiefly comprised the rise in world oil prices) exerting a fairly powerful impact on overall price growth. Another important factor in the persistence of relatively high inflation in the second quarter was the growth in foodstuff prices caused by supply disruptions. This is reaffirmed by various measures of core (underlying) inflation.

Rising food and fuel prices, together with forecasts that agricultural output would decline due to adverse weather conditions, led to an increase in inflation expectations in the second quarter of the year, particularly among consumers. In addition, the shifts seen in the yield curve during the second quarter may indicate that financial institutions began to project that inflation and interest rates would come down later than previously anticipated.

The second quarter of 2000 brought relatively slow growth in monetary aggregates. A temporary development that upset this general trend was the increase in liabilities to persons and corporates associated with the rush to purchase shares in the PKN ORLEN - Polish Oil Corporation. At the same time, the tendency for zloty deposits at the banks to grow systematically was maintained, with a gradual decrease in loan demand from both corporates and persons.

The most significant event on the financial markets in the second quarter was the full float of the zloty carried out in April, which represented the culmination of a strategy of gradually moving to more flexible zloty exchange rates. After being floated, the zloty then weakened considerably, which is traceable to certain unforeseeable external developments, including the slump in the US NASDAQ, which prompted a withdrawal of foreign capital from Poland's securities market, and also the steep appreciation of the US dollar on world markets. However, a major deterioration in the current account deficit in March was followed by a long-awaited upswing in export figures in the second quarter (on a balance of payments basis), together with an increase in the surplus on unclassified current transactions. A definite trend took shape for the balance on the current account to improve. Further, market expectations of an inflow of foreign-currency privatisation proceeds encouraged the gradual stabilisation of zloty exchange rates in the latter half of the second quarter.

The improvement in the current balance stemmed from the tightening of monetary policy and probably also from better fiscal policy performance, at least as regards central government receipts and expenditures[1]. The success registered so far in reducing external disequilibrium has been made possible by the fact that, since the fourth quarter of 1999, growth in domestic demand has lagged behind that of GDP. The slowing of domestic demand growth, coupled with rising efficiency (large productivity gains in industry) and a favourable external environment, with Russia finally increasing imports, all contributed to the growth of exports. The pronounced downward trend in consumer and investment demand continued in the second quarter. This is being assisted by a slowdown in the growth of wages and social benefits, combined with declining employment and the maintenance of relatively high inflation. The tendency for personal borrowings to come down, in parallel with faster growth in bank

[1] Figures on the public sector financial deficit were unavailable when the present *Report* was being drawn up, making it impossible to draw any definitive conclusions on the fiscal policy implemented during the first half of the year.

Basic macroeconomic indicators

	Q1	Q2	Q3	Q4	1997	Q1
			1997			
GDP	6.4	7.5	6.7	6.4	**6.8**	6.4
Domestic demand	7.8	8.9	9.2	10.7	**9.2**	7.4
Total consumption	6.0	6.3	6.3	5.7	**6.1**	5.5
Personal consumption	6.7	7.1	7.0	6.6	**6.9**	6.4
Capital formation	18.6	20.3	20.6	22.3	**20.8**	17.4
Gross fixed investment	19.6	21.0	21.2	23.2	**21.7**	17.8
Savings ratio (%)	13.6	13.6	12.7	12.9	**13.2**	12.0
Financial savings ratio (%)	9.5	8.2	6.7	10.3	**8.6**	8.6
Unemployment (%)	12.6	11.6	10.6	10.3	**10.3**	10.4
Disposable incomes						
(corresponding period previous year = 100)	104.8	108.1	110.0	105.4	**107.1**	104.4

Basic monetary indicators

	Q1	Q2	Q3	Q4	1997	Q1
Consumer prices[1]	116.6	115.3	113.6	113.2	**113.2**	113.9
Industrial prices[1]	111.8	112.2	113.0	111.5	**111.5**	109.2
M0	125.5	124.9	135.4	123.7	**123.7**	117.6
M1	124.7	128.4	125.3	118.2	**118.2**	116.5
M2	128.0	129.8	131.6	129.1	**129.1**	127.4
Non-financial sector deposits	130.0	132.1	134.3	131.9	**131.9**	130.9
personal	129.1	131.5	134.1	136.3	**136.3**	134.0
corporate	132.6	133.6	134.7	122.1	**122.1**	122.8
Claims on non-financial sector	147.7	147.3	144.7	133.6	**133.6**	130.4
persons	200.3	189.6	174.5	156.2	**156.2**	145.3
corporates	141.4	141.4	140.1	129.7	**129.7**	127.9
M0	107.6	108.4	119.2	109.3	**109.3**	103.3
M1	106.9	111.4	110.3	104.4	**104.4**	102.3
M2	109.8	112.6	115.8	114.0	**114.0**	111.9
Non-financial sector deposits	111.5	114.6	118.2	116.5	**116.5**	114.9
persons	110.7	114.1	118.0	120.4	**120.4**	117.7
corporate	113.7	115.9	118.6	107.8	**107.8**	107.8
Claims on non-financial sector	126.7	127.7	127.4	118.0	**118.0**	114.5
persons	171.8	164.4	153.6	138.0	**138.0**	127.6
corporate	121.3	122.6	123.4	114.6	**114.6**	112.3
Reference rate (minimum reverse repo rate) (%)[2]						24.0
Rediscount rate (%)[2]	22.0	22.0	24.5	24.5	**24.5**	24.5
Lombard rate (%)[2]	25.0	25.0	27.0	27.0	**27.0**	27.0

[1] final month of quarter
[2] period end
Source: GUS (Central Statistical Office) figures, NBP figures.

Q2	Q3	Q4	1998	Q1	Q2	Q3	Q4	1999	Q1	Q2
1998				1999					2000	
real growth										
5.4	5.0	2.9	**4.8**	1.6	3.1	5.0	6.2	**4.1**	6.0	5.2
5.9	6.3	6.6	**6.5**	3.3	4.6	5.6	5.8	**4.9**	5.1	3.3
3.7	3.9	3.9	**4.1**	3.7	4.1	4.5	4.6	**4.2**	3.9	2.3
4.2	4.5	4.6	**4.7**	4.4	4.9	5.4	5.6	**5.0**	4.6	2.6
14.9	14.6	12.0	**13.8**	1.1	6.5	9.0	7.9	**6.8**	11.2	6.7
15.2	14.8	12.6	**14.2**	6.1	6.8	7.0	7.3	**6.9**	5.5	2.9
14.9	10.8	15.4	**13.3**	11.0	11.5	9.8	13.3	**11.4**	.	.
7.8	7.1	7.1	**7.7**	10.7	2.5	3.3	3.2	**4.9**	.	.
9.6	9.6	10.4	**10.4**	12.0	11.6	12.1	13.0	**13.0**	13.9	13.5
103.7	102.5	107.2	**104.5**	104.1	103.0	102.3	102.2	**102.8**	.	.
corresponding period previous year = 100										
112.2	110.6	108.6	**108.6**	106.2	106.5	108.0	109.8	**109.8**	110.3	110.2
107.7	106.4	104.8	**104.8**	104.7	105.2	106.2	108.1	**108.1**	107.3	108.8
nominal growth, period end										
(corresponding period previous year = 100)										
120.6	112.7	126.8	**126.8**	121.5	118.9	92.9	98.4	**98.4**	83.6	87.7
113.7	112.6	113.0	**113.0**	121.7	119.3	119.1	122.0	**122.0**	105.1	108.1
126.7	125.4	125.2	**125.2**	127.6	122.9	120.9	119.3	**119.3**	113.8	120.6
130.2	128.6	127.8	**127.8**	129.5	124.6	122.3	118.3	**118.3**	115.5	123.3
131.0	129.6	126.3	**126.3**	127.5	123.4	120.8	115.2	**115.2**	114.2	118.5
127.8	126.1	131.5	**131.5**	135.0	128.0	126.2	125.5	**125.5**	119.1	136.0
129.2	128.2	127.9	**127.9**	129.5	127.6	127.8	127.1	**127.1**	123.9	130.6
135.3	133.8	130.0	**130.0**	135.8	141.1	147.6	153.1	**153.1**	152.1	179.4
128.1	127.1	127.5	**127.5**	128.2	125.0	123.8	121.6	**121.6**	118.1	119.7
real growth, period end										
(corresponding period previous year = 100)										
107.5	101.9	116.7	**116.7**	114.4	111.6	86.0	89.7	**89.7**	76.0	79.6
101.4	101.8	104.0	**104.0**	114.6	112.0	110.3	111.1	**111.1**	95.3	98.1
112.9	113.4	115.2	**115.3**	120.2	115.4	111.9	108.7	**108.7**	103.2	109.4
116.0	116.3	117.6	**117.6**	121.9	117.0	113.2	107.7	**107.7**	104.7	111.9
116.8	117.2	116.3	**116.3**	120.0	115.8	111.9	104.9	**104.9**	103.5	107.5
113.9	114.0	121.0	**121.0**	127.1	120.2	116.9	114.3	**114.3**	108.0	123.4
115.1	115.9	117.8	**117.8**	121.9	119.8	118.3	115.7	**115.7**	112.3	118.5
120.6	121.0	119.7	**119.7**	127.9	132.5	136.6	139.4	**139.4**	137.9	162.8
114.1	114.9	117.4	**117.4**	120.8	117.3	114.6	110.8	**110.8**	107.1	108.6
21.5	18.0	15.5	**15.5**	13.0	13.0	14.0	16.5	**16.5**	17.5	17.5
23.5	21.5	18.3	**18.3**	15.5	15.5	15.5	19.0	**19.0**	20.0	20.0
26.0	24.0	20.0	**20.0**	17.0	17.0	17.0	20.5	**20.5**	21.5	21.5

deposits, could attest to an increased propensity to save. Slacker investment demand growth is the result of a reduced capacity to finance capital expenditure in the context of worsening sales opportunities on the domestic market, and until recently on foreign markets as well. However, a gradual revival of investment demand could be produced by the increasingly visible acceleration of export growth, which serves to boost industrial output in the face of domestic demand constraints, and also by stronger corporate earnings.

Given that price growth fluctuated around the 10% mark in the second quarter of 2000 as a result of fairly sharp supply shocks, the Monetary Policy Council maintained its tight monetary stance.

The present *Inflation Report* was developed on the basis of statistical data available up to the end of August 2000[2].

[2] Figures on Q2 GDP growth have been taken from a report by the Central Statistical Office (GUS) released on September 21, 2000.

Inflationary processes in the second quarter of 2000

Consumer prices

Annualised inflation held steady in the second quarter of 2000 at a level similar to that recorded in the first, i.e., at around 10%. During the quarter itself, consumer prices rose 1.8%, which is 0.1 points more than a year earlier. Over the first half of the year as a whole (from month end December 1999 to June 2000), consumer prices went up 5.5%, as against 4.8% in the first half of the previous year.

Factors contributing to the maintenance of high annualised inflation included the continuation of both food price growth, accelerating from one month to the next, and steep increases in fuel prices. The price rises in these two product categories alone accounted for around half of overall consumer price growth in the second quarter. In relative terms, the influence of these items was greater than in the previous quarter, when fuels and foodstuffs together contributed one third of all price growth. This illustrates the impact of supply shocks on current inflation.

The acceleration of consumer inflation in the second quarter of 2000 was most influenced by:

- the situation on the domestic market for agricultural produce, particularly by expectations that the supply of grain from this year's harvest would be even lower than projected due to the adverse weather conditions in the spring, and also the continuing decrease in the supply of meat;
- the global trend for the price of oil and refined fuels to rise due to disruptions in oil supplies, a trend which heavily impacted the domestic market and was exacerbated by the substantial monopolisation of the Polish fuel market;
- price increases in other product and service categories that are subject to administrative intervention.

The effects of price growth in the basic categories of goods and services, together with their impact on inflation in the first and second quarters of 2000, are shown in Table 1.

The large dislocations on the market for agricultural produce, in the context of policy measures to protect the domestic agricultural market, have elicit-

Table 1
Price growth, basic categories of goods and services

	2000			
	Quarterly price growth, %		Contribution to CPI growth, p.p.	
	Q2	1st half-year	Q2	1st half-year
CPI	**101.8**	**105.5**	**1.8**	**5.5**
Officially controlled prices	102.5	108.2	0.6	2.0
of which: fuels	111.5	119.5	0.3	0.5
Foodstuffs & non-alcoholic beverages	101.7	105.3	0.5	1.6
Non-food articles,				
excluding officially controlled prices	100.9	102.7	0.3	0.7
Services, excluding officially controlled prices	102.4	107.5	0.4	1.2

Source: NBP calculations based on GUS figures.

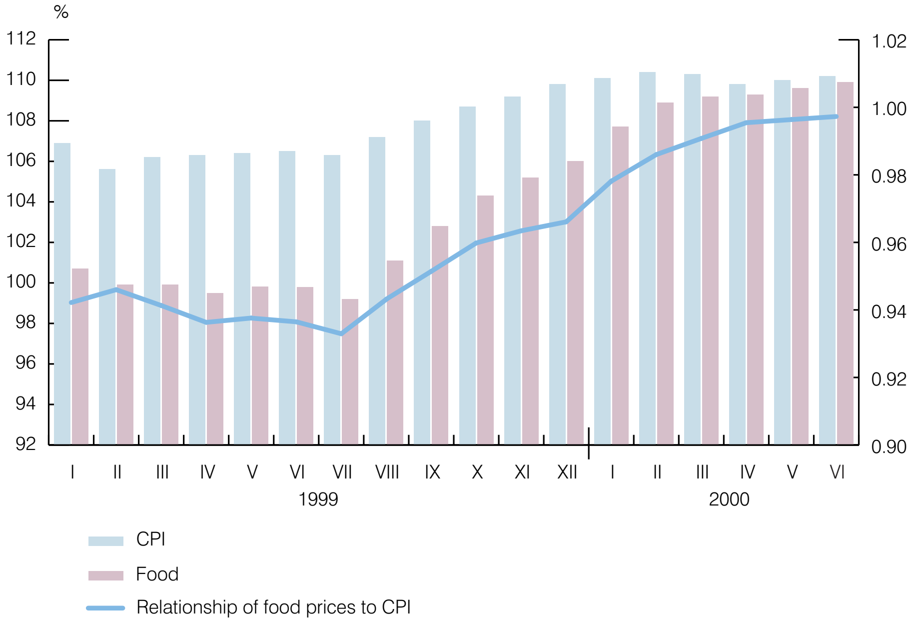
ed a strong price response. The relatively rigid household demand for foodstuffs means that fluctuations in the physical volume of food supplies exert a powerful influence on prices which can only be reduced by substitute products to a minor degree. Thus, monetary policy can affect this area of inflation solely to a small extent.

Prices of foodstuffs and non-alcoholic beverages rose 1.7% in the second quarter of 2000, i.e., slightly less than overall inflation (1.8%), contributing an estimated 0.5 points to overall price growth in this period. In the corresponding period of 1999, prices of foodstuffs and non-alcoholic beverages went up 0.5%, which represented just 0.1 points of consumer inflation. In the second quarter of 2000, the increase in this category of prices constituted the end result of disparate price movements in the main classes of foodstuff. Reduced supplies of grain products caused an increase in the price of bakery and grain products (up 9%). At the same time, dwindling livestock herds continued to push up the price of unprocessed meat and poultry (up around 6%), while last year's poor harvest lay behind the steep rise in the price of root vegetables and potatoes, with price growth here ranging from 23%-52%. By contrast, there was a sharp fall in the price of spring vegetables (lettuce, tomatoes and cucumbers), which dropped 41%-73%. Compared to previous years, the seasonal decrease in the latter prices came almost a month earlier, which to some extent cushioned the effects of strong price growth in the other classes of foodstuff.

Prices for the overwhelming majority of agricultural produce, particularly grain, were considerably higher in the second quarter of 2000 than they had been a year earlier. This caused annualised food price growth to come closer to the level of the total CPI (cf. Fig. 1). Experts in agricultural economics believe this represents the result of a deliberate, highly protectionist policy towards agriculture being pursued by the Government, which has recently had the effect of raising procurement prices on the domestic market above those on world markets. The strong protection being afforded to the domestic market represents one of the factors behind food price growth, and thus also behind the changing relationship between food prices and the CPI.

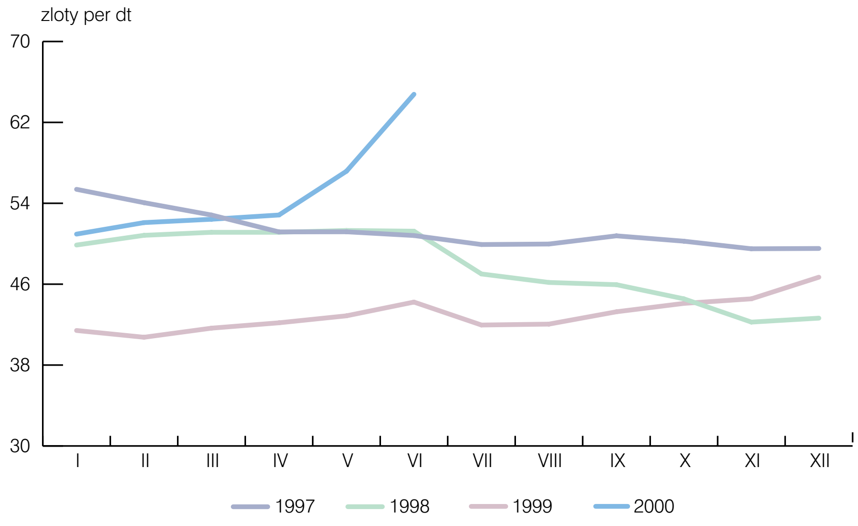
At the end of the second quarter, wheat procurement prices had risen 24% on the end of the first quarter, with growth also higher than in the second quarter of 1999 (up 17 points). A similar tendency was seen for rye procurement prices, which went up some 10% during the second quarter. This price growth was rooted in pessimistic forecasts regarding the size of this year's harvest as a result of ground frost and an extended drought. Having gone up moderately in the period from January

Figure 1
Food price indices vs consumer price index
(corresponding month previous year = 100)



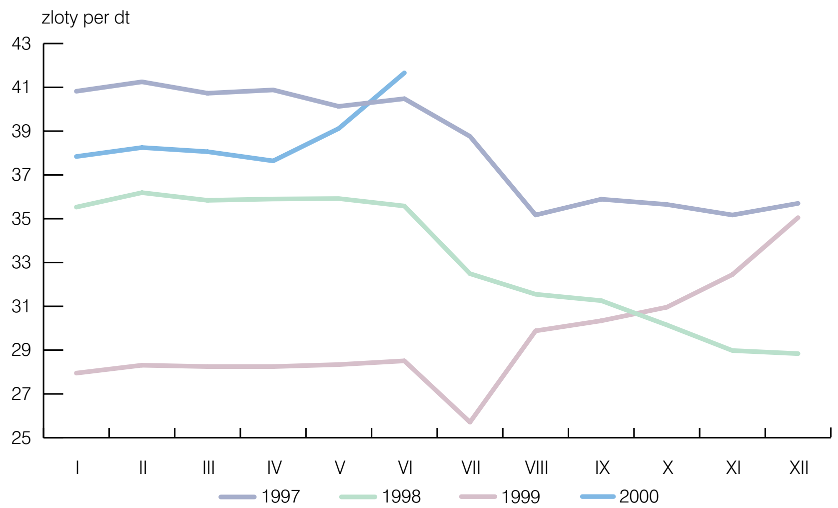
Source: NBP calculations based on GUS figures.

Figure 2
Average wheat procurement prices



Source: GUS.

Figure 3
Average rye procurement prices

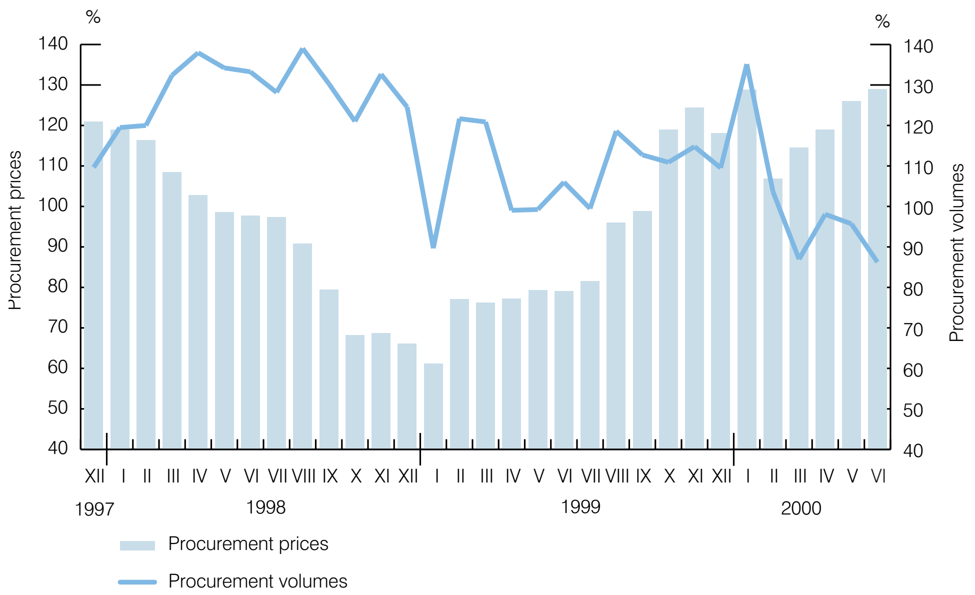


Source: GUS.

to April, grain procurement prices began to soar in May. Neither the intervention undertaken by the Agricultural Market Agency through sales of rye and wheat on the domestic market to boost supply, nor the introduction in June of a duty-free quota on grain imports of 200,000 tonnes, subsequently increased by an additional 1 million tonnes in August, have as yet managed to arrest the tendency for grain price growth to gather speed. In terms of the whole 1999/2000 season on the grain market, one marked from the very beginning by surplus demand relative to supply, the scale of official intervention has so far proven too small to offset the shortfall in supply (around 4m tonnes) and too late to prevent the rapid growth in the price of grain products. Movements in average grain procurement prices are presented in Figures 2 and 3.

The rising prices of grain and potatoes had the effect of keeping the ratio of procurement prices for fat pigs to that of prices for assorted feedstuffs at a very low level (6.9-7.6 in Q2 2000, as against 8.7-8.8 a year earlier). This then yielded a systematic increase in retail meat prices; as feed prices, particularly grain prices, continue to rise, the profitability of pig breeding will

Figure 4
Average procurement prices and volumes, fat pigs (growth rates)
(corresponding period previous year = 100)



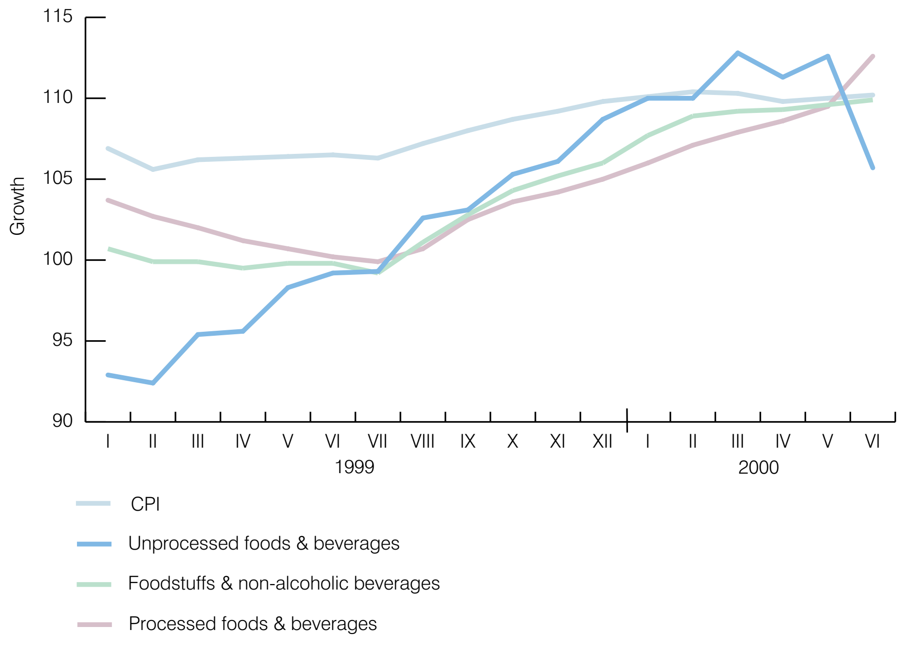
Source: NBP calculations based on GUS figures.

decline further, which will then result in a further reduction in the pig herd and increase in procurement prices. The growth in average procurement prices for fat pigs, and in the average volume of procurement, is illustrated in Figure 4. At the same time, demand for other kinds of meat rose, leading to greater procurement of cattle and poultry. Procurement prices for fat cattle went up around 2% in the second quarter of 2000, whereas in the same quarter of 1999 these prices had gone down 4.5%.

An analysis of annualised food price indices shows that, from July 1999 to May 2000, the price of unprocessed foods rose faster than that of processed foods. This trend was not reversed until June 2000. At this point, large increases in the price of grain and flour products caused the growth in processed food prices to speed up sharply, as can be seen in Figure 5.

Movements in officially controlled prices are to a certain extent a reflection of economic adjustment processes, whereby government intervention acts to modify the pattern and growth rates of certain groups of consumer

Figure 5
CPI vs prices for foodstuffs & non-alcoholic beverages (overall, processed & unprocessed)
(corresponding month previous year = 100)



Source: NBP calculations based on GUS figures.

prices. For this reason, the prices involved here are also not fully subject to market mechanisms, and the impact of monetary policy is thus again limited. In the second quarter of 2000, **officially controlled prices** were the second most important factor in overall price growth, although these prices rose more slowly than in the first quarter. Second-quarter growth in officially controlled prices came to 2.5% (these prices include those which are influenced by various forms of administrative intervention, such as excise duty, tariffs, prices that are uniform nationally, etc.).

The increase in officially controlled prices in the second quarter is estimated to have accounted for 0.6 points of inflation. The prices that climbed most steeply in this period were those for fuels (up over 11%), electricity (up 9%) and mains gas (up 6%). Prices of alcoholic beverages and tobacco products rose 1.2% in the second quarter, which added 0.1 points to total price growth. A year before, the increase in these prices had been greater, at 1.9%.

The dominant role within officially controlled prices continues to be played by fuel prices. This confirms the major influence which fuel prices have been exerting on overall inflation. During the second quarter of 2000, goods and services within the category of officially controlled prices were responsible for 0.6 points of consumer price growth, with fuel price increases contributing half of this, i.e., 0.3 points. This group of prices, controlled via the rate of excise duty, maintained the growth in the second quarter which it had begun last year. Figures published by GUS show domestic retail fuel prices continuing to rise in the second quarter, with the rate of increase speeding up to 11.5%, compared to around 7% in both the first quarter and the fourth quarter of 1999. While April saw prices come down relative to March, subsequent months soon demonstrated that this did not spell any lasting change in the underlying trend. The end result was that by June fuel prices were up 19.5% on December 1999. This means that these prices are still rising at a pace similar to that witnessed a year ago. Annualised fuel price growth has been far ahead of the CPI this year, standing at 50.7% in June. Nevertheless, annualised growth in June was 7 points less than at the end of the first quarter, representing the first quarterly decline recorded since February 1999 (cf. Fig. 6).

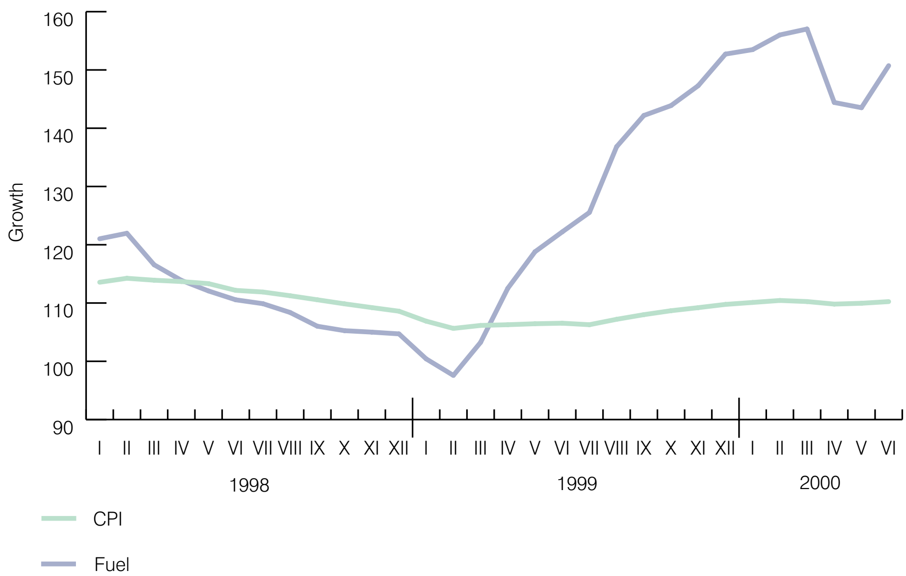
During the second quarter of 2000, refineries raised their factory-gate prices six times due to rising world prices for the chief fuels. Compared to December 1999, prices for Premium petrol rose 57%. As in the first quarter, the increase in Premium petrol prices outstripped that of oil prices. By the end of June, the difference involved came to 40 points.

No increases in excise duty were carried out in the second quarter. The next rise is scheduled for September and may well provide yet another impulse to fuel price growth. On the other hand, oil and fuel prices have reached such a high level on world markets that an adjustment to the previous trend can probably be expected, with prices displaying a certain stability.

Electricity prices moved up gradually in the second quarter, as opposed to the sudden leaps seen in previous years, which is attributable to electricity price rises now being staggered out over time.

Monetary policy instruments are capable of affecting inflation in those areas where prices are determined by market mechanisms. One of the foremost areas of this sort are *prices for non-food articles and commercial services*. During the second quarter, prices in this area exhibited

Figure 6
CPI vs fuel prices, 1998 - 2000
(corresponding period previuous year = 100)



Source: GUS.

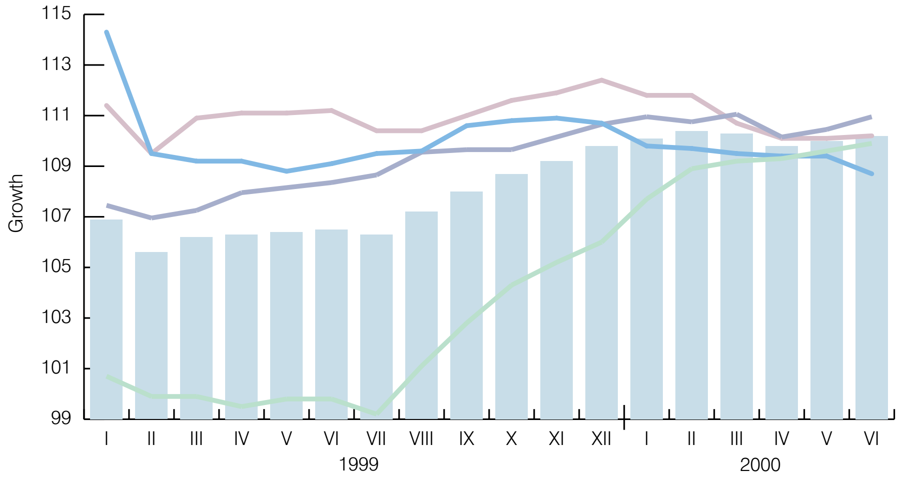
a relatively weaker growth trend compared to the other categories outlined above (foodstuffs and officially controlled prices, including fuels). The total increase in prices for non-food articles and commercial services contributed roughly one third of consumer inflation in the first two quarters of this year. Average price growth for these goods and services, considered typical examples of those governed by market forces, came to 1.3% in the second quarter, which was below the overall rate of inflation (1.8%). A similar situation was observed in the first quarter, when these prices went up 1.8%, as against overall inflation of 3.6%.

Within this general category of prices, it is possible to distinguish the price movements characteristic of commercial services on the one hand, and non-food articles on the other.

Commercial service prices (i.e., excluding services subject to official price controls) rose faster than overall inflation in the second quarter. This may indicate the workings of adjustment processes within market prices for services in the Polish economy (the Samuelson-Balassy effect), and may also reflect the impact of fuel price growth on consumer service prices (as an indirect contributing effect). Second-quarter price growth for commercial services stood at 2.4%, accounting for 0.4 points of inflation. In the corresponding period of 1999, the increase in service prices (excluding officially controlled ones) was 0.8 points greater than this year. Those commercially-determined service prices that showed the sharpest growth in the period in question were prices for domestic package tours (up 7.0%) and foreign ones (up 7.8%), first-time housing occupancy charges (up 4.0%), cable TV charges (2.8%), prices at cafes and bars (up 2.5%), and restaurant prices (up 2.2%).

Prices of non-food articles (excluding officially controlled prices) moved up more slowly than inflation in the second quarter of 2000. These prices rose 0.9%, adding 0.3 points to overall consumer price growth. A year previously, the rise in prices of non-food articles (excluding officially controlled prices) had been identical. The period under review saw the largest price increases for durable leisure equipment (up 18%), ladies' footwear (up around 3%) and for cosmetics and perfumes (up 2%). The second quarter also brought a decrease in some prices. The price of hard coal and coke edged down. Certain durables were also cheaper than in the first quar-

Figure 7
Consumer price growth
(corresponding period previous year = 100)



Source: GUS.

ter, including radio and TV equipment and telecommunications equipment, which may represent a response to reduced demand for some consumer goods.

Consumer price growth at the end of June 2000 stood at an annualised 10.2%, compared to 6.5% twelve months previously. The steepest increases were in the

Table 2
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
Q2 2000	1.8	1.7	1.2	2.0	1.9

Source: GUS.

price of non-food articles excluding tobacco products (up 10.9%), and services (up 10.2%). Prices of foodstuffs and non-alcoholic beverages were 9.9% higher than in June 1999, while those of alcoholic beverages and tobacco products had risen 8.7% (cf. Fig. 7).

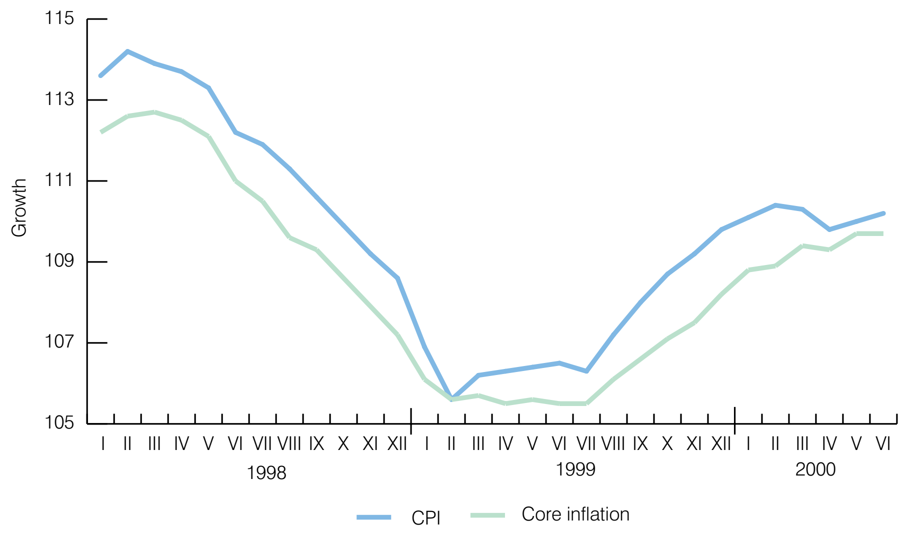
In analysing consumer price movements in the second quarter of 2000 relative to those recorded in the preceding quarters, price growth can be seen to have accelerated sharply compared to the second quarter of 1999 in foodstuffs and non-alcoholic beverages, and also in non-food articles, while slowing in the remaining categories of consumer goods and services (cf. Table 2).

Core inflation

Most measures of core (underlying) inflation confirm that the second quarter of 2000 brought a continuation of the previous trend in price growth.

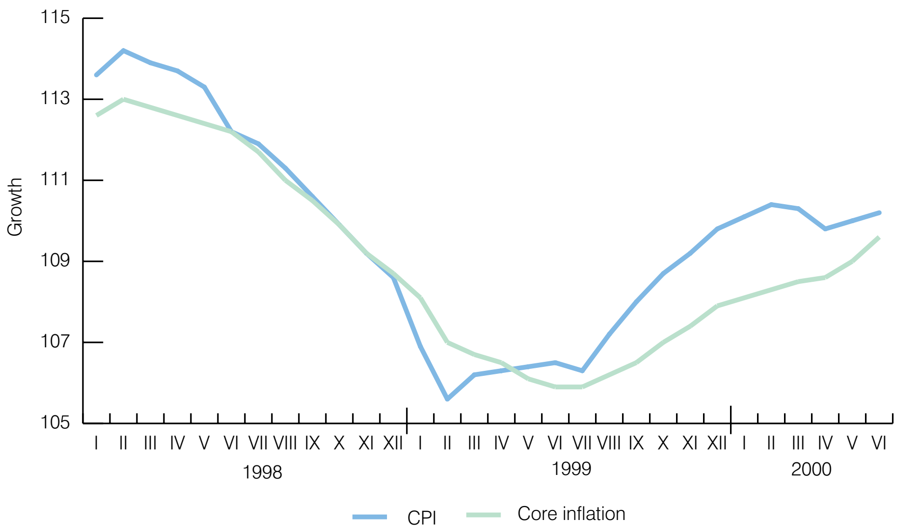
As Figure 8 indicates, in the course of the second quarter the rate of core inflation obtained by excluding from the CPI officially controlled prices (those in significant part made up of indirect taxes, those set by local authorities, and those subject to official tariff approval),

Figure 8
CPI vs core inflation, excluding officially controlled prices
(corresponding month previous year = 100)



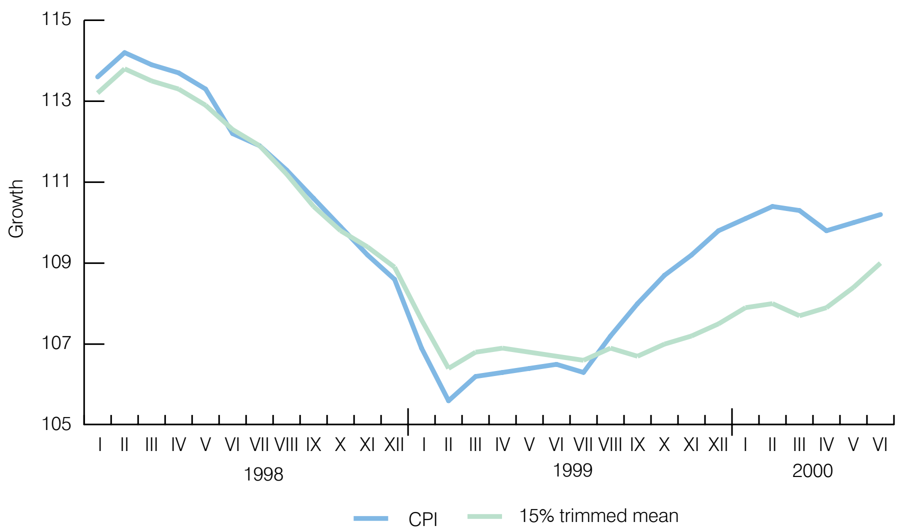
Source: NBP calculations based on GUS figures.

Figure 9
CPI vs core inflation, excluding most volatile prices
(corresponding month previous year = 100)



Source: NBP calculations based on GUS figures.

Figure 10
CPI vs 15% trimmed mean *(corresponding month previous year = 100)*



Source: NBP calculations based on GUS figures.

moved much closer to the overall level of consumer price growth. As is the case with the CPI, this measure of core inflation has been trending upwards without interruption since August 1999. What singles out this particular measure of core inflation from the others is that it is the only one which since the beginning of 1998 has held below headline inflation, coming to 9.7% at mid-2000. This demonstrates the pro-inflationary character of the items excluded from this measure, which include tobacco products, phone rental, and above all fuels and transport services (the latter are directly related to fuel prices); prices for these items went up greatly compared to the first half of 1999.

Over the first six months of the year, a very steep upward trend was recorded in core inflation as adjusted to exclude from the CPI those prices that exhibit the highest volatility, these primarily comprising prices of fruit and vegetables and of certain services (such as housing occupancy charges, electricity and hot water charges, telephone call and rental charges, and radio and TV licence fees), and also fuels[3]. This measure of core inflation has been below the annualised CPI since April 1999, and at the end of June stood at 9.6%. This attests to the fact that the most highly volatile prices have been feeding overall consumer inflation, with a particular role being played here by fuel prices, which were much higher at mid-year than in June 1999.

The measure of core inflation adjusted for the outlying 15% of exceptionally high or low consumer price movements (a "15% trimmed mean"), which excludes those consumer prices subject to the greatest change relative to the preceding period (these include housing occupancy and central heating charges, fuel prices, domestic telephone charges, charges for cold water supply together with sewerage services, and others), began to display an increasingly pronounced upward tendency in the second quarter, bringing it close to the overall CPI. Over the last six months, both of these measures of

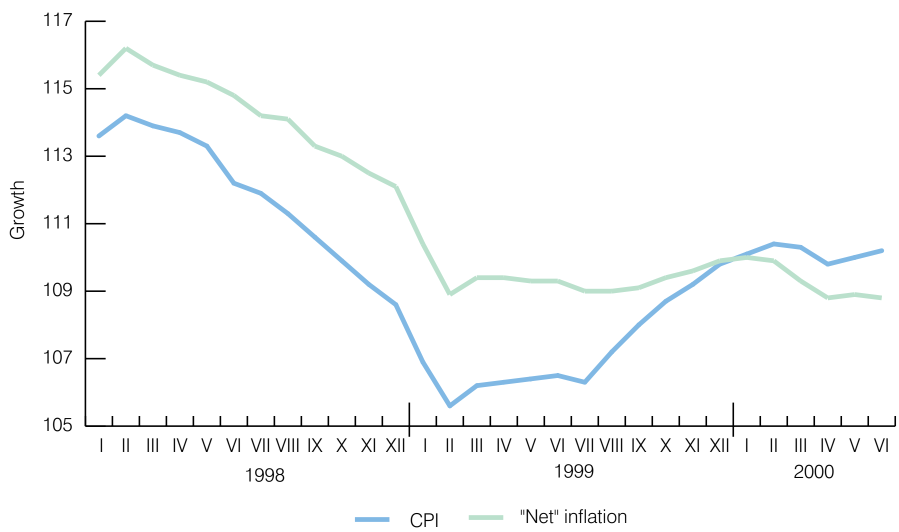
[3] The calculation of this measure of core inflation – as adjusted to exclude the most highly volatile prices – has been modified. As of June 2000, this measure also excludes fuel prices, which have been subject to very strong growth. The new measure displays material differences from the previous one, especially with regard to the period from March 1999 to the end of the period under examination, running below the CPI throughout this time, whereas the previous measure rose very steeply, and in May and June 2000 was above overall price growth. This testifies to the genuinely significant impact of fuel prices; excluding these prices curbed the increase in this rate of core inflation.

inflation have been moving in parallel, although the CPI was running at a much higher level than core inflation as obtained using the 15% trimmed mean (in June, the latter came to 9.0%). This indicates that the prices excluded from this measure have a fairly large impact on headline inflation, pushing it upwards. As regards these prices, mention might be made of those which particularly fanned consumer price growth in the first half of the year: charges for housing occupancy and cold water supply, and prices for poultry, bakery products, fruit and vegetables, fuels and transport services, and also sugar.

The newest measure of core inflation, termed "net" inflation, excludes from the CPI foodstuffs and non-alcoholic beverages, and fuels, the prime factors recently unsettling prices. This measure makes it possible to assess movements in the remaining consumer prices after eliminating those prices affected by serious supply shocks, which have clouded the real picture of inflation trends.

This new measure of inflation, adjusted to exclude food and fuel prices, is presented in Figure 11. As this chart shows, "net" inflation ran above the CPI up until December 1999, yet this trend was reversed at the beginning of this year. In thus identifying the consequences of supply shocks and their impact on headline inflation, it

Figure 11
CPI vs "net" inflation, excluding food and fuel prices
(corresponding month previous year = 100)



Source: NBP calculations based on GUS figures.

can be seen that at the turn of the year the upward trend in "net" inflation was halted, and as of April this rate of inflation has remained stable. It can therefore be surmised, on the basis of this new measure of inflation, that a reversal in the overall upward trend in the CPI would have been possible, were it not for the disruptions that took place on the markets for foodstuffs and fuels.

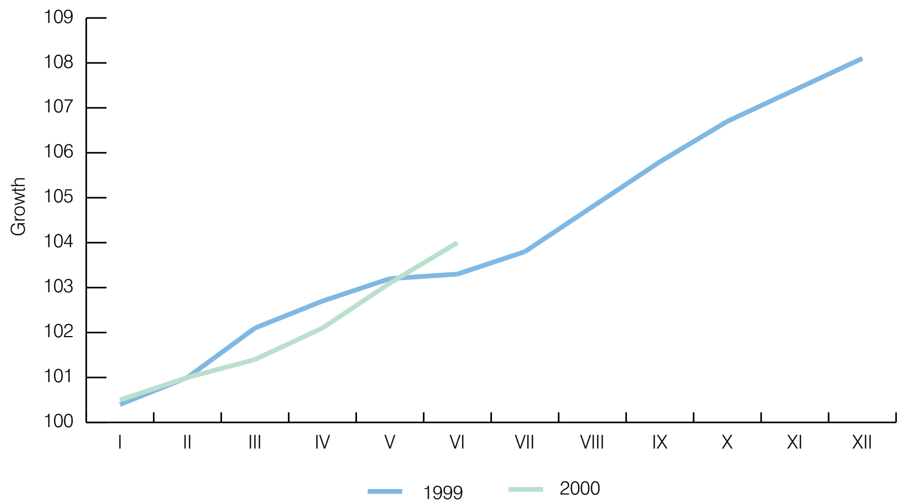
Producer prices in industry and construction

In June 2000, the industrial producer price index was 8.8% higher than it had been in the corresponding period of the previous year (in June 1999, year-on-year growth had been 5.2%). This increase represented the combined effect of price rises of 11.3% in mining and quarrying (as against 4.6% in June 1999), and 8.8% in manufacturing (as against 4.4%), with price growth in electricity, gas and water supply coming down to 7.7% from 10.9% a year earlier.

Year-to-date industrial producer price growth[4] came to 4.0% in June 2000, compared to 3.3% twelve

[4] Unless otherwise stated, December previous year = 100.

Figure 12
Industrial producer prices, overall indices
(December previous year = 100)



Source: GUS.

months before (cf. Fig. 12). The differential between the growth of consumer prices and that of industrial producer prices stood at 1.5 points, as it had twelve months previously.

The larger increase in industrial producer prices than that recorded in 1999 is traceable to price growth in the section of mining and quarrying going up 2.3 points to 3.9%, and in manufacturing rising 1.2 points to 3.7%. In the section of electricity, gas and water supply producer price growth came down 3.1 points compared to last year, to stand at 7.1%. Given that, by value, manufacturing output accounted for the vast majority of total industrial output in 1999 (84.3%), the fact that price growth in this section was higher than a year previously had the largest impact on overall producer price growth within industry. The changes involved are charted in Figures 13, 14 and 15.

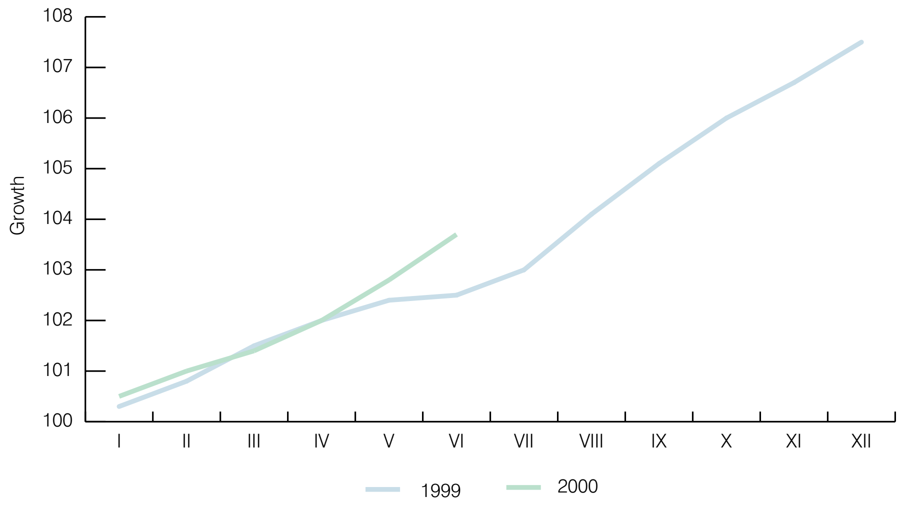
Since April, producer price growth in manufacturing has been considerably faster than a year ago (cf. Fig. 14). In the second quarter of 2000, industrial producer price growth was up 2.0%[5]. Steeper producer price inflation

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

Figure 13
Producer price indices, mining & quarrying
(December previous year = 100)

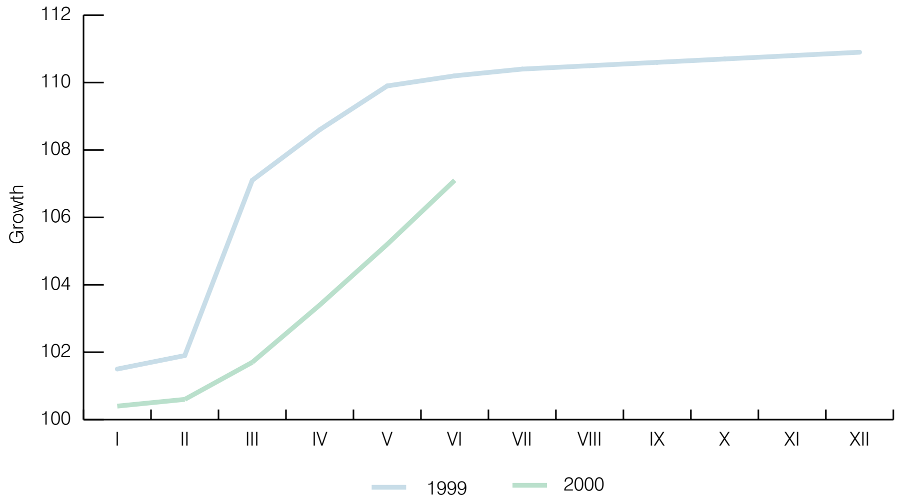
Source: GUS.

Figure 14
Producer price indices in manufacturing *(December previous year = 100)*



Source: GUS.

Figure 15
Producer price indices: electricity, gas & water supply
(December previous year = 100)



Source: GUS.

Table 3
Divisions of industry reporting rising quarterly producer price indices

	Division	Q2 1999	Q1 2000	Q2 2000
		previous quarter = 100		
1	Manufacture of pulp, paper & paper products	101.4	102.8	104.8
2	Manufacture of metals	101.0	101.7	102.9
3	Manufacture of chemicals & chemical products	101.5	102.0	102.8
4	Manufacture of food products & beverages	100.3	102.6	102.2
5	Mining of hard coal	99.4	101.4	101.8

Source: GUS.

Table 4
Divisions of industry reporting falling quarterly producer price indices

	Division	Q2 1999	Q1 2000	Q2 2000
		previous quarter = 100		
1	Manufacture of coke, refined petroleum products & related products	116.1	104.7	106.3
2	Manufacture of leather & leather products	101.8	101.1	100.7
3	Manufacture of tobacco products	101.6	105.8	98.9

Source: GUS.

Table 5
Producer price indices, construction

	Division	Q2 1999	Q12000	Q2 2000
		previous quarter = 100		
1	Construction	101.8	102.0	102.7
2	- building installation	102.4	102.6	103.5
3	- building of complete constructions or parts thereof;			
	civil engineering	101.7	102.1	102.6

Source: GUS.

was the result of price growth rising 0.8 points in mining and quarrying to 2.1% and 0.4 points in manufacturing to 1.8%, while coming down 1.6 points in electricity, gas and water supply to 4.3%. In both industry as a whole and the particular component sections thereof, price growth in the second quarter was swifter than in the first.

Of the price indices published for 19 divisions of industry, 11 divisions showed higher quarterly indices than twelve months before, with these divisions including ones producing articles included in the consumer price basket, namely, manufacture of food products and beverages, publishing and printing, and manufacture of furniture.

Table 3 sets out those divisions of industry that reported growth in quarterly producer price indices of at least 1 point compared to the corresponding indices in the second quarter of 1999.

At the end of the second quarter of 2000, rising producer price indices were recorded in considerably more divisions than in the previous quarter. Of the divisions showing higher growth year-on-year, only 4 registered lower producer price growth than in the first quarter of 2000: manufacture of food products and beverages; manufacture of other non-metallic mineral products; manufacture of rubber and plastic products; and manufacture of wood and wood products.

In 8 divisions of industry, quarterly producer price indices were lower than in the second quarter of 1999. Table 4 presents those divisions where the relevant price growth dropped by over 1 point.

Within these 8 divisions, higher price growth than in the first quarter of 2000 was reported solely in manufacture of coke, refined petroleum products and related products. In the remaining 7 divisions, the declining pace of producer price growth was sustained, with growth also lower than in the first quarter.

In construction, producer prices were up 9.0% in June 2000 compared to the corresponding period of 1999 (a year earlier, the increase had come to 8.1%). This represented the end result of 8.9% price growth in the division of "building of complete constructions or parts thereof; civil engineering" (as against 7.5% a year before), and 11.0% price growth in the division of "building installation" (as against 11.2%).

Table 5 sets out quarterly producer price indices in construction.

Construction price growth in the second quarter of 2000 was faster than twelve months previously, and also faster than in the first quarter of the year.

Factors conditioning the money supply in the second quarter of 2000

The money supply and prices on financial markets

The money supply

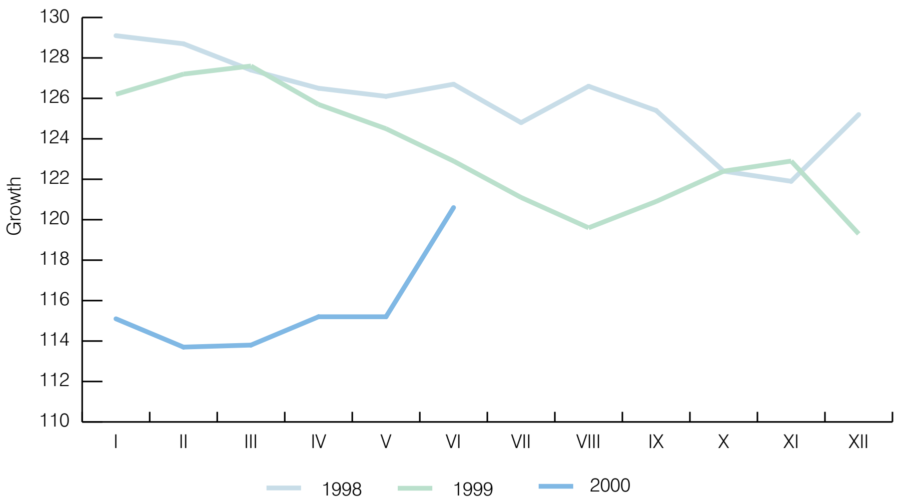
The fundamental factor behind the large increase in the total money supply in the second quarter of 2000 was one of a temporary nature. The public offering of shares in the PKN ORLEN - Polish Oil Corporation, held in June 2000, was reflected in a surge in the deposit balances held by brokerage houses. This increased the liabilities of the banks to the non-financial sector. At the same time, the demand for shares in PKN ORLEN also found expression on the asset side of the banks' balance sheets. In the third ten days of June, there was a marked increase in outstanding loans to persons. However, following a 90% reduction in the purchase orders actually filled, the unused funds were returned to the principals that had placed those orders (private individuals), who then applied those funds to repay the loans they had taken out to purchase shares. The growth seen in the banks' liabilities to the non-financial sector in June was additionally increased by the government's transfer of funds to one of the brokerage houses to cover the redemption of zloty-denominated bonds. Following the short-lived disruption caused by the privatisation of PKN ORLEN, ten days into July annual growth rates for the basic measures of the money supply had reverted to their previous trends, although in the case of lending to persons growth dropped to its lowest level since October 1999.

At the end of June 2000, the total money supply amounted to 284.9bn zloty[6]. The increase recorded in the second quarter of 2000 came to 22.9bn zloty, representing nominal quarterly growth of some 8.7% (6.7% in real terms). By comparison, the expansion in total money stocks in the corresponding period of 1999 stood

[6] 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).

Figure 16

Total money supply growth, nominal terms *(corresponding month previous year = 100)*



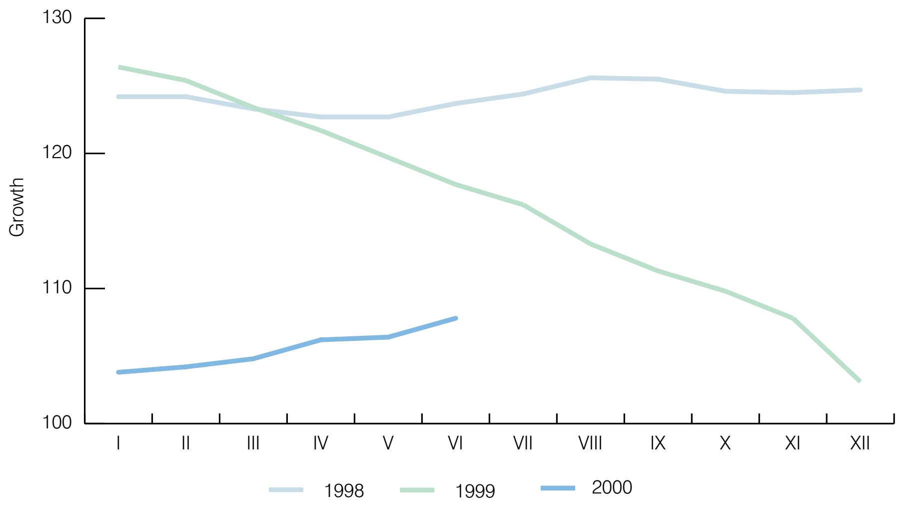
Source: GUS and NBP.

at 6.0bn zloty, equivalent to nominal growth of 2.6% over the quarter (0.9% in real terms). These figures point to the high speed of money supply growth in the second quarter of 2000. This can primarily be traced to the events already outlined, which occurred in the final ten-day period of June. During that month, the money supply grew 16.1bn zloty, which constituted an increase of 6.0% relative to the end of May, with monetary expansion in the final ten days of the month alone coming to 12.0bn zloty. The principal reason for this was the rocketing level of zloty liabilities to corporates and persons.

During the first two months of the second quarter, annualised growth in the total money supply was similar to that reported during the particular months of the first quarter. In both April and May, year-on-year nominal growth stood at an identical 15.2% (in real terms, growth came to 4.9% in April and 4.7% in May). June then witnessed a large acceleration of annualised growth, which by month end had reached a nominal 20.6%, or 9.4% in real terms (cf. Fig. 16). However, by the end of the first ten days of July, annualised growth in the total money supply had slipped back to 15.4%.

The primary factor in the dislocation of the money supply experienced towards the end of the second quar-

Figure 17
Personal zloty deposits growth, real terms
(previous month end = 100)



Source: GUS and NBP.

ter was the leap in the banks' zloty liabilities to non-financial sector customers. Figures for the end of June show aggregate personal and corporate zloty deposits totalling 205.3bn zloty. Compared to the end of the first quarter, this represents a rise of 18.5bn zloty, giving nominal quarterly growth of 9.9% (7.8% in real terms). The increase recorded during the same period of 1999 amounted to 5.1bn zloty, equivalent to nominal quarterly growth of 3.1% (real growth of 1.4%). Further, the increase over the month of June alone came to 13.6bn zloty. Monthly growth thus came to 7.1% in nominal terms (6.3% in real terms). By contrast, in April and May 2000 the monthly growth in zloty deposits taken from the non-financial sector was similar to the growth seen in the corresponding months of 1998 and 1999.

Figures for the end of June 2000 show corporate zloty balances at the banks amounting to 63.7bn zloty. Relative to the end of the first quarter, this represents an increase of 11.6bn zloty, giving nominal growth of 22.3% (20.1% in real terms). Corporate deposits rose 10.1bn zloty in June (nominal monthly growth of 18.8%, and real growth of 17.8%), whereas in April these deposits had declined 0.2bn zloty and in May they had gone up 1.8bn zloty. The transfer by the Treasury of funds for the redemption of zloty-denominated bonds, already mentioned, additionally contributed to the increase in the banks' liabilities to corporates.

At the end of June, the zloty balances held on account at the banks by persons totalled 141.6bn zloty. The increase on the end of the first quarter amounted to 6.8bn zloty. Nominal growth over the quarter thus came to 5.1% (real growth of 3.1%). April and May saw a continuation of the tendency visible since the beginning of the year for monthly deposit growth to diminish. This was then overturned in June. However, it should be emphasised that a systematic increase in annualised personal deposit growth has been observed since the beginning of 2000 (cf. Fig. 17).

The growth in the banks' liabilities to persons in 2000 would appear to be impacted by two factors working in opposite directions. On the one hand, since the beginning of the year a steady reduction has been seen in wage growth in the corporate sector, including at most service companies[7]. Up until June, a decline was also noted in the purchasing power of old age and disability pensions[8]. These developments had an adverse effect on the pace of personal zloty deposit growth. On the other hand, however, the nominal interest rates offered on zloty time deposits have been trending upward since last November. NBP figures show that, over the period from November 1999 to June 2000, the weighted average nominal rates available on personal time deposits went up around 2.8 points for three-month deposits, and some 2.6 points for six- and twelve-month deposits. Thus, this period saw zloty bank deposits increase their appeal as a personal savings vehicle.

At the end of the second quarter of 2000, the value of foreign currency balances held on account at the banks by non-financial sector customers stood at USD 10.1bn. Compared to the end of March, this constitutes a decrease of USD 56m. The decline in these deposits

[7] The figures available refer to the period from January to May 2000. It is worth noting that April brought a substantial temporary increase in average employee earnings in the corporate sector owing to payouts of profit-sharing bonuses and performance bonuses (in a limited number of companies). Nevertheless, an analysis of the components of the money supply suggests that these payouts were primarily reflected in the consolidated balance sheet of the banking system in the faster growth of cash stocks.

[8] These pensions were adjusted for inflation in June, in line with the provisions of the 2000 Budget.

overall is linked to a drop in corporate foreign currency deposits of around USD 194m. At the same time, personal foreign currency balances rose by some USD 138m. Nonetheless, at the end of June year-to-date growth in foreign currency deposits held by the non-financial sector stood at USD 550m zloty. During this period, corporate foreign currency balances climbed just under USD 440m, while personal balances increased over USD 110m.

As expressed in zloty, the foreign currency deposits taken from the non-financial sector totalled 44.4bn at the end of the second quarter. Compared to the end of March, this represents an increase of 2.3bn zloty[9]. Nominal quarterly growth came to 5.4% (3.4% in real terms). A similar increase was recorded in the first quarter, when foreign currency deposits went up by the zloty equivalent of 2.5bn, giving nominal growth of some 6.2% (2.5% in real terms).

At mid-year, the zloty value of the foreign currency balances held by corporates stood at 11.8bn. During the second quarter of 2000, these balances decreased by the equivalent of 0.1bn zloty[10]. This represents a nominal decline of 1.1%, yet a decline in real terms of 3.0%. In the first quarter of the year, growth had been positive, coming to 27.8% in nominal terms and 23.4% in real terms. A major influence on corporate foreign currency deposit growth, as expressed in zloty, is exerted by exchange rate fluctuations[11]. Nonetheless, since the end of 1998 Polish corporates have become much more active in accessing funding through bond issues denominated in foreign currencies[12]. The proceeds from these issues are then placed

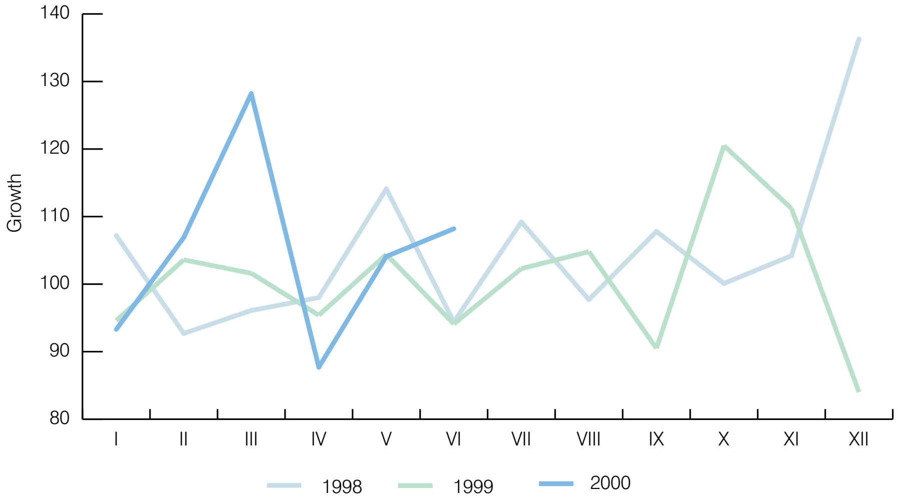
[9] At the end of June 2000, the exchange rate for the zloty against the dollar stood at USD/zloty = 4.3907, while the exchange rate at March 31 had been USD/zloty = 4.1428. The depreciation of the zloty during this period thus came to around 6.0%. Were no allowance to be made for movements in the dollar value of non-financial sector foreign currency deposits, they would have diminished in zloty terms by some 0.2bn.

[10] If zloty depreciation against the dollar were not taken into account, this decrease would have been even greater, coming to 0.8bn zloty.

[11] NBP data on corporate deposits denominated in the three major foreign currencies, the US dollar, the euro and the Deutschemark (which is pegged to the euro), indicate that the last twelve months have brought a considerable increase in the relative proportion of euro and D-mark deposits. At the end of Q2 2000, these deposits accounted for some 53.6% of all deposits in the currencies concerned, with dollar deposits representing 46.4%. In analysing movements in these deposits, it is therefore necessary to consider exchange rate fluctuations not just for the zloty against the dollar, but also for the zloty against the euro and the euro against the dollar.

[12] In June, for example, two bond issues were carried out by telecommunications companies, to a value of USD 1bn and EUR 0.2bn.

Figure 18
Corporate foreign currency deposit growth, nominal terms
(previous month end = 100)



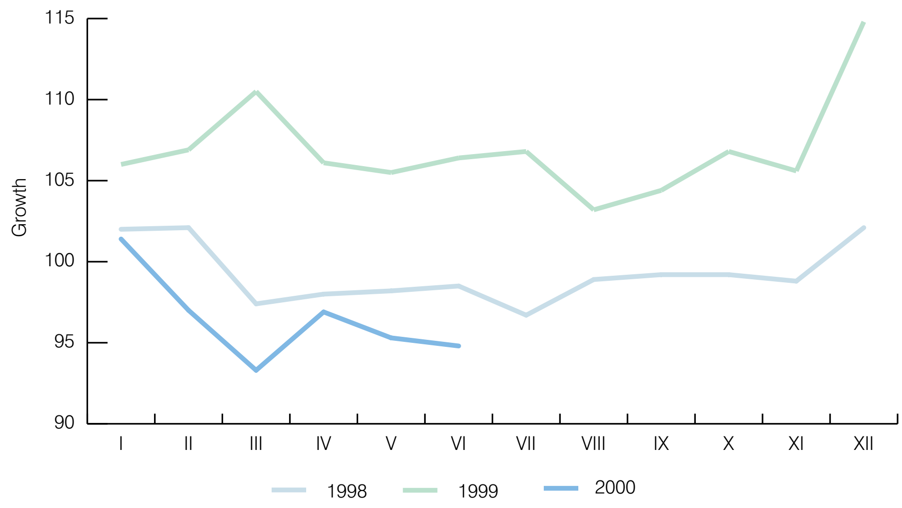
Source: GUS and NBP.

at Polish banks in the form of short-term deposits, thus giving rise to considerable volatility in monthly foreign currency balances (cf. Fig. 18).

Personal foreign currency balances, as expressed in zloty, went up 2.4bn in the second quarter, to stand at 32.6bn at mid-year[13]. Nominal growth came to 8.0%, while real growth was 6.0%. By comparison, the zloty value of these balances had gone down slightly in the first quarter of the year (0.5% in nominal terms, or 3.9% in real terms). In contrast to corporate foreign currency deposits, it seems justified to assume that the prime factor behind movements in personal deposits are fluctuations in the exchange rate of the zloty relative to the dollar[14]. A good example of this is provided by personal foreign currency balances in April. Monthly growth in these balances came to the zloty equivalent of 1.7bn (or 5.8% in nominal terms and 5.3% in real terms, the fastest growth since February 1999), which can be traced to the marked strengthening of the dollar against the zloty (almost 6.8% over the month).

[13] If zloty depreciation against the dollar were not taken into account, personal foreign currency deposits would have risen in zloty terms by just 0.6bn.
[14] NBP figures for the period from Q2 1999 to Q2 2000 show personal dollar deposits holding steady at around 80.0% of all personal deposits denominated in either the US dollar, euro or Deutschemark.

Figure 19
Real growth of notes & coin in circulation (excluding vault cash)
(corresponding month previous year = 100)



Source: NBP, GUS.

At the same time, it is worth noting that the trend begun in the latter half of 1998 for personal foreign currency deposits to rise steadily (in both zloty and dollar terms) is still being sustained. The sole and short-lived (albeit significant) interruption to this trend, as regards the dollar value of these deposits, occurred towards the end of the first quarter of 2000 and was the result of foreign currency liabilities at Bank Staropolski SA being converted into zloty.

At mid-year, the volume of notes and coin in circulation (excluding vault cash) stood at 35.1bn zloty. This constitutes an increase of 2.2bn zloty on the end of the first quarter, giving nominal quarterly growth of some 6.5% (4.6% in real terms). By comparison, nominal growth in the same quarter of 1999 came to 5.0%, with real growth of 3.2%. The supply of currency in circulation was subject to sharp swings in the course of the second quarter. It seems likely that the major increase in cash stocks seen in April (1.7bn zloty, representing monthly growth of 5.0%, or 4.6% in real terms) was partly connected with the payment of profit-sharing and performance bonuses in the corporate sector. On the other hand, the growth in cash stocks reported in June (1.2bn zloty, the equivalent of 3.4% nominal monthly growth and 2.6% real growth) could partly be attributable to the index-linked adjustment of old-age and disability pensions carried out that month, pursuant to the relevant provisions of this year's Budget. This growth was also related to the heightened demand for cash that accompanies the summer holiday season (cf. Fig. 19).

Counterparts to changes in money stocks

The principal factors behind money supply growth within the banking system in the second quarter of 2000 were **claims on persons and corporates** and the growth in net foreign assets. This is illustrated by Table 6.

At the end of June, claims on persons and corporates[15] accounted for 71.4% of total money stocks held within the banking system[16], with claims on corporates representing 53.6% and those on persons making up 17.8%.

At mid-year, claims on persons and corporates had risen 10.3% relative to the end of March. In comparison to June 1999, these claims had grown 30.6%, while a year before the corresponding increase had been 27.6%. The rapid growth of these claims seen in 1999 began to wane at the beginning of 2000, with a declining trend persisting until May (when growth stood at 23.5%). Adjusting the mid-year figures to factor in the repay-

[15] 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.
[16] The calculation of these stocks includes "other items (net)", which chiefly comprise income, capital, interbank and interoffice settlements, suspense accounts, sums due on securities issued and outstanding, sums due to and from other banks, and specific provisions.

Table 6
Counterparts to changes in money stocks (million zloty)

	Growth, Q2	Growth, Q1	Growth, Q2
	1999	2000	
Total money supply	**5,983.0**	**-1,475.7**	**22,907.0**
Net foreign assets	-6,448.7	4,738.2	6,857.1
Claims on persons & corporates	7,217.9	8,105.7	19,383.3
General government sector debt	1,289.3	-9,441.9	3,480.9
Other items. net	3,924.5	-4,877.7	-6,814.3

Source: NBP (Banking System Statistics).

ment in July of loans taken out by retail investors to purchase shares in PKN ORLEN, year-on-year growth in claims and persons came to around 25.0% at the end of June, which implies that the expansion of bank loan books has been halted, and in real terms is gradually coming down. Claims on corporates rose 19.7%, while those on persons were up 79.4%.

Growth in the banks' foreign currency claims on persons and corporates was higher than that of zloty claims, coming to 13.3% as against 8.6%. By comparison, the respective growth rates in the first quarter were 1.0% and 5.2%. Foreign currency claims thereby increased as a proportion of total claims. The size of this increase suggests that it is traceable not only to the depreciation of the zloty in the second quarter, but also to greater demand for foreign currency loans among both personal and corporate borrowers (this follows a period of lower demand for these loans in Q4 1999 and Q1 2000).

Outstanding claims on corporates rose 4.9% in the second quarter, compared to 4.5% in the first. This slight nominal acceleration in the growth of corporate borrowings was primarily the result of the translation into zloty of loans denominated in foreign currency, although it was also related to privatised companies obtaining loan finance from foreign investors. In addition, the upturn in the economy seen since the begin-

Table 7
Claims on persons, growth & structure

	Growth, first half-year		Structure of growth, first half-year		Growth rate %	
	1999	2000	1999	2000	June 1999	June 2000
	million zloty		%		corresponding month previous year = 100	
Total claims on persons						
of which:	**3,008.0**	**12,321.2**	**100.0**	**100.0**	**141.1**	**179.4**
- Overdrafts & bank card lending	758.7	908.0	25.2	7.4	212.8	193.3
- Housing loans	549.6	966.7	18.3	7.8	168.0	193.8
- Other*	1,699.7	10,446.5	56.5	84.8**	129.6	174.4

* 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.
** Adjusted for the repayment of bank loans taken out to finance purchases of shares in PKN ORLEN, this item comes to over 48%.

Source: NBP (Banking System Statistics).

ning of the year and improvement in corporate earnings reported in the second quarter meant that companies had a larger supply of internal funding to allocate to current operations and business development.

The banks' outstanding claims on persons climbed 32.0% in the second quarter (as adjusted by an estimated 9.5% for the repayment in July of loans taken out by retail investors to purchase shares in PKN ORLEN), as against an increase of 5.2% in the first quarter and 12.0% in the second quarter of 1999. Personal loan demand in the second quarter of 2000 was focussed on consumer and housing loans. Bank card lending also grew considerably, as did personal overdrafts. Information on personal borrowings is provided in Table 7.

At the end of June, short-term claims on the non-financial sector (maturing in up to one year, including overdrafts) showed more rapid year-on-year growth than long-term claims, with the former having gone up 37.0% and the latter up 23.8%[17]. This was the result of a swift increase in both corporate and personal overdrafts. At mid-year, short-term claims accounted for 64.2% of total quarterly growth in claims on the non-financial sector, as against 34.0% a year previously, one reason being the overall development of banking services.

Net foreign assets[18] declined USD 0.2bn in the second quarter of 2000, to total USD 27.7bn at the end of June[19]. Over the second quarter of 1999, the foreign counterpart to changes in money stocks shrank USD 1.2bn. The fact that the level of net foreign assets held virtually flat during the second quarter of 2000 can be traced to the large influx of foreign investment, chiefly direct investment. In addition, the current account deficit was lower.

[17] 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.

[18] 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.

[19] The impact of movements in the value of the US dollar against other currencies on the level of the gross official reserves, which make up the overwhelming portion of net foreign assets, can be specified precisely. The gross official reserves decreased almost USD 0.3bn, to stand at USD 26.0bn; assuming that currency cross rates remained constant, however, the reserves would have declined USD 0.1bn.

In the second quarter of 2000, the current deficit amounted to USD 2.1bn, coming down USD 0.6bn compared to the deficit in the corresponding period of 1999. This performance on the current balance was primarily due to a reduction in the deficit on trade in goods and services, and also to an increase relative to the same period of 1999 in the surplus recorded on unclassified current transactions (which rose 34.9%).

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 second 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 almost entirely the result of a positive balance on non-official transfers, which came to almost USD 0.4bn. These transfers principally involved transactions on the personal foreign currency accounts of Polish residents.

The surplus on the capital and financial account in the second quarter of 2000 was slightly down on the corresponding period of 1999, totalling USD 1.2bn, compared to USD 1.3bn a year previously.

The net inflow of foreign direct investment (FDI) was similar to that registered a year ago, standing at USD 1.1bn. This inward investment was connected with the continuation of privatisations, and with the maintenance of an external perception of Poland as an attractive destination for investment.

The net inflow of portfolio investment was also similar to that reported in the second quarter of 1999, although much lower than in the first quarter of this year. Foreign investors concentrated their attention on Polish debt securities, with a net investment in these instruments of USD 0.5bn, while at the same time there was a net outflow of USD 0.2bn on foreign investment in equities.

Drawings of long-term credits amounted to USD 0.7bn (compared to USD 0.9bn in the same period of 1999), while repayments totalled almost USD 0.6bn (as against USD 0.3bn).

The first quarter saw foreign deposits at Polish banks drop USD 0.1bn (compared to a fall of USD 0.5bn in Q2 1999). At the same time, Polish banks increased their placements at foreign banks. The overall balance of outflows and inflows of currency and deposits held by

Polish banks at banks abroad came to a negative USD 0.1bn (by comparison, Polish assets abroad had declined by less than USD 0.1bn in Q2 1999).

Following a sharp decrease in the first quarter (of 9.4bn zloty), **net general government indebtedness** at the banks rose systematically in each month of the second quarter. From April to June, the general government sector borrowed 3.4bn zloty at domestic banks. This represented the combined effect of a large outflow of funds from government accounts, amounting to some 4.8bn zloty (mainly comprising central government deposits), in conjunction with a decline in government liabilities to the banks of around 1.4bn zloty (chiefly resulting from a reduction in claims on central government). The increase in general government debt recorded in the second quarter involved both central government and the other components of this sector, i.e., special-purpose funds and local government.

At the end of June, the net indebtedness of general government stood at 58.5bn zloty, thereby still running much lower than at year end 1999. This figure represents a year-to-date reduction in government debt of 6.0bn zloty (9.3%), whereas over the same period of last year government debt to the banks rose 4.0bn zloty (6.5%).

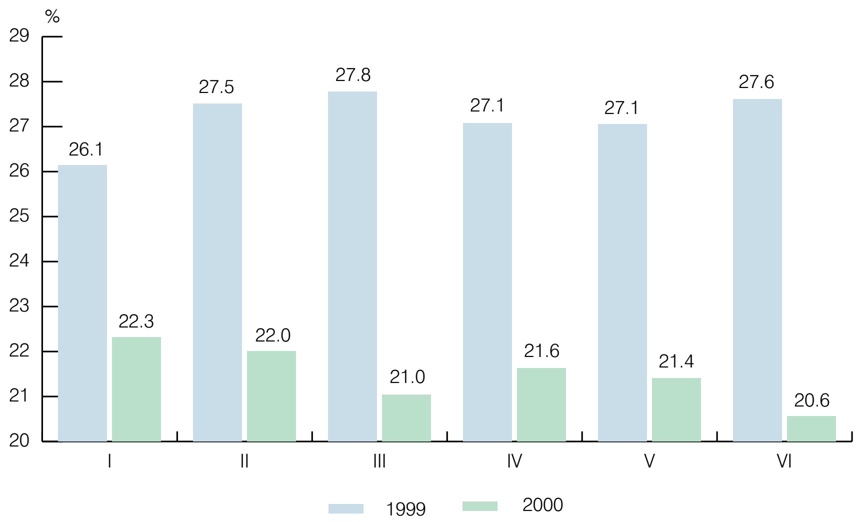
The movements seen in the net indebtedness of the whole general government sector in the second quarter of 2000 were most influenced by the financial condition of the primary component of that sector, i.e., central government. Central government borrowed an additional 2.7bn zloty, while in the first quarter its net borrowings had gone down 7.5bn zloty.

Although the fiscal deficit rose more slowly in the second quarter than in the first (3.8bn zloty, compared to 6.9bn), central government borrowing requirements remained high. One reason for this was the need to provide some 1.3bn zloty in financial compensation for loss of incomes in the years 1991-92 to government sector employees and also old-age and disability pensioners; this compensation is not classed as a component of central government expenditures. With a small stream of current funding from the market, central government financed its requirements by drawing on funds held on deposit accounts.

Compared to the first quarter, the second quarter brought a much lower volume of non-bank funding (net) from the sale of Treasury securities to foreign and domestic investors (this amounted to around 1.7bn zloty), and also lower receipts from the sale of privatised national assets (1bn zloty). The hefty balances held by government at the beginning of the year thanks to substantial privatisation receipts (3.3bn zloty), which were then augmented in the particular months of the first quarter by large inflows from the domestic Treasury market (6.9bn zloty) and additionally supplemented by the proceeds of a Eurobond issue in March (around 2.0bn zloty), were finally depleted. At the end of January, the Treasury had almost 10bn zloty on its central account at the NBP in funds either available or temporarily on hold; by March, this sum had come down to 6.9bn zloty, and by the end of June it had dwindled to 1.2bn.

The growth in net government indebtedness observed in the second quarter of the year was also connected with the other components of the general government sector. As in the corresponding period of 1999, local government and special-purpose funds reported an increase in their net debt of 0.7bn zloty, whereas in the first quarter this debt had been slashed by almost 2bn zloty. The rise in the net debt of these components of general government was on the one hand the result of reduced balances on their accounts, and on the other hand stemmed from an increase on claims on them.

Figure 20
General government debt (net) in the total money supply



Source: NBP.

The continuing payments problems of the Social Insurance Fund compelled the Social Insurance Board to draw on short-term loan finance from the commercial banks; at the end of June, these borrowings were higher than they had been at the end of March. In addition, the decline in the balances held by special-purpose funds was also related to the financial condition of the Employment Fund. Owing to an increase in payouts of unemployment benefit, the Fund began consuming the Treasury subsidies it received and contributions it collected at a faster rate than before.

The growth in net general government indebtedness registered in the second quarter signifies that this debt was acting to expand the money supply. However, it should be noted that over the first half of 2000 the contribution of general government to money supply growth was much less than in the corresponding period of 1999.

The relative weight of net general government debt in the total money supply in the first half of 2000 (period end figures) is charted by Figure 20.

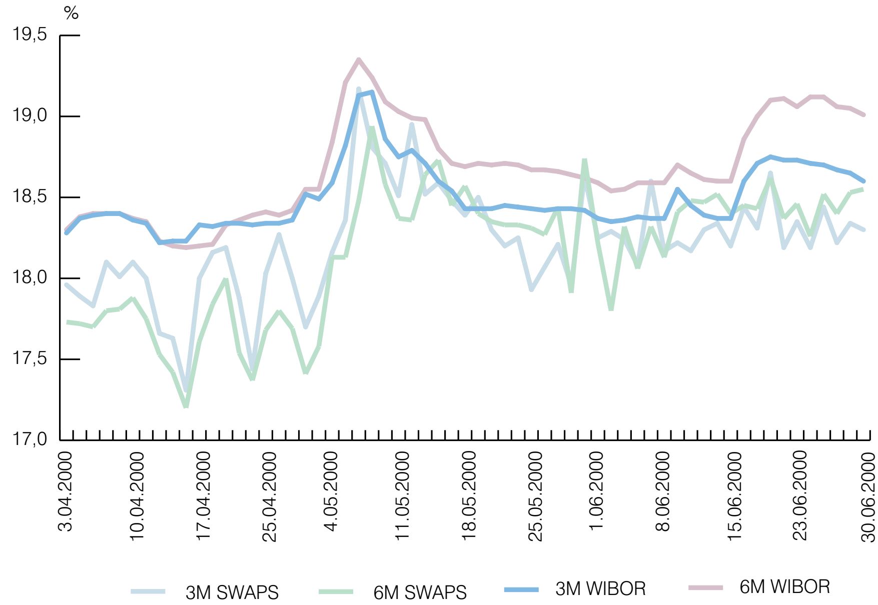
Transmission mechanisms

The interest rate channel

During the course of the second quarter of 2000, three factors exerted a major effect on short-term interest rates. The most powerful impact on rates was produced by the release on May 4 of figures showing an unexpected deterioration on the current account. A smaller impact on the level of rates was made by the full float of the zloty, which pushed up the risk premium that is priced into interest rates. The least impact of all three was that engendered by the publication on June 15 of figures revealing that inflation had moved back into double digits.

In the wake of the release on May 4 of figures pointing to a large increase in the current account deficit, which resulted in a fairly sharp weakening of the zloty, market interest rates climbed substantially. This was related to fears that the NBP would raise official rates to prevent any softening of the zloty threatening performance of the inflation target. Market rates then fell when the zloty steadied several days later, following the meeting of the Monetary Policy Council on May 8, the out-

Figure 21
Short-term interest rates



Source: Reuters.

Figure 22
FRA yields

Source: Reuters.

come of which was interpreted by the market as a warning of possible intervention on the currency market. However, rates did not return to their previous levels. For example, average rates on synthetic zloty deposits (FX swaps) remained around 50 bps higher. Similar increases applied to rates on 3- and 6-month interbank deposits (cf. Fig. 21). This rise in short-term rates was a natural consequence of the higher risk premiums demanded to offset the greater volatility of zloty exchange rates.

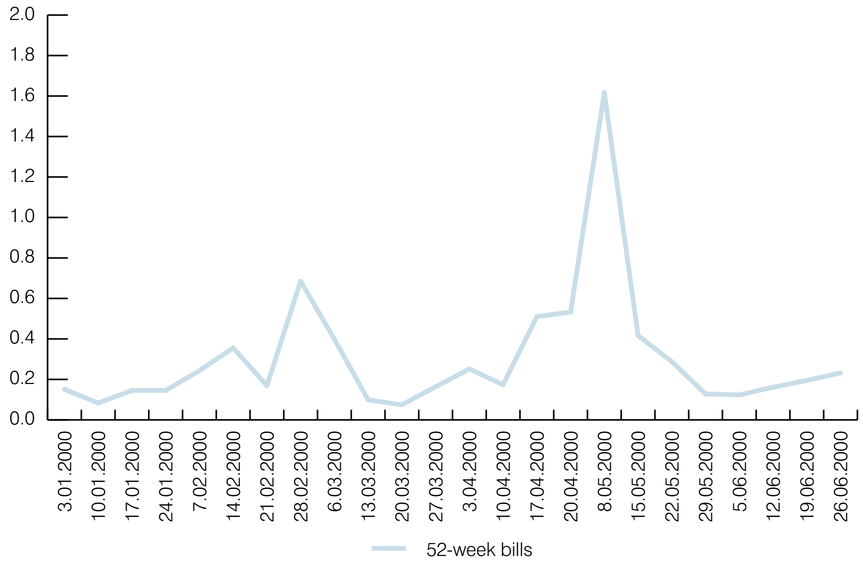
The increase in 3- and 6-month rates pushed up forward interest rates on the market for FRAs. Forward rates set the level of compensation available for any future rise in interest rates. The higher rates obtaining on FRAs reflected expectations that the increase in short-term rates would prove lasting. These concerns were mirrored in a narrowing of the rate differentials on FRAs settling in 3 and 6 months' time (cf. Fig. 22).

Another increase in market interest rates, albeit short-lived, was triggered by the announcement that inflation had once again hit 10%. The market believed that a rate rise by the NBP was now very probable, although fears of this were none too acute, since rates went up solely for FRAs and 3- and 6-month interbank deposits, i.e., solely on that segment of the interbank market where trading is so light and intermittent that rates primarily express the banks' expectations concerning future levels of interest rates.

Thus, the fears of a possible NBP rate increase were too weak to spark a rise in interest rates on those segments of the interbank money market where trading is heavy. As a result, rates did not go up for short-dated interbank deposits, nor for synthetic interbank deposits (FX swaps).

The varying importance attached by the money market to the events impacting it in the second quarter was also reflected in the slope coefficient of the auction demand function on the primary market for Treasury bills; this coefficient mirrors investor uncertainty regarding future interest rates. The coefficient moved up markedly between the floating of the zloty and the steadying of zloty exchange rates following the meeting of the Monetary Policy Council on May 8. However, it did not move significantly following the publication of inflation figures on June 15. This reflected general investor sentiment, based on the assumption that inflation in Poland would soon begin trending down-

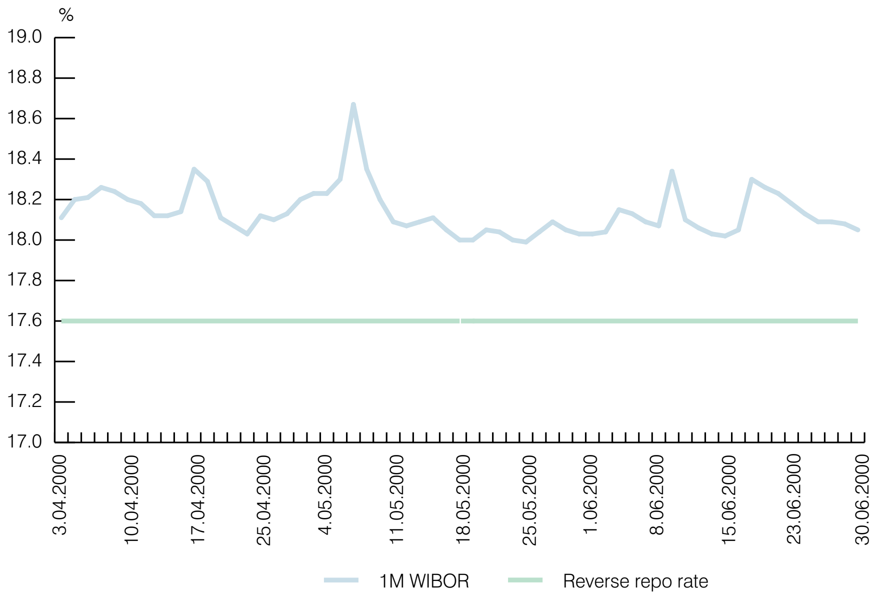
Figure 23
Slope coefficient of auction demand function, primary T-bill market*



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

Source: NBP figures and calculations.

Figure 24
Money market rates



Source: Reuters and NBP.

wards, that a temporary rise in inflation pulling NBP interest rates in its wake was a rather unlikely scenario (cf. Fig. 23).

Despite the adjustment to 3- and 6-month interest rates, rates on 1-month interbank deposits, which the NBP seeks to influence, held steady in the second quarter (cf. Fig. 24). While average rates on 1-month deposits did in fact move up in the second quarter compared to the first (from 17.07% to 17.77%), this was primarily the result of the National Bank raising its rates in February. The stability of 1-month deposit rates helped keep the banks' lending rates stable as well.

The volatility of the differential between 1-month rates and those on 3- and 6-month money stems from the poor liquidity of the market for longer-dated deposits, a factor already mentioned. This leads to a lack of arbitrage trading, which would stabilise risk premiums for transactions of varying maturities.

Reaction of commercial bank interest rates to central bank policies

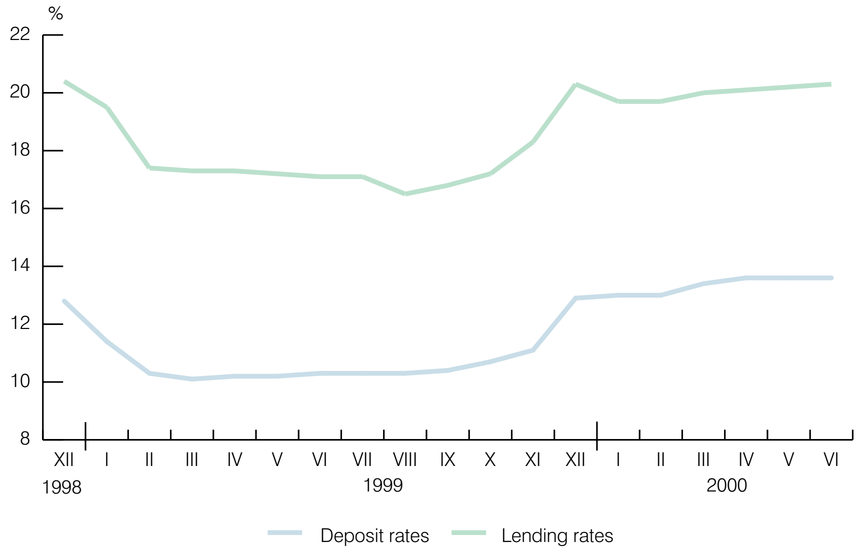
Deposit and lending rates at the commercial banks remained steady in the second quarter of 2000. The NBP rate rise in February had already elicited a response from most of the banks in March. Only a few banks adjusted their rates in April. These were chiefly those banks which had not done so previously. In the subsequent months of the quarter, deposit rates did not change much. Thus, the banks had been relatively quick to react to the National Bank's rate hike, doing so within six weeks.

The increase in NBP interest rates prompted the banks to raise their own rates on personal time deposits much more substantially than on corporate ones. The strongest increase was seen in rates on longer-dated personal deposits (maturing in 12, 24 and 36 months). These rates rose by 0.7-0.9 points. Rates on the most popular time deposits, maturing in 3 and 6 months, went up 0.6 points, while those on 1-month deposits went up the least, by just 0.2 points. The end result of these adjustments was that weighted average rates on personal time deposits were 0.6 points higher in April than they had been in February[20].

Rates on corporate deposits went up by virtually the same extent for all maturities. In April, weighted aver-

[20] Refers to the rates reported to the NBP by 15 large commercial banks.

Figure 25
Deposit & lending rates, weighted averages in nominal terms



Source: NBP.

age rates on corporate time deposits were 0.3 points higher than in February.

Personal lending rates rose relatively sharply, and in April averaged 0.9 points more than they had prior to the February rate hike. They did not change significantly over the remaining months of the quarter. Corporate lending rates responded to the rate increase by going up in March, rising sooner than personal lending rates, yet to a lesser degree. In March, rates on corporate loans were up 0.3 points on February, staying at this level in the second quarter. Over the quarter as a whole, overall lending rates moved up around 0.2 points, while rates on time deposits rose 0.1 points (cf. Fig. 25).

Interest rates and loan demand

In real terms (ex post), personal and corporate lending rates gradually declined during the second quarter of 2000[21]. This was particularly true of corporate lending

21 Personal lending rates adjusted for inflation by reference to consumer price growth, corporate lending rates adjusted by industrial producer price growth.

Figure 26
Real lending rates

Source: NBP calculations based on NBP and GUS figures.

rates. In June, these were 1.5 points lower than in March. Real personal lending rates went up considerably at the beginning of the quarter, to fall over the next two months, so that at the end of the quarter they were running at slightly over 10%, i.e., at a level similar to that seen in March (cf. Fig. 26). The high level of real lending rates has been one of the reasons for personal loan demand gradually trending downwards since the beginning of the year.

Corporate loan demand in the second quarter remained at the same level as in the first. In the particular months of the first quarter, real growth in corporate borrowings slowed, despite the strong economic growth that was being maintained. Year-on-year, growth in these borrowings came down from 12.5% in December 1999 to 10.1% in March. In June, growth was only slightly lower than in March, at 9.9%.

As in the previous quarter, the second quarter saw businesses keen to access funding through issues of commercial paper. At mid-year, the volume of corporate commercial paper outstanding stood at 9.5bn zloty, which was 48.6% more than at mid-year 1999 and up another 20 points since March. Altogether, corporate domestic debt on loans taken and securities issued totalled 162.1bn zloty at the end of the second quarter. Relative to June 1999, this represented nominal growth of 21.1%, whereas total corporate domestic debt at the end of March had amounted to 154.0bn zloty, having gone up 18.6% year-on-year. In real terms, total corporate debt outstanding on the domestic market in June was up only slightly on March.

While high interest rates may encourage companies to borrow abroad, it should be stressed that part of the foreign debt of the corporate sector is not directly related to the differential between domestic and foreign rates (or where it is, that relationship is weak). This refers, for example, to loans received by Polish companies from their foreign investors, to loans extended to foreign investors in Poland by their parents abroad, and to a portion of trade credit. Some companies, e.g., Telekomunikacja Polska SA (TP SA), have such large funding requirements that they would not be able to satisfy them on the domestic market and are thus forced to carry out long-term bond issues on foreign markets.

At the end of the first quarter[22], the foreign debt of the non-government, non-banking sector stood at USD 23,827m, having risen USD 423m (1.8%) since year end 1999. An increase was seen in the volume of long-term debt securities outstanding (up USD 438m, or over 21%). It may be assumed that this was largely related to the maintenance of differentials between domestic and foreign interest rates. The full float of the zloty, which has heightened the awareness of exchange rate risk among domestic corporates, should act to reduce their interest in obtaining funding on international markets.

The second quarter of 2000 brought a further ebb in household loan demand. In addition to higher interest rates, this decline in loan demand was also linked to the increase in excise duty on motor vehicles and in vehicle running costs, and to the relatively low growth in the purchasing power of disposable incomes. Further, the persistence of high unemployment, together with rising food and fuel prices, dampened consumer optimism.

The curtailing of loan demand growth found expression in the slower growth of consumption and invest-

[22] Q2 figures unavailable.

ment, thereby also easing the pressure of domestic demand on the balance of trade, and also on consumer prices.

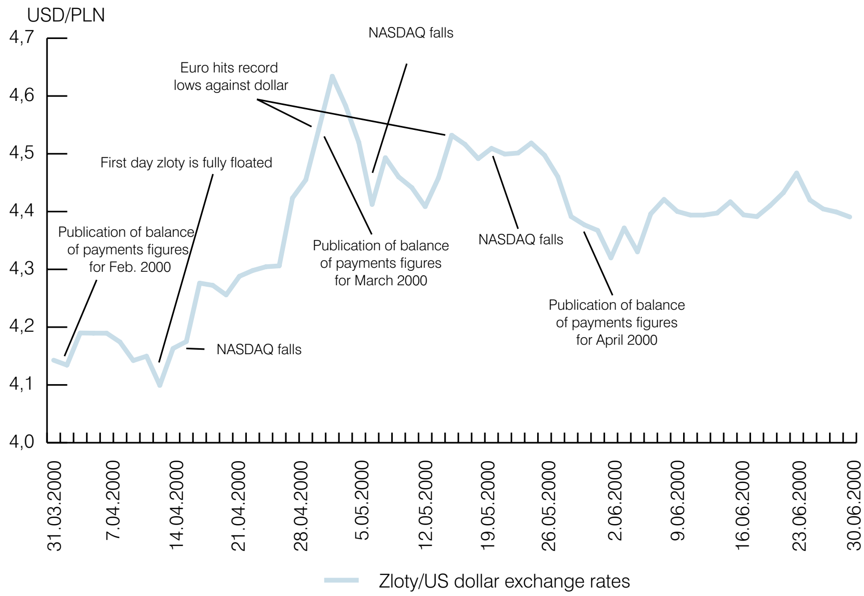
The exchange rate channel

As of April 12, 2000, zloty exchange rates began floating absolutely freely. This meant the abolition of the crawling band mechanism, with its central parity rate relative to a reference currency basket and set trading band for permissible deviations in market exchange rates from central parity.

The introduction of fully floating exchange rates constituted the final stage in a consistent policy of increasing exchange rate flexibility. Over the last ten years, the exchange rate regime applied in Poland has evolved through virtually all of the major systems in use, from rigidly fixed exchange rates to a crawling band, with the band then being gradually widened, to today's system of fully floating exchange rates. This conduct of exchange rate policy has had a favourable impact on the development of the domestic FX market, strengthening the credibility of the monetary authorities and stabilising the environment for participants in Poland's financial markets. Since 1998, exchange rate policy has been subordinated to the pursuit of a direct inflation target, which has had the effect of markedly speeding up the process of making exchange rates more flexible. Over the last two years, zloty exchange rates have in fact already largely floated. The move to a new exchange rate mechanism in 2000 had been previously announced in the *Monetary Policy Guidelines for the Year 2000*, and was reaffirmed in official statements from representatives of the Government and the Monetary Policy Council. This mechanism was introduced at a point when the trend for the zloty to appreciate, visible in the first months of 2000, had been checked, and the divergence of market exchange rates from central parity was stable. The inflow of foreign currency privatisation receipts in subsequent months could have disrupted that stability, while any further delay in taking the decision to float the zloty would have undermined the credibility of the economic authorities.

At the time the exchange rate regime was changed, the level of zloty exchange rates was strongly influenced by events on world markets. The substantial increase in

Figure 27
Zloty/US dollar exchange rates



Source: NBP calculations.

price swings on the US NASDAQ and major acceleration of the dollar's appreciation against the euro impacted both the level and volatility of zloty exchange rates (cf. Fig. 27).

In April, share price volatility on the NASDAQ rose to 16.9%, as against 10.4% in March and a monthly average of 6.4% in 1999 (cf. Fig. 30). On the second day after the zloty had been floated, the NASDAQ sank to its lowest point yet after a series of falls (having dropped 25.3% in all). Previous experience indicates that slumps on US stock exchanges cause short-term investors to pull out of emerging markets, the zloty market included. From April 10 to May 5, the dollar trended strongly upwards against the euro on world markets, gaining some 7%. This additionally weakened the zloty relative to the dollar, with the exchange rate against the dollar still being universally regarded in Poland as the yardstick of the value of the zloty. April and May saw a marked increase in the volatility of dollar/euro trading on international markets (cf. Fig. 30).

Thus, external developments largely lay behind the depreciation of the zloty in the course of roughly three weeks immediately after it was floated, with this depreciation especially apparent in relation to the US dollar. The external environment was also responsible for periodic increases in the volatility of zloty exchange rates.

The internal events which contributed to the weakening of the Polish currency in this period included the following:

- a downward market adjustment of exchange rates in the wake of the appreciation of the zloty from November 1999 to March 2000, and in the context of an aggravation of the external disequilibrium of the Polish economy (this adjustment had already been expected by the market in Q1 2000);
- a substantial deterioration of the current account deficit in March (cf. Fig. 27).

The pressure for the zloty to depreciate in the second quarter of 2000 was eased by the prospect of an inflow of foreign capital generated by the acceleration of privatisation (chiefly associated with the sale of equity in TP SA, PKN ORLEN and Bank Handlowy), which fuelled expectations of greater demand for zloty. This was encouraged by the continuing positive view of the Polish economy taken by foreign investors, which was reaffirmed in the raising of Poland's investment rating by Standard & Poor's.

From April 3 to 11, when the exchange rate regime in place was still based on a crawling band mechanism, the zloty fell 0.8 points against central parity. The average deviation from central parity at the fixing was in this period 5.1% on the upside. The decision to float the zloty caused it to firm briefly (for one day). On April 12, the zloty strengthened 1.2% and 1.5% against the dollar and the euro, respectively. This was mainly related to a widening of the perceived disparity in short-term interest rates as a result of the abolition of crawling devaluation. The ensuing heightened demand for Polish currency from foreign investors was also evidence of a positive reaction to the change in the exchange rate regime and a favourable assessment of the Polish economy. From April 13 to May 5, the zloty gradually weakened. The depreciation of the zloty was heavier against the dollar, which was at this point making strong gains on world markets. Thus, the zloty lost 12.9% against the dollar in this period, compared to 5.6% against the euro[23]. The publication on May 4 of information show-

[23] The zloty had depreciated more rapidly against the dollar during Q1 1999, when it lost 16.7%.

ing that the current deficit had deteriorated sharply in March sparked a pronounced, albeit short-lived, acceleration in the rate of zloty depreciation; on May 5, the zloty fell 2% relative to the dollar, and 2.5% to the euro (cf. Fig. 27). These developments were accompanied by a pronounced rise in market interest rates (cf. previous section on ***The interest rate channel***). For the remainder of the quarter, the weakening of the zloty was more gradual (cf. Fig. 28). Over the second quarter as a whole, the average exchange rate for the zloty against the US dollar was down 6.4% on the first quarter, with the zloty losing much less against the euro and coming down 0.5%.

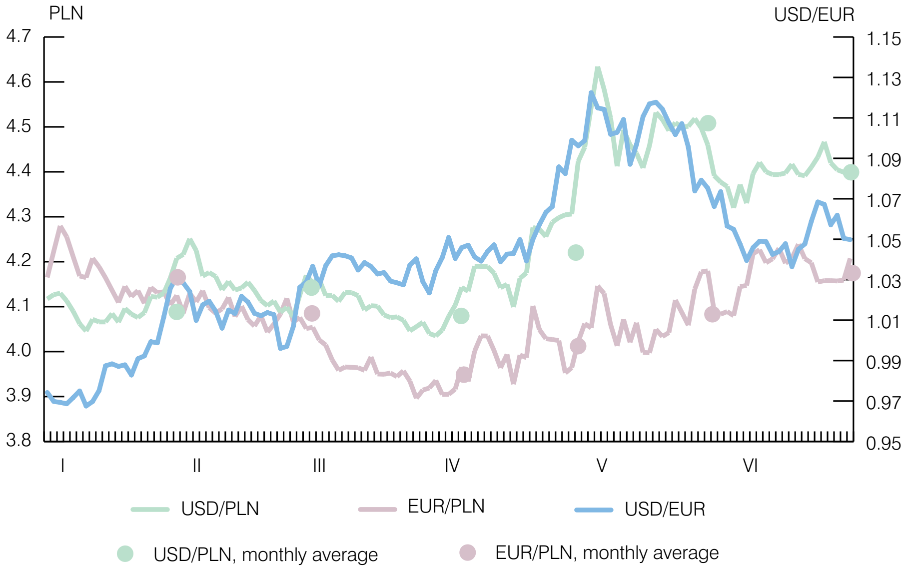
The end result of the trends described above was a 5.7% depreciation in nominal effective zloty exchange rates (June 2000 on March 2000), compared to 3.5% appreciation in the corresponding period of 1999 (cf. Fig. 29). By the end of June, nominal effective zloty exchange rates showed a year-to-date decrease of 0.4%, whereas over the same period of 1999 this decrease had been greater, coming to 3.3%.

The second quarter brought a temporary increase in the amplitude of zloty exchange rate fluctuations. The lack of a currency basket neutralising the impact on the zloty of swings in other currencies, along with the absence of the previous reference rate in the form of the central parity rate, stimulated intraday volatility and a substantial widening of bid-offer spreads. On the first day that the zloty floated, fluctuations in the price of the dollar during the forex trading session came to 8 grosze, while the euro fluctuated 5 grosze. Over the whole of the second quarter of 2000, the scale of zloty fluctuations against the dollar was 54 grosze (as against 22 grosze in Q1 and 15 grosze in Q2 1999)[24]. The second-quarter high point in zloty exchange rates (at the fixing) was 4.0992 to the dollar on April 12, while the low was 4.6342 on May 5. Over the month of April, the volatility of the zloty against the dollar, measured as the monthly standard deviation[25], stood at some 4.1%, while in May it came to 6.6%, declining to 3.6% in June. In trading against the euro, the corresponding volatility of the zloty increased the most in April (from 2.5% to 4.3%), moving just above 4.7% in May, and then dropping to

[24] It should be noted that the relevant fluctuations had been greater in Q1 1999, coming to 60 grosze.

[25] Monthly volatility measured on the basis of daily log rates of return.

Figure 28
Zloty exchange rates against US dollar & euro; dollar/euro rates (European terms)

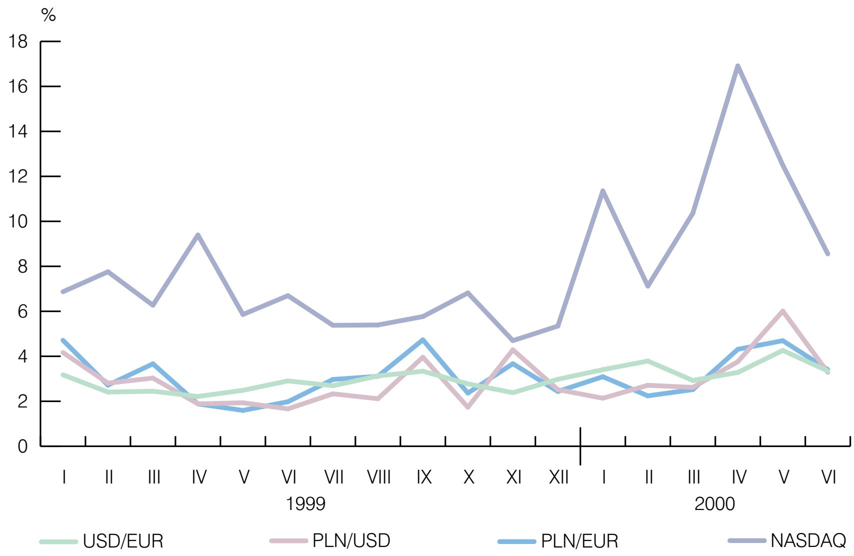


Source: NBP calculations.

Figure 29
Nominal effective zloty exchange rates, 1999-2000 *(monthly figures, December 1998 = 100)*

Source: NBP calculations.

Figure 30
Volatility of selected exchange rates & NASDAQ share prices
(monthly standard deviations of rates of return)



Source: NBP calculations.

3.4% in June (cf. Fig. 30). It can thus be seen that the higher volatility of zloty exchange rates was greatly impacted by factors unrelated to the floating of the zloty, such as the instability of dollar/euro exchange rates and turbulence on foreign capital markets.

Inflation expectations

The surveys conducted by the National Bank of Poland indicate that consumer inflation expectations basically tend to be static in character[26]. 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 generally project that inflation in a year's time will be higher than current inflation. Banks, on the other hand, develop their inflation expectations differently, factoring in more information than consumers and taking a view of future inflation that is much less conditioned by price growth in the past.

[26] 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.

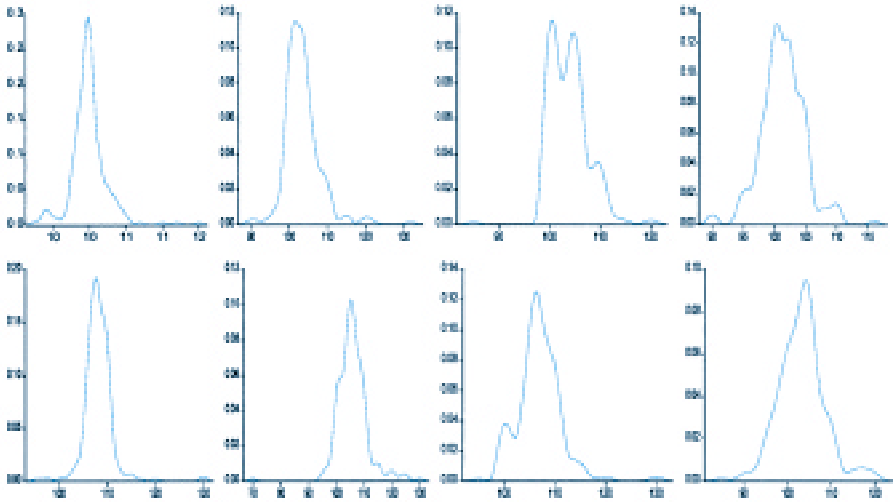
Consumer inflation expectations rose during the first half of 2000, with the exception of January and April (cf. Fig. 32). It cannot be excluded that the decrease in inflation expectations in January and April was connected with the raising of official interest rates by the central bank last November and this February. In May and June, the gap between the current inflation rate and that expected in one year's time widened, attesting to the pessimism of respondents in this period[27]. The increase in inflation expectations is ascribable to rising food and fuel prices and the expected effects of the drought. In May, inflation expectations were no doubt also affected by the substantial depreciation of the zloty against the US dollar.

The NBP surveyed the inflation expectations of 313 companies in the production industries (polling them on their expectations at the end of Q1 2000); an analysis of the replies received indicates that:

- the mean estimate of consumer price growth between December 31, 1999 (the reference date in all questions concerning corporate forecasts, taken as equal to 100) and June 30, 2000, came to 104.95. The median value was 105. Actual consumer inflation in the first half of 2000 came to 5.5%. The respondents' predictions can therefore be considered fairly accurate (as regards the first half of the year);
- the forecasts for a one-year time horizon (to year end 2000) had a mean of 108.16 (and a median of 108). Given that the distribution of inflation forecasts for the end of 2000 is highly clustered around the central tendency (with the coefficient of kurtosis indicating that this distribution has the steepest bell of all those charted in Fig. 31), this points to a strong general conviction among the companies polled that this year's inflation will come to approximately 8%. Thus, there has only been a slight decrease in inflation expectations. Last year, companies were forecasting that year-end inflation would stand at 8.5% (on average), with inflation in 1999 in fact coming to 9.8%.

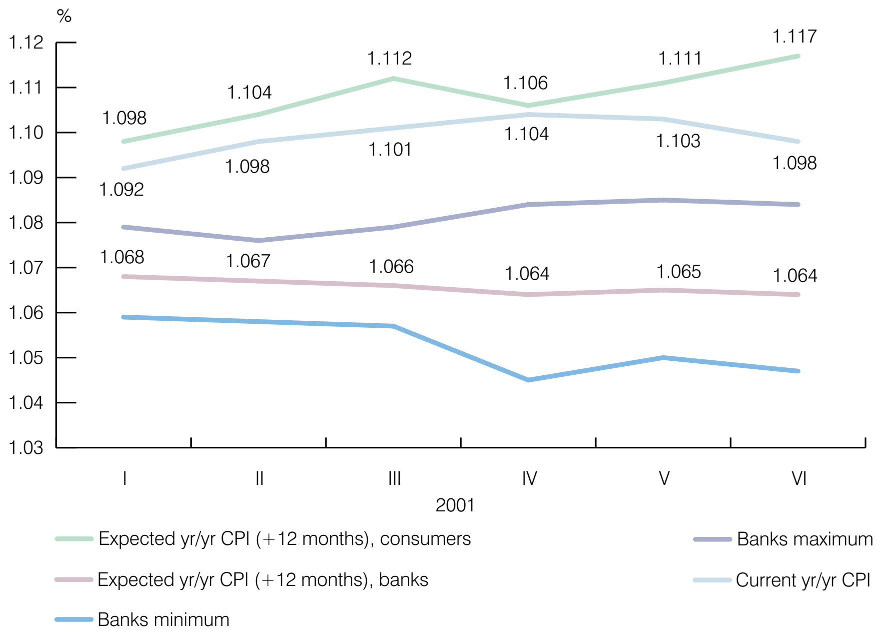
[27] Current inflation is understood as the rate of inflation known to respondents at the time they were polled. Since the polls in question are conducted in the first half of the month, while inflation figures are published by GUS on the 15th of each month, the most recent figures respondents have are for inflation two months previously.

Figure 31
Distributions of corporate survey replies concerning consumer price growth



The above distributions of survey replies from companies refer to: consumer price growth (the two charts in the first column); producer price growth at the company polled (the two charts in the second column); wage growth at that company (the two charts in the third column); and growth in the value of the dollar against the zloty (the two charts in the final column). The charts in the first row refer to corporate forecasts for the first half of 2000, while the second row refers to forecasts for the whole of 2000. The reference date for the companies surveyed was December 31, 1999, taken to equal 100.

Figure 32
Inflation expectations of consumers and banks, I half of 2000



Source: Demoskop and Reuters figures; NBP calculations.

The inflation expectations of the banks declined from the beginning of the year to April, and then steadied. The banks were at this time expecting inflation over the next twelve months to run at 6.4%-6.5%. As was the case with consumers, the banks reacted in May to the depreciation of the zloty and to news of the extent and anticipated consequences of the drought, although their reaction was much more subdued than that of consumers.

From January to April, the uncertainty of the banks concerning future inflation increased. The range of forecasts regarding annualised price growth widened: while the forecast range in January was 5.9%-7.6%, by March it was 5.7%-7.9%, and in April it was 4.5%-8.4%. In May and June, this range continued to be large, at 3.5-3.7 points (cf. Fig. 32). In May, the banks were projecting inflation in twelve months' time of 5.0%-8.5%, while in June the forecasts ranged from 4.7% to 8.4%. It may be assumed that those banks projecting annualised inflation of below 5% in a year's time expect that the intervening period will bring sharp readjustments within the real economy.

Since the inflation expectations of the banks in the quarter under review were relatively stable, the distributions will be discussed together. The first quartile of scores in the particular months of the second quarter stood at 5.8%-6.1%. This means that 25% of the banks were of the opinion that inflation would be no greater than 5.8%-6.1%, while the remaining 75% believed that price growth would be no less than 5.8%-6.1%. The median scores were from 6.4% to 6.6%, thus indicating that half of the respondents believed that inflation would be 6.4%-6.6%, while half considered that it would be no less than 6.4%-6.6%. The third quartile came to 6.8%-6.9%. In other words, 75% of the banks surveyed forecast annual inflation of no more than 6.8%-6.9%, while the rest expected that it would be no less than 6.8%-6.9%.

One source of information on movements in inflation expectations on financial markets are the changes that take place in the shape and position of the yield curve. However, deriving information on inflation expectations from the yield curve is a difficult task in any circumstances, one reason being that yields on securities contain a risk premium, and estimating that premium is always a very complex matter. The existence of risk premiums means that the level of long-term interest rates cannot be easily interpreted as the rate of inflation the market expects in the longer time frame, nor can forward interest rates be unreservedly taken to indicate the market's expectation of the future level of short-term rates.

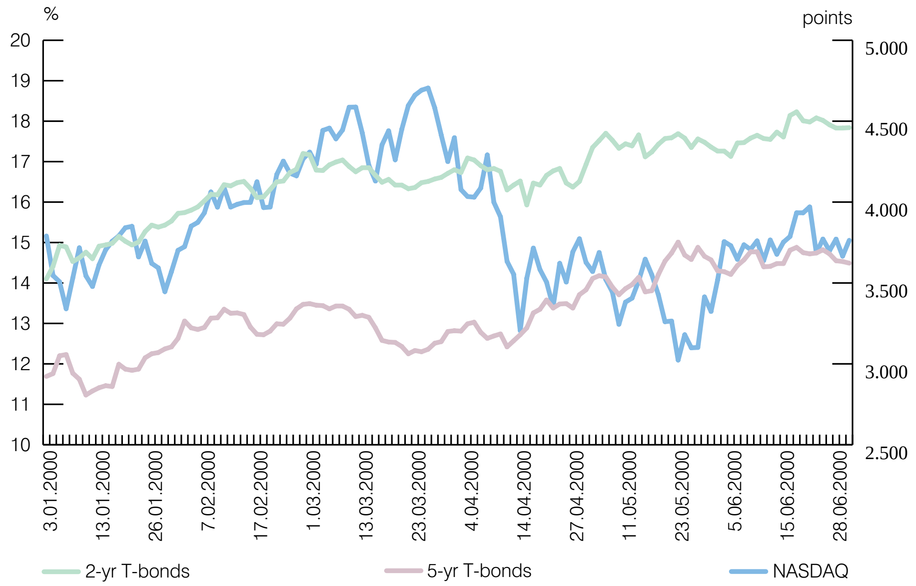
The difficulties in drawing inferences concerning inflation expectations from the yield curve are compounded in a country such as Poland, where macroeconomic conditions are subject to rapid change, resulting in the significant volatility of risk premiums, and where the bond market is very shallow, thereby making bond prices extremely sensitive to changes in supply and demand on the domestic market. In addition, changes on the domestic market are to a considerable extent driven by changes occurring on international financial markets. An example of this is the relatively large degree to which price movements on the domestic bond market are conditioned by movements in the NASDAQ (cf. Fig. 33).

For the reasons outlined above, obtaining information on the expected level of future inflation from the yield curve is difficult in Poland, yet the changes taking place in the shape and position of the curve do provide significant information on inflation expectations and how these are changing. The shape of the curve itself certainly supplies information of this sort, as it reflects investor expectations concerning future interest rates, and thus also the rate of inflation.

The substantial movements in the position of the yield curve in the second quarter of the year make it hard to draw definitive conclusions regarding the factors behind the generally parallel upward shift that took place. Two primary factors would seem to have been at play. The first was an increase in risk premiums, while the second was probably a change in investor expectations. Investors began to believe that inflation and interest rates would come down at a later date than they had previously expected.

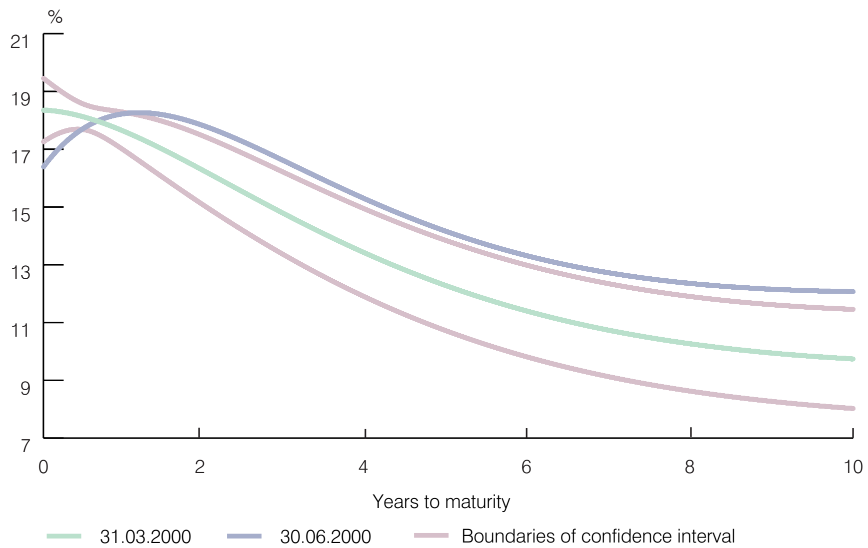
During the second quarter, the zero-coupon yield curve shifted upwards 157 bps for securities of 2 years maturity, going up 188 and 233 bps for maturities of 5 and 10 years, respectively. This shift was statistically significant. Taking into account the figures for the second quarter (on an ex post basis), at the beginning of the quarter there was a 95% likelihood that the yield curve would stay in the area of volatility determined by the

Figure 33
T-bond yields vs NASDAQ



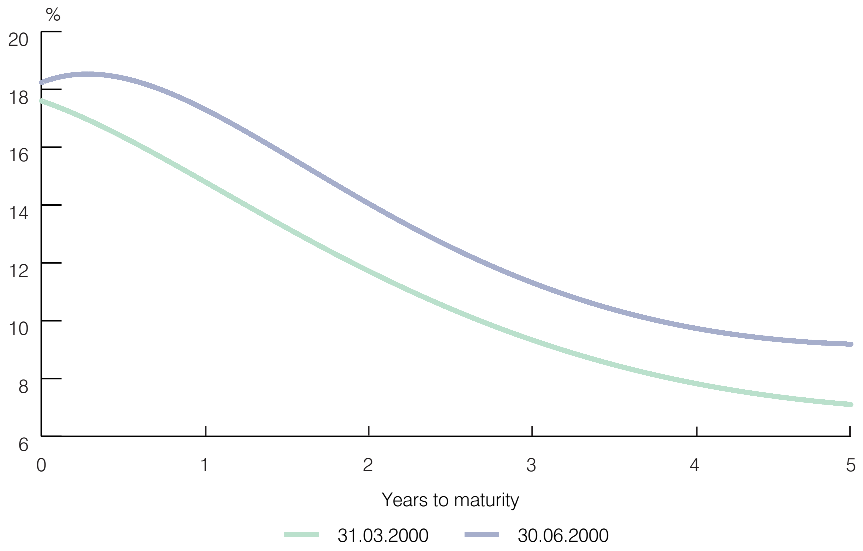
Source: NBP, bank information systems.

Figure 34
Zero-coupon yield curve & confidence interval



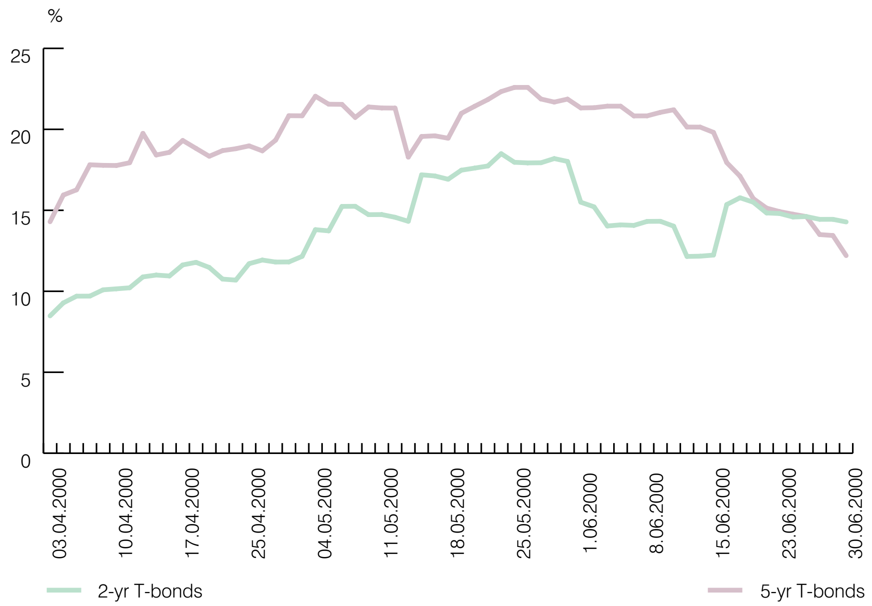
Source: NBP calculations based on figures from bank information systems.

Figure 35
12-month forward yield curves



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

Figure 36
*Secondary T-bond market volatility**



* Volatility indicator calculated as standard deviation of daily movements in yields for given asset, on annualised 20-day basis, relative to zero-coupon benchmarks.

Source: NBP calculations.

confidence interval[28]. The fact that the yield curve moved outside that area (cf. Fig. 34) should no doubt be ascribed to the systemic change involved in the floating of the zloty.

As was the case on the money market (cf. previous section on ***The interest rate channel***), the bond market also saw a continuing rise in rates, although there was a relatively stronger response on the bond market to the news that inflation had bounced back to 10%. This is because long-term interest rates are generally more sensitive to information concerning future inflation. Nonetheless, as on the FRA market, the reaction of long-term rates to the news of double-digit inflation was only temporary. In the final weeks of the quarter, long-term rates came down slightly.

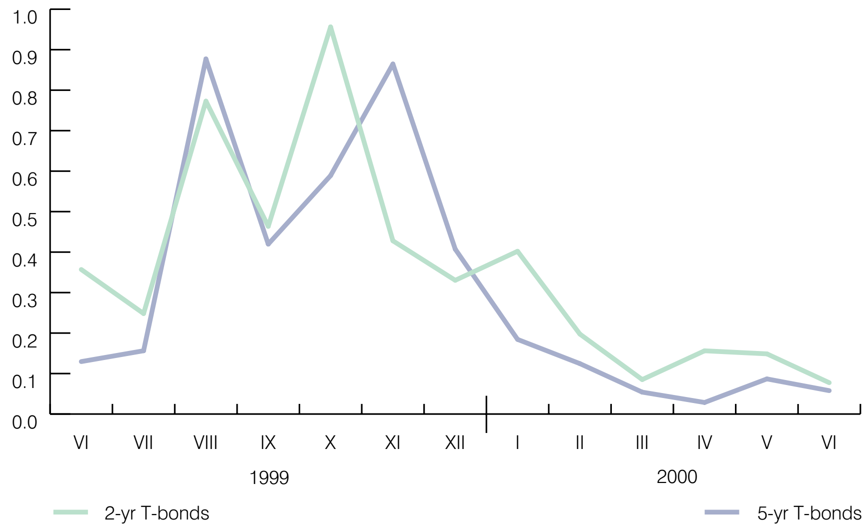
The shifts that occurred in the yield curve indicate that the view of future interest rates taken by investors changed during the second quarter. The forward rates derived from the yield curve, which approximately mirror the 12-month interest rates expected by the financial markets in years to come, may suggest that investors have begun working on the premiss that Polish interest rates will fall at a later point in time than they previously believed. This conclusion is supported by a comparison of 12-month forward rates derived from the yield curve at the beginning and end of the quarter (cf. Fig. 35).

There are two factors which appear to suggest that, while risk premiums have risen and investors have revised their earlier assumptions of when inflation in Poland will clearly begin to ebb, investor uncertainty as to the future of events has also probably diminished. The first sign in this direction was the distinct reduction in bond price volatility at the end of the quarter (cf. Fig. 36), although it is difficult to form a view on this, given the relatively short duration of the change involved.

A development that seems to provide much more credible confirmation of the hypothesis that investor uncertainty has decreased was the marked decline and stabilisation of the slope coefficient of the auction demand function at T-bill tenders, which represents a summary reflection of the degree of investor uncertainty concern-

[28] The confidence interval defines the area where there is a 95% probability of the yield curve being positioned in the period under examination, as calculated on the basis of data from that period, assuming Student's t-distribution.

Figure 37
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 calculations.

ing future interest rates, and indirectly also future inflation (cf. Fig. 37).

This decrease in the indicator of investor uncertainty was accompanied by an increase in demand for Polish bonds. This may perhaps attest to the strengthening of a conviction among investors that the rise in inflation in Poland is a temporary phenomenon, thus making it profitable to buy up Polish Treasuries at attractively low prices.

The securities channel (the "asset price effect")

An increase in the value of financial assets, by expanding the wealth of households, may stimulate increased consumer demand, provided that a substantial part of households own securities, and that 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. Table 8 presents the direct and indirect forms of household investment on the Polish capital market.

Certain investments have been omitted from the above table, as they have still to acquire any greater sig-

Table 8
Direct & indirect forms of personal capital market investment, Q1 2000

Type of capital investment	Balance, year end 1999	Balance, Q1 end 2000
	billion zloty	
1. Direct portfolio investment - securities held		
on personal accounts (total)	**16.3**	**17.7**
Shares	11.8	12.6
Bonds	2.4	2.8
T-bills	2.1	2.3
2. Indirect portfolio investment (total)	**5.5**	**8.0**
Investment funds (net assets)*	3.2	3.9
Pension funds (net assets)	2.3	4.1
Total	**21.8**	**25.7**
Above investments (total) as proportion of bank		
liabilities to persons. in zloty & foreign currency (%)	14.1	16.5

* GUS estimates that some 10% of holdings in investment funds belong to parties other than households.

Source: materials developed by GUS. NBP. the Association of Pension Fund Companies. the Agency for the Supervision of Pension Funds (UNFE).

nificance in Poland, e.g., personal investment packages offered by insurance companies.

The factors generating asset value growth in the first quarter of the year comprised:

- firstly, a rise in the price of publicly-traded shares, which was reflected in an increase in the value of the equities held on the accounts of personal investors and investment funds, and
- secondly, an influx of contributions to pension funds.

The fact that the securities channel is still of modest importance is evidenced by the final item in Table 8, which shows the ratio of the principal forms of investment to the banks' liabilities to persons. This indicates that, in the period in question, both forms of personal investment on the capital market, direct and indirect, together represented a mere 16.5% of the aforementioned liabilities. It is also worth bearing in mind that there is large concentration of securities holdings in Poland in the hands of a small group of the population, estimated at around 100-200,000 (the "active investors"), which additionally restricts the impact of personal portfolio investment on the volume of consumption. The development of pension funds may partly alter this situation. The second quarter brought a further increase

Table 9
Warsaw Stock Exchange Index (WIG), March-June 2000

Month	WIG at month end (points)
March	21,255.9
April	19,631.1
May	19,570.5
June	19,642.7

Source: Warsaw Stock Exchange Price Bulletin (*Cedula GPW SA*).

in the asset portfolios of these funds, which by June had grown to 6bn zloty.

Movements in share prices during the second quarter of 2000 are outlined in Table 9.

Factors impacting the market in this period were both political, including the crisis in the ruling coalition, and economic, which primarily involved the mounting deficit on the current account. While the market responded to the former with relative calm, the latter provoked a much sharper reaction, since a rising deficit is frequently regarded as a warning sign of potential disruptions to local financial markets. An important event for the market in publicly-traded equities at this time was the offering of shares in the PKN ORLEN oil corporation, where the retail investor tranche was oversubscribed elevenfold.

In all, the period under review witnessed a fall in share prices of 7.6% relative to the end of March. This had a significant effect on investment funds, with the value of their assets dropping in May to 3.7bn zloty.

The figures presented above depict the growth in the value of the securities portfolios held directly or indirectly by personal investors. However, these sums are still minor ones, which is attributable to a series of factors, such as the powerful competition from the banking industry and the limited surplus funds held by households which can realistically be applied to capital investments. For this reason, the asset price effect will only have a real influence on the size of consumer demand in Poland in the longer time horizon.

Impact of external prices on inflation

The accelerating pace of industrial output in the euro area countries (year-on-year growth of 5% in Q1 2000 and 7.2% in Q2)[29] was incapable of offsetting the slower growth of demand for industrial raw materials caused by the parallel decline in US output growth, which fell from 6.1% to 5.8%[30]. The reduction in demand growth affected commodity prices; while the first quarter had brought a year-on-year increase of 27.5% in metal prices and 5.8% in the price of agricultural commodities used in industry, the second quarter saw the rise in metal prices drop to 11.6%, while the price of agricultural commodities used in industry fell in absolute terms, going down 9.8%. Over the first half of the year as a whole, price growth for these two groups of commodities came to a positive 14.7% and a negative 9.0%, respectively.

Similarly, on the market for foodstuffs, prices slipped 1.9% in the second quarter, to fall by a total of 5.6% during the first two quarters compared to the corresponding periods of 1999.

Having risen 4.5% in the first quarter of the year, the index of world non-energy commodity prices dropped 1.5% in the second, coming down 2.3% over the first half of the year[31].

Throughout virtually all of the second quarter (from April 12 onwards), world oil prices moved upwards. The increase in production agreed on by the leading oil producers at the OPEC conference in March proved too small to satisfy demand, far less to rebuild stocks. As a result, average oil prices (Brent and WTI) surged almost 26% in the second quarter, approaching the record highs seen at the beginning of March. This surge in oil prices was additionally fed by heightened demand rooted in psychological factors, i.e., in projections that oil supplies would be insufficient during the summer season, traditionally a time of increased consumption of this commodity. These fears were periodically supported by news of shrinking oil reserves in the US, the largest market for oil.

Worried that an excessive increase in prices might weaken economic activity in the OECD countries, thereby reducing demand for oil, the OPEC countries called an extraordinary conference on June 21, where

[29] *The Economist*, issues from June 10 to July 29, 2000.
[30] Ibid.
[31] *International Financial Statistics*, June, 2000; *The Economist*, issues from June 10 to July 29, 2000.

extraction and production quotas for the producers belonging to the cartel were raised for the second time this year. Nonetheless, neither this move, nor the news that US oil stocks had risen again, were enough to halt the upward trend in oil prices in the final ten days of June (cf. Fig. 38)[32].

Petrol prices on world commodity exchanges rose even faster than oil prices. These prices hit record highs in June. At the end of the third week of the month, 1 tonne of 95-octane unleaded Premium petrol was selling in Holland for USD 393, as against USD 280 at the beginning of the second quarter (an increase of 40%) and USD 225 at the start of the year (an increase of 75%) (cf. Fig. 39).

Despite the 100% year-on-year increase in world oil prices in the first half of 2000, GUS reports no rise in transaction prices, as expressed in dollars, in total Polish imports[33]. In the first quarter, these prices came down 3.2%, and fell 3.3% in April[34]. On the basis of the commodity price figures outlined above, together with data on the price of manufactured goods, exchange rates and the pattern of imports, it can estimated that dollar import transaction prices were over 2% lower in the first half of the year relative to the corresponding period of 1999. At the same time, dollar export transaction prices went down some 7.5%. Thus, a further deterioration took place in Poland's terms of trade, which dropped from 94.8 in the first quarter to 94.4 in the first half of the year as a whole (by comparison, the terms of trade for 1999 as a whole stood at 100.8).

Figures 40, 41 and 42 provide a breakdown of the overall index of Polish import transaction prices[35]. In the first quarter of the year, the index of import transaction

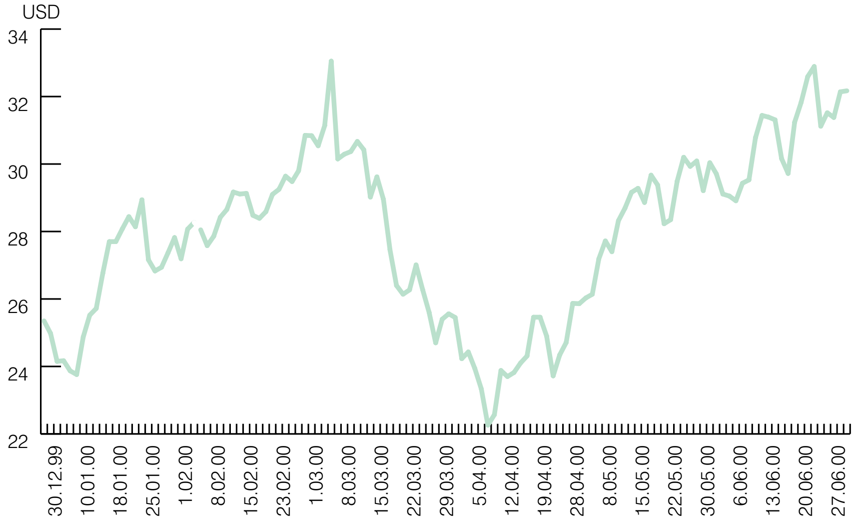
[32] A degree of calm was only restored to the market for liquid fuels when Saudi Arabia announced its decision on July 10 to increase production by an additional 500,000 barrels per day if the average price of 7 types of oil stayed above USD 28 per barrel for a period of 20 days. Nevertheless, the persistence of strong demand and low stocks has led to oil prices flattening out at a high level, in the region of USD 27-28 per barrel to year end 2000, and probably USD 25-27 in 2001.

[33] The share of liquid fuels (crude oil, petrol and petroleum oils) in total Polish imports stood at 7.15% in 1999, and 10.59% in Q1 2000. The increase in their relative weight is exclusively the product of rising prices. Taking the year 1999 as equal to 100.0, the volume of crude oil imports rose 4.8% in Q1 2000, while that of petrol, petroleum oils and kerosene, which account for around 13% of fuel imports, fell 44%. The end result was that the volume of liquid fuel imports decreased 1.2%.

[34] GUS figures are not available for May and June 2000, making it necessary to use estimates.

[35] Prices given in zloty; analysis refers to period up to and including Q1 2000, since detailed GUS figures are not available for Q2.

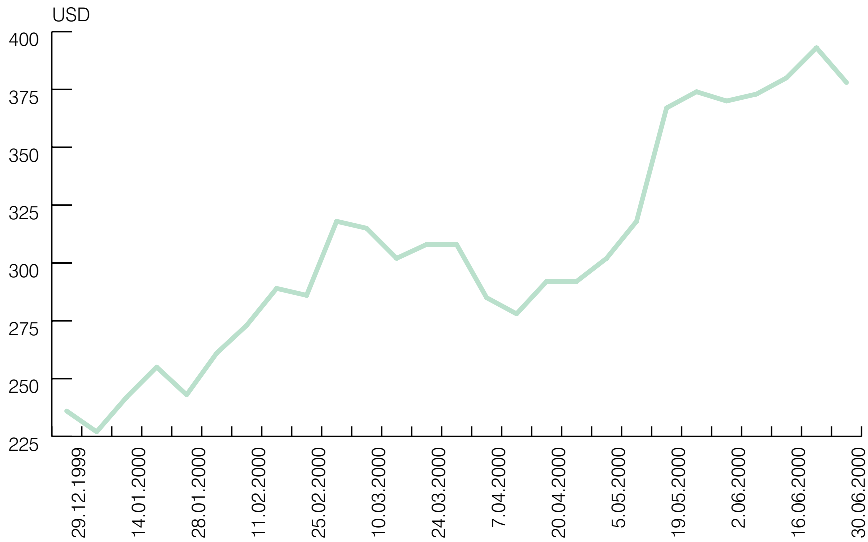
Figure 38
Average oil prices quoted for Brent & WTI, 2000, USD per barrel*



* Average price for Brent (North Sea) and WTI (USA).

Source: Reuters.

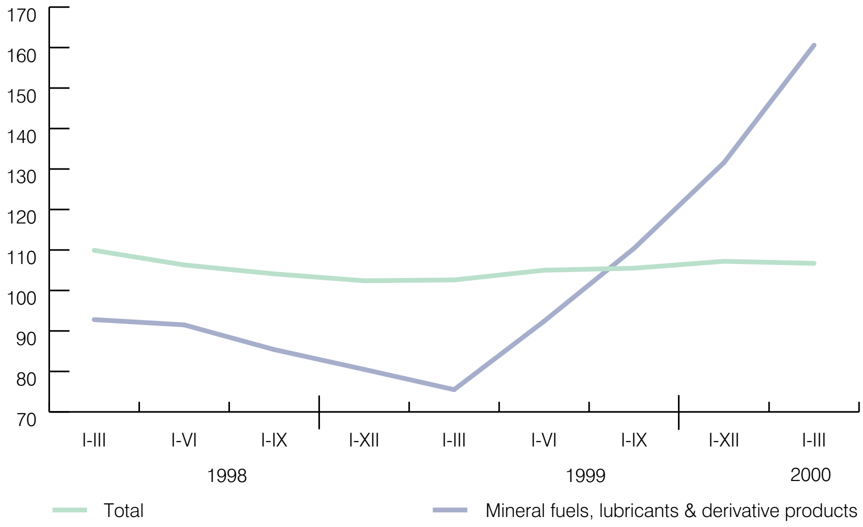
Figure 39
Weekly prices (FOB), 95-octane unleaded Premium petrol ARA*, USD per tonne
(weekly figures)



* Amsterdam-Rotterdam-Antwerp.

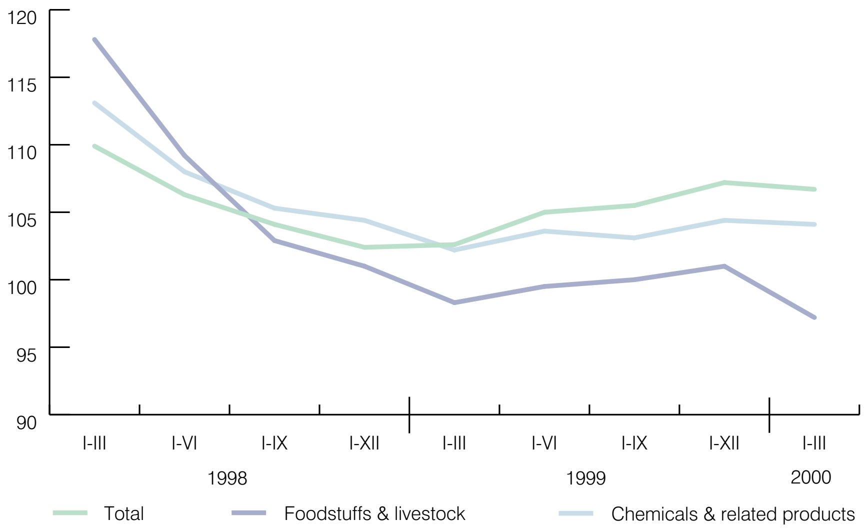
Source: Reuters.

Figure 40
Cumulative indices of Polish import transaction prices
(corresponding period previous year = 100)



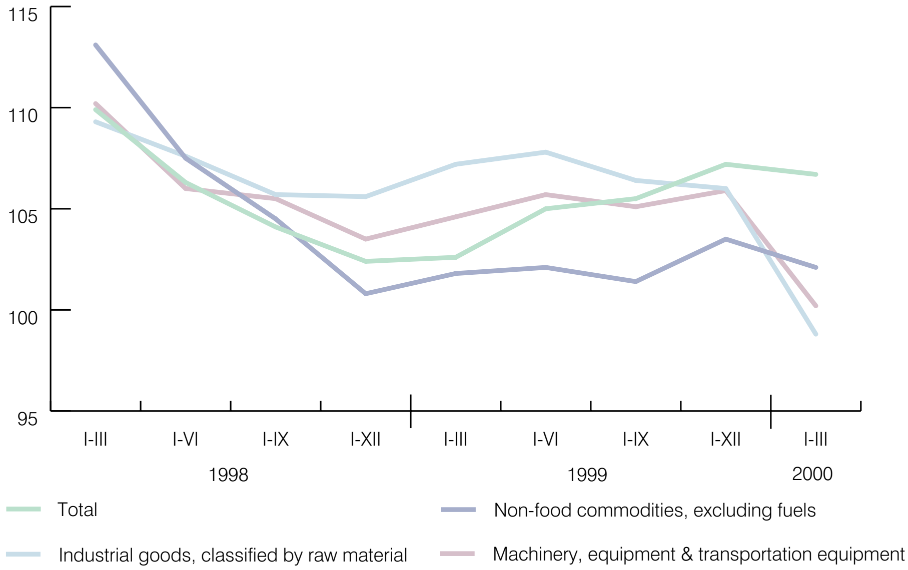
Source: NBP calculations based on GUS figures.

Figure 41
Cumulative indices of Polish import transaction prices
(corresponding period previous year = 100)



Source: GUS.

Figure 42
Cumulative indices of Polish import transaction prices
(corresponding period previous year = 100)



Source: GUS.

prices rose 6.7% in zloty terms. This increase was the combined effect of a 60.3% rise in the price of mineral fuels and derivatives (representing 10.6% of total imports)[36], a 0.3% fall in the price of manufactured goods (representing 65.3% of total imports, this category comprises industrial goods, chiefly classified by raw material, together with machinery, equipment, transport equipment and miscellaneous other industrial products), a 2.8% fall in the price of foodstuffs (5.6% of total imports) and small rises in the price of other goods.

The 6.7% increase in import prices breaks down as follows:

- fuels contributed **6.4** points of the overall increase;
- chemicals and industrial commodities contributed **0.7** points;
- foodstuffs and industrial goods lowered the increase by **0.4** points.

In view of the figures presented above, it has to be stated that, despite world oil prices climbing 100%, external prices expressed in dollars did not result in

[36] NBP calculations based on GUS figures reported in *Handel Zagraniczny* (Foreign Trade, January-March 2000) and *Biuletyn Statystyczny* (Statistical Bulletin) no. 6/2000.

faster consumer price growth in the first half of 2000. However, it has to be borne in mind that fuel prices on the Polish market are not directly determined by the price of oil imports[37].

Estimates for the Polish economy utilising a pass-through model of the impact of movements in exchange rates and import prices on domestic prices, retaining the sequence of the successive stages of price formation (import – production – consumption) and employing a VAR model, indicate that:

- the cumulative impact of zloty-dollar exchange rates and dollar transaction prices accounts for some 1/3 of the movements in the CPI,
- a 10% depreciation of the zloty against the dollar can cause CPI growth of around 2.1%, while a 10% increase in dollar import transaction prices can raise the CPI by around 1.3%.

In nominal terms, the zloty lost 9.8% against the dollar in the first half of 2000 compared to the corresponding period of the previous year. It can therefore be estimated that zloty depreciation relative to the dollar could have increased CPI inflation in the first half of 2000 by 0.2-0.3 points[38].

Aggregate supply and demand

In the second quarter of 2000, domestic demand continued to outstrip supply, although – as in the fourth quarter of 1999 and first quarter of 2000 – the difference between the two grew more slowly than at the turn of 1998-99. Second-quarter GDP growth came to 5.2% year-on-year, while domestic demand was up 3.3%. Value added grew strongly in industry, although slightly decreasing in commercial services compared to the high growth recorded in the previous quarter. In con-

[37] External prices expressed in zloty could have added around 0.3 points to CPI growth. Further, it is worth considering two other facts:
– the price growth of Polish oil imports may differ significantly from the growth observed on world markets due to long-term contracts for deliveries of Russian oil, which is priced on the basis of lagged world price quotes;
– domestic factory-gate fuel prices are not directly related to oil prices, since they are set by the refineries on the basis of an "import parity", where imported petrol prices account for 39% of parity.

[38] If import prices are expressed in euro, the growth in these prices reported by GUS came to 10.5% in Q1, and around 11% (estimated) in the first half of the year. On this basis, external prices as expressed in euro could have contributed an estimated 0.2-0.3 points to CPI growth in the first half of 2000. Meanwhile, the exchange rate of the zloty relative to the euro (up 3.5% in the first half of 2000), was either neutral, or exerted a mild downward impact on the CPI.

Table 10
GDP & domestic demand growth

	1999					2000	
	Q1-4	Q1	Q2	Q3	Q4	Q1	Q2
	corresponding period previous year = 100						
Total value added	**103.8**	**101.4**	**102.8**	**104.7**	**105.9**	**105.8**	**105.0**
- Industry	104.7	97.3	101.6	107.5	111.5	110.1	109.4
- Construction	103.8	102.1	103.2	103.6	105.1	104.0	100.8
- Commercial services	104.6	104.2	104.3	104.8	104.9	105.8	105.3
Gross Domestic Product	**104.1**	**101.6**	**103.0**	**105.0**	**106.2**	**106.0**	**105.2**
Domestic demand	**104.9**	**103.3**	**104.6**	**105.6**	**105.8**	**105.1**	**103.3**
- Capital formation	106.8	101.1	106.5	109.0	106.8	111.2	106.7
Fixed investment	106.9	106.1	106.8	107.0	107.3	105.5	102.9
- Consumption	104.2	103.7	104.1	104.5	104.6	103.9	102.3
Personal consumption	105.0	104.3	104.9	105.3	105.4	104.6	102.6

Source: GUS.

struction, value added was smaller than in the second quarter of 1999. The relatively high rate of GDP growth was sustained thanks to external demand running well above the low level recorded a year earlier, with growth in consumption waning and growth in capital formation returning to the level registered in the year 1999 as a whole. Compared to the corresponding period of the previous year, it is estimated that the negative level of net exports decreased. Growth in GDP and domestic demand is set out in Table 10.

Domestic demand

Annualised domestic demand growth was lower in the second quarter of 2000 than in the first. Consumption growth slackened due to slower growth in personal consumption. Since stockbuilding in the second quarter was no longer affected by a low reference base[39], the further decline in the growth of gross fixed investment meant that capital formation was considerably down on the first quarter of the year.

Lower consumer demand growth was connected with the slower rise in household incomes. The growth of all

[39] In Q1 1999, the increase in working capital stocks and reserves was almost zero, as a result of which, despite a low increase in fixed investment, capital formation in Q1 2000 was up 11.2% year-on-year.

the basic components of disposable incomes came down. Given the maintenance of high industrial output growth, it can be surmised that in relative terms growth in incomes from non-farming operating surplus declined the least. The purchasing power of incomes from employment and from social benefits was lower than twelve months previously. No material change was noted in the poor state of incomes in private farmer households.

Average employee earnings in the corporate sector (gross) were 2.5% higher in real terms than a year before. Since average employment shrank 3.4%, the purchasing power of incomes from employment in this sector fell 0.9% relative to the second quarter of 1999. At time of writing, figures were not available on wages within the government sector, which in the first quarter were higher than a year earlier. Owing to inflation running higher than assumed in the Budget, with employment down, it can be inferred that real incomes from employment in the government sector were no greater in the second quarter than they had been a year before.

June saw cost-of-living adjustments to social benefits, which raised the nominal value of old-age and disability pensions, both for employees (up 5.9%) and for farmers (up 5.4%). Nevertheless, faster price growth meant that the purchasing power of these pensions was less than in June 1999, by 3.8% and 4.3%, respectively. Over the first half of 2000 as a whole, old-age and disability pensions were in real terms lower than a year previously, with employee pensions down 0.5% and farmers' pensions down 1.1%.

With relatively slow growth in disposable incomes, the increase in outstanding lending to households recorded in April and May was low. June saw a large rise in personal borrowings, yet this was associated with subscriptions to the share offering from the PKN ORLEN oil corporation and had no impact on the volume of personal consumption. The privatisation of PKN ORLEN "inflated" zloty deposit balances in June. It is estimated that gross household savings in the second quarter of 2000 were in fact lower than in the same period of 1999.

Growth in **personal consumption** was slower in the second quarter than in the first. This is confirmed by figures on retail sales, which were up just 3.9% year-on-year in the second quarter[40]. Sales were down on the first

[40] Figures refer to companies employing more than nine people. Given changes in the pattern of purchases, total retail sales growth can be estimated to have been even lower.

quarter in distribution companies trading in motor vehicles and fuels. Sales growth was lower in textiles, clothing and footwear, and also in furniture, radio and TV equipment, and household appliances. By contrast, retail sales continued to grow relatively swiftly at firms operating non-specialised outlets mainly selling foodstuffs. The relative weight of imported goods in supplying the domestic market increased once again, which indicates that output growth at firms chiefly producing consumer goods fell more rapidly than growth in consumption.

Although no figures on **fixed investment** were available at time of writing, indicators that indirectly reflect the scale of investment activity suggest that the decline in consumer demand growth was less pronounced than that in investment demand growth (which dropped from 5.5% to 4.2%). Second-quarter construction output was down some 2% year-on-year, with a significant decrease in the volume of repair and maintenance works, and slightly more activity in capital construction and modernisation. Industrial companies chiefly manufacturing capital equipment maintained relatively high output growth (up 14% in Q1 and 16% in the first half of the year), although surveys of business activity indicate that this was connected with the increase in exports. In all of the particular months of the second quarter, these companies reported a decline in domestic demand, with a major increase in external demand. Output of machinery and equipment was up just 3.8% year-on-year. In electrical machinery and apparatus, output grew 14.6%, although this was mainly due to an increase of over 20% in sales abroad of insulated wire and cable and of electricity distribution and control apparatus. Imports of capital equipment were higher than a year previously, although growth here slowed, and this item decreased as a proportion of total imports.

The decline in investment demand is associated with the prevailing problems encountered by companies in financing 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 tight corporate finances and a negative assessment of the sales opportunities afforded by new investment, which could curb new capex projects. In 1999, the cost-estimate value of projects in course of construction, at current prices, was only 2.1% greater than in 1998, which substantially constrained potential project implementation in the first half of 2000.

In the second quarter of the year, the **fiscal deficit** rose 3.7bn zloty, to stand at 10.7bn zloty at the end of June. This is equivalent to 69.2% of the target deficit set in this year's Budget, as against 88.4% of the planned target at the same point last year. However, it should be noted that, in assessing the impact of the fiscal deficit on domestic demand, these figures are not comparable, due to:

- compensation payments in 2000, which are treated as the repayment of prior period debt, not as central government expenditure,
- the transfer by central government of pension contributions to the second pillar of the pension system, with these contributions constituting savings, rather than a central government expenditure.

In the period under examination, central government receipts came to 33.3bn zloty, to total 64.2bn zloty at mid-year, which represents 45.6% of the amount targetted for the year as a whole. Revenues from indirect taxation and corporate income tax were at a satisfactory level, coming to 44.9% and 45.2%, respectively, of the annual targets. It should be noted here that indirect taxes provided the dominant share of total receipts, equivalent to 61.2%. However, the swiftest growth was seen in revenues from customs duty and from government-owned enterprises. Revenues from personal income tax were still far off target, which is probably related to large refunds of excess tax paid in 1999. These receipts stood at only 33.9% of the amount projected in the Budget for the year as a whole, whereas at mid-year 1999 the corresponding ratio was higher, at 43.2%. In addition, in June the Treasury also received a transfer from NBP profits of 2.2bn zloty (90.4% of this year's plan), which meant that the nominal amount of total government receipts in the second quarter was precisely that much greater than receipts in the first quarter.

During the second quarter, central government expenditure stood at 37.0bn zloty, giving a year-to-date total of 74.9bn zloty at the end of June, or 47.9% of the target for the year 2000. The most rapid growth was in subsidies to the Employment Fund, in the cost of servicing the domestic portion of the national debt, and in the local government support grant. The fact that subsidies to the Employment Fund already represented 66.3% of the annual amount projected was linked to an increase in payments of unemployment benefit caused by unemployment running higher than was forecast in drawing up the national budget. In 1999, the Employment Fund was not yet receiving additional funding from the Treasury, while in 1998 the Fund utilised only 22% of the funding allocated to it. Owing to the maintenance of high interest rates, the Treasury had at mid-year already applied 54% of the amount budgetted for servicing the domestic debt. By contrast, foreign debt service had used up only 37.9% of the amount planned. Meanwhile, the large proportion of the local government support grant already paid out (58.2% of the annual target) is attributable to the disbursement of the education subsidy one month in advance. A concern, however, is that the amount assigned to education in the 2000 Budget has now proved insufficient in view of amendments to the Teacher's Charter, with the shortfall put at 1.2bn zloty.

The level of subsidies paid to the Social Insurance Fund was relatively lower at mid-year 2000 than it had been twelve months before, coming to 44.1% of the annual plan as against 55.8%. Further, the fact that a Treasury loan of 2.0bn zloty has still to be used by the Fund may indicate that it is in better financial health this year. However, it should be noted that the monies allocated to the Fund this year are 68.5% higher than last year.

Although central government receipts rose faster than expenditure in the second quarter, and the increase in the fiscal deficit was moderate, the Treasury faced liquidity problems during this quarter. The cause of periodic problems in meeting central government funding requirements, which remained high, was the low inflow of funds from the market. Net revenues from sales of Treasury securities to foreign and domestic non-bank investors stood at some 1.7bn zloty (compared to 6.9bn zloty in Q1), while privatisation receipts came to 1bn zloty (compared to 3.3bn zloty in Q1). To fund the deficit and cover other commitments, including compensation payments (1.3bn zloty) and the negative balance on foreign credits (0.14bn zloty), the Treasury drew on funds placed on account at the NBP and put on hold in the first months of the year. At the beginning of the year, this central government deposit at the NBP had a balance of 9.1bn zloty, which then declined to 5.1bn at the end of March and 1.1bn at the end of June. Withdrawing these funds had the effect of increasing the net indebtedness of general government at the banks.

The central government deficit in economic terms, i.e., the fiscal deficit adjusted by 1.9bn zloty in disbursements of compensation payments and 3.7bn zloty in pension contributions transferred to open-ended pension funds by ZUS, stood at around 8.9bn zloty at the end of June.

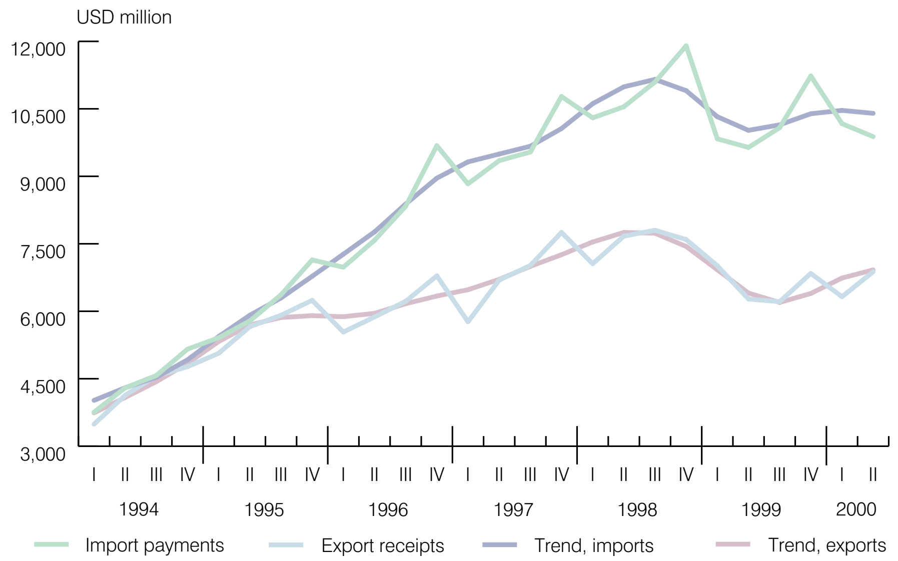
Compared to the same period of 1999, when the central government deficit stood at 11.3bn zloty, this segment of public finances thus played a lesser role in fuelling domestic demand. As a proportion of GDP, the central government economic deficit was cut from 4.1% in the first half of 1999 to 2.8% in the first half of 2000. Nevertheless, there are worrying signs from the other segments of public finances. One example is the underbudgetting of the education subsidy, which could generate an additional deficit in local government, while another is the information regarding periodic shortages of liquidity at the Employment Fund, which could raise the shortfall at that Fund. Given the lack of data on the performance of the remaining components of public finances, it is impossible to judge whether the second quarter in fact brought any significant tightening of fiscal policy.

External disequilibrium and inflationary threats

The second quarter of 2000 saw a clear improvement on the current account of Poland's balance of payments. The current deficit fell 23% relative to the second quarter of 1999; compared to the first quarter of 2000, the improvement in the scale of external disequilibrium was much greater, coming to 40%. On an annualised basis, the ratio of the current deficit to GDP in the second quarter of 2000 is estimated at 7.7%, as against 5.9% in the second quarter of 1999 and 8.2% in the first quarter of 2000, when the deterioration in this ratio was the steepest so far.

The healthier state of the current account in the second quarter of 2000 stemmed from better performance on the three most important items of the cur-

Figure 43
Foreign trade, balance of payments basis

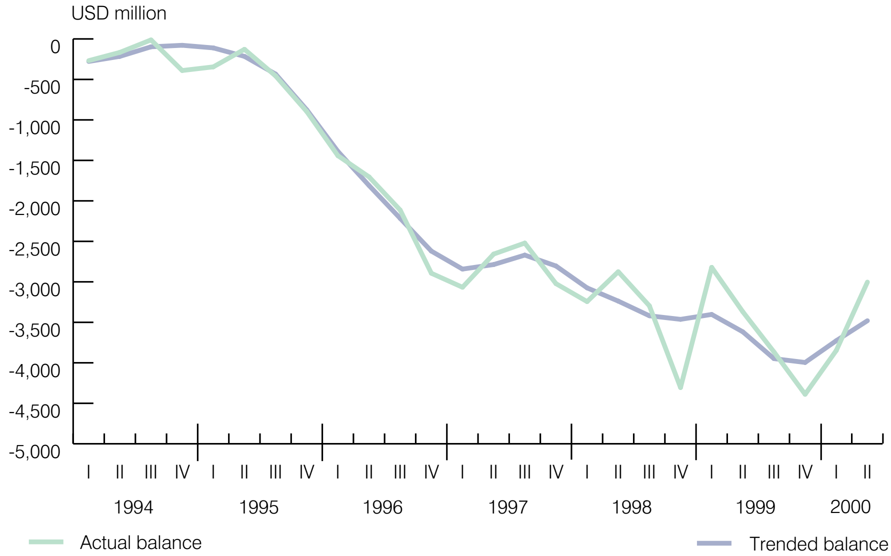


Source: NBP calculations.

rent balance: trade in goods, services and unclassified current transactions. At the same time, this indicates that balance of payments statistics are beginning to bring belated confirmation of the upturn in Polish exports that has been under way since the second half of 1999.

The second quarter of 2000 was the third quarter in succession to witness an upward trend in the export receipts reported in Poland's balance of payments. It was also the first quarter to show a slowdown in the growth of import payments (cf. Fig. 43). From April to June, export receipts amounted to USD 6.9bn, while import payments totalled USD 9.9bn. As a result, the balance on trade in goods came to a negative USD 3bn. A comparison of these trade figures with those for the second quarter of 1999 indicates that dollar export receipts and import remittances in the second quarter of this year were up 9.7% and 2.2%, respectively; relative to the first quarter of 2000, exports rose 8.8%, while imports dropped 3%. Due to the markedly faster growth of exports than imports, the balance of trade in the second quarter of 2000 displayed an improvement of

Figure 44
Balance of trade, balance of payments basis



Source: NBP calculations.

12.0% compared to the corresponding period of 1999, and an impressive 22.6% compared to the first quarter of 2000 (cf. Fig. 44).

A major factor causing trade figures to be understated when expressed in US dollars was the further appreciation of the dollar against the euro in the second quarter. In both exports and imports, movements in cross rates had the effect of reducing growth by over 8 points.

Customs statistics show exports, at current prices, totalling USD 14.7bn over the period January-June, while imports came to USD 23.5bn. Year-on-year, exports were up 11.9%, while imports rose 9.7%. The year-to-date shortfall on visible trade stood at USD 8.8bn (as against USD 8.3bn at mid-year 1999). As expressed in euros, exports came to EUR 15.3bn and imports to EUR 24.5bn, indicating that exports climbed 27.3% compared to the first six months of 1999, while imports rose 24.9%. The trade deficit stood at EUR 9.2bn, as against EUR 7.6bn a year earlier. These positive trends are confirmed by figures on the physical volume of trade. At constant prices, exports in the first five months of 2000 were up 22.0% year-on-year. The largest growth in export volume, 23.4%, was recorded in trade with the EU countries. Exports to the countries

Figure 45
Movements in foreign trade, by volume *(corresponding quarter previous year = 100)*

Source: GUS.

of Central and Eastern Europe rose 22.6%. The volume of imports grew 13.4%. Imports from the Central and Eastern Europe increased 15.0%, while those from the EU were up 13.5%.

Growth in exports to the EU in the first half of the year was stimulated by sales to such countries as Sweden (up 40.0%), Belgium (up 35.8%), the UK (up 36.3%) and France (up 30.3%). The value of exports to Germany, Poland's largest trading partner, rose 9.6% over the first six months of the year, to stand at USD 5.2bn, with imports up 3.1% to USD 5.6bn. Exports to Germany saw an increase in sales in such areas as machinery, equipment and transport equipment, and in industrial goods chiefly classified by raw material, with a decline in sales of miscellaneous industrial products (including men's and ladies' clothing).

Over the first half of 2000, the value of exports to Russia amounted to USD 0.4bn, representing an increase of 17.8% on the corresponding period of 1999. Imports from Russia during the same period totalled USD 2bn, having risen 88.9% year-on-year. Within Poland's exports to Russia, deliveries of machinery, equipment and transport equipment increased, with a decrease in sales of foodstuffs and livestock. Imports from Russia were marked by a 131.1% increase relative to a year before in purchases of mineral fuels, lubricants and derivative products, and in chemicals and related products (cf. Fig. 45).

The progressive improvement in Poland's balance of trade visible in the first half of 2000 was the result of three principal factors, namely, slower domestic demand growth, the upturn on Poland's main sales markets abroad (gathering speed since the latter half of 1999), and a distinct advance in 1999 in the indicators of the competitiveness of the Polish economy.

The weakening pace of domestic demand growth has been reflected in a steady decrease in the growth of import volumes as of the beginning of this year. It is also reaffirmed by changes in the pattern of imports. Breaking imports down by form of utilisation, the period January-June 2000 brought a decline in the relative weight of capital equipment relative to the first six months of 1999 (this category of imports fell from 15.2% of total imports to 14.3%), and also of consumer goods (down from 21.0% to 19.5%), with an increase in the proportion of production supplies (up from 63.7% to 66.0%).

A significant contribution to the growth in the value of imports was made by imports of crude oil and oil products. GUS figures for the first quarter of 2000 indicate that oil imports played an important part in worsening the balance of trade. In the months from January to March, the volume of oil imports rose 15.3% year-on-year, with imports of petroleum oils, petrol and kerosene coming down 16.5%, and those of other oil products going up 29.6%. However, crude oil prices climbed 185% in this period, while those of petroleum oils, petrol and kerosene went up 88%. The combined effect of these developments was that over the first three months of the year imports of crude oil and oil products added some USD 0.6bn to the trade deficit (as reported by GUS) compared to the same period of 1999.

The first half of 2000 saw external demand pick up distinctly. Both figures from Eurostat[41] and estimates by investment banks[42] show GDP growth in the euro area accelerating in the first two quarters of the year, coming

[41] *ECB Monthly Bulletin*, April 2000.
[42] *Europe Weekly*, Deutsche Bank, July 28, 2000.

to 3.2% year-on-year in the first and 3.6% in the second (compared to 1.8% and 2% in Q1 and Q2 1999, respectively). Economic growth in the countries of this region was mainly the result of strong industrial investment growth, which added momentum to import demand. The volume of euro area imports rose 10.7% year-on-year in the first quarter of 2000, as against 3.7% in the first quarter of 1999. The upswing in Western Europe is also confirmed by survey findings, with the industrial confidence index for the euro area rising from 1 point in the third quarter of 1999 to 13 points in the second quarter of 2000. The second quarter of 2000 also brought visible signs of improvement in Russian domestic demand, with analysts at investment banks projecting a gradual increase in import demand in that country[43].

An analysis of the trend function in indices of real effective zloty exchange rates, measured with reference to consumer and producer price movements, shows a sustained trend for the zloty to depreciate in real terms since the second quarter of 1998. Cost competitiveness, measured by an index based on unit labour costs in manufacturing, also exhibited a clear improvement in 1999; in the fourth quarter of that year, this index was 14.2% lower than it had been in the fourth quarter of 1998.

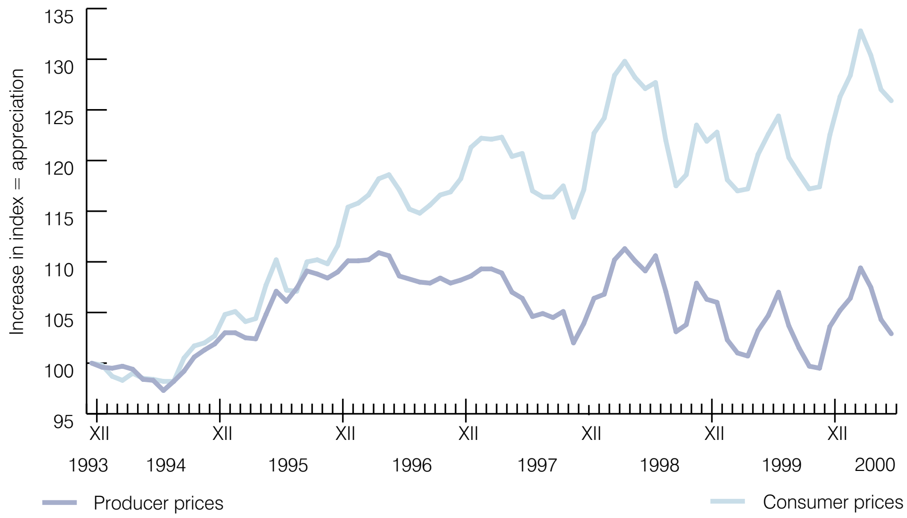
As adjusted by reference to producer price growth in manufacturing, real effective zloty exchange rates had fallen 5.9% at the end of the second quarter of 2000 relative to the end of the first, and were down 0.6% on December 1999 (compared to an increase of 3.7% and decrease of 1.5% over the corresponding periods of 1999)[44]. Real zloty exchange rates adjusted by the CPI also dropped, coming down 5.2% compared to the end of March, although rising 2.7% on year end 1999, as compared to increases in these rates in the previous year of 4.8% and 0.6%, respectively. The movements recorded in indices of real effective zloty exchange rates in the second quarter of 2000 signify an overall improvement in the competitiveness of the Polish economy (cf. Fig. 46).

Adjusted by producer price growth in manufacturing, the real exchange rate for the zloty against the US dollar dropped 6.7% in the second quarter, while

[43] *World Financial Markets*, Third Quarter 2000, JP Morgan, July 7, 2000.

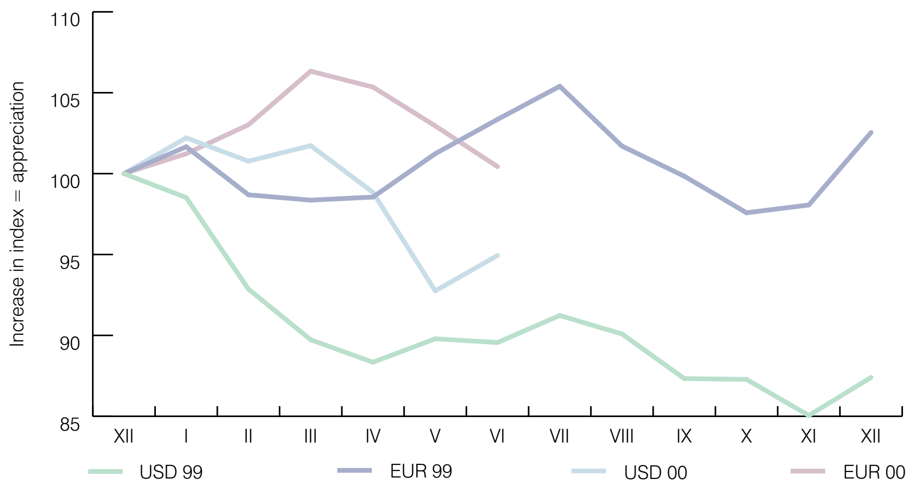
[44] Figures on inflation abroad in May and June 2000 based on estimates.

Figure 46
Real effective zloty exchange rates



Source: NBP calculations.

Figure 47
Real zloty exchange rates against currencies of major trading partners, 1999 - 2000
(December previous year = 100)



Source: NBP calculations.

against the euro it fell 5.6% (cf. Fig. 47). Relative to January this year, the decline against these two currencies came to 7.1% and 0.8%, respectively. The depreciation of the zloty in relation to the euro was encouraged in the second quarter by the acceleration of producer price growth in euro area manufacturing and the strengthening of the euro on the international currency market.

The rising growth of merchandise exports shown by customs statistics in the second quarter of 2000 was accompanied by a pronounced improvement in trade in services and in unclassified current transactions (as registered in the balance of payments). The deficit on services was 20% lower in the second quarter than in the first, although some 9% higher than in the corresponding period of 1999. What should be stressed, however, is that the pace at which the negative balance on services grew in 1999 has been sharply curtailed. Further, a definite improvement was recorded on unclassified current transactions, relative to both the first quarter of 2000 and the second quarter of 1999, with an increase in the surplus on these transactions of 45% and 35%, respectively.

The second quarter also witnessed a clear improvement in funding the shortfall on the current account by means of incoming foreign direct investment; FDI financed some 52% of the current deficit, as against some 38% in the same period of 1999 and around 42% in the first quarter of this year.

Aggregate supply

Value added is estimated to have risen 5.0% year-on-year in the second quarter (as against 5.8% in Q1). This slackening of growth was connected with slower growth in domestic demand. This particularly refers to construction and commercial services. The maintenance of strong growth in industry, on the other hand, was related to a substantial increase in exports. The rise in value added was achieved with lower employment than twelve months previously. Productivity grew faster than output, especially in industry.

Second-quarter industrial output was up 9.7% year-on-year. Particularly sharp growth was recorded in companies selling their goods abroad. This applies both to firms producing capital equipment and to those producing production supplies, and to a certain extent also to those producing consumer goods. Despite a fall of over 20% in domestic sales of passenger cars, output rose 22.8% in the division "manufacture of motor vehicles, trailers and semi-trailers", mainly as a result of an increase of more than 45% in the production of parts and accessories for motor vehicles. The economic improvement abroad led to higher demand for metal products, with the division "manufacture of metals" raising output 15%. The upturn in the metal industry stimulated even more significant growth in the coke industry, where sales went up almost 100%. Growth of nearly 20% year-on-year was reported in the manufacture of radio, television and communication equipment and apparatus, with production of TV and radio sets up over 27%. Output rose some 4% at companies mainly producing consumer goods, with growth of 3.9% in food products and beverages and 5.3% in chemicals and chemical products. Output fell in wearing apparel (down some 6%) and in footwear (down around 5%).

Preliminary estimates are that the growth of value added in commercial services declined from 5.8% in the first quarter to 5.3% in the second. Slower growth here is primarily traceable to a significantly lower rise in sales and margins in retail distribution (retail sales growth fell from 8.8% to 3.9%). Despite the substantial increase in foreign trade, growth in wholesale decreased, which may be attributed to the faster growth of exports, largely carried out directly by industrial companies, with slower growth in imports, handled mainly by distributive firms. Notwithstanding the rise in freight traffic, sales of transport services were lower than a year previously. A factor feeding the growth of value added in commercial services was the continued expansion of communications services and of those offered by financial institutions and insurers.

Value added in construction was down year-on-year, the result of slower growth in capital construction and modernisation, together with a slump in repair and maintenance works. Output declined at companies involved in building installation and the building of complete constructions, while rising at those involved in site preparation and building completion.

Agricultural output came down once again. Following an increase in the first quarter, livestock production declined. Procurement of fatstock and milk decreased. The level and structure of livestock herds indicates that the fall in livestock production will be greater in the second half of the year. The situation is even worse in crop production. Due to exceptionally adverse weather conditions for agriculture, the harvest of most major crops is set to be 20%-30% lower than last year, when the harvest was already poor. All in all, the decline in agricultural output this year can be expected to be steeper than that seen last year, with NBP estimates that it could be in excess of 10%.

Trends in corporate sector prices and costs[45]

This part of the present *Report* examines costs in the sections of construction and of transport, storage and communications, and in those divisions of industry where producer prices have a basic influence on the overall Producer Price Index (PPI). A particularly high cost/output ratio is regarded as a potential inducement to companies to raise the price of their products[46]. The impact of corporate production costs on product pricing is contingent on macroeconomic factors, especially on the degree of openness of the economy and the degree of competition on the markets for particular goods and services. In terms of tradable goods and services, movements in domestic prices are in practice determined by world prices and exchange rates, while the prices on non-monopolised markets for non-tradables are determined by movements in domestic supply and demand.

The first quarter of 2000 saw a significant improvement in cost/sales ratios[47], both in industry and the three sections thereof, and in transport[48]. In industry,

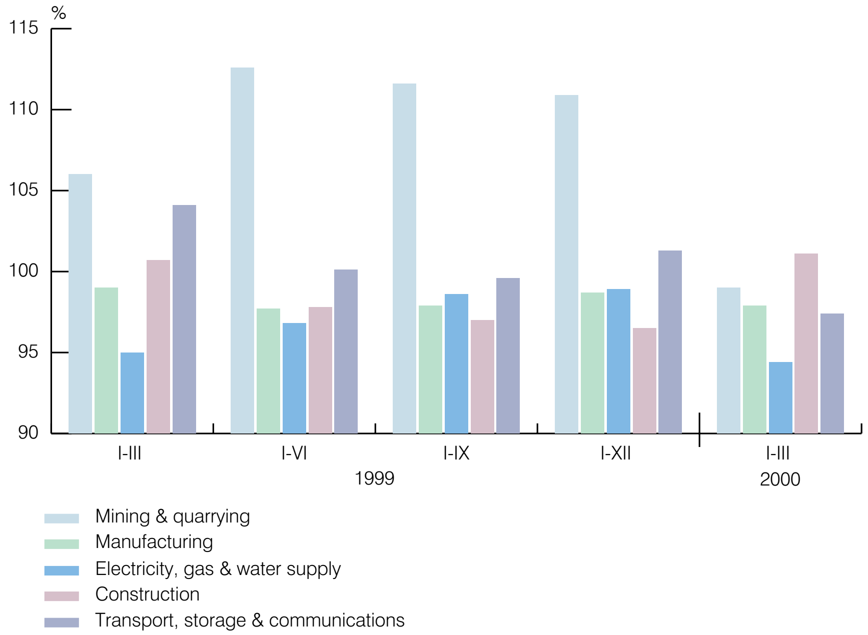
[45] The data presented here conform to the Polish Classification of Activity (PKD), which as of January 2000 replaced the previously applied European classification of activity (the NACE); as a result, the names of certain sections and divisions of activity have altered.

[46] The cost/output ratio reflects the relationship between costs and the value of output, showing the costs associated with a given unit of output.

[47] The cost/sales ratio represents the relationship between costs and sales revenues expressed as a percentage. This ratio can apply to the totality of a company's business, or to just one part thereof, e.g., the sale of goods.

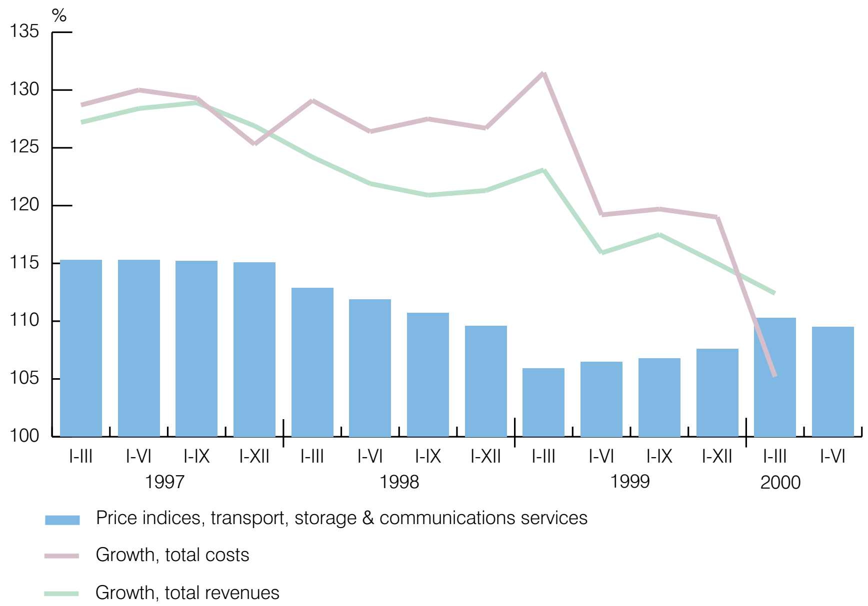
[48] The examination of corporate costs presented here is based on information from quarterly financial statements submitted on the F-01 form by all companies employing 50 or more employees, regardless of the business they conduct. This signifies a decrease in the number of companies examined in relation to the previous period (from 27,194 at year end 1999 to 16,466 at the end of Q1 2000). Up until 2000, F-01 reports were filed by all companies employing in excess of 50 people in the sections of mining and quarrying or manufacturing, or in excess of 20 people in other sections of activity.

Figure 48
Total costs/total revenues, selected sections of activity
(year-to-date, corresponding period previous year = 100)



Source: GUS figures, NBP calculations.

Figure 49
Transport, storage & communications: growth in revenues, costs & prices
(year-to-date, corresponding period previous year = 100)



Source: NBP calculations based on GUS figures.

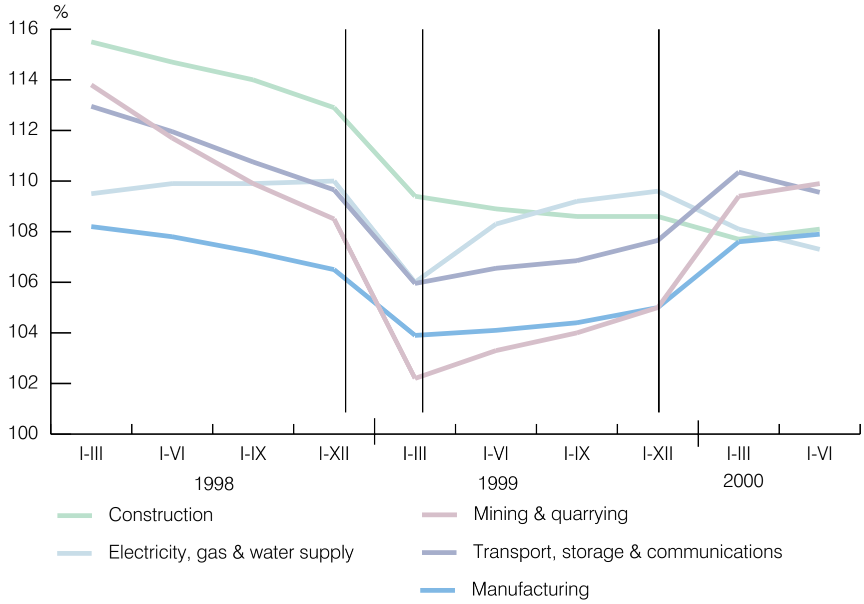
the ratio of total costs/total revenues dropped from 99.5% in 1999 to 97.3% in the first quarter of 2000, while in transport it came down from 101.3% to 97.4%. It was only in construction that a deterioration was observed in this respect, with both total costs and cost of goods sold higher than the revenues which correspond to these cost categories. The ratio of total costs/total revenues in construction went up from 96.5% to 101.1%, with the ratio of cost of goods sold/sales rising similarly, from 96.9% to 102.8%. In construction, the change in these ratios may be associated with the reduced population of companies analysed, which could be taken to imply that smaller construction firms are more efficient than large ones (cf. Fig. 48).

It is worth noting the situation in transport, storage and communications, where excessive costs had been a major problem for several years. This is demonstrated by the chart showing growth in total costs and total revenues (cf. Fig. 49). In previous years, the growth of costs always outpaced that of revenues, which resulted in declining profitability, in this section reporting negative earnings from 1998 onwards, and in a high cost/output ratio behind the services being provided.

An improvement in cost/sales ratios was also seen in those divisions of industry which account for a particularly large proportion of total industrial output, i.e., in manufacture of food products and beverages, in electricity, gas, steam and hot water supply, in manufacture of chemicals and chemical products, and in manufacture of metals. An upward trend in both of the cost/sales ratios persisted in the division of manufacture of coke, refined petroleum products and related products, with the cost of goods sold/sales ratio coming to over 100%. It should be recalled that price growth in manufacture of coke, refined petroleum products and related products has had the greatest impact recently on overall growth in industrial producer prices, which indicates the importance of the level of costs within this division.

The first half of 2000 brought a clear acceleration of producer price growth in comparison to the first half of 1999 in industry as a whole and in two sections of industry in particular, i.e., mining and quarrying, and manufacturing, and also in transport, storage and communications. By contrast, the tendency continued for price growth to come down in the section of electricity, gas and water supply, and also in construction (cf. Fig. 50). While

Figure 50
Producer price growth, selected sections of activity, 1998-2000
(year-to-date, corresponding period previous year = 100)



Source: NBP calculations based on GUS figures.

producer price growth in electricity, gas and water supply was subject to certain fluctuations related to periodic increases in energy prices, the growth of producer prices in construction has been diminishing now for several years. Suffice it to say that over the last two years construction price growth has fall 6.6 points. These price movements in construction can probably be ascribed to the emergence of fierce competition on the market for construction services, which acts as a brake on price growth. Further, lower growth in the sales revenues of construction firms lies behind the high ratio of cost of goods sold/sales (102.8% in Q1 2000). In the first quarter of 2000, growth in cost of goods sold (year-to-date, in comparison with the corresponding period of 1999) outstripped growth in sales revenues by almost 2 points.

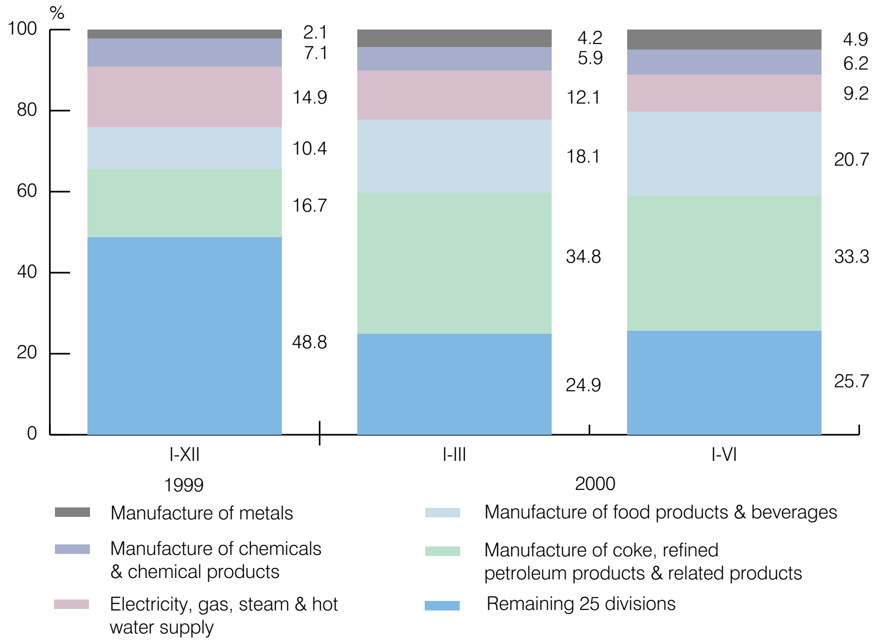
Higher prices in mining and quarrying contributed around 7% of the overall increase in industrial producer prices reported in the first half of 2000 (up 8% year-on-year), with around 83% being generated in manufacturing and around 10% in electricity, gas and water supply[49].

[49] Estimates of the proportion of PPI growth attributable to particular sections and divisions are based on figures for price indices and the structure of producer prices in industry in the first half of 2000.

Figure 51

Contribution to PPI of producer price movements in selected divisions of industry, 1999-2000

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



Source: NBP calculations based on GUS figures.

Compared to the first half of 1999, the relative weight of electricity, gas and water supply in PPI growth dropped some 9.3 points. This points to a large change over the last year in the relative contribution of particular sections of industry to movements in the total PPI. The explanation for this lies in the curbing of price growth in the section of electricity supply following the steep increases in electricity prices seen in 1999.

Producer price growth in industry in the first six months of 2000 was primarily determined by price movements in five divisions: manufacture of coke, refined petroleum products and related products; manufacture of food products and beverages; electricity, gas, steam and hot water supply; manufacture of chemicals and chemical products; and manufacture of metals. It is estimated that price growth in these five divisions accounted for 74.3% of the increase in the PPI as against around 49% in 1999 (cf. Fig. 51).

Prices surged steeply in manufacture of coke, refined petroleum products and related products, going up 50.1% year-on-year in the first six months of 2000. This raised the share of this division in PPI growth to 33.3%, compared to 16.7% in 1999. At the same time, it is worth noting that this share is now 1.5 points lower than in the first quarter of the year. The division involving oil refining has experienced an exceptionally strong increase in unit cost/output ratios, particularly since mid-1999, which is chiefly the result of higher prices for the raw materials used in the division, particularly crude oil. It should be borne in mind in this connection that in the first quarter of 2000 material costs represented 55.4% of total costs in this division, having shot up from 42.6% over the preceding twelve months.

It is worth noting that growth in total costs, adjusted for the increase resulting from movements in output volume, was higher than price growth in manufacture of coke, refined petroleum products and related products throughout all of 1999. In the first quarter of 2000 a change occurred, and the total cost deflator, although very high, did not run above producer price growth in this division. However, the sharp rise in the growth of material costs that took place in the first quarter took the deflator for this category of costs to a huge 30 points above the producer price index for the division. It is estimated that around 88% of the growth in total costs in the division of manufacture of coke, refined petroleum products and related products (adjusted for movements in output volume) is attributable to higher material costs (this proportion is estimated to have been around 60% in 1999). Prices movements in this division were driven by the prices dictated by the world market. World prices affected producer prices in this division both via the price of crude oil as input to the production process, and via the prices of imported finished goods (petrol, petroleum oils and other refined petroleum products).

The contribution to PPI growth made by the division of manufacture of food products and beverages rose over 10 points in the first half of 2000 compared to 1999, to stand at 20.7%. This was undoubtedly related to the 5.7 point acceleration of price growth observed in the first half of the year relative to 1999 (on a year-to-date basis, taking the corresponding period of the previous year as equal to 100). In the first quarter of the year, production cost deflators in this division, especially for material costs and depreciation, were higher than producer price growth.

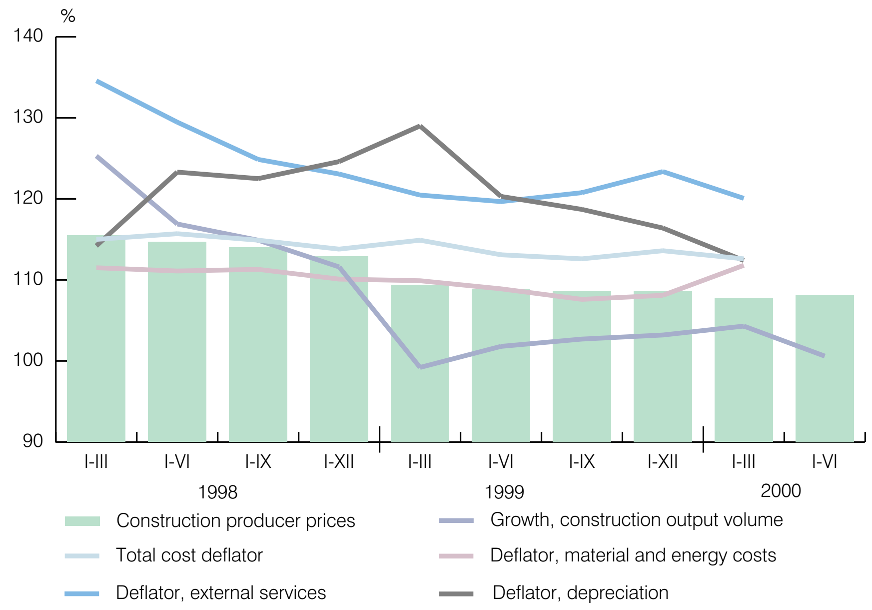
In the division of electricity, gas, steam and hot water supply, cost/output ratios came down in the first quarter of 2000, which is traceable both to the strong growth in output volume in this division (up 12.8%), and the maintenance of relatively high producer price growth (8.2%). The sharp increase in prices in this division, albeit lower than in 1999, can be ascribed to the monopoly position enjoyed by electricity producers. With the relative weight of this division within the structure of industrial output remaining unchanged, the slackening of producer price growth in electricity, gas, steam and hot water supply led to its share in PPI growth dropping almost 6 points, from 14.9% in 1999 to 9.2% in the first half of 2000.

In the first half of 2000, price growth in manufacture of chemicals and chemical products accounted for some 6.2% of the increase in the PPI, while price growth in manufacture of metals contributed 4.9%. In the case of the former, this constitutes a certain reduction in the relative weight of this division within producer price growth, compared to around 7.1% in 1999. By contrast, the contribution made by manufacture of metals was more than double that recorded in 1999. Both divisions saw the first signs of external service costs rising as a proportion of total costs.

Figure 52

Growth in construction output volume & producer prices, and cost deflators

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



Source: NBP calculations based on GUS figures.

As regards the remaining 25 divisions of industry, the share of most of these in PPI growth was fractionally more than 1%. Analysing costs in these divisions is thus of lesser importance, although cost/output ratios are in most cases high.

The earnings of medium-sized and large companies in the first quarter of 2000 indicate that the problem of costs has become less pressing at these firms, which is to some extent linked to the faster growth of output volumes, which rose 10% in the first half of 2000, whereas in the first half of 1999 they had gone down 1% (both ratios measured on a year-to-date basis, taking the corresponding period of the previous year as equal to 100). The rise in output caused a reduction in fixed unit costs, which pushed down cost/output ratios.

In the case of construction, however, total costs and the particular components thereof (together with their deflators) rose faster in the first quarter of 2000 than was warranted by the growth in construction output volumes, and climbed much more swiftly than producer prices (cf. Fig. 52). The conclusion to be drawn from this is that of cost-push pressure on construction prices. Despite this, price growth in construction is progressively declining, which indicates that the market is preventing prices from being raised in line with cost increases. Particularly high deflators were observable for external service costs, depreciation, and material and energy costs.

It is worth noting that the structure of costs in construction is entirely different from that in industry. In the first quarter of 2000, external services represented 36% of total construction costs (as against 11.4% in industry), materials and energy accounted for 28% (53.5% in industry), and total labour costs made up 27% (19% in industry).

Labour market, unemployment and incomes

Employment and unemployment

The improvement in the index of the general business climate this year has to a certain degree stabilised the situation on the labour market.

While average corporate sector employment in the second quarter of 2000 was down 3.4% year-on-year, it had decreased only 0.3% on the first quarter of the year (in Q1, the decline relative to Q4 1999 came to over 2%).

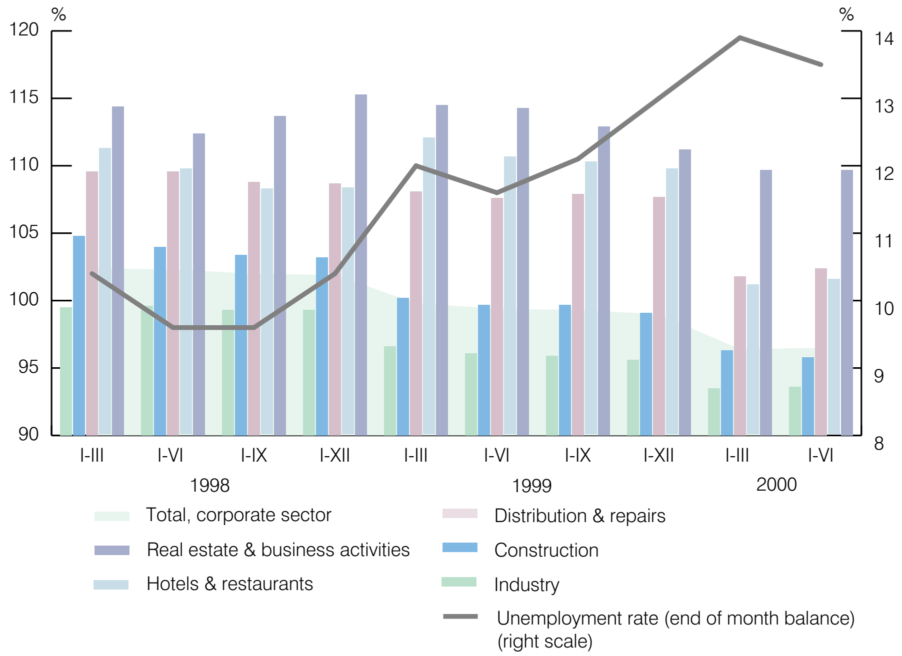
Similar trends are visible in industry, although the contraction in employment was greater here than in the corporate sector as a whole.

The substantial rise in construction employment normally seen in previous years from March onwards was this year weaker. Average employment in construction rose just under 1% in the second quarter compared to the first, while a year ago the increase had been almost twice as large.

In previous years, shrinking employment in industry had been accompanied by a very strong growth of employment in services. Both the Government and labour market analysts had been expecting similar growth in 2000, yet in the first six months of the year the relevant increase was much slower than in 1998 and 1999.

In distribution and repairs, average employment in the first half of 2000 was up 2.4% year-on-year, whereas in the years 1998 and 1999 the corresponding

Figure 53
Movements in average employment
(corresponding period previous year = 100)



Source: GUS.

increases had come to 9.6% and 7.6%, respectively. In hotels and restaurants, employment in the first half of the year rose only 1.5%, as against some 10% in the corresponding periods of 1998 and 1999. The section of real estate and business activities was unique in seeing a fairly substantial increase in employment, of 9.7% during the first six months of the year, yet this was in any case nearly 5 points lower than that registered a year before. The increase in average employment in services did not offset the fall in employment in industry (cf. Fig. 53).

The profound decline in average corporate sector employment witnessed in the first half of 2000 was largely related both to the acceleration of restructuring and privatisation within the economy, and to organisational and technological change within particular companies, which was undertaken with a view to raising efficiency, but also involved laying off staff. These factors lay behind the fact that, in January and February alone (later data are not available), the number of newly-registered jobless as a result of collective redundancies amounted to 36,500. Within the total number of jobless, those who had lost their jobs due to employer decisions numbered 380,600, while a year before the figure had been 276,900.

As the decrease in employment slowed in the second quarter of the year, the number of registered jobless came down, as did the rate of unemployment. The number of registered unemployed was 96,200 lower at the end of June compared to the end of March, although 364,300 higher than a year earlier.

At mid-year, unemployment was running at 13.5%, having decreased 0.4 points since March. Nevertheless, it was 1.9 points higher than at mid-1999.

The decline in unemployment, despite the parallel fall in average employment, was to some extent impacted by a greater number of people than expected deciding to collect benefit or allowances prior to retirement age, making them ineligible to take up employment or register as out of work.

With a demographic high entering the labour market and an accelerated pace of economic restructuring, both of which generate additional available labour power, and with the expiry of employer commitments under privatisation contracts to maintain guaranteed staffing levels, the economy was unable to create sufficient new jobs in the first half of the year to prevent unemployment rising from the level recorded at year end 1999. The number of unemployed is also growing due to the lack of correspondence between the supply of labour and the requirements of the market, and also due to the low interest in gaining jobs shown by the unemployed. The wages obtainable in the jobs on offer from employment offices are not competitive enough in comparison to the relatively high level of unemployment benefit (in addition, as of 1999 the Treasury has been covering the social insurance contributions of the unemployed). Thus, the fact that measures taken to reduce unemployment have failed to achieve satisfactory results is also linked to the low elasticity of both employment and wages.

The structural character of Polish unemployment (which is evidenced by the large geographical differentiation in rates of unemployment, which ranged from 10% to 24% at the end of June), together with low labour mobility, mean that the unemployed frequently do not represent an alternative labour force for employers. Nevertheless, owing to the increase in the number of jobless, employers are now resistant to workforce pressure for wage rises, which they often succumbed to in previous years.

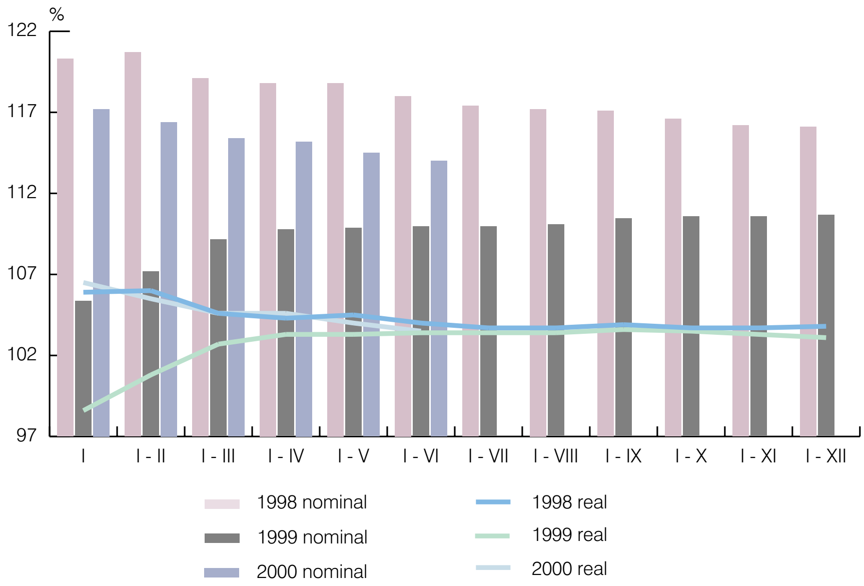
Employee earnings

In the course of the first half of 2000, a distinct downward trend was observable in the growth of average employee earnings in the corporate sector, in both nominal and real terms (cf. Fig. 54).

Neither the improvement in corporate efficiency, nor the substantial productivity gains recorded, led to more rapid growth in wages. In the second quarter of the year, corporate sector wages rose more slowly than in the first. In real terms, average employee earnings (gross) in the corporate sector went up 2.5% year-on-year in the second quarter, while in the first they had risen 4.6%.

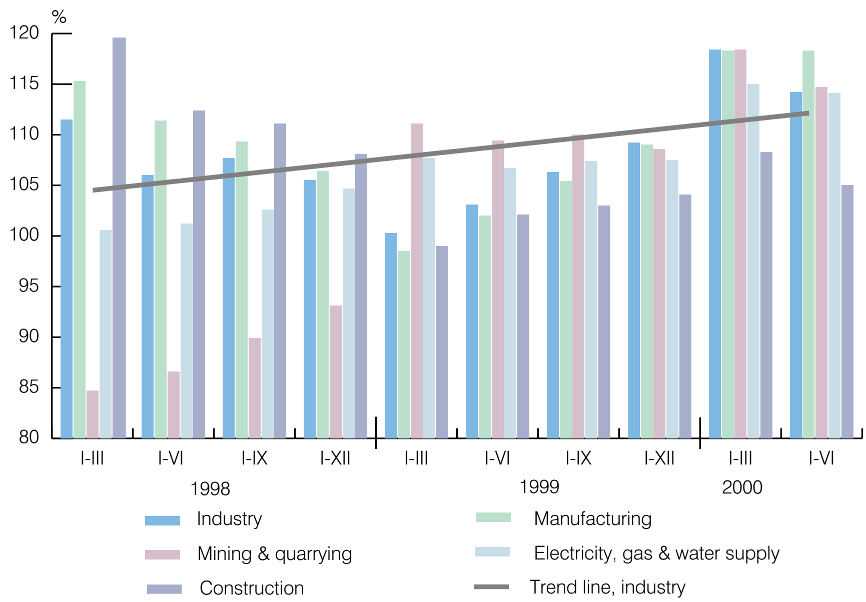
Year-on-year growth in average wages in the corporate sector overall, and in the particular sections and divisions within that sector, may be slightly overstated for both the first quarter and the first half of the year, since the previous year had seen the grossing up of employee earnings. Since it has been established that companies grossed up wages not only in January, but

Figure 54
Growth in average real employee earnings (gross), corporate sector



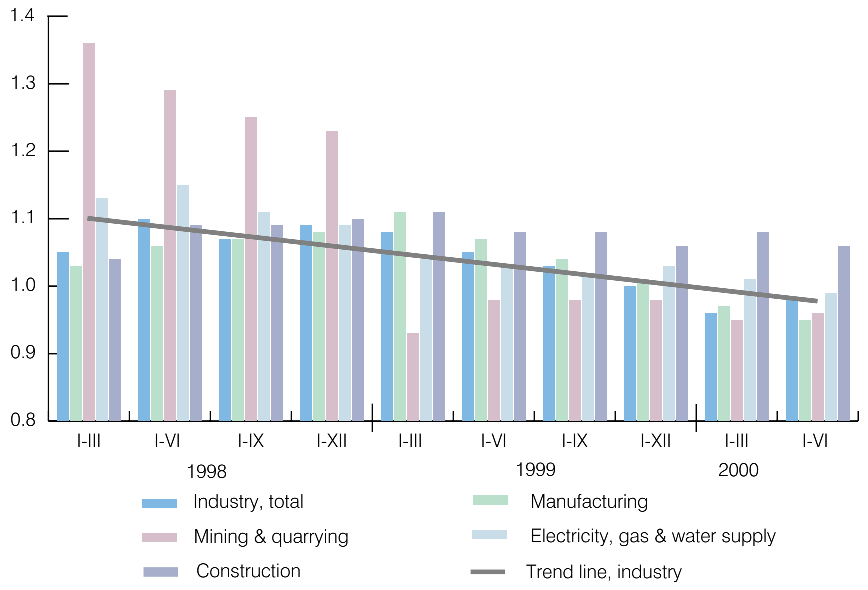
Source: GUS.

Figure 55
Productivity gains in selected sections & divisions of activity
(corresponding period previous year = 100)



Source: GUS.

Figure 56
Degree of remuneration of productivity gains in selected sections & divisions of activity
(corresponding period previous year = 100)



Source: GUS figures, NBP calculations.

also in February, March and even in April, the level of wages reported in the initial months of 1999, which constitutes the reference base for year-on-year growth in 2000, was understated.

The growth of average corporate sector wages in the second quarter, and in the first six months of the year as a whole, was impacted by very high performance and profit-sharing bonuses in the division of post and telecommunications. These bonuses meant that average wages in this division were over 30% higher in nominal terms in the second quarter than in the first. The second quarter (the month of June, to be precise), also saw commemorative bonus payments for "Forester's Day", advance bonus payments for "Miner's Day", and other performance and profit-sharing bonuses.

During the whole of the first half of 2000, average employee earnings in the corporate sector (gross) were a nominal 14% higher than a year previously, whereas the exclusion of wage growth at the Polish Post Office, TP SA and Polish State Railways would lower this nominal increase to 13.6% (GUS figures).

Unit labour costs and price level

The initial findings of an analysis of production costs in industry, focussing particularly on unit labour costs and their relationship to price levels in the period 1995-99, suggest that wage costs did not impact price levels in that period. The cause-and-effect relationship involved can be identified only after taking into consideration all the cost components associated with employing one member of staff, including social insurance contributions, various welfare benefits, compensation in kind, statutory allowances in kind, and sick pay. Thus interpreted, unit labour costs displayed a pronounced upward tendency in the period under examination. Real unit labour costs also increased, with quarterly growth fluctuating from minus 7% to plus 7%. The quarterly index (quarter-on-quarter) of growth in real unit labour costs in the period from Q1 1995 to Q4 1999 shows average growth of 1.2%. This signifies that the real costs connected with employing one member of staff rose by around 5% per year. Such a rapid increase in labour costs could fuel inflation. Whether it does is contingent on the pace of productivity increases. If productivity gains are faster than cost growth, then inflationary pressure should not result. If the opposite is true, however, then swift growth in costs can be expected to find reflection in inflation. The research undertaken as part of this analysis identified no clear trend in technological progress that might prevent a direct quantification of the impact of increased costs on price growth. Investigations carried out in the framework of other analyses have suggested that productivity within the economy as a whole could have risen at close to 5%, which would imply the possibility of the growth in labour costs being absorbed by productivity gains.

Further findings from the analysis in question concern the relationship between personnel costs and price levels. The findings indicate that the long-term elasticity between personnel costs and price levels is around 0.65.

Extending this analysis and attempting to determine a short-term relationship leads to the conclusion that there is indeed a substantial short-term relationship between unit labour costs and price levels. A 1% increase in unit labour costs results in price growth of 0.58% after two to three quarters.

The findings obtained also suggest that the growth in personnel costs is not entirely accommodated by productivity gains, signifying that growth in these costs does give rise to inflationary pressure. The reason for this, however, lies in the total growth of labour costs, which in addition to wages include associated personnel costs.

The weakening pace of growth in average wages in 1999, and in the first half of 2000, in conjunction with the large increase in labour productivity recorded (cf. Figs. 55 and 56) means that remuneration for productivity gains has declined compared to previous years, which should also cause a decrease in unit labour costs.

The findings of a preliminary analysis of production costs in industry, focussing particularly on unit labour costs and their relationship to price levels in the period 1995-99, are presented in more detail in Box below.

Social benefits

The index-linked adjustment of old-age and disability pensions performed on June 1 (using a uniform index of 104.3%), which encompassed 9.5m people, will not ensure real growth in benefits of 0.3% over the course of the year, as projected in the Budget, owing to the fact that inflation has run higher than forecast in the Budget.

Despite this adjustment, the purchasing power of average employee old-age and disability pensions was 1.1% lower in the second quarter of 2000 than a year earlier, and 0.4% down on the first quarter. Average farmers' old-age and disability pensions had declined 1.7% in real terms in the second quarter in comparison with the second quarter of 1999, and 0.5% relative to the first quarter of 2000.

At the same time as the indexation increase in old-age and disability pensions, increases of other benefits were carried out (on the same terms), including care allowance, veterans' allowances, orphans' allowances and benefits to persons deported or exploited as forced labour.

The total amount involved in these adjustments to pensions and increases in other benefits comes to some 0.3bn zloty per month.

The first half of the year brought a large increase compared to the same period of 1999 in total payments of unemployment benefit and other social benefits (excluding pensions). Payments of unemployment benefit were 5% higher in the second quarter than in the first, and over the first six months of 2000 were up almost 37% year-on-year. This was due not only to a greater number of claimants, but also to higher benefits. Owing to the increasing number of people deciding to collect benefit or allowances prior to retirement age, the value of these benefits paid out in the first half of the year was over twice as great as a year earlier. In the second quarter, total payments of this kind rose almost 18% on the first.

The second quarter brought disbursements of around 1.7bn zloty (in line with an established timetable) as compensation for the temporary failure to raise wages for government sector employees and pay out certain supplements to old-age and disability benefits in the years 1991-92.

Monetary policy in the second quarter of 2000 and performance of the inflation target

Performance of the monetary policy target

Inflation, understood as annualised consumer price growth, came to 10.2% in June 2000. This means that annualised inflation has run at around 10% for seven consecutive months. The persistence of high inflation was caused by adverse supply shocks of two kinds.

The first of these shocks involved lower agricultural output and procyclical official intervention on the market for agricultural produce in 1999. These developments, due to the attendant time lags, continued to affect inflation in 2000. Further, adverse weather conditions, coupled with belated, insufficient intervention on the agricultural market this year, provided additional impetus to food price growth.

The second negative shock, which continued to impact the Polish economy this year, was the growth in world oil prices. As was the case before, this shock was aggravated by increases in excise duty and by the monopoly structure of the Polish fuel market.

These factors led to the maintenance of high inflation despite slower growth in the money supply. Leaving aside the temporary disruptions to monetary processes previously discussed (connected with the privatisation of the PKN ORLEN oil corporation), real money supply growth has fallen below the rate of economic growth in the most recent quarters, thereby helping to curb domestic demand growth. The gap between lending and deposit growth has narrowed. In addition, the mutual relationship between the growth of supply and demand in the real economy has improved, representing a positive factor that augurs well for an improvement in external disequilibrium, and one that weakened the potential threats associated with the sharper depreciation of the zloty. This reaffirms the hypothesis that the maintenance of high inflation primarily stemmed from adverse supply shocks.

In these circumstances, and particularly in the face of the obstinate persistence with which annualised consumer inflation oscillated around the 10% mark in the particular months of the second quarter of 2000, the Monetary Policy Council retained the restrictive monetary stance which it had adopted in the autumn of 1999. This flowed from the fact that, despite the relatively favourable situation as regards the long-term factors conditioning inflation (monetary factors and internal equilibrium), the resumption of the process of disinflation remained jeopardised by the influence of strong and enduring supply shocks on current price growth. Movements in most measures of core inflation attested to supply impulses being transmitted to the price of other categories of goods. In its conduct of monetary policy, the NBP also took into consideration the negative impact of this situation on inflation expectations, which endangered performance of the inflation target for 2000. In the second quarter of the year, the Council did not carry out any adjustments to NBP interest rates, although it maintained its tightening bias.

Monetary policy instruments

NBP interest rates were held flat in the second quarter at the level set on February 23, 2000. The reference rate (minimum reverse repo rate) stood at 17.5%, the lombard rate at 21.5% and the rediscount rate at 20%.

A major development in the second quarter of 2000 was the change in the exchange rate regime within which monetary policy is pursued. On May 26, 1999, acting in performance of the provisions of the *Medium-Term Monetary Policy Strategy for the Years 1999-2003*, the Monetary Policy Council submitted a proposal to the Government for the abolition of the previous exchange rate mechanism and the introduction of a fully floating exchange rate. On April 11, 2000, the Council of Ministers, in consultation with the Monetary Policy Council, resolved to float exchange rates for the zloty against other currencies. In connection with the above, the Monetary Policy Council adopted a resolution that same day to abolish the crawling band mechanism, including the central parity rate and the trading band for permissible deviations from parity. This resolution took effect on April 12, 2000. This decision represented the culmination of measures taken by the central bank since 1995 with a view to increasing the flexibility of the exchange rate system, up to and including the full float of the zloty. Implementing this process in successive stages, and the prior provision of information to the public on the intention to change the exchange rate mechanism, allowed the financial markets to prepare themselves appropriately. The full float of the zloty was achieved gradually. In 1995, the trading band was extended to ±7%, and subsequently the Monetary Policy Council introduced a fee for trades performed at the fixing (as of December 15, 1998), thereby limiting the character of the exchange rate fixing as a tool for intervention, with this character then being fully eliminated on June 7, 1999. In the intervening period, the trading band around central parity was widened on three more occasions: to ±10% (as of February 25, 1998), to ±12.5% (as of October 29, 1998), and then to a very broad ±15% (as of March 25, 1999). From July 1998 onwards, the National Bank also ceased its intervention on the domestic currency market, allowing zloty exchange rates to be set by the market itself. The full float of the zloty was essential for the consistent and effective performance of direct inflation targetting. This was also a necessary step on the path to Poland's future membership in Economic and Monetary Union. Further, floating the currency reduces the incentive to engage in currency speculation (since there is no formal commitment to defend any particular level of exchange rates) and appears essential prior to the expected foreign exchange deregulation. The decision to float the zloty is also of major significance in the context of the efforts of the NBP to move to a shortfall of operating liquidity within the banking sector. With exchange rates floating freely, the central bank is not obliged to intervene on the market, which means eliminating the most important source of liquidity to the banking system in previous years, i.e., the purchase of foreign currency and growth of the official reserves held by the NBP. Measures to restrict surplus liquidity help enhance the effectiveness of the most important monetary policy instrument, which consists in influencing short-term interest rates. In conditions of excess liquidity, an increase in central bank interest rates has a weaker impact on the pricing behaviour of the commercial banks, since those rates reflect the yields available on alternative investments, rather than determining the cost of funds. Where there is a shortfall of operating liquidity, however, the banks have to factor in the necessity of accessing funds at the price set by the central bank.

The desire to increase the capacity of the central bank to control banking sector liquidity lay behind an important change performed in the second quarter of 2000 in the principles applicable to extending lombard loans to the banks. Under Resolution 12/2000 of the NBP Management Board, the maximum term of a bank borrowing at the NBP was cut to one day (previously this term had been up to the commercial bank). However, the Resolution includes a clause stating that the NBP, should it consider it expedient, may change the term of the loan it extends, which in practice would mean lengthening that term. In addition, each drawing of a loan has been made conditional on repayment of any loan drawn the previous day, which prevents the repayment of one loan using the proceeds of the next (until now, the banks could continue borrowing every day, provided they had the requisite amount of collateral to pledge). The new principles took effect on April 25, 2000; although they are exclusively a modification of the technical basis for the application of monetary policy instruments, they will assist the central bank in increasing the flexibility of its response to possible scenarios of developments on the financial markets.

Prospects for inflation

The existence of strong inflationary impulses and ensuing persistence of inflation of around 10% in the second quarter indicates that the monetary policy target set for this year, i.e., annualised consumer price growth within a band of 5.4%-6.8% in December 2000, will not be achieved.

The analysis set out in the present *Report* demonstrates that high inflation is being maintained despite a relatively favourable situation with regard to the long-term factors conditioning inflationary processes. In terms of lowering inflation, the environment as regards monetary factors and internal equilibrium has been developing positively for some time now. In these circumstances, as has been outlined, a return to the path of disinflation is being hampered by powerful supply shocks which continue to have a negative impact on current price growth, a situation made possible by the fact that the structure of the economy is not fully competitive and by the policy of intervention on the market for agricultural produce.

There are grounds for concern that shocks of this type will continue to exert an adverse effect on inflation in the immediate future. Some of them, e.g., the growth in fuel prices on international markets, may decline in importance. However, there is much to suggest that the supply shocks engendered by agricultural output performance and the situation on the agricultural market may continue to be a major factor in price growth. The influence of these on inflation will be restricted by the absence of concomitant monetary adjustments. The current movements in monetary aggregates and the tightening of monetary policy instituted towards the end of 1999 testify to the absence of inflationary threats in this area.

In accordance with the provisions of the *Medium-Term Monetary Policy Strategy for the Years 1999-2003*, the strategic objective of the monetary policy pursued by the Monetary Policy Council is to lower inflation to under 4% by the year 2003. The inflation target adopted for 2001, providing for annualised consumer price growth to be brought down to a target range of 6%-8%, is one that leads towards the achievement of the established medium-term objective.