National Bank of Poland

Monetary Policy Council

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First quarter 2001

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SUMMARY

1. The first quarter of 2001 was a period of quick inflation decline. At the end of March a year-on-year consumer price rise amounted to 6.2%, compared to 8.5% at the end of 2000. Inflation developments in this period confirm that it is back on track enabling achieving both the monetary policy target for 2001 and meeting the medium-term target of the monetary policy, i.e. reducing the pace of consumer price growth below 4% by the end of 2003. Significant reduction of the rate of producer price rise provides also favourable conditions for the process of inflation reduction.

2. However, a quick slow-down of the price rise rate in Q1, 2001 resulted from the influence of temporary factors, such as decay of supply shocks in the fuels and foodstuffs market as well as the zloty appreciation. This confirms formation of core inflation indicators. The pace of their slackening was weaker (excluding so-called trimmed mean) than for the general price index. A fall in fuel prices, affected by the appreciating zloty, decided on a substantially lower growth of officially controlled prices than in the first quarter of the previous year. Last year foodstuffs prices grew much slower.

3. The fall in inflation in the first quarter of 2001 was accompanied by a relatively low pace of domestic demand rise (1.6%), after its clear slow-down in Q2 and Q3, 2000 and an insignificant growth in the last quarter of 2000. It may be estimated that compared to the previous quarter the year-on-year growth rate of individual consumption has slightly increased (up to 1.8%). At the same time the pace of capital expenditures has substantially weakened (to 0.5%). In this situation maintaining the GDP growth rate on the level close to achieved in Q4, 2000 (estimated rise by 2.6% as against 2.4%) was possible thanks to a continued quick pace of exports growth at a moderate imports growth. Such arrangement of economic growth is confirmed by the structure of supply rise. The value added was increasing fastest in industry, in particular in sections with a high share of exports.

4. Public finance played a much larger role in creating the domestic demand in the first quarter of 2001 than a year before. The economic deficit of the State Budget made as much as 8.3% of GDP as against 3.5% in Q1, 2000. A relatively low pace of economic growth and a quicker compared to assumptions fall in inflation resulted in lower than assumed tax revenues. A very high level of the State Budget deficit accomplishment in the first quarter of 2001 (73.3%) was also the outcome of transferring part of expenditures from the previous year and mobilising single compensations for employees of the general government sector and for old age and disability pensioners.

5. A slow-down of the domestic demand growth from the second quarter of 2000 onwards continued to contribute to reduction of the external imbalance. In the first quarter of 2001 the deficit on the current account of the balance of payments stood at USD 2.2bn as against USD 3.5bn in Q1, 2000. Despite the maintenance of a high annualised growth of export receipts and a moderate import growth, an adverse impact of zloty appreciation and of weaker pace of external demand growth on monthly increments of those values seemed to be visible in the first quarter of this year.

6. The strength of demand variations influence on inflation depends, inter alia, on the effectiveness of individual markets functioning. The labour market plays a key role in this respect. Barriers restricting a growth of employment continue to exist there as a result of the lack of decisive liberalisation actions and directed towards reduction of labour costs. The first quarter of 2001 – despite a slackened rate of employment fall – witnessed a further rise in unemployment

Basic macroeconomic indicators

	Q1	Q2	Q3	Q4	1998	Q1	Q2
			1998				
GDP	6.4	5.4	5.0	2.9	**4.8**	1.6	3.0
Domestic demand	7.4	5.9	6.3	6.6	**6.4**	3.4	4.6
Total consumption	5.5	3.7	3.9	3.9	**4.2**	4.0	4.4
Personal consumption	6.4	4.2	4.5	4.6	**4.8**	4.6	5.2
Gross capital formation	17.4	14.9	14.6	12.0	**13.8**	0.7	5.5
Gross fixed investment	17.8	15.2	14.8	12.6	**14.2**	5.7	6.3
Savings ratio of households (%)[1]	11.2	14.5	10.7	16.0	**13.2**	9.0	10.7
Financial savings ratio of households (%)[2]	8.5	7.8	7.1	7.0	**7.6**	10.8	2.9
Unemployment (%)	10.4	9.6	9.6	10.4	**10.4**	12.0	11.6
Disposable incomes (corresponding period previous year = 100)	104.7	104.5	103.6	109.3	**105.5**	102.7	102.9
Treasury debt (million zloty, nominal)[3]	212 661.4	220 129.9	226 962.3	237 400.9	**237 400.9**	259 037.3	255 583.4
Central government deficit (million zloty)[4]	-3 540.0	-9 357.8	-10 409.7	-13 192.6	**-13 192.6**	-8 719.2	-11 320.0
Foreign debt (USD million)[5]					**59 163.0**	59 730.0	59 499.0

[1] Household savings to gross disposable incomes. Savings represent that portion of incomes not allocated to consumption.
[2] Household financial savings to gross disposable incomes. Financial savings represent the growth in household money stocks (sum total of growth in bank deposits,
[3] Period end.
[4] As of Q4 1998, this amount includes the item "due on failure to increase government sector wages".
[5] Until 1998, figures available solely on annual basis.

Q3	Q4	1999	Q1	Q2	Q3	Q4	2000	Q1
1999				**2000**				**2001**
	real growth							
5.0	6.2	**4.1**	6.0	5.2	3.3	2.4	**4.1**	2.6
5.5	5.7	**4.9**	5.1	3.3	1.3	1.7	**2.8**	1.6
4.8	5.0	**4.5**	3.9	2.3	0.9	1.3	**2.1**	
5.7	5.9	**5.4**	4.6	2.6	0.8	1.3	**2.4**	1.8
7.8	7.1	**5.9**	11.5	6.8	2.6	2.7	**4.9**	
6.6	7.0	**6.5**	5.5	2.9	2.4	2.6	**3.1**	
8.8	14.8	**10.9**	4.9	9.5	8.3	14.2	**9.3**	
2.8	5.1	**5.4**	5.5	7.5	1.4	4.3	**4.7**	
12.1	13.0	**13.0**	14.0	13.6	14.0	15.0	**15.0**	15.9
101.4	103.7	**102.7**	100.2	100.2	100.3	98.6	**99.8**	
261 317.4	264 370.3	**264 370.3**	270 144.9	279 507.80	287 584.30	267 653.40	**267 653.40**	
-11 270.0	-12 479.0	**-12 479.0**	-6 927.4	-10 650.20	-14 041.90	-15 365.60	**-15 365.60**	-15 055.2
63 130.0	64 852.0	**64 852.0**	64 954.0	65 881.00	64 167.00	67 517.00	**67 517.00**	

notes & coin and investments in securities, less household borrowings).

Basic monetary indicators

	Q1	Q2	Q3	Q4	1998	Q1	Q2
		1998					
Consumer prices[1]	113.9	112.2	110.6	108.6	**108.6**	106.2	106.5
Industrial producer prices[1]	109.2	107.7	106.4	104.8	**104.8**	104.7	105.2
M0	117.6	120.6	112.7	126.8	**126.8**	121.5	118.9
M1	116.5	113.7	112.6	113.0	**113.0**	121.8	119.3
M2	127.4	126.7	125.4	125.2	**125.2**	127.6	122.9
Non-financial sector deposits	130.9	130.2	128.6	127.8	**127.8**	129.5	124.6
personal	134.0	131.0	129.6	126.3	**126.3**	127.5	123.4
corporate	122.8	127.8	126.1	131.5	**131.5**	135.0	128.0
Claims on non-financial sector	130.4	129.2	128.2	127.9	**127.9**	129.5	127.6
persons	145.3	135.3	133.8	130.0	**130.0**	135.8	141.1
corporates	127.9	128.1	127.1	127.5	**127.5**	128.3	125.0
M0	103.3	107.5	101.9	116.7	**116.7**	114.4	111.6
M1	102.3	101.4	101.8	104.0	**104.0**	114.6	112.0
M2	111.9	112.9	113.4	115.2	**115.3**	120.2	115.4
Non-financial sector deposits	114.9	116.0	116.3	117.6	**117.6**	121.9	117.0
personal	117.7	116.8	117.2	116.3	**116.3**	120.0	115.8
corporate	107.8	113.9	114.0	121.0	**121.0**	127.1	120.2
Claims on non-financial sector	114.5	115.1	115.9	117.8	**117.8**	121.9	119.8
persons	127.6	120.6	121.0	119.7	**119.7**	127.9	132.5
corporates	112.3	114.1	114.9	117.4	**117.4**	120.8	117.3
Reference rate							
(minimum reverse repo rate) (%)[2]	24.0	21.5	18.0	15.5	**15.5**	13.0	13.0
Rediscount rate (%)[2]	24.5	23.5	21.5	18.3	**18.3**	15.5	15.5
Lombard rate (%)[2]	27.0	26.0	24.0	20.0	**20.0**	17.0	17.0

[1] Final month of quarter.
[2] Period end.
[3] Deflated by CPI.

Source: GUS, Ministry of Finance, NBP; NBP estimates.

Q3	Q4	1999	Q1	Q2	Q3	Q4	2000	Q1
1999				2000				2001
	corresponding period							
	previous year = 100							
108.0	109.8	**109.8**	110.3	110.2	110.3	108.5	**108.5**	106.2
106.2	108.1	**108.1**	107.3	108.9	108.3	105.6	**105.6**	103.9
	nominal growth, period end							
	(corresponding period							
	previous year = 100)							
92.9	98.4	**98.4**	83.9	87.7	110.7	92.4	**92.4**	106.8
119.1	122.0	**122.0**	105.1	108.1	99.6	94.3	**94.3**	100.8
120.9	119.3	**119.3**	113.8	120.6	114.1	111.8	**111.8**	114.9
122.3	118.3	**118.3**	115.5	123.3	116.1	115.5	**115.5**	116.8
120.8	115.2	**115.2**	114.2	118.5	117.3	120.9	**120.9**	120.1
126.2	125.5	**125.5**	119.1	136.0	113.0	103.8	**103.8**	108.3
127.8	127.1	**127.1**	123.9	130.6	122.0	117.3	**117.3**	114.6
147.6	153.1	**153.1**	152.1	179.4	140.9	131.7	**131.7**	125.7
123.8	121.6	**121.6**	118.1	119.7	117.4	113.5	**113.5**	111.7
	real growth[3], period end							
	(corresponding period							
	previous year = 100)							
86.0	89.7	**89.7**	76.0	79.6	100.4	85.1	**85.1**	100.6
110.3	111.1	**111.1**	95.3	98.1	90.3	87.0	**87.0**	94.9
111.9	108.7	**108.7**	103.2	109.4	103.4	103.0	**103.0**	108.2
113.2	107.7	**107.7**	104.7	111.9	105.3	106.5	**106.5**	110.0
111.9	104.9	**104.9**	103.5	107.5	106.4	111.5	**111.5**	113.1
116.9	114.3	**114.3**	108.0	123.4	102.4	95.7	**95.7**	102.0
118.3	115.7	**115.7**	112.3	118.5	110.6	108.1	**108.1**	107.9
136.6	139.4	**139.4**	137.9	162.8	127.7	121.4	**121.4**	118.4
114.6	110.8	**110.8**	107.1	108.6	106.5	104.6	**104.6**	105.2
14.0	16.5	**16.5**	17.5	17.5	19.0	19.0	**19.0**	17.0
15.5	19.0	**19.0**	20.0	20.0	21.5	21.5	**21.5**	19.5
17.0	20.5	**20.5**	21.5	21.5	23.0	23.0	**23.0**	21.0

rate. A fall in employment in industry, following attempts to cut costs and to improve efficiency, was not offset by sufficiently high growth of employment in services. Employment in construction was going down. In those conditions employee earnings in nominal and real terms continued to grow moderately.

7. A decline in inflation and stronger influence of factors favourable for its further reduction, such as: a fall in inflation expectations, favourable trends in monetary phenomena, slower rise in domestic demand than in manufacturing, moderate growth of employee earnings and forecast lack of strong rise in basic imported commodities made that reductions in NBP interest rates were possible in February and March, each time by 1 point. The probability of meeting the annual inflation target close to the lower limit of its range increased. At the same time the Monetary Policy Council maintained a neutral attitude in the monetary policy. Relatively cautious decisions of the Council resulted from continued existence of threats for further inflation curbing. Those threats include: situation in the general government sector, uncertainty related to demand effects of planned compensations payments, of indemnities for compulsory labour and payments within valuation of old age and disability pensions as well as uncertain situation in the agricultural market. Changes in core (underlying) inflation indices show that a quick fall in inflation in Q1 partly resulted from temporary factors. The experience of the recent period shows that too-quick cutting of interest rates in conditions of relatively inert formation of inflation expectations may easily cause a renewed escalation of inflation.

8. Commercial banks have been reducing lending rates for corporates since the beginning of the year, following falling interest rates in the interbank market. By February they went down by 30 bps while after rates reduction by the NBP – by another 130 points. However, lending rates for persons remained unchanged during the first two months of the quarter; after rates reduction by the NBP in February banks decreased these credit rates by 70 bps. To the contrary, banks' deposit rates started falling after the first of this year rate-cuts by the NBP. In March personal time deposit rates went down by 100 points. Taking into account that the last cut became effective as of 29 March it shall be expected that banks complete the process of adjusting their rates in May.

9. An inflow of portfolio investment into the Polish market substantially increased in the first quarter of 2001, which was the main reason of zloty appreciation in the period. As a result the zloty exchange rate was a significant driver of weakening inflation. The strongest response of consumer price growth to movements in the nominal effective zloty exchange rate occurred between the second and the third month from the impulse occurrence. NBP survey shows that the effect of clear appreciation of zloty observed since November 2000 on the inflation decline is visible since February 2001 due to existence of those delays.

10. The first quarter of 2001 saw a breakthrough in private individuals' scepticism about the effectiveness of anti-inflationary actions of the monetary policy, observed in the autumn of 2000 as well as a decisive fall in inflation expectations. Banking analysts' inflation expectations were also gradually going down.

11. The accomplishment of the medium-term monetary policy target requires that inflation in December 2001 shall be close to the lower limit of the annual inflation target. Having regard to the occurrence of factors threatening the trend of permanent inflation decline, of which primarily the situation in public finance, the monetary policy shall continue to feature a relatively high level of restrictiveness.

The present *Inflation Report* uses statistics available by mid-May 2001 (in chapter 2 – by 23 May this year).

1. Inflationary processes in the first quarter of 2001

1.1. Consumer prices

A systematic fall in year-on-year inflation continued to occur in the first quarter of 2001, renewed in August 2000. As compared to the same month of the previous year in March 2001 consumer prices grew by 6.2%, i.e. 4.1 points less than a year ago.

That resulted from:

– foodstuffs and non-alcoholic beverages price rise by 6.2% (9.2% a year before),

– service price growth, excluding officially controlled prices, by 9.6% (by 13.3% a year ago),

– controlled prices rise by 5.5% (as against 12.9%),

– non-food articles price growth, excluding officially controlled prices, by 4.8% (by 7.2% a year before),

– fuels price drop by 3.8% (a year ago – a rise by 57.0%).

The annualised inflation rate and prices of basic categories of consumer goods and services in the first quarter of 2001 are presented in Table 1.

Like a year ago, in the first quarter of 2001 a monthly inflation rate was the highest in January and the lowest in February. However, inflation was growing at a much slower pace than a year ago. Monthly rises in individual categories of consumer goods and services in consecutive months of the first quarter of 2000 and 2001 are presented in Table 2.

At the end of March 2001 the cumulative inflation calculated since December 2000 amounted to 1.4%, i.e. 2.2 points less than in the corresponding period of the previous year.

Officially controlled prices[1], as opposed to the situation in Q1, 2000, in the analysed period went up by 0.2 points less than the overall price index. Substantial reduction of the effect of officially controlled prices on the CPI growth compared with the first quarter of 2000 is noteworthy. That resulted first of all from a decline in fuel prices during the first three months of this year.

[1] In this *Inflation Report* officially controlled prices are defined as prices, in which taxes (excise) make the basic component, e.g. fuels, prices (fares) set by local governments (municipal transport) and those, for which price caps are set (electricity).

Table 1
Annualised price indices for consumer goods and services and their basic categories

	2000					2001				
	Indices			Share in CPI growth		Indices			Share in in CPI growth	
				points	%				points	%
	I	II	III			I	II	III		
	corresponding month previous year = 100									
CPI	**110.1**	**110.4**	**110.3**	**10.3**	**100.0**	**107.4**	**106.6**	**106.2**	**6.2**	**100.0**
Officially controlled prices	114.0	114.9	112.9	3.3	31.7	107.2	106.3	105.5	1.4	22.7
fuels	153.5	156.0	157.0	1.6	15.6	107.3	104.5	96.2	-0.1	-2.1
Non-food articles*	107.6	107.2	107.2	2.0	19.9	105.3	105.1	104.8	1.3	20.9
Services*	114.0	113.8	113.3	2.2	21.1	110.3	109.8	109.6	1.6	26.4
Foodstuffs and non-alcoholic beverages	107.7	108.9	109.2	2.8	27.3	107.9	106.5	106.2	1.9	30.0

* Excluding officially controlled prices.

Source: GUS figures. NBP calculations.

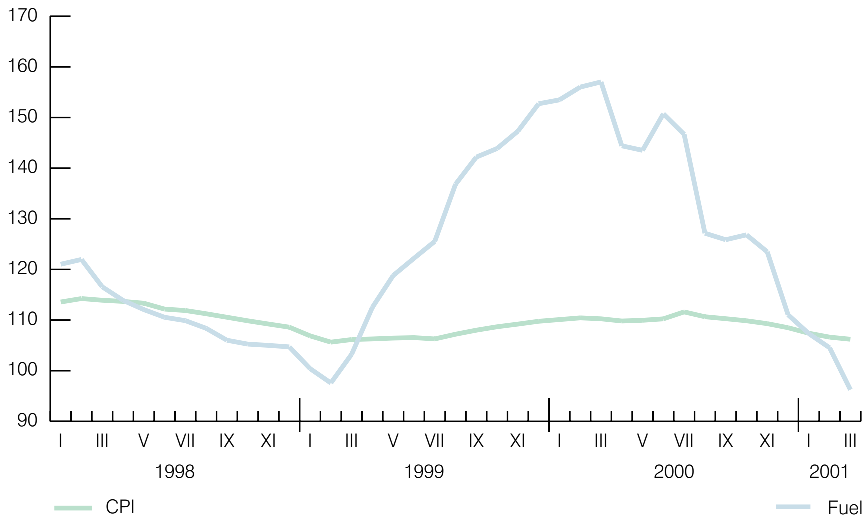
Table 2
Monthly growth of individual categories of consumer prices

	2000						2001					
	Indices				Share in CPI growth		Indices				Share in CPI growth	
					points	%					points	%
	I	II	III				I	II	III			
	previous month = 100			December previous year = 100			previous month = 100			December previous year = 100		
CPI	**101.8**	**100.9**	**100.9**	**103.6**	**3.6**	**100.0**	**100.8**	**100.1**	**100.5**	**101.4**	**1.4**	**100.0**
Officially controlled prices	102.5	100.8	102.2	105.6	1.3	37.1	100.5	99.9	100.8	101.2	0.3	21.6
fuels	100.5	101.6	105.0	107.2	0.2	5.3	97.1	99.0	96.6	92.9	-0.3	-17.5
Non-food articles*	101.1	100.3	100.4	101.8	0.5	13.5	100.6	100.2	100.1	100.9	0.2	17.1
Services*	102.8	101.4	100.8	105.1	0.8	21.7	101.9	100.9	100.7	103.5	0.6	42.3
Foodstuffs and non-alcoholic beverages	101.4	101.1	100.9	103.4	1.0	27.6	100.6	99.8	100.5	100.9	0.3	19.0

* Excluding officially controlled prices.

Source: GUS figures. NBP calculations.

Figure 1
CPI vs. fuel prices
(corresponding month previous year = 100)



Source: GUS figures.

In this period fuel prices fell by 7.1% - as against a rise by 7.2% in the first quarter of 2000, driving a decline in the CPI (Figure 1). Improvement in the situation in the world market and in particular a favourable dollar exchange rate, which offset effects both of periodic rises of world prices and of the January growth of the excise duty by 7%, was the reason of such development in fuel prices in Q1,2001.

Prices of foodstuffs and non-alcoholic beverages went up by 0.9%, i.e. 2.6 points weaker than a year ago. The fastest growth was observed for prices of poultry (2.5%), fish (6.1%) and also for some fruits and fresh vegetables (rise of 13.6%). In the first quarter of 2001, at much lower supply of grain than in a similar period of the previous year, an upward trend in their prices continued. Stabilisation in this market started only at the beginning of March 2001. That resulted from appearance in the market of imported grain: from EU duty free quota and with a reduced rate within arrangements with the WTO. Moreover, following market expectations of duty free tariff ceilings for feed grain, farmers started selling own grain stocks. Increased supply of grain from domestic stocks and from imports, at a low dollar against zloty exchange rate and a steady demand, resulted at the end of the first quarter of 2001 in a reduced pressure on basic grain prices rise.

After a small drop in slaughter pigs purchase prices during the first two months of this year in March they rose again and were much higher than recorded in the first quarter of 2000. By contrast, purchase prices of slaughter cattle were much lower in Q1, 2001 than in the corresponding period of the previous year.

In the first quarter of 2001 non-food articles prices, excluding officially controlled prices, grew by 0.9%, so 0.5 points less than the overall inflation index in this period. In this group the strongest price rise was seen for newspapers and periodicals (by 12.0%) and for medicines (by 1.4%). On the contrary, clothing and footwear prices went down by 0.8% - as against an increase of 0.9% in the same period of previous year – that proved a continued weak pace of consumer demand growth.

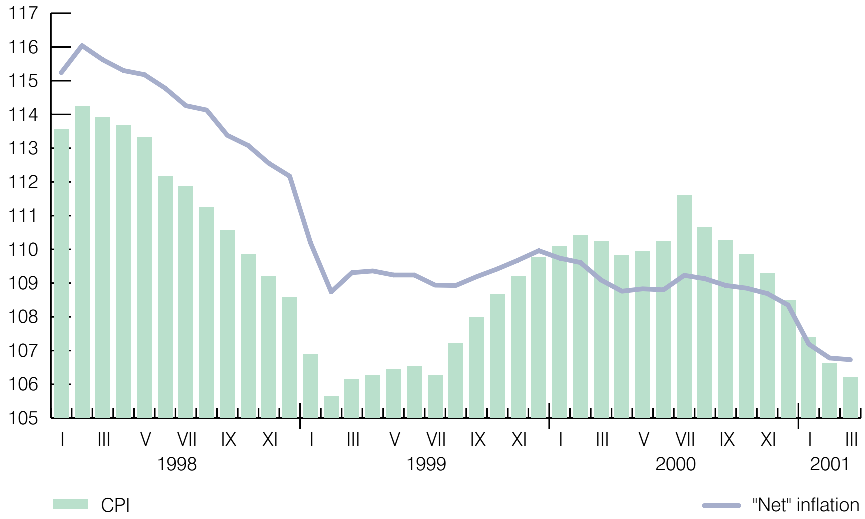
Consumer services prices, excluding officially controlled prices, rose in this period by 3.5% (5.1% a year ago) and it was the only price group increasing faster than the overall inflation. In the period under review the sharpest rise was recorded for municipal services prices (cold water supply rates – by 7.7%, sewerage services rates – by 11.5%).

1.2. Core inflation

Since the beginning of 2001 all core inflation measures featured a downward trend, started in August 2000. However, the pace of their slackening was much weaker than that for the CPI and therefore in the analysed period they were either above the consumer price rise index or on the same level. Declining core inflation in the first quarter of 2001 confirmed the stability of the downward inflation trend lasting since August last year and the weakening influence of demand sources of price rise. A slower decrease of core inflation measures as compared to the CPI shows also that a relatively low price increase in this period was as well driven by decaying effects of previously observed supply shocks in foodstuffs and fuels market and by the zloty appreciation influence.

"Net" inflation measure, obtained after excluding foodstuffs and fuels prices (Figure 2), definitely slumped at the turn of 2000 and this trend continued during the

Figure 2
CPI vs. "net" inflation, excluding food and fuel
(corresponding month previous year = 100)



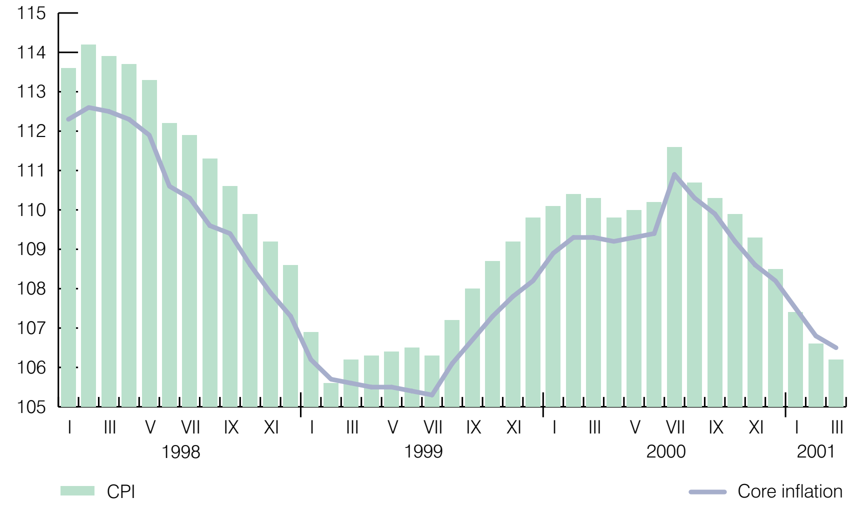
Source: GUS figures, NBP calculations.

initial two months of 2001, then it was retarded on the level of 6.7% in March this year. In the first quarter of 2001 the quickest rising components of this measure included prices of spirits, housing occupancy charges, prices of services connected with housing occupancy as well as energy carriers (electricity, gas, hard coal, coke), telephone subscription rate, newspapers and periodicals.

In the first quarter of 2001 the core inflation, excluding officially controlled prices (Figure 3), was close to and slightly higher than the CPI. Prices of some foodstuffs, such as bakery products, raw beef and pork and smoked meat products saw the sharpest price growth among prices creating this measure, i.e. formed by market mechanisms. A substantial price rise was also recorded in the group of services (housing occupancy charges and related with housing occupancy). Prices of hard coal, newspapers and periodicals were those among non-food articles that significantly boosted this measure of core inflation.

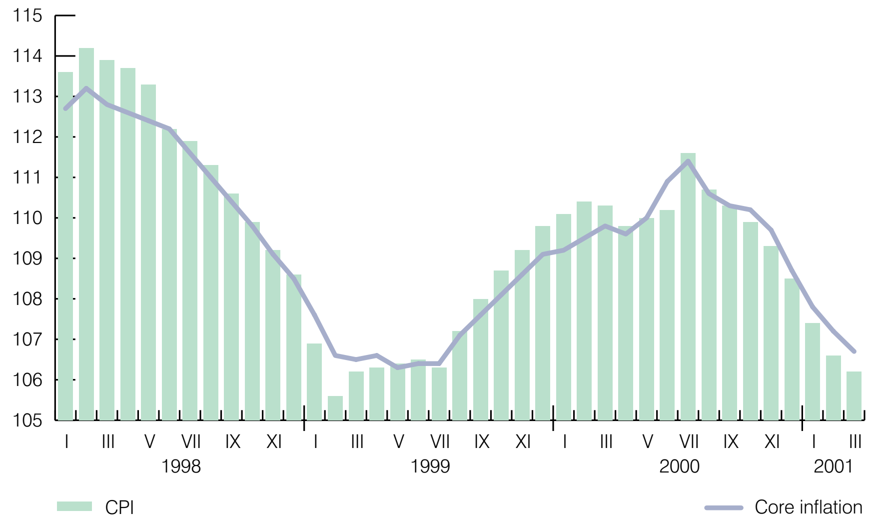
In the discussed period core inflation measures obtained after elimination from the CPI of most volatile prices and – additionally – fuels (Figure 4 and 5) were also below the CPI. Prices of bakery products, smoked

Figure 3
CPI vs. core inflation, excluding officially controlled prices
(corresponding month previous year = 100)



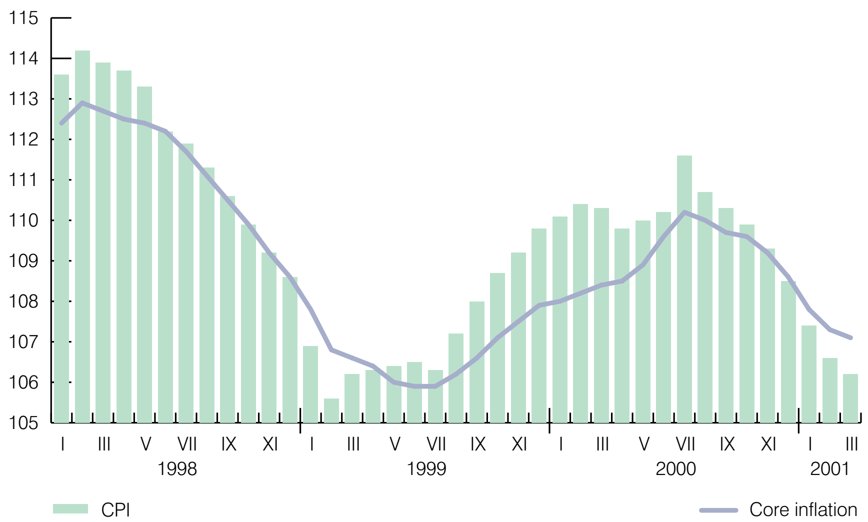
Source: GUS figures, NBP calculations.

Figure 4
CPI vs. core inflation, excluding most volatile prices
(corresponding month previous year = 100)



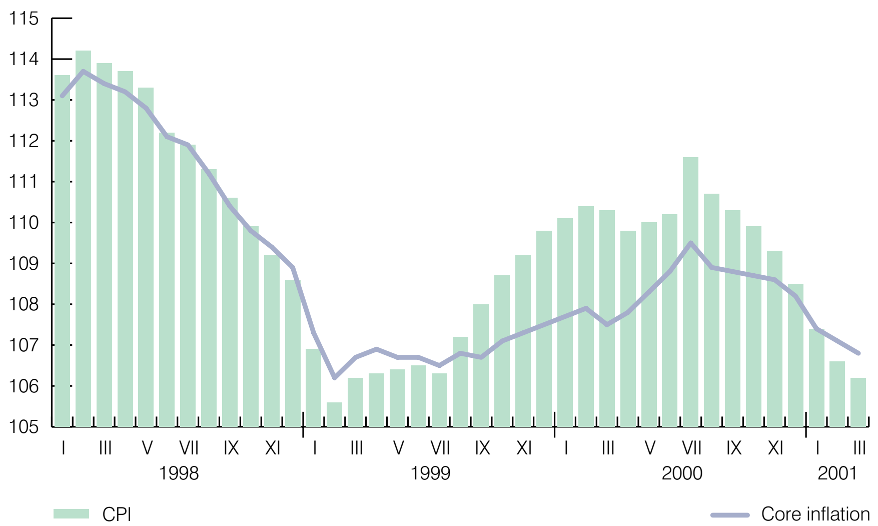
Source: GUS figures, NBP calculations.

Figure 5
CPI vs. core inflation, excluding most volatile and fuel prices
(corresponding month previous year = 100)



Source: GUS figures, NBP calculations.

Figure 6
CPI vs. 15% trimmed mean
(corresponding month previous year = 100)



Source: GUS figures, NBP calculations.

meat products, raw pork and beef, spirits, gas, hard coal as well as newspapers and periodicals went up sharpest among groups creating both these measures.

Another core inflation measure (Figure 6) obtained by trimming 15% of outlying groups of products and services (on both sides of the distribution), prices of which changed most and least compared with the previous period, in January 2001 was on the same level as the CPI. However, in the other months of the first quarter of this year it was higher than the CPI, like remaining core inflation measures. Virtually all groups of the sharpest price rise were excluded from this measure. Those included: telephone subscription rate, bakery products, newspapers and periodicals, electricity, raw pork, smoked meat products, housing occupancy charges. Among groups creating this measure the largest price increase was seen for gas, other smoked meat products, raw beef, spirits and hard coal.

1.3. Producer prices in industry and construction

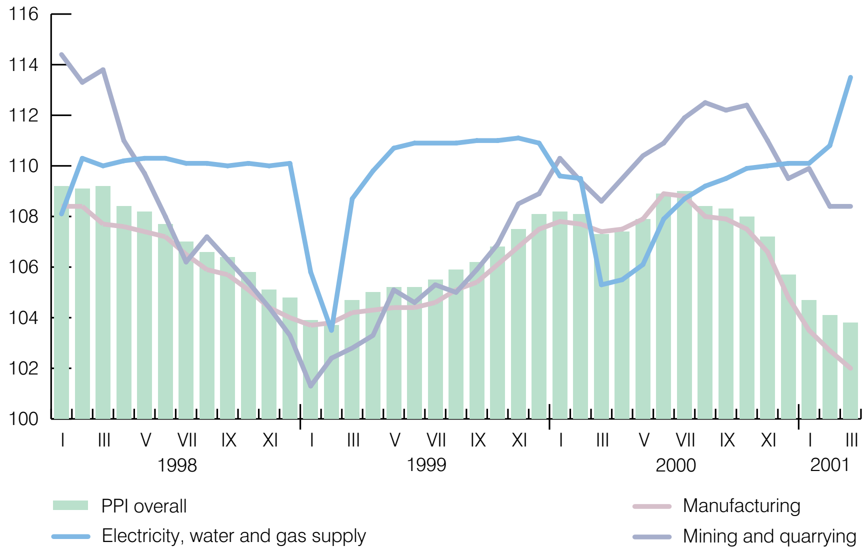
In the first quarter of 2001 producer prices were 0.9% lower than in Q4, 2000. That resulted from a fall in prices in manufacturing, which in Q1 went down by 1.6% as against the previous quarter. The other two industrial sections recorded quarterly growth of producer prices. Particularly sharp price rise occurred in electricity, gas and water supply – by 2.3%.

Annualised producer price indices seen in individual months of the first quarter of 2001 were showing a clear downward trend (Figure 7)[2]. In March 2001 producer prices were 3.8% higher than in March 2000 (in the previous year by 7.3%).

Such a low growth rate of producer prices was driven by the slow-down of price rise rate in manufacturing from 7.4% in March 2000 to 2% in March this year. Consequently, the share of producer price growth of this section in the PPI in the period January – March 2001 went down to 52% from 80.7% in the corresponding

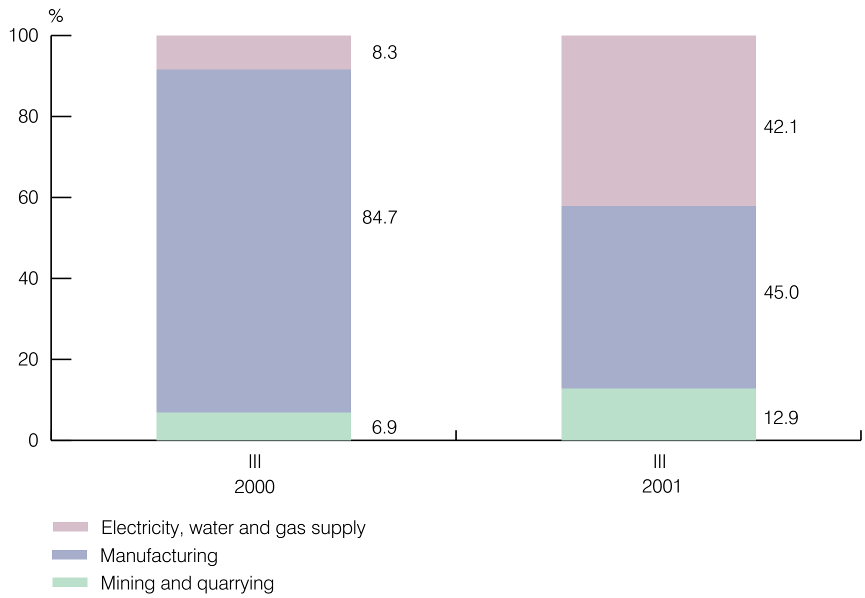
[2] Decline in annual producer price indices, started in August 2000, was suddenly accelerated in December 2000.

Figure 7
Producer prices (PPI) in the industry and its sections
(corresponding month previous year = 100)



Source: GUS figures.

Figure 8
Contribution to PPI of producer price movements in selected sections of industry
(corresponding month previous year = 100)



Source: GUS figures, NBP calculations.

period a year ago (Figure 8)[3]. A weaker producer price growth in manufacturing resulted on the one hand from insufficient demand in the domestic and foreign market and competition of imports and on the other hand from improper in these conditions supply structure, proved by an increase of finished products inventories, recorded in the first quarter[4]. Conditions of market competition, in which majority of manufacturing divisions were operating, resulted in substantial reduction of their price growth rate.

Producer prices in Q1, 2001 were strongly affected, estimated at 36%, by the impact of producer prices in the manufacturing and electricity, gas and water supply sections. That means almost a triple increase of this section prices influence on the PPI, as compared to the first quarter of 2000. Annual producer price growth indices in this section in individual months of the first quarter of 2001 exceeded 10%, in March reaching the level of 13.5% (in March 2000 it stood at 5.3%). The magnitude of those indices was driven by the price rise in one of divisions in this section, i.e. electricity, gas, steam and hot water supply, that in Q1, 2001 amounted to 11.9% (8.1% a year before).

In the period January – March 2001 the producer price growth rate was fuelled in 77.5% by producer price growth rate of four divisions: electricity, gas, steam and hot water supply, manufacture of foodstuffs and beverages, manufacture of chemicals and manufacture of metals (the effect of the first two divisions was equal to 34.5% and 31.5%, respectively). In the corresponding period of 2000 producer prices in those four divisions affected the PPI level at approximately 40%.

Compared to Q1 of the previous year the largest change referred to price growth rate in the division of coke and petroleum products manufacture: in the period January – March 2001 they fell by 0.8%, while a year ago they rose by as much as 56.7%. Consequently, as in

[3] Estimation of the influence of price growth in individual sections (or divisions) on producer price growth was prepared on the basis of data on price growth and producer price growth rates in the period January - March 2001 (cumulative) as compared to the corresponding period of the previous year. Index of industrial sales structure by sections (or divisions) of the national economy, according to the Polish Classification of Activities (Polska Klasyfikacja Działalności), was used as the weight.

[4] On the basis of quarterly GUS questionnaire surveys on economic conditions, in connection with barriers in companies operation.

Table 3
***Impact of producer price growth rates in selected divisions on the overall producer price growth rate** (corresponding period previous year = 100), %*

	I – III 2000			I – III 2001		
	Producer price growth rate of the division	Share of the division in industrial sales	Share of the division price growth rate in the producer price growth rate	Producer price growth rate of the division	Share of the division in industrial sales	Share of the division price growth rate in the producer price growth rate
Electricity, gas, steam & hot water supply	108.1	11.6	11.9	111.9	12.2	34.5
Manufacture of food products and beverages	107.6	18.8	18.1	106.9	19.2	31.5
Manufacture of chemicals & chemical products	107.7	6.0	5.9	104.5	6.2	6.7
Manufacture of metals	106.3	5.3	4.2	104.4	4.6	4.8
Manufacture of coke and petroleum products	156.7	4.9	34.8	99.2	5.5	(-)1.0
Remaining 25 divisions	–	53.4	25.1	–	52.4	23.5
INDUSTRY	107.9	–	–	104.2	–	–

Source: GUS "Statistical Bulletins"; NBP calculations and estimates.

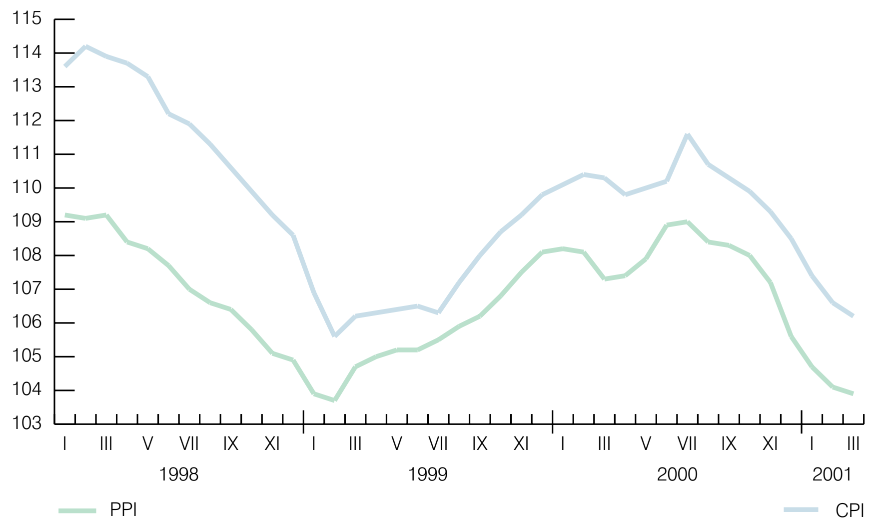
Q1, 2000 the PPI increase was driven at 35% by the price rise in the discussed division, in the first quarter of this year their fall retarded the PPI growth (Table 3). That resulted from prices of oil imported to Poland.

PPI and CPI[5] show a high consistency with regard to the direction of changes (Figure 9). In consecutive months of the first quarter of 2001 differentials of both price growth rates had very close values. In Q1, 2001 annual consumer price indices on average were 2.5 points higher than producer price indices. There were no major changes in this difference since the end of 2000.

A downward trend in construction price growth, observed from mid-2000 onwards, continued in the first

[5] Price indices - corresponding month of the previous year = 100.

Figure 9
PPI vs. CPI
(corresponding period previous year = 100)



Source: GUS figures.

quarter of 2001. In March these prices were 5.7% higher as against March 2000 (7.7% a year before). A slowing down construction price growth rate shall be linked both with a falling pace of investment and with increasing competition in the construction service market.

2. Domestic demand and supply

2.1. General comments

At the turn of 2000 the growth rate of business activity was relatively low. According to GUS data, in the fourth quarter of 2000 the GDP grew by 2.4% and in the first quarter of 2001, according to NBP estimates, by 2.6%. The value added in the industry went up less than in previous quarters, the value added in construction was smaller than in corresponding periods of previous years. Despite further development of financial and insurance services, communication and business related services, the pace of value added growth in commercial services was weaker following the reduction of retail trade turnover.

The slackening growth rate resulted from a slower growth rate of the domestic demand. Personal consumption and fixed investment growth rates dropped. It was estimated that in the first quarter of 2001 the pace of fixed investment growth was weaker than the consumption growth rate for the first time since the GUS started working out quarterly accounts (i.e. since 1995). GDP and domestic demand growth estimates are presented in Table 4.

Domestic demand growth was close to that seen in the fourth quarter of 2000 and by 1.0 point lower than the GDP growth. Like in the second half of 2000

Table 4
GDP & domestic demand growth

	Year	Q1	Q2	Q3	Q4	Q1
			2000			2001
	Corresponding period previous year = 100					
Total value added	**103.8**	**105.8**	**105.0**	**103.1**	**102.1**	**102.4**
Industry	106.8	110.2	109.4	106.5	102.3	103.6
Construction	99.4	104.3	100.8	97.8	97.6	94.0
Commercial services	104.6	105.5	105.3	103.5	104.1	103.5
GDP	**104.1**	**106.0**	**105.2**	**103.3**	**102.4**	**102.6**
Fixed investment	103.1	105.5	102.9	102.4	102.6	100.5
Personal consumption	102.4	104.6	102.6	100.8	101.3	101.8
Domestic demand	**102.8**	**105.1**	**103.3**	**101.3**	**101.7**	**101.6**

Source: GUS, own estimates.

exports accelerated the economic growth. According to the custom statistics in the first quarter of 2001 the value of exports in current zloty prices was 17.1% higher than a year ago. In the same period imports value rose by 3.6%. Consequently, the trade deficit declined from 17.5bn zloty to 13.9bn zloty.

2.2. Domestic demand

On the basis of data on nominal employee earnings and social benefits rise the NBP estimates that the growth rate of **gross disposable income** of households continued to be low in the first quarter of 2001. Average monthly gross employee earnings in the sector of enterprises were up 8.5% compared to Q1, 2000. After a fall of average employment by 2.4% employee earnings in this sector rose against a similar period of the previous year by approx. 6% in nominal terms. Assuming that earnings in the general government sector were not lower than those paid in the fourth quarter of 2000, their rise may be estimated at more than 10%. Overall employee earnings would then be higher by 7% than a year ago. Other components of primary income and transfers were increasing faster that fuelled the acceleration of disposable income growth rate. Improvement of price relationships resulted in retardation of decline of farming-related households' income, in increased income on assets and on proprietary business. In the first quarter of 2001 also social benefits increased more than in the second half of 2000. However, up to now there is no data on the amount of single compensation payments from the non-agricultural social security scheme. Payments of old-age and disability pensions without those compensations grew by 6.3%. The amount of those payments assumed by the ZUS had to total 2.1bn zloty – at this assumption the overall increase of old-age and disability pensions compared to Q1, 2000 would exceed 15%. Other benefits were boosting quickly (e.g. payouts of benefits and pre-retirement performances rose by 70.3%) what contributed to the fact that their share in total benefits went up. Tax charges declined – State Budget revenue on individual income tax in the first quarter of 2001 in nominal terms was 0.3% lower than a year ago. Overall it is estimated that in nominal terms the rise in gross disposable income, compared to Q1, 2000, has slightly exceeded 10% and its purchasing power grew more than 3%.

At the same time the growth of personal loans was much slacker than in the first quarter of 2000 and personal deposits went up more than a year ago. Loans rose by 190.4m zloty (in Q1, 2000 by 1,898.7m zloty), total deposits by 11.3bn zloty (in Q1, 2000 by 10.5bn zloty). Last year the increase of households' financial savings[6] in the first quarter was substantially affected by the fall of cash in circulation – by 5.1bn zloty; in 2001 this fall equalled only 0.6bn zloty. Overall, the increase of households' financial savings in the first quarter of 2001 may be estimated as over 40% higher than in Q1, 2000.

In this situation the pace of **individual consumption** growth was slacker than of income growth and according to preliminary estimations stood around 1.8%. A slow increase of consumption is also proven by a continued fall of retail sales volume in medium and large trade companies. It was lower than in Q4, 2000 (amounted to 3.1% against 3.4%) and was driven by larger sales of companies selling furniture, radio and TV equipment and household appliances, clothing and footwear, pharmaceuticals and cosmetics as well as foodstuffs, while the growth rate of sales in non-specialised shops with a preponderance of foodstuffs (super- and hypermarkets) fell and a drop in sales in the automotive sector continued.

On the basis of data on construction output and investment goods supply it is estimated that **capital expenditures** growth rate continued to slacken. In the first quarter of 2001 the volume of executed construction work in medium and large enterprises was 8.6% lower than a year ago, of which investment work – by 9.2%. Sales of industrial enterprises manufacturing primarily investment goods rose by approx. 2%. Capital expenditures in the sector of enterprises were estimated to go down. The share of non-housing buildings (industrial, warehouse, trade-service) in the total construction fell from 43.2% in the first quarter of 2000 to 39.8%. Expenditures in the sector of households and general government institutions grew, proven by good performance of housing construction and civil engineering structures (e.g. roads).

[6] Households' financial savings correspond with the increase of households' monetary resources, i.e. the sum of bank deposits increments, cash resources and the value of placements in securities less the rise of households' loans.

Table 5
State Budget execution in the first quarter of 2000 and 2001

	Nominal amounts (million zloty)		**Execution of the Budget (%)**	
	2000	**2001**	**2000**	**2001**
Revenue	**30.949.7**	**31.603.4**	**22.0**	**19.6**
Indirect taxes	19.124.4	19.091.4	21.8	20.2
Corporate income tax	3.763.1	3.053.9	26.6	17.4
Individual income tax	4.379.8	4.658.8	17.4	18.2
Revenue of State Budget entities	2.717.0	4.464.2	27.5	27.5
of which revenue on custom duties	1.202.7	957.0	26.1	19.9
of which UMTS licence fee	–	903.0	–	28.9
Other revenue	661.9	335.1	16.2	4.7
Expenditures	**37.877.1**	**46.658.6**	**24.2**	**25.7**
Domestic debt service	3.495.4	4.821.0	25.7	28.9
Foreign debt service	1.161.2	661.1	21.6	12.5
Subsidy for the Labour Fun	213.6	748.6	28.9	43.3
Subsidy for the FER	3.302.5	3.873.0	24.1	25.3
Subsidy for the FUS	4.166.7	6.646.0	24.8	24.9
General subsidies for local governments	8.890.8	9.774.5	34.4	34.4
Budget deficit	**6.927.4**	**15.055.2**	**45.0**	**73.3**

Source: Ministry of Finance.

In the first quarter of 2001 the **State Budget** deficit amounted to 15.1bn zloty that made 73.3% of the amount stipulated in the 2001 Budget Act. In the corresponding period of the previous year the deficit was significantly lower – reached 45% of the planned annual amount. Such a high level of the deficit this year was driven both by low Budget revenue and by expenditures higher than last year, as presented in Table 5.

Low revenue on individual and corporate income taxes was connected with a slacker than assumed economic growth rate and with lower inflation. Pretty low level of revenue on indirect taxes resulted also from a small rise in domestic demand as well as from a strong zloty and from improvement of situation in the trade balance. On the contrary, relatively high revenue was obtained by State Budget entities. However, it shall be noted that the UMTS licence fee made their important part (20.2%), which was extraordinary revenue, not recorded in the previous year.

By contrast, in the first quarter of this year Budget expenditures were increasing faster than in a similar period of 2000. That was a consequence, inter alia, of accumulation of expenditures incurred at the end of 2000 and of extraordinary expenditures. They included, for example, transferring much higher than in the previous year subsidy to the Social Security Fund (FUS), connected with the payout to old-age and disability pensioners a single compensation for a higher than assumed inflation in 2000, at the total amount of 2.6bn zloty. Moreover, payouts of compensations for temporary non-rising salaries in the general budget sector and for loss of some rises in or allowances to old-age and disability pensions in 1991-1992 were started in March. In January the amount of 1bn zloty was also transferred to the PKO BP SA, designed for repayment of arrears to cover a guarantee premium on withdrawal of funds from housing passbooks. A high cost of domestic debt service was another significant reason for high expenditures in the first quarter of 2001. They resulted, inter alia, from increased issuance of Treasury securities in Q2 and Q3 of 2000, carried out in relation with small privatisation revenue in that period.

The structure of financing the state borrowing needs in the first quarter of 2001 was less favourable than in the corresponding period of 2000. Privatisation revenue totalled 1.1bn zloty, i.e. three times less than in Q1, 2000, while the state debt to non-bank entities grew by 4.1bn zloty, against 6.9bn zloty a year before. That means that the banking sector played much more important role in financing the budget borrowing needs.

The economic deficit, i.e. the deficit of the public finance sector increased by payouts of compensations for employees of the general government sector and old-age and disability pensioners at the amount of 0.4bn zloty and by revenue of the UMTS licence fee equal to 0.9bn zloty and reduced by social security contributions transferred by the ZUS to open pension funds totalling 2.4bn zloty, in the first quarter of 2001 stood at 13.9bn zloty (in 2000 – 5.4 bn zloty). Compared to a quarterly GDP the economic deficit made 8.3%, as against 3.5% last year. That means that in the first quarter of 2001 the role of the public finance sector in generating the domestic demand was substantially greater than a year ago.

Because of low privatisation revenue great budget needs were primarily financed by issuing Treasury securities. High supply of Treasury papers (14.8% higher than in a similar period of 2000), at their high yield, was an important factor driving the inflow of foreign capital. Participation of foreign investors in non-bank financing continued to be important and in the first quarter of 2001 stood at 26%, however, that was 6.4 points less than in the same period of the previous year. Foreign capital involvement in financing the deficit in the analysed period amounted to 1.1bn zloty, against 2.2bn zloty in Q1, 2000.

2.3. Supply

According to preliminary NBP estimates in the first quarter of 2001 the value added went up by 2.4%. It comprised a sharper than in Q4, 2000 growth in the industry and a weaker in market services. A fall in agriculture was estimated to stop. The fall of value added in construction was deeper than in the previous quarter. The growth of value added was achieved as a result of increased labour productivity, at continuing shrinking of employment.

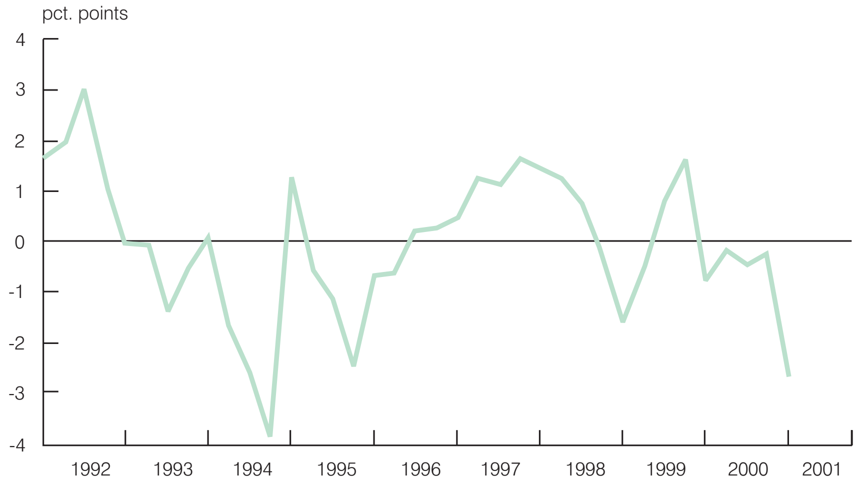
Industrial sales (in medium and large enterprises) in the first quarter were 4.1% higher than in a similar period of 2000 (in Q4, 2000 the growth stood at 2.6%). Labour productivity increased by about 9%, average employment was 4.6% lower. Sales of the manufacturing industry went up by 4.8% and of electricity, gas and water supply by 2.8%, while sales of mining and quarrying fell by 4.4%. Companies manufacturing basically procurement and consumer products boosted their production by 5% and those manufacturing investment goods – by approx. 2%. The division mix of the output confirms a strong dependence of sales growth on exports. The sharpest growth was recorded in manufacture of other transport equipment (by 26.6%), coke and petroleum products (by 19.7%), metal products (by 17.0%), radio, TV and telecommunication equipment (by 13%), rubber and plastics products (by 10.2%). Despite a substantial rise of spares and semi-finished products exports – following decline of car sales in the domestic market by 1.4% - output of automotive industry was lower than a year ago. Production of cars fell by 22%, while that of lorries and truck tractors by 55.6%.

Decline in retail sales and the slackening of wholesalers' turnover resulted in reduction of value added in the market services. Increase in this group of sections was obtained thanks to continued growth of sales of transport and communication services as well as of companies providing services to real estate and businesses. On the basis of fragmentary information on deterioration of banks and insurers earnings the value added growth in the section of financial intermediation and insurance was estimated to be lower than last year.

Situation in the agriculture improved. Despite a fall of slaughter animals' purchase, the decline in global farming production was retarded. Conditions for cultivated plants growth are much more favourable than a year ago what shall contribute to crops and plant production increase. Low supply of slaughter animals is connected with prior slump in livestock population due to low profitability of breeding. Agricultural products price rise seen already at the end of 2000 (slaughter pigs purchase prices in the first quarter of 2001 exceeded those recorded a year ago by 30.5%) improved profitability and substantially increased interest in animals breeding. Despite a decline in slaughter cattle purchase prices the cattle prices for further rearing also rose. This shall result in reconstruction of basic and circulating herd. All in all, the animal production in 2001 may be estimated to be close to that seen in 2000.

In the first quarter of 2001 the value added in construction continued to slump. Low demand for investment work and change in its structure (increase of modernisation investment share as well as expenditures on purchasing machinery and equipment) contributed to a fall of medium and large construction enterprises output by 8.6%. Demand for repair and modernisation work, primarily performed by small enterprises, was estimated to fall less. Therefore it is estimated that the fall of total construction output was smaller than recorded for large and medium enterprises (it was estimated to be less than 6%).

Figure 10
Demand gap



Source: GUS figure, NBP calculations.

* * *

GDP movements feature a seasonal slump in the first quarter, as compared with the fourth quarter of the previous year. That applies also to investment and consumption.

Estimating that if in Q1 in year-on-year terms GDP growth amounted to 2.6%, then in relation to the previous quarter GDP went down by 19.1%. This fall was comparable with the slump that occurred in the first quarter of 2000 and equalled 19.3%, while taking into account seasonality (X11 method) the GDP fall in Q1 of this year may be estimated at 1.4% as against the previous quarter – compared with 1.2% in the first quarter of 2000.

In the first quarter of 2001 GDP continued to be below estimated level of potential production. A negative demand gap, that occurred last year, substantially widened and amounted to 2.7% of potential production[7]. Delays existing in the monetary policy transmission mechanism do not allow to witness the impact of reductions of official interest rates in February and March this year on the size of the demand gap (Figure 10).

[7] Potential production is understood as a statistically determined trend, using Hodrick-Prescott filter, on the basis of seasonally adjusted quarterly GDP data in the period 1992 - 2000.

3. External disequilibrium

It may be expected that the external disequilibrium in Polish economy in 2001 will be affected by the weakening of external demand and by the zloty appreciation, started in mid-2000.

The pace of economic growth of Germany was falling from Q3, 2000 onwards. Consequently, the pace of imports rise in the most important Polish exports market declined. German imports grew in Q3 and Q4 of 2000 by 10.9% and 6.3%, respectively, while in the second quarter of the previous year this growth rate stood at 13.2%[8].

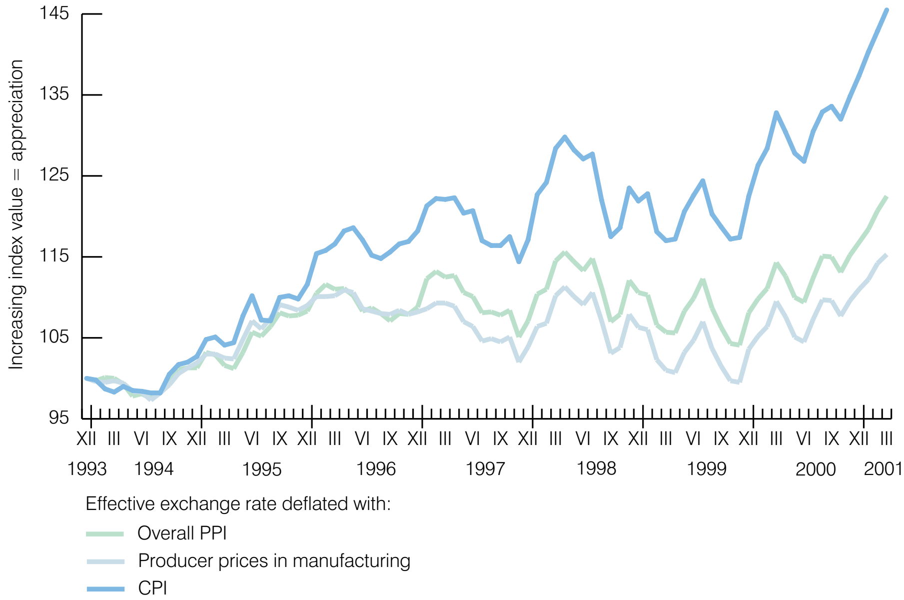
The zloty exchange rate in the second half of 2000 strengthened; the real effective exchange rate adjusted by changes in producer prices in manufacturing rose by 6.2% as against 0.9% increase in the first half of 2000. Since November onwards the zloty appreciation clearly intensified and continued in the first quarter of 2001; taking into account the producer price index as well as the consumer price index, the zloty strengthened in the period November 2000 – March 2001 by 7.0% and 10.3%, respectively (Figure 11).

The aforementioned changes have not yet affected the disequilibrium in current trade in the first quarter of 2001. In this period the deficit in the current account of balance of payments stood at USD 2.2bn and – like in the last three quarters of 2000 – was much lower than the level of USD 3.5bn reached in the first quarter of 2000. It was driven primarily by reduction of deficit in the foreign trade balance by USD 0.7bn and of deficit in services by USD 0.3bn and by improvement of the income balance by USD 0.4bn[9]. Other items of the current account balance, i.e. unclassified current transactions and current transfers, in the first quarter of 2001 were close to those in Q1, 2000.

Export receipts in the first quarter of 2001 amounted to USD 7.5bn and were by 18% higher than in the corresponding period of the previous year, but 6.1%

[8] Source: "Die Weltwirtschaft", Institut für Weltwirtschaft, Kiel, Heft 4, 2000.
[9] Smaller deficits in such items as: other commercial services and postal services contributed most to reduction of deficit in service payments; the surplus achieved in the item "income" compared with the deficit in Q1, 2000 resulted in a rise in income on NBP and Treasury debt securities, which made part of receipts from selling collateral bonds.

Figure 11
Real effective zloty exchange rate, 1994 - 2001
(December 1993 = 100)



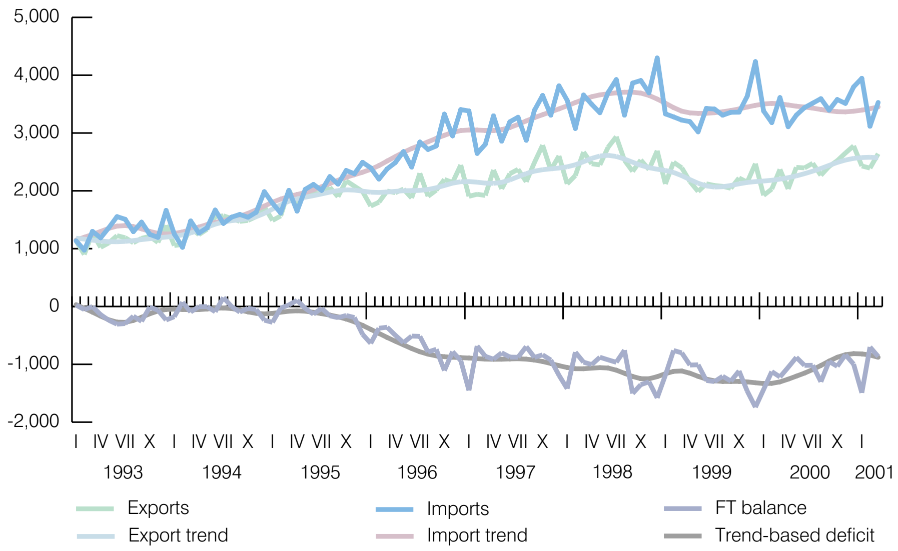
Source: NBP calculations.

lower than in Q4, 2000. Import payments totalled USD 10.6bn that meant a rise by 4.1% against Q1, 2000 and a fall by 2.7% compared to the previous quarter.

Having adjusted for seasonal and irregular fluctuations it may be stated that monthly growth rate of export receipts was slackening in each of consecutive months from November 2000 onwards (Figure 12). If in October 2000 exports increased by 2.1% as against September, then in February 2001 it grew only by 0.2% and in March exports fell by 0.3%. This observation is consistent with results of NBP research that shows a pretty quick response of a part of exports to the zloty appreciation. The real zloty exchange rate against the dollar, adjusted by movements in unit labour costs, rose from October 2000 to March 2001 by more than 16%[10]. This quick exports response to

[10] Against the euro this indicator rose by more than 15%.

Figure 12
Foreign trade balance on a cash basis



Source: NBP figures.

this movement referred to 5-7% of total exported goods that are most sensitive to price changes. The zloty appreciation effect with regard to the remaining 93-95% of exports shall, according to our forecasts, become visible from June 2001. A weaker growth rate of the domestic demand from September 2000 onwards was another driver of smaller export increments. Affecting exports with a delay of approx. 6 months it strengthened the negative impact of zloty appreciation leading to a decline of seasonally adjusted export receipts in March 2001[11].

Monthly growth rate of import payments, after adjustment for seasonal and irregular fluctuations, shows a slight upward trend from December 2000 onwards. In that month imports grew by 0.3% as

[11] According to customs statistics, exports and imports series, adjusted for seasonal and irregular fluctuations, from November 2000 to February 2001 show stabilisation of export increments at 1.2% monthly.

Table 6
Early warning signs (%)

	Q1	Q2	Q3	Q4	Q1
			2000		2001
Current account balance/GDP[1]	-8.2	-7.6	-7.6	-6.3	-5.3
Direct foreign investment /Current account balance	44.8	54.8	41.6	275.3[2]	63.1
Portfolio investment balance /Current account balance	69.4	10.0	-3.4	13.0	92.1
Official reserve assets in months of imports[3]	7.8	7.8	7.3	7.4	8.0
REER PPI[4]	104.6	103.8	105.7	109.3	106.2

[1] Annualised indicator.
[2] High value of the indicator was driven by inflow of capital connected with privatisation of the TP SA.
[3] Average for balances of official reserve assets as of month-end in the given quarter referred to average monthly imports in the same quarter.
[4] Real effective zloty exchange rate, adjusted for producer price changes in manufacturing; corresponding period previous year = 100.

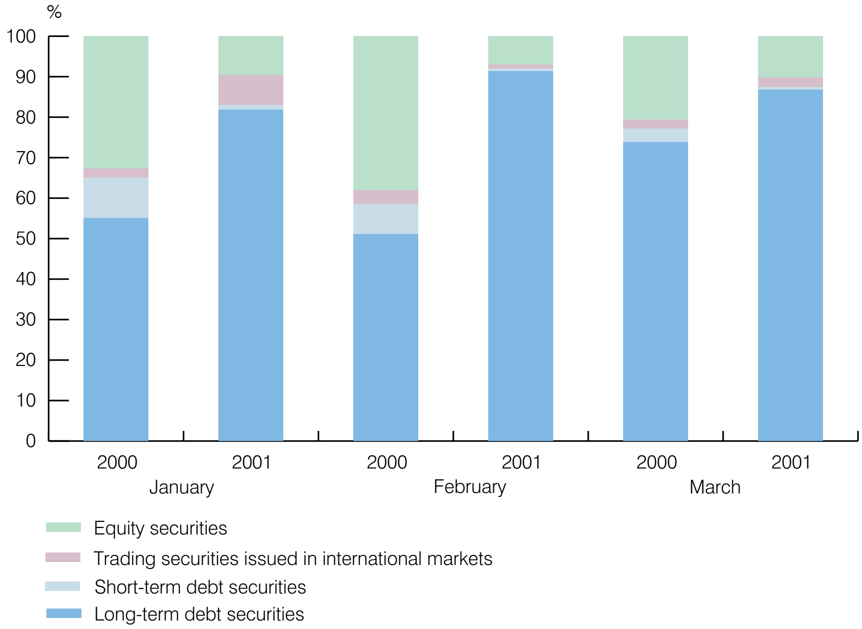
Source: GUS and NBP data, NBP calculations.

compared with the previous month, while in March 2001 they were 0.9% higher (Figure 12). The increased imports growth rate is directly linked with the zloty appreciation, both in nominal and real terms, adjusted by the CPI. Exchange rate movements explain admittedly not much more than 16% of imports volatility, nevertheless, at a similar rise of domestic demand in Q4, 2000 and in Q1, 2001, the exchange rate effect may be that strong as to cause growing import increments[12].

In the first quarter of 2001 the net inflow of foreign direct (USD 1.4bn) and portfolio (USD 2.4bn) investment was on the level close to Q1, 2000. However, as the result of significant slump of the deficit in the current account its funding was much better than in the first quarter of 2000 (Table 6). The net inflow of portfolio investment exceeded by 10.7% the deficit in the current account (in Q1, 2000 this inflow was 31% lower than this deficit). Debt instruments dominated

[12] Similar trend occurs in import of goods, based on custom statistics.

Figure 13
Structure of foreign portfolio investment inflow to Poland



Source: NBP figures.

in foreign portfolio investment (USD 2bn) and those were primarily long-term securities (Figure 13). The analysis of the structure of net inflow of foreign portfolio investment shows a significant fall of investment in equity securities. If in the first quarter a year ago the net inflow for such investment made 17% of the net inflow of foreign portfolio investment, then this year their share fell to 6%.

Table 6 shows that in the first quarter of 2001 basic indicators illustrating threats connected with the external disequilibrium were improving. However, the zloty appreciation from Q3, 2000 onwards shall be noted, which creates a hazard for medium-term zloty exchange rate stability.

4. The labour market

Downward trend in employment in the sector of enterprises that appeared as early as in the third quarter of 1998 continued during the whole 1999 and 2000. After a slump in employment in the first half of 2000 from July onwards this process slightly weakened. That was also the situation in the first quarter of 2001.

Average employment in the sector of enterprises in Q1, 2001 was 2.4% lower than a year ago, while in the first quarter of 2000 the fall compared to the corresponding period of the previous year stood at 3.6%. The slackening fall of employment in the sector of enterprises was driven by reduction of the scale of dismissals in the industry, primarily in manufacturing divisions as well as by slowing down in the first quarter of 2001 of restructuring processes inter alia in such industries as mining or metallurgy. Three thousand people were laid off from the coal and lignite mining between December 2000 and March 2001, while in this period a year before – seven thousand. In the first quarter of 2001 the average employment in coal and lignite mining fell compared with Q1, 2000 by nearly 10% and in the same period a year ago by almost 15%. In the manufacture of metals the average employment declined in the first quarter of 2001 by about 16% and in the corresponding period of 2000 by virtually 20%.

Table 7
Unemployed newly registered and cancelled from the register in March 1995-2001 (thousand persons)

Year	Newly registered in the reporting period	Cancelled from the register in the reporting period: total	Cancelled from the register in the reporting period: of which due to taking up a job
1995	148.8	227.2	117.2
1996	149.6	157.6	85.0
1997	140.8	217.6	112.3
1998	145.5	191.7	92.1
1999	193.6	169.8	83.0
2000	174.5	168.6	89.4
2001	172.1	150.3	78.0

Source: GUS data.

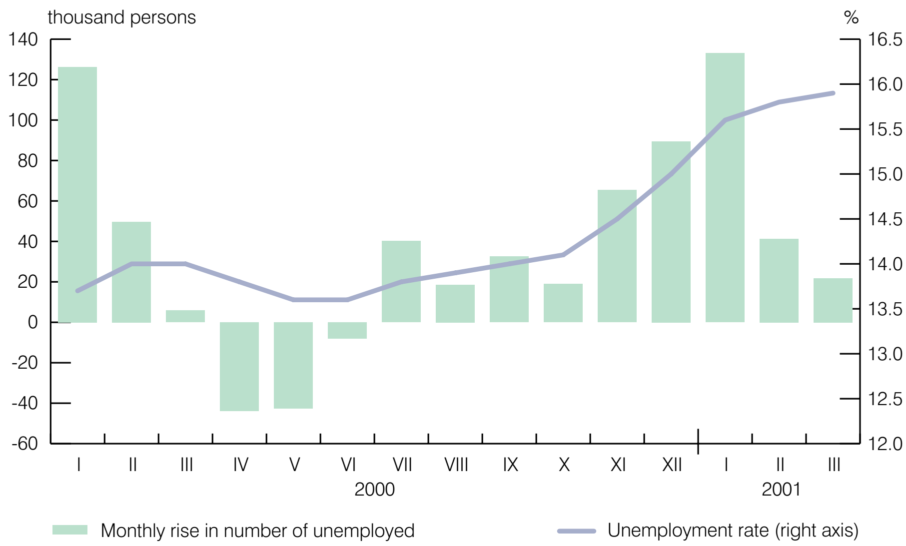
The fall of employment in industry was not accompanied by its expected rise in service sectors and in construction. On the contrary, a weaker than in previous years pace of employment growth in services was seen as well as a deeper than a year ago drop of employment in construction. Since the beginning of this year employment in construction went down by 1.8% and compared to Q1, 2000 by 5.6% (3.7% a year earlier).

In the first quarter of 2001 on average 92,200 job offers were available, while a year ago 131,500. Therefore the number of persons cancelled from the unemployed register due to taking up a job was increasingly smaller (Table 7).

Despite the weakening of employment fall rate the number of unemployed was quickly rising (Figure 14). This was the effect of registration by people that so far did not work and by graduates of various types of schools as well as of smaller number of people cancelled from the register of unemployed, which resulted inter alia from a lower number of job offers available to labour offices. In the first quarter of 2001 the number of unem-

Figure 14

Monthly rises in the number of unemployed and unemployment rate



Source: GUS figures, NBP calculations.

Table 8

Growth of unit labour costs versus changes in sales and remuneration

(corresponding period previous year = 100)

	Period	Employment growth rate	Growth rate of average nominal gross wages	Growth rate of industrial sales	Productivity gains	Degree of productivity remuneration	Increase of unit labour cost
year	1998	99.3	114.6	104.8	105.5	1.09	109.35
year	1999	95.6	109.3	104.4	109.2	1.00	104.69
year	2000	93.7	110.3	107.1	114.3	0.97	102.99
Q1	1999	96.6	108.0	96.9	100.3	1.08	111.46
Q1	2000	93.5	113.8	110.7	118.4	0.96	102.80
Q1	2001	95.4	108.3	104.1	109.1	0.99	104.04

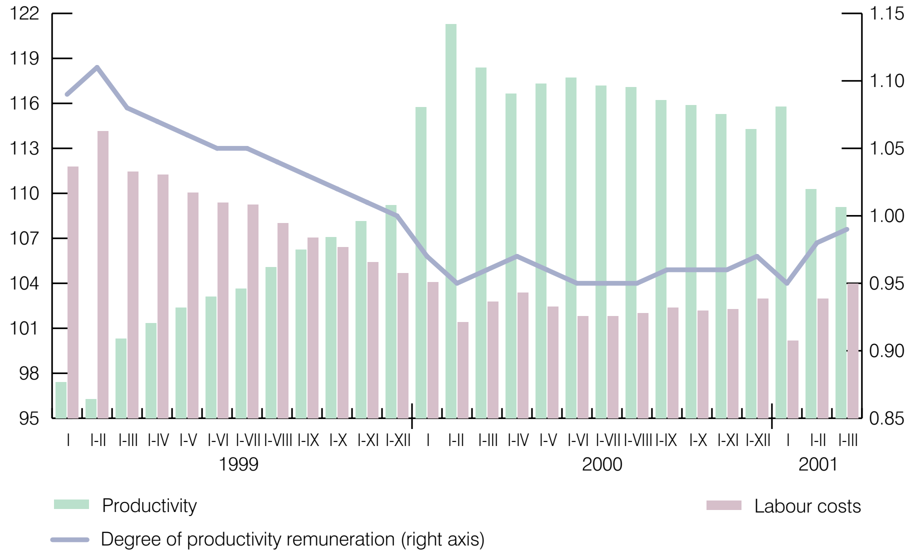
Notes:
1 productivity gains calculated as the ratio of sales growth to employment growth;
2 remuneration of productivity gains calculated as the ratio of wages growth rate to productivity gains;
3 unit labour cost calculated as the ratio of wages growth rate to industrial sales growth rate.

Source: GUS data, NBP calculations.

ployed went up by 196,000 persons (7.3%), while a year before by 183,800 persons (7.8%). However, compared with the situation as of March-end 2000 the number of registered unemployed grew by 367,000 persons and the unemployment rate reached 15.9%, against 14% a year ago. Number of unemployed graduates of various types of schools compared with the situation as of the end of December 2000 increased by 14,500 (by 30,000 against March 2000).

Since the end of 2000 the number of registered unemployed, who lost jobs as a result of group layoffs, rose by only 5,100 people, compared with 63,900 in the first quarter of 2000. Relatively small increment of registration of unemployed from group layoffs resulted not only from slowing down restructuring and privatisation processes but also from the fact that employees dismissed from restructured, privatised and liquidated enterprises were employed again in various companies set up on the basis of those enterprises either retired or used pre-retirement benefits and allowances.

Figure 15
Productivity gains, labour costs and degree of productivity remuneration
(corresponding period previous year = 100)



Source: GUS figures, NBP calculations.

Lay-offs in private enterprises become more and more often. The greatest changes occurred in smallest enterprises. In January and February 2001 employers in both ownership sectors declared laying staff off (25 and 35 thousand people, respectively). However, the advised scale of dismissals was smaller than in the corresponding period of 2000 (36 and 43 thousand, respectively). Lay-offs were most often driven by the necessity of production cost reduction, to improve effectiveness.

Productivity was increasing as a result of reduction of employment and of majority of outlays on the technological progress in general investment expenditures, and at relatively slower pay rise – in the first quarter of 2001 as compared with the same period of the previous year, average earnings in the sector of enterprises went up by 1.7% in real terms – the share of labour costs in total production costs was slowly declining (share of payroll in total costs of enterprises fell from 18.9% in 1999 to 17.5% in 2000) and at the same time annual pace of unit labour costs rise was slackening (Table 8, Figure 15).

5. Other supply factors affecting inflation

Structural factors

Actions connected with implementation of restructuring and privatisation programmes, mainly in steel and copper metallurgy, power industry, chemical sector, armaments industry and LOT continued in the first quarter of 2001.

Situation in the power industry, which generated significant inflation impulses, is characterised with:

- difficulties in privatisation of the power manufacture sub-sector,
- control of electricity and heat prices by the Power Regulation Authority (URE),
- monopolisation of local markets, connected with high transmission costs (tariff adjustment in January 2001 – increase by 4-7%), restricting competition,
- maintaining obsolete power stations, costs of which burden the sector and the lack of funds for their modernisation,
- setting up Polish Power Concern (PKE) (covers 17% of the power market; its production in 75% is covered by long-term contracts), that intends to perform capital mergers with coal mines,
- fall of profitability of heat sector companies due to prices falling behind increasing costs,
- monopolisation of gas supplies – domestic monopolist the Polish Oil and Gas Mining (PGNiG) since mid-March 2001 rose high-methane gas prices on average by 16.3% and nitrogen-bearing gas by over 11%.

Such situation resulted in the first quarter of 2001 in a rise of producer prices in the section of electricity, gas and water supply by 11.5% against Q1, 2000. Price regulations that occurred in the first quarter of 2001 are justified by indicators of costs allocated to unit gross financial result in the class electricity manufacture and distribution recorded in the fourth quarter of 2000 (cf. Table 9).

Basic changes that occurred in the first quarter of 2001 within privatisation and restructuring processes in individual areas of economic activity include:

- selling the Rybnik Power Station (in 35%) to Electricité de France; within a year representatives of the consortium intend to obtain a majority portfolio in this power station,

Table 9
Sructure of production costs and efficiency ratios, in selected classes of economic activity, Q4, 2000 and Q1, 2001

	Production and distribution of electricity		Telecommunication		Scheduled air transport	
	Q4 2000	**QI 2001**	**Q4 2000**	**QI 2001**	**Q4 2000**	**QI 2001**
Structure of costs (%)	100.0	100.0	100.0	100.0	100.0	100.0
– material inputs	31.0	31.1	4.8	3.1	16.4	21.1
– energy	4.2	4.0	0.6	1.1	0.1	0.2
– external services	30.1	25.3	38.5	38.8	67.6	55.3
– taxes & charges, of which:	1.5	4.4	2.3	2.9	0.3	0.5
– total labour costs	15.9	16.7	26.1	21.0	11.5	16.5
– depreciation charges	15.5	16.9	22.6	27.1	2.6	2.6
Ratios of costs to pre-tax earnings (zloty/zloty)						
Total costs/pre-tax earnings	32.4	11.0	4.1	7.1	7.6	-4.5
– material inputs /pre-tax earnings	10.0	3.4	0.2	0.2	1.3	-1.0
– energy/pre-tax earnings	1.4	0.4	0.0	0.1	0.0	0.0
– external services /pre-tax earnings	9.8	2.8	1.6	2.7	5.2	-2.5
– taxes and charges /pre-tax earnings	0.5	0.5	0.1	0.2	0.0	0.0
– total labour costs /pre-tax earnings	5.2	1.8	1.1	1.5	0.9	-0.7
– depreciation charges /pre-tax earnings	5.0	1.9	0.9	1.9	0.2	-0.1

Source: F-01 reports; GUS data.

- buying State Enterprise Oliva (former Polifarb Oliva in Gdańsk) by the Oliva Trade Network company, established by employees and management of the Polifarb,
- pre-privatisation analyses in the Polfa Grodzisk,
- starting privatisation of Police Chemical Works SA,
- invitation to negotiation on buying 80% of shares in the Kędzierzyn Nitrogen (Chemical) Works,
- lack of interest in buying the Rolling-Bearing Factory in Kraśnik (repeated invitation to negotiation on this privatisation issued by the State Treasury in March 2001),

- announcement of invitation to negotiation on selling shares of PZL Warszawa-Okęcie by the ST; the enterprise manufacture small civil and military aircrafts (Orlik); this is another armaments enterprise for which the ST commenced official negotiations with investors,
- signing by the PZL Świdnik a contract with French concern Dassault Aviation on manufacturing parts to multi-role fighters Mirage 2000-5; new contracts and restructuring of the factory shall ensure achieving positive margin on sales in 2001 by the works,
- announcement by the ST of invitation to buy not less than 10% of Cefarm Warszawa shares; this is one of seven former enterprises of Pharmaceutical Supply, that remained state-owned enterprises,
- difficult situation of the Huta (steelworks) Katowice because banks withdrew from extending to them short-term credits; application of the Management Board of the steelworks for providing additional capital by swapping debts to state companies: the Polish State Railways, power industry, the Węglozbyt (coal distributors),
- lack of the act on steel industry restructuring results in deterioration of financial standing of most of steelworks (increasing losses on economic activity, high debts, lack of ability to pay, lack of funds for investments); cf. Table 10,
- providing by the Government additional capital to the Huta Stalowa Wola in shares of the Bank Pekao SA to increase the worth of the company and to enable finalisation of the restructuring programme.

The January decision of the President of the Consumer and Competition Protection Office, imposing a fine of 54m zloty on the Telekomunikacja Polska SA (TP SA) for charging excessive tariffs for long-distance calls, did not change the company's standing in the first quarter of 2001. It continues to be the operator with the largest network of connections and having ascertained an actual exclusiveness to provide services in long-distance calls within stationary telephony[13]. However, the TP SA has got legally guaranteed exclusiveness to provide services in international calls by the end of 2002.

[13] TP SA from October 2000 onwards has got no legally guaranteed exclusiveness, but in fact continues to enjoy it. Despite the fact of obtaining rights to provide services in the long-distance calls market by three operators: the NOM Ltd., the Netia 1 Ltd. and the Energis Polska Ltd., telephone users cannot choose a long-distance operator because those companies has not yet commenced the activity of providing this service.

Table 10
Sructure of production costs and efficiency ratios, in selected classes of economic activity, Q4, 2000 and Q1, 2001

	Manufacture of fertilisers and nitrogen compounds		Coal mining and preparation		Manufacture of of steel, cast iron and iron alloys	
	Q4 2000	Q1 2001	Q4 2000	Q1 2001	Q4 2000	Q1 2001
Structure of costs (%)	100.0	100.0	100.0	100.0	100.0	100.0
– material inputs	58.3	58.6	11.2	14.0	56.1	59.7
– energy	7.2	7.1	5.4	7.8	7.5	8.2
– external services	13.9	13.3	14.5	15.7	17.7	11.8
– taxes and charges, of which:	2.2	2.9	4.1	3.2	2.1	2.1
– total labour costs	11.9	11.5	58.3	49.7	10.6	11.6
– depreciation charges	6.2	5.9	5.2	7.2	5.0	5.7
Ratios of ccsts to pre-tax earnings (zloty/zloty)						
Total costs/pre-tax earnings	19.6	16.4	-20.6	-21.6	-4.9	-11.6
– material inputs /pre-tax earnings	11.5	9.6	-2.3	-3.0	-2.7	-6.9
– energy/pre-tax earnings	1.4	1.2	-1.1	-1.7	-0.4	-1.0
– external services /pre-tax earnings	2.7	2.2	-3.0	-3.4	-0.9	-1.4
– taxes and charges /pre-tax earnings	0.4	0.5	-0.9	-0.7	-0.1	-0.2
– total labour costs /pre-tax earnings	2.3	1.9	-12.0	-10.7	-0.5	-1.4
– depreciation charges /pre-tax earnings	1.2	1.0	-1.1	-1.6	-0.2	-0.7

Source: F-01 reports; GUS data.

Albeit long-distance call rates were cut in February, but high rates of local calls[14] and high subscription rates, thanks to which the company achieves most of its revenue, were preserved. According to the quarterly report on listed companies in the first quarter of 2001 the TP SA recorded rate of return equal to 49.4%, one of the highest stated in this

[14] These rates, as expressed in USD, are comparable to those in OECD countries, but they are excessive for the domestic customer.

report. It resulted from the monopolistic position of this operator and free fixing of prices for their services. However, according to the GUS data, costs do not justify high prices of services provided by the TP SA. In the fourth quarter of 2000 costs versus gross profit in telecommunication were, however, much lower than in previous quarters and also lower compared to other monopolised classes of economic activities[15] (Table 9). According to European Commission experts, studying the state of Poland's preparation to join the European Union, the maintaining of privileged TP SA position makes that Poland has got one of weakest developed telephone networks in Europe and at the same time one of the highest charges for its using.

The schedule of demonopolisation actions in the sector of telecommunication services, adopted by the Government, forecasts:

- issuing in 2001 at least 3 licences for third-generation mobile telephony (TP SA shall participate in the tender according to general principles),
- full liberalisation of local telecommunication services market as of 1 January 2002; by that date a duopolistic competition model will be maintained (TP SA and one additional operator within a given zone), excluding the Warsaw number zone, in which two operators will compete with the TP SA,
- full liberalisation of long-distance telecommunication services market as of 1 January 2002; by that date in the area of the country three operators providing long-distance services, competing with the TP SA, shall appear,
- full liberalisation of international telecommunication services market as of 1 January 2003.

However, that means that by the end of 2001 the TP SA will keep its monopolistic position. Therefore, procompetitive actions shall aim at strengthening positions of operators that are already active in the telecommunication market. At present the Telecommunication Regulation Authority runs a procedure to determine actual positions of individual operators in the market.

Since 1998 the coal mining has been covered with the government reform programme, which aims at adjusting

[15] In the first quarter of 2001 costs per unit profit were seen to grow in the class "telecommunication". However, this rise was driven primarily by increased share of depreciation in the cost structure by type.

the coal sector to operation in conditions of the market economy[16] and at improvement of its economic activity effectiveness. Coal and lignite mining for years has been a deficit division, both in gross and in net terms. Extremely high costs of production are recorded in this division (mainly labour costs and external services costs), connected primarily with implementation of coal mining restructuring programme (Table 9). Coal prices falling in February and March (at increasing costs of economic activity) made that the division of coal and lignite mining in the first quarter of 2001 recorded one of the worst in the industry gross and net profitability indicators, -1.4 and –2.4, respectively.

Pursuant to the coal mining restructuring programme, aiming at reducing costs and restoring profitability of coal mining, in the first quarter of 2001:

- mining enterprises and mining work enterprises signed with revenue offices (the State Budget) another 11 agreements on debts restructuring[17], as a result of which approx. 10% of liabilities under these agreements were written off and the other 90% - deferred;
- rise of average monthly earnings chargeable to costs in five coal companies was much below the annual CPI, recorded in March 2001 and only in two companies – on the CPI level; similar situation occurred in mines – only in 4 out of 18 the growth rate of average pay exceeded the CPI and in 6 mines significant drops of average earnings were seen;
- liquidation process of mining enterprises or their parts was performed in 17 coal-mines; 61% of those costs were incurred by the State Budget, 19% were covered by own funds of coal-mines and coal companies, 2% were funded by the liquidation revenue, while 18% increased liabilities of coal-mines;
- employment in the mining went down by 1% as against the end of December 2000.

[16] By virtue of the Act on *adjusting the coal mining to operation in conditions of the market economy and special powers and tasks of mining municipalities* of 26 November 1998 (Dziennik Ustaw /Journal of Laws/, No 167, item 1112).

[17] As of 31 March 2001 there were 105 outstanding debt-restructuring agreements. Amounts restructured under those agreements made 6.6% of the total long- and short-term liabilities of the mining against the State Budget, of which about 21% were written off and the remaining part was deferred. By contrast, as of the end of March 2001, 28% of total liabilities of the mining against the State Budget were deferred and 2.5% of those liabilities were written off. The amounts due to the State Budget stood only at 14.7% of total liabilities of the mining industry, while the ZUS remains its largest creditor (36% of liabilities).

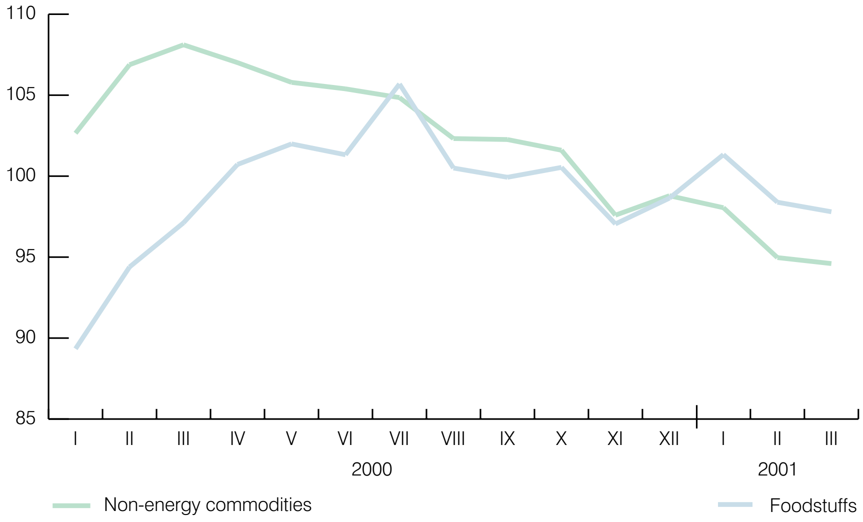
Impact of external prices on inflation in the first quarter of 2001

Downward trend of USD prices of commodities in the world market – visible from the second half of 2000 onwards – continued in the first quarter of 2001. Prices of industrial commodities fell by 4.9% compared to Q4, 2000, for foodstuffs this fall amounted to 5.2% (Figures 16 and 17). In the group of industrial commodities metals prices went down sharpest (decline of 6.3% against Q4, 2000). Average Brent oil price in the first quarter of 2001 stood at USD 25.8 and was more than 13% lower than the Q4, 2000 average, however, it continued to be close to the average price in the first quarter of 2000.

The downward trend of most prices in the world market was driven by a falling, from Q3, 2000 onwards, pace of economic growth in OECD countries. The fall in the industrial output growth rate in this region impacted relatively strongest metals and oil prices. Oil prices in the first quarter of 2001 were also affected by seasonal factors as well as by effects of OPEC countries supply policy. They fuelled periodic acceleration of oil price rise in the first half of Q1, 2001 (Figure 18). Taking into account the excess of supply over demand in the global oil market, continuing from Q2, 2000 onwards, and expectations of the growth rate in the world economy in 2001 to slow-down – one shall not expect that a stronger upward trend in prices of this strategic raw material will appear. Petrol prices went down in the first quarter of 2001 much less as compared with oil prices. Average unleaded petrol price in this period amounted to USD 264 per barrel and was 5% lower against Q4, 2000 (Figure 18). Deteriorating relationships between oil and petrol prices were impacted by insufficient – compared with the demand in the American market – production capacities of US refineries[18]. This effect may intensify in the second quarter of 2001 with a seasonal increase of the demand for petrol by American consumers and consequently influence on the rise of prices in the European market of this raw material.

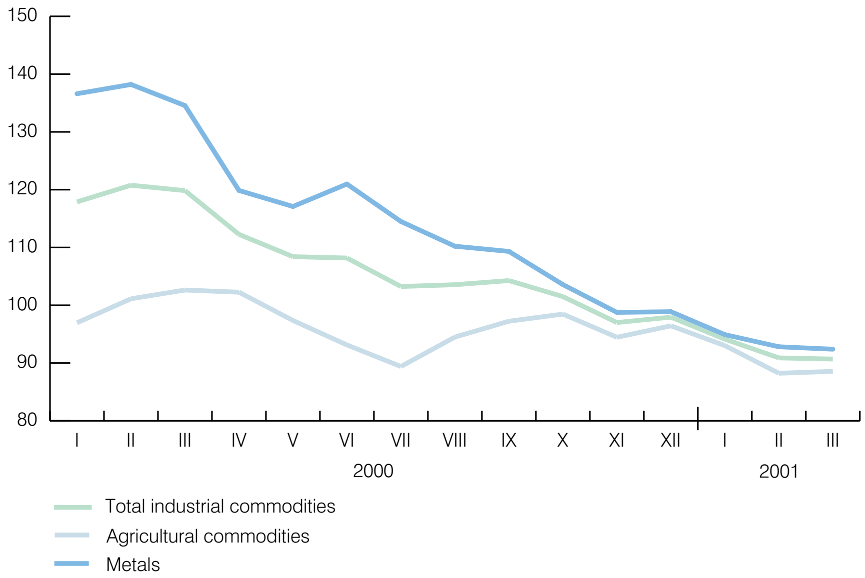
[18] They were estimated to use over 98% of their capacities in the first quarter of 2001.

Figure 16
Basic commodity prices on world market
(corresponding quarter previous year = 100)



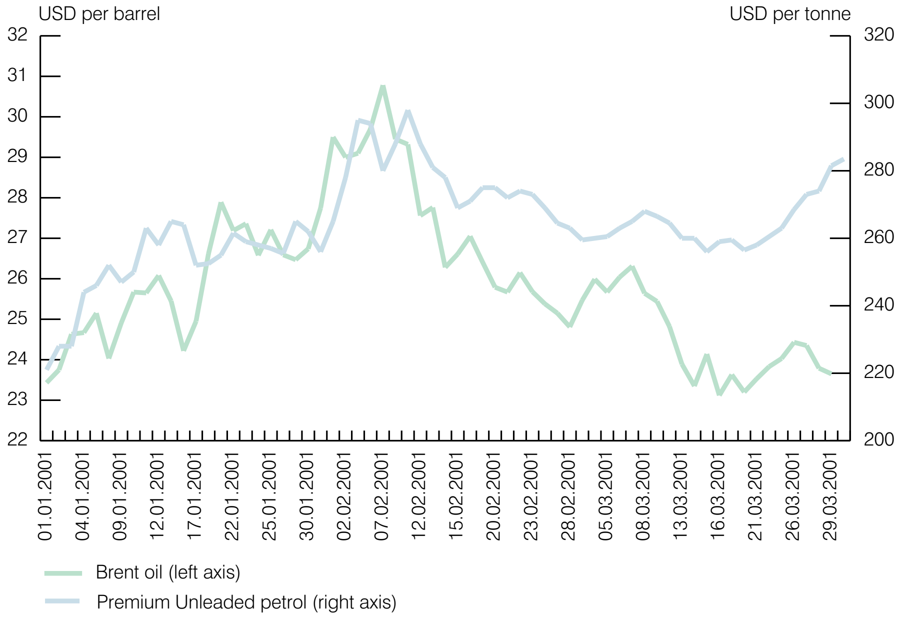
Source: "The Economist".

Figure 17
Basic non-energy commodity prices on world markets
(corresponding month previous year = 100)



Source: "The Economist".

Figure 18
Brent oil and Premium Unleaded petrol (ARA) prices*



* Amsterdam, Rotterdam, Antwerp.

Source: Reuters.

Downward trend of prices in the world market as well as the zloty appreciation against the dollar resulted in the first quarter of 2001 in declining inflation in the Polish market. In this period the average Brent oil price **expressed in zloty** was 21.0% lower than in the fourth quarter of 2000. World prices of industrial commodities fell by 13.6% and of foodstuffs by 14.0%, respectively. Taking into account the fact that the overall effect of translating exchange rate movements into the CPI caused in the first quarter of 2001 an inflation decline of 0.56 points, it may be estimated that the CPI went down by 0.24 points due to a fall of import prices, of which oil prices could lower this indicator by 0.2 points.

6. Monetary policy and performance of the inflation target

6.1. Monetary policy in the first quarter of 2001

Meeting a short-term (annual) inflation target is only a stage of achieving a medium-term target, i.e. curbing inflation below 4% by the end of 2003. In February 2001 the pace of consumer price rise went down below the upper limit of the inflation target for 2000 (5.4% - 6.8%). In all months of Q1 the CPI was in the target range for 2001, i.e. 6% - 8% and in March it reached 6.2% and came close to the lower limit of this range.

The return to the disinflation track observed from August 2000 onwards, making possible meeting the medium-term target, resulted both from decaying effects of supply factors and from the tightening of the monetary policy initiated at the end of 1999 and in 2000. It had to affect supply factors, retard rising inflation expectations and reduce secondary effects of price rise caused by supply factors.

Several phenomena, favourably affecting the meeting of the inflation target in 2001, were seen in the fourth quarter of 2000 and in the first quarter of this year. Consequently, it was possible to cut NBP interest rates twice, in February and March 2001, each time by 1 point. Those decisions became effective on 1 and 29 March, respectively. They resulted in reduction of the minimum rate on 28-day open market operations (reference rate) from 19% to 17%, the lombard credit rate was cut from 23% to 21% and the rediscount rate from 21.5% to 19.5%. At the same time the Monetary Policy Council maintained a neutral attitude to the monetary policy.

The MPC considered that the probability of attaining the annual inflation target close to the lower limit of its range increased and so in a way enabling meeting the medium-term target of the monetary policy. Growth rates of both consumer and producer prices declined. The low growth rate of the latter created favourable premises for developments in consumer prices. Core inflation indicators continued to fall.

Trends in monetary phenomena, favourable for price formation in the future, were maintained. The rise in money supply was moderate – overall money supply in March 2001 was 14.9% higher compared with March-end 2000. The pace of lending growth was still slightly falling, at a continuing high growth rate of zloty deposits. Claims on persons and corporates as of the end of March 2001 rose by 14.6% against March 2000, while the gain in total zloty deposits in this period stood at 18.5%.

A clear decline in inflation expectations, both of households and banks, was an important factor favourable for cutting NBP interest rates. As shown by Demoskop opinion polls the annual inflation expected by consumers for the corresponding month of the next year went down from 10.2% in January to 7.6% in March 2001. While in the same period the year-on-year inflation rate expected by bank analysts (Reuters questionnaire), for the month preceding the corresponding month of the next year, dropped from 6.6% to 5.9%. Counteracting the rise of inflation expectations was a significant premise of the last interest rates increase in August last year.

Gradual slackening of the external imbalance contributed to the zloty appreciation, what retarded inflation. The fact that in the fourth quarter of 2000 the growth rate of domestic demand was weaker than that for GDP was favourable for restoring equilibrium. A moderate, close to that recorded in 2000, pace of employee earnings rise was affecting in the same way – earnings in the sector of enterprises in real terms grew in the period January – March 2001 by 1.6%, year-on-year.

Despite favourable conditions for inflationary processes the MPC was cautious in cutting interest rates – in Q1 this year altogether by 2 points. Such caution was driven by two factors: strong inflation inertia persisting in Polish economy and the pursuing to ascertain permanent inflation reduction. The MPC decisions took into account the necessity to continue containing inflation expectations and considered the relation between deposits and credits (in particular personal) growth rate and movements in the level of nominal interest rates. Moderate interest rates reductions aimed at not allowing to reverse positive tendencies in monetary phenomena. The Council stated that maintaining strong incentives for the rise of households' savings is an indispensable factor for permanent restoring of a trend for sustainable growth of economy.

MPC decisions were also affected by the assessment of current and future threats to durability of the disinflation process. Situation in the public finance remains such a hazard. Persisting hazard of non-attaining assumed privatisation revenue that would mean necessity of increasing borrowing needs of the public finance sector with adverse effects for money supply and demand growth is another such factor. Timely transfers of funds to Open Pension Funds, delays of which actually stand for increasing the economic deficit, are still burdened with substantial uncertainty. The MPC assessed that planned payouts of compensations, indemnities for compulsory labour in the Third Reich and valuation of old age and disability pensions may become a source of demand pressure on inflation, despite planned distribution of those payments in a longer-time horizon. The agricultural products and foodstuffs market remained a potential source of inflationary tensions.

6.2. The money supply

At the end of March 2001 the total money supply, measured by M2 aggregate[19], amounted to 301.0bn zloty. As compared to the situation at the end of Q4, 2000 that is a rise by 6.5bn zloty, i.e. 2.2% in nominal terms and 0.8% in real terms (Table 11). In consecutive months of Q1, 2001 the annualised pace of the total money supply growth kept on a steady level of around 15%. However, in conditions of disinflation a stable pace of the total money supply growth in nominal terms causes an accelerated growth of the money supply in real terms. Annual M2 growth rate during the first three months of 2001 was on average level of about 7.5%, while in the corresponding period of 2000 it stood at 3.6%.

Significant growth of total money supply in the first quarter of 2001 was driven primarily by increasing personal zloty deposits. This increase will not have a pro-inflationary impact provided that the growth of households' propensity for saving in the banking system will maintain. In Q1, 2001 personal zloty savings went up by 10.5bn zloty to the

[19] The total money supply (M2) is defined as the sum of domestic money stocks and foreign currency deposits of 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 in accounts of non-financial entities (corporates and persons).

Table 11
Money supply growth in Q1, 2001

Growth rate		Previous month = 100			XII 2000 = 100	Corresponding period previous year = 100			
		January	February	March	QI	January	February	March	QI
Total money									
supply	nominal	99.4	101.0	101.9	102.2	114.6	114.6	114.9	114.9
	real	98.6	100.9	101.3	100.8	106.7	107.5	108.2	113.3
Notes									
and coin	nominal	93.7	101.7	103.2	98.3	95.4	98.1	101.8	101.8
	real	93.0	101.6	102.7	97.0	88.8	92.0	95.8	100.4
Zloty									
deposits	nominal	99.9	101.2	100.7	101.8	119.4	119.1	118.5	118.5
	real	99.2	101.1	100.2	100.4	111.2	111.8	111.6	116.8
Personal zloty									
deposits	nominal	102.7	102.5	101.5	106.8	122.5	122.6	122.1	122.1
	real	101.9	102.4	100.9	105.4	114.0	115.0	115.0	120.4
Zloty deposits									
of corporates	nominal	93.2	97.7	98.5	89.7	111.9	110.3	109.1	109.1
	real	92.4	97.6	98.0	88.5	104.2	103.5	102.7	107.5
Foreign currency									
deposits									
(in zloty)	nominal	100.8	99.5	106.8	107.2	108.9	107.5	109.3	109.3
	real	100.0	99.4	106.2	105.7	101.4	101.0	102.9	107.8
Personal foreign									
currency									
deposits	nominal	101.1	100.0	101.4	102.5	106.4	107.4	111.0	111.0
	real	100.3	99.9	100.9	101.1	99.0	100.8	104.5	109.4
Foreign currency									
deposits of									
corporates	nominal	99.9	98.2	124.4	122.0	117.9	107.6	105.1	105.1
	real	99.1	98.1	123.7	120.3	109.8	100.9	98.9	103.6

Source: NBP, Consolidated balance sheet of the banking system.

amount of 164.6bn zloty. The previous-year positive trend of this category rise, both in nominal and real terms, continued in individual months of the discussed period. Annual growth rate of personal zloty deposits in the first quarter of this year kept on a stable, high level: 22.4% in nominal terms, 14.7% in real terms (in Q1, 2000 they grew by 15.0% and 4.3%, respectively). Such behaviour of this category was affected both by income impulses, caused by commencing at the beginning of the year payouts of single compensation of social benefits due to inflation underestimation last year, payments of compensation for non-rising salaries in the general government sector and payments of additional annual bonuses, so-called thirteen salaries, as well as by continuing propensity for saving. One shall expect that deteriorating situation in the labour market and also pessimistic expectations with regard to economic developments may constrain increase of consumption and promote maintaining a quick pace of personal deposits growth.

At the same time in the period under review a downward trend in zloty deposits of corporates maintained. In the first quarter of 2001 they declined by 6.5bn zloty to the level of 56.8bn zloty, i.e. by 10.3% in nominal terms (in real terms the fall stood at 11.5%). The drop of zloty deposits of corporates was fuelled, among other things, by the deterioration of corporates financial standing seen in this year.

The balance of zloty deposits, held in the banking system in accounts of non-financial entities rose in the first quarter of 2001 by 4.0bn zloty, achieving at March-end the amount of 221.4bn zloty. In nominal terms the growth rate of zloty deposits of non-financial sector stood in this period at 1.8%, in real terms – at 0.4%. In consecutive months of Q1 a stable twelve-month growth rate of this category continued, both in nominal and in real terms (on average by 19.0% and 11.5%).

Foreign currency deposits of the non-financial sector at the end of March 2001 totalled USD 11.2 bn. In Q1 this year this category rose by USD 860m, mainly as the result of a rise of foreign currency deposits of corporates by USD 579m. Personal foreign currency deposits in this period went up by USD 282m.

The balance of foreign currency deposits of the non-financial sector, as expressed in zloty, at the end of March reached 46.1bn zloty, i.e. grew by 3.1bn zloty. So compared to the end of December 2000 the growth rate of this category stood at 7.2% in nominal terms, while in real terms it was equal 5.7%[20]. The increase of foreign currency deposits

[20] At the end of March 2001 the zloty exchange rate was on the level of 4.1000 PLN/USD and on 31 December 2000 it stood at 4.1432 PLN/USD. So the rate of the domestic currency appreciation during the quarter amounted to 1.0%, while the nominal growth rate of foreign currency deposits of the non-financial sector, as expressed in zloty, was on the level of 7.2%. Excluding the exchange rate effect the value of this category in zloty terms would then rise in the first quarter of 2001 by 3.5bn zloty.

of the non-financial sector, expressed in zloty terms, observed in the analysed period occurred basically due to a rise in foreign currency deposits of corporates. At the end of March 2001 liabilities of the banking sector to corporates amounted to 12.6bn zloty and hence rose during the initial three months of this year by 2.3bn zloty. However, absolute increase of foreign currency deposits of corporates was seen only in the last month of the first quarter of 2001 (as expressed in zloty – by 2.5bn zloty); in January and February their balance was declining. The rise, seen in March this year, was mainly the consequence of placing foreign currency time deposits in a few large banks by the Telekomunikacja Polska SA in connection with issuing by this entity euro-denominated bonds for the amount of EUR 0.5bn, i.e. 1.8bn zloty. Moreover, as zloty exchange rate systematically appreciated, businessmen having in this period free funds at their disposal were making decisions on opening foreign currency accounts, expecting zloty to depreciate in the second half of 2001.

The value of foreign currency deposits, in zloty terms, held in banks by persons at the end of Q1, 2001 totalled 33.5bn zloty. Compared to the balance at the end of December 2000 these deposits grew by 0.8bn zloty. That meant a growth rate of 2.5% in nominal terms and of 1.1% in real terms[21].

In the first quarter of 2001 the volume of notes and coin in circulation fell by about 0.6bn zloty to the level of 33.5bn zloty. Compared to the balance at the end of December 2000 that meant slackening, both in nominal and real terms, of the growth rate of cash stocks by 1.7% and 3.0%, respectively. However, absolute fall of notes and coin supply occurred only in January 2001 and was driven by seasonal changes[22]. In the following months of the first quarter of 2001 cash stocks rises were seen. Analysis of twelve-month growth rates, in nominal and real terms, of notes and coin volume shows that a systematic upward trend for this category maintained in subsequent months of this year. This is related with described above income impulses. A part of funds stemming from them increased cash stocks in circulation while the other part was placed in the form of personal deposits.

[21] During the discussed period the exchange rate effect contributed to a decline of personal foreign exchange deposits, in zloty terms, by 0.3bn zloty.
[22] Fall of cash stocks in January was observed from 1996 onwards.

Counterparts to changes in money stocks

In the first quarter of 2001 the total money supply growth in the banking system was driven primarily by net foreign assets and **claims on persons and corporates**[23], i.e. mainly bank loans (Table 12).

Table 12
Counterparts to changes in money stocks

	Change in Q1, 2000	Change in Q1, 2001
	billion zloty	billion zloty
Total money supply	**-1.5**	**6.5**
Net foreign assets	4.7	5.0
Claims on persons and corporates	8.1	4.6
General government debt	-9.4	-5.4
Other items, net	-4.9	2.3

Source: NBP - Banking System Statistics.

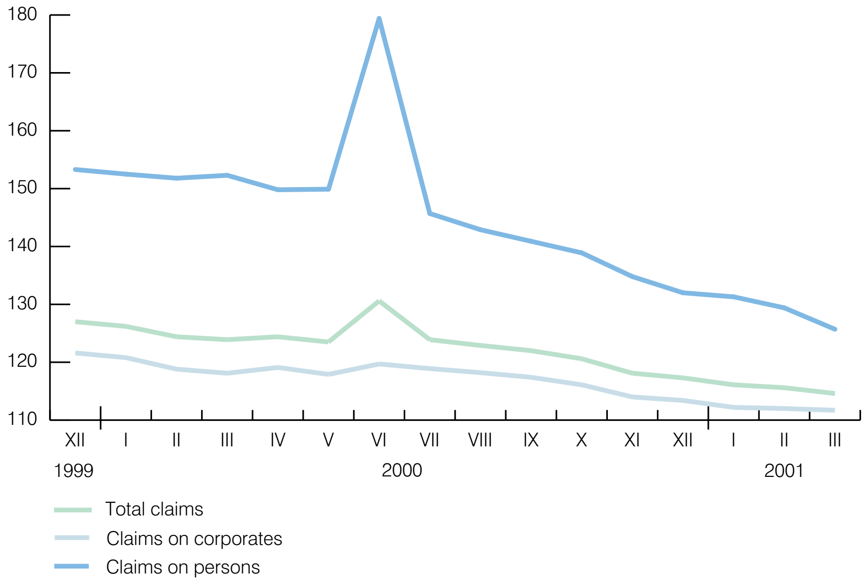
At the end of March 2001 claims on persons and corporates rose by 14.6% as compared to March 2000. The pace of their growth was gradually slackening in individual months of Q1. In this period claims on corporates were 11.7% higher than a year ago and claims on persons by 25.7% (Figure 19). In real terms[24] growth of claims on persons and corporates as of the end of March 2001 stood at 7.9%.

Compared to the situation as of the end of 2000 bank loans grew in Q1 of this year by 4.4bn zloty to corporates and by 0.2bn zloty to persons. Similar increments for the first quarter of the previous year amounted to 6.2bn and 1.9bn, respectively.

Slowing down rate of personal bank loans rise in the first quarter of 2001 referred to all types of bank loans

[23] Claims on persons and corporates comprise all categories of credits, irrespective of risk classification, as well as purchased debt, funds disbursed under guarantees and endorsements, interest receivable, claims arising on interest subsidies to preferential agricultural loans.
[24] Having adjusted by annualised consumer price growth, running at 6.2%.

Figure 19
Growth of claims on persons and corporates
(corresponding month previous year = 100)



Source: NBP figures.

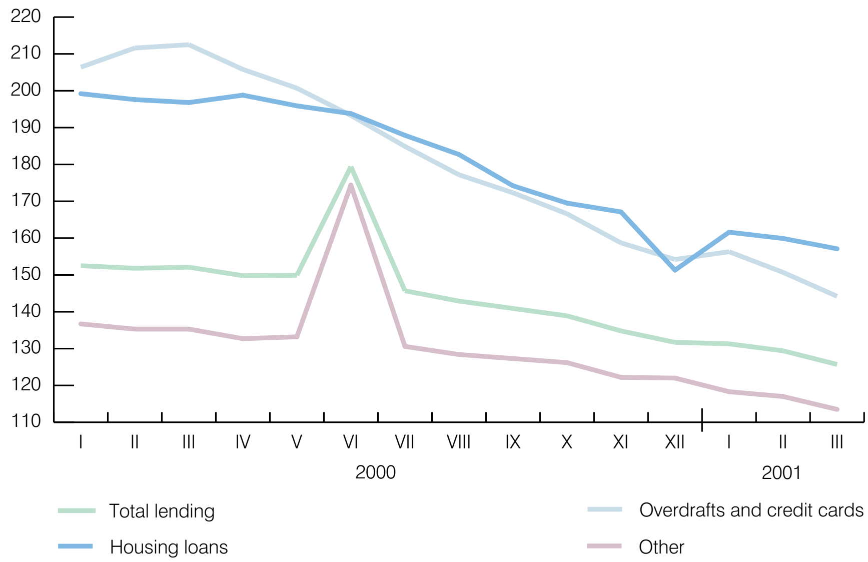
Table 13
Total claims on persons, growth and structure

	Growth in Q1		Claims structure, end of:	
	2000	2001	March 2000	March 2001
	billion zloty		%	
Total borrowings from banks, of which:	**1.9**	**0.2**	**100.0**	**100.0**
Overdrafts and card lending	0.4	0.1	16.1	18.4
Housing loans	0.6	0.5	16.7	20.9
Other*	0.9	-0.4	67.2	60.7

* According to the classification used in the Banking System Statistics, this item represents the total of claims on persons under bills discounted, other loans and advances, purchased debt, funds disbursed under guarantees and endorsements as well as outstanding interest receivable.

Source: NBP - Banking System Statistics.

Figure 20
Growth of claims on persons
(corresponding month previous year = 100)



Source: NBP figures.

extended to persons and in particular to consumer credits (Table 13 and Figure 20).

The first quarter of 2001 witnessed a rise in demand for foreign currency loans as the result of continuing appreciation of zloty. The share of foreign currency claims in the structure of total claims at the end of March 2001 stood at 21.9%, as against 21.0% at the end of 2000.

Net foreign assets

Net foreign assets[25] of the banking system went up by 3.8% and at the end of the first quarter 2001 totalled 137.1bn zloty. This resulted from a rise in

[25] Net foreign assets of the banking system consist of foreign assets (official reserve assets and other foreign assets) administered by the NBP and foreign assets of commercial banks less foreign liabilities of the NBP and of commercial banks to non-residents in foreign currencies and in the domestic currency.

Table 14
Net foreign assets in Q1, 2001 (million zloty)

Net foreign assets	As of 29 December 2000	As of 30 March 2001	Growth, %
Banking system	132,045.6	137,076.5	3.81
National Bank of Poland	112,194.2	113,590.7	1.24
Commercial banks	19,851.4	23,485.8	18.31

Source: NBP - Banking System Statistics.

foreign assets (by 2.5%, to 171.9bn zloty) and simultaneous decline in foreign liabilities (by 2.2%, to 34.8bn zloty). In dollar terms net foreign assets at the end of Q1, 2001 amounted to USD 33.4bn. Strengthening of the PLN against USD exchange rate contributed to increase of net foreign assets, as expressed in USD.

In the first quarter of 2001, like in 2000, the role of commercial banks was becoming more important, what was expressed by increasing share of their net foreign assets in the net foreign assets of the banking system from 15.0% at the end of 2000 to 17.1% at the end of 2001. Net foreign assets of commercial banks grew by 18.3% to 23.5bn zloty.

Net foreign assets at the NBP at the end of the first quarter of 2001 equalled 113.6bn zloty that meant a rise by 1.2% compared to the end of 2000. Official reserve assets, making the main part of NBP foreign assets, were steady during the first quarter of 2001. Their value expressed in zloty was in the range 114.8bn – 117.0bn zloty. Changes in the value resulted basically from transactions in the foreign exchange account of the State Budget (receipt of a part of funds raised from issuing Eurobonds and payout in connection with the service of the foreign debt of the Budget).

Net debt of the general government sector

Net debt of the general government sector in the banking system reached at the end of March the level of 45.4bn zloty, that is a fall by 5.4bn zloty (10.6%) as compared to December last year. This was the consequence of decline of the general government sector lia-

Table 15
Changes in the net debt of the general government sector in Q1, 2001 (million zloty)

	As of		Changes		As of
	31.12.2000	**January**	**February**	**March**	**31.03.2001**
Net debt of general government sector	**50,758.3**	**-4,116.8**	**-1,167.5**	**-89.0**	**45,385.1**
of which:					
– State Budget	55,491.5	-4,216.8	1,221.9	633.0	53,129.6
– special-purpose funds	-2,609.7	866.9	-916.4	-896.1	-3,555.3
– local budgets	-2,123.5	-766.8	-1,473.1	174.2	-4,189.1

Source: NBP, Consolidated balance sheet of the banking system.

bilities to the banking sector by 2.5bn zloty and the rise of its deposits by 2.9bn zloty.

The financial standing of the State Budget had the largest impact on this counterpart to changes in money supply. Net indebtedness of this segment of general government sector dropped in the first quarter of this year by 2.4bn zloty, while in the same period of the previous year net liabilities fell by much more – 7.5bn zloty. This resulted from higher than last year borrowing needs of the State Budget (mainly due to a high fiscal deficit) at much lower inflow of funds from outside the banking system, designed to cover those needs (both from selling Treasury securities and from privatisation). Difficult situation of the Budget in the first quarter of this year forced to use funds held in bank accounts to a larger extent. Consequently, after a slump of net debt of the State Budget in January this year – by 4.2bn zloty, in February and March it grew by 1,2bn and 0.6bn zloty, respectively.

Lesser net indebtedness of general government sector in Q1, 2001 was also driven by the situation in the other segments of general government sector. Local budgets and special-purpose funds, like in previous years, saw a drop of net liabilities by 3.0bn zloty. On the one hand that was the result of declining liabilities of those segments to the banking system (mainly of special-purpose funds) and on the other – of rising amounts of funds in bank accounts.

6.3 Transmission of the monetary policy

6.3.1. The interest rate channel

The central bank affects the level of interest rates in the inter-bank market via open market operations and the strongest impact is exerted on interest rates of instruments of maturity comparable to the maturity of central bank operations.

Movements in inter-bank market interest rates influence directly or indirectly behaviour of banks and non-bank entities. Banks determine credit and deposit rates inter alia as the consequence of inter-bank market rates changes.

However, the yield of longer-maturity instruments is largely formed – according to so-called *theory of expectations* – under the effect of expectations connected with the level of short-term, nominal interest rates in the future. These in turn depend on assessment of inflation prospects and on expected level of real interest rates, indispensable in the given economic conditions to reach this inflation level in the future. Therefore central banks, by analysing the distribution of longer-maturity instruments yields, may watch market expectations with regard to the central bank interest rate policy.

These expectations are not, however, the only factor affecting the pricing of those instruments. In Poland, because of a negative yield curve (yield of long-term instruments lower than of short-term ones) the cost of financing the purchase of long-term instruments, defined by the current level of short-term interest rates, has got a significant impact on pricing of these instruments. For example, buying a five-year bond, an investor shall take into account that during a certain period the investment will provide opportunity costs and the steeper the yield curve (e.g. because of low level of expected inflation) the higher will be these costs. In a particular way this affects behaviour of entities with a relatively short-term investment horizon. Market liquidity is another factor driving current prices of financial assets. Financial markets in Poland are not fully effective. As the result, pricing of financial assets may also be affected by short-term movements in the demand and supply relationship. In relation to the aforementioned conditions, conclusions on the interest rates distribution in the future are charged with a large uncertainty.

To watch expectations of future interest rates the National Bank of Poland applies, among other things, analysis of FRAs prices and analysis of the Treasury yield curve.

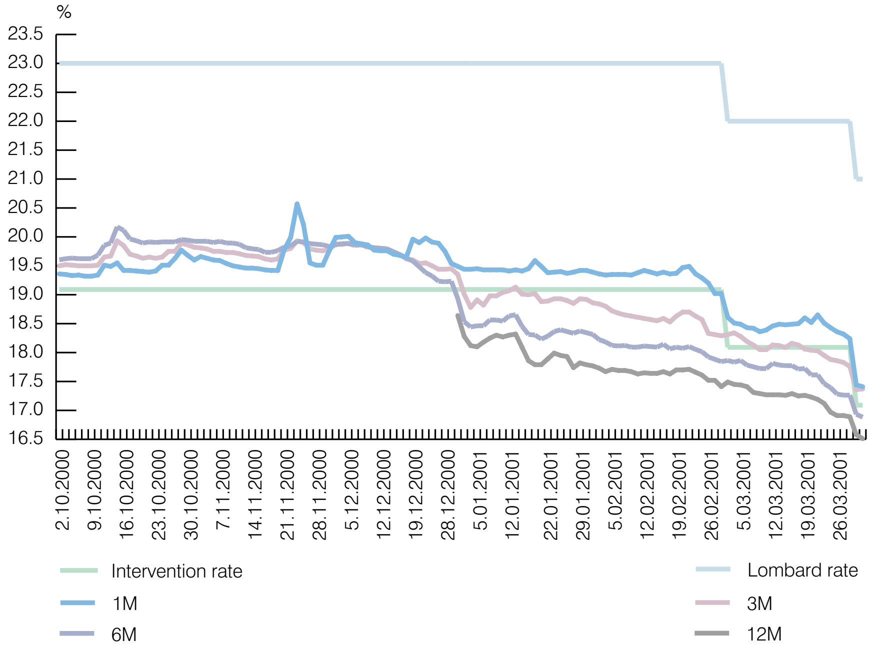
Monetary policy and interest rates in the inter-bank market

In the first quarter of this year 1-month WIBOR was below the NBP reference rate level, determining minimum yield of 28-day NBP bills, which were the basic instrument used by the NBP in open market operations. Average differential between these two interest rates amounted to 32 bps. Because of expected interest rate cuts by the NBP, inter-bank deposit rates for longer maturities were below the reference rate. With lengthening maturity of inter-bank deposit the value of the differential was increasing. For 12-month WIBOR its average value stood at 110 bps (Figure 21).

Adjusting – with regard to the NBP reference rate – character of 1-month WIBOR movements is confirmed by step falls of interest rates following the February and March decisions of the MPC on reducing NBP interest rates by 100 bps. On 1 and 29 March 1-month WIBOR rates dropped by 41 and 80 bps, respectively. Lower declines of inter-bank market interest rates than of NBP rates resulted from discounting interest rate cuts by the market before making the decision by the MPC. For 12-month WIBOR the response to changes in NBP basic rates was much weaker and after the February and March meetings of the MPC stood at 1 and 30 bps, respectively.

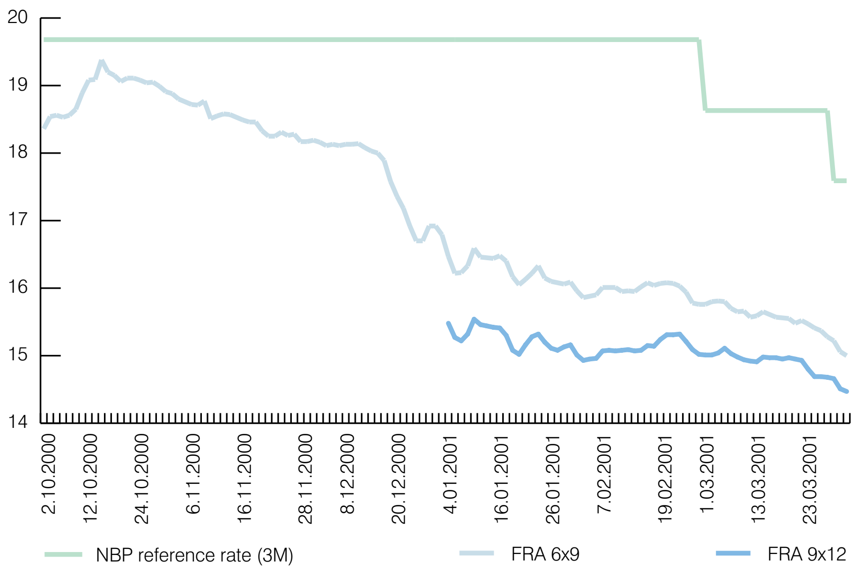
In the first quarter of 2001 the dependence between the movement in 1-month WIBOR and the change in longer deposit interest rate becomes increasingly weak with elongation of the inter-bank deposit maturity. For 9- and 12-month deposits the correlation coefficient becomes statistically insignificant. This phenomenon results from the fact that the process of discounting future changes in monetary policy has started as early as in mid-December 2000. Because of improvement in basic macro-economic indicators the risk of investing in Polish assets fell with the effect of decline of longer interest rates of the money market at the end of last year (Figure 22).

Figure 21
Money market rate



Source: Reuters, NBP figures.

Figure 22
3M WIBOR FRA rates



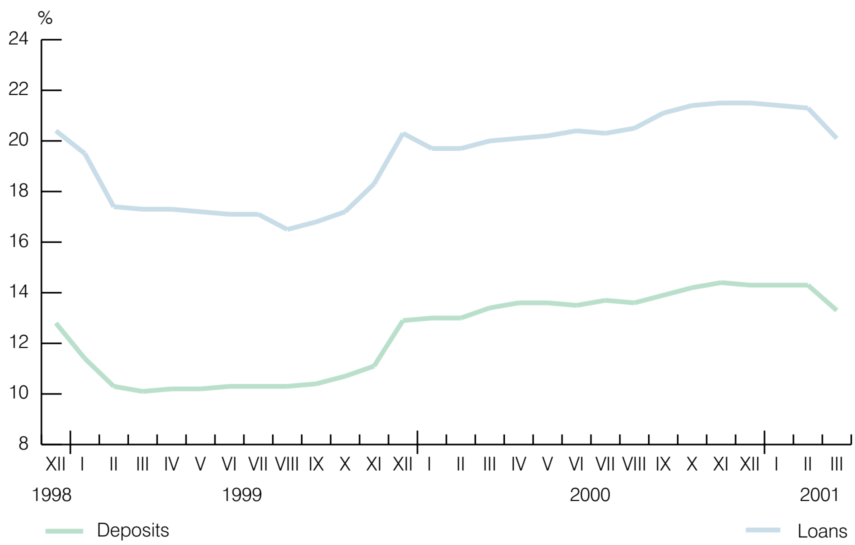
Source: Reuters, NBP figures.

Banks reaction to the central bank policy

Deposit interest rates in commercial banks started falling after the cut of interest rates by the NBP, while lending rates for corporates were going down gradually from the beginning of the year together with declining interest rates in the inter-bank market (Figure 23). Movements in deposit rates depend stronger on NBP rates changes than on movements in interest rates in the inter-bank market. However, the latter substantially affect credit rates for corporates. Considering that the last reduction of NBP interest rates occurred at the end of March this year, one shall expect that banks will complete the process of adjusting their interest rates in May.

Rates on personal time deposits fell in March by 100 bps. Banks made least cuts in 1-month deposit rates (by 70 bps), while largest – in 12- and 36-month deposits, by 130 and 120 bps, respectively. Despite continuing relatively low growth rate of corporate deposits, corporate time deposit rate went down only slightly less than personal deposits (by 90

Figure 23
Deposit and lending rates, weighted averages



Source: NBP figures.

bps), showing a high growth rate. The largest fall – by 100 bps – was seen for rates on 1-month deposits comprising about 60-70% of corporate time deposits. Interest rates for other deposits with maturity of up to 12 months declined by 60-70 points, while 24-month deposit rates rose; however, their share in the total volume of corporate time deposits is marginal.

Personal lending rates remained unchanged during the first two months of the quarter. After the rates reduction by the central bank in February commercial banks lowered these lending rates in March by 70 bps, while corporate lending rates, strongly related with the inter-bank interest rates, were slackening – as mentioned above – since the beginning of the year. By February they went down by 30 points and after rates cut by the NBP – by another 130 points.

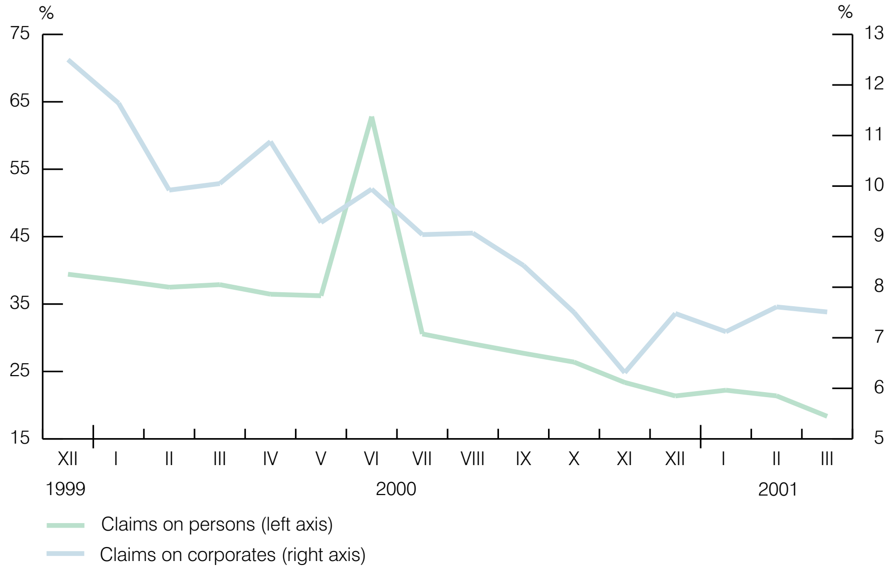
Interest rates and loan demand

In the first quarter of 2001 the growth rate of claims on corporates in real terms fluctuated around the level reached in December last year. By February the growth rate of claims on persons in real terms behaved in a similar way[26]. Its clearer drop occurred in March (Figure 24). As the result, compared to the previous quarter end, in real terms personal borrowings at commercial banks fell by 3.2 points. So the loan demand (March excluding) was pretty stable. The effect of interest rates reductions made by the NBP in February and March 2001 will become visible only in the second and third quarter of this year.

Like last year, households were pretty quickly raising their demand for housing loans. Because of a significant positive spread in zloty and foreign currency lending rates the demand of households was directed primarily towards foreign currency loans, in particular long-term ones (with maturity exceeding 5 years).

[26] Claims on persons comprise: loans and advances, purchased debt, funds disbursed under guarantees as well as outstanding interest receivable. About 98% of claims on persons in Q1, 2001 consisted of loans and advances. Claims on corporates include the aforementioned items as well as debt securities, repos and so-called other items. In the first quarter of this year loans and advances made approx. 92% of claims on corporates.

Figure 24
Growth rate of claims on persons and corporates
(real terms, as against corresponding month previous year)



Source: NBP and GUS figures, NBP calculations.

Some commercial banks are trying to reduce the foreign exchange risk, to which a borrower of foreign currency loan is exposed, facilitating to swap the currency of the loan. In March housing loans comprised almost 52% of foreign currency borrowings (in December last year – about 46%) and 4.6% and 6.1% of claims on persons, respectively. The share of foreign currency loans and advances in the overall sum of personal borrowings rose from 9.9% in December 2000 to 11.8% in March 2001. Like in the past year the share of hire purchase finance in the amount of claims on households was slackening. The share of overdrafts was also falling, however, mainly due to a lesser interest in this type of foreign currency borrowing.

From the point of view of subject of funding, the structure of claims on corporates is much more stable. However, the share of foreign currency claims in total claims on corporates also rose (from 32.9% in December 2000 to 33.9% in March 2001).

Questionnaire survey performed by the NBP among corporates[27] shows that in the first quarter of 2001, like in the last quarter of 2000, the interest rates level, apart from low demand, was most frequently quoted as important obstacle in companies operation. In the near future this may encourage enterprises to finance themselves using own funds to a greater extent.

The source of external funding for corporates includes, apart from loans taken in the domestic market, issuing securities in the domestic and foreign market and foreign loans. However, at the moment of passing this *Inflation Report* to the press there is no data on the foreign debt in the first quarter of this year. The indebtedness on issuing short-term securities at the end of quarter stood at 11.5bn zloty, what meant a rise by 35.6% in nominal terms, as compared to the corresponding month of last year. After a hike in the last quarter of 2000 the debt on long-term securities went down by 0.2bn zloty and at March-end totalled 6.9bn zloty. As against the same month of last year it was higher by 123% (in December 2000 this growth rate equalled 223%). In March the ratio of corporates indebtedness on issuing short- and long-term securities to the borrowings in the banking system amounted to 11.3% and was virtually identical as in December 2000. However, it shall be emphasised that part of debt securities issued by corporates – according to NBP figures that includes about 20-30% – is held by commercial banks, i.e. makes a claim on non-financial sector.

Expected interest rates

In the first quarter of 2001 expectations in regard to the range of interest rates reduction by the NBP have not substantially changed[28]. Expectations of

[27] 309 entities selected from the area of the whole country participated in the survey. The sample is not fully representative and basically reflects the situation of large domestic enterprises.

[28] Comparing a WIBOR FRA 9x12 of 2 January 2001 with a WIBOR FRA 6x9 of 30 March 2001 it may be stated that the market has not substantially changed its expectations connected with movements in NBP interest rates in the whole 2001. Both contracts price expectations of rate changes by the end of December this year. FRA 9x12 rate that at the beginning of the quarter stood at 15.48%, at the end of the quarter at 15.00% (FRA 6x9 price). Movement in FRA 9x12 price, which after 3 months became FRA 6x9, by 48 bps is relatively insignificant, taking into account the length of the considered period. It proves stability of expectations in regard to movements in the NBP reference rate in 2001.

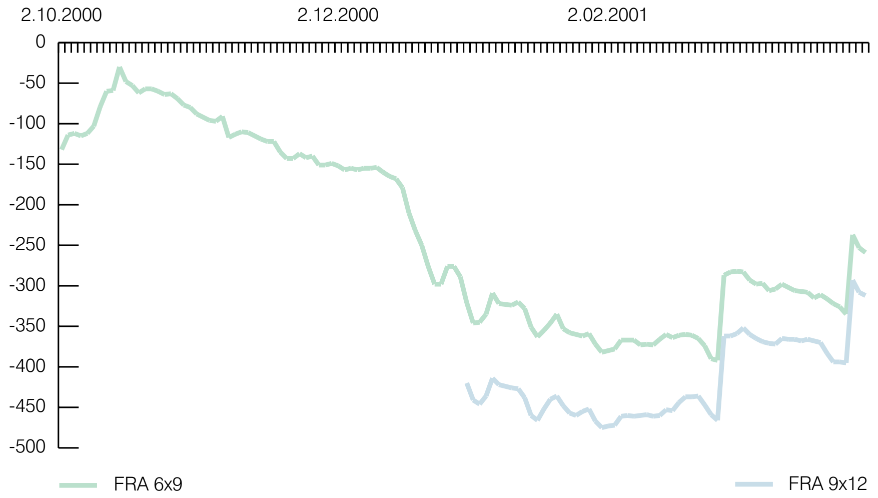
money market players related with the direction of monetary policy over the whole 2001 were formed at the turn of year, driven by good macro-economic news: establishment of downward inflation trend and continuing decline in the deficit in the current account of the balance of payments. The analysis of the FRA market allows to state that in the first half of January market players expected total interest rates reduction of about 450 bps in a 12-month horizon (because that was the differential between FRA 9x12 rate and the NBP reference rate translated into a 3-month rate). At the end of the first quarter market players expected that the size of subsequent cuts by the end of the year will amount to approx. 250 bps (this is the value of the differential between FRA 6x9 contract rate, maturing at the end of year, and the NBP rate calculated in a similar way). The fall of expectations for interest rate reduction by the end of the year by 200 bps reflected the fact that the MPC cut the NBP reference rate in this period twice (Figure 25).

Expectations of longer-term interest rate changes may be analysed using a zero-coupon[29] curve of the Treasury securities market. During the whole first quarter of this year the yield curve was shifted down by about 200 bps on the short-term end and by about 50 bps in the middle section and by 10 bps in the long-term end. So the curve was flattened (Figure 26). In the section of up to one year the curve was adjusted to movements in the NBP reference rate. During the analysed period medium- and long-term interest rates were initially falling (the decline started in Q4 of the previous year) and then rose to a limited extent.

Relatively weak sensitivity of the medium- and long-end of the yield curve to cuts of interest rates as well as their rise in the second half of the period under review resulted from a number of overlapping factors. Firstly, the market took into account interest rates reduction in 2001 to a large extent in Q4, 2000. These expectations were reflected in the strongest way in medium- and long-term interest rates behaviour. Secondly, the market revised its expectations

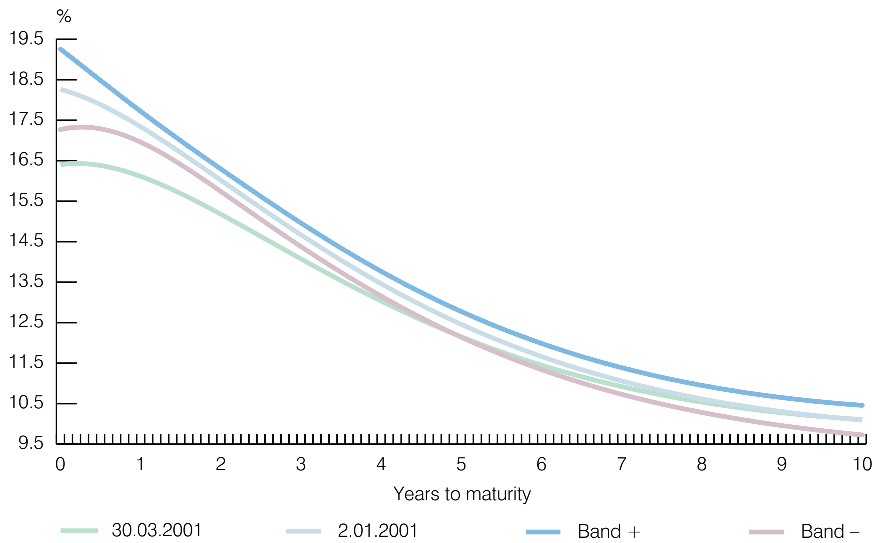
[29] Information on zero-coupon curves is provided in the *Inflation Report*...

Figure 25
Differential between FRA rates and NBP reference rates on a 3M basis



Source: Reuters figures, NBP calculations.

Figure 26
Zero-coupon yield curves – band of confidence



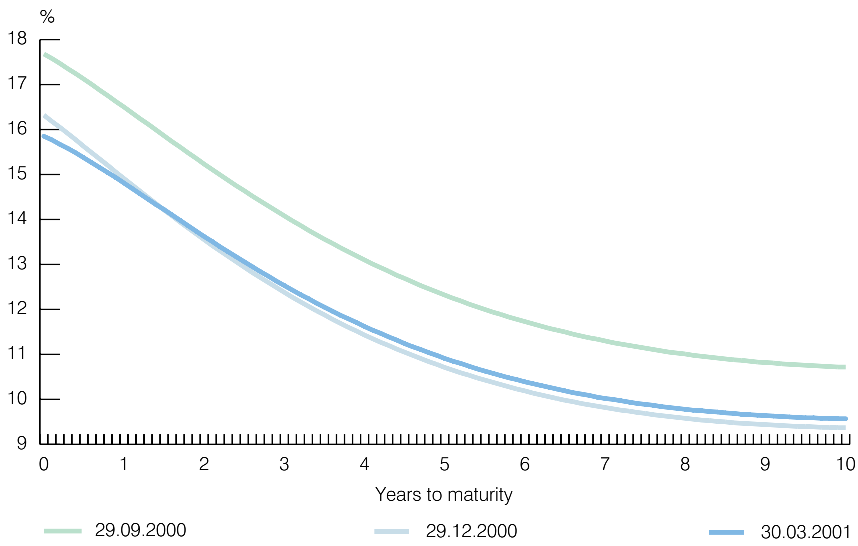
Source: Reuters figures, NBP calculations.

with regard to the pace of the central bank interest rates reduction. At the beginning of Q1 the market priced longer-maturity bonds assuming quicker pace of interest rate decline. The lack of interest rate cuts in January and a gradual way of reducing interest rates by the central bank made that market players requested higher yields form Treasury securities in the longer section of the yield curve. That was linked with reduced activity of investors aiming at realisation of short-term capital gains. It happened like that, because taking a speculative position in the long-term end of Polish yield curve is connected with high costs of its funding (because of a high level of short-term interest rates). The maintenance by the MPC of a neutral stance on the monetary policy might have been interpreted as a forerunner of slowing-down the pace of further interest rates reductions. Thirdly, although macro-economic figures were showing establishment of positive macro-economic trends, there was some apprehension connected with quick performance of the budget deficit assumed for this year and with threats to execution of assumptions on privatisation revenue. As the result – in market's opinion – there was a threat of increasing supply of Treasury securities by the Ministry of Finance, which was reflected in bonds prices.

Analysis of the zero-coupon yield curve shows that the structure of interest rates expected by the market at the year-end was close at the beginning and at the end of quarter, therefore medium- and long-term end was stable and the short-term end moved its position adjusting to cuts of the central bank interest rates (Figure 27).

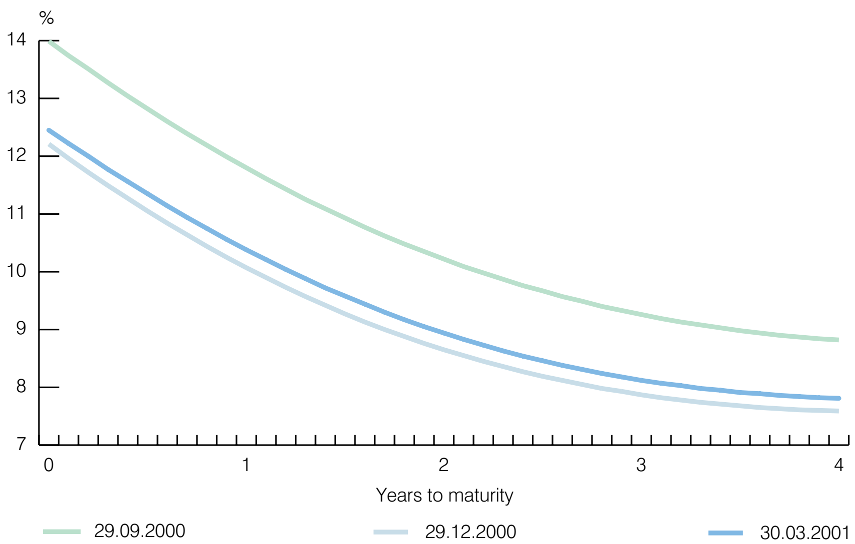
The resultant annual interest rate calculated in the first quarter of this year (yield of Treasury securities with maturity of one year) for 2003 shows that in the period of accomplishing the medium-term inflation target market expected that yield of those instruments would be around 12%. That means that market expected continuation of cautious monetary policy assuming accomplishment of medium-term inflation target. In the reviewed quarter changes in expectations in that respect were insignificant, because expectations of interest rate level in 2003 were basically revised in the fourth quarter of 2000 (Figure 28).

Figure 27
Zero-coupon yield curves



Source: Reuters figures, NBP calculations.

Figure 28
Future resultant interest rates (p.a.)



Source: Reuters figures, NBP calculations.

6.3.2. The exchange rate channel

The value of zloty against the dollar and the euro in the first quarter of 2001 was driven by external factors and by movements in the euro/dollar cross rate in the international market.

Conditions in the domestic market fostered increasing demand for Polish currency. Downward inflation trend and declining from the second half of 2000 onwards economic growth rate maintained strong market expectations for NBP interest rate reductions[30]. At the same time the risk of making portfolio investment in Poland went down, since during the whole first quarter the market was receiving information on declining deficit in the current account of balance of payments that substantially weakened the FX risk. By contrast, gradual reductions of NBP interest rates in February and March 2001 reduced the risk of sudden interest rates movements. Altogether these factors clearly improved safety of achieving by investors profits on continued high interest rate level in Poland (see Annex). High demand for Treasury securities was accompanied by a clear growth in their supply. The first quarter of this year witnesses a 2.5-time increase of Treasury securities sales, as compared to the previous quarter (24bn zloty as against 9.3bn zloty)[31].

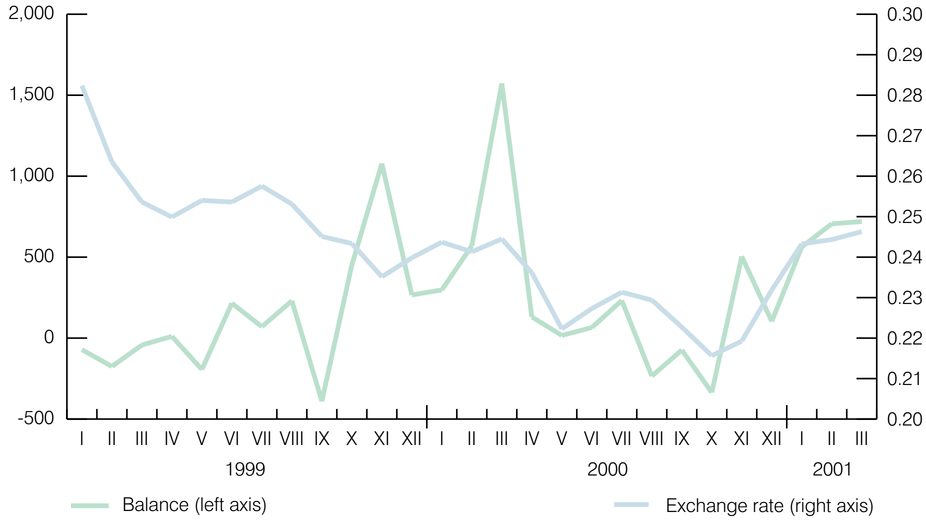
In these conditions in the first quarter of 2001 the net inflow of portfolio investments to Polish market[32] substantially went up, what was the basic reason for the zloty appreciation in this period (Figure 29).

External factors (financial crisis in Turkey, periodical slump in stock exchange indices in USA) weakened the zloty exchange rate in the first quarter of 2001 only for a short period. Reductions of the Fed Funds interest rates in USA did not have a material impact on the fall of differential between Polish and foreign interest rates.

Developments in the euro/dollar cross rate in the world market affected the zloty against these currencies exchange rate relatively weaker than in the second

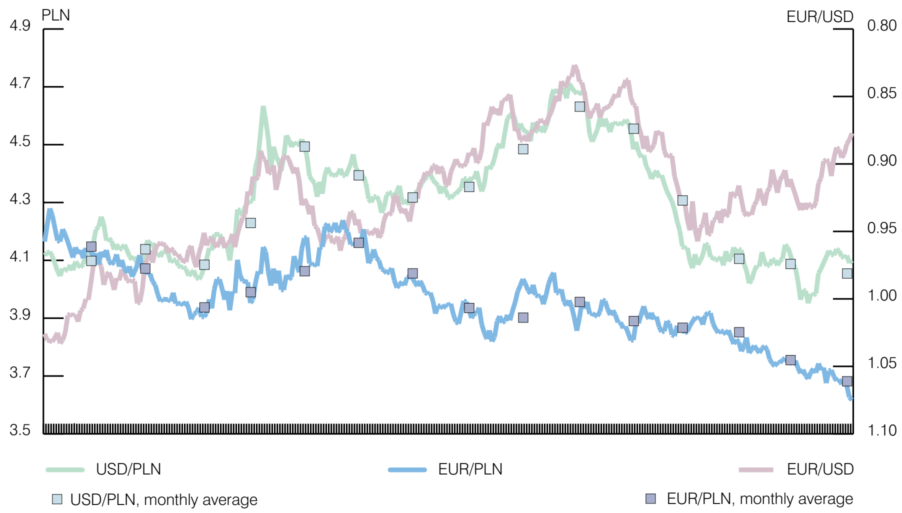
[30] They were reflected in quotations of FRA contracts and in formation of a zero-coupon yield curve.
[31] On the net basis, i.e. having adjusted for redemption, the supply of T-bonds grew in the first quarter of this year to 7.24bn zloty from 3.07bn zloty in Q4, 2000 and the supply of T-bills to 2.86bn zloty - from -6.79bn zloty, respectively.
[32] Cf. chapter "External imbalance".

Figure 29
Balance of portfolio investment (including derivatives) vs. USD/PLN exchange rate



Source: NBP figures.

Figure 30
Zloty exchange rates against USD and EUR; EUR/USD relationship



Source: NBP figures.

Table 16
Exchange rate impact on CPI

	2001					
	January	**February**	**March**	**April**	**May**	**June**
Average cumulated, shifted by two periods, indicators of nominal effective zloty exchange rate (%, increase stands for appreciation)	0.00	1.81	1.67	1.91	1.98	2.10
CPI reaction to exchange rate movements (points, pass-through indicator = 0.48)*	0.00	0.87	0.80	0.92	0.95	1.01

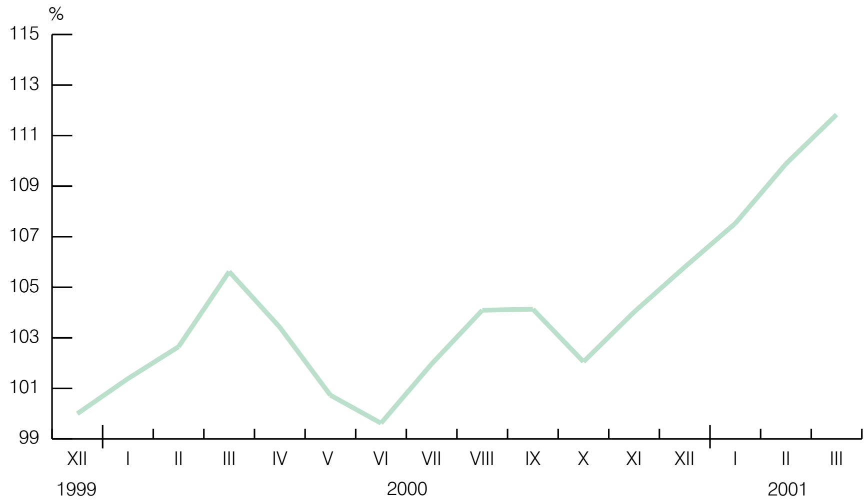
* Mean value for the period 1996-2000.

Source: NBP calculations.

half of 2000 (Figure 30). Only in January the dollar against the euro exchange rate depreciation in the world market by 4.1% (for a monthly average) was reflected in a similar in size depreciation of the dollar (by 4.7%). On the contrary, in February and March, when the dollar appreciated against the euro (by 1.8% and 1.4%, respectively), the zloty appreciated against the US currency by 0.4% and 0.8%, respectively. Polish currency was appreciating against the euro during the whole quarter. The average exchange rate of zloty against the dollar in the first quarter stood at PLN/USD = 4.0876 and against the euro at PLN/EUR = 3.7765 and was by 9.2% and 3.6% stronger as compared to Q4, 2000, respectively. In the first quarter of this year the nominal effective exchange rate of zloty rose by 5.7% (counting March this year against December last year), while in the fourth quarter of 2000 (counting December against September last year) it went up by 1.6% (Figure 31)[33].

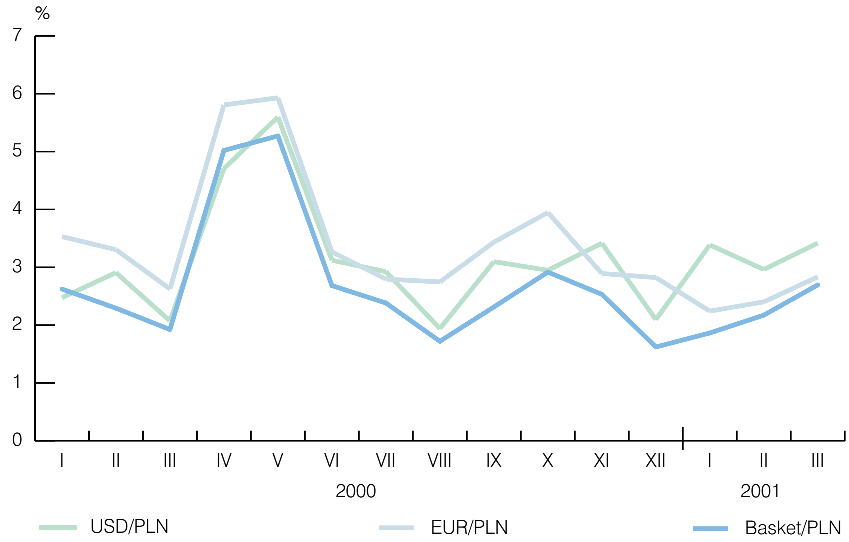
[33] Average monthly volatility of zloty against dollar exchange rate rose in Q1, 2001 by 0.4 points as compared to the previous quarter - up to the level of 3.3% (Figure 32). By contrast, volatility of zloty against euro exchange rate declined from 3.2% to 2.5%, respectively. Volatility calculated against the basket of currencies, comprising 50% of dollar and 50% of euro, dropped in the first quarter by 0.2 points and equalled 2.2%.

Figure 31
Nominal effective zloty exchange rate
Monthly data, December 1999 = 100



Source: NBP calculations.

Figure 32
Volatility of zloty exchange rates against USD, EUR and basket of USD and EUR



Source: NBP calculations.

In the first quarter the zloty exchange rate resulted in easing inflation phenomena in the domestic market. The analysis of the econometric pass-through model shows that the strongest reaction of the CPI to movements in the nominal effective exchange rate occurs between the second and the third month since the impulse appearance. During subsequent 6 months the influence quickly decays. Consequently, the January 2001 inflation rate is affected by cumulative movements in the exchange rate in October and November 2000, the February rate – by exchange rate movements in November and December 2000, etc. Cumulative, annualised indicators of the nominal effective exchange rate of the zloty and the corresponding CPI response are presented in Table 16.

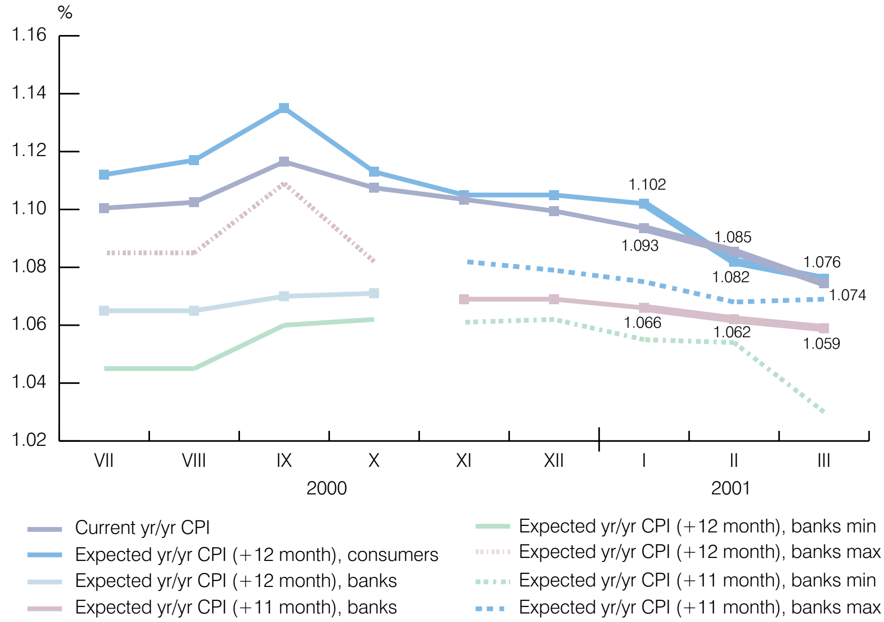
So because of delays of CPI reaction to exchange rate movements the zloty appreciation effect is observed only from February 2001 onwards. Had the nominal effective exchange rate of zloty remained on the level as of October 2000 the consumer price index in February 2001 would have been higher by 0.87 points and in March – by 0.80 points. In consecutive months of the second quarter of 2001 the effect of the zloty appreciation shall be expected to be larger and larger.

6.3.3. Inflation expectations

Analysis of inflation expectations is an important element of the direct inflation target strategy, not only due to the fact that it enables the central bank to identify one of numerous factors determining the meeting of assumed targets of the monetary policy, but also because of the fact, that inflation expectations are a kind of verifier of transparency and credibility of the performed monetary policy.

Decisions of monetary authorities, such as e.g. resolutions on short-term inflation targets or on basic interest rates, like information on other factors driving price processes in the future, influence expectations of various groups of market players in a different way. Consumers in Poland show an inclination to formulate their inflation expectations on the basis of past inflation, while paying very little attention to information on likely price changes in the future. In other words, their expectations are inert and as such – considering the disinflation occurring in Poland – determine the upper limit of the

Figure 33
Inflation expectations of consumers and banks analysts; Q1, 2001; Q3 and Q4, 2000



Source: Demoskop, Reuters figures, NBP calculations.

corridor comprising expectations of other groups of entities[34]. The lower limit of this corridor is determined by inflation expectations of bank analysts, who have possibly complete information and specialised research instruments at their disposal[35].

In the first quarter of 2001, like in the last quarter of 2000, inflation expectations of consumers and banks were falling (Figure 33). It is noteworthy that the corridor determined by expectations of both these groups of entities in this period substantially narrowed: if in 2000 consumer inflation expectations formulated a year forward

[34] Consumer inflation expectations are quantified on the basis of qualitative data obtained from a questionnaire of the Demoskop company, using a statistical quantification procedure (adjusted Carlson and Parkin method). The method is described in: T. Łyziak, *Badanie oczekiwań inflacyjnych podmiotów indywidualnych na podstawie ankiet jakościowych* (Investigating consumer inflation expectations using qualitative surveys). "Bank i Kredyt", No 6, NBP, 2000.
[35] Inflation expectations of bank analysts are taken from Reuters questionnaires.

were on average 4.4 points higher than banks' inflation expectations, then in the first quarter of 2001 this differential on average stood at 2.5 points and in March it dropped to 1.7 points. This may indicate a gradual modification of inert way of consumer inflation expectations' formulation by taking in them into account a more complete set of current information that may indicate a likely course of inflationary processes in the future.

Consumer inflation expectations in the first quarter of 2001

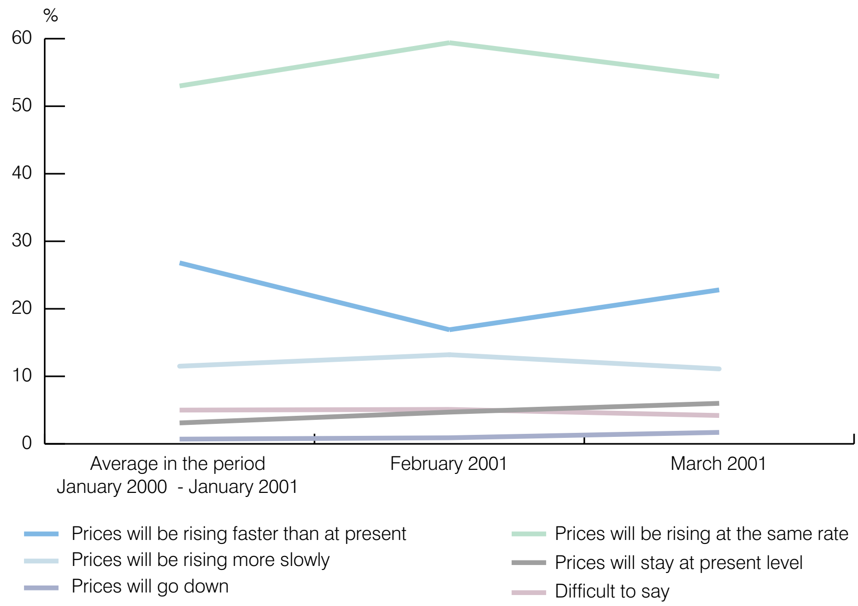
According to NBP surveys, the current inflation rate is the basic factor determining consumer inflation expectations, i.e. year-on-year inflation rate, known to respondents at the moment they answer the questionnaire[36]. As the result, a fall in the current inflation rate recorded at the beginning of the last quarter of 2000 was accompanied by successive decline in consumer inflation expectations: year-on-year inflation rate expected for the corresponding month of the next year fell from 10.5% in December 2000 to 10.2% in January 2001, 8.2% in February and 7.6% in March.

Especially deep slump of consumer inflation expectations occurred in February 2001 when they dropped by 2 points. This fall may be interpreted as a cumulative effect of going down current inflation rate that was not reflected in adequate reduction of inflation expectations in the period November 2000 – January 2001, when these expectations remained relatively stable. Both the scale of the February slump of consumer inflation expectations as well as the fact that for the first time since July 1999 they went down below the current inflation rate indicates a clear change in respondents mood, in any case reflected in the structure of answers to the questionnaire[37].

[36] The Demoskop questionnaire is carried out in the first half of a month, so before releasing by GUS the inflation rate for the previous month. Because of that in the quantification procedure the year-on-year inflation rate two months ago is taken as the current inflation rate.

[37] The case is primarily the fraction of respondents declaring that within the next 12 months prices will be growing faster than so far, which fell from 27% in January to 17% in February (this is the smallest percentage of respondents choosing this variant of the answer since August 1998). At the same time groups of respondents declaring that prices will be growing at the same rate (by more than 5 points) and that they will stay at their present level (by nearly 3 points) increased.

Figure 34
Structure of answers to Demoskop questionnaires in 2000 and in Q1, 2001



Source: Demoskop figures.

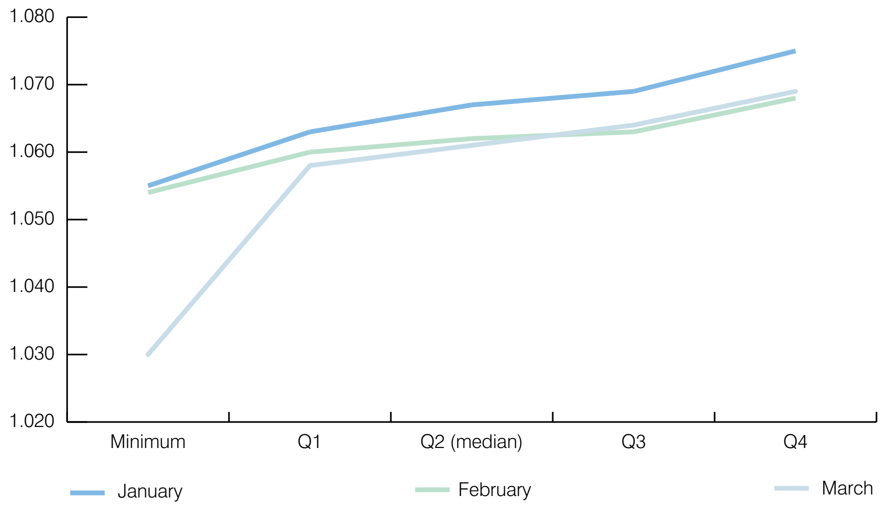
Analysing developments in consumer inflation expectations in the first quarter of 2001 it is noteworthy to look at the structure of answers to the Demoskop questionnaires. Figure 34 presents percentage of respondents selecting individual variants of answers in the period January 2000 – March 2001. The structure of answers from January 2000 to January 2001 is presented in a synthetic way, on the basis of average percentage of respondents selecting individual answer options in this period.

Comparing the structure of answers to the Demoskop questionnaire between January 2000 and January 2001 with the structure recorded in February 2001 one may notice that in the latter month fractions of respondents selecting individual answer variants substantially differed from corresponding fractions in past months. In particular this refers to respondents declaring that prices will be growing faster than at present (16.9% in February this year as against an average of 26.8% between January 2000 and January 2001) and that prices will be rising at the same rate (59.4% in February 2001 as against an average of 53% from January 2000 to January 2001). In March 2001 the structure of answers to the Demoskop questionnaire has in turn shifted towards its original shape, however, it continued to indicate improvement in the respondents mood as compared to the mood expressed in 2000: in March 2001 the percentage of the most pessimistic respondents, declaring that prices will be rising faster than at present, was 4 points lower than in the period January 2000 – January 2001; percentage of respondents stating that prices will be growing at the same rate was by 1.4 points higher than in the past year, while – what is worth a special notice – the fraction of respondents declaring that in a year time prices will be the same as at present was 2.9 points higher than the average percentage of respondents choosing this answer in the past year.

Bank analysts' inflation expectations in the first quarter of 2001

In the first quarter of 2001 – after the period of oscillation of bank analysts' inflation expectations around 7% – the year-on-year inflation rate expected by them for the month preceding the corresponding month of the next year was gradually declining: in December the mean of bank inflation expectations stood at 6.9%, in the following months it went down to 6.6% in January and to 6.2% in February 2001. The fall of the mean value of expectations was accompanied by changes in other properties of the distribution. According to data presented in Figure 35 February saw a shift of the entire distribution of bank inflation expectations towards lower values, visible in particular in the part of distribution below the first quartile. In turn, in March 2001 when the inflation rate expected by bank analysts for February 2002 on average stood at 5.9%, this part of the distribution remained relatively stable, while there was a substantial fall in the minimum value of inflation expectations declared by banks, that fell from 5.4% in February to 3% in March 2001. This was accompanied by a hike in dispersion measures of the distribution: standard deviation (from 0.5 points in January and 0.3 points in February to 0.9 points in March

Figure 35
Properties of distribution of banks' inflation expectations in Q1, 2001



Source: Reuters figures, NBP calculations.

2001) and volatility coefficient (from 7% in January and 5.6% in February to 15.3% in March 2001)[38].

Except for the year-on year inflation rate for the month preceding the corresponding month of the next year expected by bank analysts, banks participating in the Reuters survey respond also to the question on the year-on-year inflation rate forecast for December of the current year, what enable verification of credibility of the central bank short-term inflation target. In the first quarter of 2001 banks predicted that the inflation target set for 2001 as the range 6-8% would be accomplished and the annual

[38] March fall of the mean of distribution of bank inflation expectations and the rise in dispersion measures of the distribution resulted primarily from a drastic change in expectations of one of surveyed banks, which declared that in February 2002 the year-on-year inflation rate will amount to 3%. Accordingly, the range comprising bank inflation expectations was significantly expanded downwards: if in January its limits stood at 5.5% and 7.5%, in February at 5.4% and 6.8%, then in March the corresponding values equalled 3% and 6.9%. It is noteworthy that had the expectations of that bank been neglected, then the mean value of the distribution of bank inflation expectations in March this year would have dropped against the February figures not to 5.9% but to 6.1% (i.e. by 10 bps).

inflation rate in December 2001 will be close to the lower limit of this range. In January this year banks forecast that at the end of 2001 the year-on-year inflation rate would stand at 6.6%, in February that at 6.4%, while in March these expectations fell to 6% (the minimum declaration amounted to 4.8%, the maximum to 6.5%).

Positive trends initiated in the last quarter of 2000 were strengthening in Q1, 2001: inflation expectations of both consumers and of bank analysts featured a steady downward trend. Moreover, certain symptoms of the change in static formulation of consumer inflation expectations were revealed: the structure of answers to the Demoskop questionnaire clearly improved and consumer inflation expectations came closer to the bank declaration range. The short-term inflation target for 2001 is recognised as credible by bank analysts and the accomplishment of this target forecast by them as close to its lower limit makes reliable also the meeting of medium-term target of the monetary policy. The discussed factors create favourable conditions for the process of further disinflation in Poland and reduce the importance of one of its barriers.

6.3.4. The asset price effect

The first quarter of 2001 did not bring significant changes in respect to the value of portfolio of securities, held directly or indirectly by households. Dominant factors affecting the developments in this market segment included:

1) slump in the stock exchange, resulting both from internal (financial results of listed companies) and external factors (situation in the world equities market). This caused a fall in basic Polish stock exchange indices WIG, WIG20 and TechWIG by 17%, 24.2% and 40%, respectively, as compared to the end of 2000;

2) maintaining interest rates in Poland, despite their periodic reductions, on a high level. This created a fierce competition for the stock exchange equities' market from Treasury securities and bank deposits;

3) limited demand capabilities of domestic individual investors make that pension funds, featuring a permanent inflow of funds, increasingly clear become the main stimulant of this market segment growth, in conditions of direct investment stagnation.

The value of indirect investment of the public, comprising funds held in investment funds and in open pension funds, is shown in Table 17.

A still little importance of securities segment in generating the income for the public is proven inter alia by its relationship to GDP, which according to the NBP estimates stands at about 5% (150% in USA, 50% in EU countries). Domestic investment preferences, focusing on the real estate and bank deposits as well as still limited demand capabilities of this group indicate that no material changes in this respect shall be expected in the nearest future.

Summing up the situation in the first quarter the following shall be stated:

1) the equities segment, due to its low attractiveness and a falling volume of free turnover estimated at 30% of the total market capitalisation, at present employs funds of the public only to a limited extent,

2) the Treasury securities market constantly expanding its offer to individual investors remains the active sector of the financial market, where households direct part of their periodically free funds,

3) the banking sector – from households' point of view – remains the most attractive sector, where in the first quarter of this year personal deposits grew by more than 10bn zloty, what exceeded the total estimated value of securities held directly by this group of investors. From the point of view of effectiveness of the monetary policy this sector played a key role, while the securities market was only of auxiliary nature.

Table 17
Indirect forms of households' investment in the capital market

Type of indirect investment involving households	2000 (period end balance) billion zloty	Q1, 2001 (period end balance) billion zloty
Investment funds (TFI)	7.2	5.2*
Pension funds (OFE)	9.9	11.7

* Decline in investment funds assets by over 27% resulted from withdrawing funds from so-called dividend funds by enterprises.

Source: GUS materials.

7. Prospects for inflation

In the first quarter of 2001 the annualised inflation rate continued to fall. In March this indicator stood at 6.2% and was 4.1 points lower than a year ago.

Basic drivers for such course of inflationary processes include:

- maintenance of low growth rate of domestic demand,
- continued restrictive monetary policy, at expansive fiscal policy,
- fall in inflation expectations, particularly clear in the case of consumers,
- weaker impact of supply shocks on prices in fuels and foodstuffs market,
- zloty appreciation.

However, because of temporary nature of the last two factors and relatively high values of core inflation rates, one cannot expect as strong, as in the first quarter, decline in inflation as measured by the CPI in the subsequent quarters of this year. Accomplishment of the monetary policy target for 2001 is, however, very likely.

Situation of the public finance sector in the first quarter was worse than expected. Revenue lower than assumed, caused primarily by a different than forecast arrangement of basic macro-economic parameters (GDP growth, inflation, foreign exchange rate, exports), resulted in achieving in the first quarter the economic deficit exceeding 8% of the quarterly GDP value.

The foreign exchange rate in the first quarter was a substantial inflation-retarding factor. However, the zloty appreciation observed in this period will be probably reflected in worse results of the foreign trade in consecutive quarters, what may lead to the zloty depreciation and this in turn – to intensification of inflationary processes.

Because of these reasons the Monetary Policy Council considered that monetary policy parameters might be changed in the first quarter only gradually.

It is not certain what will be the supply of foodstuffs from domestic crops and the situation in the world fuels market has not permanently stabilised. Prospects of households' income growth and a high probability of greater than stipulated economic deficit of the public finance sector may become inflation pressure drivers. The attaining of medium-term monetary policy target requires that in December 2001 the inflation shall be close to the lower limit of the annual monetary policy target. In the face of previously presented factors threatening a steady inflation decline trend the monetary policy must continue to be restrictive to a large extent.

APPENDIX 1

Zloty exchange rate in the light of Frankel theory of existence of uncovered interest rates parity and monetary model of real rates parity

The theory of uncovered interest rates parity assumes that a risk-neutral investor shall receive the same rate of return on capital invested at home and overseas. It is assumed that one may "invest" in the only existing "domestic" and "foreign" interest rate. This relationship, assuming no transaction costs, from the point of view of a foreign investor interested in placing a unit of capital in Polish financial market may be written in the following simplified form:

$$(1 + i^{*}) = (1 + i) \text{ x } (S_t \,/\, S^e_{t+1}),$$

where:

i^{*} – nominal interest rate overseas for the period $(t, t+1)$

i – nominal interest rate in Poland for the period $(t, t+1)$

S_t – spot FX rate of the foreign currency expressed in PLN at instant t

S^e_{t+1} – expected spot FX rate of the foreign currency expressed in PLN at instant $t+1$

Inequality of rates of return on capital causes a necessity of adjusting the aforementioned values to the state of equilibrium. If e.g. expectations with regard to the future exchange rate level are steady and there exists a disparity of interest rates $(1 + i^{*}) < (1 + i)$, then if there are no interest rates adjustments the spot rate must appreciate to make that the above equality is met.

Apparently the above relationship is not fulfilled when investors are risk-averse, e.g. because of a lower investment rating of one of the analysed countries. They request then to take into account in the interest rate of the lower-rated country a premium for risk incurred at investing. In such situation a long-term existence of nominal interest rates disparity is possible (vide: money market BAIBOR interest rates against LIBOR rates for US dollar, at maintaining a currency board system with a fixed exchange rate of Argentinean peso against US dollar).

There are premises to state that the risk premium for foreign investors in the Polish market went down in the first quarter of 2001, while the disparity of nominal interest rates slackened only slightly[39]. In this situation the zloty was appreciating against the euro and the zloty against dollar exchange rate oscillated in the range (3.95 PLN/USD; 4.15 PLN/USD). If the theory of uncovered interest rates parity would prove correct, that would mean that investors would expect a higher zloty against dollar exchange rate (i.e. would expect stronger exchange rate depreciation in the future). That would be a reversal of the situation in the last quarter of 2000 when from November onwards the spot rate was appreciating and the expected future zloty against dollar exchange rate might be stable. In the case of zloty against euro exchange rate[40] in the first quarter of 2001 investors could have steady expectations with regard to the level of the future value of zloty against that currency[41], what would be supported by the argument of a strong impact of the euro exchange rate on the zloty exchange rate.

Continuing differential in nominal interest rates between two countries is usually identified with the existence of differential between their inflation rates and the required investment risk premium. It is assumed that real interest rates in both countries are equal and stable (Fisher hypothesis). Monetary models of the FX rate suggest that when it does not happen like that, capital shall inflow to the country with a higher real interest rate, tempted by the desire of additional profit. It is illustrated by the Frankel model[42] equation written in a logarithmic version:

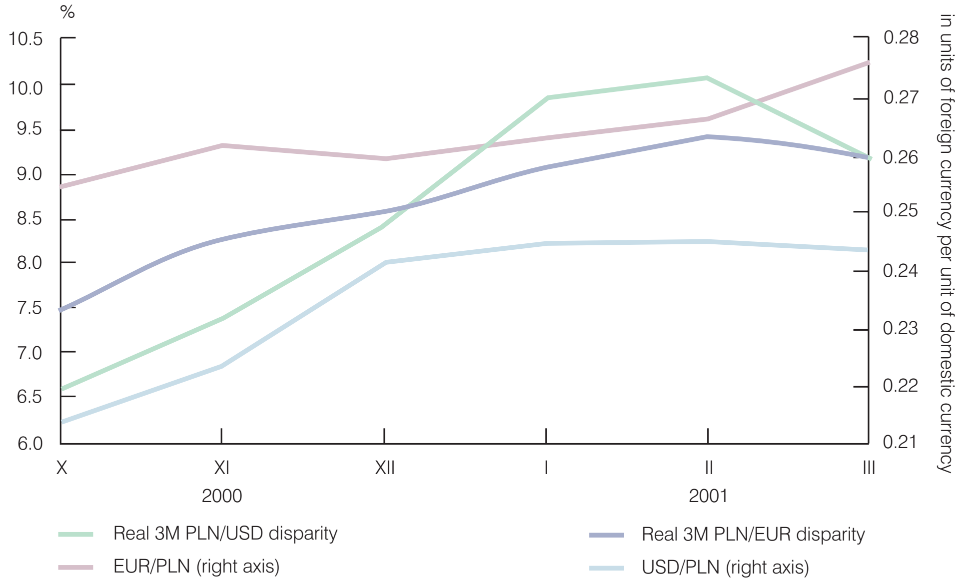
[39] Disparity between 3M WIBOR and USD LIBOR rate from November 2000 onwards fluctuated in the range 13 - 13.5%, to decline after the March meeting of the Monetary Policy Council to the level of about 12.5% in April 2001. 3-month disparity between WIBOR and EURIBOR rate fell from 14.5% at the beginning of January 2001 to 12.8% at March-end. Disparity calculated on the basis of one-month rates was more volatile and during the first quarter it moved in the range 12.3 - 14% for the zloty - dollar relationship and 12.7 - 15% for zloty - euro.

[40] For the PLN/EUR exchange rate this relationship shall be interpreted cautiously. This market features low turnover and its significant part originates from commercial transactions and not portfolio investment, made basically via the PLN/USD market.

[41] However, the condition of unheged interest rates parity may have nothing in common with reality, because it is only a postulate describing a required relationship between interest rates and the spot FX rate and its expected in the future level that would guarantee "fair", i.e. equal return on investment in both analysed countries.

[42] Frankel J.A., On the Mark: *A Theory of Floating Exchange Rates Based on Real Interest Differentials*, "American Economic Review", Vol. 69, No. 4, s. 610-622.

Figure 36
Disparity of short-term 3M WIBOR as well as 3M LIBOR and 3M EURIBOR interest rates adjusted by 12-month CPI indices in Poland, USA and euro-zone as well as USD/PLN and EUR/PLN exchange rates at month-end



Source: NBP, GUS.

$$\hat{s} - s = (1/\theta)\,[(i - \pi) - (i^* - \pi^*)]$$

where $\hat{s}$ is the equilibrium exchange rate known by the market, determined on the basis of purchasing power parity of the foreign currency expressed in units of the domestic currency, θ is a parameter of adjustment pace and π and π^* stand for the size of the expected inflation at home and overseas. To be able to refer this relationship to the Polish situation, let us add risk premium ρ for investing in domestic assets:

$$\hat{s} - s = (1/\theta)\,[(i - \pi - \rho) - (i^* - \pi^*)].$$

In the case of real rates growth in the country or a fall in risk premium the domestic exchange rate must appreciate above the level of long-term equilibrium, in which there exists equality of real rates between compared countries. Such situation occurred in

Poland in the last quarter of 2000 and in the first quarter of 2001 – disparity of real interest rates between Poland and euro-zone as well as USA increased (Figure 36), resulting in inflow of portfolio capital and in the zloty appreciation. Postulated additionally a fall in risk premium could deepen this trend.

APPENDIX 2

Voting of Monetary Policy Council members on Council resolutions in the first quarter of 2001

Date of resolution	Subject	Decision taken	Voting of Council members
28.02.2001	the rediscount rate and refinance rate	to reduce base interest rates by one percentage point	**For:** L. Balcerowicz B. Grabowski C. Józefiak J. Krzyżewski W. Łączkowski J. Pruski G. Wójtowicz **Against:** M. Dąbrowski D. Rosati W. Ziółkowska
28.02.2001	procedures for the conduct of open market operations	to reduce the reference rate (minimum reverse repo rate) by one percentage point	**For:** L. Balcerowicz B. Grabowski C. Józefiak J. Krzyżewski W. Łączkowski J. Pruski G. Wójtowicz **Against:** M. Dąbrowski D. Rosati W. Ziółkowska
28.03.2001	the rediscount rate and refinance rate	to reduce base interest rates by one percentage point	**For:** L. Balcerowicz J. Krzyżewski D. Rosati G. Wójtowicz W. Ziółkowska **Against:** M. Dąbrowski B. Grabowski C. Józefiak W. Łączkowski J. Pruski

28.03.2001	procedures for the conduct of open market operations	to reduce the reference rate (minimum reverse repo rate) by one percentage point	**For:** L. Balcerowicz J. Krzyżewski D. Rosati G. Wójtowicz W. Ziółkowska **Against:** M. Dąbrowski B. Grabowski C. Józefiak W. Łączkowski J. Pruski