

## CONTENTS:

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I. INTRODUCTION	1
II. INFLATION DEVELOPMENT	3
III. INFLATION FACTORS	9
III.1 Money, interest rates and exchange rates	9
III.1.1 Monetary aggregates	9
III.1.2 Credits granted to businesses and households	12
III.1.3 Interest rates	12
III.1.3.1 Short-term interest rates	13
III.1.3.2 Long-term interest rates	15
III.1.3.3 Client interest rates	17
III.1.4 The exchange rate	17
III.1.5 Capital flows	19
III.2 Demand and output	21
III.2.1 External demand	21
III.2.2 Domestic demand	23
III.2.3 Output	26
III.3 The labour market	29
III.3.1 Wages and financial incomes	30
III.3.2 Employment and unemployment	33
III.4 Costs and prices	36
III.4.1 Import prices	36
III.4.2 Producer prices	37
IV. MONETARY POLICY MEASURES AND INFLATION OUTLOOK	41
IV.1 Inflation and its determinants – an overview of the main trends	41
IV.2 Monetary policy	42
IV.2.1 Past developments in inflation factors, inflation projections and their risks	42
IV.2.2 Monetary policy response	43
IV.3 Future inflation factors	44
IV.4 Inflation outlook	45
MINUTES OF THE CNB BANK BOARD MEETINGS	46
Minutes of the Board Meeting on 29 July 1999	46
Minutes of the Board Meeting on 2 September 1999	47
Minutes of the Board Meeting on 4 October 1999	48
APPENDIX	51
Measuring the inflation expectations of the financial market	51
TABLES	
Table II.1 Basic data on consumer prices	3
Table II.2 Tradables and nontradables prices	7
Table III.1 Increases in seasonally adjusted M2	10
Table III.2 Increases in seasonally adjusted L	11
Table III.3 Increases in M1	11
Table III.4 Increases in seasonally adjusted total credits	12
Table III.5 Financial account in the first quarters of 1993-1999	19
Table III.6 Public budgets	26
Table III.7 Real output and demand	27
Table III.8 Selected financial indicators in 1999	28

Table III.9	Basic data on wages	30
Table III.10	Wage, price and productivity indicators	32
Table III.11	Basic data on household incomes	32
Table III.12	Basic data on employment	33
Table III.13	Unemployment in 1999	34

## CHARTS

Chart II.1	CPI and inflation rate from January 1995 to September 1999	3
Chart II.2	Structure of CPI inflation (y-o-y)	4
Chart II.3	Structure of net inflation (y-o-y)	4
Chart II.4	Net inflation in 1995–1999 (m-o-m)	5
Chart II.5	Prices and sales of food	6
Chart II.6	Prices and sales of non-food goods	7
Chart II.7	Prices of tradables and nontradables	8
Chart III.1	Monetary aggregates M1, M2 and L	9
Chart III.2	M2 by sector	10
Chart III.3	Currency in circulation and retail sales	11
Chart III.4	Increases in adjusted koruna and foreign currency credits	12
Chart III.5	Key rates	13
Chart III.6	3M and 6M PRIBOR rates	13
Chart III.7	Yield curve for PRIBOR rates	14
Chart III.8	Changes in average PRIBOR rates	14
Chart III.9	3M FRA rates – offer	15
Chart III.10	Interest rate differential between rates in CZK and EUR	15
Chart III.11	IRS rates	16
Chart III.12	Yield curve for IRS rates	16
Chart III.13	Changes in average IRS rates	16
Chart III.14	Real interest rates	17
Chart III.15	CZK/EUR and CZK/USD nominal rates	18
Chart III.16	CZK/DEM nominal and real rates	18
Chart III.17	Changes in CZK/DEM real and nominal rates	19
Chart III.18	CNB international reserves	20
Chart III.19	Net exports/GDP ratio	21
Chart III.20	Contribution of domestic demand and net exports to y-o-y change in GDP	22
Chart III.21	Exports of goods and services	22
Chart III.22	Components of domestic demand	23
Chart III.23	Changes in capital investment by non-financial businesses in 1999 Q2	24
Chart III.24	Real consumption, retail sales, disposable incomes and savings ratio	25
Chart III.25	Share of goods imports in household consumption	25
Chart III.26	Contribution of domestic demand components and net exports to y-o-y change in GDP	27
Chart III.27	GDP and gross value added by branch	28
Chart III.28	Real wage and unemployment rate	30
Chart III.29	Real wage and labour productivity in industry	31
Chart III.30	Structure of book value added for non-financial businesses and corporations	31
Chart III.31	Nominal unit wage costs and GDP deflator	32
Chart III.32	Relative income position of households	33
Chart III.33	Structure of book value added and change in employment	34
Chart III.34	Unemployment – seasonal pattern	35
Chart III.35	Unemployment – characteristics	35
Chart III.36	HWWA index	36
Chart III.37	Prices of Ural crude	37
Chart III.38	CSO import price index and industrial producer prices	37
Chart III.39	PPI inflation by industrial category (y-o-y)	38
Chart III.40	Industrial PPI inflation and adjusted inflation (y-o-y)	38
Chart III.41	Food price inflation and agricultural PPI inflation (y-o-y)	39

STATISTICAL ANNEX		55
Table 1a	Inflation development	55
Table 1b	Inflation development	56
Table 2	Consumer prices	57
Table 3a	Net inflation	58
Table 3b	Items excluded from the CPI for “net inflation” calculation	59
Table 4	Consumer prices – tradables and nontradables	60
Table 5	International survey – consumer prices	61
Table 6	Monetary survey	62
Table 7	Credit supply	63
Table 7	Credit breakdown by time, sector and type	63
Table 8	Interest rates on interbank deposits	64
Table 9	FRA rates	65
Table 9	IRS rates	65
Table 10	Nominal and real interest rates	66
Table 11	Commercial bank interest rates	67
Table 12	Balance of payments	68
Table 13	International investment position	69
Table 14	External indebtedness	70
Table 15	Exchange rate	71
Table 16	Public finances	72
Table 17	Capital market	73
Table 18	CNB monetary policy instruments	74
Table 19	Macroeconomic aggregates	75
Table 20	Labour market	76
Table 21	Production	77
Table 22	Producer prices	78
Table 23	Ratios of key indicators to GDP	79

### Abbreviations used:

		HWWA	aggregate price index for raw materials and food
		IRS	interest rate swap
CIS	Commonwealth of Independent States	JPY	Japanese yen
CNB	Czech National Bank	L	a monetary aggregate (see part 3.1.1)
CPI	consumer price index	LIBOR	London Interbank Offered Rate (an interbank lending rate)
CPIx	net inflation index	M1	a monetary aggregate (see part 3.1.1)
CSO	Czech Statistical Office	M2	a monetary aggregate (see part 3.1.1)
CZK	Czech koruna	m-o-m	month-on-month
DEM	Deutsche Mark	PPI	producer price index
EBRD	European Bank for Reconstruction and Development	PRIBID	Prague Interbank Bid Rate
ECB	European Central Bank	(1W, 1M, 1Y)	(one-week, one-month, one-year)
EMU	Economic and Monetary Union	PRIBOR	Prague Interbank Offered Rate repo rate repurchase agreement rate
EU	European Union	T-bills	treasury bills
EUR	euro	USA	United States of America
FDI	foreign direct investment	USD	US dollar
FRA	forward rate agreement	VAT	value added tax
FW	forward	y-o-y	year-on-year
GDP	gross domestic product		

## I. INTRODUCTION

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The decline in year-on-year inflation halted in 1999 Q3. After a considerable fall in the previous period, inflation gradually stabilised at its lowest level since the start of the transformation. This was true for both the consumer price index and net inflation. The stabilisation of inflation at a low level was fostered in 1999 Q3 by a slowdown in adjustments to regulated prices and by a halt in the fall in year-on-year net inflation. As in Q2, the two components of net inflation developed differently. Whereas food prices continued to decline considerably, adjusted inflation remained broadly flat with only small oscillations. The growth in external cost pressures, particularly the increase in oil prices, did not feed through strongly into adjusted inflation.

Other areas also saw a change in trend. In 1999 Q2, there was a pick-up in the economy, expressed as a modest rise in GDP. This occurred after twenty months of economic contraction, which was preceded by a slowdown in GDP growth visible since mid-1995. The positive turnaround in GDP was fostered in particular by an improvement in net exports and by growth in household consumption. Conversely, gross fixed capital formation declined further, although more moderately than in Q1. Government consumption rose, but to a lesser extent than in previous quarters.

Domestic demand in 1999 Q2 continued to subdue demand-pull inflationary pressures. On the supply side, a gradual moderation of the potential cost pressures ensuing from wage developments was visible. Real unit wage costs continued to rise, but at a slower pace than in Q1. At the same time, after sixteen months of contraction, whole-economy labour productivity started growing again. Wage-inflationary potential moderated, but its accumulation in the previous period still presents a possible medium-term inflationary risk.

The upward trend in the unemployment rate persisted in Q3. However, some new tendencies emerged on the labour market. Between August and September, there was no further month-on-month growth in the number of unemployed persons. In addition, there was a month-on-month rise in the absolute number of vacancies in Q3. These indicators may be pointing to a certain rise in demand for work. The seasonal surge in unemployment in September was less sizeable than in previous years. This was due, among other things, to the earlier entry of graduates onto the labour market. The seasonal influence was thus spread over a longer period.

In the medium term, the macroeconomic framework will continue to dampen wage-inflationary pressures, especially if labour productivity continues to grow. However, the medium-term inflation trend will be affected on the demand side by growth in import prices linked with the increase in commodity prices on global markets.

The fall in the money supply growth rate, which started in 1999 Q2, continued into Q3. This was due to favourable developments in the state budget and to the still subdued level of lending. Nevertheless, the present money supply growth rate is higher than nominal GDP growth. In Q3, net foreign assets were still on increase. These assets have been used partly to finance the ongoing inflow of foreign investment. In the household sector, funds were shifted from time deposits into demand deposits. Banks responded to the declining CNB interest rates by changing their reference rates at a slower pace and to a lesser extent than earlier.

Monetary policy in Q3 was based on an assessment of macroeconomic developments and of the effect of inflation factors on future price development. The setting of monetary policy instruments was geared to the net inflation target for the end of 2000. At the same time, the CNB also responded to the inflow of capital in the form of foreign direct investment, which was acting towards exchange rate appreciation. Its policy efforts were aimed at preventing a tightening of monetary conditions resulting from excessive koruna appreciation.

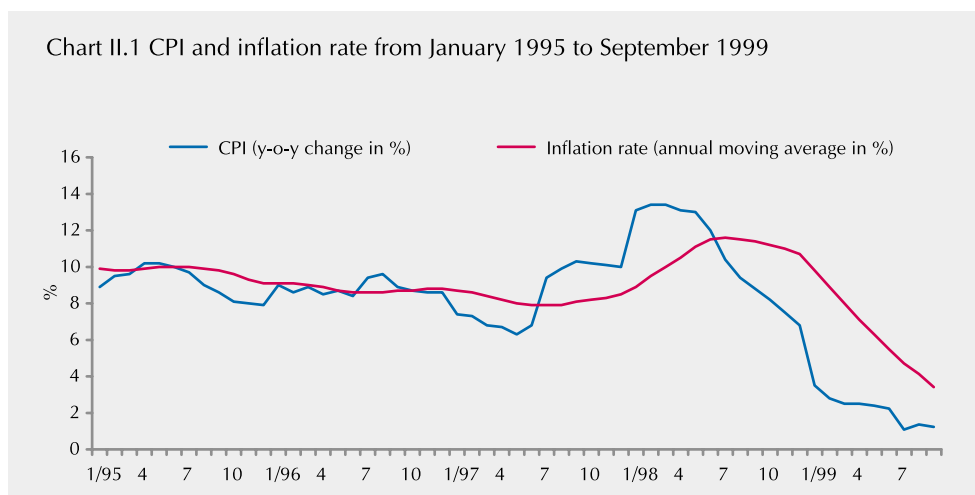
The conditional net inflation forecast signalled fulfilment of the inflation target in 2000 at its lower limit. This led to further interest rate cuts in 1999 Q3. In the period under review, the CNB lowered the

2W repo rate in three steps by a total of 0.75 percentage points to 5.75%. This was accompanied by cuts in the discount and Lombard rates and a narrowing of the margin between them.

In the outlook for the period up to the end of 2000, inflation will rise somewhat from the Q3 level, largely thanks to a pick-up of inflationary pressures on the demand side. However, these pressures are likely to be less intense than the CNB hitherto expected. Therefore, following an assessment of future inflation factors in mid-October, the mid-value of the net inflation forecast is moderately below the lower limit of the inflation target for the end of 2000.

## II. INFLATION DEVELOPMENT

In 1999 Q3, the year-on-year CPI inflation outturns fell below 1.5% for the first time since the beginning of the transformation. At the end of Q4 the inflation rate dropped to 3.4% (Chart II.1). Year-on-year CPI inflation reached an all-time low of 1.1% in July 1999; it picked up modestly in the following months of Q3, but did not exceed 1.4%.



The major slowdown in year-on-year CPI inflation in July was largely due to the trend in regulated prices: their year-on-year growth fell from 11% in June 1999 to 4.4% in July. The subsequent slight pick-up in year-on-year CPI inflation in August and the very moderate slowdown in September were attributable to net inflation (Chart II.1). In general, inflation was very low and stable in 1999 Q3.

Table II.1 Basic data on consumer prices (in %)

	6/98	9/98	12/98	1/99	2/99	3/99	4/99	5/99	6/99	7/99	8/99	9/99												
CPI INFLATION (y-o-y)	12.0	8.8	6.8	3.5	2.8	2.5	2.5	2.4	2.2	1.1	1.4	1.2												
of which:	contrib.	contrib.	contrib.	contrib.	contrib.	contrib.	contrib.	contrib.	contrib.	contrib.	contrib.	contrib.												
Regulated prices	29.7	6.11	20.4	4.79	20.4	4.73	12.1	2.97	11.9	2.90	11.7	2.87	11.1	2.75	11.1	2.74	11.0	2.72	4.4	1.13	4.3	1.12	4.3	1.12
Influence of indirect taxes on unregulated prices		0.73	0.73	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.32	0.32											
Net inflation	6.5	5.19	4.3	3.30	1.7	1.32	0.7	0.54	-0.1	-0.06	-0.4	-0.33	-0.3	-0.21	-0.5	-0.37	-0.6	-0.49	-0.5	-0.36	-0.1	-0.06	-0.3	-0.21
of which:																								
- food prices	5.8	1.96	3.1	1.00	-1.2	-0.38	-2.0	-0.61	-3.2	-0.98	-4.0	-1.25	-4.3	-1.34	-4.8	-1.48	-5.0	-1.53	-4.8	-1.44	-4.1	-1.24	-4.1	-1.24
- adjusted inflation	6.9	3.22	5.1	2.30	3.7	1.70	2.6	1.15	2.1	0.91	2.1	0.92	2.5	1.13	2.5	1.11	2.3	1.04	2.5	1.08	2.7	1.17	2.3	1.04
INFLATION RATE (annual moving average)	11.5	11.4	10.7	9.8	8.9	8.0	7.1	6.3	5.5	4.7	4.1	3.4												

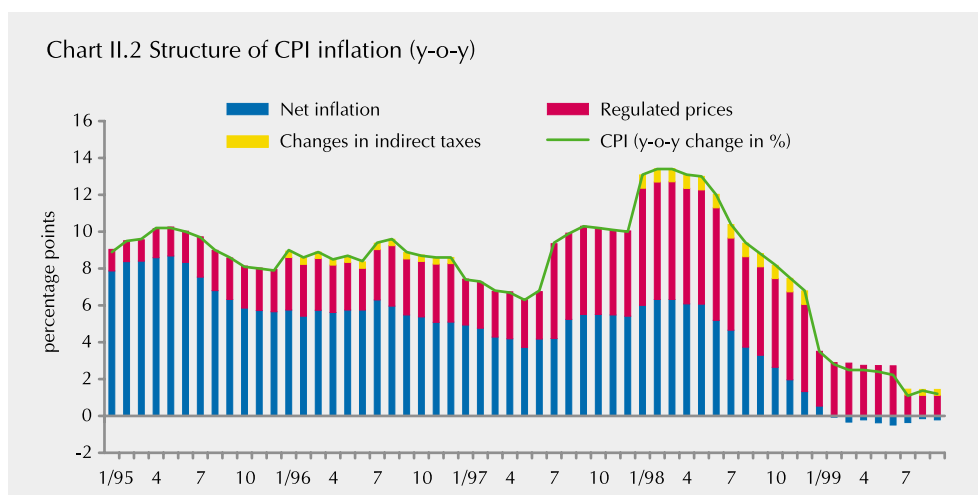
Note: "contrib." means contribution to CPI inflation

### Regulated prices (excluding the effect of increases in indirect taxes on non-regulated prices)

The significant slowdown in year-on-year regulated price inflation during 1999 Q3 (Chart II.1) resulted from a much smaller extent of change to regulated items than in the same period a year earlier. The only key item to be increased in July 1999 was the maximum rent, whereas in July 1998, in addition to rents, the maximum rates for power, gas and railway fares were also raised. Consequently, the month-

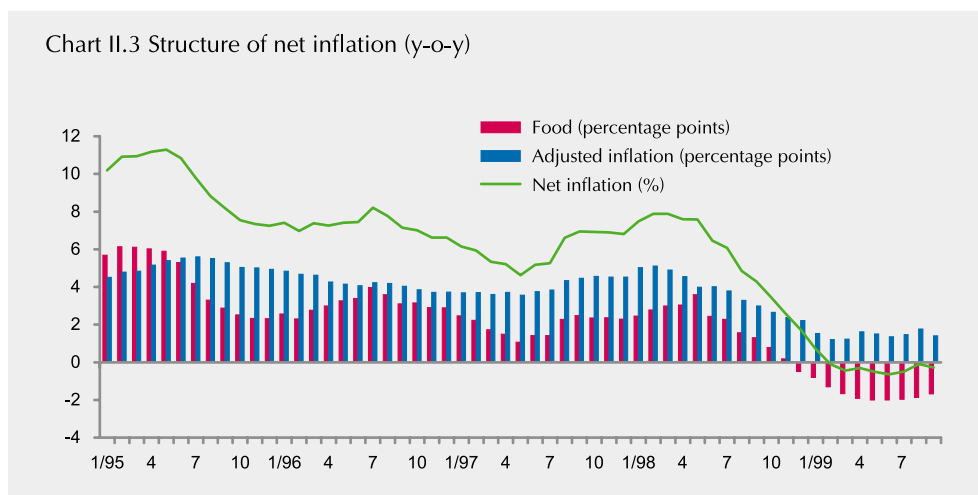
on-month rise in regulated prices in July 1999 (1.9%) was considerably lower than in July 1998 (8.4%) and passed through into the year-on-year outturns (4.4% in July 1999, against 21.1% in July 1998).

Though in 1999 Q3 regulated prices accounted for most of the further overall slowdown in consumer price inflation, they continued to be the main element of year-on-year inflation (Table II.1, Chart II.2).



### Net inflation

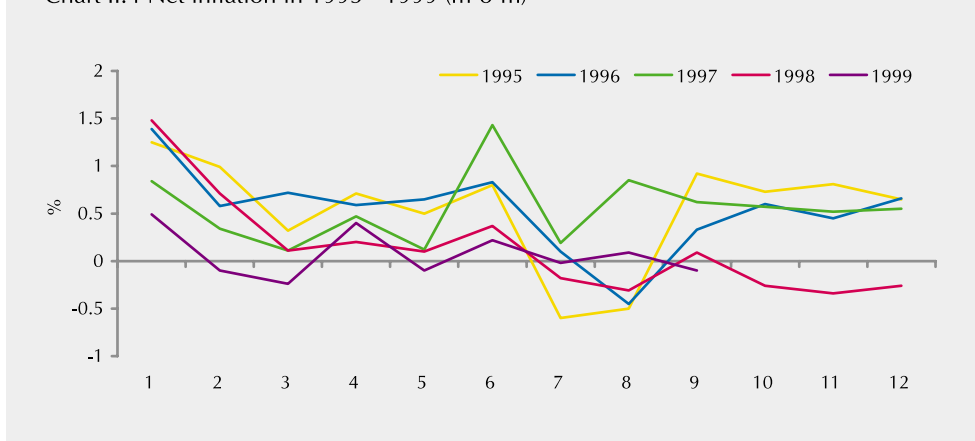
The decline in year-on-year net inflation<sup>1)</sup>, which had been going on for one and a half years, came to a halt in 1999 Q3. Underlying the slight increase in year-on-year net inflation (of 0.3 percentage points to -0.3%) at the close of Q3 against the end of Q2 was a moderate reduction in the year-on-year rate of decline in food prices. The year-on-year adjusted inflation outturns remained at the same level (Table II.1, Chart II.3).



The year-on-year net inflation outturns in 1999 Q3 reflected the month-on-month changes in this period. In July and August, month-on-month net inflation was higher than in the same period a year earlier. In September, however, it dropped below the September 1998 level (Chart II.4).

1) Net inflation is defined as the CPI adjusted for regulated prices and for the effect of other administrative measures (e.g. increases in indirect taxes and abolition of subsidies). Within net inflation, food prices and adjusted inflation are separately monitored and analysed.

Chart II.4 Net inflation in 1995 - 1999 (m-o-m)



### Net inflation factors

In 1999 Q1, net inflation was affected by favourable domestic and external factors of both demand and cost character. These created conditions for a gradual fall in year-on-year inflation. However, starting in 1999 Q2, the mode of action of some of these factors changed, with knock-on effects on net inflation.

A change occurred particularly in external cost factors. The gradual increase in oil prices which started at the beginning of 1999 began to feed through into fuel prices in the Czech Republic and directly affected net inflation in the adjusted inflation segment in 1999 Q3.<sup>2)</sup> Domestic cost factor growth manifested itself only in a slight year-on-year slowdown in the food price decline: in the case of some loss-making commodities, primary producers succeeded at least partly in incorporating costs into prices during bargaining with manufacturers.

Domestic demand was not a source of inflationary stimuli. The pick-up in consumer demand was very weak, and the potential effect of the moderately revived demand on inflation was depressed by other internal and external factors. Food prices continued to be strongly affected by the pricing policy of large sales units. These influences also helped dampen potential wage cost impulses in the corporate sector. However, they did not prevent the increase in fuel prices resulting from the aforementioned growth in oil prices. The broadly stable exchange rate during 1999 Q3 contributed to the stability of net inflation.

### Food prices

The year-on-year food price decline continued into 1999 Q3, although at a slower pace than in the previous quarter (-4.1% in September<sup>3)</sup>, against -5.0% in June). Food prices continued to be determined by a combination of various factors. These affected the relation between supply and demand on the domestic agricultural market, the opportunities for exporting agricultural surpluses and ultimately the prices of key agricultural commodities.

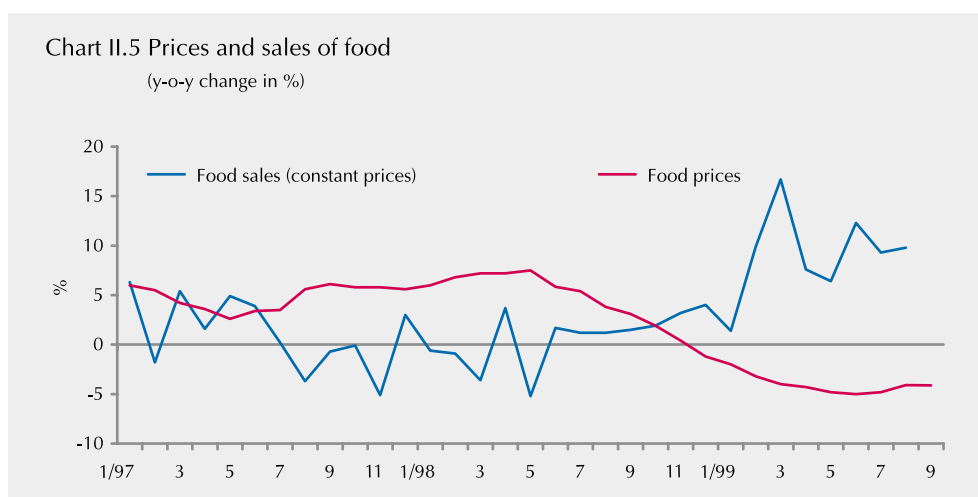
For many commodities, agricultural producer prices remained substantially lower than in previous years.<sup>4)</sup> Only for a few livestock commodities was there a slight increase in prices in 1999 Q3, as a result of pressure from agricultural primary producers on manufacturers. Faster growth in food prices continued to be prevented by the factors described in detail in part III.4 of this report (overproduction of most key domestic agricultural commodities coupled with the continuing decline in some food commodity prices; and the weak negotiating position of agricultural primary producers).

2) Fuel is a part of the consumer basket in the Czech Republic used for calculating the consumer price trend.

3) Adjusted for administrative influences.

4) As a result of (among other things) the Russian financial crisis; surpluses in neighbouring countries significantly increased at the close of the year, thereby strengthening the pressure for imports of agricultural products into the Czech Republic.

Food prices were simultaneously strongly affected by the structural changes on the retail market, in other words the rapidly growing market share of multinational organisations. Their pricing policy effectively curbed any tendency towards a rise in prices and prevented domestic primary producers from increasing their prices. This was one of the main reasons why the ongoing consumer demand revival in 1999 Q2 and Q3, which was directed particularly into the food segment, did not lead to food price inflation but only to a slowdown in the year-on-year price decline (Chart II.5).

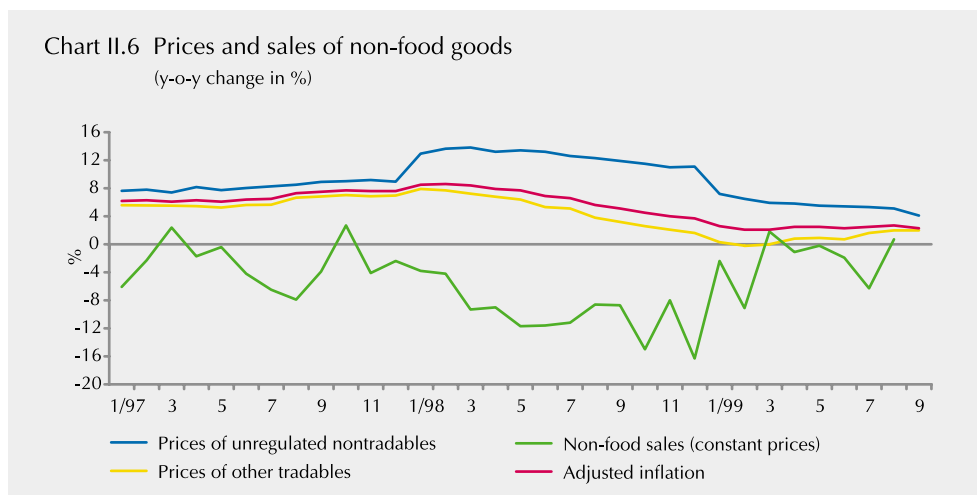


#### Adjusted inflation<sup>5)</sup>

At the end of 1999 Q3, adjusted inflation was at the same level as at the close of Q2 (2.3%). As in the previous quarter, it was affected primarily by the changes in oil prices on global markets, which passed through directly into fuel prices in the Czech Republic. More considerable growth in adjusted inflation continued to be prevented by the subdued domestic demand for non-food goods and services (Chart II.6).

The 7.3% month-on-month increase in fuel prices in July, brought about by the considerable rise in world oil prices and partly fostered by strong seasonal fluctuations, contributed to higher month-on-month and year-on-year rises in the adjusted inflation outturns in this month (0.7% and 2.5% respectively). In August, month-on-month fuel price inflation moderated to 3.7% and month-on-month adjusted inflation fell to 0.3%; however, the year-on-year adjusted inflation outturn, as in the previous month, rose by a further 0.2 percentage points to 2.7%. In September, the year-on-year adjusted inflation outturns fell back to the level achieved at the end of 1999 Q2; with oil prices flat, the decline in the year-on-year outturn (to 2.3%) was due to a fall in a number of other adjusted inflation items (e.g. leisure).

5) Adjusted inflation includes the prices of the non-food items of the consumer basket excluding regulated price items.



### Prices of tradables and nontradables

Another way to look at price developments is to analyse the consumer basket items broken down into tradables and nontradables.<sup>6)</sup> This facilitates a more in-depth analysis of the effects of external and internal factors on prices.<sup>7)</sup> In 1999 Q3, prices in both monitored groups experienced a more considerable change than in the previous quarter.

Tradables prices continued falling in year-on-year terms. By contrast with the previous quarter, however, the decline did not intensify. On the contrary, it weakened substantially (Table II.2). Nontradables continued in their trend towards a slowdown in price growth. However, the intensity of this trend rose sharply against the previous quarter: in 1999 Q2, the year-on-year rise in nontradables prices slowed by 0.6 percentage points, whereas in 1999 Q3 it decreased by 4.7 percentage points owing to the developments in regulated prices. Nevertheless, year-on-year inflation in this commodity group remained higher than the year-on-year CPI outturns for the same period.

Table II.2 Tradables and nontradables prices (in %)

	9/98	12/98	1/99	2/99	3/99	4/99	5/99	6/99	7/99	8/99	9/99											
MONTH-ON-MONTH CHANGE	contrib.		contrib.		contrib.		contrib.		contrib.		contrib.											
Tradables	-0.2	-0.09	-0.5	-0.26	0.4	0.24	-0.3	-0.18	-0.3	-0.19	0.4	0.24	-0.2	-0.10	0.2	0.10	0.3	0.16	0.1	0.07	-0.1	-0.09
Nontradables	0.4	0.18	0.2	0.08	1.4	0.58	0.4	0.15	0.1	0.03	0.1	0.04	0.1	0.02	0.2	0.07	1.5	0.64	0.0	0.00	0.1	0.04
YEAR-ON-YEAR CHANGE	contrib.		contrib.		contrib.		contrib.		contrib.		contrib.		contrib.		contrib.		contrib.		contrib.		contrib.	
Tradables	3.7	2.30	0.7	0.40	-0.8	-0.50	-1.7	-1.00	-2.0	-1.20	-1.8	-1.10	-2.0	-1.20	-2.1	-1.30	-1.4	-0.85	-0.9	-0.52	-0.9	-0.52
Nontradables	17.2	6.50	16.9	6.40	10.3	4.00	9.9	3.90	9.6	3.80	9.3	3.60	9.1	3.60	9.0	3.50	4.8	1.93	4.7	1.90	4.3	1.75

Note: "contrib." means contribution to CPI inflation

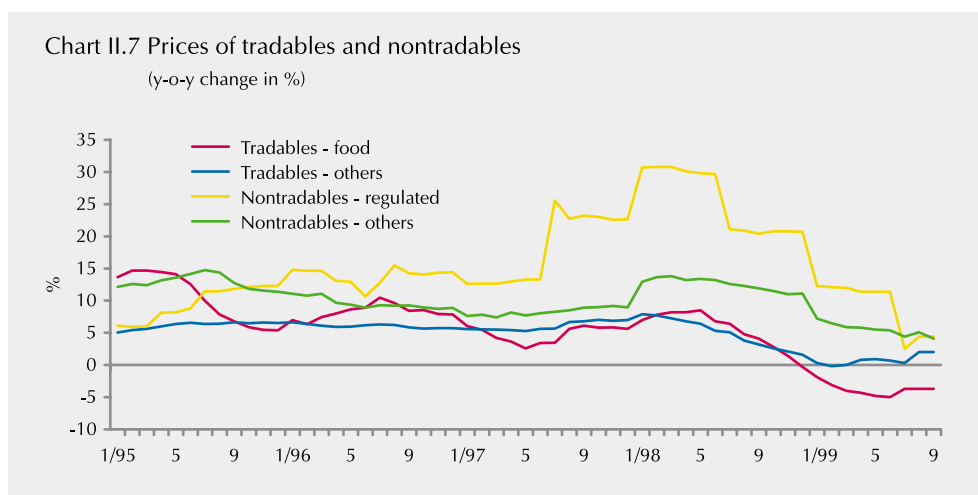
### Prices of tradables

Underlying the slowdown in the year-on-year decline in tradables prices in 1999 Q3 (from -2.1% in June to -0.9% in September) was accelerated growth in other tradables prices and the moderation in the decline in food prices (Chart II.7). Whereas the weakening decline in food prices was caused mainly by

6) CPI = weighted average of the index of food prices, other tradables prices, regulated nontradables prices and other nontradables prices

7) Tradables prices are directly influenced by the external environment; for nontradables, a direct effect from external conditions is not expected, although an indirect effect cannot be ruled out (e.g. in the services item)

internal factors<sup>8)</sup>, the pick-up in other tradables prices was due to external factors. The higher year-on-year growth in other tradables prices in 1999 Q3 (from 0.7% in June to 2% in September) resulted from the aforementioned rising fuel prices and increased excise taxes on fuel in July 1999. Prices of other items in this group not directly affected by fuel prices continued to be subdued by the generally very low level of demand for non-food commodities and the moderate appreciation of the exchange rate at the beginning of 1999 Q3.



### Prices of nontradables

The striking slowdown in year-on-year nontradables inflation in 1999 Q3 against 1999 Q2 (from 9% in June to 4.3% in September) was, in contrast to tradables prices, attributable to internal factors. It was driven in particular by the aforementioned smaller extent of change to prices of regulated items by comparison with a year earlier. This was reflected in a sharp slowdown in year-on-year regulated price inflation (from 11% in June 1998 to 4.3% in September). Growth in prices of other nontradables also moderated (by 1.3 percentage points to 4.1% in September against June) amid continuing subdued domestic demand.

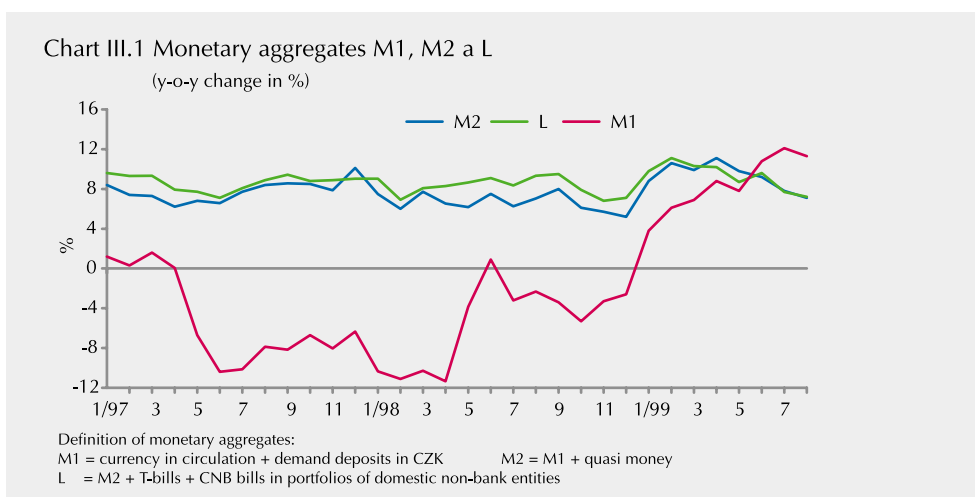
8) Overall, however, the food price level was affected by more factors, among which external factors occupied a significant place (for developments in food world prices etc., see the part on "Net inflation").

### III. INFLATION FACTORS

#### III.1 Money, interest rates and exchange rates

##### III.1.1 Monetary aggregates

The trend of higher year-on-year growth in the monetary aggregates M2 and L, characteristic particularly of February to April of this year, ended in the May–August period, with the rises seeing a consistent and relatively pronounced trend towards decline. The slowdown in money inflow into the economy was associated primarily with the temporary state budget surplus in July and the ongoing low level of lending, despite a certain revival in August. The interest rate cuts have yet to pass through significantly into growth in credit volume. However, they have fed through into the money supply structure, where preferences towards holding liquid funds, particularly demand deposits, are emerging. This is being reflected in high year-on-year increases in M1. Net foreign assets, which with the exception of August did not have a major effect on the money supply, continued to grow.



*The increase in net foreign assets (lending to foreign entities in CZK) testifies to the ongoing departure of the banking system from lending to domestic businesses. This trend is continuing despite the relatively sharp interest rate cuts. It is thus apparent that lending in the Czech Republic is not primarily determined by standard factors (interest rates) alone, but by extraordinary factors, which can be found particularly in the business sphere and in the inadequate legislative environment. The generally low creditworthiness of projects being submitted by businesses to banks for financing testifies to a very slow restructuring process in the microsphere. Interest rate cuts alone thus still do not necessarily mean a revival in bank lending, and the solution to this problem cannot be associated solely with interest rates.*

##### Monetary aggregate M2

Year-on-year M2 growth fell from 9.8% in May 1999 to 7.1% in August, its lowest level since the beginning of the year. The developments between June and August thus confirmed that the May decline in year-on-year money supply growth was not random, but marked the beginning of a three-month decline. The fall in year-on-year growth was accompanied by a decline in month-on-month money supply growth in absolute terms. Between March and May 1999 the average month-on-month increase in the money supply was CZK 10 billion, whereas in the subsequent three months it fell to CZK 5

billion. However, both the nominal and real money supply growth rates remain above the GDP growth rate, although the gap is gradually narrowing.

Table III.1 Increases in seasonally adjusted M2 (in %)

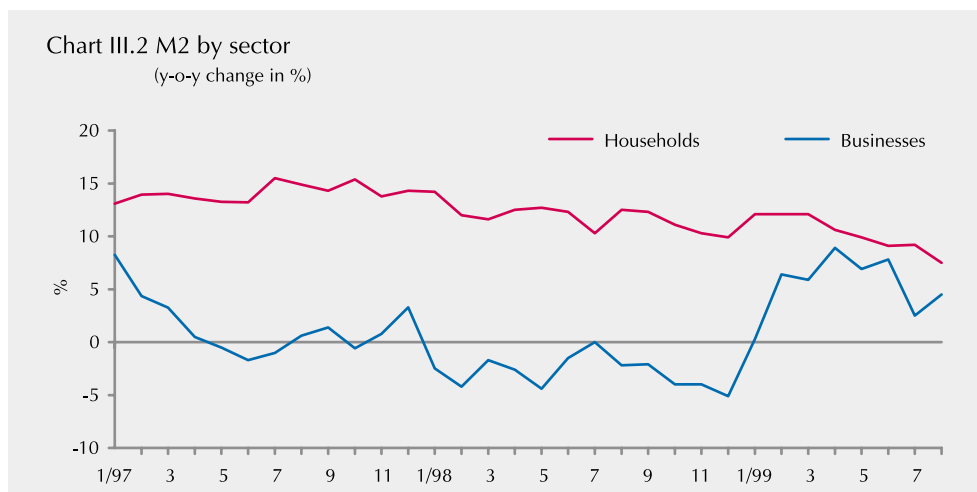
	Annualised for last			
	1 month	3 months	6 months	1 year
May 99	-0.2	8.9	12.4	9.8
June 99	1.2	7.4	12.0	9.2
July 99	-1.2	-0.5	6.4	7.8
August 99	1.2	5.1	7.0	7.1

Note: Seasonally adjusted according to deviations from the series smoothed by the centred moving average method (length 13)

Both the CZK 6.1 billion increase in the money stock in absolute volume in August (which primarily reflects net foreign asset growth) and the annualised seasonally adjusted increases indicate a possible renewal of the upward trend in year-on-year money supply growth.

### Sector structure of M2

As for the money supply sector structure, the comparatively smooth decline in year-on-year growth mainly concerned the household sector and, within that sector, time deposits in particular, which fell by CZK 7.5 billion between May 1999 and the end of August. Because of the low interest rates, funds were shifted from time deposits to demand deposits, whose month-on-month growth doubled by comparison with the previous three months. Compared with the previous months of 1999, however, the steep increase in currency in circulation halted and its volume fluctuated strongly. Following a temporary seasonal decrease in volume in July, in August it rose again, although only slightly above the May level.



Money supply in the corporate sector between June and August 1999 was more volatile. Even in this case, however, a downward trend prevailed and, as in the household sector, money was shifted from time deposits to demand deposits.

Foreign currency deposits rose in May–August by only CZK 3.7 billion (businesses: CZK 2.9 billion and households: CZK 0.8 billion). Adjusted for exchange rate effects, the volume of free currency deposits expanded by CZK 7 billion between May and the end of August 1999. This increase is higher than in the previous three months, but significantly lower than in the May–August 1998 period, when it was CZK 11.5 billion.

### Monetary aggregate L

Between May and the end of August, year-on-year L growth fell from 8.7% to 7.2%. In contrast to the previous three months, when the increases in M2 and L differed in individual months, in June–August they were very similar, as both aggregates were affected by the same factors. For L and M2 alike, the annualised seasonally adjusted increases indicated a turnaround in the previous declining trend.

Table III.2 Increases in seasonally adjusted L (in %)

	Annualised for last			
	1 month	3 months	6 months	1 year
May 99	-0.1	7.1	11.5	8.7
June 99	1.5	8.5	12.8	9.6
July 99	-1.0	1.9	6.0	7.7
August 99	1.6	8.8	8.0	7.2

Note: Seasonally adjusted according to deviations from the series smoothed by the centred moving average method (length 13)

### Monetary aggregate M1

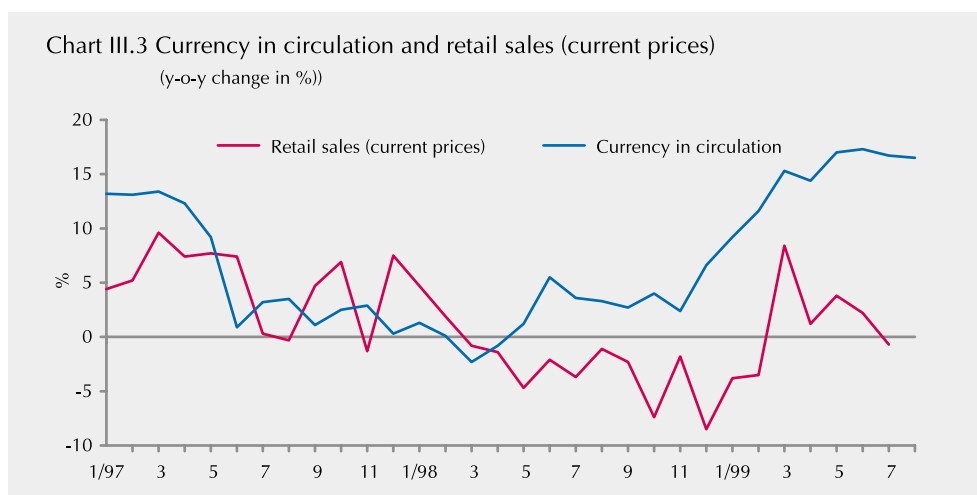
In March–May 1999, the year-on-year rises in M1 were generated mainly by the high growth rate of currency in circulation. Between May and August, by contrast, the high growth (10.8 % in June, 12.1% in July, 11.3% in August) was achieved mostly through the transfer of time deposits into demand deposits resulting from unfavourable interest on time deposits, particularly small-volume ones. The seasonally adjusted annualised increases in this aggregate point to further growth.

Table III.3 Increases in M1 (in %)

	Increase for last			
	1 month	3 months	6 months	1 year
May 99	2.1	4.0	4.7	7.8
June 99	3.4	7.2	2.5	10.8
July 99	-0.9	4.7	8.1	12.1
August 99	3.2	5.8	10.0	11.3

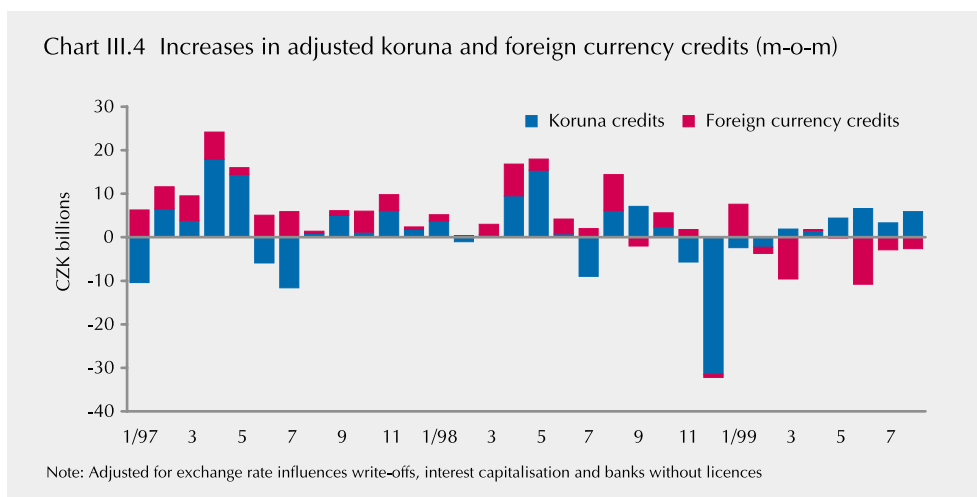
Note: Seasonally unadjusted because of the low significance of seasonal factors

The fall in year-on-year growth in currency in circulation is associated with retail turnover, whose year-on-year growth decreased in June and July.



### III.1.2 Credits granted to businesses and households

The year-on-year decline in credit supply characteristic of the previous months in 1999 continued in June–August. Between May and August, the credit volume fell by CZK 14.4 billion and in August was 5.9% lower than a year earlier. After adjustment for credit write-offs, changes in the koruna's exchange rate, interest capitalisation, and for the influence of banks whose licences have been revoked, the credit volume in August was flat in comparison with May 1999 and was 2.3% lower than in August 1998.



The decline in unadjusted credits was generated primarily by foreign currency credits, which between May and the end of August 1999 fell by CZK 24.6 billion (or by CZK 16.3 billion after adjustment for the exchange rate and other influences mentioned above). They are now 5.5% lower than a year earlier (or 8.5% lower after adjustment). The volume of koruna credits also remains 6% below the August 1998 level (or 1% below after adjustment), despite a rise of CZK 10.2 billion since May 1999 (or CZK 15.8 billion after adjustment). Most of this increase is attributable to consumer credits, the volume of which increased by CZK 8.2 billion to CZK 25.5 billion between May and August.

However, the rise in the absolute volume of koruna credits in August and the resultant revival of credit supply cannot be viewed as expansive, since the factors preventing a boom remain. These factors include the low supply of good-quality projects; the poor economic situation in the microsphere; the high credit burden of businesses; the high level of insolvency; and, on the part of banks, increased prudence and pre-privatisation "wait and see". The seasonally adjusted increases also testify to the limited extent of lending.

Table III.4 Increases in seasonally adjusted total credits (in %)

	Increase for last			
	1 month	3 months	6 months	1 year
May 99	-0.1	-1.2	-3.3	-1.2
June 99	-0.1	-0.3	-0.5	-2.0
July 99	0.1	0.0	-1.4	-1.3
August 99	0.6	0.6	-0.5	-2.3

Note: Adjusted for exchange rate influences, write-offs, interest capitalisation, banks with licences revoked and seasonal factors

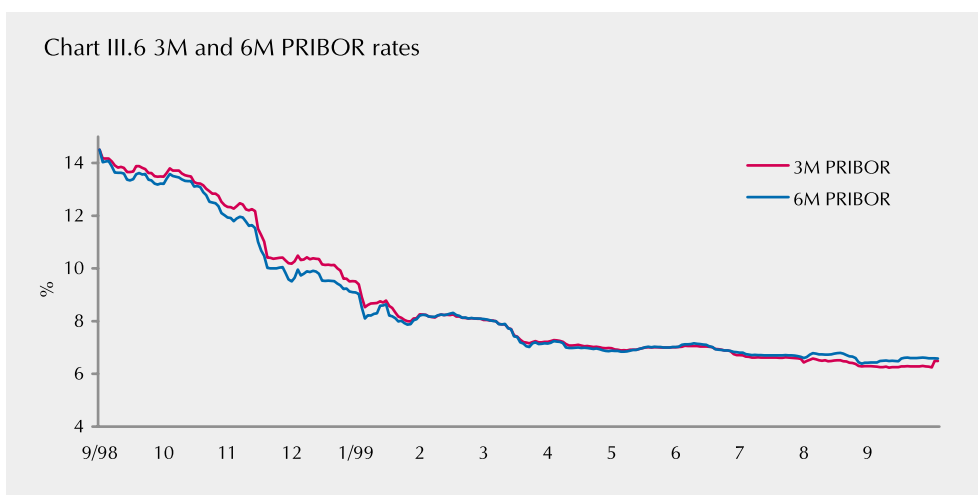
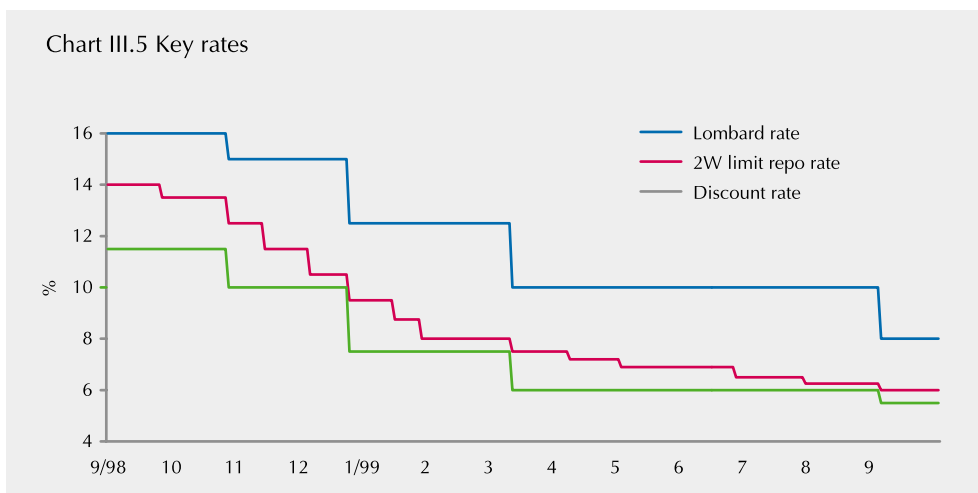
### III.1.3 Interest rates

In 1999 Q3, interest rates were still on the decline, although as in Q2 the rate of decrease was sluggish. This trend was due in particular to the further changes in the CNB's key interest rates. Yield curves remained positive, which indicates that money market entities were expecting a modest increase in

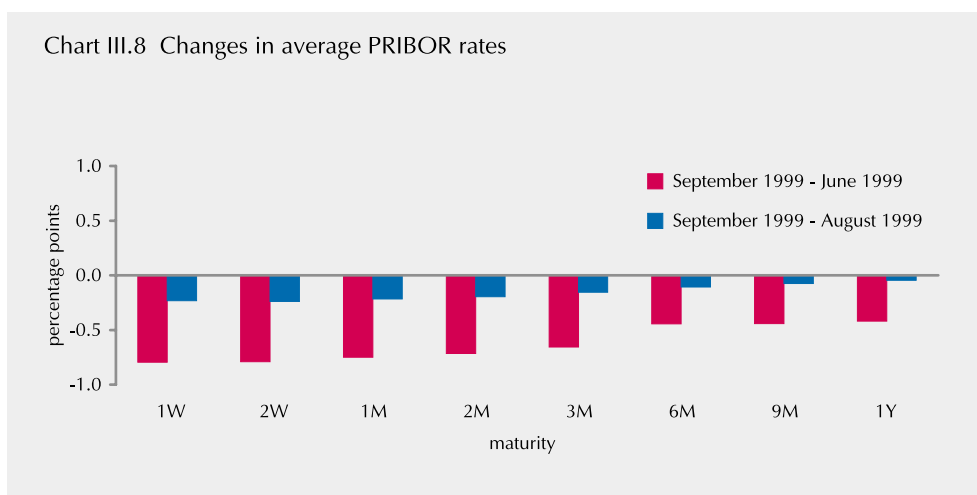
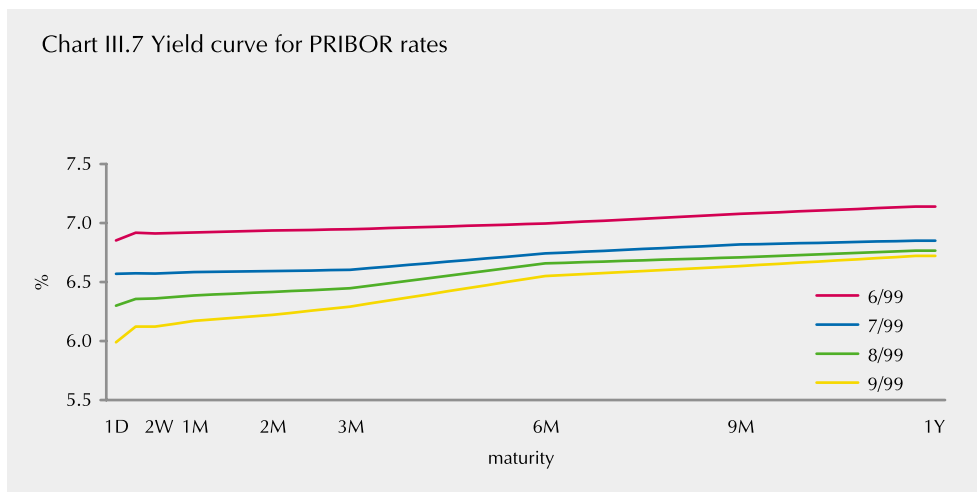
interest rates in the future. The interest rate differential was affected, in addition to the fall in interbank market deposit interest rates, by rising interest rates abroad. These factors did not have a substantial impact on the koruna's exchange rate. The lower money market rates fed through to a continuing fall in nominal client interest rates. Credit and deposit rates were at an all-time low in the history of the Czech Republic.

### III.1.3.1 Short-term interest rates

From around the end of March, the decline in short-term interest rates slowed. This was linked with the changes in the CNB's key interest rates and with expectations regarding the future interest rate level. Whereas in Q1 the repo rate was cut by 2 percentage points and in Q2 by 1 percentage point, in Q3 it was lowered by 0.5 percentage points in two phases. First it was cut by 0.25 percentage points to 6.25%, effective 30 July, then again by 0.25 points to 6.0%, effective 3 September. In addition, the Lombard rate was decreased by 2 percentage points to 8.0% and the discount rate by 0.5 percentage points to 5.5%. By comparison with previous changes, then, the decreases were not sizeable. Consequently, PRIBOR rates did not show any significant movement compared with the previous period. The PRIBOR yield curve remained upward sloping throughout the period under review, with only a minor change in its positive slope.

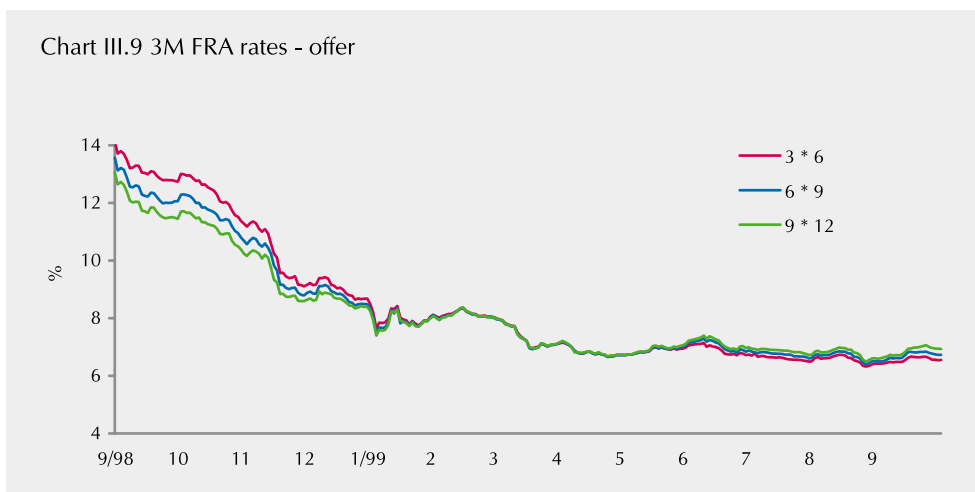


In keeping with the repo rate decline, the short end of the PRIBOR yield curve shifted to a lower yield level, while interest rates at the curve's longer end fell to a lesser extent. This indicated market expectations that the level of inflation and interest rates would increase over the future period. Overall, compared with June 1999, the average 1W PRIBOR rate dropped by 0.8 percentage points to 6.1% and the 1Y PRIBOR rate by 0.4 percentage points to 6.7%. The change in the yield curve's slope is clear from this, too; the margin between the two rates stood at +0.60 percentage points in September. The bid/offer interest rate spread was moving throughout the quarter between 0.2 and 0.3 percentage points.



FRA interest rates developed in line with PRIBOR rates and responded more sensitively only to some stimuli. Average FRA rates at individual maturities fell in September by between 0.3 and 0.4 percentage points in comparison with June, despite a modest rise at the end of September. The FRA quotations at the end of September indicated (as did the shape of the PRIBOR yield curve) rates almost unchanged until the end of 1999, followed by a slight increase (of 0.2 percentage points within a six-month horizon and of 0.4 percentage points within a nine-month horizon in the case of 1M PRIBOR rates).

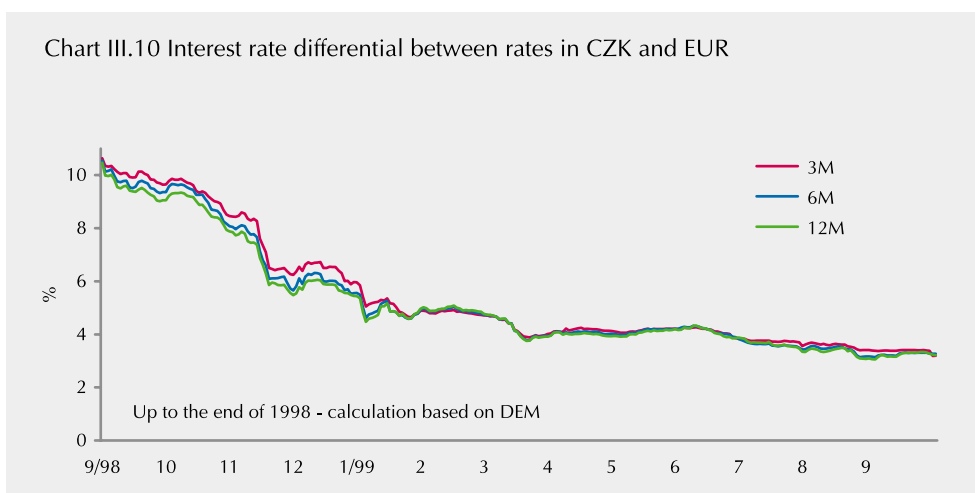
Chart III.9 3M FRA rates - offer



The short-term bond market is at present composed of T-bills only. There were nine issues on the primary market, with 3M, 6M, 9M and 1Y maturities. Investor demand in the auctions constantly exceeded supply. The declared gross yields were therefore always lower than the set limit, moving between 6.1% and 6.5% depending on maturity and on the situation on the market. On the secondary market, T-bill yields more or less mirrored PRIBOR rates.

The interest rate differential (PRIBID/CZK–LIBOR/EUR) was affected both by the movements on the domestic deposit market and by changes in foreign interest rates. Key rates were increased in the USA and UK, so the interest rate differential vis-à-vis those countries narrowed more than vis-à-vis EU countries (the ECB's repo rate remained unchanged at 2.5%). Owing to the fall in domestic interbank deposit market rates, the interest rate differential dropped by between 0.4 and 0.6 percentage points during the period under review. At the end of September, the interest rate differential vis-à-vis the euro had fallen to 3.2–3.4 percentage points depending on individual maturities. Vis-à-vis the dollar, it stood at around 0.5 percentage points. These historical lows were not reflected in weaker foreign investor interest in the Czech koruna. They indicate rather that the current capital inflow is being motivated by stimuli other than interest rate arbitrage.

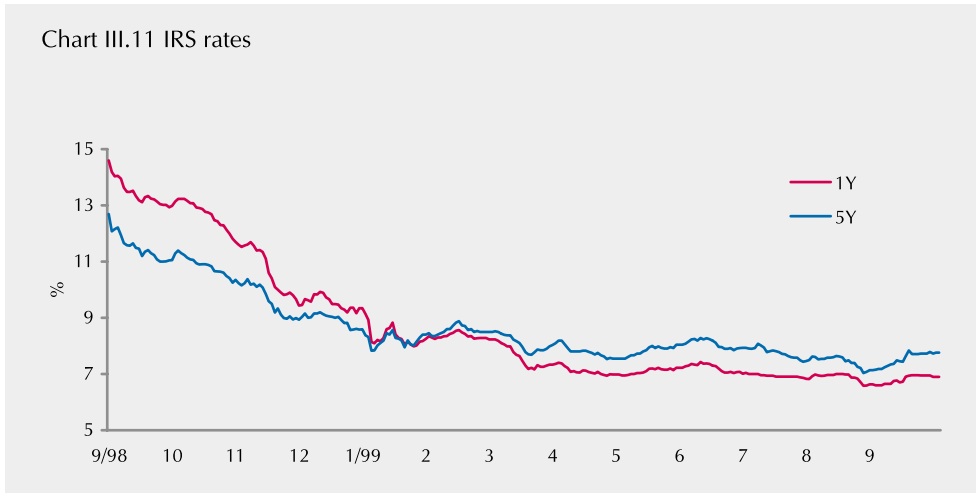
Chart III.10 Interest rate differential between rates in CZK and EUR



### III.1.3.2 Long-term interest rates

Long-term IRS rates were gradual declining until the beginning of September, after which they started rising. As with short-term rates, however, they did not change significantly. By comparison with June, the 1Y rate was down by 0.40 percentage points, the 5Y rate by 0.57 percentage points and the 10Y rate by 0.65 percentage points in September.

Chart III.11 IRS rates



The slope of the IRS yield curve changed in July from positive to slightly parabolic owing to a fall in rates at over-6Y maturity. This was a result of the Czech Republic's expected membership of the EU in the medium-term horizon and the resultant convergence of longer-term interest rates. Despite a subsequent drop in the yield curve's middle part, this shape was maintained. In September, the average 5Y-1Y spread stood at +0.73 percentage points (against +0.86 percentage points in June) and the 10Y-1Y spread was +0.76 percentage points (against +1.01 percentage points in June). From the medium-term perspective, therefore, the market was expecting a modest increase in interest rates followed by stabilisation.

Chart III.12 Yield curve for IRS rates

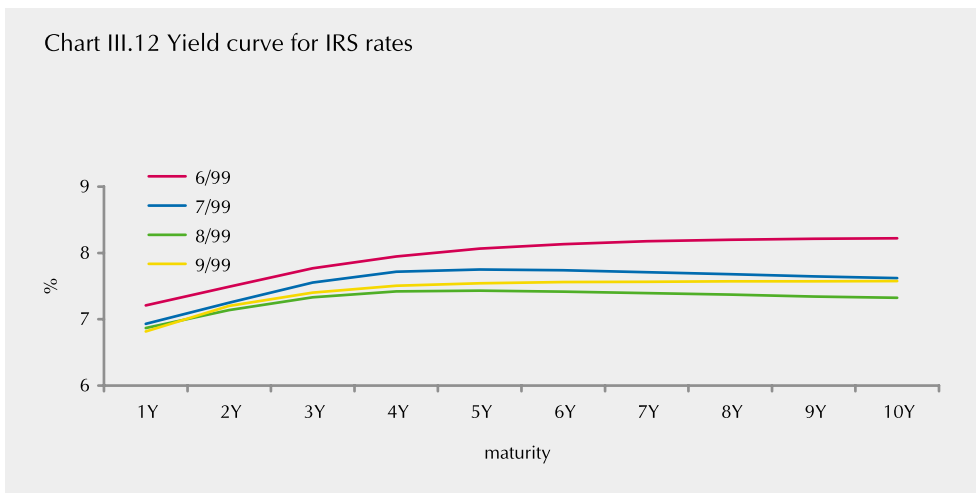
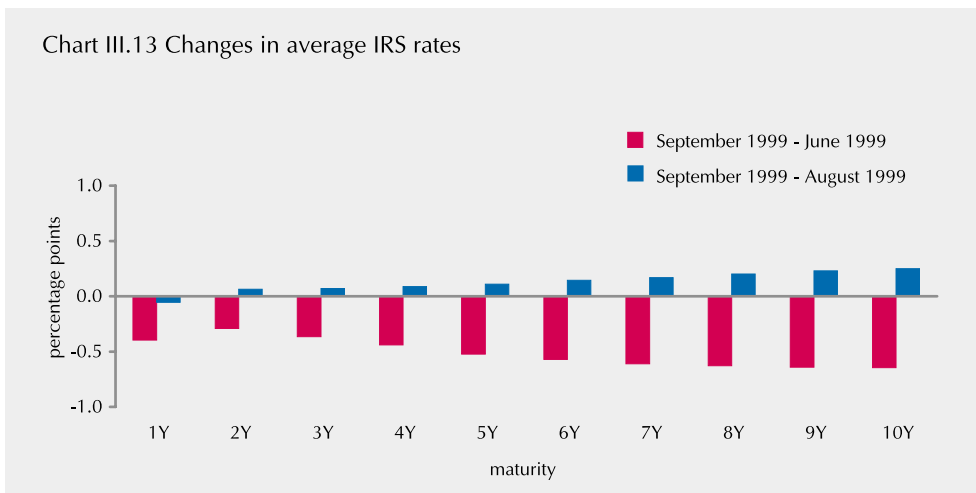


Chart III.13 Changes in average IRS rates

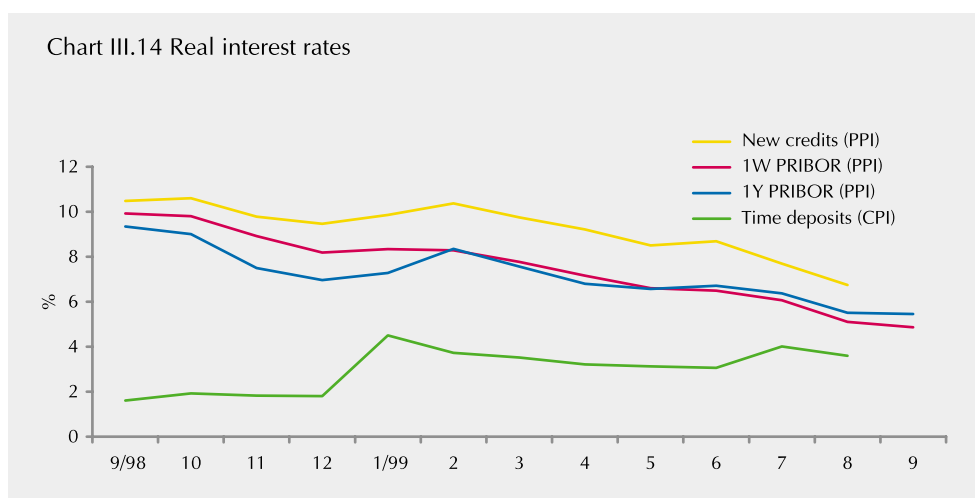


On the bond market, there was strong interest in issues subject to the "older" taxation regime, i.e. those issued prior to 1 January 1998, in the case of both government and corporate bonds. The shortage of liquid issues triggered a rise in the prices of these issues. The government bond yield curve therefore moved to a lower yield level while maintaining its positive slope. In comparison with June, the 4Y–1Y spread was unchanged in September at +0.9 percentage points. At the end of July, there was a primary auction of a government bond worth CZK 5 billion, with 5Y maturity and a 7.30 % coupon. Though interest in the auction, particularly from foreign investors, was not as high as in the past, the issue was subscribed. On the corporate bond market, there were three issues totalling CZK 11 billion. Issuance of koruna eurobonds also continued. At the end of September, their outstanding volume totalled CZK 57.1 billion. The koruna eurobond yield curve is moving at a higher level than the government bond and IRS curves.

### III.1.3.3. Client interest rates

Client interest rates continued in their downward trend. Interest rates on newly granted credits stood at 8.0 % in August, down by almost 4 percentage points since the beginning of 1999. Deposit interest rates saw a similar trend, with demand deposit rates sliding by 3.7 percentage points to 5%. The interest rate margin between credit and deposit rates is also narrowing. Since the start of the year, it has been fluctuating slightly above the 4 percentage point level, and in August stood at 4.3 percentage points<sup>9)</sup>.

Following a temporary increase at the beginning of the year, real interest rates<sup>10)</sup> also started falling. Owing to the level of price indices, real interest rates deflated by the PPI are falling more quickly. Interest rates on newly granted credits in August stood at 6.5% in CPI terms and at 6.7% in PPI terms. During 1999, real interest rates on time deposits have been moving between 3% and 4% in CPI terms, their highest values ever.



### III.1.4 The exchange rate

In Q3, the koruna's daily exchange rate against the euro was relatively stable, fluctuating between CZK 36.2/EUR and CZK 36.8/EUR. Not until mid-September did a more pronounced trend emerge towards a strengthening of the koruna towards CZK 36.0/EUR. This level was exceeded at the end of the month. The exchange rate responded only temporarily to the verbal interventions of CNB representatives. The

9) The decline in credit and deposit interest rates is gradually moderating. This trend is a result not only of the smaller extent of cuts in the CNB's key interest rates, but also of closer links between commercial bank reference rates and PRIBOR rates with longer maturity, which the central bank does not influence directly. It thus cannot be ruled out that, despite further cuts in very short rates, a similar effect on credit and deposit interest rates need not be achieved, particularly in the situation where the financial market expects a certain rise in inflation. The lower fall in credit and deposit rates than the decline in the CNB's key interest rates is reflected in the positive shape of the PRIBOR yield curve.

10) Theoretically, the best way of calculating real rates is to deflate current nominal interest rates by expected inflation. For this reason, the CNB has initiated statistical surveys of the inflation expectations of the financial market, businesses and households. However, the time series for these are still short. Consequently, real interest rates are calculated by deflating nominal interest rates by the current CPI and PPI outturns.

appreciation trend is generally attributed to the information on foreign direct investment inflow into the Czech Republic, especially regarding the expected inflow.

As in the past, the euro/dollar fluctuations on international financial markets showed up in much greater volatility of the koruna's exchange rate against the dollar than against the euro. Nevertheless, as against the euro, the koruna started strengthening against the dollar from mid-September.

The koruna's real exchange rate against the Deutsche Mark (the euro) has been appreciating modestly since the beginning of 1999. In Q3, this appreciation trend gained strength. The low inflation outturns in both the Czech Republic and EU countries are of no significance for the koruna's appreciation. The trend is being fully determined by the CZK/EUR nominal exchange rate, which, adjusted for short-term deviations, can be characterised as having an arc-like trajectory leading through the weakening of the currency at the beginning of the year to its strengthening over the past six months.

Despite this appreciation, the real and nominal strength of the koruna against the Deutsche Mark is still lower than in 1998.

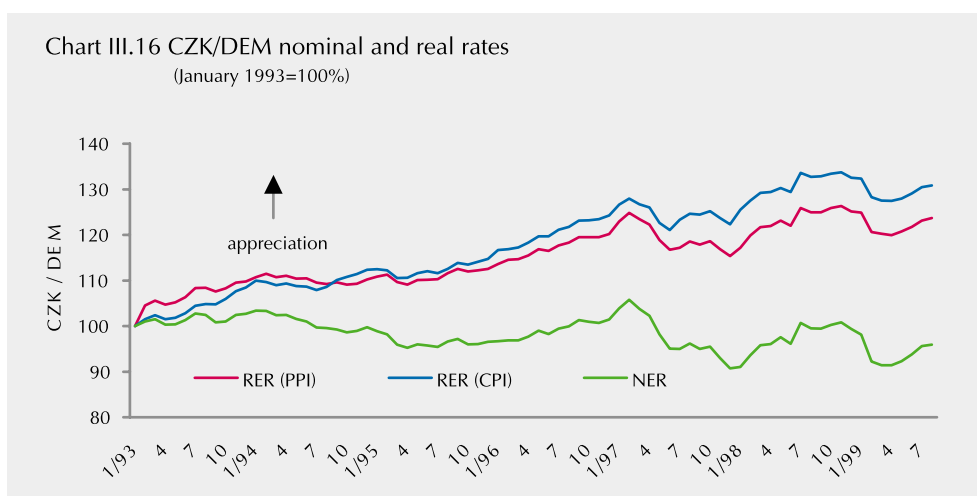
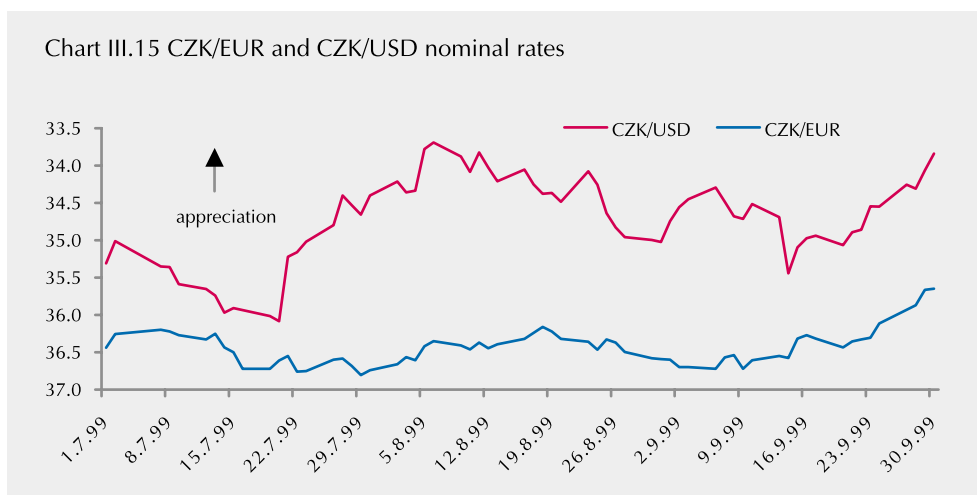
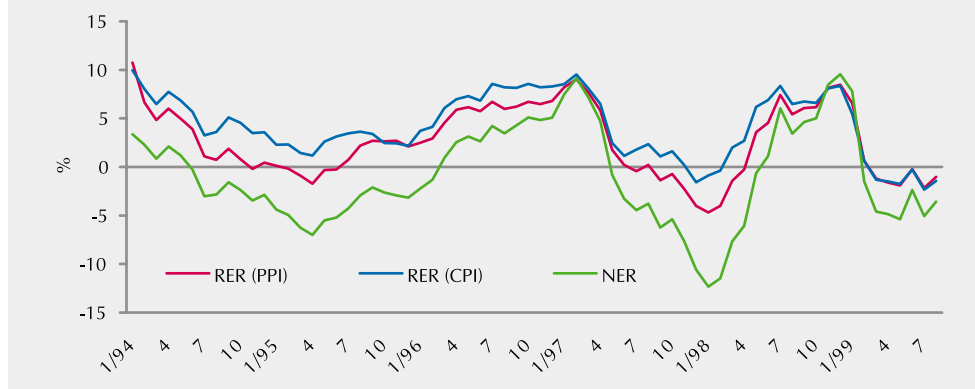


Chart III.17 Changes in CZK/DEM real and nominal rates (y-o-y)



### III.1.5 Capital flows

The financial account of the Czech Republic showed a surplus of CZK 8.3 billion for 1999 H1. In comparison with the same period a year earlier, this represents a decline of more than 80%. However, the small overall net capital inflow hides big changes within the capital flow structure. Capital in the form of foreign direct investment is experiencing a record inflow. This inflow is being offset by debt capital outflow through the banking sector.

Table III.5 Financial account in the first half-years of 1993 - 1999 (in CZK billions)

	1993	1994	1995	1996	1997	1998	1999
Financial account	59.1	36.5	78.0	24.3	16.8	52.1	8.3
Direct investment	11.0	6.1	10.3	11.9	13.3	38.4	42.6
- Czech abroad	-0.9	-2.9	-0.5	-0.6	-0.7	-1.1	-2.5
- Foreign in Czech Republic	11.9	9.0	10.8	12.5	14.0	39.5	45.1
Portfolio investment	27.1	16.9	9.8	7.5	-4.3	27.2	8.5
- Czech abroad	-6.0	-0.3	-7.4	0.0	3.5	9.2	-8.0
- Foreign in Czech Republic	33.1	17.2	17.2	7.5	-7.8	17.9	16.5
Other investment	21.0	13.5	57.9	4.9	7.8	-13.5	-42.8
1. Long-term investment	8.9	8.4	28	43.5	26.0	-3.2	2.5
- Credits granted abroad	3.7	5.7	1.8	-2.2	-5.4	-3.2	-6.5
- Credits accepted from abroad	5.2	2.7	26.2	45.7	31.4	0.0	9.0
2. Short-term investment	12.1	5.1	29.9	-38.6	-18.2	-10.3	-45.2

The inflow of foreign direct investment in 1999 H1 reached CZK 45.1 billion, the highest figure since the establishment of the Czech Republic and a year-on-year rise of 14%. Foreign investor interest was focused on the area of services and trade, which accounted for almost 30% of the total inflow. In particular, this involved investment in the banking sector, power distribution companies and the establishment of retail chains. The largest investors were Germany (25.8%), the Netherlands (16.2%) and the USA (13.2%). Czech direct investment abroad totalled CZK 2.5 billion. The net inflow of direct investment was CZK 42.6 billion.

By comparison with foreign direct investment, capital inflow in the form of portfolio investment was less significant. The net inflow of portfolio investment stood at CZK 8.5 billion in 1999 H1, a decline of almost 70% against the same period a year earlier. Foreign investment in domestic securities was at roughly the same level as in 1998, reaching CZK 16.5 billion. However, the inflow structure changed

significantly. Foreign investor interest in equity securities fell sharply (by almost 50%), while interest in debt securities rose. The decline in net inflow of portfolio investment was largely due to a change in foreign investor behaviour. In 1998, capital involvement abroad was on the decrease, whereas this year residents have been increasing their investments, particularly in equity securities. Portfolio investment abroad by residents rose by CZK 8.0 billion.

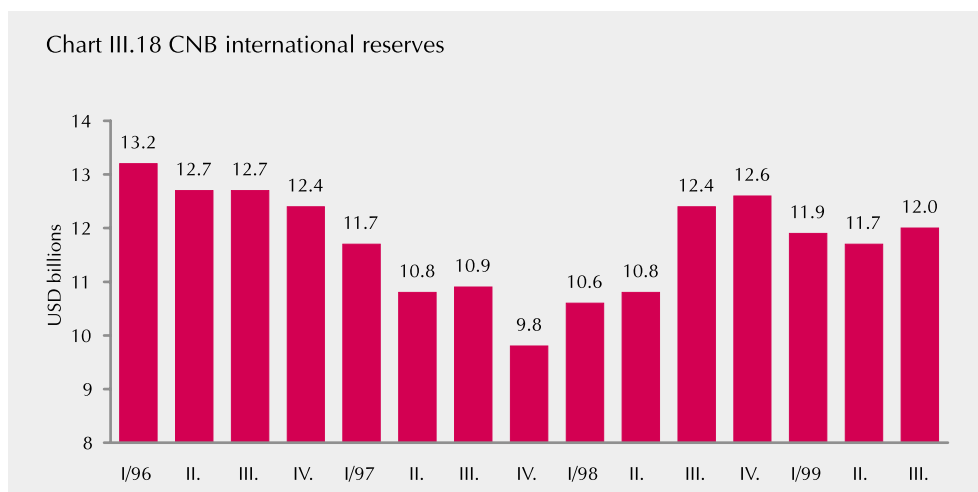
Other long-term investment showed a surplus of CZK 2.5 billion in 1999 H1. The considerable fall in net long-term investment between 1998 and 1999 in comparison with 1995–1997 is due in large part to an outflow of long-term funds from the banking sector. The net outflow of long-term capital in the banking sector was CZK 7.5 billion. The main outflow item was an increase in foreign currency credits provided to non-residents.

The area of government credits also saw a modest outflow of capital abroad totalling CZK 3.3 billion. This primarily involved repayment of credits provided earlier by G-24 nations and the World Bank.

In the corporate sector, the net inflow of capital continued, amounting to CZK 13.8 billion in 1999 H1 against CZK 15 billion a year earlier. Financial credits drawn from foreign entities (CZK 10.7 billion) accounted for most of the inflow, while increased net liabilities under supplier credits made up the remaining CZK 3.1 billion.

Other short-term investment experienced a net outflow of capital abroad of CZK 45.2 billion. This was due in particular to a CZK 67.7 billion rise in the short-term assets of commercial banks (short-term time deposits with foreign banks, of which CZK 42.4 billion in korunas). Koruna funds are used by non-residents for direct and portfolio investments.

In 1999 Q3, the CNB continued to participate to only a limited extent in the foreign exchange market. It purchased foreign currencies totalling CZK 2.4 billion to repay the state's pre-1990 liabilities as well as EBRD and G-24 credits, including interest. International reserves increased modestly from USD 11.7 billion as of 30 June to USD 12.0 billion as of 30 September, mainly because of the appreciation of the euro against the dollar. In koruna terms, the value of the reserves decreased from CZK 414.3 billion as of 30 June to CZK 406.2 billion as of 30 September, mainly because of the koruna's appreciation.



### **Implications for inflation**

In the period from May to the end of August 1999, the trend of higher year-on-year money supply growth halted, largely because of the temporary state budget surplus in July and the ongoing low credit supply. With the economy picking up slightly, the gap between the growth rates of monetary aggregates and nominal output thus probably narrowed.

In Q3, interest rates were for the most part still on the decrease. However, the positive slopes of all yield curves on the financial markets indicate expectations of a modest rise in interest rates in the future, related to the higher expected inflation. These expectations have been visible since around May. Since then, they have been shifting in time, although at an ever-decreasing level.

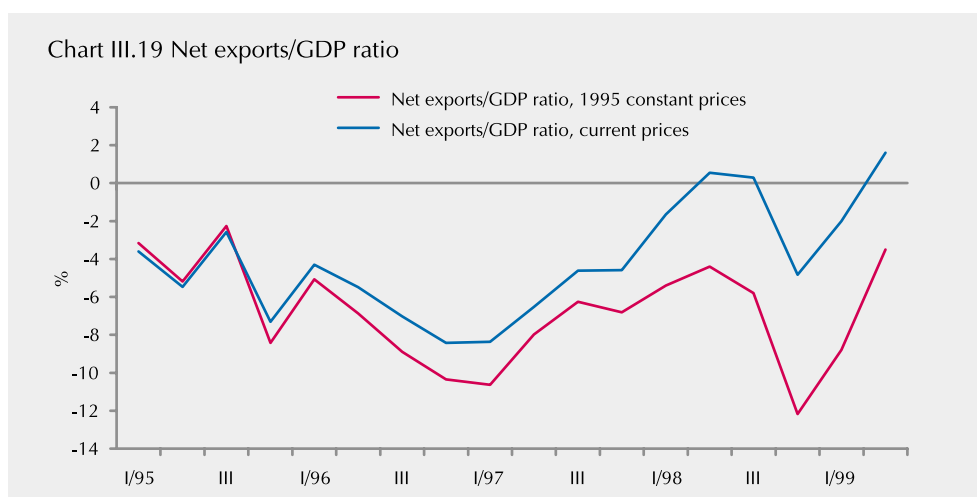
The exceptionally high inflow of non-debt capital has so far been cancelled out to a large extent by debt capital outflow through the banking sector. However, on the foreign exchange market, demand for the koruna has been outweighing supply, triggering an appreciation of the koruna. This trend is subduing inflationary pressures in the economy.

## III.2 Demand and output

In 1999 Q2, the gradually accelerating economic decline was interrupted by a moderate GDP recovery. This was largely due to a marked rise in goods exports (accompanied by slower growth in imports) amid improving sales opportunities for Czech production in advanced market economies. Smaller contributions came from the continuing revival in household consumption and a slight rise in government consumption. Investment demand continued to fall in year-on-year terms, though at slower pace than in 1999 Q1.

### III.2.1 Net external demand

In 1999 Q2, net external demand was favourably affected by the turnaround in exports. The renewed growth in exports of goods and services<sup>11)</sup> in 1999 Q2, accompanied by the slower rise in imports of goods and services, led to a major reduction in the external imbalance (negative net exports) compared both with the same period a year earlier and with 1999 Q1. In absolute terms, negative net exports<sup>12)</sup> were close on CZK 10 billion (CZK 12.2 billion; Table III.7). This absolute decrease, together with the pick-up in economic growth, fed through into an improvement in the relative characteristics of the external imbalance: the share of negative net exports in GDP fell by 0.9 percentage points to 3.5%.

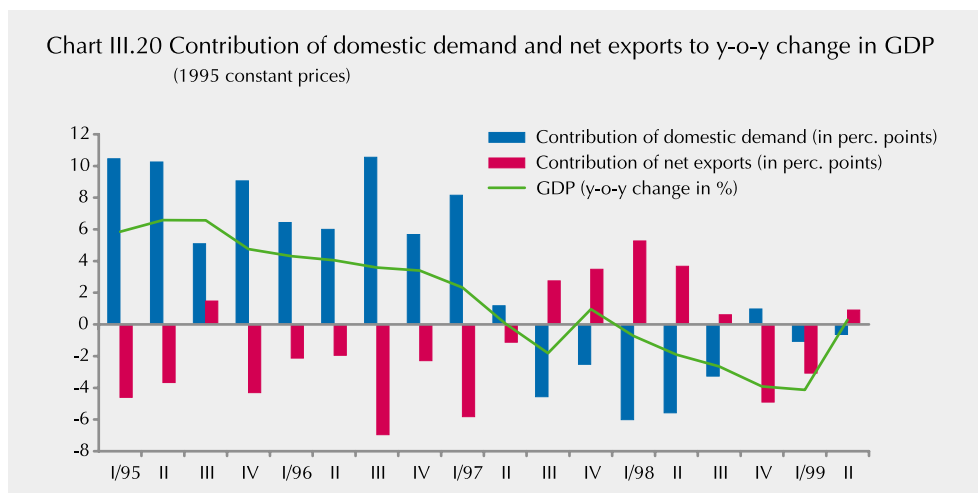


With respect to GDP, the resumed year-on-year growth in exports (4.9%) combined with the slower rise in imports (3.4%) became the main factor in the economic growth recovery in 1999 Q2 (Chart III.20).

11) In GDP methodology, 1995 constant prices.

12) Net exports = exports of goods and services - imports of goods and services in 1995 constant prices

The favourable export trend was the result of increased exports of goods; exports of services were lower than in the same period a year earlier.



The goods exports went mostly to advanced market economies. The year-on-year pace of export growth to these countries was substantially higher than in 1999 Q1 (up from 4.3% to 19.7%)<sup>13)</sup>, with exports to Germany rising 20%. Another factor contributing to the more favourable export trend was the renewed year-on-year weakening of the koruna against the US dollar and the Deutsche Mark (the euro) since the end of 1999 Q1. Some improvement was also recorded in exports to transition economies (including the CIS), where demand for Czech imports continued to recede, but at a much slower rate than in Q1 (-28.3% and -11.4% respectively by year-on-year comparison). The increasing demand for products with higher value added<sup>14)</sup> was another positive feature.



Imports grew more quickly than in 1999 Q1, but lagged behind exports by 1.5 percentage points. With the import propensity of GDP remaining high<sup>15)</sup>, imports of goods for intermediate consumption again accounted for the largest part of the total (56%). Following the steep decline in 1999 Q1, their renewed year-on-year growth in 1999 Q2 (2.1%) was associated with rising prices of raw materials, oil in

13) The data on the structural characteristics of exports and imports are in current prices.

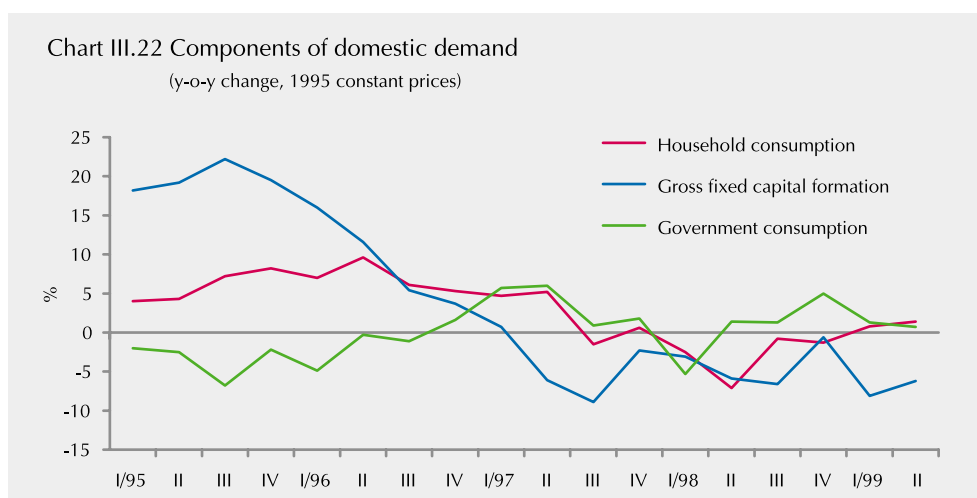
14) Engineering and electrical engineering products accounted for 50.4% of overall exports, up by 2.6 percentage points by year-on-year comparison; exports of these commodities showed year-on-year growth of 15.2%. By contrast, exports of food, raw materials and semi-manufactures continued to drop (by 5.1%), largely because of falling food prices and subdued external demand for these commodities.

15) The high import propensity of GDP is largely due to the development of production collaborations abroad. Compared with 1999 Q1 it fell slightly, but remained high (79.6% and 78.6% respectively)

particular, and with the overcoming of the recession in domestic industrial production. However, the highest year-on-year growth (12.1%) was seen in imports for personal consumption (after a slight drop in 1999 Q1). Investment imports were up by only 0.9%.

### III.2.2 Domestic demand

During Q2, the year-on-year decline in domestic demand again moderated (to -0.6%), largely thanks to the ongoing recovery of consumer demand. Government demand also increased in year-on-year terms, but against 1999 Q1 its growth slowed to 0.7%. Another factor in the slowdown in decline of domestic demand was investment demand, which decreased less in Q2 than in Q1.



#### Investment demand

The year-on-year decline in gross fixed capital formation in Q2 slowed by 1.9 percentage points against Q1 to -6.2%. The rate of decline in investment demand indicated that the gradual lowering of interest rates by the central bank had yet to affect investment activity. The main causes of the persisting low level of commercial bank credit activity are the same as before: the incomplete restructuring of the corporate sector (including ownership relations), the current financial condition of businesses, uncertainties in expectations of future domestic and external demand, and strict lending criteria. All this is resulting in a lack of projects acceptable to commercial banks with respect to lending.

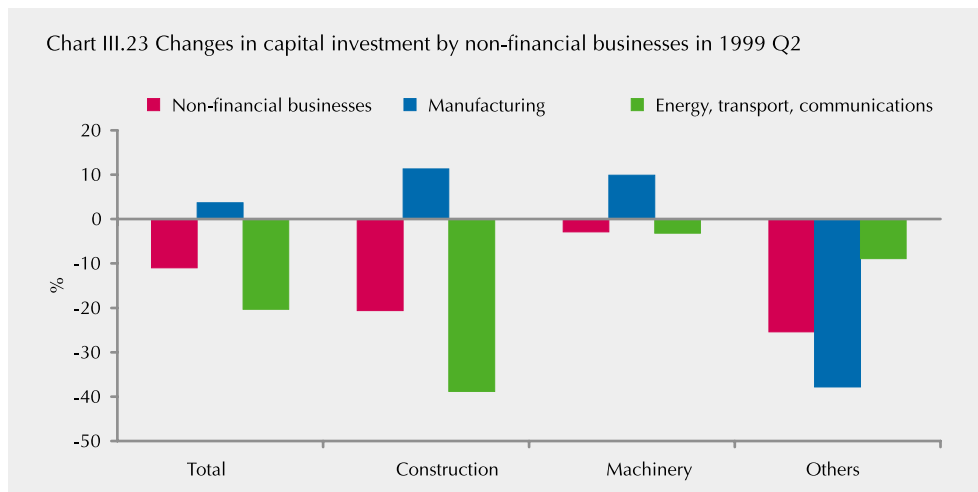
Another cause of the relatively large year-on-year decline in investment demand can be seen in the ongoing contraction of investment in areas that underwent the main wave of restructuring in previous years (e.g. the financial sector). However, as in the previous quarter, the decline in investment demand was not universal. Investment rose in numerous branches and the rate of investment remained fairly high (26.9%).<sup>16)</sup> The influence of foreign direct investment – as a source of financing for fixed investment – was insignificant.

The moderation of the year-on-year investment decline in 1999 Q2 against Q1 was attributable above all to government sector investment demand. The year-on-year rise in capital expenditures of public budgets was so large<sup>17)</sup> that the decline in government investment slowed by more than 20 percentage points compared with Q1 (to -1.3%). The financial institutions sector also saw a slowdown in year-on-year decline in investment demand. Here, the decline was still sizeable (-25.5%), but around half that

16) Rate of investment = ratio of gross fixed capital formation to GDP in 1995 constant prices

17) Capital expenditures of public budgets in current prices grew by 28.6% against the same period a year earlier.

in Q1. Household investment demand experienced a substantial change as well: following a year-on-year decline of 8.6% in Q1, it picked up again in Q2 owing to a considerable expansion of investment by natural persons–entrepreneurs (6.8%). Investment in individual housing construction saw only modest growth.



The investment demand developments in the above sectors partly offset the deepening decline in the non-financial businesses sector (of -11% against a year earlier), which accounts for almost 70% of total capital investment.<sup>18)</sup> This drop was largely due to a further reduction in construction investment, whereas engineering investment saw only a moderate decline. Investment growth in this segment was recorded primarily by large firms under foreign control (up by 30.8% from the same period a year earlier in current prices). The value of investment in all other forms of non-financial business ownership dropped in year-on-year terms. By sector, the rise (of 3.7%) in investment in manufacturing, which accounted for 26% of overall capital investment, was a positive factor.

### Consumer demand

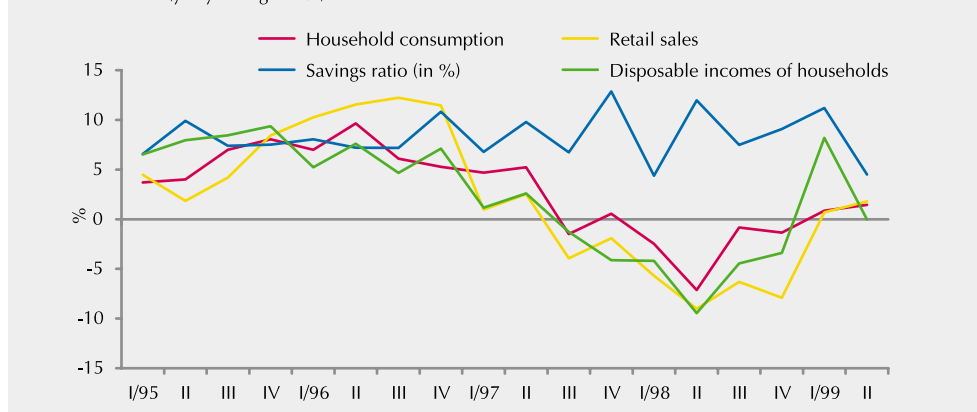
The recovery in consumer demand continued into 1999 Q2. The further increase in year-on-year household consumption growth to 1.4% in Q2 indicated that the moderate growth in Q1 (0.8%) had really meant a reversal in the existing trend. This was supported by renewed growth in all components of real household incomes in Q1, brought about by rising disposable nominal household incomes and falling inflation. In Q2, however, year-on-year real income growth slowed sharply to 0.2%<sup>19)</sup>, which means that the slight acceleration in consumer demand growth was achieved in this quarter with a substantially lower propensity to save<sup>20)</sup> than in Q1. At the same time, household consumer loans recorded higher year-on-year growth. Chart III.24 illustrates the above facts.

18) The following four branches accounted for more than half (51.8%) of manufacturing investment: production of two-cylinder motor vehicles (18.1%), food and beverages, metal production and production of non-metallic mineral products. The biggest year-on-year increases were recorded in manufacture of office equipment and computers (200%) and in coke production and oil refining, metal production, and manufacture of medical, precision, optical and time-measuring appliances. Investment in electrical engineering and engineering production in Q2 increased by 4.5% against Q1, but its share in the total dropped by 8.1 percentage points to 31.1%. The decline in investment in infrastructure (energy, transport, communications) intensified in Q2 to 20.3%.

19) All basic components of household incomes contributed to the fall in growth of real incomes – see Table III.11. The year-on-year fall in other incomes was caused mainly by falling interest yields on deposits. Real disposable incomes of households remained flat in year-on-year terms.

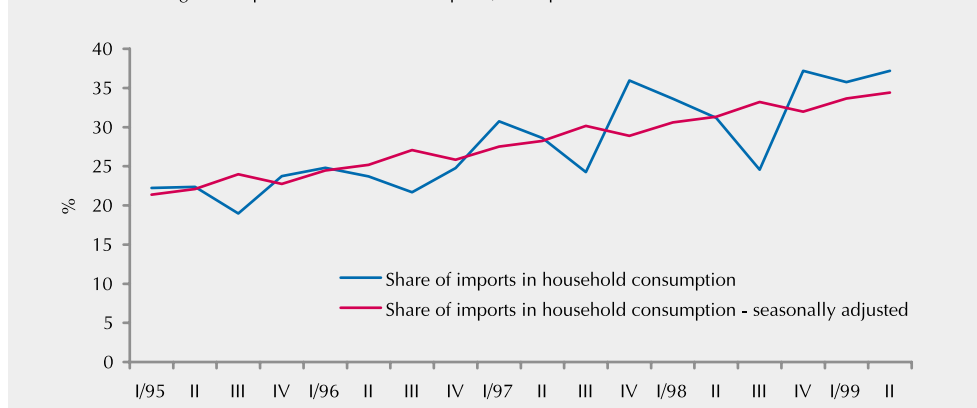
20) Savings ratio (CNB methodology) = change in net financial assets/disposable income; financial assets = CZK and foreign currency deposits + cash + securities + change in technical reserves for life insurance and supplementary pension insurance; financial liabilities = CZK and foreign currency loans

Chart III.24 Real consumption, retail sales, disposable incomes and savings ratio  
(y-o-y change in %)



As in the previous quarter, the increased effective household demand was felt primarily in food purchases<sup>21)</sup>. It cannot be ruled out that the persisting growth in demand for food was fostered by the pricing policy and wide range of these commodities offered by large retail chains. Demand for durables remained subdued, with only some commodities seeing a seasonal increase in sales.<sup>22)</sup> Sales of services to households have also yet to show any sign of the upturn in household demand: sales continued to fall, although at a slower pace. Only spending on transport and communications registered a rise.

Chart III.25 Share of goods imports in household consumption  
(goods imports/household consumption, 1995 prices)



Consumer demand was met mostly from domestic sources. During the course of 1999 Q2, however, the share of imports in household consumption increased further, approaching the 35% level, according to seasonally adjusted data.

### Government demand

In 1999 H1, government expenditure on public consumption rose by 11.2%. The substantial rise in this component against the same period a year earlier was mostly due to transfers to social and health insurance funds, reflecting the higher state contribution per insured person, higher unemployment and

21) See Chart II.5 in part II "Inflation development",

22) For example, sales of motor vehicles were up by 1.3 percentage points in Q2 against Q1. Overall demand for durables is indicated by sales of non-food products – see Chart II.6 in part II "Inflation development".

an increase in the number of persons whose insurance is paid by the state. Drawing on non-investment transfers was moreover affected by an advance payment of CZK 2.3 billion to the General Health Insurance Company (VZP) and subsidies released directly from the state budget to municipalities and regions (index 124.5%). In contrast, savings were achieved in expenditure on debt servicing as a result of the lowering of financial market interest rates (the June index of interest payment on state debt was 82.6%). In the first half of the year, the regulatory measure for drawing on non-mandatory expenditures adopted by the Government at the start of this year was still in place. This contributed to the favourable performance of the state budget in 1999 H1 (a deficit of CZK 6.0 billion) relative to the approved 1999 deficit of CZK 31.0 billion and the expected deficit of about CZK 40 billion corresponding to the updated forecasts of both the Ministry of Finance and the CNB. Drawing on expenditures is rather uneven with respect to structure. Capital expenditures are subject to strong seasonal influences caused by the customary invoicing "boom" at the end of the year.

The trend for state budget revenues is favourable to date, with indirect taxes (VAT, excise taxes) showing some signs of the recovery in consumer demand. Collection of social security insurance, which is reflecting the rising level of unemployment and the slowing growth in receipts, is likely to be rather problematic. The budget performance to date indicates that the deficit approved by Parliament for 1999 will be exceeded and that the final deficit figure will be somewhere around CZK 40 billion.

Table III.6 Public budgets

	1995	1996	1997	1998	Q1 - 2 1998	Q1 - 3 1998	Q1 - 2 1999	Q1 - 3 1999
State budget (CZK billions)								
Revenues	439.0	482.9	508.9	537.4	258.6	395.9	273.9	413.6
Expenditures	431.8	484.5	524.6	566.7	256.8	389.7	279.9	422.2
Balance	7.2	-1.6	-15.7	-29.3	1.8	6.2	-6.0	-8.6
Local budgets (CZK billions)								
Revenues	129.1	161.7	149.8	161.8	72.2	116.1	85.7	
Expenditures	132.3	171.1	154.6	160.3	69.1	108.6	73.7	
Balance	-3.2	-9.4	-4.8	1.5	3.1	7.5	12.0	0.0
Net public budgets balance	4.0	-11.0	-20.5	-27.8	4.9	13.7	6.0	
Share of public budgets balance in GDP (%)	0.3	-0.7	-1.2	-1.5	0.6	1.0	0.7	

Note: Public budgets in the narrower sense, i.e. state budget and local budgets

### III.2.3 Output

The pick-up in export growth (accompanied by slower import growth) and the ongoing rise in consumer demand were the main factors behind the economic growth upturn in 1999 Q2. Government consumption also contributed to a lesser extent. The moderate GDP growth in Q2 (0.3% compared with the same period a year earlier) indicated a possible reversal in trend.

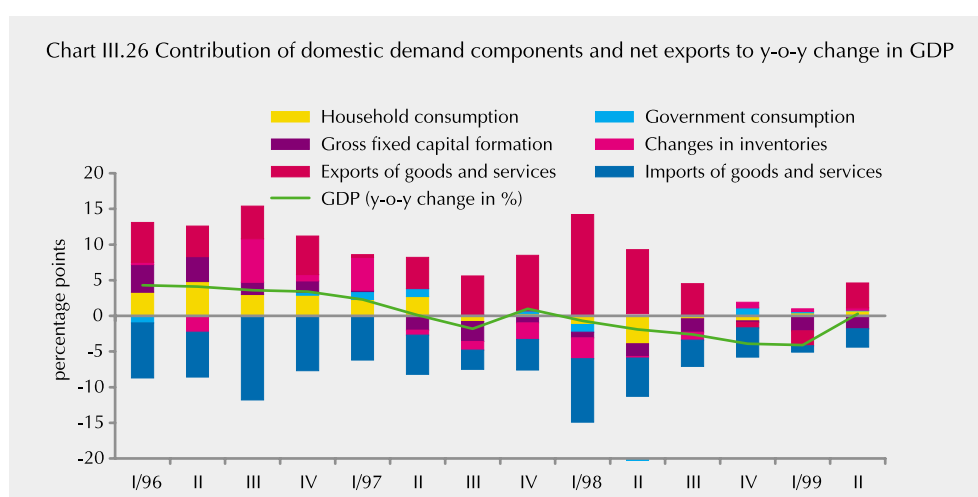
Table III.7 Real output and demand (y-o-y growth in %, 1995 constant prices)

	1995	1996	1997	1998	1998 Q1	1998 Q2	1998 Q3	1998 Q4	1999 Q1	1999 Q2
GROSS DOMESTIC PRODUCT	6.4	3.8	0.3	-2.3	-0.7	-1.9	-2.6	-3.9	-4.1	0.3
AGGREGATE DEMAND (domestic demand and exports)	11.4	7.7	3.0	1.9	4.9	2.0	0.6	0.1	-1.8	1.7
DOMESTIC DEMAND	8.8	6.9	0.3	-3.2	-5.4	-5.2	-3.1	0.9	-1.0	-0.6
DOMESTIC EFFECTIVE DEMAND <sup>1)</sup>	7.8	5.7	0.3	-2.5	-3.2	-5.1	-2.1	0.1	-1.6	-0.9
<i>of which:</i>										
Household consumption	6.0	6.9	2.1	-3.0	-2.5	-7.1	-0.8	-1.3	0.8	1.4
Government consumption <sup>2)</sup>	-3.4	-1.1	3.4	0.8	-5.3	1.4	1.3	5.0	1.3	0.7
Gross fixed capital formation	19.9	8.2	-4.3	-3.8	-3.1	-5.9	-6.6	-0.6	-8.1	-6.2
EXPORTS OF GOODS AND SERVICES	16.9	9.2	8.1	10.7	25.6	14.7	7.1	-1.2	-3.0	4.9
IMPORTS OF GOODS AND SERVICES	21.2	14.3	7.2	7.9	13.5	7.7	5.5	5.6	1.3	3.4
NET EXPORTS (CZK billions)	-65.7	-112.8	-113.1	-97.6	-18.3	-15.4	-21.2	-42.8	-28.7	-12.2

1) Domestic demand excluding change in inventories

2) Including non-profit institutions

The major contribution to the pick-up in GDP was a positive economic development in 1999 Q2 (Chart III.26).

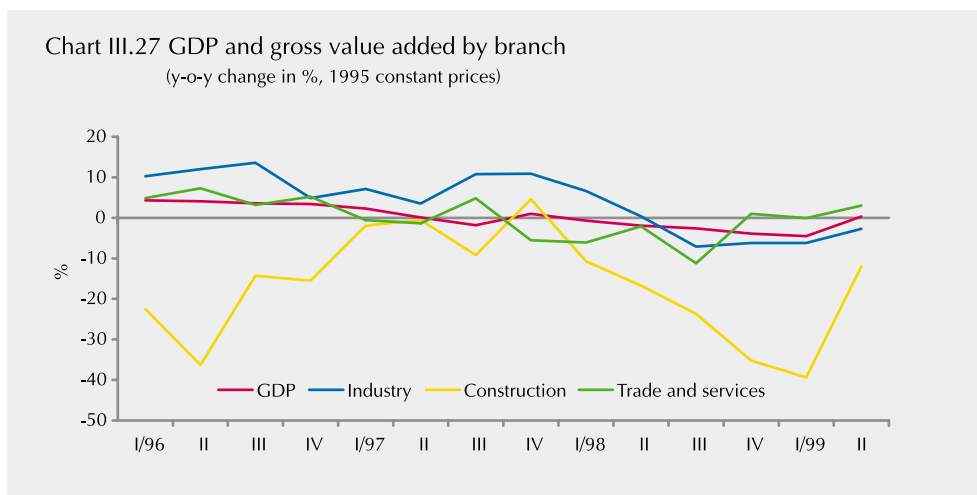


With respect to sectors, the slight recovery in economic growth in 1999 Q2 was the result of better performance in all sectors monitored by the CSO, manifesting itself either in a slowdown in year-on-year decline or in rising growth in gross value added.

In industry, which, together with services, is the main sector of GDP formation<sup>23)</sup>, the year-on-year contraction in gross value added slowed significantly (by 3.5 percentage points to -2.7% against 1999 Q1). This can be interpreted primarily as a favourable consequence of the increased external demand accompanied by the falling prices of imported material inputs. In industrial production, other signals are emerging of a possible positive change in trend. In particular, these include a slowing rate of decline of production volumes in some of the sectors that saw the largest falls in past years, and increasing growth rates in progressive industries<sup>24)</sup>; the number of progressive investments by foreign investors is increasing (particularly in electrical engineering) thanks to attractive investment incentives.

23) In 1999 Q2, gross value added in industry accounted for 37.4% of GDP in base prices.

24) These include, for example, vehicle manufacture, production of electrical and optical appliances, and the rubber and plastics industry.



The long-term decline in gross value added in construction slowed more markedly in 1999 Q2. However, the year-on-year decrease was still relatively large (-12%). The main reason for this was the persisting general and structural trend in domestic investment demand, which has yet to create conditions for any major improvement in gross value added in this sector. The year-on-year fall in gross value added slowed also in the sectors of other services and transport.

By contrast, an upward trend in gross value added was maintained in trade and catering – thanks to the upturn in consumer demand – as well as in agriculture and institutions involved in financial intermediation.

#### *Financial performance of non-financial organisations and corporations*

From the point of view of the financial performance of non-financial institutions, the termination of the decline in, or moderate growth of, GDP in 1999 Q2 was reflected in a year-on-year increase in gross profit together with a modest improvement in the majority of relative efficiency indicators (Table III.8).

*Table III.8 Selected financial indicators in 1999 (in current prices)  
(for non-financial organisations and corporations of all industries with more than 100 employees)*

Y-o-y change in %	1999				Q1		Q2		Q1 - 2		Change in perc. pts.		
	Q1	Q2	Q1 - 2		1998	1999	1998	1999	1998	1999	Q1	Q2	Q1-2
Total revenues	0.0	4.3	2.2	Cost profitability (profit/costs)	5.48	4.26	2.86	4.09	4.11	4.17	-1.22	1.23	0.06
Total output	-5.0	-1.5	-3.2	Equity profitability (profit/equity)	2.50	1.94	1.43	2.06	3.94	3.97	-0.56	0.63	0.03
Total costs	1.2	3.1	2.2	Output profitability (profit/output)	7.08	5.87	3.85	5.78	5.43	5.82	-1.21	1.93	0.39
<i>of which:</i>													
intermediate consumption	-7.0	-4.1	-5.5	Material costs (intermediate cons./output)	66.34	64.96	68.85	67.05	67.63	66.05	-1.38	-1.80	-1.58
personnel costs <sup>1)</sup>	1.4	0.0	0.6	Wage costs (personnel costs/output)	16.23	17.32	16.92	17.18	16.58	17.25	1.09	0.26	0.67
Pre-tax profit	-21.3	47.7	3.8										

1) Includes wage and other personnel costs, remunerations to members of companies and co-operatives, social security costs and social costs

The main contribution (more than 50%) to the year-on-year increase in gross profit in 1999 Q2, following the fall in Q1, came from industry.<sup>25)</sup> The fastest growth in profits was registered in businesses under foreign control (up by 70%). Both the absolute and relative gross profit indicators given in Table III.8 confirm that the more marked increase in Q2 was largely due to a further intensification of the year-on-year decline in material costs and slower growth in wage costs compared with the previous quarter. As a result, the structural development of book value added in the monitored segment of organisations in Q2 was more favourable in year-on-year comparison (Graf III.30).

The better results, however, failed to change the adverse trend in corporate sector insolvency. Inter-business indebtedness rose further amid reduced availability of other external funds.<sup>26)</sup>

### ***Implications of demand and output developments for inflation***

As in 1999 Q1, the overall development of domestic demand in Q2 did not create conditions for demand-pull inflationary pressures in the economy. Neither was such a danger generated by the continuing recovery in consumer demand. The increased household demand, as in Q1, was primarily the result of food purchases, where pricing was affected by factors other than demand (the pricing policies of large retail chains). The persisting low level of consumer demand in other components of the retail market (particularly durables) also did not create conditions for demand-pull inflationary pressures.

The financial indicators in the selected segment of the corporate sector, which primarily indicate developments in cost-push inflationary pressures, pointed in Q2 to a certain moderation of the growth in potential cost-push pressures in the production sector ensuing from wage cost developments. The ongoing fall in material costs indicated the ongoing favourable effects of falling input prices. The rising oil prices are likely to act on corporate sector costs with a certain time lag.

## **III.3 The labour market**

Real wages have been outpacing labour productivity since 1998 H2. The inconsistent trends for these indicators presented a potential risk to macroeconomic stability in 1999 Q2 as well, although at a slightly lower level than in the previous quarters. So far, the indications of a pick-up in demand for labour have not been strong enough to reverse the trends on the labour market, namely the rising unemployment rate and falling overall employment. The certain build-up of wage inflationary pressures, combined with relatively fast growth in the unemployment rate, remains the main labour market problem.

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25) Gross profit in 1999 Q2 was up by 44.7%, or by CZK 9.8 billion in absolute terms; however, the cumulative value since the start of the year was only CZK 2.2 billion because of the unfavourable outcome in Q1.

26) Past-due obligations as of the end of 1999 H1 were up by CZK 16.9 billion against the same period a year earlier and the ratio of primary insolvency to capital had deteriorated by 0.49 percentage points.

### III.3.1 Wages and financial incomes

Table III.9 Basic data on wages

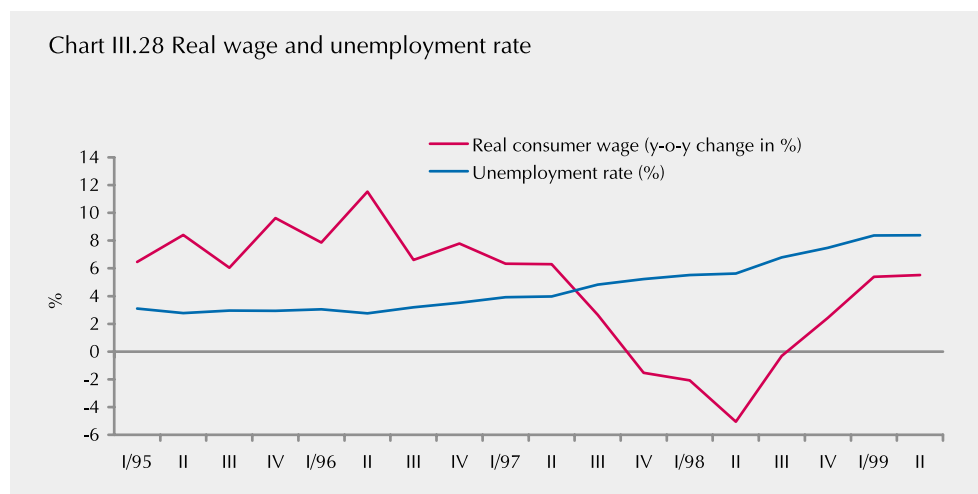
(y-o-y change in %)

		96 Q1	96 Q2	96 Q3	96 Q4	1996	97 Q1	97 Q2	97 Q3	97 Q4	1997	98 Q1	98 Q2	98 Q3	98 Q4	1998	99 Q1	99 Q2
AVERAGE WAGE	(nominal)	17.4	21.0	16.5	17.1	18.0	14.0	13.3	12.8	8.4	11.9	10.9	7.0	9.2	10.1	9.3	8.6	8.0
	(real)	7.9	11.5	6.6	7.8	8.4	6.3	6.3	2.6	-1.5	3.1	-2.1	-5.0	-0.3	2.4	-1.4	5.4	5.5
<i>of which:</i>																		
Non-business sector	(nominal)	15.0	33.0	15.3	18.5	20.6	12.4	11.0	10.2	-6.6	5.8	5.0	-6.2	3.0	15.1	3.9	13.9	14.3
	(real)	5.6	22.5	5.5	9.1	10.8	4.9	4.2	0.3	-15.2	-2.5	-7.4	-16.7	-5.9	7.1	-6.2	10.6	11.7
Business sector	(nominal)	18.2	17.1	17.0	16.6	17.1	14.3	14.1	13.4	13.0	13.6	12.6	11.1	10.9	8.9	10.9	7.5	6.4
	(real)	8.6	7.9	7.0	7.3	7.6	6.7	7.0	3.2	2.7	4.7	-0.6	-1.4	1.2	1.3	0.1	4.4	3.9
<i>of which:</i>																		
private organisations	(nominal) <sup>1)</sup>	.	.	.	.	.	14.0	13.6	12.4	12.0	12.8	11.3	9.2	9.0	6.6	8.9	6.0	5.0
	(real)	.	.	.	.	.	6.3	6.5	2.3	1.7	4.0	-1.8	-3.1	-0.5	-0.8	-1.7	3.0	2.6
state organisations	(nominal) <sup>2)</sup>	.	.	.	.	.	16.2	16.3	15.4	15.5	15.9	11.8	10.2	12.4	11.3	11.4	11.1	9.3
	(real)	.	.	.	.	.	8.4	9.1	5.0	4.9	6.9	-1.4	-2.3	2.6	3.6	0.6	7.9	6.8
international organisations	(nominal) <sup>3)</sup>	.	.	.	.	.	13.3	15.9	14.7	13.3	14.3	14.1	17.3	12.1	12.1	14.1	10.5	7.4
	(real)	.	.	.	.	.	5.7	8.7	4.4	2.9	5.4	0.7	4.1	2.4	4.3	3.0	7.4	5.0

1) Including domestic (legal and natural) entities without state ownership    2) Including domestic (legal and natural) entities with 100% state ownership  
3) Including entities with domestic and foreign capital

Source: CSO

The fact that average real wages have been increasing for three consecutive months, notwithstanding the systematic rise in the unemployment rate, can be considered a sign of labour market inflexibility. The increasing excess of free labour supply has not led to a fall in the real price of labour, but just the opposite. This cannot be linked solely with the changes in wage tariffs in the budgetary and subsidised sectors: the business sector has seen year-on-year growth in average real wages since 1998 Q3. Throughout this period, the fastest wage growth has been registered in state-owned businesses.



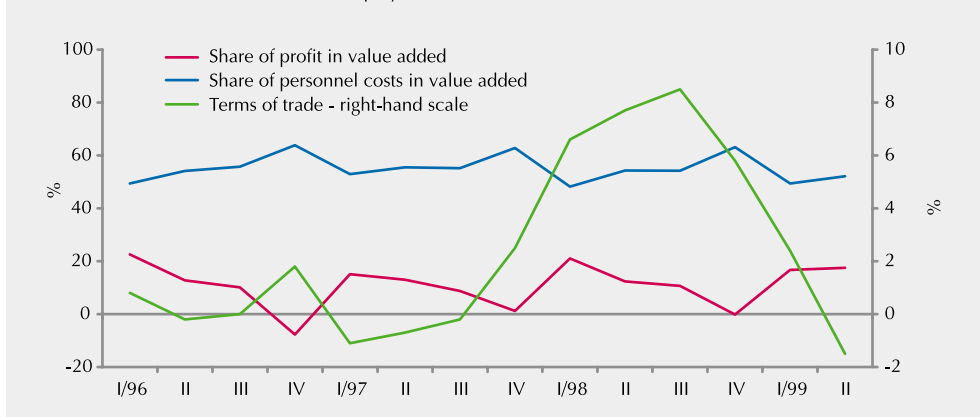
The prediction that exaggerated inflationary expectations combined with rising unemployment and insufficient labour productivity growth would pass through into wages has been confirmed. The rise in average real wages was so high that even the increasing number of unemployed persons was unable to offset it – real wage incomes have been on the increase for two consecutive quarters.

Chart III.29 Real wage and labour productivity in industry (y-o-y change)



The inertia of average nominal wage growth and the relatively small increase in labour productivity in 1999 Q2 resulted in a 4.5% year-on-year rise in nominal unit wage costs in industry, a key component of the business sector. However, thanks to the current phase of the business cycle and the general low-inflation environment, this inflationary impulse hardly showed up at all in producer prices. Instead, the cost of labour per unit product in real terms, i.e. real unit wage costs, increased by 4.2% during this period. This growth (i.e. more rapid growth in the real product wage than in labour productivity) has been visible in industry for three consecutive quarters. It is resulting in a systematic redistribution of output to the detriment of the profits of industrial producers. The ongoing wage pressures, which are exacerbating the de-capitalisation of industrial producers, may not be sustainable in the long term without clear symptoms of inflation.

Chart III.30 Structure of book value added for non-financial businesses and corporations (with more than 100 employees in all economic sectors)



With respect to wage-inflationary pressures, the situation was more favourable at the level of non-financial businesses and corporations<sup>27)</sup> of all economic sectors. The second quarter saw neither a year-on-year rise in the share of personnel costs in book value added, nor a drop in the share of profit. Nevertheless, from the medium-term perspective (1996–1999), the share of personnel costs has risen and that of profit has fallen. Alongside the fact that (gross) return on equity in 1999 Q2 was still unacceptably low (2.1%) and that the terms of trade worsened, it is clear that even at the level of non-financial businesses and corporations there is no room for continuing wage pressures (or for growth in the share of personnel costs in value added).

27) i.e. a selected set of businesses and corporations with more than 100 employees.

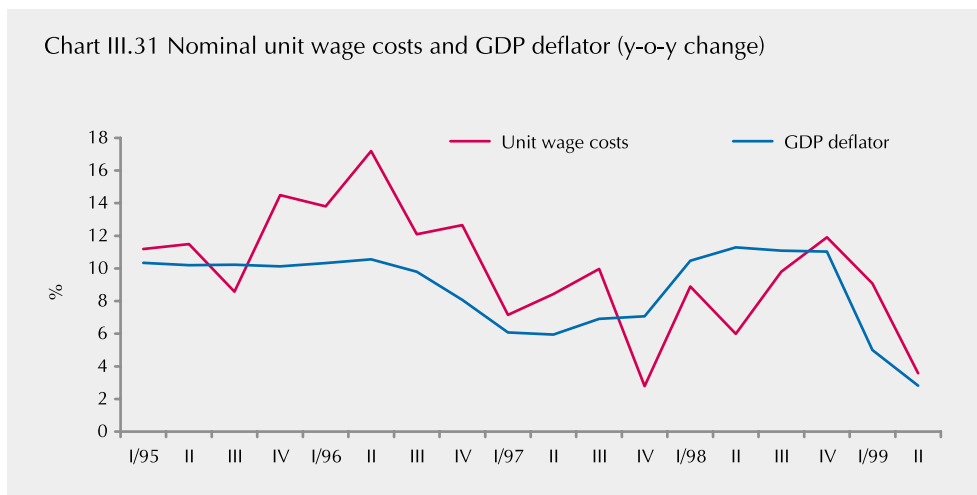
Table III.10 Wage, price and productivity indicators

(y-o-y change in %)

	96 Q1	96 Q2	96 Q3	96 Q4	1996	97 Q1	97 Q2	97 Q3	97 Q4	1997	98 Q1	98 Q2	98 Q3	98 Q4	1998	99 Q1	99 Q2
Unit wage costs (nominal wage incomes/GDP in constant prices)	13.8	17.2	12.1	12.7	13.9	7.2	8.4	10.0	2.8	6.9	8.9	6.0	9.8	11.9	9.1	9.1	3.6
GDP deflator	10.3	10.6	9.8	8.1	9.7	6.1	5.9	6.9	7.1	6.5	10.5	11.3	11.1	11.0	11.0	5.0	2.8
Real unit wage costs (unit wage costs/GDP deflator)	3.1	6.0	2.1	4.2	3.9	1.0	2.4	2.9	-4.0	0.4	-1.4	-4.8	-1.2	0.8	-1.7	3.9	0.7
Whole-economy labour productivity	2.4	2.9	1.8	3.3	2.6	2.5	0.4	-0.7	2.3	1.1	0.8	-0.2	-0.5	-1.7	-0.4	-1.1	3.3

Source: CSO, CNB calculation

The risky trend in wage-cost inflationary indicators was evident also at the macroeconomic level. In 1999 Q2, unit wage costs in the whole economy increased by 3.6% and real unit wage costs by 0.7%. Compared with Q1, this on the one hand implies a sizeable reduction in year-on-year growth of both indicators. On the other hand, the wage-cost inflationary potential (unit wage costs) was again not fully absorbed in prices of the current period (the GDP deflator). For this reason, the 1999 Q2 developments in reality again contributed to a further build-up of wage-cost inflationary risks, which may – particularly in conjunction with the rising domestic demand and economic recovery – trigger a pick-up in inflation.



In Q2, real household incomes rose by 0.2% in year-on-year terms, following an unusually large year-on-year rise in 1999 Q1 (of almost 7%), which was out of step with macroeconomic performance. It should be pointed out that, despite wage incomes being the slowest growing component of household incomes, year-on-year growth in nominal and real wage incomes is still high and has departed significantly from the inflation and real GDP trends and particularly from the rising unemployment level.

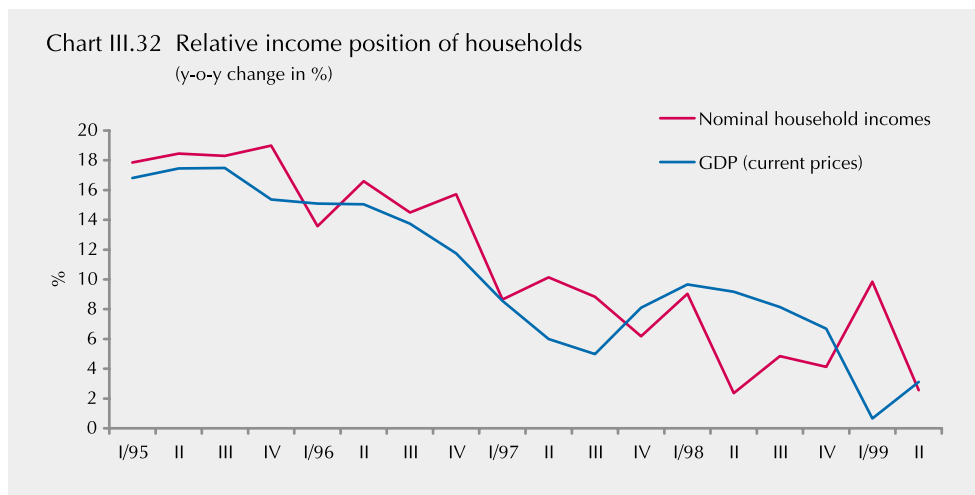
Table III.11 Basic data on household incomes

(y-o-y change in %)

	96 Q1	96 Q2	96 Q3	96 Q4	1996	97 Q1	97 Q2	97 Q3	97 Q4	1997	98 Q1	98 Q2	98 Q3	98 Q4	1998	99 Q1	99 Q2
HOUSEHOLD FINANCIAL INCOMES																	
(nominal)	13.6	16.6	14.5	15.7	15.2	8.6	10.1	8.8	6.2	8.4	9.0	2.4	4.9	4.1	4.9	9.8	2.6
(real)	4.4	7.4	4.7	6.5	5.8	1.4	3.3	-0.9	-3.6	-0.1	-3.8	-9.2	-4.3	-3.1	-5.3	6.7	0.2
<i>of which:</i>																	
Wage incomes (nominal)	18.7	21.9	16.1	16.5	18.2	9.7	8.5	8.0	3.8	7.3	8.1	4.0	6.9	7.5	6.6	4.6	3.9
(real)	9.1	12.4	6.2	7.2	8.6	2.3	1.8	-1.7	-5.7	-1.2	-4.6	-7.7	-2.4	0.0	-3.8	1.6	1.5
Social incomes (nominal)	13.7	21.6	12.4	18.9	16.6	13.4	9.7	13.8	14.2	12.8	11.2	8.2	12.9	4.5	9.1	10.4	8.1
(real)	4.5	12.0	2.8	9.5	7.2	5.8	2.9	3.6	3.7	3.9	-1.9	-4.0	3.0	-2.7	-1.5	7.2	5.6
Other incomes (nominal)	5.1	5.7	13.1	12.8	9.5	3.7	13.4	7.6	6.1	7.8	9.3	-3.8	-2.6	-1.8	-0.4	19.6	-3.4
(real)	-3.4	-2.6	3.5	3.8	0.6	-3.3	6.3	-2.0	-3.7	-0.7	-3.5	-14.6	-11.0	-8.7	-10.0	16.2	-5.7

Source: CNB statistics

As for the distribution of total disposable incomes, the relative income position of households experienced only a slight deterioration. However, this was due solely to a sizeable fall in "other" incomes, whose link to the labour market is the loosest of all components of household incomes. At the same time, with respect to wage and social incomes, the potential demand-inflationary effect is beyond doubt, since both the above income indicators were again growing faster than domestic output in Q2 in year-on-year terms.



### III.3.2 Employment and unemployment

The trend of the previous two years on the labour market – decreasing overall employment and an increasing unemployment rate – has continued throughout this year. According to CSO data, employment was down by 3.7% in 1999 Q2 against the same period a year earlier (and by 170,000 persons in absolute terms). All sectors of the economy (primary, secondary and tertiary) were affected. Such a large drop in employment is attributable mainly to the current phase of the business cycle, in which the degree of non-use of factors of production is increasing quite substantially. The structural aspects of the employment contraction cannot be ignored either, although these function relatively independently of the business cycle. Growth in real wages and in wage costs per unit product are other factors contributing to the fall in employment.

Table III.12 Basic data on employment

	1995	1996	1997	1998	1998				1999	
					Q1	Q2	Q3	Q4	Q1	Q2
Total no. of persons employed in whole economy (average numbers*, y-o-y change in %)	2.6	0.6	-1.0	-2.4	-1.3	-1.4	-1.3	-1.1	-3.1	-3.7
Natural persons (number in thousands)	5012	5044	4993	4873	4897	4899	4831	4851	4735	4723
Economic activity rate <sup>1,2)</sup> in %	.	61.2	61.1	61.0	61.0	60.8	61.0	61.3	61.0	60.9

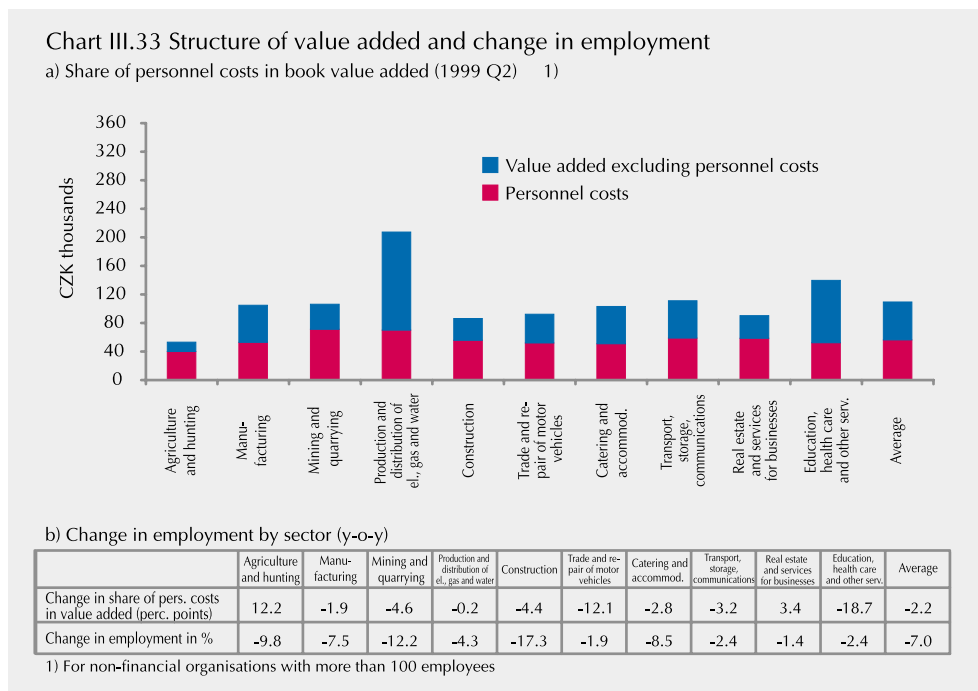
\* from 1997 onwards preliminary data

1) Ratio of economically active population to total population of productive and senior age

2) According to labour force survey

In the sector of non-financial businesses and corporations (with more than 100 employees in all economic sectors), employment contracted by 7% in Q2 in year-on-year terms. This extraordinarily big reduction, however, fed through into only a modest decline in the share of personnel costs in book value added. It follows that in this sector any drop in labour costs per unit product must be "paid for" with a very large fall in employment. The cause of this is the growth in real wages, which has departed from the trend in the real economy. Besides the fact that the slight decline of the share of personnel costs in value added has exacted a large fall in employment, it should not be overvalued in the sense of any moderation of potential inflationary pressures, given the simultaneous deterioration of the terms of trade and the low return on equity (for more details see part III.1).

In agriculture, even an almost 10% fall in employment failed to give a reduction in personnel costs per unit product. On the contrary, these costs rose substantially. Moreover, it should be stated that mining and construction are also still showing excessively high personnel costs in relation to value added. The price of labour in these sectors is still the highest, despite a reduction in employment and a fall in demand for their products.



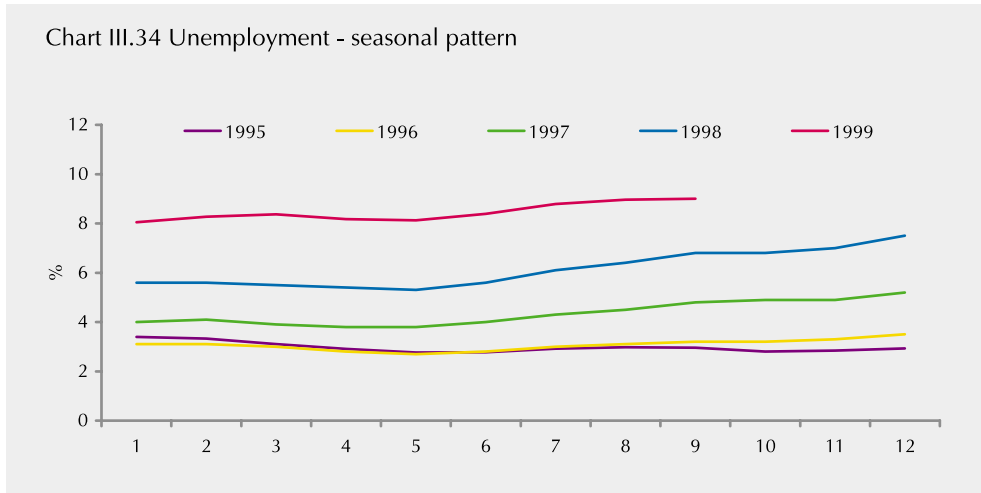
The substantial drop in employment has led to an increase in the number of unemployed persons, which was up by 119,000 as of the end of September 1999 by year-on-year comparison. The gap between supply and demand for labour has been widening in absolute terms and particularly in the regional, age and skills structure.

Table III.13 Unemployment in 1999

Position as of	No. of registered job applicants		Percentage of women in unemployment total	Monthly increase No. of persons	Unempl. rate (%)	No. of vacancies	No. of persons on unempl. benefit	Registered applicants per vacancy
	No. of persons	of which women						
31 Jan.	416.940	215.929	51.8	30.022	8.05	36.390	203.837	11.46
28 Feb.	427.994	218.699	51.1	11.054	8.27	35.207	204.554	12.16
31 Mar	433.340	219.960	50.8	5.346	8.37	32.966	193.049	13.15
30 Apr.	423.884	218.583	51.6	-9.456	8.18	32.812	180.952	12.92
31 May	421.574	219.299	52.0	-2.310	8.13	33.531	173.741	12.57
30 Jun.	435.005	227.527	52.3	13.431	8.39	34.482	181.413	12.62
31 Jul.	456.716	242.423	53.1	21.711	8.79	36.537	191.292	12.50
31 Aug.	465.454	248.915	53.5	8.738	8.96	38.647	193.710	12.04
30 Sep.	469.840	249.894	53.2	4.386	9.05	36.650	193.000	12.82

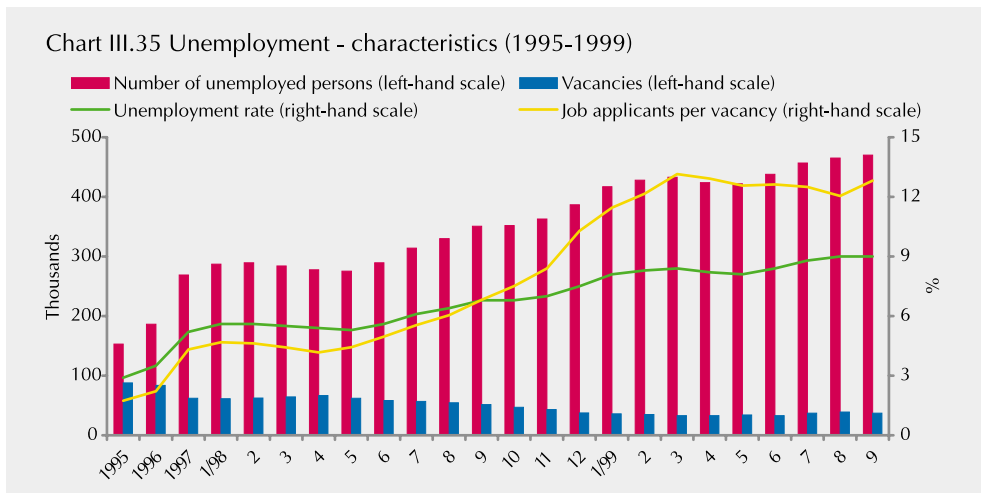
Unemployment in 1999 is showing a similar seasonal pattern to that in 1998, but at a higher absolute level. As of the end of September, the unemployment rate was running at 9%.

Chart III.34 Unemployment - seasonal pattern



A number of new features emerged in the second quarter of 1999 indicating a partial reversal of the generally negative trends on the labour market. Since the end of May, there has been systematic, though modest, absolute month-on-month growth in the number of vacancies. This is not seasonal in nature and could signal a certain improvement in demand for labour (although in year-on-year terms the number of vacancies was about 14,000 lower as of the end of September). At the same time, since May the month-on-month increases in the number of unemployed persons have been lower than a year earlier.

Chart III.35 Unemployment - characteristics (1995-1999)



The above figures show that the present, relatively high level of unemployment will continue to grow, but the aforementioned new features will be maintained. If the economic decline stops and the active employment policy is at least partially effective, the unemployment growth rate should gradually weaken.

### ***Implications of labour market developments for inflation***

At the level of both industry and the economy as a whole, the process of accumulation of wage-inflationary potential continues, particularly from the viewpoint of costs. The present phase of the business cycle and the existing low-inflation environment has prevented this potential from being transferred directly into the price level of the current period. The growth in wages and incomes has therefore shown up mainly in rising labour costs per unit product and in the purchasing power of wage earners and social benefit recipients outpacing domestic output and unemployment growth.

Wage-inflationary potential has been building up in the economy since the second half of 1998, although a certain easing of this process was evident in 1999 Q2. The best results in this context were achieved in the sector of non-financial businesses and corporations, but at the cost of an exceptionally large fall in employment. In connection with the economic recovery, it cannot be ruled out that the accumulated latent wage-inflationary potential may become a source of pressure at the price level. The crucial factor will be whether real output and labour productivity grow fast enough to neutralise the aforementioned risks.

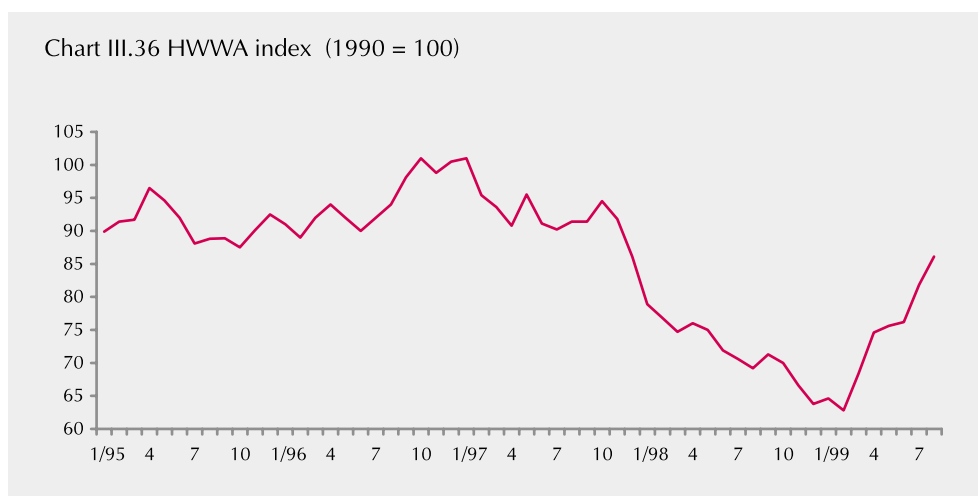
### III.4 Costs and prices

Industrial producer prices in 1999 Q3 confirmed the change in trend signalled by the developments in 1999 Q2. The continuing moderate rise in industrial producer prices was largely due to the resumed growth in prices of energy raw materials (oil in particular) on world markets. Other producer prices saw a continuation of their previous trends. Construction work prices showed a clear slowdown in growth against 1999 Q2. The year-on-year decline in agricultural producer prices slowed thanks to a gradual turnaround in prices of some commodities. As in 1999 Q2, agricultural producer prices remained generally very low.

#### III.4.1 Import prices

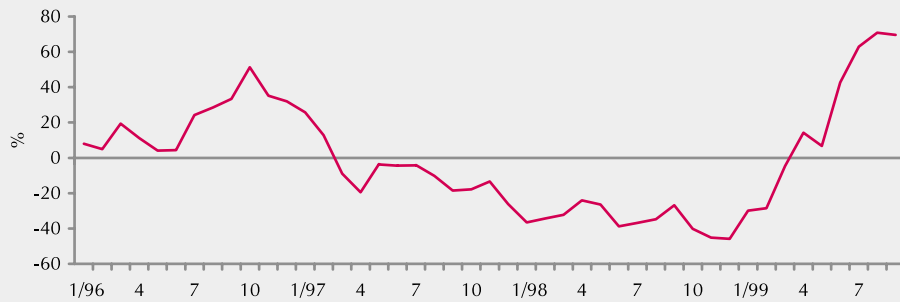
Prices of imported basic raw materials in 1999 Q3 confirmed a reversal in the previous favourable trends. Following several months of gradual decline, import prices in 1999 Q2 were showing signs of slower decline, and at the start of Q3 they started to grow (according to the CSO selection index, import prices showed year-on-year growth of 3.2% in July).

This shift was largely due to changes in commodity prices on global markets, as illustrated by the HWWA index in individual months of 1999 (Chart III.36). The resumed growth in raw materials prices on world markets was particularly strong in August 1999 (a year-on-year rise of 24.4%). This was mostly attributable to prices of energy raw materials, which registered another pronounced year-on-year rise (of 51.6%). Large price increases against the previous months were seen for Ural crude in July, August and September.<sup>28)</sup> In contrast, prices of industrial and food commodities on global markets continued to drop in August in year-on-year terms, although at a much slower rate than in the previous months.



28) Ural crude prices rose by 63% to 18.17 USD/barrel in July, by 70.9% to 19.72 USD/barrel in August and by 69.61% to 21.88 USD/barrel in September, against 14.43 USD/barrel in June 1999.

Chart III.37 Prices of Ural crude (y-o-y change in %)



### III.4.2 Producer prices

#### *Industrial producer prices*

The renewed increase in prices of energy raw materials (especially oil) was the main factor in the continuing upturn in industrial PPI inflation in 1999 Q3. This increase passed through into costs and consequently into output prices, particularly in manufacturing industries with a large share of oil-product processing (coke production and oil refining, and the chemical and pharmaceutical industry).

Chart III.38 CSO import price index and industrial producer prices  
(y-o-y change in quarterly average in %)

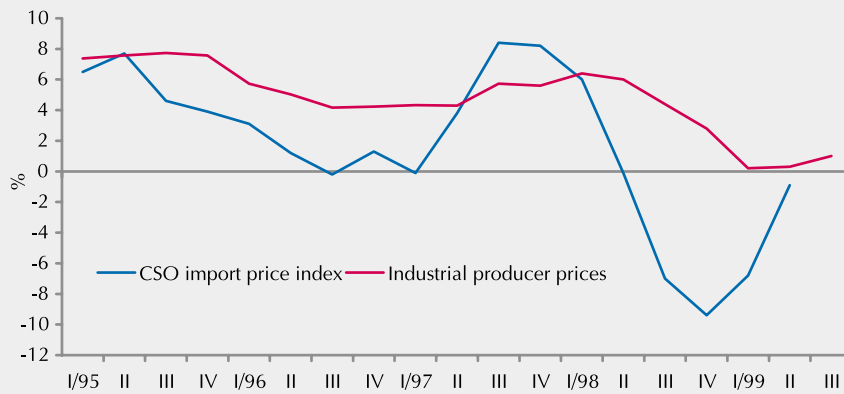
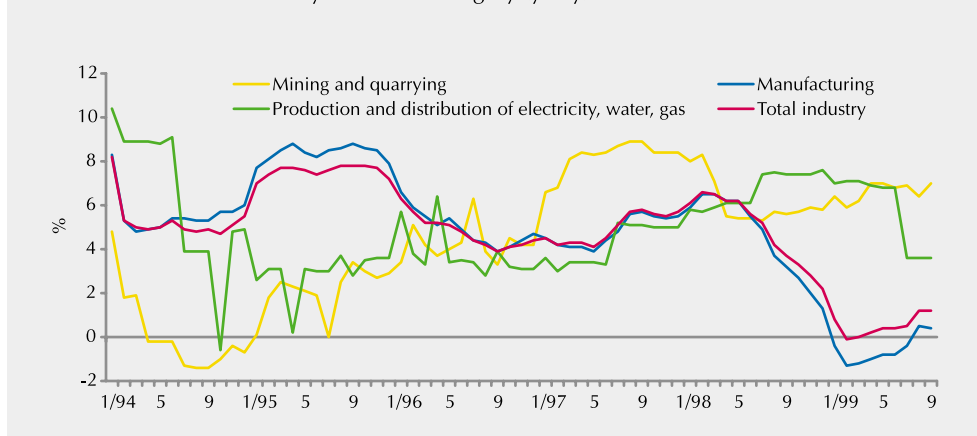


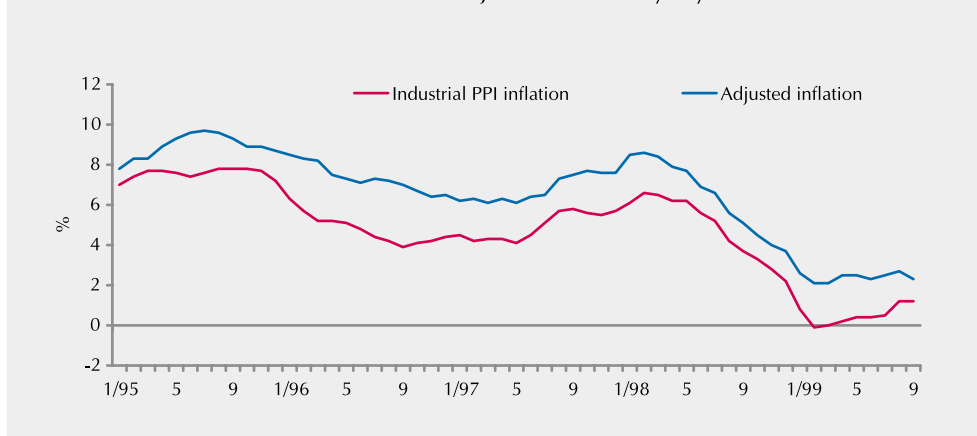
Chart III.39 PPI inflation by industrial category (y-o-y)



As in 1999 Q2, prices continued to fall in 1999 Q3 in most other branches of manufacturing. This trend was attributable to the unwinding effects of the low import prices in 1999 H1, the exchange rate appreciation at the beginning of Q3 and the slack domestic demand. In non-manufacturing industries (water, heat and energy distribution and mining) year-on-year inflation slowed slightly, mainly thanks to a deceleration of the year-on-year growth rate of prices in mining.

The rise in year-on-year industrial PPI inflation in 1999 Q2 and Q3 (to 1.2% in September) against 1999 Q1 was also one of the main reasons for the upturn in adjusted inflation (Chart III.40). This was largely because of the rapid transmission of the higher raw materials prices, via the oil refining industry, into prices of fuels and lubricants, which are part of adjusted inflation. The changes in oil prices are also passing through, with various time lags, into other price groups. This is true for both industrial producer prices and adjusted inflation. However, structural analyses of price developments in the individual industries included in the industrial PPI have yet to show any signs of this intermediated effect of higher energy inputs.

Chart III.40 Industrial PPI inflation and adjusted inflation (y-o-y)

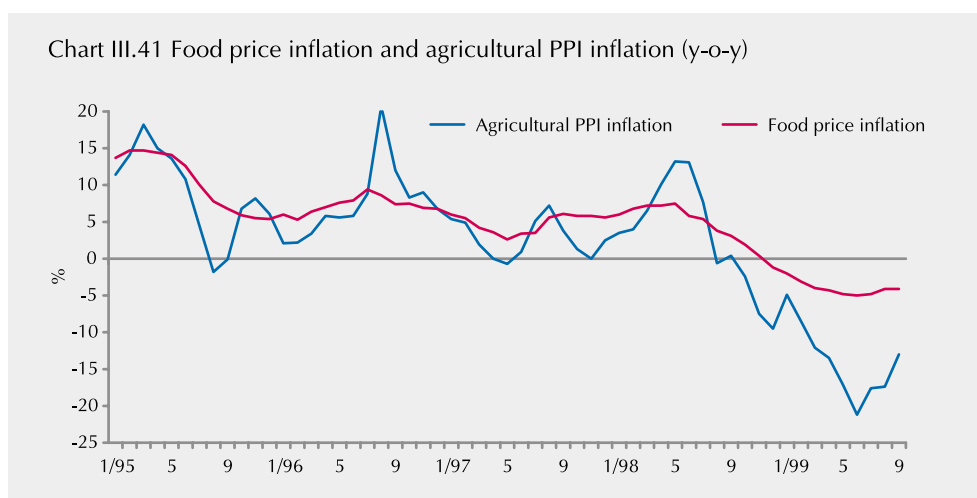


### Construction work prices

In 1999 Q3, the further slowdown in construction work price inflation was again the result of low domestic demand in this industry. The month-on-month growth rate (0.2% in July, 0.1% in August, 0.2% in September) gradually moderated to about half the level of the first months of the year. The year-on-year rate of increase (4.4% in July, 3.9% in August, 3.7% in September) also slowed, and in September was roughly half the level of a year earlier.

### *Agricultural producer prices*

Agricultural producer prices saw no major changes in 1999 Q3. As in the previous quarter, prices were flat and very low. By year-on-year comparison, they continued to fall by around 13%–17%<sup>29)</sup>, although the pace of decline showed a gradual slowdown. As in Q2, prices of most agricultural commodities thus remained at the level reached after the sizeable fall at the end of 1998. Only a few livestock commodities registered a rise in prices. The low agricultural producer price level was again attributable to the following factors: excess production of most key agricultural commodities; the limited opportunities for exporting domestic agricultural products and the substantially lower subsidies compared with the EU; the low level of protection of the domestic market against subsidised imports; the continuing fall in prices of some food commodities on global markets; and the monopolisation of some branches of the food industry.



### ***Implications of other cost indicators for inflation***

Industrial producer prices in 1999 Q3 confirmed a reversal in trend, displaying moderate growth after the previous long-term decline. An analysis of inflation in this segment (particularly from a sectoral viewpoint) indicates that prices rose primarily because of cost-push impulses arising from the major increase in energy raw materials prices on global markets. With domestic demand remaining low, these impulses passed through directly into fuel prices, thereby contributing to the rise in adjusted inflation.

Agricultural producer prices remained low in 1999 Q3 owing to the aforementioned factors, particularly the current pricing policy of large retail chains. However, this low price level can be considered unsustainable in the long term, given the trend and current level of costs in agriculture. Consequently, certain risks as regards future inflation cannot be ruled out even here.

29) 17.6% in July, 17.4% in August and 13% in September.



## IV. MONETARY POLICY MEASURES AND INFLATION OUTLOOK

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### IV.1 Inflation and its determinants – an overview of the main trends

In 1999 Q3, the decline in inflation seen since 1998 Q2 halted. The trend toward stabilisation was most apparent in the indicators of overall inflation. Inflation expressed as year-on-year CPI growth was down by 1 percentage point in Q3 (from 2.2% in June to 1.2% in September). This decrease was 0.7 percentage points greater than that between 1999 Q2 and Q1. However, unlike in the previous period, there was no gradual reduction in year-on-year CPI inflation in Q3. After reaching 1.1% in July, the CPI tended toward very modest growth (1.4% in August and 1.2% in September).

The low CPI inflation was largely due to regulated prices. The substantial slowdown in year-on-year regulated price inflation resulted from a smaller extent of changes to regulated items overall compared with the same period a year earlier. This decline was most apparent in July; in past years, some regulated prices were regularly increased at the beginning of July. In July 1998, regulated prices showed year-on-year growth of 21.1%, whereas in July 1999 they rose by only 4.4% thanks to the very minor extent of deregulation. During Q3, year-on-year regulated price inflation slowed by 6.7 percentage points (from 11.0% in June to 4.3% in September), the biggest drop in this price group in 1999. Month-on-month CPI inflation stood at 0.8% in July and receded to 0.1% in August and to -0.1% in September. The inflation rate, expressed as the average CPI over the last twelve months against the average for the previous twelve months, fell by 2.1 percentage points, from 5.5% in June to 3.4% in September. The fall in the inflation rate between Q3 and Q2 was thus 0.4 percentage points smaller than the decline between Q2 and Q1.

The net inflation trend mirrored the stabilisation in overall inflation. In 1999 Q3, the long-term downward trend in year-on-year net inflation came to an end. Whereas in Q2, net inflation fell 0.2 percentage points (from -0.4% in March to -0.6% in June), in Q3 it rose by 0.3 percentage points (from -0.6% in June to -0.3% in September). The overall year-on-year net inflation outturn was mostly attributable to a slowdown in the year-on-year rate of decline in food prices (from -5.0% in June to -4.1% in September) and to stable adjusted inflation, which was running at 2.3% in both June and September in year-on-year terms. Month-on-month net inflation was 0.0% in July, increased to 0.1% in August and fell to -0.1% in September.

Economic activity, expressed as the year-on-year change in GDP, increased by 0.3%. The domestic economy therefore saw a recovery, albeit very modest, for the first time in five quarters. The positive turnaround in GDP was triggered primarily by renewed growth in exports (4.9%), accompanied by a slower rise in imports (3.4%), and by continuing growth in household consumption (1.4%). These data indicate a possible end to the economic recession. The major contribution of exports to the pick-up in GDP can be considered a positive phenomenon.

The unemployment rate gradually increased during Q3, from 8.4% in June to 8.8% in July and 9.0% in both August and September. Since Q2, however, some new trends have emerged on the labour market. These were confirmed by the Q3 data. They include in particular a modest month-on-month rise in the number of vacancies, visible since May. This may indicate a certain upturn in demand for labour.

In 1999 Q2, nominal unit wage costs increased by 3.6% in the economy as a whole and real unit wage costs were up by 0.7%. Both indicators recorded a sizeable slowdown in their year-on-year pace of growth compared with Q1, when nominal unit wage costs and real unit wage costs rose by 9.1% and 3.9% respectively. At the same time, whole-economy labour productivity increased for the first time since 1998 Q1 (by 3.3%).

The downward trend in money supply growth continued into Q3. Year-on-year M2 growth slowed from 9.8% in May to 7.1% in August, which is the lowest value since the start of 1999. M2 growth,

however, was still faster than nominal GDP growth. With respect to the money supply time structure, funds were shifted from time deposits to demand deposits. Credit supply remained subdued in June–August. In this period, lending to businesses and households dropped by CZK 14.4 billion. In August, credit supply was 5.9% lower than a year earlier.

Between the start of 1999 Q3 and mid-September, the nominal CZK/EUR exchange rate was stable, fluctuating between 36.20 and 36.80 CZK/EUR. However, from the second half of September onwards, the koruna appreciated, exceeding 36 CZK/EUR at the end of the month. This was attributable to expected inflow of foreign direct investment into the Czech economy.

An important change in 1999 Q3 was the reversal in import prices. Following several months of decline and a subsequent moderation in this trend in 1999 Q2, import prices started to rise again in Q3. This turnaround was triggered primarily by prices of energy raw materials on global markets. Prices of these commodities saw major growth, especially in July (15.9%). In year-on-year terms, prices of energy raw materials were up by 37.6% in June. The price of Ural crude saw year-on-year growth of 63% in July and 71% in August. The rise in energy raw materials prices was the main factor behind the ongoing rise in industrial producer prices (0.5% in July, 1.2% in August and September). Agricultural producer prices saw no major change in 1999 Q3. As in Q2, the year-on-year price indices were moving around -17%.

## **IV.2 Monetary policy**

Changes to monetary policy instruments within the inflation targeting regime are derived from conditional inflation projections based on analyses of past and future trends in inflation factors and on assessment of future price development risks.

### **IV.2.1 Inflation factors, inflation projections and inflation risks**

In 1999 Q3, the macroeconomic conditions for conducting monetary policy gradually started to change. An important feature of this period was that, unlike in previous quarters, inflation gradually stabilised at low levels and the disinflation process halted. The causes of this lay in both the external and domestic environment.

With respect to external conditions, the developments in inflation were largely due to the strengthening revival of inflationary pressures on the demand side. These were connected primarily with the ongoing rise in prices of energy raw materials on global markets and their pass-through into producer costs. Monetary policy also reflected the accelerating growth in EU countries, accompanied by an upturn in inflation, and changes in key monetary policy instruments effected by the central banks in the United Kingdom and the USA.

The domestic economy was characterised by a turnaround in overall economic activity. The GDP data for 1999 Q2 were positive for the first time in five quarters and started to show signs of gradual economic recovery and an easing of the recession. The domestic environment also saw strengthening cost-push inflationary tendencies (acting towards a slowdown in the pace of disinflation). These were linked with the ongoing lead of real wage growth over that of labour productivity. Low food prices continued to act in the opposite direction.

The initial conditional projection at the start of 1999 Q3 indicated that year-on-year net inflation in December 1999 would be below the lower limit of the inflation target (4%–5%). The asymmetric midpoint of the projection was 1.8%. The projection also indicated that the inflation target for the year 2000 would be hit in the lower half of the target interval (3.5%–5.5%): the asymmetric midpoint for the year-on-year net inflation prediction for December 2000 was 3.7%.

The decisions on changes in key interest rates also took into account a number of inflation risks. The uncertainties about future inflation developments on the supply side include in particular the possibility of a reversal in the present trend in food prices, on which monetary policy measures have only a limited effect. Another uncertainty was the difficult-to-predict degree of pass-through of rising energy raw materials prices into inflation. On the demand side, monetary policy was exposed to two risks. The first concerned public finances, particularly in the medium-term horizon. Thanks to the expenditure structure, there is a long-term deficit propensity built into public budgets which might affect future monetary developments. In the short term, however, public finances were developing quite favourably. The second risk was connected with wages, where partial 1999 Q3 data indicated a continuing gap between real wage and labour productivity growth. Monetary policy decisions also had to take into account the gradual narrowing of the interest rate differential vis-à-vis the currencies of several European countries outside EMU as well as vis-à-vis the US dollar. This factor gained in significance during August and September, when the United Kingdom and the USA raised their key rates (as mentioned above). Any potential changes in CNB interest rates, therefore, had to take into account the possibility of an outflow of domestic savings abroad. The question of the degree to which interest rate cuts could boost households' propensity to consume remained unanswered.

Monetary policy continued to operate within an uncertain framework characterised by a weak link between interest rates and the volume of credits. The factors weakening this key transmission mechanism lie beyond the reach of monetary policy. They relate to the financial condition of the corporate sector and to the legislative and institutional shortcomings adversely affecting the position of creditors. This imperfect legal environment is having a negative effect on banks' decisions regarding lending to businesses. Equally important remained the medium and long-term issue of the appropriate forms of response to the inflow of foreign capital, which is causing appreciation of the exchange rate. These issues were mentioned in the July Inflation Report.

The recent policy to lower rates has resulted in a gradual reduction of the interest rate differential. This has boosted the interest of foreign entities in koruna credits and has led to a rise in net foreign assets. The interest rate cuts, which are feeding through into a gradual decline in bank deposit rates, are changing the deposit structure. The proportion of time deposits is decreasing, whereas that of demand deposits is on the increase. The decline in interest rates, however, has yet to trigger any major recovery in credit supply.

#### **IV.2.2 Monetary policy response**

The CNB responded to the above developments in 1999 Q3 with a further lowering of monetary policy interest rates. However, the room for further rate cuts was narrower than in the previous quarter because of the aforementioned risks and the gradually reversing trend in inflation. Between April and June 1999, the repo rate was cut three times by a total of 1 percentage point (from 7.5% to 6.5%). In the period from July to the start of October<sup>30)</sup> it was again lowered three times, but this time only by 0.75 percentage points overall (from 6.5% to 5.75%). These corrections required a change in the corridor for repo rate movements, whose upper limit is given by the Lombard rate and lower limit by the discount rate. The narrowing of the repo rate corridor reflected the gradual stabilisation of interest rates at a level corresponding to the low and stabilising inflation.

The July inflation projection indicated that the 1999 target would not be met and that the 2000 target would be hit near the lower limit of the set interval. Since the CNB was focusing its attention on the end of 2000 (the medium-term target for that year has been considered crucial since the start of inflation targeting), the expected inflation trend in 2000 implied in the projection led to a decision to reduce rates further. An argument in favour of lowering interest rates came from economic analyses signalling the existence of a production gap. The CNB Board at the same time took into account the fact that the domestic economy will gradually be exposed to a strengthening inflow of non-debt capital, which could cause an appreciation of the domestic currency in the medium term. The lowering of interest rates would thus offset the tightening monetary conditions brought about by the koruna's appreciation. On the other hand, macroeconomic and inflation risks were still present, particularly the

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30) The monetary policy response to the Q3 developments also includes the CNB Board decision taken at its meeting on 4 October 1999, as the Board discussed at this meeting the September status report on economic developments.

disproportionate rise in real incomes and the gradual reduction in the interest rate differential vis-à-vis abroad. After evaluating these factors, the CNB Board decided to lower the repo rate by 0.25 percentage points from 6.5% to 6.25%, effective 30 July 1999.

The assessment of macroeconomic and monetary developments and the outlook for inflation factors at the beginning of September confirmed the previous projection of the inflation target for the year 2000 being met near the lower level of the target interval. The further lowering of interest rates was an appropriate response to this. The modest lowering of the repo rate did not rule out a gradual stabilisation of interest rates at lower levels and at the same time facilitated a further reduction in the interest costs of the corporate sector. In addition, the current budget performance helped reduce the short-term monetary risks associated with public finances. One factor against the lowering of rates was the gradually increasing risk of the domestic currency being converted into foreign currency instruments. The extent of this risk, however, was not so great as to make a slight correction in interest rates inappropriate. After evaluating all these circumstances, the Bank Board made a decision on 2 September to lower the repo rate by 0.25 percentage points from 6.25% to 6.00%. At the same time, the corridor for repo rate movements defined by the Lombard and discount rates was narrowed: the discount rate was reduced by 0.5 percentage points from 6% to 5.5% and the Lombard rate by 2 percentage points from 10% to 8%. The corridor was thus narrowed from 4 percentage points to 2.5 percentage points. All rates were lowered with effect from 3 September 1999.

An important signal associated with the October assessment of macroeconomic and monetary developments in August was the first indication of economic revival registered in 1999 Q2. As stated earlier, the main factor behind this recovery was (along with the rise in household consumption) the improvement in net exports. The disproportionate appreciation of the koruna's exchange rate, which began at the end of Q3, was considered a risk to the positive trend in external relations in the medium term. The Board concluded that the continuing appreciation of the koruna could threaten the fulfilment of the 2000 inflation target. Another risk arising from the appreciation trend was considered to be the danger of a subsequent sharp depreciation and increased exchange rate volatility, which would, via import prices, feed through into net inflation and cause macroeconomic destabilisation. The interest rate cuts alone, meanwhile, did not appear to be sufficiently effective to eliminate the appreciation trend, owing to the nature of the inflow of foreign investment, which is unresponsive to changes in the interest rate differential. After evaluating all these circumstances, the Board decided on 4 October in favour of foreign exchange interventions aimed at stabilising the koruna's exchange rate. At the same time, it lowered the two-week repo rate by 0.25 percentage points from 6% to 5.75%, effective 5 October 1999.

### **IV.3 Future inflation factors**

The developments in inflation and inflation factors during 1999 Q3 signalled a correction in the downward trend in price growth. The one-way positive effect of the majority of external and internal cost and demand factors that prevailed in previous quarters started to change gradually.

In the short term (up to the end of 1999), cost factors, primarily rising global oil prices, will predominate. These show up with only a small time lag in import prices and subsequently in fuel prices (a consumer basket item). Very weak growth (seasonally affected) can be expected on the food market. By contrast, the developments to date do not indicate any substantial risk of wage-cost inflation in the short run. Nor are any major demand-pull inflationary pressures expected up to the end of 1999.

During 2000, year-on-year growth in imported inflation can be expected. This will be particularly strong in H1, but in H2 it should gradually weaken provided the expected scenario for prices of energy raw materials, particularly oil (around 18–20 USD/barrel for Ural crude) is borne out. Within imported inflation, consumer and producer price inflation in the Czech Republic's most important trading partners is expected to pick up or shift from year-on-year decline to moderate growth. Global prices of other (non-energy) raw materials and foodstuffs and the expected exchange rate trend will act against import price growth.

As for internal cost-push inflationary factors, the most important factor within the horizon of the year 2000 is the situation on the labour market. Here, the build-up of certain wage inflationary potential (as measured by the indicators of real labour productivity and average wages and the ratios of wages or incomes to GDP) will gradually weaken during 2000, thanks on the one hand to the expected further decline in year-on-year nominal wage growth and on the other to a certain rise in productivity resulting from the expected modest recovery. Nonetheless, in view of the expected continuing gap between inflation and growth in unit wage costs in industry, the risk of rising wage costs being reflected in prices cannot be ruled out. Given the present financial situation of the corporate sector, there is a danger that businesses may use even a very weak recovery to improve their profits by raising prices.

In the year 2000, the expected weak pick-up in domestic demand, particularly consumer demand (as measured by household consumption), will reflect the forecast growth in real household incomes. The impact of the latter on consumption will be partially subdued by the increasing unemployment rate, which will lead to a rise in the propensity to save. The estimated 1% growth rate for overall domestic demand and household consumption will not be sufficient to stimulate any sharp acceleration of inflation. Neither the expected year-on-year investment expansion of around 2% nor the expected stagnation in government consumption will act as a major pro-inflationary impulse.

The government decision to move forward the deregulation of prices of electricity and gas in 2000 from 1 July to 1 January (neither of the above items were adjusted at all in 1999) is of great importance for future inflation developments. Consequently, year-on-year CPI inflation will reach significantly higher values in 2000 H1 than originally expected. In addition, the increasing prices of regulated items are likely to have an indirect impact on net inflation.

#### **IV.4 Inflation outlook**

The forecast with an annual rolling horizon is based on predictions of the factors affecting consumer prices. According to this forecast, given the present monetary policy settings, the expected modest drop in oil prices in 2000, the moderate exchange rate appreciation and the expected year-on-year growth in food prices (of around 1.5%), net inflation should be lying within the interval of 1.6%–3.6% in September 2000. CPI inflation as of the same date should not be outside the interval of 3.2%–4.7%.

As of the end of 1999, the CNB is expecting year-on-year inflation to be lying within the interval of 0.8%–1.6% with a midpoint of 1.1%, i.e. more than 2.5 percentage points below the inflation target (4%–5%). The CPI as of the same date will be up by 2.0%–2.6% in year-on-year terms. On the basis of inflation factor predictions, the CNB expects the mid-value of year-on-year net inflation to be slightly below the lower limit of the medium-term inflation target as of the end of 2000. Year-on-year CPI inflation should be approximately 1 percentage point higher than year-on-year net inflation.

## MINUTES OF THE BANK BOARD MEETINGS

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### Minutes of the Bank Board Meeting on 29 July 1999

Present at the meeting:

Zdeněk Tůma (Vice-Governor), Miroslav Hrnčář (Chief Executive Director),  
Luděk Niedermayer (Chief Executive Director), Pavel Racoča (Chief Executive Director)

The Bank Board opened the meeting with a discussion of the new economic projection which takes into account the new data from the second quarter. It was stated that the inflation forecast corresponds to the medium-term inflation target for the year 2000, though, pointing more towards the lower border of the target. The forecast falls below the target for 1999. The Bank Board assessed the effect of individual factors on the inflation forecast and considered lowering rates as a possible response to expected developments.

One reason for proposing a cut in rates was the fact that the new inflation forecast clearly indicates achievement of the inflation target for 2000. This forecast was created on the basis of expected developments in the domestic and foreign economy, which, according to the baseline scenario, do not show any significant inflationary impulses. Lowering rates, nonetheless, was not considered as a response to deviations in the 1999 forecast. Monetary policy must respond to expected developments in advance, in order to reflect a time lag in monetary transmission. Monetary transmission takes longer than half a year, and, therefore, inflation in the second half of 1999 is influenced more by external factors than by monetary policy settings. The prices of some commodities and food prices on the domestic and foreign market were two specific external factors mentioned. A positive price shock has appeared in food prices. Hence, compensating with monetary instruments would be too costly in the short run and would cause high volatility in the other variables.

The gap between supply and demand was indicated as a significant factor in assessing the economic situation. Estimating the gap is a difficult task, even in more advanced economies. Application of various methods, whether it be the production function or smoothing by means of filters, is a very demanding process in the Czech Republic. In spite of this difficulty, an information base is being developed at the Czech National Bank to deal with this particular area. Several views were expressed during the discussion concerning the nature of the gap between supply and demand. The current inflation projection is based on the assumption that the gap is significant and that demand recovery, which some indicators have already suggested, will mainly cause a rise in GDP and not in prices. On the other hand, it was argued that the supply side could be relatively inflexible, causing strong demand recovery to surface more as a rise in prices or a rise in the external imbalance and less as GDP growth recovery.

It was mentioned that the inflation projection accounts for the expectation that the Czech economy will enter a phase of non-debt capital inflow (FDI, portfolio investment). In one or two years, this inflow could produce a stronger Czech koruna. The Bank Board discussed whether this expectation should be reflected in monetary policy decision-making, and if so, how it would be reflected. It was stated that in a period of exchange rate appreciation, it would be possible to use rate cuts to compensate for the exogenous tightening of monetary conditions. The setting of monetary conditions should essentially be derived from the difference between the inflation outlook and the inflation target. The direct aim of lowering rates is not to influence the exchange rate, even though some forms of capital inflow are sensitive to the interest rate differential. It was also mentioned that non-debt capital inflow alone could alleviate the problem of exchange rate appreciation, because foreign investment contributes to productivity growth.

The board members also discussed the risk factors that could possibly cause the current economic projection to underestimate inflation developments in the medium term. In addition to fiscal factors, a rise in real incomes, if the level of household savings falls, could also contribute to stronger demand recovery than with the current projection. Money supply growth could also contribute to stronger demand recovery. Attention was given to interpreting the difference between the money supply and domestic credit issues.

At the end of the discussion, the Bank Board decided by a majority vote to lower the CNB two-week repo rate from 6.5% to 6.25% (by 0.25 percentage points), effective 30 July 1999.

## Minutes of the Bank Board Meeting on 2 September 1999

Present at the meeting:

Josef Tošovský (Governor), Zdeněk Tůma (Vice-Governor), Oldřich Dědek (Vice-Governor), Miroslav Hrnčíř (Chief Executive Director), Luděk Niedermayer (Chief Executive Director), Pavel Štěpánek (Chief Executive Director), Pavel Rácocha (Chief Executive Director)  
Pavel Mertlík (Minister of Finance) - present for part of the meeting.

The CNB Board opened the meeting with an assessment of monetary developments in relation to the changing conditions at home and abroad. Inflation risk in the Czech Republic has been mainly associated with rising cost factors: a significant increase in unit labour costs in industry has also been accompanied by rising crude oil prices. Domestic demand has already shown clear signs of recovery. One of the most important changes abroad is strengthening economic growth in EU countries, accompanied by certain price recovery.

The main criterion for CNB monetary policy decisions is the end of the year 2000. Current net inflation forecasts range between 2.5% and 5.5%, year-on-year, with an asymmetric mean value of 3.7%. In this context, the Bank Board discussed net inflation development and its anticipated move below the mean inflation target at the end of 2000. It was stated that this particular expectation has been generated by expected food prices, which are not as directly affected by monetary policy as the other components of net inflation.

The Bank Board devoted a significant amount of time to discussing the outlook of budget performance for next year. It was stated that, assuming prudential behaviour in the fiscal area, demand growth would not be a source of direct, inflationary shock and, hence, would not lead again to monetary policy tightening. Namely, the Ministry of Finance should not let the state budget deficit exceed its currently projected level, and real household income growth should be maintained at the level of the expected rise in productivity.

The transfer of koruna to foreign exchange instruments is a new factor that the Bank Board takes into account when making decisions. The ease and accessibility of these instruments and the low transaction costs involved have led to more prudence when decisions are made on lowering interest rates. Although the interest rate differential in relation to the euro has remained relatively large, there is a very small differential in comparison to some of the European countries outside the EMU mechanism (e.g. Great Britain and Norway), as well as in comparison to the USD. Therefore, the relevance of these currencies to the koruna should not be overlooked.

The members of the Bank Board agreed that the current, or respectively slightly lowered, two-week repo rate reached a level, which, in the absence of unforeseen shocks, can be expected to be stable in the relatively longer term. It was stressed during the discussion that lowering the discount rate should not send incorrect signals for possible future cuts in the repo rate. One view prevailed during the discussion that lowering the discount rate by 0.5 percentage points accompanied by a sharp reduction in the Lombard rate (by two percentage points) is a reflection of the achieved conditions towards stability. This would also mean significantly reducing the space for future movements in the repo rate. Market players are also expected to interpret the correction in this way.

At the end of the meeting, the Bank Board decided, by a majority vote, to lower the CNB two-week repo rate from 6.25% to 6% (by 0.25 percentage points), the discount rate from 6% to 5.5% (by 0.5 percentage points) and the Lombard rate from 10% to 8% (by two percentage points), effective 3 September 1999.

## Minutes of the Bank Board Meeting on 4 October 1999

Present at the meeting:

Josef Tošovský (Governor), Oldřich Dědek (Vice-Governor), Miroslav Hrnčíř (Chief Executive Director), Luděk Niedermayer (Chief Executive Director), Pavel Racoča (Chief Executive Director), Pavel Štěpánek (Chief Executive Director)

At its regular meeting, the CNB Board assessed the monetary implications of the most important changes that had taken place in the Czech economy and in the external environment since the last meeting on economic and monetary developments.

The Board noted that the Czech Statistical Office's estimate of GDP for Q4 1999 revealed signs of economic recovery - year-on-year, as well as quarterly seasonally adjusted growth. The driving force behind this improvement in economic performance was more favourable developments in net export and private consumption. Trade balance results for August confirmed the positive effect of the external sector on GDP growth.

The sustainability of economic recovery, the extent of which enters into the inflation forecast when assessing future demand inflation pressures, is to a certain extent connected to positive developments in the external sector. In the light of this relationship, the Bank Board indicated as a risk factor any sharp appreciation of the koruna that would threaten the inflation target for the year 2000. The direct impact of koruna strengthening on net inflation and inflation expectations could possibly increase the likelihood of missing the inflation target.

Identifying the root causes of koruna appreciation was indicated by the Board as a necessary condition for the formation of an optimal central bank response to these developments. It was mentioned that the balance of payments results and information from the market had shown that the presence of short-term capital motivated by the interest rate differential was not a source of appreciation pressure. In view of the positive outlook for stronger inflow of foreign direct investment, koruna appreciation was most probably caused by a market that was, in fact, anticipating the appreciation of the koruna. Hence, the Board remarked that, in relation to the high uncertainty concerning the volume, time distribution and manner in which these expected investments would be financed, the central bank, as well as market agents, were faced with difficulties in quantifying the degree of future appreciation pressure. As a result, the market response could, in certain cases, be overestimated. The Board expressed their intentions to intervene in order to prevent the excessive appreciation of the koruna, which over time could be unsustainable, and in the short-term, inconsistent with the CNB's inflation targets. The Board also stated that the CNB did not observe capital inflow motivated by the interest rate differential and that it was not limited to its current foreign exchange reserves when intervening to weaken the koruna. It was also stressed that the central bank would employ a combination of different instruments in its strategy, including efforts to carefully coordinate monetary and fiscal policy.

The Board wanted to make clear that the CNB's decision to intervene did not represent a change in its monetary policy aims. In an inflation-targeting regime, guarding against extreme exchange rate volatility is desirable in view of how quickly import prices affect net inflation. This is especially true when there is a risk of unsustainable developments. Any sharp depreciation of the koruna as a response to unsustainable appreciation would have serious monetary and macroeconomic implications. Contrary to the direct impact of a nominal exchange rate change, which is not related directly to the interest rate differential, the impact of the interest rate change on the transmission mechanism is characterised by a longer time lag. As a result, short-term interest rate cuts may not be sufficient for attaining the inflation target. The continuing problems on the supply side of the credit market had been caused by microeconomic and structural deficiencies in the Czech economy as well as the nature of capital inflow. In view of the problems facing the credit market, the Board maintained that foreign exchange intervention, in spite of its limitations, could be a more effective instrument in reaching the inflation target than, for example, larger changes in short-term interest rates.

The importance of the level of real interest rates in assessing monetary policy settings was emphasised during the meeting. It was mentioned as a reminder that even with existing uncertainties concerning

the market's inflation expectations, it could be said that real interest rates measured by the PPI in a horizon of more than twelve months were, in principle, consistent with the level achieved in the economic cycle.

Current money supply dynamics, wages, and external cost and demand factors were examined during the discussion, and overall developments in these segments were believed to correspond to future targets in the monetary area. In assessing these factors, the Board did not identify any strong risk of imbalance in the short run.

Public finance performance was considered to be a growing source of uncertainty when implementing monetary policy in the medium term primarily owing to difficulties in quantifying the volume and time scheduling for the use of privatisation revenues. Hence, a concern was raised that the budget deficit for the year 2000 might be larger. Using privatisation revenues for financing government off-balance sheet expenditures was one of the concrete risks mentioned.

The CNB Board unanimously decided to intervene in the foreign exchange market in order to weaken the koruna. The Board also decided, by a majority vote, to support this action by lowering the two-week repo rate from 6% to 5.75%, effective 5 October 1999.



## Measuring the inflation expectations of the financial market

Measuring the inflation expectations of the financial market is one of the standard analytical approaches of central banks. Its significance is growing, particularly within the monetary policy scheme ensuing from the inflation targeting strategy. Within this scheme, the central bank's decisions regarding monetary policy measures are not based on a single intermediate target (e.g. a monetary aggregate), but on a multi-criteria assessment of the current monetary situation using a set of indicators, many of which are financial market indicators. These indicators in general reflect the valuation of various financial assets and the expectations of market participants regarding the future trend in financial asset prices in relation to inflation and output. At the same time, they respond directly to changes in market conditions triggered, for example, by monetary policy measures, the latest macroeconomic and monetary indicators, or by the political situation. A major virtue of financial indicators is their timeliness (in comparison, for example, with the inaccuracy and lags with monetary aggregates), as they are available practically without delay.

The objective of measuring inflation expectations is to assess changes in the inflation expectations of the market as a reflection of monetary, or other, policy decisions. The information acquired in this way provides feedback on the effect of monetary policy on inflation and thereby on the fulfilment of the central bank's fundamental objective. Information on inflation or other financial market expectations thus constitutes a substantial part of the multi-criteria decision-making process, facilitating, for example, the correct timing of monetary policy changes. Moreover, such information can assist retrospectively in evaluating whether the measure had the desired effect and whether the market considered it credible.

The quality and informative power of financial indicators is still increasing in line with the gradual development of individual segments of the financial market. In general, however, it is of course not possible to rule out a situation where the indicators, for various reasons, do not correctly reflect the current situation and the future trend (e.g. the exchange rate and interest rates in the Czech Republic at the beginning of 1997, the JPY/USD rate, etc.). The reliability of future interest rates, and thus of the derived future inflation trend is strongly dependent on the stability of the financial market as a whole.

The CNB started regular measurement of the inflation expectations of the financial market in May this year. The most liquid segments of the financial market – the interbank deposit market, the interest rate derivatives market and the foreign exchange market – were selected, taking into account the limitations on the informative power of financial indicators (financial market stability, the low liquidity of the government bond market). The circle of entities surveyed was drawn up from participants who trade both on the money and on the capital markets, who are very active in these segments and thus create prices for various market instruments, and who expressed their consent to co-operate with the CNB. In this way, a group of ten analysts was established, five of them domestic participants and five foreigners. Using standardised forms, the CNB conducts a monthly<sup>31)</sup> survey of their predictions for the following selected indicators:

- year-on-year CPI and net inflation for a one- and three-year horizon<sup>32)</sup>,
- 1W PRIBOR, 1Y PRIBOR and 5Y IRS for a one-month and one-year horizon,
- the CZK/EUR exchange rate for a one-month and one-year horizon.

This information serves primarily for the needs of monetary policy, i.e. what the trend is in inflation expectations and whether these expectations are consistent with CNB projections, and the subsequent real trend. The information is used also for comparison with the financial market expectations acquired indirectly from yield curves and for possible correction of these expectations.

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31) A monthly periodicity was chosen on the basis of recommendations by the majority of the participants, due to the still rather specific situation in the Czech economy in which expectations are currently subject to more frequent change than in advanced countries. The forms are sent to the CNB on the tenth working day of the current month. On the fifteenth working day, the CNB announces the aggregate results to all the participants.

32) The surveying of a one-year and three-year sliding period is tied to the short-term control and medium-term monetary policy targets within the inflation targeting regime in the Czech Republic. In contrast, we have rejected the option of surveying repeatedly for the same period (e.g. the end of the relevant calendar year). Over time, during the relevant calendar year, such information loses its power, and it becomes no longer possible to respond with monetary policy. The information becomes a mere control item of "how accurately other market participants will hit" the reality at the end of the relevant year.

## Results of measurement of financial market expectations for the May–September 1999 period

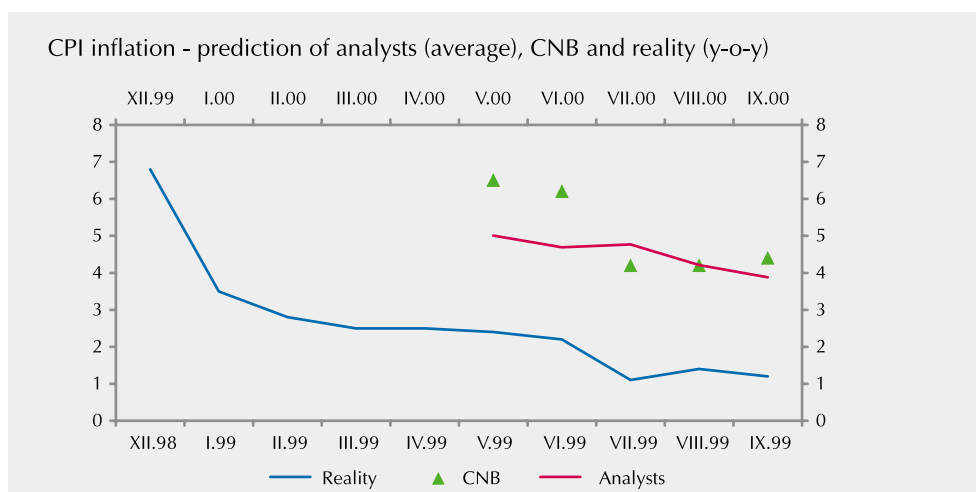
### I. Inflation

The average predictions of year-on-year CPI and net inflation by the whole group of analysts consistently envisage both indicators up by approximately by 2.5%–4% against 1999 in the one-year horizon (in the three-year horizon the predictions are slightly lower). In the period under review, these estimates have been declining in nominal terms in line with the decreasing actual inflation outturns. Financial market expectations are broadly in line with the CNB's predictions. The estimates of domestic analysts are around 1%–2% higher than those of foreign analysts.

The main factors affecting the expected inflation trend, according to analysts' comments:

- The rise in oil world prices
- The necessity to complete deregulation; changes in indirect taxes
- Food price inflation
- The revival in domestic demand

Prediction horizon Prediction for month	CPI (y-o-y)		CNB 1Y %	Net inflation (y-o-y)		CNB 1Y %
	1Y %	3Y		1Y %	3Y	
May 99	5.0	4.2	6.5	3.5	2.8	4.1
Jun. 99	4.7	4.3	6.2	3.2	2.9	4.2
Jul. 99	4.8	4.2	4.2	3.1	2.8	3.2
Aug. 99	4.2	4.3	4.2	2.6	2.7	3.2
Sep. 99	3.9	4.4	4.4	2.6	2.8	3.2



## II. Interest rates

The financial market was expecting a slight decline in the selected interest rates in the one-month horizon, owing to the CNB's monetary policy measures in the area of key interest rates (the repo rate, the Lombard rate and the discount rate) in the period under review. The assessment of the short-term prediction versus reality for May-September 1999 shows that the expectations of analysts were at approximately the same level as the subsequent actual interest rates, while the yield curve was slightly more positive.

In the long-term prediction horizon (one year), most analysts are expecting stable interest rates. However, in both time horizons, the yield curve's positive slope is increasing modestly. This corresponds with the expected inflation pick-up. Comparisons between the predictions of domestic and foreign analysts again show that domestic participants' expectations are around 0.3%–1% higher. Comparing the prediction for the 1Y PRIBOR in the one-year horizon and the current 1Y FW rate reveals that the analysts' projections are 0.16%–0.30% lower than the current market indications.

The main factors affecting the interest rate predictions:

- In the short-term horizon – expectations of flat interest rates, since the market does not expect any further changes following the CNB's key rate cuts in the past period.
- In the long-term horizon – expectations of a modest interest rate rise, resulting from the increased need to finance the fiscal deficit, the possible raising of interest rates by the ECB and the pick-up in inflation.

Prediction horizon Prediction for month	1T PRIBOR		12M PRIBOR		spread 12M/1T		5R IRS	
	1M	1R	1M	1R	1M	1R	1M	1R
	%		%		%		%	
May 99	6.8	6.7	6.9	7.1	0.1	0.4	7.7	7.7
Jun. 99	6.6	6.8	6.8	7.2	0.2	0.4	7.7	7.8
Jul. 99	6.5	6.7	6.7	7.0	0.2	0.3	7.6	7.7
Aug. 99	6.1	6.4	6.6	7.0	0.5	0.6	7.3	7.7
Sep. 99	6.1	6.4	6.5	7.0	0.4	0.6	7.3	7.5

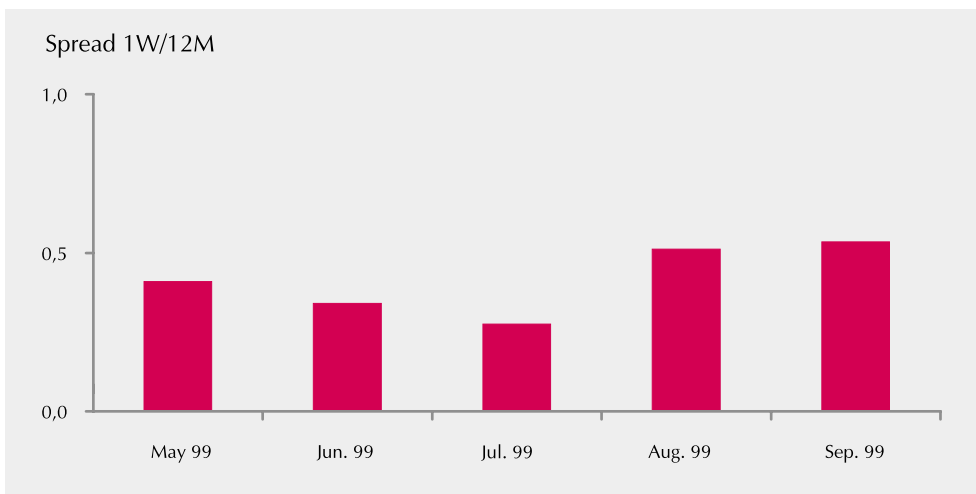
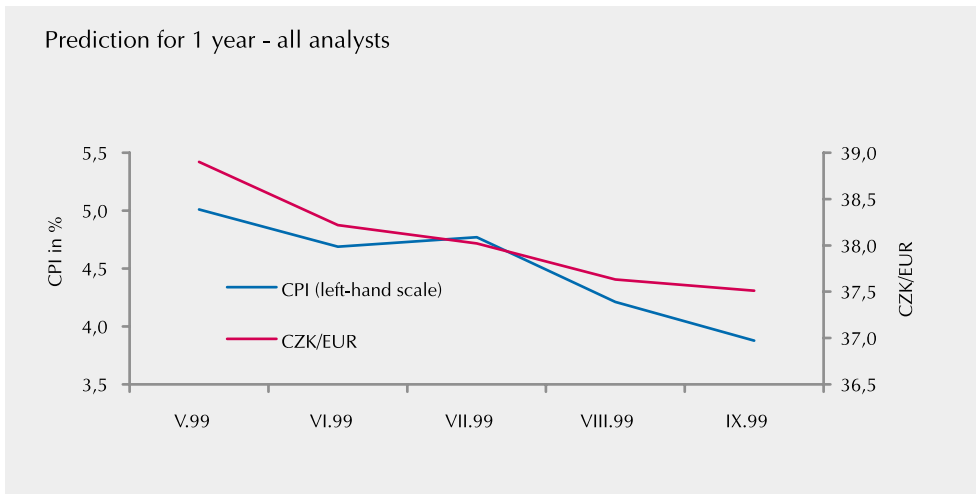
## III. The exchange rate

In May and June, the short-term predictions for the koruna's exchange rate against the euro indicated a stable trend with a modest tendency towards a koruna depreciation. However, based on developments in reality, analysts' expectations tended towards a stable trend with a short-term appreciation tendency. For the June–September 1999 period, though, the actual nominal exchange rate level was lower than the prediction. The one-year predictions indicate that the koruna will depreciate against the present situation, but even these values are gradually falling in nominal terms.

The main factors affecting the predictions for the koruna's exchange rate against the euro:

- In the short-term horizon, the market is expecting stable development, or possibly a slight appreciation, mainly because of the FDI trend.
- In the long-term horizon, certain risks are perceived in the possible growth of the current account deficit (increases in prices of oil and other commodities; renewed domestic demand leading to growth in imports) and in the level of the state budget deficit.

Prediction horizon	Exchange rate	
	1M	1Y
Prediction for month	CZK/EUR	
May 1999	37.89	38.90
Jun. 1999	37.21	38.22
Jul. 1999	36.74	38.02
Aug. 1999	36.59	37.63
Sep. 1999	36.56	37.51



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