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QUARTERLY  
REPORT  
ON INFLATION

September  
1999

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rate sector. This year, direct corporate borrowing again gained importance, while net capital outflow was observed at credit institutions.

Considering intercompany loans, constituting part of foreign direct investments, there has still been capital outflow. While the more vigorous equity purchases point to longer-term interest on the part of non-resident investors.

In contrast to earlier years, the capital account also shows a negative balance (a deficit of USD 120 million). As, however, total financing exceeds the current account deficit by more than USD 400 million, the net errors and omissions (NEO) item is also in a minus position.

### 3 Changes in foreign liabilities and assets

The net position vis-à-vis non-residents declined from USD 29.4 billion to USD 29.3 billion. Changes in the stock were strongly influenced by changes in cross rates over the period, particularly the significant strengthening of the dollar against the euro. Gross foreign liabilities increased from USD 45.1 billion to USD 46 billion, while gross assets increased from USD 15.7 billion to USD 16.7 billion.

The growth in gross foreign liabilities was to the greatest extent due to the portfolio equity purchases of non-residents while, to a minor extent, the stock of foreign direct investment, the HUF denominated government bond holdings of non-residents and foreign debt denominated in foreign currencies also rose. The growth in the stock of debt-type investments abroad and the rise in the intercompany loans extended to non-residents played a role in the increase in gross assets, but international reserves also increased.

Gross foreign debt denominated in foreign currencies stood at USD 23.3 billion at the end of June this year as against USD 23.2 billion half a year before. The cross rate changes reduced the stock by USD 1.7 billion.

Net foreign debt denominated in foreign currency against non-residents decreased from USD 8.9 billion to USD 8.3 billion. The impact of cross rate changes amounted to nearly USD 1 billion in this decrease, that is, transactions in themselves would have led to an increase in net foreign debt.

Foreign currency denominated debt outstanding against non-residents by sector reveals no substantial restructuring; the only fairly significant change can be attributed to the change in accounting.<sup>6</sup> As this does not affect the foreign debts of the private sector, similar to the beginning of the year, it continues to represent 43% of gross foreign debt and 63% of net foreign debt.

<sup>6</sup> From 1999, the Government (the Debt Management Agency) is the sovereign borrower, that is, credits newly raised are presented directly in the books of the Government. In actual fact, all foreign exchange debt outstanding against non-residents were ultimately the debt of the State, it is just that earlier credits had been taken out by the NBH, which then extended a foreign exchange credit to the Government under nearly the same conditions and in the same amount. That is to say, debts outstanding against non-residents were booked at the NBH. This practice was then altered by the amendment in force from 1999.

#### Financing the current account

	USD million					
	1998 Q1	1998 Q2	1998 H1	1999 Q1	1999 Q2	1999 H1
(1) Current account deficit	382	523	905	598	619	1,218
(2) Total financing	311	231	542	803	840	1,644
- non-debt type (=2b.2+2c.1)	805	-49	756	647	962	1,610
- debt-type (=2a+2b.1+2c.2)	-494	280	-214	156	-122	34
(2a) NBH and government	-1,298	-53	-1,351	301	13	315
(2a.1) Transactions in debt instruments	-31	105	74	186	716	902
- of this HUF denominated government bonds	621	579	1,199	79	81	160
(2a.2) International reserves	-1,267	-158	-1,425	116	-703	-587
(2b) Private sector	1,280	-247	1,033	221	550	771
(2b.1) Transactions in debt instruments	836	-19	817	36	-123	-88
- Credit institutions	930	264	1,193	9	-191	-182
- Corporate sector	-93	-283	-376	27	67	94
(2b.2) Equity securities	443	-228	216	185	674	859
- Credit institutions	-1	-10	-10	-8	2	-6
- Corporate sector	444	-218	226	193	672	865
(2c) Direct investment, net	329	531	860	282	277	558
(2c.1) Equity capital, net	362	179	540	462	289	751
(2c.2) Intercompany loans, net	-32	352	320	-180	-12	-193
(3) Capital account	43	61	104	-12	-127	-139
NEO (=1-2-3)	28	231	259	-193	-94	-287

#### Foreign liabilities and assets of Hungary

	USD million		
	Dec. 1998	June 1999	Change
(1) Gross foreign liabilities (=1a+...+1d)	45.1	46.0	1.0
(1a) Foreign debt denominated in foreign currency	23.2	23.3	0.1
- Portfolio debt	11.0	11.4	0.5
- Other debt	12.3	11.9	-0.4
(1b) Foreign debt denominated in HUF	1.3	1.3	0.1
(1c) Direct foreign investments in Hungary	18.3	18.4	0.1
- Equity capital	16.0	15.8	-0.1
- Intercompany loans	2.3	2.5	0.3
(1d) Equity securities	2.3	3.1	0.7
(2) Gross foreign assets (=2a+...+2d)	15.7	16.7	1.1
(2a) Debt of non-residents vis-a-vis Hungary	4.9	5.6	0.7
- Portfolio debt	0.2	0.6	0.4
- Other debt	4.7	5.0	0.3
(2b) International reserves	9.3	9.4	0.0
(2c) Hungary's direct investments abroad	1.3	1.6	0.4
- Equity capital	1.2	1.2	0.1
- Intercompany loans	0.1	0.4	0.3
(2d) Equity securities	0.1	0.1	0.0
Net foreign liabilities (=1-2)	29.4	29.3	-0.1
Net foreign debt denominated in foreign currencies (=1a-2a-2b)	8.9	8.3	-0.7

#### Foreign debt denominated in foreign currencies by sectors

	December 1998		June 1999		Change	
	USD billions	%	USD billions	%	USD billions	%
(1) Gross foreign debt (=1a+1b)	23.2	100.0	23.3	100.0	0.1	0.3
(1a) NBH and government	13.1	56.6	13.3	57.1	0.1	1.1
National Bank of Hungary	11.7	50.3	10.2	43.9	-1.5	-12.6
Government	1.5	6.3	3.1	13.2	1.6	109.7
(1b) Public sector	10.1	43.4	10.0	42.9	-0.1	-0.7
Credit institutions	5.5	23.5	5.2	22.3	-0.3	-4.8
Corporate sector	4.6	19.8	4.8	20.6	0.2	4.1
(2) Net foreign debt (=2a+2b)	8.9	100.0	8.3	100.0	-0.7	-7.3
2a) NBH and government	3.3	36.6	3.1	37.2	-0.2	-5.8
National Bank of Hungary	2.3	25.8	0.5	5.8	-1.8	-79.3
Government	1.0	10.8	2.6	31.5	1.6	169.9
(2b) Public sector	5.7	63.4	5.2	62.8	-0.5	-8.3
Credit institutions	2.2	24.2	1.8	21.8	-0.4	-16.6
Corporate sector	3.5	39.2	3.4	41.0	-0.1	-3.1

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## 2 Current account and its financing

The external and internal factors determining fluctuations in the current account have not changed substantially in the second quarter relative to the first quarter of 1999. The bombardment of Yugoslavia during the period did have an impact on services and foreign trade (transportation, travel), nevertheless its effects have remained within manageable limits to date in contrast to earlier estimates, which proved to be excessive. The current account closed the first six months of 1999 with a deficit slightly in excess of USD 1.2 billion, USD 300 million higher than the 1998 deficit.<sup>5</sup>

The seasonally adjusted current account deficit also deteriorated slightly in the second quarter relative to the first one. Over the entire half-year, the growing deficit reflects the combined impact of three factors. The first one was the Russian crisis, the effects of which were only moderately felt in the first half of 1998. The other two factors include the recession evolving in the CEFTA countries over the past year and a slowdown in the business cycle in the European Union. These effects will partly subside in the second half of the year (the recovery in some of the CEFTA countries can already be seen) or else they will be mitigated. Hence, according to our expectations, their further balance deteriorating impact will be limited or will disappear.

The so-called non-debt creating net capital inflow (within direct capital investments, net acquisition of equity and ownership holdings by foreigners and, within portfolio investments, net equity acquisition by foreigners) covered the current account deficit in both quarters. In contrast to the USD 1.2 billion current account deficit over the entire half-year, non-debt creating financing amounted to USD 1.6 billion. Over the first half of 1998, net outflow was observed through the equity channel and the inflow of direct foreign investment was also low: hence, non-debt creating capital inflow did not cover the current account deficit. Relative to 1998, another change is that the purchases of HUF denominated government bonds by non-residents has been substantially lower.

Primarily through the issues of the Debt Management Agency abroad, the NBH and the Government were net external borrowers over the half-year. The extent of this was reduced by the intervention purchases of foreign exchange by the NBH conducted mainly as a result of the vigorous capital inflow registered in the second quarter.

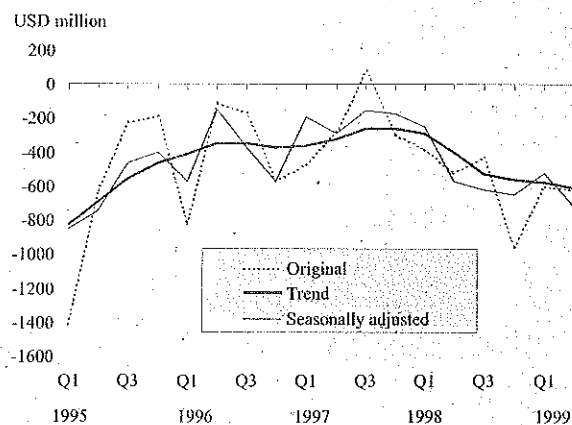
The private sector provided the main source of external financing in the second quarter. This was mainly generated by equity inflows; balance of credit flows was not significant. The tendencies in credit turnover were opposite to those in the preceding year. Whereas credit institutions were net borrower in 1998 and net capital outflow was registered in the case of the corpo-

<sup>5</sup> At this point, we call attention to the fact that from 1999 credits to the non-convertible current accounts of non-residents are not presented on the expenditure side of tourism, but under import. In order to ensure comparability with 1998 data, we also performed this adjustment for the preceding year. Thus, naturally, the figures presented in earlier publications have changed with respect to the figures for import and expenditure on tourism. This change has no effect on the balance of the current account, as it constitutes no more than a rearrangement among its components.

Main components of the current account

	USD million					
	1998 Q1	1998 Q2	1998 H1	1999 Q1	1999 Q2	1999 H1
<b>I Goods</b>	-373	-456	-830	-517	-529	-1,046
Credit (export)	4,740	5,044	9,784	5,217	5,064	10,282
Debit (import)	5,114	5,500	10,614	5,735	5,593	11,328
<b>2 Services</b>	126	304	429	-31	166	135
Travel, net	251	414	664	230	394	624
Other services, net	-125	-110	-235	-261	-228	-489
<b>3 Incomes</b>	-321	-624	-945	-234	-475	-709
on debt, net	-296	-227	-523	-236	-169	-405
on non-debt, net	-25	-397	-422	2	-306	-304
<b>4 Current transfers</b>	187	253	440	183	219	402
<b>Current account (1+2+3+4)</b>	-382	-523	-905	-598	-619	-1,218

Developments in the current account



*The "Quarterly Report on Inflation" is a publication of the National Bank of Hungary, which aims to inform the public on a regular basis about recent and expected developments in inflation, as well as about the central bank's assessment of the macroeconomic process determining inflation. The aim is for the goals of monetary policy to reach a wider public than before, such that the central bank's actions become easier to follow and interpret. This publication focuses essentially on the description and analysis of current developments of a given period. The economic and financial concepts and relationships determining future developments in inflation considered relevant by the central bank were presented in our first issue,<sup>1</sup> hence their detailed description is not given here.*



<sup>1</sup> The first issue of the "Quarterly Report on Inflation" (November 1998) is available on the home page of the National Bank of Hungary.

The decline in the financing capacity of *households* was due first and foremost to the fact that households turned from financial investments towards real investments. Hence, the growth in their financial savings decreased, while a vigorous demand was registered in the real estate market. The sharp change in the forms of savings was fundamentally caused by regulations. Investment demand of households, postponed last year and compensated for this year, improved the last year's net savings position, and led to a deterioration of this year's figures.

Changes in the profitability of *enterprises* are rather difficult to assess on a quarterly basis, for lack of more detailed statistical information. Based on the indirect data available, their financing requirement was significantly lower than in the same period in 1998. This had a two-fold reason:

- The disposable income of businesses was higher than in the preceding year. Productivity improved and changes in financial rules (taxes, subsidies, social security) facilitated the improvement of corporate profitability. The withdrawal of profits by foreigners was lower than last year, which also points to a reinforcement of foreign investor confidence. These reinvested profits increased companies' gross savings.
- In spite of the increase in disposable funds, corporate investment activity, although it continued to expand at a rate in excess of the GDP growth,<sup>3</sup> did not reach the outstandingly high growth rate characterised 1998. This may have been attributable to subdued growth in external markets, and in some parts of the country, the floods put the brakes on development opportunities and the propensity to invest.

Based on business surveys, a contradictory picture and polarisation can be seen both in terms of growth prospects and profitability. On the one hand, the acceleration in domestic consumption demand and signs of global economic recovery point to improving sales opportunities. On the other hand temporary depreciation of the forint increased profits of net exporter companies in the second half of 1998. This year a slight real appreciation of the forint can be expected. The transitory fund-increasing impact of reinvested profits cannot be regarded as permanent,<sup>4</sup> and profit repatriation may approach an order of magnitude similar to that in 1998.

All these factors point to an increase in the corporate financing requirement, as well. As this financing need can not be expected to be offset by the increase in households' financing capacity, the deterioration of the external equilibrium position can only be prevented by increasing savings of general government if growth accelerates.

In the second quarter, the operational deficit of the *general government* declined and approached the level expected for the entire year. It is important that the deficit requirement provided for in the Budget Act is implemented and the budget generates a substantially lower external-financing requirement over the remaining part of the year.

<sup>3</sup> In this statement, investment does not include the impact of real property sales, which reduces investment expenditure (negative investment).

<sup>4</sup> Withdrawal of dividends, however, does not show an even seasonal picture; hence its impact cannot be filtered out.

Operational savings and investment by sectors\*  
as a percentage of GDP\*

	Per cent					
	1997 year	1998 Q1	1998 Q2	1998 year	1999 Q1	1999 Q2
<b>GDP</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
+net income transfers	-3.1	-3.2	-5.4	-4.0	-2.1	-4.0
+unrequited transfers	2.2	1.8	2.1	2.2	1.6	1.8
<b>Disposable income</b>	<b>99.1</b>	<b>98.6</b>	<b>96.8</b>	<b>98.1</b>	<b>99.5</b>	<b>97.8</b>
- private households	70.4	76.3	69.7	70.9	76.2	70.8
- corporate sector	13.0	10.4	12.3	13.4	13.4	12.8
- general government	15.6	12.0	14.7	13.8	10.0	14.3
<b>Final consumption</b>	<b>72.6</b>	<b>80.0</b>	<b>71.4</b>	<b>72.9</b>	<b>79.3</b>	<b>73.3</b>
- private consumption	62.0	68.8	60.6	62.1	67.4	61.5
- public consumption	10.5	11.2	10.8	10.8	11.8	11.8
<b>Gross savings**</b>	<b>26.5</b>	<b>18.6</b>	<b>25.4</b>	<b>25.2</b>	<b>20.3</b>	<b>24.6</b>
- private household savings	8.4	7.5	9.2	8.7	8.7	9.3
- corporate savings	13.0	10.4	12.3	13.4	13.4	12.8
- public savings	5.1	0.8	3.9	3.0	-1.9	2.5
<b>Net capital transfers</b>						
- private households	0.5	0.2	0.1	0.2	0.1	-0.1
- corporate sector	1.1	1.0	0.9	1.2	0.9	1.4
- general government	-1.6	-1.2	-1.0	-1.4	-1.0	-1.3
<b>Investment</b>	<b>27.4</b>	<b>22.4</b>	<b>30.6</b>	<b>29.2</b>	<b>25.1</b>	<b>29.9</b>
- private households	4.8	4.9	4.1	4.2	4.9	6.7
- corporate sector	18.7	14.7	22.6	21.2	17.8	19.9
- general government	3.9	2.8	3.9	3.9	2.4	3.2
<b>Net savings</b>	<b>-0.9</b>	<b>-3.7</b>	<b>-5.2</b>	<b>-4.0</b>	<b>-4.0</b>	<b>-5.3</b>
private household savings	4.1	2.8	5.2	4.8	3.9	2.5
corporate savings	-4.6	-3.3	-9.3	-6.5	-3.5	-5.8
general government savings	-0.4	-3.2	-1.1	-2.2	-5.3	-2.1

Notes: NBH estimate. The data were changed also retrospectively in comparison to what was published earlier because, according to our estimate, the most recent information available since then has an impact also on income distribution and utilisation ratios.

Owing to rounding, the total of the parts may differ from the total presented in the table.

\* Indicators are near to the accrual approach. Savings do not contain the forint effects arising from exchange rate changes on household deposit and credit portfolios. Interest expenditure in the general government balance (GFS deficit less proceeds of privatisation) is presented using the accrual approach.

\*\* Gross savings = disposable income (gross, that is, it includes the value of devaluation in the given year) less final consumption. Disposable income includes the sum of the value of the gross domestic product of the given period and the balance of the income transfers and unrequited transfers to non-residents and from non-residents to Hungary (according to balance of payments statistics).

## 1 Net savings position

Current account indicates economy's saving-investment balance. The saving-investment balance defines a "theoretical" current account; its *balance* is referred to as the *net financing capacity/requirement*<sup>1</sup> in accordance with international usage of the term. This indicator differs from the published current account figures,<sup>2</sup> but better reflects changes in the behaviour of economic agents determining the future external equilibrium position.

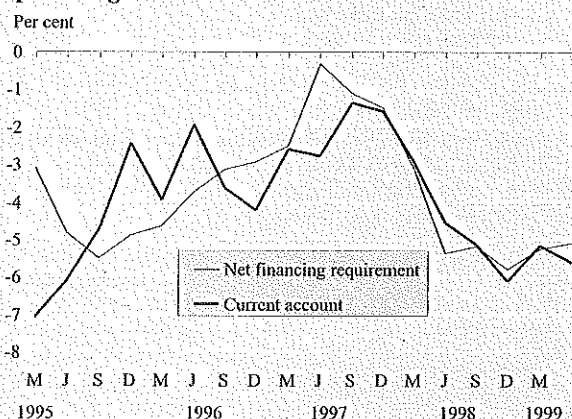
Based on the first two quarters of the year, it can be observed that the rapidly deteriorating position of the economy's external position, which characterised 1998, has slowed down. Measured in percentage of GDP, the *external financing requirement* declined further in the second quarter of 1999 relative to the first quarter and now stands at the level of the same period of the preceding year.

The favourable external position is attributable to the fact that the financing requirement of the private sector was more restrained than in the same period in 1998 and offset partly the higher state-financing requirement. The additional deterioration in the position of general government over the first quarter of the year increased the funds of the private sector and particularly that of companies. Nevertheless, the private sector did not alter its investment or consumption plans in spite of the additional funds, but increased its net savings (financing capacity). By the second quarter, the net savings of the private sector declined, but the financing requirement of general government also decreased.

<sup>1</sup> In accordance with our previous Report on Inflation, but in contrast to other NBH publications, the positions of economic agents are now given in operational terms (i.e. net of inflation) so they are now in a more easily understandable connection with real economic decisions that determine them. While earlier the compensation for inflationary depreciation on net financial wealth was presented as income or current saving, in the present setting only interest revenues in excess of inflationary compensation are regarded as income, and only the part of financial wealth in excess of inflationary compensation, as saving.

<sup>2</sup> The difference between the published and the theoretical current account arises from the fact that the Hungarian balance of payment statistics are still based on the cash-flow approach, that is, they fail to capture the transactions between residents and non-residents, which do not involve payments, while there may be cases, when flows which, in an economic sense, could be regarded as revaluation, are captured as transactions. In addition, there may also be time lags between real transactions and money flows. The shorter the measured time interval, the greater the relative delay and the difference between data compiled on accrual and cash flow basis. This also appears in the quarterly data on the current account and on the net external financing requirement.

Changes in the net financing requirement and the seasonally adjusted deficit in the current account as a percentage of GDP



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best, they can only adjust to modifications in the real effective exchange rate occurring because of changes in cross rates ex post. Thus, these indices better reflect the intentions of economic policy and the enforcement of the nominal anchor role of the exchange rate. If economic agents regard the fluctuations of the exchange rate within the band and changes in cross rates (albeit the latter is less probable) as transitory, these indexes can provide a picture also of changes in the long-term trend in competitiveness. In contrast to developments of the preceding quarter, the impact of movements of the forint within the band was minimal on the indices (an appreciating effect of about 0.5%). The effect of the weakening euro against the dollar in the second quarter, however, continued to appreciate the forint by about 1% in an effective sense against the currency basket.<sup>2</sup> The consumer price based real exchange rate net of fluctuations within the band and cross rate changes continued to be stable, reflecting the fact that economic policy did not modify the exchange rate path in spite of the real depreciation occurring due to the nominal exchange rate depreciation within the band, as a result of the emerging market crisis, and the surprising disinflation of last year.

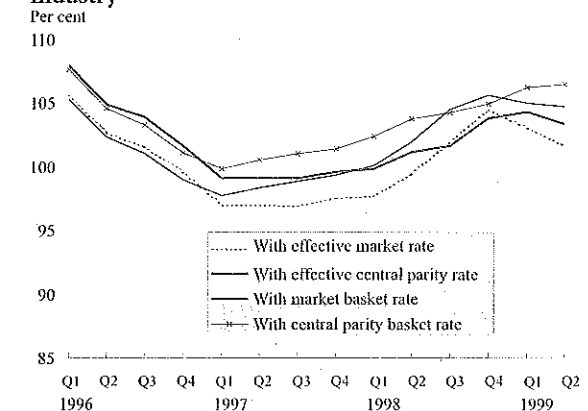
The real exchange rate based on wholesale prices in manufacturing - that largely contains tradeables - without the effects of cross rates and exchange rate fluctuations within the band continued to show a stable real depreciating trend. In case of the index, which includes fluctuation within the band as well, the phenomenon seen for consumer price based indicator - namely that the real devaluation, which took place last year, seems to have been turning back - can be observed here as well.

An analysis of changes in Hungary's competitiveness against various regions reveals that since the beginning of the year, a real appreciation has taken place vis-à-vis the advanced countries and the East Central European countries (about 5% since December of last year). In contrast, the forint depreciated in real terms against the Asian currencies, as a result of improving economic prospects in that region.<sup>3</sup> Real appreciation against developed countries - as presented above - was basically due to the fluctuation of the forint within the band and cross rate effects. In the case of real exchange rates based on unit labour costs, the last quarter of 1998 constituted a marked turnaround. The relatively stable trend-like tendency of real depreciation, which lasted since early 1997, seems to be reversing since the end of 1998, showing signs of slight real appreciation. This, similar to what was said in the case of the consumer price-based real exchange rates, is attributable largely to exchange rate movements of the forint within the band and cross rate effects. The index net of fluctuations within the band and the cross rate effects reveals that, with the slight real appreciation taking place over the last two quarters, the index only returned to the earlier trend. The trend-like real depreciation lasting since 1997 can be regarded as an equilibrium process, because the capital/labour ratio has been continuously increasing in the manufacturing industry, hence stagnating profitability/unit of capital must be concomitant with growing profitability/unit of output relative to foreign countries.

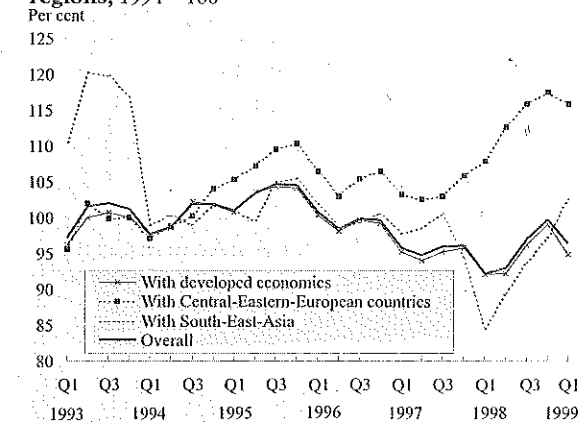
<sup>2</sup> The movement of the euro/USD cross rate influences competitiveness because the currency basket contains dollars in a greater proportion than what would arise from the effective structure of foreign trade. Owing to this, a weakening of the euro has an appreciating impact in an effective sense relative to the official rate of devaluation, while in the case of a strengthening of the euro, this holds true in the reverse.

<sup>3</sup> Data are available for a wider range of countries only until the first quarter of 1999.

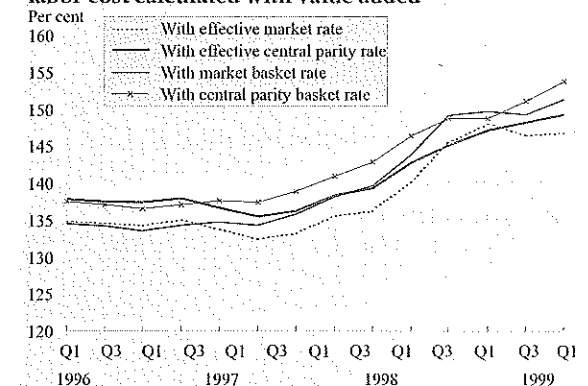
The evolution of the real exchange rate based on domestic wholesale price index in manufacturing industry



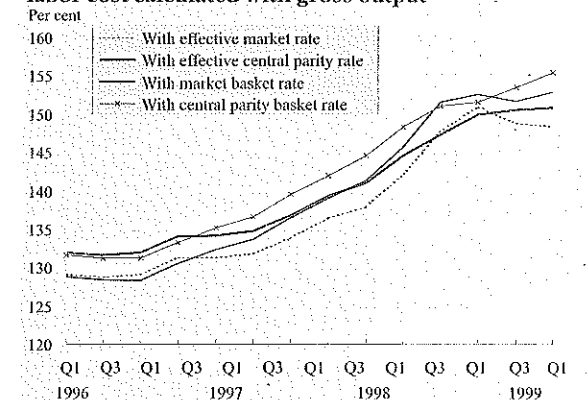
The evolution of the real-effective exchange rate of the forint based on consumer prices against different regions, 1994 = 100



The evolution of the real exchange rate based on unit labor cost calculated with value added



The evolution of the real exchange rate based on unit labor cost calculated with gross output





cast and the exchange rate path. For example, neither the temporarily faster drop in food prices, nor their subsequently faster increase affected the exchange rate path, as the Government and the NBH intend to influence the long-term trend of inflation by announcing the exchange rate path in advance.

Of the factors determining the inflationary process over the long term, the development of *supply and demand* and *imported inflation* continued to support the decline in inflation. According to the exchange rate path set by the Government and the NBH, the devaluation of the forint is to decline to 6.5% in 1999, down from its devaluation of 10.4% in 1998. The rate of inflation continues to be low at Hungary's most important trading partners, although the increase in oil prices resulted in a rise in inflation even in those countries: the inflation rate in the euro-region rose from 0.8% at the end of 1998 to 1.2% by August 1999.

In the coming period, the co-ordination of inflationary expectations is a key issue in maintaining the designated disinflation path. This year's indices are influenced by one-off factors which have no direct impact on supply and demand factors defining inflation over the long term, but directly influence the costs of living. This year's higher consumer price indexes might be used by employees when they bargain for wages and by producers when they determine their prices. These retrospective inflationary expectations might become self-fulfilling prophecies, and maintaining nominal discipline will only be possible at a lower level of employment and output.

With regard to the development of **aggregate supply and demand, lower than expected growth of foreign demand** was decisive, but economic analysts and surveys indicate that the trade cycle is turning upwards. Less favourable development of export sales opportunities reduced domestic demand by the private sector. As a result of changes in the growth dynamics of domestic and foreign demand (5.2% and 6.8%, respectively), GDP increased by 4% in the second quarter according to the NBH's estimates.

**Slower demand by the private sector affected the corporate sector first and foremost**, while household demand rose at a rate similar to last year. In the second quarter, general government was no longer burdened by the extraordinary expenditures which appeared cumulatively in the first quarter and it was possible to correct its excess spending in the first quarter.

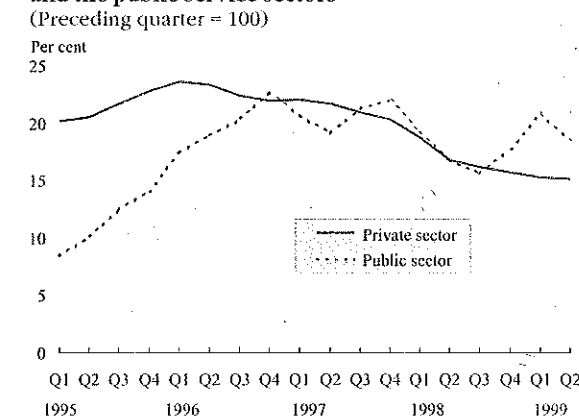
The external equilibrium position was similar to the first quarter of the year. Bearing in mind that the country's external equilibrium position showed a considerable deterioration as of the third quarter of 1998, the data for the first two quarters can be evaluated as showing signs of stabilisation in the external equilibrium position, primarily as a result of more modest investment demand.

The economy was influenced most significantly by changes in the economic conditions of Hungary's foreign trading partners. The economy of the European Union is already showing signs of recovering from the growth recession, with import demand in the EU increasing in the second quarter. This favourable effect, however, is not reflected yet in Hungary's foreign trade data. Recession continued at most of Hungary's Central and East European partners, although the drop in exports which characterised the preceding quarter proved to be only temporary. There are no signs yet of a revival of trade relations with Russia. Annual growth rates of export continued to decelerate, although the short-term, annualised rates show the sign of acceleration of exports.

The private sector reacted flexibly to changes in the business cycle. Current costs in the **business sector** adapted rapidly to the projected growth in revenues. **Nominal wage increases** (15.2%) in the market sectors fell more quickly than earlier, parallel with the faster reduction of inflation. Growth in investment expenditures by businesses also slowed. Compared to the same quarter of the previous year, **investments** in the economy increased by 6.8%; within this, investments by the corporate sector were only a few percentage points higher, indicating a substantial decline compared to the growth which exceeded 20% for the whole of 1998. At an aggregate level, corporate profitability did not decline, however, from which the conclusion can be drawn that investment growth may become vigorous again as the business expectations stabilises. This picture may be modified by the fact that the profitability position of companies pursuing different

the potential bottlenecks in market services, labour shortage in the manufacturing sector does not pose a direct threat of inflation; adjustment here may appear on the output side through deteriorating competitiveness. Short-term possibilities for solutions available to the state are different in the case of the bottlenecks arising in the manufacturing sector and the market services. There is a relative shortage not of white collar labour dominated public services, but of skilled blue-collar labour, hence the state may create the potentially missing labour reserves by slimming down and rationalising the large companies in which it still holds a majority stake. Over the longer term, a review of the priorities of education – promoting quality vocational training rather than higher education which already generates oversupply in many respects – and enhancing the regional mobility of labour and

Changes in the average wage growth in the private and the public service sectors\* (Preceding quarter = 100)



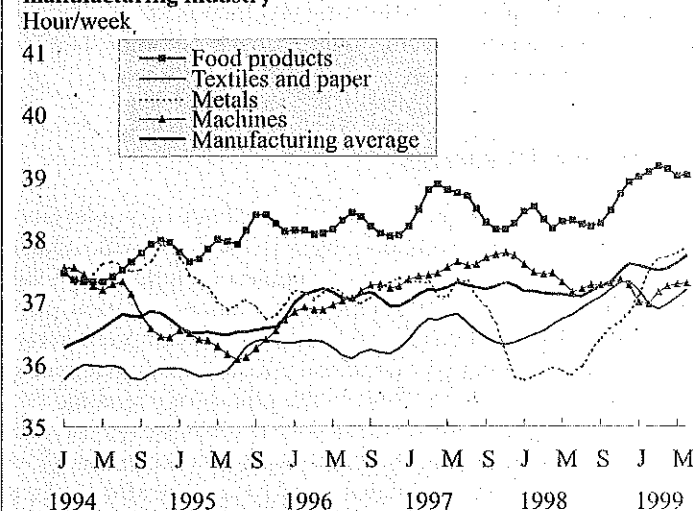
\* For companies employing more than 10 persons and budgetary institutions calculated by the NBH based on comparably structured data. Seasonally-adjusted time series.

#### Do we interpret wage inflation properly?

In an economic sense, wage inflation as touched upon in the November 1998 report means the change over time of *unit price of labour*. In addition to filtering out the composition effect from the average wage indexes as was then presented, it is also important to filter out the distorting effects of changes in the unit taken as a basis itself. In practice, this can be approached through the change in the average monthly number of working hours in industry, which characteristically applies payment by performance for blue-collar labour. That is to say, beside payment by performance or by the hour it is more expedient to define wage inflation as changes in the *monthly average hourly wage* instead of the monthly average wage adjusting to the practice of advanced countries.

As we do not know to what extent the companies in a sector are characterised by linking wages to the number of hours worked, the adjustment can be carried out only after *statistical testing*. That is to say, wages are adjusted only if, in the case of a given sector, we regard the impact of the change in the number of hours as statistically significant. Our aggregated wage data, however, are not suitable for the "retrospective" testing of the number of hours impact – the original wage data should themselves be collected converted to number of hours and published. This would ensure that we do not mix up wage inflation with the impact of changes in the number of hours worked, which influences monthly average wages.

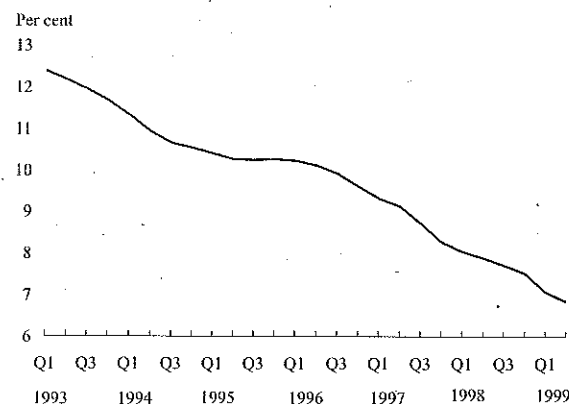
Changes in the average number of hours worked a week in the manufacturing industry\*



\* Average number of working hours worked per week by full-time blue-collar labour calculated from seasonally-adjusted monthly data. The number of hours per week should be compared not to the statutory 40 hours, but to the approximately 36 hours obtained by deducting of the number of days of average leave taken. Source: CSO statistical monthly publications.



## Changes in the unemployment rate



\* Seasonally adjusted time series based on the CSO publication "Labour Market Characteristics" calculated in a manner comparable in time. Unemployment interpreted in accordance with the ILO definition.

## 1.2 Changes in unemployment

According to the CSO household survey, the unemployment rate sank below 6.8% in the second quarter of 1999. The change in the demographic composition of the population slightly distorts the rate downwards, but nevertheless, according to our calculations, the significance of this distortion is negligible in terms of figures.

## 1.3 Changes in wages

According to CSO data, in the section of the national economy including the budgetary sphere and businesses employing more than 5 persons gross nominal wages increased by an average of 16% compared to the same period of last year. Taking inflation into account, this corresponds to an average real wage growth of more than 6%. The average for the national economy continues to be a result of relatively high wage increases in the public service at 17.4% and lower wage increases of 15.3% in the competitive sphere. Wage increase in the market sector, which was somewhat higher than the index of the preceding quarter, is attributable to the composition impact arising from the change in the structure of employment. The significance in employment of certain sectors with above average wage increases grew, which distorted the average wage index of the market sector upwards. Actually, net of this impact, the wage index of the market sector declined slightly relative to the preceding quarter, rather than showing an increase. The modest (0.1 percentage point) decrease in the annual index is due to the fact that growth in the wage indices of certain manufacturing sectors – machine and metal base material manufacturing – increased the annual wage index by nearly 0.5 percentage points in the second quarter relative to the first, which was just offset by the decrease in the wage growth of the other sectors.

In the light of what was written in the Bank's earlier reports regarding the relationship between inflation and the labour market, it is remarkable that the annual wage indexes suddenly increased precisely in the two most dynamically growing sectors of manufacturing industry in the second quarter. The leap in the growth rate of average wages of blue-collar workers in the machine industry, which has been continuously expanding the total number of its blue-collar workers since 1996 and which represents the greatest weight in the total of the manufacturing sector, deserves particular attention. Beyond certain problems of methodology (see box), these developments pose the question of a possibility of *bottlenecks in the labour market*. Earlier, such dangers were emphasised primarily in respect of *white collar* labor, which constitutes the labor source primarily for market services. The increase in the number and wages of machine and metal base material manufacturing may indicate an eventual shortage of *skilled blue-collar labour* (well-trained/trainable skilled workers). Such a relative labor shortage is also indicated by the fact that, according to the CSO household survey, the rate of economic activity rose to the highest extent in the regions dominated by the largest firms in these sectors. It is particularly remarkable that the employment rate was nearly 56% in the Western Transdanubian region, which demonstrated an annual industrial output growth of approximately 33% in the second quarter. This, together with the unemployment rate sinking to 4.5%, indicates that industrial recovery in the region has already absorbed the greater part of the potential local labour reserves. In contrast to

## Changes in wage inflation by national economic sectors\*

	1998				1999	
	Q2	Q3	Q4	Q1-Q4	Q1	Q2
Agriculture, fishing, forestry	16.6	16.4	16.1	16.5	14.5	15.2
Mining	10.6	5.1	5.9	11.3	13.6	18.4
Manufacturing	18.1	17.2	16.6	17.8	15.0	15.8
Electricity, gas, heat and water supply	19.9	18.7	17.7	19.3	15.6	16.4
Construction	16.8	15.1	14.1	16.2	13.7	10.7
Retail, maintenance of road vehicles, repairs	16.9	16.6	16.5	16.9	14.0	14.3
Accommodation services, catering	13.3	13.0	12.6	13.2	14.1	12.7
Transportation, storage and telecommunications	21.5	21.4	21.3	21.4	14.1	14.4
Financial activities and supplementary services	26.1	25.6	25.2	25.9	19.0	17.0
Real estate and business services	30.9	32.0	31.9	30.4	21.8	17.0
Public administration, social security and defence	17.8	18.0	18.2	18.0	23.2	20.0
Education	23.8	19.6	15.9	21.4	22.7	19.0
Health and social care	19.5	15.4	9.4	16.2	15.9	12.3
Other communal, social and personal services	16.5	15.7	14.3	15.8	11.7	13.1
National economy total	19.4	18.2	17.0	18.7	16.7	15.8

\* In respect of businesses, the data apply to those employing more than 10 people in 1998, but to those with more than 5 employees from 1999. Annual indexes calculated by the NBH from seasonally-adjusted wage data for 1998 and from comparably structured original data for the first quarter of 1999.

## Changes in wage inflation in certain priority sectors\*

	Per cent	
	1999 Q1	1999 Q2
National economy, total	16.8	15.8
Private sector	15.2	15.1
Manufacturing	15.0	15.8
Retail and repairs	14.0	14.3
Other private services	16.8	15.2
Public sector	21.2	17.5

\* Projected to constant 1998 employment structure in order to fully filter out the composition impact. Annual indexes calculated by the NBH from comparably structured original data.

activities and different market orientations differs from one another. Surveys of economic prospects indicate that, in addition to some businesses which are operating with a high rate of capacity utilisation and substantially expanding their staff, there was also a set of companies operating with low capacity utilisation in an unfavourable market position.

Fundamental changes can be observed in the adaptation of **households** to the business cycle. According to our estimates, the growth rate of household real income slowed down (to 3%), but households are attempting to **maintain a relatively stable expansion of consumption**. This occurred partly as an impact of income distribution, as transfers to households with a generally higher propensity to consume have increased at an above average rate (5%) in 1999. Conversely, as a result of the development of the financial intermediary system, consumer loans have become accessible to a wider range of households which had struggled with liquidity constraints in the past. Hence, households are able to maintain the desired expansion of consumption in spite of a lower growth of income, which is regarded as temporary.

**Gross savings of households** evolved at a level similar to that in previous years, but stagnated when taking into account the impact of the pension reform. **The distribution of gross savings between financial savings and investments changed significantly**. Household investments increased partly as a result of housing construction projects postponed last year due to the introduction of the opportunities to partly reclaim VAT which, in turn, resulted in a decline in financial savings. Increasing buoyancy in investments **went hand in hand with the deterioration of the net financing position of households**.

**In the second quarter of 1999 the general government corrected the demand impact of the first quarter**, which occurred partly as a result of the correction package accounting for 0.4% of GDP and partly as a result of the postponement of public investments. In spite of slower-than-projected economic growth and inflation over the first half of the year, budgetary revenues grew broadly according to the projections and the excess in the personal income tax revenues offset shortfalls in several areas (mainly in VAT revenues).

**Domestic supply** grew strongly as a result of last year's spectacular investment activity, and **capacities** also expanded. At the same time, the growth rate of industrial production slackened, hence high capacity utilisation noted earlier in the manufacturing industry showed a diminishing trend in the last three quarters. According to corporate surveys, the ratio of companies struggling with capacity shortages also fell. At the same time, potential labour utilisation increased as a delayed effect of the strong growth last year and **the rate of unemployment fell to 6.8%**.

**Wage inflation continued to drop** over the previous quarter (15.8%). The rate of wage increases was below the average in market sectors more strongly disciplined by profitability requirements (15.1%), while the nominal rise in gross wages was 17.5% in the public service sector. A reallocation of market positions is reflected by the fact that the wage growth of non-commercial services, which used to post wage inflation far above the average in earlier periods, **fell significantly** (15.2%). Wages in the manufacturing subsectors increased at 15.8%, which is above the average, indicating bottlenecks in skilled labour. Wage increases in the manufacturing industry do not have a direct inflationary impact as foreign market competition restrains the opportunities to increase price in this area, although the danger is there that companies less restrained by product market competition will be forced to offer higher wage increases when competing for labour.

In the second quarter, **the gap between GDP growth and domestic demand continued to become narrower**, which pointed towards the stabilisation of the external equilibrium position. The **current account balance** developed similarly to the second quarter last year and an improvement could be observed over the nadir after the outbreak of the Russian crisis. Substantial reallocations were noted in the components of the external financing requirement over the previous quarter. Net savings of the corporate sector, which have continued to rise, offset the diminishing financing capacity of households, while general government has already made a partial correction for its greater financing requirement in the first quarter. However, the envisaged

upturn in investment activity will result in a drop in corporate financing capacity. Further budgetary adaptation is required in order to achieve fast, but sustainable economic growth.

**Implementation of monetary policy in the second and third quarters of 1999 was defined by the fact that the attention of international capital markets turned primarily towards the advanced countries.** Expectations of a tighter monetary policy in the United States increased the interest premium expected from investments in the emerging countries. **Domestic economic processes also justified the pursuit of a prudent interest policy.** Although the economy is less overheated than it was in 1998, certain sources of danger have emerged in respect of the development of the inflation path, such as the increase of regulated prices and the rapid rise in oil prices, which foreshadows a possible slowdown in the reduction of inflation.

The most important change in the development of monetary conditions in 1999 was brought about by the planned change of the real exchange rate path. In 1999, the Government and the NBH have cut the devaluation rate three times, **as a result of which the real exchange rate path has been restored which can be characterised by an annual 2-3% appreciation** which is in line with the productivity growth differences in the tradable and non-tradable sectors.

In Hungary's crawling peg system, the forint interest level is influenced by the announced rate of devaluation, its envisaged movement within the exchange rate band, foreign interest rates and the risk premium. Consequently, to a great extent the development of real rates depends on the real exchange rate path defined as the gap between the inflation difference and the devaluation of the forint. Last year's real depreciation resulted in high domestic real interest level over the second half of the year. As a result of this year's modification of the exchange rate path, real interests declined and, by the end of June, the **real interest rate settled at around 4%** for three-month market instruments. At the same time, the **risk premium on forint investments continues to be higher than it was prior to the Russian crisis** and has stabilised at a level around 550 basis points. The higher premium primarily reflects the general uncertainty about emerging markets, as country specific factors – the end of the war in Kosovo and the stabilising of the external equilibrium position – should justify a diminishing premium instead.

Last month, the two constituents of monetary conditions changed diagonally. **While conditions became stricter in terms of the exchange rate policy, real interest rates declined in comparison to last year's high level.** As the combined result of these two effects, monetary policy moved towards greater nominal discipline. The most dynamic part of the economy includes companies with foreign trade relations/foreign ownership, for which borrowing in foreign currency is accessible and exchange rate risk is cheap to hedge, hence their decisions are not affected by domestic real interest rates. On the other hand, the tightening of the exchange rate path exerts a direct influence on their price and wage increasing opportunities. Conversely, companies drawing on finance domestically in forints were more strongly affected by the slowdown in the growth of domestic demand and the recession in Eastern Europe. In their case, the reduction in real interest rates facilitates stabilisation of their financial position.

Pricing by commercial banks was characterised by the fact that the interest margin between the market and bank facilities increased once again. This process was observable in the price formation of both loans and deposits. The increase in the margins between deposit and lending rates can be explained by a deterioration of the banking sector's profitability and may also be related to a deterioration of the loan portfolio of commercial banks and it was partly made possible by a portfolio change by household for banking assets as a consequence of the last year poor performance of mutuals and the stock exchange.

Longer-term interest expectations of the money and capital markets increased substantially in the past few months. **The increase in the long-term interest rate expectations in May-August** is only partially explained by a rise in long-term inflationary expectations or a drop in the propensity to assume risks with respect to emerging markets. The rise in long forint interest rates was **caused primarily by the substantial rise in long-term dollar and euro yields.**

the case of both men and women; hence, this is a process that cannot be explained by demographic reasons. We attribute this *expansion* in the employment of the 55–59 year-old age group to a non-recurrent distorting effect. This is substantiated by the fact that this age group, which accounted for less than 4% of total employees last year, represented nearly a fifth of the total expansion in employment over the first half of this year. Had employment also increased at the average rate in the case of the 55–59 year-old age group, the rate of total employment expansion would have been 2.9% instead of the 3.6% measured for the first half of the year.

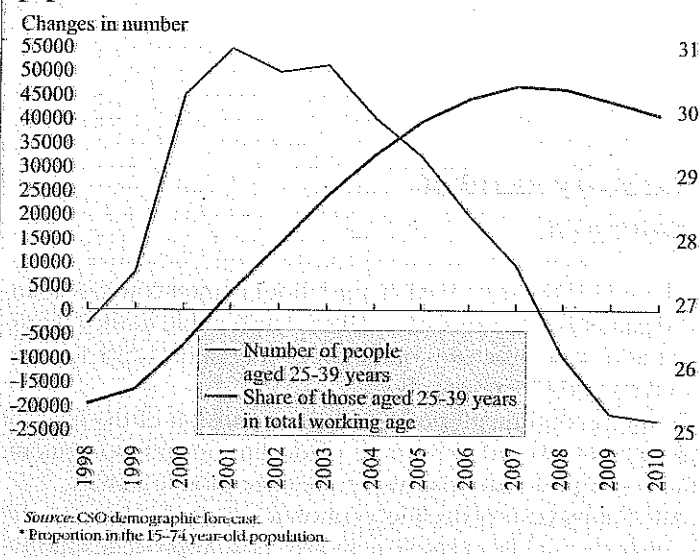
Changes in employment by sectors also calls attention to an interesting development. The *"Retail and maintenance"* sector, representing less than 13% of national employment, contributed more than a third of employment expansion in the first half of 1999. Employment by the sector has increased more than 10% since the first half of 1998, which also points to this disproportion (the rise in the number of employees in other sectors was also substantial but owing to the lesser weight of these sectors, these did not have such an impact on the total). Although such an expansion in employment in trade does not contradict trade cycle processes and can also be explained by the changes taking place in the structure of trading, it may well be that at least a part of the expansion is a result of non-recurrent effects. According to NBH calculations, had the number of employees in this sector risen also at the average rate over the first half of the year, the annual rate of employment growth in all of the national economy would have been 2.7% rather than the measured 3.6%.

All in all, it can be established that the tendency in the expansion of employment is unambiguous even after filtering out all potentially distorting effects. Net of the impact of demographic composition, the rise in the retirement age and certain positive sectoral shocks, employment increased by *at least 2.7–2.9%* in the first half of 1999 in comparison to the same period of 1998.

According to the institutional employment statistics of the CSO, based on budgetary and non-profit institutions and businesses employing more than five persons, employment in the whole national economy increased only slightly, by 0.6%, because of declining employment in the public sector over the second quarter of 1999 relative to the same period of the preceding year. Similar to the preceding period, the dynamic (2.2%) expansion in employment in the private sector was a result of declining employment in the agricultural sector, a rise in the manufacturing industry to a smaller extent, and growing market service employment, to a larger extent. The 1.1% increase in the number of people employed by the manufacturing industry can be linked mainly to machine manufacturing, which continues to grow dynamically (by nearly 6%), and to the related expansion in the metal base material manufacturing sector. As for commercial services, employment rising at a total rate in excess of 5% is attributable to the increase in the number of employees by the labour intensive accommodation services, real estate and business services sectors, in addition to the 11.5% expansion in trade. Within the budgetary sphere, the total 2.6% decline in employment was distributed evenly among the public service sectors.

gard the impact of changes in the demographic composition of the working-age population (15–74-year-old) as having a distorting effect on the average rates.

#### Change in the number and share of the 25–39 year-old population\*



### 1.1 Changes in employment

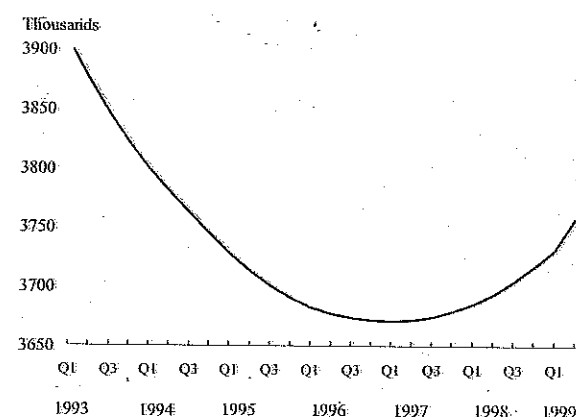
According to the CSO household survey, employment expanded by nearly 4% in the second quarter of 1999 compared to the same period in 1998. The seasonally-adjusted time series indicates a 1.1% annualised employment growth in comparison to the first quarter of 1999. That is to say, the rate of expansion in employment is still fairly high even after the outstanding value measured in the first quarter. According to the NBH analysis, there are trade cycle processes as well as non-recurrent effects attributable to the changes in demographic composition, the raising of the retirement age and a sudden increase in the headcount of a sector underlying this process.

#### What explains the surprising expansion in employment?

Changes in employment are known in a breakdown by sectors and, irrespective of that, also by age groups based on CSO data. On that basis, it can be established which sector or age group contributed to the average change in employment, in what direction and to what extent.

The increase in the retirement age may have contributed greatly to the expansion of employment. According to the age group data, the level of employment went up particularly in the 55–59 age group and, within this, especially in the case of women over the past half year. In the case of women, the sudden leap in the number of employees, by nearly a quarter relative to the first half of 1998 in the first half of the year, is presumably attributable to raising the retirement age to 57 years. The number of male employees increased by nearly a sixth. During the same period, the number of inactive declined or stagnated in

#### Changes in the number of employed\*



\* Seasonally adjusted time series based on the CSO publication "Labour Market Characteristics", calculated in a manner comparable in time.

It was an interesting phenomenon last year that while demand among the participants in the money and capital markets fluctuated widely, the domestic actors of the real economy continued to increase the weight of foreign-denominated instruments within their assets. Demand for narrower and broader monetary aggregates increased at a rate in excess of nominal GDP. **The real value of M1 and broader M3 exceeded the value measured in the second quarter of 1998 by 6.3% and 7.1%, respectively.** However, the slowdown in turnover speed grew less pronounced in comparison to the previous year.

*Non-intentional* money holdings may have an inflationary effect over the longer term through greater spending by households directly or indirectly, and it results in the deterioration of the external equilibrium position. Therefore, monetary policy monitors the development of these aggregates. The Bank's analyses indicate that currently **intentional components play a decisive role in the rise in money holdings.** The rise in narrower aggregates is justified by the fact that the opportunity cost of money holding has declined with the drop in inflation, consequently, households expend less energy in optimising the level of their stocks of money. The impact of a portfolio reallocation also contributed to the increase in broader aggregates. Because of the increasing uncertainty of the yield on stocks, households rechannelled their portfolio towards fixed income instruments.

Companies' net financing requirement declined substantially this year. The drop in the demand for loans and the rise in the portfolio of financial assets contributed equally to the improvement, indicating that companies have most probably postponed their investments, but that their profitability has not deteriorated at an aggregate level in spite of their doubts concerning future sales opportunities. However, a shift has taken place within the structure of loans. A shift towards foreign borrowing is observable, which can be explained by the fact that large share of the corporate sector is in a natural hedging position through their projected export revenues against exchange rate risk so they can make profit on the increased risk premium included in the local interest rates.

## Main macroeconomic indicators

	1997				1998				1999	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
	<i>Growth rate (at constant prices)</i>									
	<i>Change over the same period of the previous year (%)</i>									
GDP*	2.2	4.5	5.5	5.5	4.5	5.1	5.6	5.2	3.3	4.0
of this: domestic absorption	3.9	4.4	3.5	5.2	3.6	9.0	11.1	8.3	5.6	5.2
- final consumption	0.0	2.8	2.7	3.3	2.8	3.8	4.1	5.7	3.7	4.8
- household consumption	-0.8	2.4	2.2	2.7	2.8	4.1	4.4	6.1	3.7	4.6
- investment	22.0	9.8	5.6	8.7	6.7	26.1	30.5	13.0	10.6	6.2
- fixed investment	4.4	14.6	14.3	5.3	7.0	12.7	18.1	8.2	6.4	6.8
export (GDP)	19.0	24.5	28.8	27.5	29.0	17.6	12.5	9.5	8.3	6.8
import (GDP)	22.6	24.4	24.5	25.4	25.1	25.5	24.5	16.1	12.4	8.9
Real effective exchange rate index**										
On CPI basis	-4.6	-4.1	-4.3	-3.6	-3.4	-1.5	1.6	3.9	3.0	0.5
On producer price basis	-8.1	-5.5	-4.6	-2.0	0.6	2.5	5.2	7.1	5.4	2.3
On unit labour cost basis (on value-added basis)	-0.9	-1.6	-0.9	0.4	1.9	5.8	9.2	9.2	7.5	4.7
On unit labour cost basis (on gross output basis)	1.7	2.3	3.7	4.0	5.0	7.8	10.4	10.6	7.9	4.4
Deficit	<i>as a % of GDP</i>									
Balance of the budget (cash flow basis)***	-5.3	-3.8	-6.0	-4.2	-7.8	-2.9	-4.0	-4.7	-10.1	-4.6
Primary balance of the budget***	4.5	3.3	1.2	3.4	1.9	1.6	2.3	0.6	-0.2	0.7
	<i>in billion USD</i>									
Current account	-0.5	-0.3	0.1	-0.3	-0.4	-0.5	-0.4	-1.0	-0.6	-0.6
Foreign direct investment (net)	0.5	0.3	0.3	0.6	0.3	0.5	0.2	0.4	0.3	0.3
Saving rate* (%)	8.4	9.1	10.7	12.6	8.8	11.6	11.7	10.2	8.3	6.8
Unemployment rate** (%)	9.3	9.1	8.7	8.3	8.0	7.9	7.7	7.5	7.1	6.9
Gross average income per capita***										
(same period of the previous year = 100%)	25.7	21.4	21.2	21.1	21.2	19.2	18.1	15.5	16.7	16.0
Net average income per capita in real terms****										
(same period of the previous year = 100%)	6.4	4.7	4.2	5.0	3.2	3.3	4.2	4.2	3.1	3.1

\* NBH estimates.  
\*\* Positive figures indicate total depreciation; nominal exchange rate indices are calculated with market exchange rates from 1995; deflators refer to the manufacturing industry.  
\*\*\* Estimated values, as there are no appropriate quarterly data for local governments.  
\*\*\*\* Net financial savings of households as a percentage of total household income. Net financial savings do not include the sum of revaluations due to exchange rate changes and other factors.  
\*\*\*\*\* Based on the labour market survey of the Central Statistics Office according to ILO standards; unemployed persons as a percentage of the entire population; seasonally adjusted data.  
\*\*\*\*\* Central Statistics Office data, average income of full-time employees in the public sector and at businesses employing more than five persons until 1996 and more than 10 persons from 1999. Therefore, the 1999 data can only be compared to earlier data to a limited extent.  
\*\*\*\*\* The index of net earnings growth is an index estimated/calculated by the Central Statistics Office. Modification of the preference in the tax system in 1999, the introduction of the family allowance adjusts actual tax liability and consequently the difference between gross and net earnings by approximately 1 percentage point, but this is not accounted for in the CSO calculations. Hence, the annual indices of this series cannot be compared with earlier values.

## Main monetary indicators

	1997				1998				1999	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
	<i>Change over the same period of the previous year (%)</i>									
Inflation (Consumer price index)*	18.8	18.7	18.0	18.4	16.4	14.2	12.5	10.3	9.3	9.1
Producer price index*	21.8	19.4	19.7	19.5	13.5	11.6	10.4	7.1	4.9	4.3
Devaluation rate of the forint's central parity	15.7	15.3	14.7	14.0	12.9	12.2	11.4	10.3	9.4	8.4
	<i>Real growth of monetary aggregates*</i>									
	<i>Change to the same period of the previous year (%)</i>									
M0	-0.2	0.3	0.9	-2.5	1.8	3.2	3.7	6.1	8.5	7.9
M1	1.7	0.4	1.3	3.8	6.7	9.1	8.0	6.9	7.1	6.3
M3	-0.2	-1.0	0.0	1.0	2.3	4.0	4.6	4.4	8.0	7.1
M4	6.8	6.4	7.1	7.0	9.3	9.1	9.1	9.0	9.8	9.7
	<i>Real growth of banking sector credit*</i>									
	<i>Change to the same period of the previous year (%)</i>									
Corporate sector foreign + domestic	5.5	7.4	9.5	6.7	8.2	8.5	9.1	13.3	17.9	13.6
Corporate sector domestic	19.2	24.1	23.1	17.0	14.2	15.1	15.2	9.7	11.3	2.8
Household	-23.8	-20.5	-14.7	-13.2	-11.4	-2.4	2.4	0.1	10.7	14.0
	<i>Interest rates (%)*</i>									
Reverse repo one month**	21.5	20.75	20.25	19.75	18.875	18.0	16.75	16.0	15.25	14.71
90-day Treasury bill	20.76	20.02	19.41	19.28	18.8	17.34	19.27	16.21	15.62	14.71
12-month Treasury bill	20.07	19.77	19.67	19.01	19.13	17.33	17.4	16.08	15.58	14.72
3-year Treasury bond	16.73	17.42	18.08	17.97	18.36	16.56	16.23	14.8	13.25	13.60
BUX	5414	6795	7693	7999	8656	7806	4571	6308	5490	6486
Interest rate premium (bsp)***	376	338	257	459	363	363	674	533	530	551
	<i>Conversion forint demand</i>									
Conversion USD million	471	799	1816	330	2448	929	-2307	-208	358	250
Net foreign borrowing of the banking sector* USD million	-182	151	76	-115	452	-8	-632	-155	79	165
Net corporate borrowing of the corporate sector** USD million	-60	5	210	215	-56	87	128	431	-117	98

\* At the end of the period.  
\*\* The maturity of the passive deposit facility was reduced from one month to two weeks from 8 January 1999.  
\*\*\* Interest rate premium: excess yield on 3-month T-bill investment over the devaluation rate and foreign interest rates. The actual devaluation rate was modified at the official announcement of the change in the rate.  
\*\*\*\* Without privatisation revenues.  
\*\*\*\*\* Including owner credit.

## IV. Supply side factors

## 1 Labour market processes

Changes in the stock data on the labour market continue to indicate signs of a recovery. This is attributable to the favourable trade cycle processes of the preceding period and, to a minor extent, non-recurrent effects.

In the second quarter of 1999, the expansion of the level of employment exceeded the rate of decline in unemployment, which brought about a rise in the rate of economic activity.

After many years of decline, economic activity has been on the rise since the middle of last year and has now approached the average for 1995.

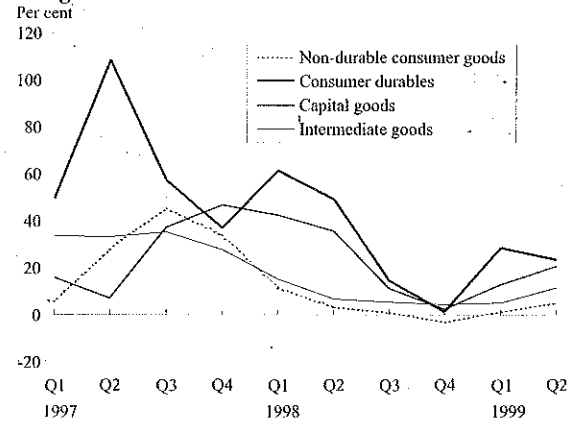
## The impact of demographic processes on labour market indicators

Generally, the demographic composition of a population changes only gradually and, within the time frame of a few years, only to a minimal extent. However, in Hungary, population control produced two sudden demographic peaks. As a result of the second such peak, the fact that the so-called Ratkó-grandchildren have reached an increasingly active age from the viewpoint of the labour market over the past period had a positive impact on the average labour market ratios of the 15-74 year-old population.

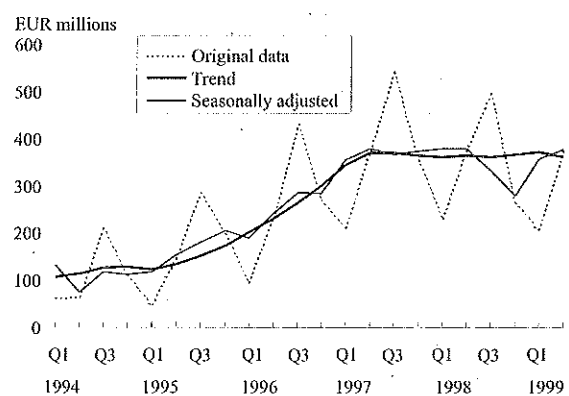
According to NBH calculations, the impact of demographic composition accounts for a major part of the rise in the activity and employment rates over the first half of 1999 compared to the same period of the preceding year. Nevertheless, particularly in the case of the employment rate, the tendency continues to be increasing.

From the viewpoint of monetary policy, activity or employment rates are interesting as indicators of the utilisation of resources (capacities). Filtering out the impact of demographic composition from the changes in the indicators is called for, because the individual age groups are not perfect substitutes of one another in the labour market. Thus, if the average rate of the utilisation of total labour resource rises due to a sudden increase in the number of persons in a certain age group (but not in its individual rate!), this does not necessarily mean an approach to labour market resource utilisation levels that could foreshadow a risk of inflation. In this sense, we re-

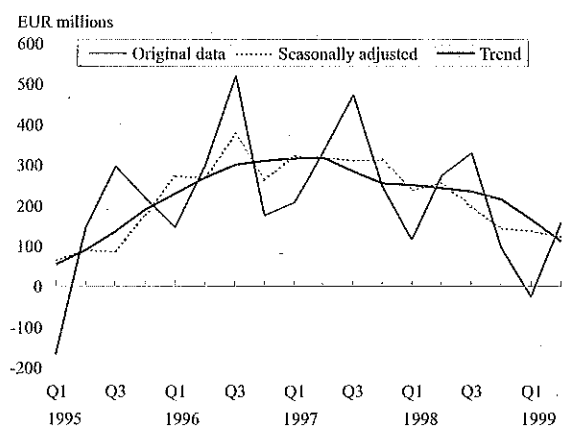
Annualized trend growth rates in the different import categories



The evolution of travel balance



Services balance, 1995-99



oration in the balance's trend is explained primarily by the increase in the trend of travel expenditures.

Apart from this change affecting travel, the tendencies prevailing are ones which we have identified on the basis of the data of the first quarter: a strong increase in expenditures by construction services, which traditionally show a surplus, and a major decline on the incomes in transportation resulted in a balance less favourable than last year. Although as regards the latter, there is no doubt that the deterioration in the second quarter was not as significant as that in the first quarter. This is due partly to the fact that the base in the first quarter last year was extraordinarily high. Consequently, this decline could have been expected to some extent. The milder decline in the second quarter already reflects the „Yugoslav-war“ effects. The continued deterioration of the services balance, which showed a deficit in the past, was characterised by a decline in credit side rather than an increase in the debit side. This is particularly true for technical and cultural services. In the chart below the trend in the services balance illustrates very well that the deteriorating tendencies continue. Although the end of 1998 was characterised by some degree of stabilisation because of the development of non-travel services, the first two quarters of this year brought about an increasing deterioration of the processes.

# I. Development of inflation

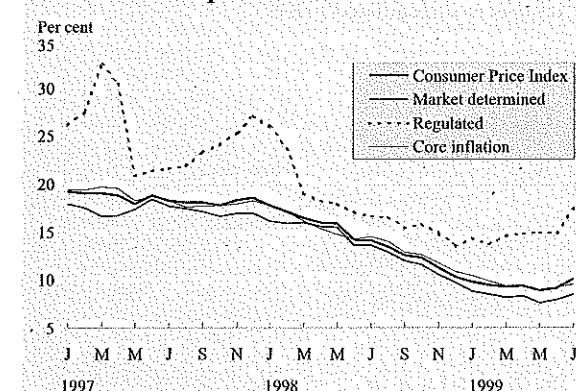
The decline of the headline consumer price inflation stopped in the middle of 1999. The 12-month index reached its minimum in May at 8.9%, rising to 10.1% by July. Market analysts have also adjusted their inflation forecasts upwards both for 1999 and (albeit to a lesser extent) 2000. The question naturally arises whether there is a reversal in the decline of trend inflation, what the reasons for the recent increase in the headline CPI inflation are, and what the position of the Bank is, concerning these developments. This chapter of the Inflation Report will discuss these key issues.

In the assessment of the National Bank of Hungary we cannot yet talk about a halt or reversal of the disinflation process in spite of the increase in the headline consumer price inflation. The reason for this is that the increase in the CPI inflation is basically caused by changes which are independent of changes in supply and demand: the extraordinarily high increase of administered prices and the changes in the system of price subsidies for medicine, which led to a one-off jump in the price level. These do not necessarily imply a sustained or higher growth rate.

In addition to this, changes in prices were influenced by a number of supply-side shocks and the positive shocks experienced one and a half to two years ago have mostly been reversed. Increases in energy prices on the international markets have pushed prices up and the increasing strength of the international economy points towards a future increase in raw material prices. Another factor, which may potentially fuel inflation, is if the growth rate for agricultural prices turns out to be higher than last year's extremely low figures. When stipulating the exchange rate policy and this year's inflation forecast, both the government and the National Bank of Hungary took into consideration that benevolent shocks cannot be relied on over the long term. Last year's drop in inflation, which was faster than the long-term trend, will be followed by a smaller decline this year.

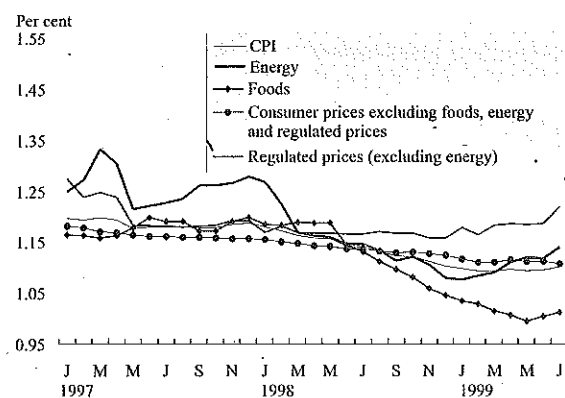
Evolution of the inflationary trend is crucial for the assessment of the long-term processes. Fundamentally, the NBH believes that the core inflation index is the most reliable tool to reflect the trend in inflation. The index currently used by the NBH primarily includes products whose price changes (either as a result of regulated or market-based price formation) can be anticipated relatively well in the Hungarian inflationary environment. In addition to the items already filtered out, changes in the prices for the category of medicine and medicinal products have been eliminated from the core inflation index for reasons inherent in the transformation of the subsidy system, due primarily to drastic changes in medicine prices in July. The index thus obtained still indicates some change, having risen to 9.5% in July from 9.3% in

Changes in market-based and regulated components of the consumer price index\*

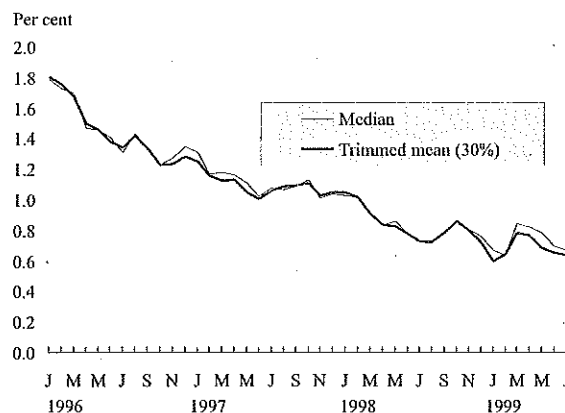


\* Growth rate compared to the same month of the previous year. Market prices: changes in the price of industrial products and market services

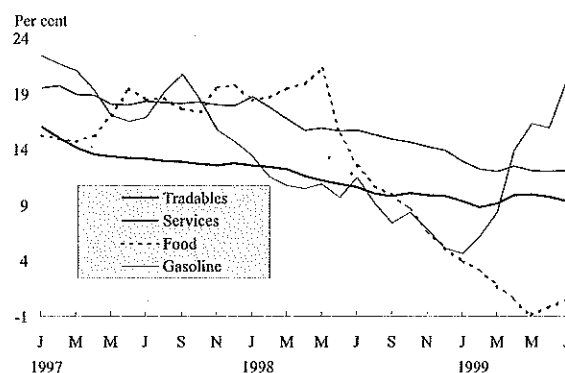
## Changes in certain components of the consumer price index\* (with 1999 weights)



\*Growth rate compared to the same month of the previous year.

Trimmed mean and median inflation calculated from seasonally-adjusted monthly indices, using 120 sub-groups out of 159<sup>2</sup>

## Changes in unregulated prices\*



\*Growth rate compared to the same month of the previous year.

June, albeit it did not reflect such a sharp turnaround in the trend as the total consumer price index.<sup>1</sup> Because of the considerable weight of single effects, alternative indices are also presented which reflect the evolution of trend inflation. Once the direct impact of shocks was removed by using various methods, the fall in inflationary indices was not as fast as in documented inflation. Notice should be taken of the fact, however, that the drop of these indices was neither halted (nor reversed) in the second quarter of 1999.

No matter how imperfectly documented CPI inflation reflects underlying inflationary processes, it does function as an "yardstick for inflation" both for market actors and economic policy makers, for lack of any other consistent inflationary index that is substantially different. Rising consumer price inflation may increase market participants' expectations of future inflation: it may lead to higher costs and wage inflation, smaller savings and higher consumption, etc., which may become a self-fulfilling prophecy rendering disinflation increasingly costly. Therefore, co-ordinating inflationary expectations is a key aspect of maintaining the announced path of disinflation. The National Bank of Hungary facilitates the emergence of a concerted, forward looking pricing behaviour by safeguarding the credibility of the announced exchange rate path, which is to have a declining steepness.

## Indicators reflecting the trend of inflation

As a result of the short-term impact on price developments, headline consumer price index-based inflation does not always correctly reflect long-term inflationary trends. Therefore, it is expedient to take into consideration other indices, which either filter out or mitigate such effects. One possible solution is to adopt short-based indices. The 12-month index is a moving average of the monthly rates of inflation: therefore, both the base and the developments of the past 12 months affect it. This is why a one-off peak would disappear from the index in 12-months time only. Monthly indices overcome this problem, although they cannot be interpreted directly because of their seasonality, and because they yield a relatively noisy time series even after adjustment for seasonality. This noise can, however, be reduced if certain product groups which have experienced extraordinary price changes are omitted (see above, for example, the inflation index calculated without the announced price increase for pharmaceuticals, foodstuffs and energy). Another option is to exclude product groups with high inflation volatility, or include them with a smaller weight (in proportion to the inverse of their volatility) Some core in-

<sup>1</sup> The CSO's new core inflation index was published after this report went to the press. The level of this index is higher than that of the NBH core inflation index and reflects a higher price increase for July-August. The underlying reason is that the CSO index covers 80% of the products only, while that of the NBH covers 91.2%. The difference arises from the fact that in addition to products dropped by the NBH, the CSO has dropped the entire range of raw meat and all household energy. It also adds to the increase that changes in the price of medicine were regarded as part of core inflation by the CSO.

<sup>2</sup> This does not include administered prices and certain other articles, which are difficult to adjust seasonally and/or the prices show extensive volatility. The latter group includes, for example non-administered energy prices and certain volatile foodstuffs, such as potatoes and fresh vegetables. When calculating the trimmed mean indices, the 120 partial indices were lined up and the bottom and the top 15% (36 indices) were omitted and then an average was calculated for those remaining.

exports to the CEFTA region rose to close to the level of the first half of last year. Exports to the CIS countries stabilised at about the level of 40% of the level before the crisis.

In terms of the product structure of exports, the highest growth rate was achieved in exports of consumer durables. This product group was not affected strongly by the slowdown of growth in Europe, as demand for consumer durables did not decline substantially in spite of slackening economic activity in the euro region. Since the second quarter of last year, the growth rate of exports of capital goods has been gradually decelerating and by the second quarter this year, the annualised growth rate turned slightly negative. All this took place in spite of the dynamization of investments in the euro region in the first quarter of 1999, and certain signs indicate that this will continue in the second quarter. This may be explained by the fact that investment demand increased for those goods, the production of which Hungarian producer are less competitive – vis-à-vis, for example, Southeast Asian manufacturers. It also should not be ignored that Hungary's exports can follow changes in external demand with some delay. Exports of non-durable consumer picked up slightly after the stagnating growth in the first quarter. Exports of intermediate products continued to show some decline.

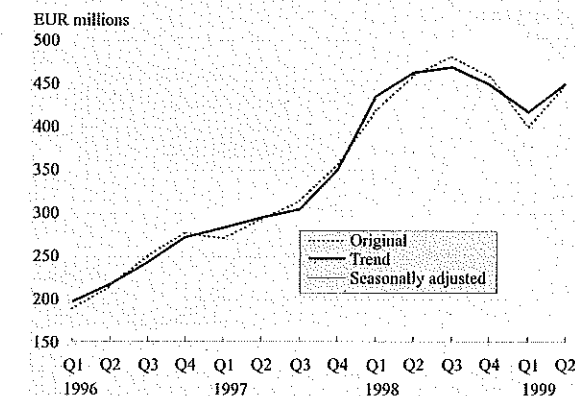
The processes outlined above emerge from the SITC category-based breakdown of exports as well. The growth rate of machinery and equipment, which produced the highest growth in the past, fell below the rate of increase in processed goods. Food exports have stabilised at a low level: their decline noted earlier seems to be tapering off primarily as a result of the stabilisation of the Russian situation. The product group of raw materials also exhibited an increasing rate of growth over the previous quarter.

In imports, similar to the developments in the first quarter, consumer durables and capital goods remained to be the most rapidly growing groups. The dynamic growth of imports of capital goods points to increasing growth rate of investments for the third quarter.

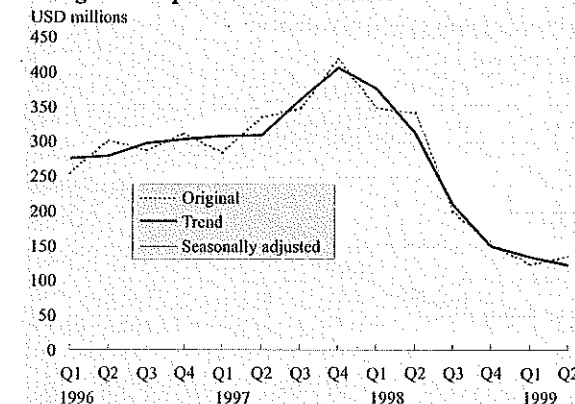
In the period to date, the evolution of foreign trade of services has been defined by the stabilisation of the trend in the travel balance perceivable since the middle of 1997 and a strong deterioration in the trend in the balance of other services prevailing since the second quarter of 1997. Although our previous report stated that the travel balance was improving in spite of our expectations, following the implementation of methodological changes which facilitate comparison of the travel data for 1998 and 1999,<sup>10</sup> an improvement can no longer be shown in the travel balance. The impact of the Yugoslav war on the travel sector proved to be transitory, as the trend of tourism revenues measured in euros (which presumably provides a better approximation of the payment structure of tourism) has been stagnating. The slight deteri-

<sup>10</sup> At this point, we call attention to the fact that from 1999 credits to the non-convertible current accounts of non-residents are not presented on the expenditure side of tourism, but under import. In order to ensure comparability with 1998 data, we also performed this adjustment for the preceding year. Thus, naturally, the figures presented in earlier publications have changed with respect to the figures for import and expenditure on tourism. This change has no effect on the balance of the current account, as it constitutes no more than a rearrangement among its components.

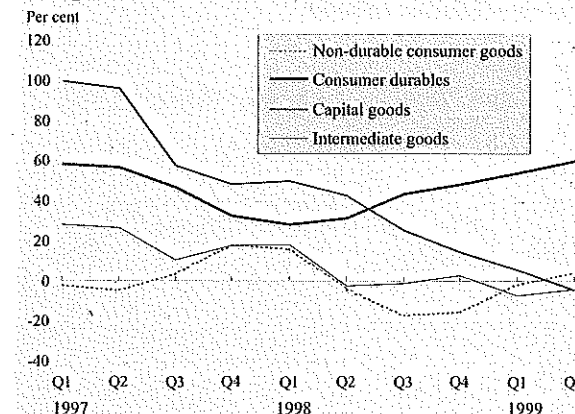
## Hungarian exports to CEFTA countries



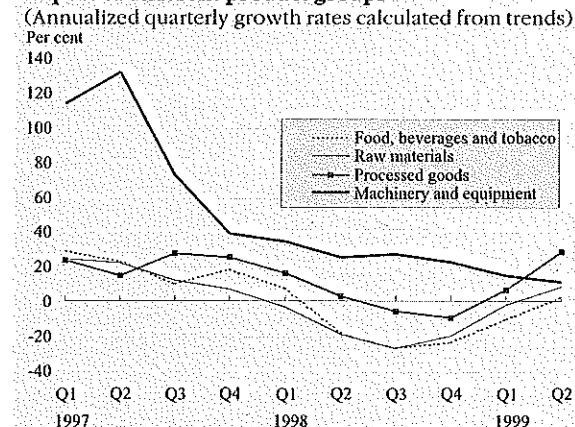
## Hungarian exports to CIS countries



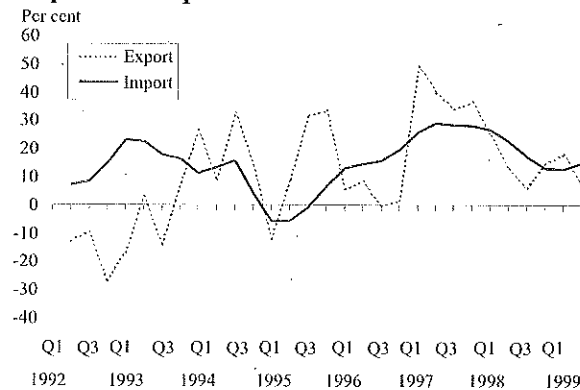
## Annualized trend growth rates in different export categories



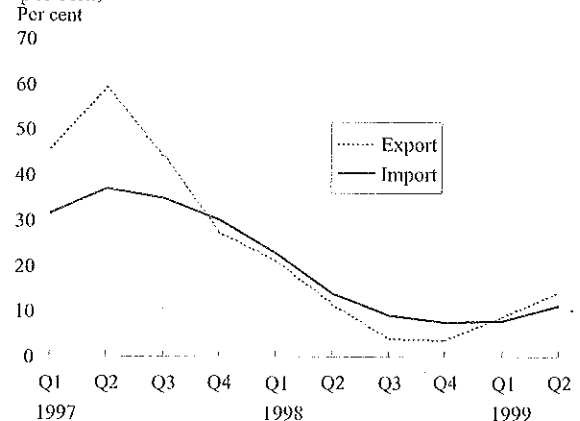
## Export of different product groups



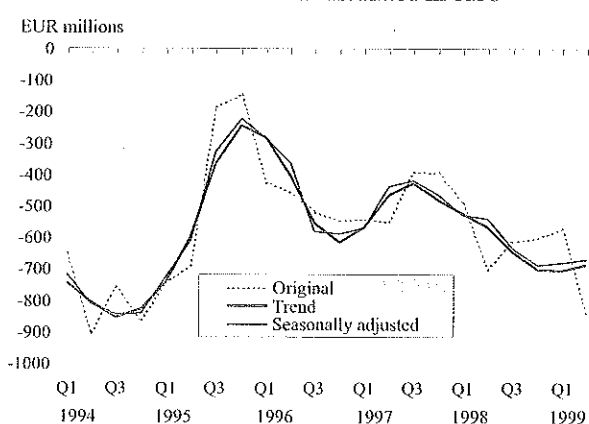
Annualised quarterly growth rates of the volume of exports and imports



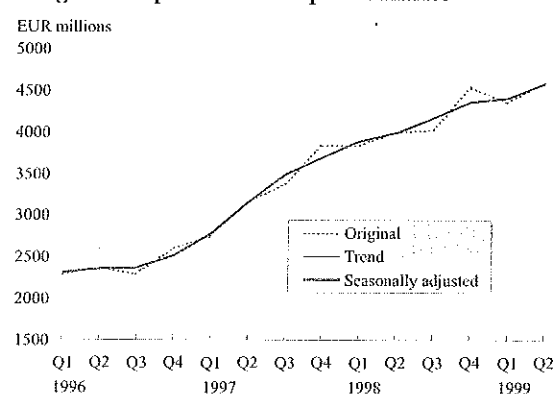
Trend of exports and imports based on customs statistics (Annualized quarterly growth rates in euro, per cent)



Customs based trade deficit calculated in euro



Hungarian exports to developed countries



3. Because of the above mentioned factors and additionally, as monthly data are usually 'noisy', annualised short-term indices proved to be particularly volatile in the last month.

Taking the forementioned into consideration, we have decided in favour of using quarterly data from now on. Hence, the distorting effect of revisions is smaller, the quarterly aggregation of customs declarations does not create a problem either and seasonal adjustments also prove considerably more stable.

It is a further question in which foreign currency the data should be seasonally adjusted as the valuation of trade-developments may be highly sensitive to cross exchange rate changes. As payments for exports and imports are made in euro in more than 70% of the transactions, adjustment in euro would be the most appropriate for real processes net of the effects of cross exchange rates. Bearing this in mind, data are stated in euro after adjustments, except in case of trade relations where most payments are made in US dollars (see exports earmarked for the CIS countries). For informational versions data are also stated in dollar terms.

The impact of the slightly favourable international economic environment was also reflected in the development of Hungarian export and import in the second quarter. Although year-on-year indices indicate slower growth both for exports and imports than in 1998, this is partly the base effect of export growth exceeding 20% over the past two years. Additionally, the stabilisation of exports to Russia at a lower level decreases the annual rates. According to the short-term indices of the volume indices, export-volume increased at a slower rate than imports in the second quarter. Considering that the annualised trend of the volume of exports is extremely volatile, only limited conclusions can be drawn from this observation. Value data calculated in euro show a more favourable picture: growth of both exports and imports increased slightly after a decline over the second half of last year and a stagnation in the first quarter this year, while the dynamics of exports slightly surpassed that of imports.<sup>7</sup>

In the second quarter of 1999, exports amounted to €5,436 million (USD 5,744 million), while imports amounted to €6,286 million (USD 6,645 million). Owing to the above data, the foreign trade deficit for the period was €850 million (USD 901 million) which is €148 million (USD 126 million) higher than in the comparable period a year ago.<sup>8</sup> Based on seasonally-adjusted and trend data, the foreign trade balance (in euro) stabilised at the level of the fourth quarter of 1998.<sup>9</sup>

With regard to the country structure of foreign trade, one can state that the dynamic growth of Hungary's exports to the developed economies and the European Union continued in the second quarter as well. Following a decline in the first quarter, Hungary's

<sup>7</sup> Calculated in dollar terms, exports and imports declined at closely identical rates. The essential difference between the indices calculated in dollars and euros is due primarily to the impact of cross exchange rates - the weakening of the euro against the dollar.

<sup>8</sup> Foreign trade data are regarded as preliminary because of the continuous processing of customs declarations; they may be adjusted to some extent in the remaining part of the year.

<sup>9</sup> In the second quarter of 1999, the trend of the foreign trade balance calculated in dollar terms showed a deficit slightly smaller than that in the fourth quarter of 1998 and slightly higher than that in the first quarter of 1999.

Inflation measures are calculated this way. Other than excluding certain groups, there are several methods that produce indices describing the underlying trend in inflation. It is possible to calculate median inflation from the monthly desaggregated inflation data, or trimmed mean indices. Both methods filter out products whose price changes deviate significantly from the average. None of the calculated inflationary trend indices show an increase in inflation, although their higher volatility in 1999 makes it more difficult to discern the underlying trend.

### 1 Imported inflation

The development of imported inflation is affected by changes in the forint exchange rate and the prices of imported products alike. The government and the National Bank of Hungary are adjusting the forint devaluation rate three times in 1999. The rate of the monthly crawling peg devaluation was reduced to 0.6% as of 1 January, followed by a cut to 0.5% as of July 1, and another 0.1 percentage point reduction has been announced to take place as of 1 October. By the end of July, the devaluation of the forint dropped to 8.3% in retrospect over a year and by the end of this year it will drop to 6.5%. Because of the impact of changes in cross dollar/euro rates, the forint appreciated by 1% against the euro over the first quarter of this year, in spite of the forint's crawling peg devaluation. In July and August, however, this trend reversed because of the strengthening of the euro, as a result of which the forint's value vis-à-vis the euro dropped faster than the rate of devaluation.

In the first quarter of 1999, as a result of the slowing growth of the world economy, raw material prices within energy continued to drop substantially vis-à-vis the fourth quarter of 1998. On the other hand, the reduction in oil prices was minimal because prices began to rise rapidly due to the instant repercussions of the March agreement on curtailing supply. In the second quarter, the reduction of raw material prices without energy continued to decelerate in line with projections, while all prices increased quickly partly as a result of increasing demand in Asia and America, and partly as a result of restraint among the OPEC countries, which has not been characteristic of their behaviour so far. Base material prices at the end of the period (June/June) were 7.6% below the level a year ago, while oil prices were almost 18% higher.

In the euro-region, which is regarded as Hungary's most important trading partner, consumer price inflation, standing at 0.8% at the end of 1998, rose to 1% by March and to 1.1% by July 1999. The essentially stable, highly favourable inflation data were brought about by the fact that the sharp drop in the prices of unprocessed foodstuffs helped offset the rise in energy prices observable in the second quarter. The growth of producer prices also underwent changes: the March drop of 2.3% in industrial producer prices was followed by a 1.6% fall in April.

In the second quarter of this year, the import unit value index exceeded that of the comparable period last year by 4.8% in Hungary (the seasonally-adjusted unit value index also rose by 4.8%). The increase in import prices continued to be lower than the rate of devaluation against the basket of currencies, or the extent of

Changes in world market prices in 1997-99\*, % (Compared to the same month of the previous year)

	Per cent			
	December 1997	December 1998	March 1999	June 1999
Base materials without energy	-7.6	-10.8	-12.6	-7.6
Foodstuffs	-5.7	-13.7	-17.2	-17.7
Agricultural raw materials	-20.5	-2.1	-3.0	+5.6
Metal	-5.5	-13.8	-14.5	-5.7
Oil	-27.3	-39.4	-0.5	+17.8

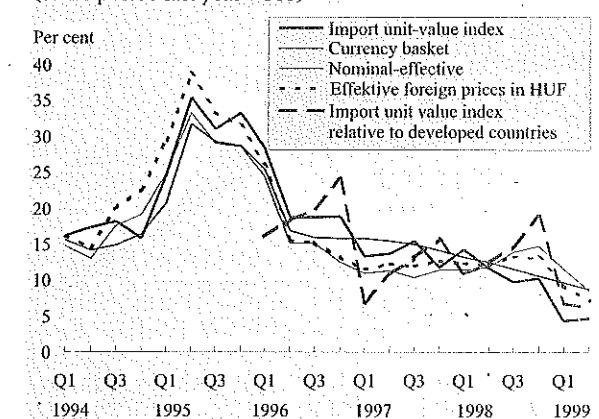
Source: IMF International Financial Statistics.  
\* World market prices in US dollars.

International inflation data, 1997-99 (Over the same month of the previous year)

	Per cent					
	December 1997		December 1998		June 1999	
	Producer	Consumer	Producer	Consumer	Producer	Consumer
	Price changes					
United States	-0.6	1.8	-3.2	1.6	1.6	2.0
Japan	1.3	2.1	-2.0	0.6		
Germany	1.0	1.9	-1.2	0.5	-1.3	0.4
Czech Republic	5.7	10.0	2.2	6.8	0.4	2.2
Poland	11.5	13.2	5.8	8.6	5.3	6.5
Hungary	19.5	18.4	7.9	10.3	4.4	9.1
OECD total	2.7	4.3	0.7	2.0		3.1
EU-11			-2.5	0.8		0.9
EU-15	1.4	2.1	-1.7	1.4		
G-7	0.3	1.9	-0.9	1.3		

Source: OECD Main Economic Indicators, 1999 July.

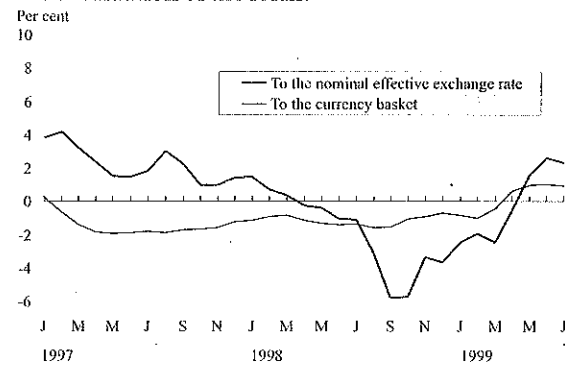
Import price and exchange rate indices (Same period last year = 100)



Rate of price increase over the same month of the previous year

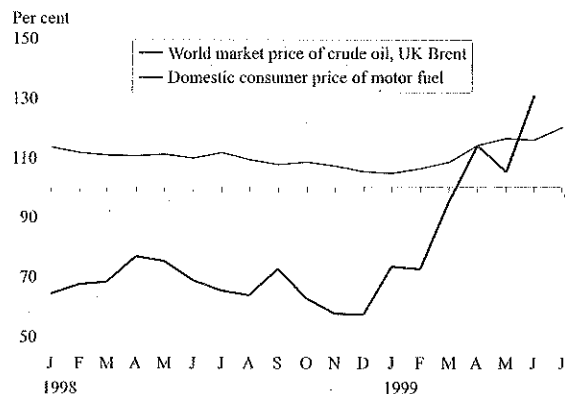
	Weight in the consumer price index	Per cent		
		Dec. 1997	Dec. 1998	July 1999
Consumer price index	100.0	18.4	10.3	10.1
Industrial products w/o foodstuffs, alcohol, tobacco and petrol	21.5	12.7	9.8	9.3
Petrol	5.0	14.7	5.1	20.2
Household energy in the free price category	1.7	14.7	6.4	10.9
Foodstuffs	22.7	19.7	5.3	1.5
Regulated prices	17.7	27.3	13.4	17.3
Market services	22.6	17.9	13.9	12.0
Alcoholic beverages, tobacco	8.9	17.8	13.6	11.8
Core inflation <sup>3</sup>	91.2	18.2	10.8	9.5
Nominal effective exchange rate devaluation		11.2	13.9	6.8
Announced nominal devaluation of the forint		13.9	10.4	8.3

Annual price increase of industrial products calculated without foodstuffs and petrol compared to the devaluation of the forint\*



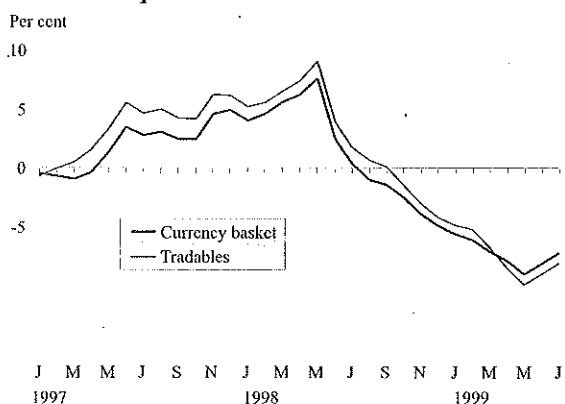
\* Difference in the growth rate over the comparable month in the previous year.

Changes in the world market price of crude oil and the local consumer price of fuel\*



\* Same period last year=100.

The relative price level of foodstuffs\*



\* Difference in the growth rate over the same month of the previous year.

change in the nominal-effective exchange rate index, indicating that inflationary pressure exerted through import prices continued to be moderate in the second quarter of the year as well. All this took place in spite of the increase of energy prices, which occurred in the second quarter of the year. The price of imports from the advanced countries increased by 6.4% over the same period of the previous year, indicating a slight drop vis-à-vis the comparable data for the first quarter. Following a substantial price reduction in earlier periods, imports from East and Central European countries showed a decline of 0.1%, which primarily reflects a turnaround in oil price tendencies.

## 2 Components of changes in consumer prices

The gradually diminishing nominal exchange rate announced in advance and chosen as an intermediary goal of monetary policy not only plays an important role in influencing expectations – it also guarantees convergence between domestic price inflation and inflation at Hungary's trading partners. The effect of the exchange rate path, which helps contain price increases, is felt differently in the case of various product groups depending on what extent competition through foreign trade has to be taken into consideration on the market of the specific product.

The price of products referred to as *industrial products*<sup>4</sup> (for simplicity's sake), which are involved in foreign trade turnover, is directly affected by the exchange rate path. The disciplinary strength of the exchange rate regime in containing price increases is reflected by the fact that over the past two years the price of industrial products has followed the nominal exchange rate trend.

The decline in the rate of inflation was not significant in this product category, with the price increase slightly exceeding the rate of the forint devaluation. The fact that the increase in consumer prices of industrial products is slightly above the rate of devaluation since April does not mean that the nominal anchor role of the exchange rate has weakened, as none too great importance is attached to the fact that the aggregate price increase in this category was slightly lower than the rate of devaluation in the previous years. Industrial products in the consumer basket include a significant portion of services and related energy. Consequently, changes in the prices of these inputs exert an influence on the prices of these industrial products. In terms of direct impact, it is an interesting issue for the purposes of monetary policy as to whether the signs of any possible excessive demand can be discovered, which could be observed in respect of the service component related to industrial products. As the rate of price in-

<sup>3</sup> The National Bank of Hungary measures price increases with a new kind of core inflation index. With this index, the impact of changes in the price for seasonal foodstuffs (eggs, tobacco, vegetables and fruit), solid and liquid fuel (coal, briquette, coke, fire wood and fuel oil) as well as fuel for vehicles is removed from the consumer price index. The core inflation index calculated as described above covers 91% of the initial consumer price index.

<sup>4</sup> This category includes clothing articles, consumer durables and other articles exclusive of medicine, fuel for vehicles, books, school books and newspapers, as well as soft drinks from the main categories by the Central Statistics Office.

## 4 External demand

In the second quarter of 1999, the evolution of external demand evolved more favourably than in the preceding quarter. The business cycle in the euro-region appears to have stabilised, signs of stabilisation are observable in certain CEFTA countries and the market eroding effect of the Russian crisis is not worsening further.

The slowdown in demand of the euro-region, which is the most important market for Hungary, has halted. Following some steady decline, industrial production has seen some modest growth. The confidence index of the industrial sector showed a slightly improving tendency towards the end of the second quarter. As opposed to the above, consumer demand evolved considerably more heterogeneously in the euro-zone. The consumer confidence index continued to fall from an earlier historically high level until the end of the second quarter. Based on data available until the end of the first quarter, growth rate in retail sales dropped continuously. However, new passenger car registrations, one of the indicators of an upturn in demand, picked up again. Although GDP data for the second quarter are still unavailable, GDP growth on a quarter-on-quarter basis increased slightly in the first quarter. This is primarily due to highly dynamically increasing fixed capital formation and government consumption, although growth in private consumption also increased substantially. It is also favourable that import demand has started to rise slightly, as well.

Generally, the signs indicating a recession in the Central and Eastern European countries continued to prevail. In terms of Hungary's major trading partners, Poland shows signs of a turnaround in the business cycle, with GDP increasing by 1.5% in the first quarter and 2.9% in the second quarter over the comparable periods for 1998. Following a 4.5% drop in GDP in the first quarter in the Czech Republic, the government and economic institutes forecast a 1–1.5% drop in GDP for the whole year. Statistics indicate a major decline in GDP in Romania and a slowdown of growth in Slovakia. In Russia and the CIS countries, primarily as a result of an increase in oil prices, the fall in production and GDP has slowed down and the crisis appears to be becoming milder.

In earlier reports (1999/I and 1999/II), developments of foreign trade were analysed on the basis of seasonally adjusted monthly data. For the evaluation of short term trends we analyzed the annualised growth rates of the trend-cycle derived from seasonal adjustments. In relation to these, several problems need to be mentioned:

1. Customs statistics data change retrospectively in the course of the continuous processing of customs declarations: therefore, estimates by NBH had to be used with regard to future revisions.

2. Some of the major exporting companies have been submitting custom declarations on a quarterly basis since 1998. Consequently, exports in the first months of any quarter are lower, while in the last month of the quarter, exports are higher, the distorting effect of which is noted in the analysis of monthly data.

Main macroeconomic indices of the euro region, I  
(Change over the comparable period a year earlier, seasonally-adjusted data)

	1998				1999	
	Q1	Q2	Q3	Q4	Q1	Q2
Real GDP	3.6	2.8	2.7	2.0	1.8	
Domestic absorption	3.7	3.0	3.6	3.2	2.6	
Private consumption	2.4	2.3	3.0	2.6	2.8	
Government consumption	1.9	2.1	1.3	0.7	1.4	
Gross fixed capital formation	6.1	3.1	4.7	3.4	4.4	
Changes in inventories*	0.7	0.5	0.6	0.7	-0.3	
Exports	11.0	8.6	4.2	1.1	-0.1	
Imports	12.0	9.7	7.3	4.7	2.3	
Net exports*	0.0	-0.1	-0.8	-1.1	-0.7	
New passenger car registrations**	12.7	2.8	7.4	7.5	7.1	10.0
Retail sales**	2.6	1.8	2.8	3.0	2.5	

\* As a contribution to real GDP growth in percentage points.

\*\* Seasonally not adjusted data.

Main macroeconomic indices of the euro region, II  
(Quarterly rates, seasonally adjusted, annualised data)

	1998				1999
	Q1	Q2	Q3	Q4	Q1
Real GDP	2.8	2.0	2.4	0.8	2.0
Domestic absorption	5.3	1.6	3.2	2.8	2.8
Private consumption	3.6	2.0	2.4	2.4	4.5
Government consumption	5.3	0.8	-1.2	-2.0	8.2
Gross fixed capital formation	6.6	-2.8	9.5	1.2	10.8
Changes in inventories*	0.4	0.8	0.0	1.6	-3.2
Exports	4.1	5.7	0.4	-5.5	-0.8
Imports	11.7	4.1	2.4	0.8	1.6
Net exports*	-2.0	0.8	-0.8	-2.0	-0.8

\* As a contribution to real GDP growth in percentage points.



**The budget deficit (GDP %)**

	1998		1999		1999	
	Q1	H1	Q1	H1	Q1	H1
1. Balance of the central government government excl. privatisation revenues	-8.8	-0.7	-4.3	-3.7	-9.0	-2.6
2. Primary balance (without the NBH)	1.4	3.8	2.7	2.9	1.0	3.0
3. Net interest expense	-10.7	-6.2	-7.0	-9.7	-6.3	-7.9
4. NBH profits and losses	0.5	1.7	1.2	0.4	-0.3	0.8
5. Extrabudgetary funds excl. privatisation revenues	0.4	0.4	0.1	-0.9	-0.1	-0.3
6. Social security excl. privatisation revenues	-1.1	-1.2	-1.2	-0.9	-2.2	-0.7
7. Local authorities excl. privatisation revenues	2.0	-1.2	0.2	-0.3	2.1	-1.4
8. Balance of the local government	1.9	-1.6	0.0	-0.5	1.9	-1.4
9. Balance of the general government excl. privatisation revenues	-7.5	-2.8	-4.9	-4.8	-10.1	-4.6
10. Out of this: primary balance	2.6	1.8	2.2	1.6	-0.2	0.7
11. Balance of the general government in accrual approach	-5.5	-3.9	-4.6	-4.9	-8.2	-5.8
12. Primary balance, accrual approach	2.6	1.8	2.2	1.6	-0.2	0.3
13. Deficit correction with loan transactions	-1.4	-0.6	-1.0	-0.6	0.2	0.1
14. Deficit of APV.RT	-0.7	-1.3	-1.1	-0.7	-0.3	-0.5
15. SMA financing requirement 15=14+13+14	-7.6	-5.8	-6.6	-6.3	-8.3	-6.4
16. SMA primary balance 16=12+13+14	0.4	-0.1	0.2	0.2	-0.2	-0.3
17. Impact of the pension reform	0.0	0.1	0.0	0.3	0.5	0.5
18. Demand impact (changes in lines 15 and 16)					1.1	0.2
					0.3	0.0

\* Data for the end of 1998 do not include the impact of the Ft 132 billion transferred to Postabank and Ft 50 billion transferred to APV.RT. The data were changed retrospectively for every quarter, because the CSO announced new GDP figures and the budget data for the first quarter are final.

factors of similar magnitude: VAT paid on domestic turnover, VAT paid on imports and VAT refunds. Of these, the first two factors evolved more favourably in the second quarter: the real value of domestic VAT increased 5.5% faster than in the first quarter, while the rise in VAT refunds dropped by 2.6%. The positive impact of these two factors was weakened by the drop in the real value of VAT payments on imports. Hence, the real value of net VAT revenues increased by 2.3% and remained unchanged for the whole first half of the year, despite the 3% drop in the first quarter. Data for subsequent months also substantiate that the favourable change in trends may prove to be lasting. Payments of personal income tax and social security contributions developed similarly to the first quarter. Personal income tax payments continued to increase by 10% in real terms, due, to a large extent, to changes in real wages and, to a lesser extent, to increases in the tax burden. The revenue-reducing impact of the pension reform and the reduction of social security contributions would have justified a 8-9% cut in the real value of total revenues from such contributions but, as a result of increases in real wages, the real value of social security contributions only fell by 1-2% on the whole.

The real value of expenditures would have increased by more than desired as a result of lower-than-projected inflation. This, however, was offset by blocking a rather broad range of expenditures.<sup>6</sup> The increase in the real value of public consumption and transfers to households in cash and in kind, exceeded that of economic growth, which was more moderate. It is a positive change, however, that the increase in the real value of public expenditure during the year was not higher at a semi-annual level than the rate observed for the comparable period last year. This also proves that the strong increase in expenditure in the first quarter this year can be traced back to one-off reasons which the more favourable processes of the second quarter were able to offset. For example, the number of public employees dropped by 2.5% in the second quarter relative to the level a year ago (vis-à-vis the hardly diminishing staff numbers in the first quarter over the first quarter of the previous year), indicating the implementation of the envisaged annual staff reduction plans, which may result in savings over the rest of the year.

The real value of public investment expenditure evolved amid extreme fluctuations, as local governments and institutions noticeably adapted to the amount of funds available in this field over the short term. In respect of local governments, the substantial drop in privatisation revenues and revenues from asset sales were offset by the increase in current revenues, but the extremely dynamic growth in investment over the first half of the last year proved impossible to repeat, and only the investment volume achieved could be maintained. As opposed to that, institutions financed from the central budget were unable to repeat the investment performance of last year and even the implementation of priority investment projects slowed down. All this may be explained partly by the fact that the ministries set aside reserves in time to cover the extra expenditures required to repair the damage done by the floods.

<sup>6</sup> No further blocking was possible because Ft 17.5 billion had to be used to the debit of central budget because of the floods (until August). Of this, Ft 5 billion increased the deficit and Ft 12.5 billion was rechannelled from the ministries' investment and current expenditure allocations.

**Changes in the real value of VAT (Over the comparable period last year)**

	Per cent		
	Q1	Q2	H1
Domestic VAT payments	1.1	6.6	3.8
VAT payments on imports	3.2	-0.7	1.0
VAT refund	5.8	3.2	4.6
Net VAT revenue	-3.0	2.3	0.0

**Changes in certain public expenditures in real terms\* (Over the comparable period last year)**

	Per cent			
	1998		1999	
	Q1	H1	Q1	H1**
Expenditure of wages and contributions	10.7	9.2	6.1	5.7
Material expenditure	-8.0	1.7	10.4	5.4
Consumer price equalization	4.0	3.9	11.7	8.2
Total public consumption and transfers in kind	3.3	6.0	8.1	5.9
Pensions (with disability pensions)	4.8	5.4	6.5	8.7
Sick-pay	-5.2	-4.5	-0.5	15.2
Social expenditure (central budget)	-2.2	-2.7	2.8	4.8
Social expenditure (local governments)	25.0	28.9	16.1	-0.8
Total transfers to households	4.0	4.7	5.9	7.5
Investment (central budget)	-4.8	11.4	-9.5	-14.6
Investment (local governments)	27.0	26.2	1.5	0.0
Total investment expenditure	9.1	18.8	-4.0	-6.9

\* Source: Public sector statistics, therefore, it differs from the CSO figures.  
\*\* Preliminary figures.

crease between industrial products and market services fell below the levels for 1997 and 1998, instead of rising, it provides visible proof that there is no inflationary pressure manifesting itself through the service component.

The price of petrol continued to increase in the second quarter, costing 22% more in June than at the end of 1998. The tax component incorporated in the consumer price of petrol in Hungary is high, with the price of the base material constituting merely about one-sixth of the total price: thus, world market price changes are felt at a substantially more modest rate.

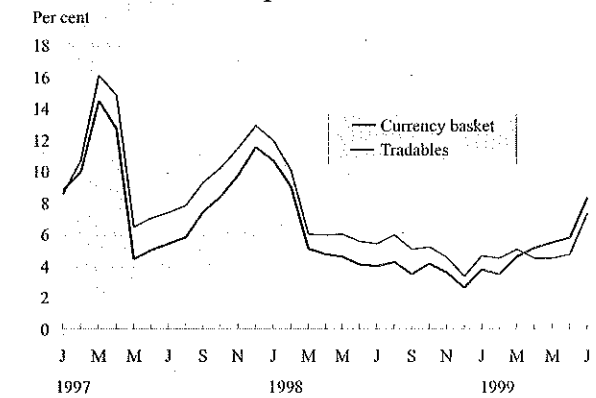
Although food prices continued to decline on the world market, domestic 12-month food price inflation rose from 0.2% in May to 1.5%, partly as a result of government intervention. Within this, the price of seasonal agricultural produce fell by approximately 8%. Short-based, seasonally-adjusted food prices, however, also indicate that prices for foodstuffs have stopped declining and have begun to increase over the last few months. Nevertheless, this increase can be attributed almost exclusively to the fact that the price of pork (which has a significant weighting) increased in July in response to government intervention.

Irrespective of government intervention, price increases for foodstuffs are expected to approximate the inflationary level of other product groups and when that happens, it will exert considerable influence on inflation calculated on the basis of the consumer price index, because of the substantial weight of foodstuffs.

Changes in inflation were influenced to a great extent by changes in government-regulated or influenced prices. The 10.1% rate of inflation in July stemmed from the 17.3% annual price increase of the regulated category and the 8.5% annual price increase of non-regulated products and services. Medicine was characterised by an extraordinarily high rate of price increase and the transformation of the system of subsidies increased documented inflation in July by 0.4%. These changes will also exert a somewhat greater influence on inflation in August. Even if price increases for medicine are disregarded, the price increase of services in the regulated price category, which account for approximately 9% of the consumer basket (for example, telephone, local public transport, TV subscription), exceeded last year's rate, standing at 19.8% in July, while in 1998 it was only around 17%. The third category of official prices refer to energy (central and district heating, electricity, gas supplied through pipelines), which follow changes in world market prices through a price formula. The increase in the world market price has not been reflected yet in a significant rise in the 12-month index of energy prices in the official price category because of the delaying effect built into the formula; hence, the index has evolved around 10% during 1999. In the case of household energy, a new price structure system has been introduced. Suppliers of natural gas will charge a Ft 150 up-front fee for safe supply and availability, while the unit price of natural gas was cut by 2%. In the case of electricity, every unit of electricity (i.e. kWh) shall be sold at the same unit price instead of applying the three-column tariff, which shall affect consumers' expenditures in a differentiated manner.

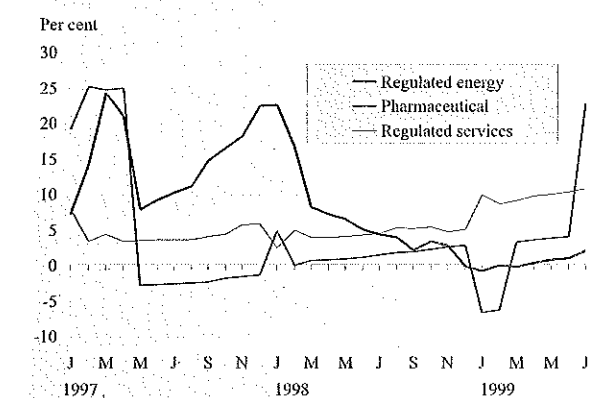
In the past increases of regulated prices regularly exceeded the rate of market inflation because this was necessary in order to incorporate costs into prices and to reduce subsidies. However,

**Annual price increase of products with regulated prices compared to the devaluation of the forint and marketable industrial products\***



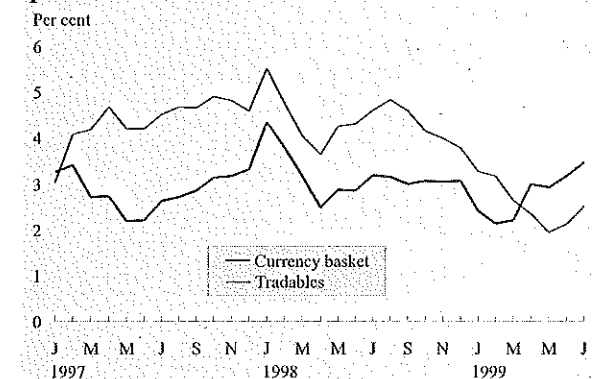
\* Difference in the growth rate over the same month of the previous year.

**Annual price increase of products and services with regulated prices compared to the devaluation of the forint\***



\* Difference in the growth rate over the same month of the previous year.

**Annual price increase of market services compared to the devaluation of the forint and tradable industrial products\***



\* Difference in the growth rate over the same month of the previous year.

the era of major, shocking relative price changes is over. Changes in relative prices have become slower and more balanced similarly to the category of market services. As regards market services, price increases were seen to exceed the rate of devaluation by about 3% over the past two-and-a-half years, which was regarded consistent with the difference in the rate of productivity increase. The approximately 5% incremental price increase noted in the case of regulated services is still considered as an equilibrium process. In 1999, however, the difference between the price rates for regulated products and devaluation rose above 10% and the 12-month index is higher than it was in 1998.

The situation that has arisen may be explained by the fact that the 5% difference in price increases noted in the past years was smaller than the difference in the rate of real productivity increase. As the difference in the rate of productivity increase does not change so wildly from one year to the other, we must assume that the Government has increased prices to an extent below the equilibrium over the past two years.

Another explanation may be that the government sector was the only actor of the economy that was unable (or not forced) to adapt to the new inflationary situation. This explanation would be rather unfortunate because it fundamentally puts the anti-inflationary credibility of the government sector in question. Economic management may send a message to market actors about its commitment to disinflation by attempting to cut increases in official prices, for example through price liberalisation and privatisation (although these may have a contrary effect over the short term), or by not recognising unjustified cost increases. This may reduce the rate of documented price increases and cool down expectations. A reduction of the increase in official prices excluding energy from 22% to 12% would reduce the total consumer price index by about 1 percentage point.

Non-tradable *market services* account for 22.6% of consumption. The difference in the rate of the price increases of industrial products and market services is explained by differences in the development of productivity. This is reinforced by an increase in demand in several areas – such as body care and health care services, cinemas and tourism – which stems from an increase in real income.

#### The consumer price index: a measure of the cost of living or the inflationary process?

The consumer price index is designed to measure the cost of living by measuring the price of a given basket of goods. This results in two major sets of problems: the CPI cannot even properly follow actual changes in the cost of living and it does not necessarily reflect longer term tendencies in price development. Consequently, it may be misleading if inflationary processes are evaluated on the basis of the CPI either by economic policy-makers or by investors.

As a fixed base index, the consumer price index (which uses historic weights of consumption), is unable to handle appropriately the fact that consumers maximise their utility and continuously change their consumption basket. The quality of goods also constantly changes, and new products and new points of purchase appear. The telecommunications price index in Hungary for example does not include the costs of mobile telephony because it is still regarded as a new product. At

In particular, investments fell in health care and social care (by about 20%) and a substantially lower growth rate was registered in the fields of education, public administration and social insurance than in the first quarter (in that period, the volume index was raised primarily by investments spilling over from the previous year). We cannot expect to witness stronger growth in the public sector in the remaining part of the year either, because local governments – the main investors in this field – can no longer expect privatisation revenues. Consequently, their funds available for investments have ebbed.

## 2.2 Inventories

The CSO industrial statistics data allow us to analyse the development of manufacturing inventories (relative to sales) in detail. Data for *output inventories* are only available up to the first quarter of 1999, which are supplemented until the second quarter by our own estimate as described in the previous report.

According to our results, the ratio of inventories to sales in the manufacturing industry does not show any significant change over the previous quarter. The reduction of the ratio of output inventories, which has been continuous since 1995, continued in the case of the *machine industry*, which predominates within inventory changes in manufacturing because of its weight. In light of the increase in input inventories and the outstanding export sales dynamics, this is considered as a sign of positive sales expectations. However, notice should be taken of the strong rise in the ratio of inventories to sales in the *chemical industry*. This is due to plummeting exports and local sales. The decline in chemical industry sales, and consequently production, was so tremendous that this *sector specific shock* reduced the annual volume index of industrial production for the second quarter by approximately 2.5 percentage points in itself.

## 3 The fiscal stance

The neutral demand effect of the public sector in the first half of the year arose as a result of the combined impact of two opposite quarters. Due to transitory factors, the public sector increased aggregate demand by 0.2% of GDP based on the final data for the first quarter.<sup>5</sup> In the second quarter, impact on demand was pointing downward and typically more permanent economic processes predominated in the development of the primary balance. If processes moving in a favourable direction prevail, the objective for the whole of the year may be met, to the extent that the primary balance, proportionate to GDP and corrected with the pension reform (SNA), should improve and the public sector should lower aggregate demand.

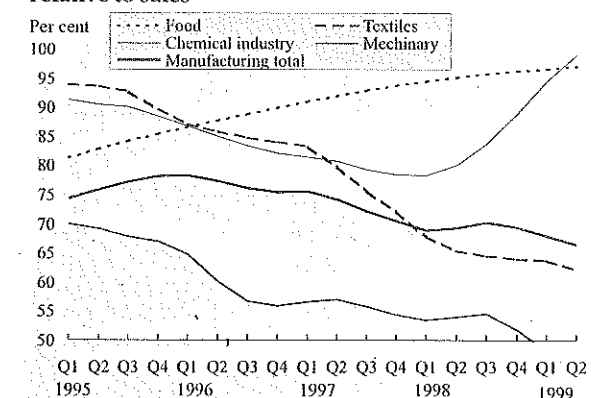
Due to smaller tax revenues, the balance of the budget deteriorated further as a result of price increases and economic growth lower than originally projected, although a positive turn occurred in VAT revenues. Net VAT revenues are defined by three

<sup>5</sup> Revenues and expenditures arose which exerted a strong change in the development of the deficit during the year with respect to this year and last year. For example, a guarantee was called early this year, which was not exercised last year, and in the comparable period last year, more revenue was received from the claims of the government (e.g. the repayment of the Russian government debt) than this year.

Investments by branches of the economy

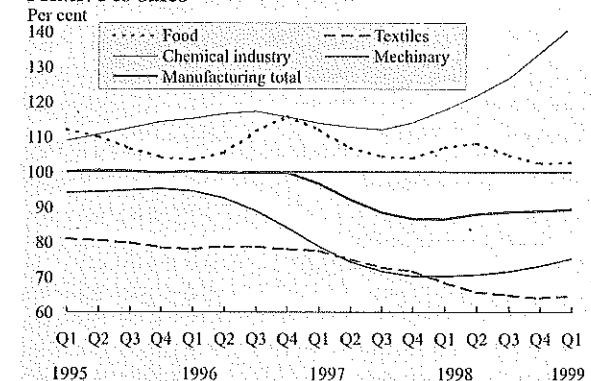
Branches	Distribution at current prices 1998	Per cent			
		Volume indices 1998	Volume indices 1999 Q1	Volume indices 1999 Q2	Volume indices 1999 H1
Agriculture, hunting and forestry, fishing	3.67	111.6	117.3	102.7	106.8
Mining	0.31	107.6	174.2	173.1	173.5
Manufacturing	26.00	123.2	100.9	119.5	111.7
Electricity, gas, steam and water supply	7.16	117.3	127.5	95.5	104.7
Construction	1.86	120.2	136.8	188.5	168.0
<i>Total production of material goods</i>	<i>38.98</i>	<i>120.6</i>	<i>107.8</i>	<i>116.6</i>	<i>113.1</i>
Wholesale and retail trade; repair services	7.11	123.0	110.6	123.2	118.6
Hotels and restaurants	0.99	113.7	87.7	116.5	103.9
Transport, storage and communications	18.85	109.7	96.9	101.1	99.6
Financial intermediation	3.37	147.7	99.7	86.1	90.1
Real estate, renting, business services and housing investment	18.01	88.0	100.5	96.6	98.2
<i>Total production of market services</i>	<i>48.33</i>	<i>103.7</i>	<i>100.3</i>	<i>101.8</i>	<i>101.2</i>
<i>Total production of goods and market services</i>	<i>87.32</i>	<i>110.6</i>	<i>103.7</i>	<i>108.7</i>	<i>106.8</i>
Public administration and defence; compulsory social security	3.58	101.9	133.3	116.5	123.2
Education	1.85	95.0	169.2	113.6	134.0
Health and social work	2.51	108.1	100.8	80.0	88.8
Other community, social and personal service activities	4.75	117.1	119.3	82.7	94.5
<i>Total production of public services</i>	<i>12.68</i>	<i>107.2</i>	<i>124.9</i>	<i>95.0</i>	<i>106.1</i>
<b>Total</b>	<b>100.00</b>	<b>110.2</b>	<b>106.4</b>	<b>106.8</b>	<b>106.6</b>

Changes in the ratio of output stock of inventories relative to sales\*



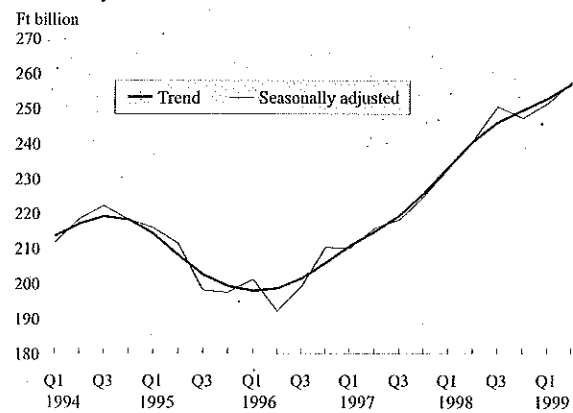
\* When calculating the quotients, the end of quarter stock was divided by the average of sales for the month in the quarter. The quotients were calculated by using seasonally-adjusted data.

Changes in the ratio of input stock of inventories relative to sales\*



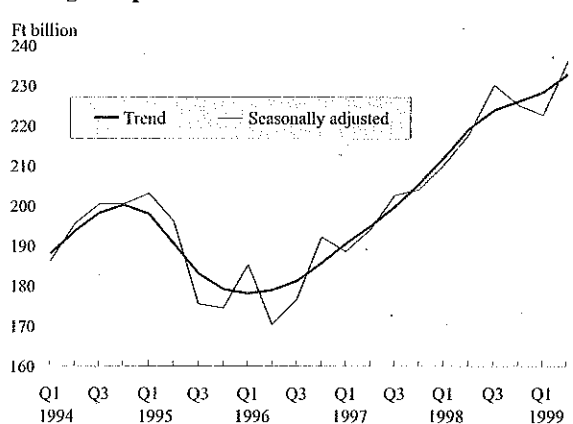
\* When calculating the quotients, the end of quarter stock was divided by the average of sales for the month in the quarter. The quotients were calculated by using seasonally-adjusted data.

## Changes in fixed capital formation in the national economy\*



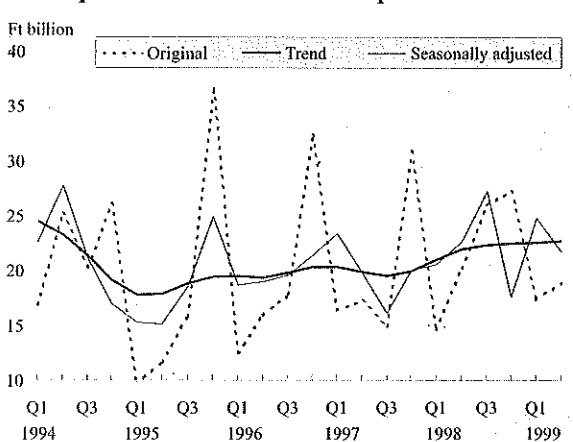
\* 1994 Q1 prices.

## Changes in private sector investments\*



\* 1994 Q1 prices.

## Development of investments in the public sector\*



\* 1994 Q1 prices.

## 2 Investments

## 2.1 Fixed capital formation

In the second quarter of 1999, the volume of investments in the national economy increased at 6.8% over the comparable period of the previous year, a rate almost similar to that in the previous quarter. This indicates that investments have continued to grow at a slower rate as has been observed since the second half of 1998. In the sectors in which private investments predominate, the volume of investments was 8.8% higher than in the comparable period a year ago. Based on data for the last quarter, it is not yet possible to decide whether investments by the private sector actually picked up compared to the previous three quarters or if this will remain but a transitory phenomenon.

No significant changes took place in the growth of investments in the sectors during the previous quarter. Apart from the extraordinarily high investment in the manufacturing industry in the third quarter of 1998, investments in this industry have grown evenly at an annualised rate of 14% over the past three quarters. Nevertheless, it is probable that because of the base effect, the annual growth of investments in the manufacturing industry will be negative for the next quarter.

The development of investments in the manufacturing industry explains in part that businesses are at least as optimistic regarding their prospects for the second half of the year as they were in the summer of 1998, according to corporate surveys.<sup>2</sup> This optimism may be reinforced by the fact that perspectives of an upturn in Western Europe seem to be somewhat more favourable than in the past period, and the development of domestic orders may also encourage increased investment. Export growth also seems to be more dynamic, with companies expecting increasing foreign market sales.<sup>3</sup> The contradictions inherent in this situation is revealed by the fact, that companies' investment plans were substantially more modest for 1999 than for the previous year.<sup>4</sup> The dynamics of construction industry investments continues to be extremely high. Certain market services produced more vigorous growth over the previous quarter including trade and catering, transport, communications and telecommunication; although investments in catering did not increase and investments in the financial sector dropped outright. All in all, in real terms there has been no expansion in investments in the sectors in which public investment predominate over the comparable period last year. In fact, one can say that while the annual growth rate of investments in the public sector fluctuates widely from quarter to quarter, public sector investments have increased at a significantly more modest pace over the past four quarters, in terms of their trend compared to the corporate sector vis-à-vis dynamic growth in the preceding period.

<sup>2</sup> Kopint-Datorg: A feldolgozóipar helyzete és rövid távú kilátásai 1999 júliusában [The status of the manufacturing industry and its short-term perspectives in July, 1999], Budapest, 1999

<sup>3</sup> Business Reports, 6 August 1999.

<sup>4</sup> „Ellentmondó várakozások, csökkenő növekedési ütem: A legnagyobb feldolgozóipari cégek helyzete és kilátásai az 1999. júliusi felvétel adatai alapján” (Controversial expectations, diminishing growth rate: the position of the largest companies in the manufacturing industry and their perspectives on the basis of the data of the July 1999 survey), TÁRKI, August 1999, Budapest

the same time, the number of mobile phones is approximately half that of fixed lines. If Matáv's (The national fixed line Telco) revenues in 1998 are added up in the categories of local calls, foreign calls, subscriptions and connection fees, the total is Ft 203 billion, while the revenue of the three mobile phone companies is Ft 126 billion. Naturally, the revenue figure includes non-household consumption as well, but still one may suspect that the weight of mobile telephony is significant within household consumption. Meanwhile, the cost of mobile telephony increases at a much lower rate than the cost of making calls across fixed lines and even declined in the initial period (and even between 1998 and 1999 for certain subscription packages and times of the day.). If properly accounted for, this would reduce the official consumer price index by several tenths of percentage points. New products find their way into the price index relatively slowly in other countries as well. For example, mobile telephony was incorporated into the consumer basket in the USA in 1998. This also means that it is precisely the initial period of the life of a new products that is omitted from the price index, when prices typically decrease to a great extent. Because of these reasons and others listed above, the consumer price index most probably overestimates the increase in the cost of living. In the USA, the rate of overestimation arising from several sources is estimated at a total of 1.1 percentage points p.a. (see the Boskin Report at <http://www.ssa.gov/istory/reports/boskinrpt.html>. The response by BLS, which calculates the consumer price index in the USA and a discussion of other methodological problems concerning the calculation of CPI can be found on the <http://stat.bls.gov/cpihe00.htm> internet page.).

The price increases resulting from the recent changes in the prescription drugs subsidy system is a good example that changes in the cost of living do not necessarily create sustained inflationary pressure. In this case, price increases were caused by the change in the system of subsidies, while producer prices did not change significantly. This situation is further complicated by the fact that the changes in price subsidies upset relationships on which the rules of statistical sampling are based. Generally, the price of close substitutes evolve roughly in the same way, precisely because they are substitutes for one another. Sampling practices at the Central Statistics Office are based on the following: within a given group of products comprising an extremely large number of products or product varieties (for example, „tea”), it is enough to take a relatively small sample as it will represent price changes fairly well within the product category. In the case of medicine, the Central Statistics Office takes into account the price of 45 types of medicine out of approximately 3,000 when calculating the medicine price index. The recent change in subsidies, however, has radically rearranged the relative prices of pharmaceutical substitutes and increased the price of those monitored disproportionately. The crux of the change was that the lump sum subsidy was defined as a percentage of the lowest priced medicine deemed as a clinical equivalent containing a specific active agent. This results in a large price increase in the case of “branded” medicine and presumably leads to a high degree of substitution by generic medicine in cheaper “packaging”. Consequently, the problem is twofold as the fixed basket takes into consideration this substitution at the time of its annual review only (when it will be too late because the price increase has already taken place), and the price increase among the types of medicine monitored has been higher than the average.

The problem of generic drugs was addressed by BLS as well (see at <http://stat.bls.gov/cpifact.htm>), and in July 1995 it adopted the method whereby the appearance of equivalent, cheaper generic drugs when the patent expires, is taken into account as a price decrease. BLS allows six months for the proliferation of cheaper generic drugs, then it reviews their percentage share within the consumption basket and the price decrease is accounted for, weighted by its percentage share. As far as we are aware, the Central Statistics Office does not take into consideration the entry of generic drugs as a price decrease.

When stipulating the price of a given drug, BLS takes into consideration all the payments that go to the seller of the medicine, not only cash payments by those purchasing it. In addition, the consumer basket includes an index of health insurance contributions calculated in an indirect manner. Consequently, the system is closed: if subsidies for medicine decline, it is also reflected in the reduction of health insurance fees (unless this is offset by a change in the operating costs or profitability of the insurer).

In Hungary's case, the major difference is that the financing of the health care system is not done through private insurance schemes but through taxes paid to the government. The consumer price index takes into consideration prices and services purchased on the market and goods and services provided by the state for a fee. This has largely practical reasons: if something is financed from taxes and provided free of charge, it is not possible to demonstrate which product or service is matched by which tax and very often measuring a given service also runs into difficulty. In the case of the health care system, arguments could be raised in favour of the fact that health care provided by the state is the counter-value for the contribution to health insurance (a type of tax). If, however, the health insurance fund runs into deficit, the books are balanced by automatic central government transfers, and services provided by it are difficult to define and measure.

Because of this definition of the consumer price index, if a product or service (or part of its sales price) is moved from the category of items financed from taxes to a category financed by fees paid by users, or into the market category, this transition itself may have an impact on the headline inflation. If the cost of living could be measured comprehensively, such a transition would have no impact whatsoever. It is worthwhile to treat such changes carefully and not to regard them as an unambiguous increase in the costs of living or consider them as part of the inflationary process.

Within total household expenditure,<sup>1</sup> consumption spending increased at a slightly faster rate of 4.6% in the second quarter, while households' investments expanded even more spectacularly. As a consequence, the savings rate of households fell from 13.2% in the previous quarter to 12.8%.

The real income growth rate slowed compared to the first three months of the year, primarily due to slower expansion of labour income which accounts for about two thirds of total income.

Conversely, the growth rate of family transfers increased over the first quarter, predominantly due to administrative reasons, as most child benefits for the first quarter were disbursed in the second quarter. The drop in capital income in the second quarter is explained by the fall of interest rates following the decline in inflation.

The substantial decline in the financial savings rate comes as no surprise at all. As already stated in our previous reports, last year households were quick to react to the possibility of reclaiming a portion of VAT on housing construction, which was also shown by the jump in the financial saving rate starting from the second quarter of last year, running parallel with a similar decline in the rate of households' investments. According to our data, the reason for the extreme drop in the financial savings rate this year is – as already indicated that – the cycle is now running the other way round. However, it follows from what has been stated so far that short-term consumption dynamics cannot be evaluated on the basis of the financial savings rate, which is available relatively quickly.

Taking into account the effect of the pension reform on savings, the slight rise in the total savings rate implies that the expansion of consumption is practically identical with the rise in incomes.

It is a new phenomenon, however, that at the level of the individual consumer, liquidity constraints appear to be lifted as long awaited lending to households is taking off. As shown in the chart, this was the first year since the change in political systems when households used external funds to finance their expenditure.

The takeoff of household borrowing is a welcome phenomenon from a welfare aspect, as it may contribute to evening out consumption across broader strata of society, and if household loan portfolios reach a critical mass, this may facilitate the transmission of monetary policy.

However, in addition to favourable long-term effects, the designers of economic policy will need to take into account this new phenomenon over the short and medium term when designing their policy, in order to achieve balance of payments objectives.

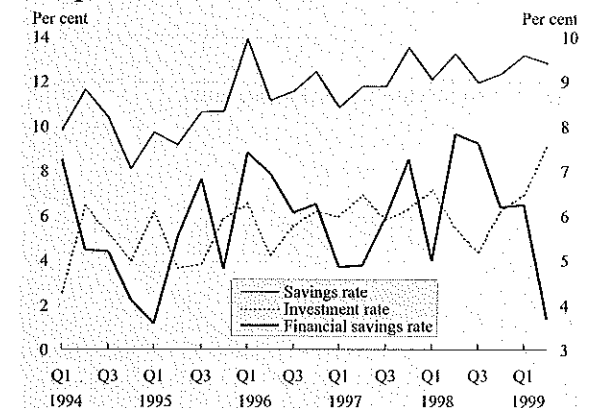
<sup>1</sup> All the savings rates mentioned in this chapter are operational savings rates and are all seasonally adjusted.

Annual growth rate of household income and consumption  
(Change over the comparable period of the previous year)

	1998	1999		
		Q1	Q2	H1
Household income*	2.8	4.0	3.0	3.4
Household consumption	4.0	3.7	4.6	4.0

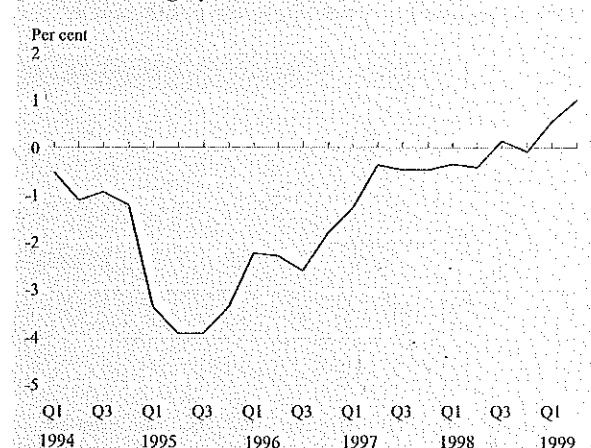
\* The volume indices of household income were calculated with contributions to private pension funds not regarded as part of disposable income.

Changes in household savings rates and its components\*



\* Seasonally adjusted data as percentage of operational disposable income.

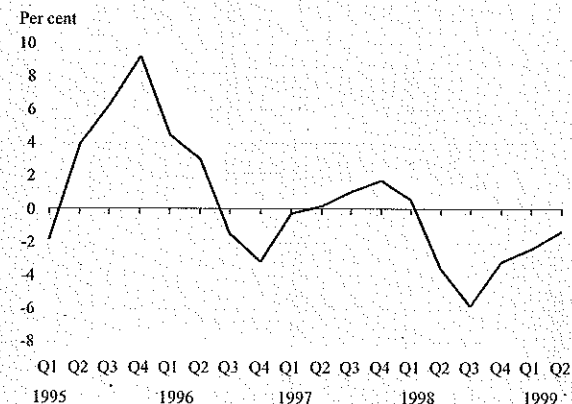
Net borrowing by households\*



\* Seasonally adjusted data as a percentage of operational disposable income.

## III. Demand factors

Contribution of net exports to GDP growth according to the national accounts\*



\* As percentage of GDP.

Annual growth rates of GDP and its components\*  
(Comparable period a year ago = 100)

	1998**		1998				1999	
	new	old	Q1	Q2	Q3	Q4	Q1	Q2
	methodology							
Final consumption	4.0	4.0	2.8	3.8	4.1	5.7	3.7	4.8
Household consumption	4.3	4.3	2.8	4.1	4.4	6.1	3.7	4.6
Public consumption	2.6	2.6	3.2	1.9	2.2	3.0	3.3	5.5
Gross capital formation	16.1	18.7	6.7	26.1	30.5	13.0	10.6	6.2
Fixed capital formation	11.4	11.4	7.0	12.7	18.1	8.2	6.4	6.8
Total domestic absorption	7.4	8.1	3.6	9.0	11.1	8.3	5.6	5.2
Exports	16.0	16.0	29.0	17.6	12.5	9.5	8.3	6.8
Imports	22.2	22.2	25.1	25.5	24.5	16.1	12.4	8.9
Domestic absorption + net exports	4.3	5.1	4.5	5.1	5.6	5.2	3.3	4.0
Statistical error in percentage of GDP	1.1	-	-	-	-	-	-	-
GDP	5.1	5.1	4.5	5.1	5.6	5.2	3.3	4.0

\* The annual and quarterly GDP calculations used in the report are NBH estimates which may differ from the data officially published by the Central Statistics Office. Quarterly GDP calculations have not been conducted for a long time in Hungary and the methodology applied is constantly changing and improving. Data from the Central Statistics Office are available relatively late, hence, the National Bank of Hungary uses its own estimates for the time being, which are consistent with the NBH analyses of the income position of certain income holders.

\*\* As of 1997, the CSO included an error line in its publications of the use side of GDP, which represents the deviation of GDP determined by the production of economic sectors from the estimate of GDP by categories of use. Formerly this error was included in the line of inventories, so it was part of gross capital formation and domestic absorption. However, according to the new methodology this statistical error is taken into account outside of both domestic absorption and foreign trade balance. The 1998 GDP balance was produced in compliance with the new rules of disclosure based on information available from the CSO and estimates by experts in which the statistical error was 1.1% of GDP at current prices. The quarterly figures were calculated according to the old methodology, so the statistical error is included in the line of gross capital formation.

According to NBH estimates, Hungarian economic growth accelerated slightly in the second quarter of 1999, expanding by 4% over the comparable period of the previous year. Growth picked up, while the contribution of domestic absorption to growth dropped slightly and net exports according to the national accounts eroded the GDP to a lesser extent than in the previous quarters. Within domestic absorption, it was primarily the contribution of investments to GDP growth which fell, while the role of consumption spending has been fairly stable in the last four quarters.

The growth of disposable household income in the second quarter (3%) did not reach the growth rate of consumption (4.6%). As for household consumption, a figure of roughly 4% has been observable for some time, indicating that households develop their optimum consumption path in accordance with long-term income tendencies and that the impact of short-term fluctuations is minimal.

Sales opportunities abroad, which from the end of 1998 became less favourable than previously, triggered a relatively quick process of adaptation among businesses. Flagging economic activity on trade markets put the brakes on internal demand in the private sector at the beginning of the year. The second quarter of 1999 saw a consolidation of the foreign market situation, to which the private sector responded by a slight acceleration in the growth rate of investments. Fixed capital formation in the national economy rose at a rate slightly above that of the preceding quarter at 6.8%.

Compared to the beginning of the year, the international economic environment became more favourable during the second quarter. The euro-region showed signs of an upturn, the economies of the CEFTA countries stabilised and the termination of the Russian and the Kosovo crises points to a normalisation of bilateral relations. The favourable foreign economic environment affected foreign trade turnover as well, whereby the growth rate of exports calculated in euros on the basis of customs declarations exceeded the comparable index for imports in the second quarter to a certain extent. All this cannot be seen from the export and import data which follow the structure of GDP, which is caused by the deteriorating tendency of the balance of services.

### 1 Household consumption

In the second quarter of 1999, households increased their expenditure substantially, as a result of which their financial savings rate dropped from 6.2% in the previous quarter to 3.7%.

## II. Monetary policy

### 1 Development of monetary conditions

In the second and third quarters of 1999, the implementation of monetary policy was influenced both by changes in domestic supply and demand and developments of international capital markets. Domestic economic processes were in line with the exchange rate path announced in April, which envisaged a 0.1% reduction in the rate of devaluation as of 1 July and 1 October. However, signs pointing towards an increase in future inflationary pressure justified a prudent interest rate policy, therefore, the National Bank of Hungary has cut its prime rate by 75 base points only since the announcement of the exchange rate path. (in three steps on 28 April, 15 June and 12 July).

As a result of the slowdown of economic growth, stabilisation of the external balances continued, which was first noted in the last quarter of 1998. The effects of the Kosovo crisis were relatively mild with respect to revenues both from exports and tourism and the development of the external balances was much more favourable than market expectations prevalent in the first half of the year. However, this more favourable external position is fragile, because it is not accompanied by a restructuring of the economy that would enable the economy to maintain the achieved equilibrium position even with faster growth. The diminishing net financing requirement of the corporate sector, caused by a lower level of investments resulted in a reduction of the current account deficit. In spite of a lower growth rate of income, households maintained the growth rate of consumption that characterised last year, while the reduction in the financing requirement of the budget fell behind the planned rate. Considering the fact that the profitability of the corporate sector does not justify a sustained stagnation in investment demand, the requirement for maintaining external equilibrium calls for the continued implementation of a prudent monetary policy. When designing monetary policy, it should also be taken into consideration that several factors with potential inflationary effects have recently influenced economic processes in Hungary. Compared to the previous year, the growth rate of domestic absorption has decreased, although it still exceeds potential GDP growth according to our estimates. Parallel with the continued drop in unemployment, the average rate of capacity utilisation also fell in the manufacturing industry. Primarily, this reflects a polarisation of the position of businesses and not the mitigation of the inflationary risk arising from bottlenecks on the labour market.

Administrative price measures (medicine) and supply-side shocks (food and energy prices) have had a considerable impact

on the development of inflation during the most recent period. Fundamentally, monetary policy is able to influence aggregate demand. Therefore, in such cases, monetary policy is aimed at preventing one-off price measures or transitory supply-side shocks from having a sustained effect on the inflationary process. The long-term impact of temporary price increasing effects may stem from the development of the cost-price spiral or through inflationary expectations. There is no need to fear that a cost-price spiral may begin to evolve because of changes in the system of subsidies affecting the consumer price of medicine, as medicine is not used as an input in any other kinds of business activity. Generally, foodstuffs are not processed further by other sectors either. Therefore, increases in the price of these products result in a one-off hike of the price level rather than having a long-term inflation boosting effect. However, changes in medicine and food prices influence the cost of living as well as future inflationary expectations, which may result in a sustained increase in inflation<sup>1</sup> through higher wage demands. The National Bank of Hungary may facilitate stabilisation of inflationary expectations by following, on the one hand, an exchange rate policy announced in advance and, on the other hand, by urging conduct of extensive wage negotiations based on forward-looking inflationary expectations. So, a single swing in the rate of price increase requires a review of neither the exchange rate policy nor the existing interest rate level. As stated in the 1/1998 Inflation Report, the National Bank of Hungary treated the reduction of food prices in a similar manner, since the development of agricultural prices did not affect the long-term path of inflation, as the nominal exchange rate path did not follow the reduction in inflation arising from a temporary fall in food prices. Conversely, energy represents a fundamental input for all kinds of economic activities. Therefore, an increase in energy prices boosts cost-side inflationary pressure in a broad category of economic activities. To offset this, restrictive monetary conditions need to be maintained. In terms of the foreign factors affecting the implementation of monetary policy, changes in interest rates in countries of the basket currencies and the fall in confidence towards emerging countries need to be highlighted.

The second quarter of 1999 was characterised by expectations of interest rate increases in the United States; and from the end of the summer of 1999 expectations also abounded on the market concerning an interest rate increase by the ECB in addition to further measures by the FED. A change in the interest rates in the countries of the basket currencies directly influences the premium inherent in forint interest rates. In addition, particularly the envisaged change of interest rates in the United States reduces demand for instruments on the emerging markets – especially demand for instruments sensitive to short-term yields. Consequently, it is not surprising that the recent period has been characterised by a low interest-induced capital inflow in spite of the high interest premium. Similarly, the period preceding the spring interest rate increase by the FED in 1997 was also characterised by a low influx of capital. The increase in the steepness of the European and American yield curve exerted considerable influence

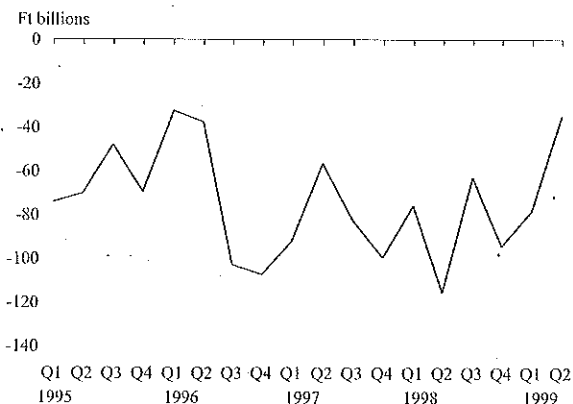
<sup>1</sup> Although prices increased in July and August, National Bank of Hungary considers it to be highly unlikely that the average rate of price increases in 1999 would exceed or perhaps reach the 10–11% rate taken into consideration in the course of wage negotiations.

and forint instruments even declined in the second quarter. This indicates that there may be significant differences within the corporate sector in terms of both profitability and the attitude concerning the exchange rate risk. Segmentation of the corporate sector resulted in processes on the asset and liability side that appear to be contradictory.

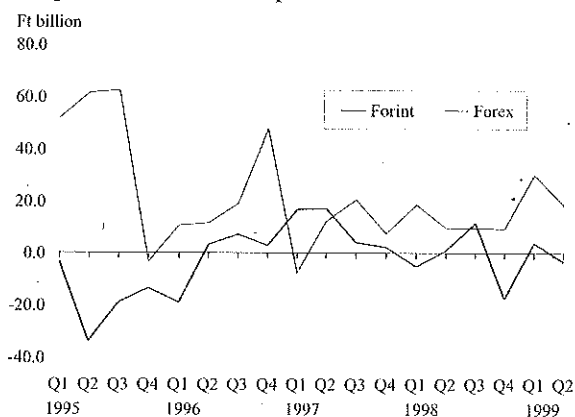
The aggregate balance of the banking system

	1998				1999				Ft billion
	Jan. 1	March 31	June 30	Sept. 30	Dec. 31	March 31	June 30	July 31	
Cash	562.6	551.7	587.7	640.6	666.6	667.1	708.4	727.3	
Household deposits	2,166.4	2,205.6	2,261	2,388.3	2,597.9	2,704.7	2,766.6	2,775.7	
- Forint	1,643.6	1,688.8	1,700.9	1,787.7	1,982.3	2,074.3	2,141.8	2,150.8	
- Foreign exchange	522.8	536.8	560.1	600.6	615.6	630.4	624.8	624.9	
Corporate deposits	982.9	891.8	943.1	945.9	1,032.1	971.6	997.7	1,041	
- Forint	729.6	654.8	709.2	713.9	802.8	743.5	779.4	809.1	
- Foreign exchange	253.3	227	233.9	232	229.3	228.1	218.3	231.8	
Deposits of local authorities and non-profit organizations	207.5	210.1	190.7	212.3	229.4	211.5	192.8	192.4	
Other deposits	69.7	48.1	65	53.1	71.2	57.4	65.9	57.8	
Bonds and CDs	37.3	35.5	32.9	31.8	28.9	31.5	37.9	40.9	
M3	4,006.4	3,932.8	4,080.4	4,272	4,626.1	4,643.8	4,769.3	4,835.1	
Credit to the household sector	311.9	302.2	324.8	341.1	355.2	367.3	403.2	412.5	
Credit to the public sector	3,493.8	3,454.6	3,386.1	3,701	3,894.9	3,758.5	3,267.2	3,236.1	
Credit to the corporate sector	1,706.6	1,756	1,880.2	1,993.1	1,983.7	2,044.8	2,109.5	2,129.1	
Other credit	66.2	63.6	73.2	92.8	94.5	108.1	108.1	100.0	
Domestic credit	5,578.5	5,576.4	5,664.3	6,128	6,328.3	6,281.8	5,888	5,877.7	
Other domestic assets: net	444.9	636.7	651	781.8	700.7	792.6	545.2	594.7	
Net foreign assets	-1,127.2	-1,006.9	-932.9	-1,074.2	-1,001.5	-845.4	-573.5	-447.9	

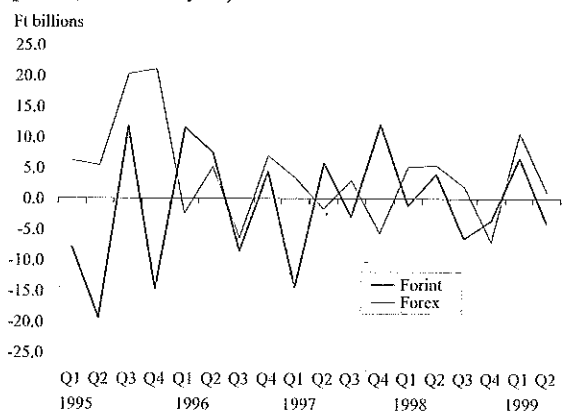
Seasonally adjusted change in the net position of the corporate sector, at 1995 prices



Seasonally adjusted operational lending to the corporate sector at 1995 prices



Operational accumulation of financial assets at 1995 prices, seasonally adjusted



## 6 Development of demand for credit

In the second quarter, the stock of domestic credit generated by the Hungarian banking system declined, with its annual growth rate falling to 10%. Both the government and the corporate sector reduced their domestic financing requirement. Credit demand by households increased by 24% in general, and the portfolio of consumer loans increased extraordinarily in particular.

The current improvement of the budget's position vis-à-vis the banking was due to the change of position of the government versus the National Bank. The government paper portfolio of commercial banks remained practically unchanged, and there was only a reallocation from treasury bills towards government bonds.

The Russian crisis represented only a temporary break in the improvement of the net saving position of companies. The net financing requirement of the corporate sphere continued to decline in the second quarter of 1999.

The improvement in the saving position arose as a combined result of the accumulation of financial instruments and diminishing demand for credit. Within the diminishing demand for credit, the percentage share of both forint and local credits declined.

Changes in the composition of credit demand are explained by alterations in the relative price of forint and foreign exchange credit.

The relative cost of FX financing dropped significantly for companies whose risk premium, denominated in foreign exchange, did not increase as a result of factors that caused the high interest premium to become permanent.<sup>6</sup> Presumably, the subsidiaries of multinational companies in Hungary belong in this category.

As most of these companies generate products for exports, FX financing creates a natural hedging position against the exchange rate risk of the forint. So, in spite of the fact that credit rationing, which arose sporadically as a result of the Russian crisis, certainly did not impose a relevant liquidity constraint on large companies in 1999, inflation-adjusted forint borrowing was around zero and the corporate sector's leverage increased predominantly in foreign exchange.

The evolution of financial instruments allows for conclusions to be drawn about the segmentation of the corporate sector. In spite of high forint interest premiums, which encourage indebtedness in foreign exchange, the accumulation of FX instruments exceeded that of forint instruments (in an operational approach)

<sup>6</sup> Increase in the risk premium of emerging markets, risk avoidance by capital markets, the Balkan crisis and concerns about the Hungarian macroeconomic situation.

on forint-denominated instruments as well. In the United States sustainability of the current low level of inflation coupled with strong economic growth became increasingly uncertain. This resulted in a substantial yield increase primarily for longer maturities: the interest difference on ten-year and three-month US Treasury papers increased by more than 75 basis points. According to the European Central Bank, local factors play a decisive role in the development of yields on euro-denominated bonds. Taking into account the envisaged tightening of monetary policy in the United States and increasingly favourable growth perspectives in Asia, the ECB regards the euro exchange rate risk and the improving growth perspectives of the euro zone as the local causes for the increase of long-term interest rates. Maintaining the attractiveness of forint investments called for a reduction in the local yield curve inversion.

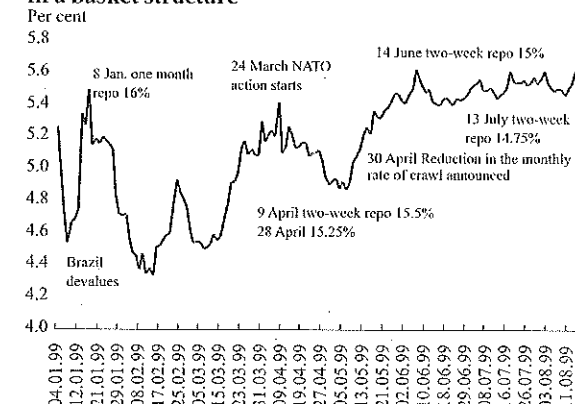
The development of local interest rates was influenced by a deterioration in the general assessment of the emerging countries. This was partly related to expectations of interest rate increases in the United States since due to these expectations, capital flows decreased to such South American countries, whose current account balance could only be financed from inflows of interest rates sensitive capital. The government of Ecuador was forced to declare insolvency with respect to its maturing Brady bonds, but scarce liquidity will probably have a recession-inducing effect in the entire Latin American region. During the summer – particularly as a result of the South American processes – the sovereign spread of the EMBI+ index increased by approximately 200 basis points. Although the inflow of non-debt type capital has provided for current account financing on a continuous basis in Hungary, and the country's international reserves are high, the contagion effect of the loss of confidence affected Hungarian interest rates as well. Hence, the drop in the country risk stemming from the end of the Kosovo war is not reflected in the development of the interest premium on the forint.

Consequently, international capital market processes made it necessary to maintain a high interest premium over the long term: from mid-May, the value of the three-month interest premium hovered around 550 basis points. In spite of the high premium, real interest rates dropped as the impact of the change in the real exchange rate path and three-month forward-looking real interest rates fell close to the 4 per cent level in July. As a result of an adjustment to the nominal exchange rate path, the development of the real exchange rate was restored to the level justified by the fundamentals of the economy, resulting in a real appreciation around 2% at an annual level.

## 2 Development of interest rates and the exchange rate

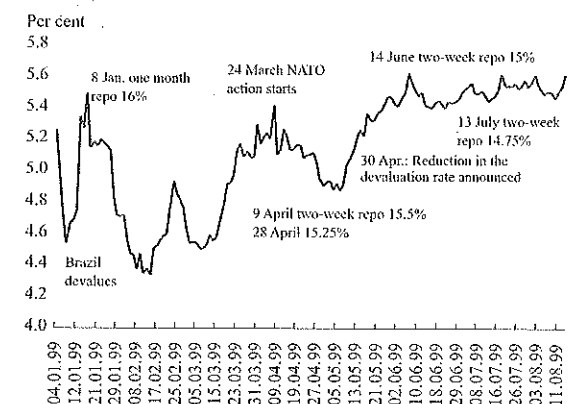
The past months were characterised by a high interest rate premium on forint instruments and the forint being close to the strong end of the band. The National Bank of Hungary intervened several times at the strong end of the band. The forint's intraband position was influenced primarily by the inflow of non-debt generating capital being in excess of the current account deficit. The high interest premium did not induce any

Three-month treasury note yields above the devaluation rate and LIBOR rates calculated in a basket structure



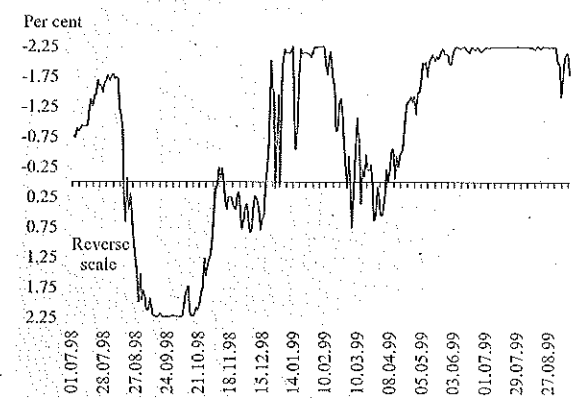
\* Three-month treasury note yields above the devaluation rate and LIBOR rates calculated in a basket structure.

Development of monetary conditions\*

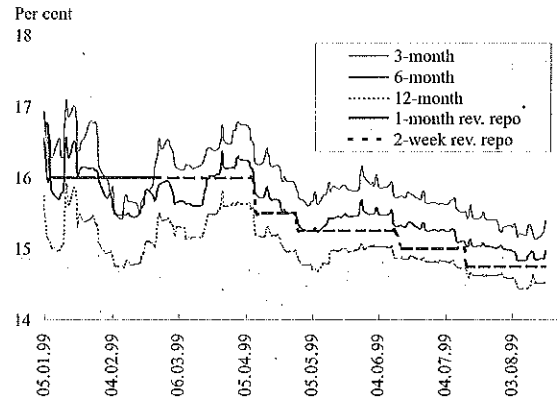


\* The chart depicts real interest rates calculated on the basis of three-month treasury notes with forward-looking inflation. The real exchange rate index indicating monetary conditions is not identical with indices to be shown later, measuring competitiveness. It shows the quotient of exchange rate changes expected to take place over the next three months and forward-looking inflation.

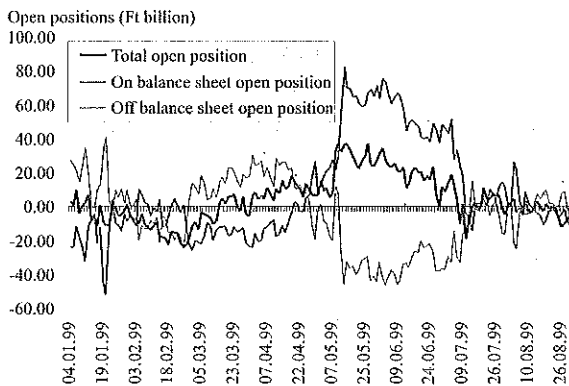
Intraband position of the forint



**Short-term yields: estimated zero-coupon yields at 3-month, 6-month and 12-month maturities, 5 January 1998–18 August 1999**



**The banking sector's total, on balance sheet and off balance sheet foreign exchange open position**



Source: NBH

Components of the demand for forints	1999											
	01	02	03	04	05	06	07	08	09	10	11	12
A. Intervention	191.6	124.5	124.5	202.7	84.6	202.7	137.8	137.8	137.8	137.8	137.8	137.8
a) Foreign exchange purchases of the NBH in the interbank market	78.1	112.6	112.6	48.5	11.9	11.9	48.5	48.5	48.5	48.5	48.5	48.5
b) Purchases of the NBH from the budget	78.1	0.0	0.0	64.1	0.0	0.0	64.1	64.1	64.1	64.1	64.1	64.1
Sources of intervention (I + ... + VIII)	191.6	124.5	124.5	202.7	84.6	202.7	137.8	137.8	137.8	137.8	137.8	137.8
I Current account: corrected with the net foreign interest payments of the NBH(1+2)	-883.5	-30.8	-30.8	-80.0	-12.7	-12.7	-80.0	-80.0	-80.0	-80.0	-80.0	-80.0
1. Current account	-493.38	-135.9	-135.9	-41.9	-13.8	-13.8	-41.9	-41.9	-41.9	-41.9	-41.9	-41.9
2. Net foreign interest payments of the NBH	112.0	27.3	27.3	11.1	1.1	1.1	12.0	24.1	24.1	24.1	24.1	24.1
III Foreign direct investment	311.8	61.9	61.9	4.5	40.5	40.5	29.7	65.7	65.7	65.7	65.7	65.7
IV Intervention due to commercial banks*	-72.9	-17.0	-17.0	0.6	-20.5	-20.5	15.4	-4.5	-4.5	-4.5	-4.5	-4.5
V Effect of derivatives**	-206.4	-51.5	-51.5	-32.0	-42.8	-42.8	7.3	-67.5	-67.5	-67.5	-67.5	-67.5
VI Intervention due to of domestic foreign exchanged deposits	8.3	5.4	5.4	7.8	-24.9	-24.9	24.2	7.1	7.1	7.1	7.1	7.1
VII Net portfolio investments (1+2)	421.2	157.7	157.7	69.3	59.1	59.1	98.8	227.3	227.3	227.3	227.3	227.3
1. Government securities	194.4	15.5	15.5	29.0	-7.8	-7.8	-2.1	19.1	19.1	19.1	19.1	19.1
2. Equities***	226.8	142.2	142.2	40.3	66.9	66.9	100.9	208.2	208.2	208.2	208.2	208.2
VIII Corporate foreign exchange borrowing (1+2)	72.4	33.6	33.6	4.5	3.8	3.8	36.1	50.3	50.3	50.3	50.3	50.3
1. Domestic	52.8	23.2	23.2	3.2	14.5	14.5	9.3	27.0	27.0	27.0	27.0	27.0
2. Foreign	19.7	8.3	8.3	1.3	-4.7	-4.7	26.7	23.3	23.3	23.3	23.3	23.3

\* Intervention effect due to the change in commercial banks' fully open position, i.e. the part of open positions not covered by derivative transactions.  
 \*\* Intervention effect of the changes in forward contracts. In case of these two items, the negative sign indicates the closing of long forint positions built up earlier.  
 \*\*\* Balance of payment statistics concerning stock purchases by foreigners are rather uncertain; therefore, this line of the table was calculated following the "residue" principle.

grossly interest-sensitive capital inflows. Intervention forint demand was absorbed by the increasing financing requirement of the economy, so the stock of sterilisation instruments of the central bank fell in the first two quarters of the year and then began to increase again.

The adjustment of the exchange rate path was not followed by a drop in domestic interest rates at a similar rate because of the increase in the premium expected from forint instruments. The 25 basis point reduction of the prime rate by the central bank on 28 April had no practical influence on the development of yields within the year, hence the interest premium of the forint increased by about 50 basis points by the end of May. However, the next two interest rate reductions of 25 basis points by the central bank were followed by market yields during the year.

**2.1 Components of the conversion forint demand**

Over the first half of 1999, central bank conversion amounted to Ft 203 billion. Following the Ft 78 billion forint conversion over the first three months of the year, the central bank purchased foreign exchange in an amount of Ft 125 billion in the second quarter. Of this, Ft 65 billion came from the budget in relation to the MATÁV privatisation, with the remaining Ft 60 billion linked to FX market intervention.

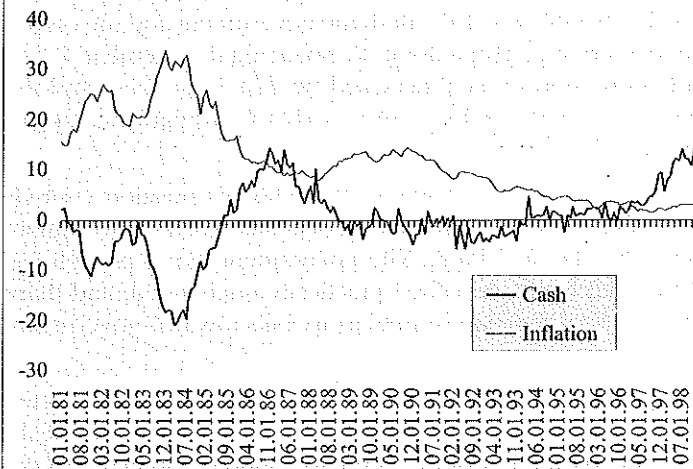
Capital inflows incorporating the influx of working capital and portfolio stock investments exceeded the current account deficit; taken together, these components contributed Ft 126 billion to conversion in the course of the second quarter. Yet another significant item is the Ft 50 billion conversion forint demand arising from the net foreign borrowing<sup>2</sup> of the corporate sector. Contrary to last year, demand by foreigners towards government paper does not play an outstanding role in the FX market conversion by the NBH; altogether, this factor's contribution to conversion in the second quarter was but Ft 19 billion.

In the period following the outbreak of the Russian crisis, credit institutions strove to maintain a closed FX position. After the Russian crisis, speculators, who used to act as the bank's partners in hedging transactions, have practically disappeared. With the disappearance of the speculators, stock exchange transactions in general and the claims of the banking system vis-à-vis FX exchanges melted down. As opportunities for hedging transactions disappeared, so did the banks' FX position in their balance sheet because of the increased exchange rate risk and regulatory limits on open FX positions. Owing to the high interest premium on forint instruments, it would have been profitable for banks – similarly to business undertakings – to make placements in forint instruments, while running up debts in foreign exchange. However, because of the limited forward demand for the forint, banks were unable to hedge their short FX positions in their balance sheet. In addition, as a result of the inflow of foreign capital in excess of the current account balance, financial institutions moved towards long FX positions between April and June. Stability for fully open positions could be provided by the banks partly through forward FX sales. The change in the stock of forward positions cut conversion forint demand by Ft 119 billion in the course of the first six

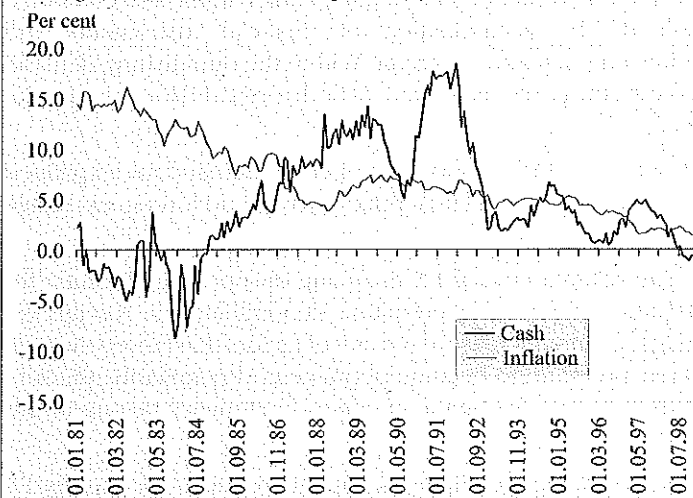
<sup>2</sup> This item refers to the net borrowing position of the corporate sector above and beyond loans by owners. Loans by owners are recorded as one of the components of the inflow of working capital.

This confirms our hypothesis that in an economic environment where inflation is slowing down, consequently the alternative cost of holding cash declines, a greater liquid cash holding is not a surprising phenomenon.

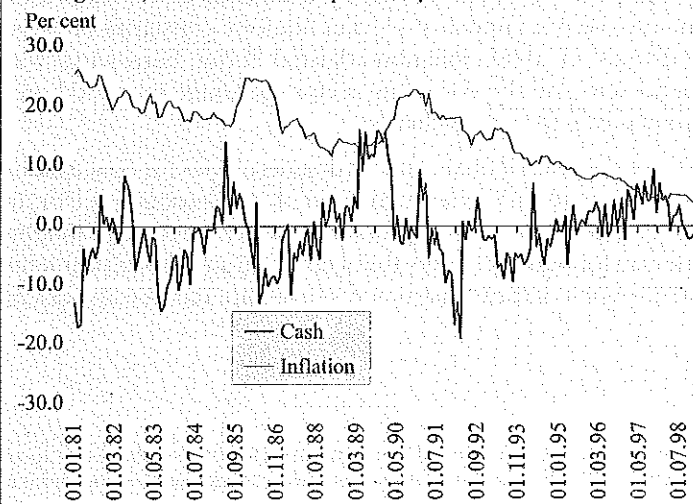
**Cash outside the banking system in Portugal**  
(Real growth, same month of the previous year = 100)



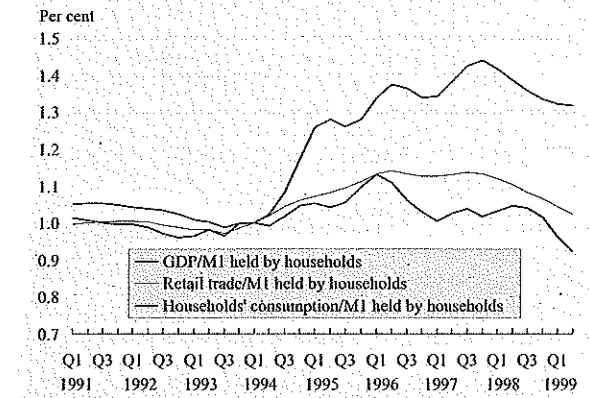
**Cash outside the banking system in Spain**  
(Real growth, same month of the previous year = 100)



**Cash outside the banking system in Greece**  
(Real growth, same month of the previous year = 100)

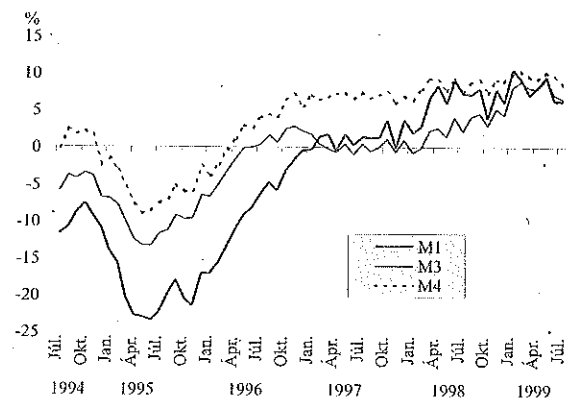


**Changes in the velocity of household transactional money balances** (First quarter of 1994 = 1)

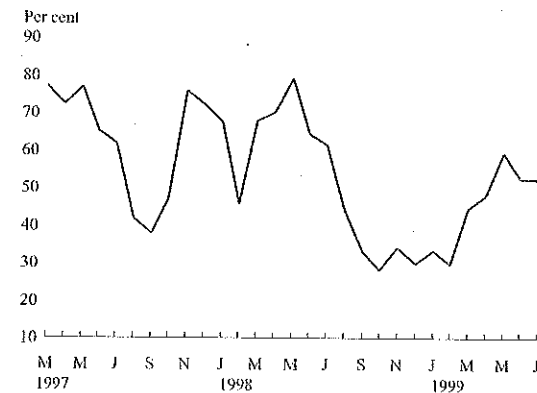




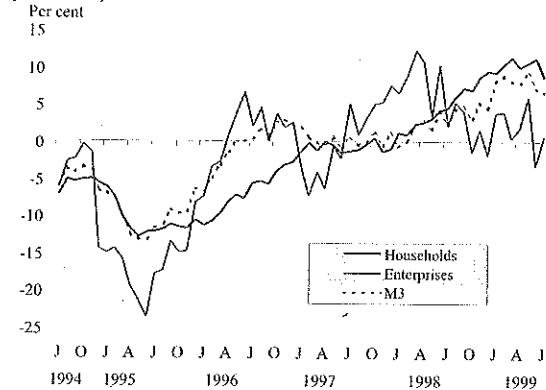
**Real growth of monetary aggregates**  
(Same month of the previous year = 100)



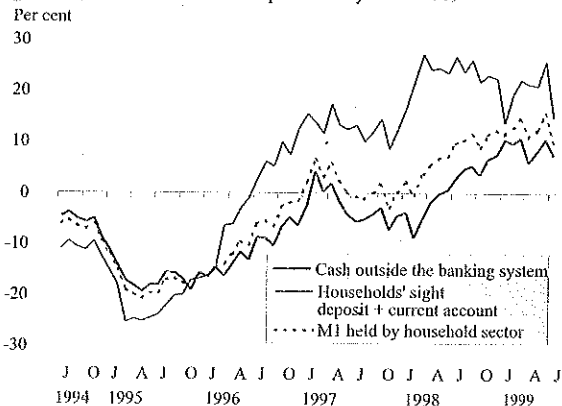
**Share of non-bank savings in the net financial savings of households**



**Household and corporate components of the M3 monetary aggregate** (Real growth, same month of the previous year = 100)



**The components of M1 held by household sector** (Real growth, same month of the previous year = 100)



and one-year household deposit rates rose from 9 to 11 basis points. The portfolio increase in the face of high lending rates can be explained by the fact that the absence of borrowing opportunities used to restrain household demand for high-value consumer goods, whereas now the increasingly easy accessibility of consumer loans has enabled many households to purchase such articles. It seems that low monthly instalments have an attraction which offsets the cost due to high interest rates. High lending rates can partly be explained by the quick and non-too-strict evaluation of consumer loan applications which increases the default risk and the risk premium incorporated in the rates.

### 5 Monetary aggregates

As the rise in inflation and economic growth tapered off, the growth rate of monetary aggregates also slowed down, although it still exceeds the growth rate of nominal GDP. Behind the overall slowdown in the increase of monetary aggregates, the development of individual components showed significant differences in the period under analysis.

The 22-30% real increase in the government paper portfolio outside the banking system since March, which accounts for 30% of M4, also indicates that the popularity of non-bank financial investments has increased again after hitting the bottom last autumn. The growth rate of M3 continues to be determined by the rapid expansion of the retail component (cash, demand deposit and current account), the real increase of the corporate component is not significant. M3 money holdings of the corporate sector show much greater volatility than the retail component. This is caused primarily by the fluctuations and timing of tax and social security payments as well as settlement of other financial liabilities. At the same time, as a result of increasingly advanced corporate cash flow management, the liquid cash holdings of companies become increasingly dependent on the yield of alternative investment opportunities. The deposit rates offered by banks and the rise in yields on the government paper market mentioned in the recent period encouraged the reduction of liquid financial investments provided by banks in the portfolio required for operation.

Within the retail component, the portfolio continued to be restructured to the benefit of liquid monetary instruments, i.e. cash and demand deposits outside the banking system (so-called retail M1). In case of the opportunity cost of reducing liquid cash holdings and cash, the less sophisticated household investment culture explains a further slowdown in velocity.

#### Development in transaction money demand in the South European countries

In several countries it could be observed that a slowdown of inflation is accompanied by a high rate of real increase in transaction money demand.

This can be underpinned, for example, by looking at the less advanced member states of the European Union. In spite of high volatility, one finds that the reduction of inflation to single-digit figures was accompanied by a high rate of real increase in cash outside the banking system in Portugal, Spain and Greece.

months of the year. However, closing the entire position was possible through spot FX sales only which guaranteed that the forint should hover close to the strong end of the band. Hence, the foreign exchange market was not driven by the active capital involvement of the banks but by direct capital inflows and the behaviour of the non-banking corporate sector in the first half of the year, with banks playing a passive intermediary role only.

As spot FX sales were motivated fundamentally by non-interest sensitive capital inflows but foreigners' demand for stocks, continuous FX market intervention did not induce expectations concerning interest reduction. The expansion of the monetary base due to the intervention was smaller than the increase in the demand in the monetary base: consequently, the stock of sterilisation instruments dropped continuously. July saw a further intensification of FX market intervention by the National Bank of Hungary as it purchased foreign exchange on the FX markets for Ft 185 billion in less than a month. The rapid increase in intervention forint demand manifested itself in the growth of the two-week deposit portfolio. As the supply of foreign exchange continued to be motivated by factors other than interest-sensitive capital inflows, no strong interest reduction expectations emerged on the market in spite of the expansion of liquidity.

### 2.2 The monetary base

Over the first seven months of the year, the monetary base expanded faster than inflation at 16.2% over the comparable period last year. This was the combined result of an 18.5% increase in the stock of cash and a 12.5% increase in the reserves of commercial banks placed with the central bank. The faster growth of the stock of cash was due mainly to a quick expansion in the cash holdings of households. With the rise in the number of ATMs, the share of the stock of cash is also increasing within the mandatory reserves of commercial banks. The expansion of the monetary base was due partly to conversion by the central bank and partly to the reduction in sterilisation stocks. The purchase of foreign exchange, equivalent to Ft 182 billion by the National Bank of Hungary in July, exceeded the growth in the demand for the monetary base, and expanding supplies of the forint were offset by the rebuilt stock of sterilisation instruments and a Ft 80 billion increase in the stock of the Treasury's Single Account.

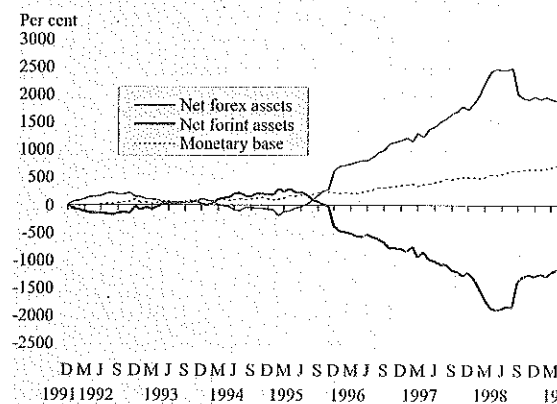
### 3 Yield curve, interest rate and inflationary expectations

In the period between May-August 1999, the slope of the implied forward curve,<sup>3</sup> reflecting future interest rate expectations, dropped significantly. While the spot 1-year yield fell by approximately 50 basis points roughly in line with the interest rate cuts by the central bank, the expected 1-year yield for periods beginning after 1, 2 and 3 years increased by 30, 90 and 160 basis points, respectively.

<sup>3</sup> The implied forward rates derived from the zero-coupon yield curve do not necessarily coincide with the market's expected future interest rates (only if the so-called Expectations Hypothesis holds). However, less restrictive assumptions are enough to establish a relationship between changes in implied forward rates and changes in expected future interest rates. For more details on the derivation and interpretation of implied forward rates and NBH's practice of estimating the zero-coupon yield curve see: "Zero-coupon yield curve estimation from a central bank perspective", NBH Working Papers 1998/2.

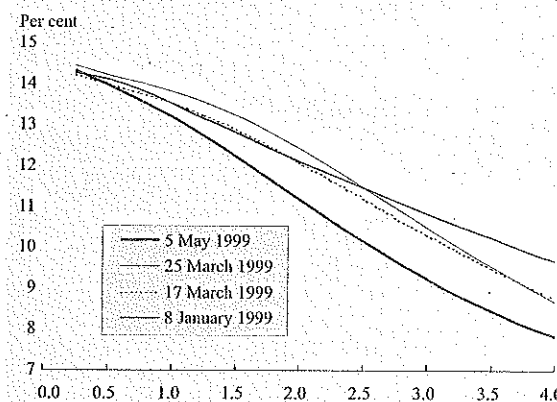
		1999															
		Jan.	Feb.	March	April	May	June	July	Opening	Jan.	Feb.	March	April	May	June	July	
<b>I Monetary base (II + III)</b>		1,160.9	1,150.5	1,158.1	1,180.6	1,198.2	1,219.3	1,239.2	1,271.2	786.0	713.6	719.2	730.6	746.0	763.9	780.5	800.0
Currency in circulation		424.9	436.9	438.9	450.0	452.2	455.4	458.7	471.2	342.1	382.5	342.0	404.4	459.1	471.1	448.4	293.7
Reserves		525.4	552.2	516.0	442.4	351.7	362.6	316.0	446.6	167.1	212.1	166.2	143.5	141.6	142.2	133.7	130.6
<b>II Net forint assets (b + c + d - a)</b>		718.4	739.6	727.9	745.5	745.6	706.2	582.1	583.1	33.1	48.6	61.0	30.1	99.2	68.3	115.3	110.7
a) Sterilization instruments		376.9	421.0	421.0	421.0	421.0	421.0	420.9	408.6	374.6	367.2	367.8	354.6	356.8	353.6	276.9	285.3
b) Credit to financial institutions		-18.0	-17.0	-36.1	-42.3	-9.4	-9.4	-14.7	26.6	818.8	768.0	816.1	776.2	739.1	748.2	790.8	977.5
c) Net claims against the government		-501.9	-481.1	-332.8	-422.7	-341.0	-271.7	-128.8	38.8	2,660.0	2,177.1	2,484.3	2,429.5	2,386.5	2,470.0	2,546.2	2,723.9
Of this KESZ (-)		2,761.9	2,658.2	2,817.1	2,862.2	2,727.5	2,741.7	2,676.0	2,685.1	1,320.7	1,249.1	1,148.9	1,198.9	1,080.2	1,019.8	919.6	938.7
government securities (+)		1,320.7	1,249.1	1,148.9	1,198.9	1,080.2	1,019.8	919.6	938.7	2,137.6	2,069.8	2,054.1	1,915.6	1,858.1	1,736.2	1,744.9	1,744.9
other (+)		816.9	850.7	881.9	855.2	835.4	838.3	816.5	806.2								
d) Other																	
<b>III Net foreign exchange assets</b>																	
Net foreign																	
Claims																	
Debts																	
Net domestic																	
Claims																	
Debts																	

**The monetary base and changes in its components\***

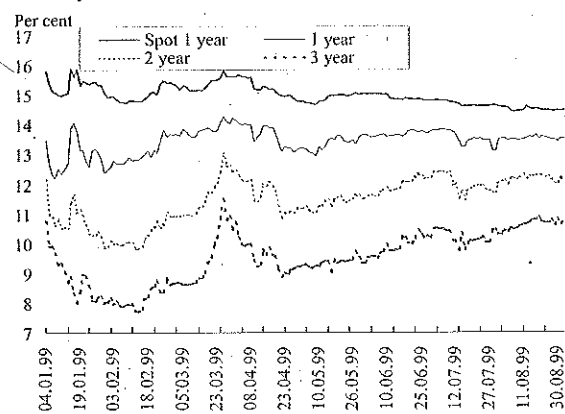


\* The graph includes cumulative values, December 1991=100.

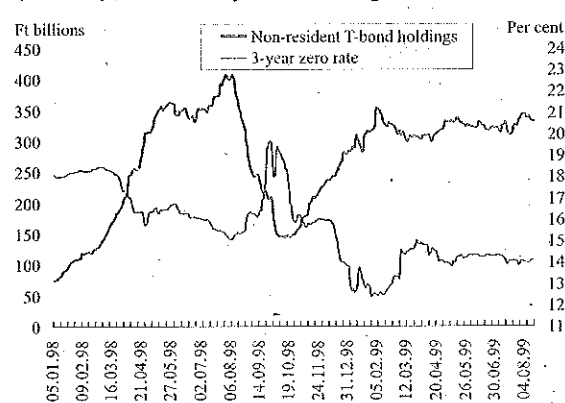
**One-year implied forward curves**



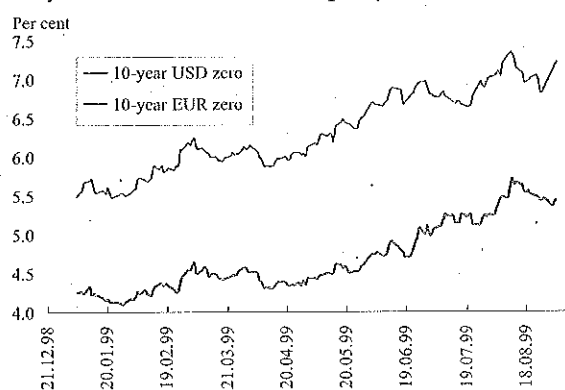
1-year spot rate and 1-year implied forwards in 1, 2 and 3 years time



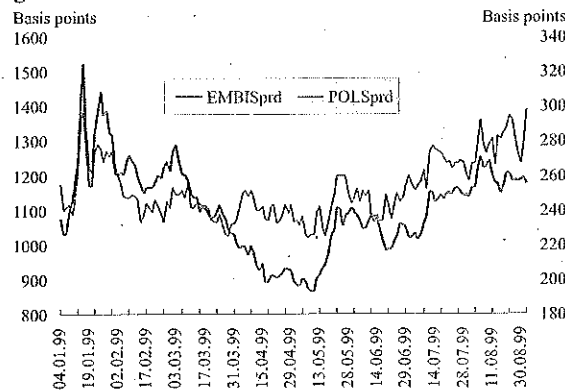
Registered T-bond holdings of non-residents (left scale) and the 3-year zero coupon rate



10-year USD and EUR zero-coupon yields



Spreads of EMBI + and Polish Brady bonds over US government bonds



Until early July, the increase was gradual, then in about a week (between 8-16 July) 1-year interest rates expected for periods beginning after 1-3 years dropped by 35-55 basis points. This took place roughly at the same time when certain favourable macroeconomic data were announced (8 July - lower-than-expected May current account deficit; 13 July - May inflation and the June budget deficit). In light of the favourable macroeconomic data, the central bank also believed that cuts in the prime rate were justified: the interest rate for the two-week deposit facility was cut by 25 basis points to 14.75% on 13 July, which reinforced the optimistic reaction of the market. But the quick drop in interest rates was followed by another slow rise similar to that in May-June.

The question regarding this phenomenon is to what extent the increase in long term yield expectations were attributable to increasing inflationary expectations, developments in foreign yields or an increasing risk premium respectively. The last two factors may influence local yields because of the openness of the Hungarian capital market and the significant forint-denominated T-bond portfolio currently in the hands of foreigners.

In May-August, the portfolio of government bonds held by foreigners did not show volatile fluctuations similar to those experienced a year before when the portfolio oscillated in the Ft 310-350 billion range. A slow diminishing trend was observable in the stock of foreign held bond portfolio until the end of July. Most probably, this was related to the increase in foreign long yields in May-July (in the same period, 10-year US zero-coupon yields rose from 6% to 7%, while long-term euro zero yields increased from 4.4% to 5.4%). An important aspect was that long maturities increased much more vigorously in the case of both dollar and euro yields than short ones, in other words, the slope of the dollar and euro yield curves increased. The spread between the three-year and three-month maturities in the yield curve constructed from the basket currency yields, increased by 80-100 basis points in the above mentioned period, which was by and large similar in extent to the increase in the slope of the Hungarian yield curve. Regarding the fact that purchase of Hungarian government bonds by foreigners has been fully liberalised, the increase in the euro and dollar long yields could explain a large proportion of the rise in the slope of the Hungarian yield curve assuming there was no change in the expectations concerning the rate of devaluation of the forint.

In addition to - or partly as a consequence of - the increase in the long yields in the advanced countries, unfavourable changes took place resulting in the general evaluation of the risks on the emerging markets. This is well illustrated by the increase of the spread of J. P. Morgan's EMBI+ portfolio of dollar-denominated emerging market bonds from 900 to about 1200 basis points above US government bonds. A similar unfavourable trend was observable in the spread of the relatively liquid dollar-denominated bonds of Poland which is in our region.<sup>4</sup> It is difficult to

<sup>4</sup> Short-term fluctuations in the international assessment of the Hungarian country risk is more difficult to measure than that of Poland or the emerging markets in general. The reason is that bonds issued by Hungary in foreign currencies are substantially less liquid; therefore, information in the prices quoted for them is more uncertain. Keeping this in mind, it is to be noted that the spreads on the benchmark DEM and Euro bonds issued by Hungary benchmark increased by 10-15 basis points in May-August which indicates an approximately 10-15% rise in spreads.

evaluate, however, to what extent Hungary was affected by the drop in the global 'appetite for risk' vis-à-vis the emerging countries. It is also difficult to explain solely by an increase in the risk premium that long-term forint yields rose more than short-term yields.

Another possible factor influencing interest rate expectations is longer term inflation expectations. Of this, the only available direct information is provided by the survey reflecting the opinion of 10-15 macro analysts published monthly by Reuter's. The survey indicates that CPI inflation expected by the end of 1999 increased significantly in May (by about 25 basis points), while it remained basically same at the level of 9.75% in the following two months.<sup>5</sup> Inflation forecast by the end of 2000 remained by and large the same from May until July, hovering at around 7.45%. A significant change was brought about by the July 10.1% inflation (published in August), which considerably exceeded market expectations. According to the Reuter's survey of 18 August, inflation expected by the end of the year increased to 10.28%. At the same time, inflation expected by the end of 2000 increased only to a small extent (by 12 basis points).

Provided that the outcome of the survey is plausible, the May-August increase in long-term interest expectations is explained only to a small extent by the increase in long-term inflationary expectations and the drop in the global appetite for emerging market risk. Most of the increase can be attributed to a considerable rise in long-term dollar and euro yields.

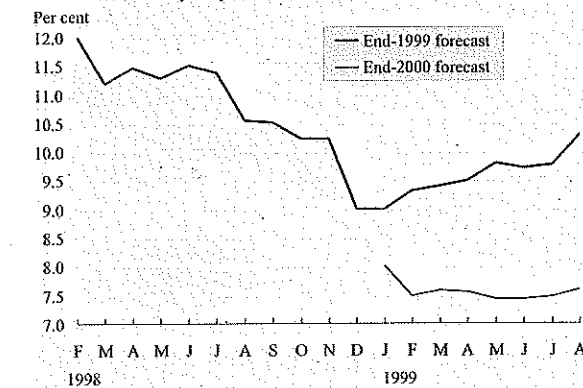
#### 4 The interest rate policy of commercial banks

Following a temporary halt after the flare-up of the Russian crisis, commercial banks' corporate and household credit and deposit rates returned to the diminishing trend observed earlier in the first half of 1999. The drop commanded attention in the case of household deposit rates in particular: the chart shows clearly that the difference between yields on the government securities market and household deposit rates have been increasing since February approaching the 2-2.5 percentage point level which was typical earlier. The drop in household deposit interest is due primarily to the fact that banks had substantial retail funds because the attraction to invest in shares declined and the increase in the loan portfolio slowed down, and therefore banks were not forced to maintain relatively high deposit interest rates in order to attract additional funds. This year's decline in the banks' profits also forced them to increase the margin between lending and deposit rates.

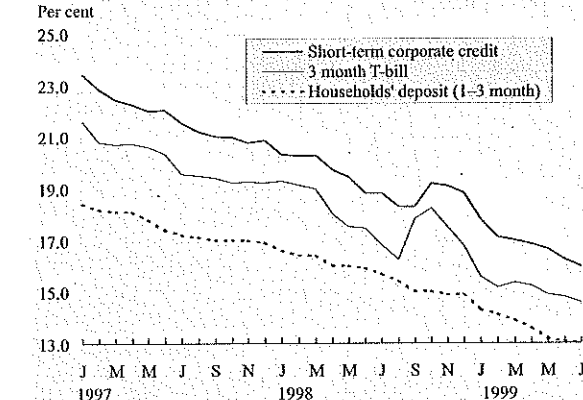
Consumer loans account for one of the most dynamically increasing components of the commercial banks' loan portfolio. Over the first half of the year, the annualised growth rate of the consumer loan portfolio exceeded 50%, which may seem astonishing as interest rates on consumer loans are rather high, and the rate of their decrease fell behind the rate of decrease of other lending and deposit rates of the commercial banks. Over the past one-and-a-half years, the margin between consumer loan rates

<sup>5</sup> Consensus forecast: trimmed mean, i.e. the average calculated by removing the highest and lowest forecasts.

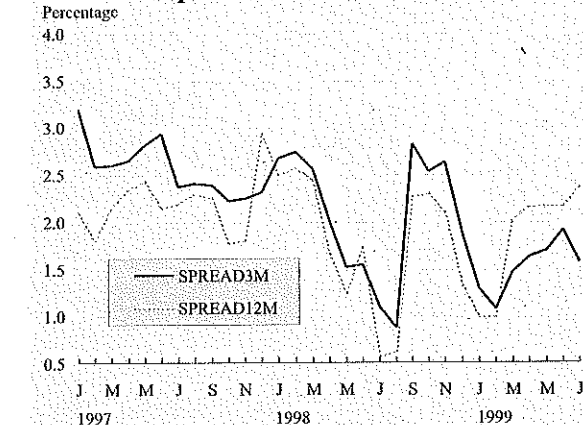
Analysts' average forecast for the end-1999 and end-2000 y-o-y CPI inflation



Corporate lending rates, household deposit rates and T-bill rates



Spreads between yields on government securities and household deposit



Stock of consumer loans and the consumer lending rate, as well as the 12-month household deposit rate

