QUARTERLY REPORT ON INFLATION

March
2001

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„The Quarterly Report on Inflation" is published by the National Bank of Hungary with the aim of providing the general public with regular information on the current and expected state of inflation as well as the Bank's interpretation of macroeconomic developments determining inflation. Wider access to information on monetary policy objectives is expected to lead to a better understanding of the Bank's policy responses.

The goal of this publication is to describe and interpret the developments of the preceding quarter.[1]

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[1] The previous issues of the "Quaterly Report on Inflation" are available on the home page of the National Bank of Hungary.

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Summary

The goal of the National Bank of Hungary is to achieve price stability and a sustainable decline in inflation. The predictability and moderate interest rates associated with a low inflation are both factors which foster long-term, rapid economic growth. A crawling peg exchange rate regime is the main instrument which is used to help achieve the inflation target. Such a regime facilitates the development of a nominal path which does not endanger the country's external balance, while simultaneously ensuring convergence of the domestic inflation rate towards the level of Hungary's main trading partners.

In January 2001 the consumer price index (CPI) stood at 10.1%, reflecting a slow decline relative to 2000 Q3. The annual core CPI calculated by the Central Statistical Office (CSO) was 9.7% in January, while the National Bank's core index rose to 10.5%. The inflation differential relative to the euro area has hovered in the 7.5–8% range for the past six months. For a considerable time economic policy did not respond to the temporary interruption in convergence by changing the nominal path of the exchange rate. The rate of devaluation has not been cut by the Government or the central bank for one year, since April 2000, because the economic shocks that fueled inflation last year primarily affected the supply side of the economy.

High inflation has resulted from a combination of several factors. The main factor continued to be food and energy prices. In 2001, food and crude oil prices are expected to increase at a much slower pace than last year, but the long-term impact of last year's price rises will only allow the more favourable development to be reflected in the CPI in the second half of the year. At the same time, imported inflation is expected to have a favourable impact on this year's rate of inflation. Both the weakening of the dollar against the euro and slower growth in the euro area may exert downward pressure on the rate of imported inflation. In addition, subdued rises in regulated prices will also support the disinflation process.

The rate of inflation *in industrial goods* prices, which are most directly influenced by exchange rate policy, fell short of the average rate for the consumer basket, in accordance with previous trends. However, there was a slight increase at year-end, due to an acceleration in imported inflation in this category, as the industrial goods price index of the euro area has been rising steadily since September. Faster increases in prices for market services exert lasting upward pressure on the price level. The gap between the inflation rates for services and industrial goods rose to 8% in January. The factors to blame for the doubling of this divergence over the past 1½ years include a long-term pick-up in consumer demand, which has enabled the non-traded services sector to raise prices. At the same time, a tighter labour market has also exerted increasingly strong pressure on costs in the services sector, where the cost-side impact of nominal wage increases is not being offset by productivity growth similar to that seen in the manufacturing sector. Nevertheless, explanations based on differences in economic cycles and productivity rates can only partly account for the significant increase in the gap between these inflation rates. We believe that prices have increased at such high rate in the services sector due to the inertia generated by last year's cost shock, as this sector is not disciplined by foreign competition. Hence, this price increase can be regarded as a secondary effect of last year's inflationary shock. However, mone-

tary policy response to secondary effects differs from that to original effects. As far as the original supply shocks are concerned, a great price has to be paid in terms of output loss if their temporary upward pressure on the price level is to be alleviated. Therefore, most central banks partly accommodate these effects (e.g. the energy price shock created inflationary pressure in every developed country). In respect of secondary inertial effects, however, central banks make an effort to mitigate them by tightening monetary conditions if necessary.

Monetary policy can primarily influence the nominal path of the economy through the exchange rate path. The Government and the central bank agreed to cut the forint's monthly rate of devaluation to 0.2%, effective as of April 1, 2001. This will bring down the size of pre-announced devaluation from 4% last year to 2.7% for the year as a whole. This reduction was made possible by the fact that those factors unrelated to monetary policy which exerted upward pressure on inflation in 2000 are expected to have a favourable impact on the inflation path this year. In addition, the tightness of the labour market and the inertial effects clearly affecting the trends in services prices justify tightening monetary conditions so that the reallocation of labour takes place on the lines of efficiency requirements, rather than inflation-boosting wage competition.

GDP growth in 2000 Q4 continued to decelerate, slowing to 4.2% according to preliminary figures. The driving force behind growth continued to be external demand (with export growth of 25% of GDP). Domestic absorption also contributed to the expansion in GDP, with household consumption and investment up by 4.5% and 8.4%, respectively. The rise in domestic absorption entailed a higher demand for imports, which rose by 26.8% as a proportion of GDP. Although the terms of trade deteriorated at a slower pace in the final quarter (2.4%), the GDP-based[1] deficit increased in nominal terms. Altogether, changes in net exports decreased GDP growth by 1.7%. As noted in the December Report, the expansion in domestic absorption was not commensurate with the acceleration in import growth, assuming that there was no upsarge in the economy's import requirement. Higher import growth is being attributed to a rise in inventories, and for the time being it remains unclear whether or not the higher import requirement is associated with a prospective increase in domestic demand or in exports.

The economies of our main trading partners are expected to slow down. Nevertheless, fourth-quarter export figures did not reflect this downturn, with export growth up on the previous quarter. Demand for Hungarian products was still highest in CEFTA countries, with exports to that area growing at a higher twelve-month rate (39%) than those to both developed countries (26%), and EU countries (24%). For the first time since the Russian crisis, exports to CIS countries also picked up in the fourth quarter.

In terms of the components of domestic demand, household consumption was shaped by one-off factors. Higher-than-expected inflation led to one-off wage compensations in the budget sector, and retroactive pension payments in December. These benefits involved groups of consumers with a low marginal propensity to save. Annual growth in operational income rose from 1.8% to 4.5%, and annual consumption growth from 3.3% to 4.5%, relative to the previous quarter. This considerable one-off rise in income did not push up the gross saving rate (10.6% as a percentage of operational income). As in previous quarters, the financial saving ratio (3.4%), an element of gross savings, continued to decline. The year-on-year household investment rate rose by 0.7 percentage points to 7.4%, thanks primarily to stronger spending on home building projects.

Following a mid-year slowdown, investment activity began to pick up in 2000 Q4, with the whole-economy rate up by 8.4% in real terms. An analysis according to income holders reveals that the volume of public-sector investment grew by 10%, similar to the previous quarter. Private-sector investment grew at a lower rate of around 7% in real terms, as a result of 5–6% growth in the corporate sector and the strong investment activity of households. Corporate sector invest-

[1] Exports and imports according to the National Accounts.

ment growth still fell short of the level expected based on industrial output, domestic sales of investment goods, new orders and the persistently high (80%) rate of capacity utilisation.

Against the backdrop of a fluctuating demand effect across the different quarters, for the year as a whole, general government restricted aggregate demand by 0.3% of GDP. The better-than-projected position was brought about by the automatic stabilizer, as fiscal receipts were partly increased by stronger-than-projected economic growth and higher inflation. The extra revenues were partly used during the year to make supplementary wage payments to health care and social sector workers in compensation for the unexpected inflationary developments. Pensions were also raised with a retroactive effect. All in all, transfer payments to households remained unchanged in real terms for the year as a whole. As far as the expenditure structure is concerned, the rise in the proportion of investment projects is a welcome development.

As indicated by the relatively low investment activity in the corporate sector, economic growth has not yet been hampered by tight capacities. Nevertheless, potential labour force utilisation continued to rise and the unemployment rate fell to 6.3%, simultaneously with an increase in labour intensity (implied, for instance, by the rise in the hours worked). Demand pressure on the labour market was eased by a further rise in the participation rate (at 53.8% in 2000 Q4). Retroactive wage corrections in the final quarter make the interpretation of wage inflation indices somewhat difficult. Private sector wage inflation is estimated to have increased by 13% in the fourth quarter, identical to that seen in the third quarter. The adverse impact of wage increases on competitiveness was offset by higher productivity within the manufacturing sector. However, there was an interruption in the steady improvement of unit wage cost real exchange rate indices seen in previous years.

The fourth quarter saw an increase in the economy's external financing requirement, leading to a year-on-year rise of 0.7% of GDP in borrowing abroad. The deterioration in the terms of trade accounts for 1.6% of the 6.3% net external financing requirement as a proportion of GDP. As the increase in trade data registered in the customs statistics is only reflected in the balance of payments after a time lag, the current account deficit based on balance-of-payments statistics painted a slightly more favourable picture than the external financing position. In 2000 Q4, the deficit on current account amounted to EUR 928 million. The current deficit was primarily financed by debt-type investments, comprising EUR 313 million in net government security purchases by non-residents and EUR 500 million in private-sector borrowing. It was accompanied by a net capital outflow of EUR 123 million, as FDI outflow exceeded the inflow of investments into Hungary.

A sectoral analysis of the external financing requirement reveals that the corporate sector improved its net position, even though firms' income positions have been affected by worsening terms of trade, and the investment spending to GDP ratio has also increased. At the same time, the fact that profit repatriation did not take place on such a large scale in December as in previous years counterbalanced the aforementioned effects. In line with the trend seen in previous quarters, households continued to reduce their net saving position (by 0.6% of GDP). In addition, despite tight fiscal policy for the year as a whole, the different timing of expenditures relative to the previous year exerted upward pressure on the public-sector financing requirement in the final quarter.

The strengthening of the inertial components of inflation and the development of labour-market bottlenecks made it necessary to tighten monetary conditions. Higher inflation in 2000 resulted in tighter monetary conditions even without a cut in the rate of devaluation. However, short-term indices, removing the base-period effect of the inflationary shock experienced in 2000 Q3, suggest that real appreciation has been on a steady decline since October, amounting to 2.2% in January 2001. This called for further tightening, leading the Government to announce a further cut in the rate of devaluation in December, to become effective on 1st April, 2001.

Since late October, when interest rates were raised by 100 basis points, the central bank has made two 25-basis-point cuts in its benchmark rates. The interest rate premium has been relatively stable of late, fluctuating around 300 basis points. The greatest influence on Hungarian interest rates since end-November has been the downward shift in the yield curve within the euro area. The weakening of the dollar against the euro and slower growth foreshadow an easing in the ECB's monetary policy. The factors behind falling forint yields include to a certain extent the decrease in the expected devaluation rate. As a result of these effects, forint yields at the one-year maturity dropped to the level (10.7%) seen before the October interest rate hike. According to the Reuters poll on inflation, this implies an annual real interest rate of 3%.

Yields also fell at the medium-to-long end of the yield curve. In effect, the decline of long-term yields on forint investments followed the shifts in the euro yield curve, whereas medium-term yields fell at nearly double the rate for euro yields. The likely cause of this is the decline in the required risk premium. In the period December to January, investors' confidence in emerging countries improved significantly, in contrast with the previous quarter.

The fourth quarter witnessed low demand for forint conversion, despite substantial inflows of interest-rate-sensitive capital. This capital inflow, mainly into government securities and foreign currency lending to companies, was offset by a high deficit on the current account of the balance of payments, low net FDI inflow and equity sales by foreign residents. The position of the forint's exchange rate within the trading band reflected low demand for conversion in the fourth quarter. From October to December, the exchange rate fluctuated in the 30–50 basis point range, off the strong edge of the band. Then, from end-January 2001, the rate returned to the strong edge, causing the central bank to intervene on several occasions. It was only with the escalation of the Turkish financial crisis after February 20th that the exchange rate shifted slightly from the strong edge of the band.

Broad money aggregates (M3 and M4) continued to grow at a slower pace in real terms in 2000 Q4. This was partly due to the continued downward trend in the financial saving rate. A fourth-quarter pick-up in both household consumption and corporate investment resulted in higher demand for liquid assets, which in turn brought about a rise in narrow money (M1) growth in the final quarter.

Main macroeconomic indicators

	1999				2000			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	Growth rate (at constant prices) Same period of previous year = 100							
GDP*	3.4	3.8	4.5	5.7	6.6	5.8	4.5	4.2
Of which: domestic absorption	5.3	4.2	2.4	4.8	5.7	3.6	5.0	5.8
– final consumption	4.3	4.3	4.1	3.6	3.0	3.2	3.0	4.1
= household consumption	4.5	5.0	4.6	4.4	3.3	3.5	3.3	4.5
– investment	8.0	3.9	–1.4	7.4	12.8	4.7	9.8	9.2
= fixed investment	5.7	6.1	3.6	7.5	7.0	7.2	2.2	8.4
Exports (GDP)	9.5	9.8	13.6	18.9	21.1	21.0	20.0	25.0
Imports (GDP)	12.9	10.2	9.3	16.6	18.6	16.4	20.6	26.8
Real effective exchange rate index**								
On CPI basis	2.6	0.1	–3.5	–5.8	–3.1	–1.0	–1.2	–1.1
On PPI basis	5.7	2.6	–1.8	–6.4	–6.1	–4.8	–5.5	–4.3
On unit labour cost basis (on value-added basis)	6.4	5.1	4.4	4.4	4.4	3.9	2.8	0.8
On unit labour cost basis (on gross output basis)	9.0	6.1	6.9	7.0	9.7	12.1	11.7	9.8
Deficit	*As a percentage of GDP*							
General government deficit (cash flow basis))***	–9.5	–5.9	–4.4	–2.9	–4.5	–3.9	–2.5	–4.9
General government primary balance***	–1.5	0.1	1.8	2.7	1.3	1.6	2.6	–0.5
	EUR billions							
Current account balance	–0.5	–0.6	–0.1	–0.8	–0.4	–0.5	–0.1	–0.9
Foreign direct investment (net)****	0.3	0.3	0.3	0.7	0.2	0.7	0.4	0.2
Savings rate[+] (%)	8.4	6.5	6.9	8.4	6.8	6.0	7.6	7.1
Unemployment rate [++] (%)	7.4	6.9	7.0	6.5	6.7	6.5	6.3	6.0
Wage inflation [+++] (Same period a year earlier = 100 %)	16.4	16.2	16.1	16.0	12.6	12.5	13.1	14.5
Net average per capita income in real terms[++++] (Same period a year earlier = 100%)	5.0	5.0	3.6	3.8	2.1	3.2	2.8	3.5

* These entries are partially based on Bank estimates.
** Positive figures indicate real 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.
**** Including intercompany loans.
[+] Net financial saving of households as a percentage of total household income (**not** including the revaluation total due to exchange rate changes and other factors).
[++] Based on the labour-market survey of the Central Statistical Office, number of unemployed people as a percentage of the active population; seasonally adjusted data.
[+++] Wage inflation as calculated by the National Bank, see Report of June 2000.
[++++] National Bank estimate of net earnings of employees in companies employing at least five persons and for the entire fiscal sector, taking into account the effect of income tax changes.

Main monetary indicators

	1998				1999				2000			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	Percentage changes on a year earlier											
Inflation (CPI)**	16.4	14.2	12.5	10.3	9.3	9.1	10.9	11.2	9.6	9.1	10.3	10.1
Producer price index**	13.5	11.6	10.4	7.1	4.9	4.3	4.8	8.2	9.9	11.6	12.8	12.4
Devaluation rate of the forint's central parity	12.9	12.2	11.4	10.3	9.4	8.4	7.5	6.5	5.9	5.0	4.3	4.0
	*Real growth of monetary aggregates** Percentage changes on a year earlier*											
M0	1.7	3.3	3.7	5.8	8.5	7.9	3.9	11.5	6.2	5.1	6.0	–1.5
M1	6.7	9.1	7.9	6.1	7.1	6.3	5.6	6.8	6.9	7.6	5.4	1.6
M3	2.3	4.0	4.6	4.4	8.0	7.1	5.0	4.3	5.0	4.2	3.0	2.3
M4	10.0	9.8	9.4	9.4	9.1	9.0	7.7	6.9	6.6	6.5	4.7	4.1
	*Real growth of the stock of lending by financial institutions** Percentage changes on a year earlier*											
Corporate sector, foreign + domestic	13.1	14.5	16.4	11.2	13.4	10.8	7.0	13.4	17.3	22.6	24.0	23.1
Corporate sector, domestic	14.5	15.5	15.6	9.9	11.0	7.2	3.5	11.3	15.7	20.7	23.3	19.5
Household	–11.4	–2.4	2.4	0.8	11.6	14.0	17.8	20.4	28.0	30.6	30.8	33.1
	*Interest rates **											
Reverse repo/two-week deposit***	18.75	18.00	18.00	16.75	16.00	15.25	14.75	14.25	11.25	11.00	10.75	11.75
90-day Treasury bill	18.65	17.33	19.06	16.10	15.68	14.74	14.07	12.44	10.63	10.50	10.75	11.58
12-month Treasury bill	18.70	17.32	18.96	15.88	15.61	14.77	14.17	12.33	10.42	10.42	10.71	11.02
3-year Treasury bond	17.42	16.31	18.00	14.18	14.01	14.03	13.45	10.75	9.09	9.43	9.95	9.73
Budapest Stock Exchange (BUX)	8,656	7,806	4,571	6,308	5,490	6,486	6,747	8,819	10,000	8,318	8,270	7,850
Interest rate premium (bsp)****	364	363	674	533	531	551	551	426	309	227	208	307
	Conversion											
Conversion, EUR millions	2,253	850	–1,996	–175	313	239	1,211	1,043	1,466	79	815	128
Banking sector net foreign borrowing,† EUR millions*	854	231	–617	–158	7	–173	151	312	707	8	464	68
Corporate sector net borrowing, †† EUR millions*	384	–24	209	579	113	766	393	335	–186	–227	–269	329

* Based on methodology considerations, the Bank has retroactively revised the monthly balance of payments accounts, as well as certain entries for foreign-related assets and liabilities published for 1995–1999.
** At the end of the period, in respect of government securities, benchmark yields of the State Debt Management Centre.
*** The maturity of the reverse deposit facility was reduced from one month to two weeks as of January 8, 1999.
**** Interest rate premium: excess yield on three-month T-bill investment over the devaluation rate and foreign interest rates. The current devaluation rate was modified upon official announcement of the change.
† Excluding privatisation revenues.
†† Including inter-company loans.

I. Inflation

Disinflation was interrupted during the first half of 2000, as is clearly illustrated by the turnaround in the 12-month trend. Following a slight third-quarter rise, the *consumer price index* stabilised above 10%, standing at 10.1% in January 2001. The annual core inflation index published by the Central Statistical Office (CSO) was 9.7% in January, while the core index calculated by the National Bank stood at 10.5%. This means that the latter index has crept back up to the level seen two years ago.

Industrial goods and *market services* prices are a key focus of monetary policy. The former conveys information on the effectiveness of the transmission mechanism of exchange rate policy and the fulfilment of the nominal anchor function. The latter category reflects on the credibility and sustainability of exchange-rate-based disinflation.

In keeping with previous tendencies, year-on-year inflation in *industrial goods,* directly influenced by the exchange rate of the forint, remained low, at 5.1% in January, below the average rate for the consumer basket, thus exerting downward pressure on the CPI measure of inflation. At the end of 2000, prices started to gather pace in this category, enlarging the difference from the nominal devaluation path of the forint above the usual rate. The factor at work here was the acceleration of imported inflation in respect of this category, with the euro-area industrial goods price index climbing steadily ever since September.

Another downward pressure on the level of consumer prices was the fact that *centrally controlled prices* rose below the average rate in a year-on-year comparison.

Since May 2000 the 12-month rate of price inflation in *market services* has been rising at a steadily faster pace, gaining momentum directly from external factors, such as energy and food price shocks. At the same time, the most powerful driving force behind the steady climb experienced for more than six months now is the inertia of inflation expectations. This means that economic agents in this sector view the interruption of the downward trend in inflation not merely as the result of one-off exogenous shocks, and they tend to expect an unfavourable turn in the trend of disinflation. As suggested by our analysis below, the food price shock has in effect been completely, and the energy price shock partially, absorbed by the inflation process in Hungary. Therefore, disinflation is expected to resume in the near term, reining in the price level of market services as well, even if after some lags.

The upsurge in *food prices* has generated major inflationary pressure, driven primarily by a considerable rise in agricultural goods prices, due to exogenous factors. The *market* determined price level of *household energy* soared over the past year. How-

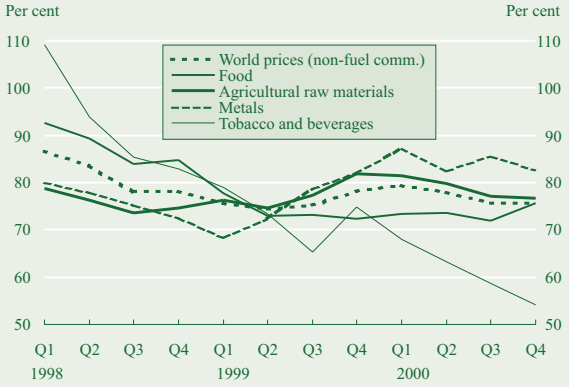
Table I-1 **Inflation rate of different goods and services***
Relative to same month a year earlier

Per cent

	Weight in CPI	1999	2000						2001
		December	March	June	September	October	November	December	January
Consumer Price Index (CPI)	**100.0**	**11.2**	**9.6**	**9.1**	**10.3**	**10.4**	**10.6**	**10.1**	**10.1**
Of which:									
Industrial products, excluding food, alcohol, tobacco and petrol	26.7	6.5	5.2	4.3	4.7	4.7	4.8	4.9	5.1
Petrol	4.9	37.8	36.7	33.4	25.9	26.7	24.2	15.2	5.9
Non-regulated household energy prices	1.3	16.5	12.7	17.6	24.4	29.2	33.2	34.0	32.6
Food	19.1	5.4	5.6	6.4	15.3	14.1	14.3	13.6	15.2
Regulated prices	18.0	17.6	10.9	9.4	6.6	7.0	7.7	7.6	7.7
Of which: energy	7.3	6.2	5.1	5.5	7.9	8.8	8.8	8.8	8.3
services	9.0	18.7	8.8	5.6	5.8	5.9	6.9	6.9	7.2
Market services	20.6	10.8	10.2	10.3	11.4	11.9	12.1	12.5	13.2
Alcohol and tobacco	9.4	10.6	11.7	10.5	10.7	11.2	11.1	11.3	11.2
Core inflation	89.9	8.8	7.5	7.0	9.4	9.6	9.7	9.8	10.5
Depreciation of the nominal effective exchange rate		2.7	4.1	6.2	5.6	5.4	6.3	5.7	4.5
Pre-announced nominal devaluation of the forint		6.7	6.0	5.1	4.4	4.3	4.2	4.0	4.0

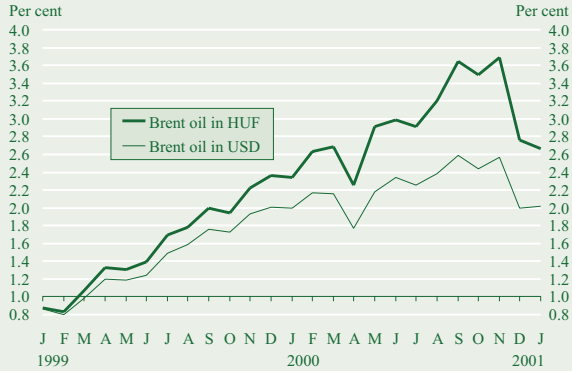
* The classification of items included in the consumer basket is different from that applied by the Central Statistical Office. See the Bank's *Quarterly Inflation Reports* for more details.

Chart I-1 **World market price levels of commodities**
Excluding energy 1995 = 100



Source: IMF IFS. Seasonally adjusted prices in dollars. Luxury goods: coffee, tea, cacao.

Chart I-2 **World market price for oil in dollar and forint terms**
Average for 1998 = 1



ever, due to the relatively small weight of this category in the CPI, it has only had negligible inflationary pressure. As *centrally regulated energy prices* were fixed at a low level, they have pushed down inflation *(see Table I-1)*.

1 Imported inflation

Our analysis reveals that imported inflationary pressure began to moderate in 2000 Q4, due largely to a decrease in world prices for oil and the weaker dollar. These favourable developments also fed through to other areas: the average world price of commodities excluding energy remained subdued and import price indices relating to Central and East European countries began to decline.

World market prices for certain raw materials showed a mixed picture in the final quarter of 2000: the three-quarter long decline in commodity prices excluding energy was interrupted, whereas the rapid rise in crude oil prices was replaced by a decrease of 2.5%. The fourth-quarter price level of commodities excluding energy remained unchanged on the whole, as a result of a 5% rise in food prices and a 2–8% decline in the prices of other product groups *(see Charts I-1 and I-2)*.

Fourth-quarter figures for the various exchange rate indices and the import unit value index *(see Chart I-3)* reflect an easing in imported inflationary pressure in 2000 Q4. The import unit value index fell by 3 percentage points to 12% during the course of one quarter. The unit value index exceeded the pre-announced devaluation rate of the forint by 7.9% and the nominal effective exchange rate index by 6.2%, down from higher rates in the third quarter. The 11.2% growth rate of the index derived from effective foreign prices[1] was slightly above the rate for the previous quarter.

[1] The imported inflation indicator calculated with effective foreign prices is constructed by multiplying the weighted average of the producer price indices of Hungary's main trading partners by the nominal effective exchange rate index.

The quarter-on-quarter indices calculated from the seasonally adjusted indices enable a more exact analysis of these developments *(see Chart I-4)*. Although the import unit value index reflects a slight increase in imported inflationary pressure, the clear downward shift in the trend similarly to the previous quarter implies that the decline in imported inflation has been uninterrupted.

The fourth-quarter slowdown in import price growth was equally present in Hungarian trade with developed countries and Central and East European countries. The slower increase in import prices was based on lower growth in machinery prices imported from developed countries and energy prices imported from Central and Eastern Europe. Remarkably, the price level of goods imported from Central and East Europe increased by 30.6% relative to a year earlier, a much lower rate than in the previous quarter.

Of the various product categories and in a year-on-year comparison, energy prices continued to increase at the fastest pace – by 62.7% – in the fourth quarter. Nevertheless, they did so at a significantly slower pace than in the third quarter, when they were up by 83.9%. Machinery is the other main product group where import prices grew at a considerably slower pace of 5.5%, compared with 9.2% in the previous quarter.

The prices of processed goods rose at a virtually unchanged rate, while the prices of food and raw materials, accounting for a small portion of imports, outstripped the rate of increase for the third quarter.

In 2000, CPI inflation in the euro area was consistently higher than the European Central Bank's 2% medium-term target *(see Table I-2)*.

The rate peaked at 2.9% in November. In December the rise in the level of consumer prices slowed to 2.6%, thanks to lower oil prices and the stronger euro. CPI inflation excluding energy prices was up by 1.7%. The highest rate of inflation was measured in Ireland at 4.6%, while the lowest rates were seen in France and Austria, at 1.7% and 1.8%, respectively. By the end of the year, there was also a drop in the excessively high industrial producer price indices measured in September.

In the United States, consumer prices continued to increase at a virtually unchanged rate, fluctuating in the range of 3.4–3.5% in the final quarter. The fourth-quarter slowdown in economic growth was not reflected in the rate of core inflation. Despite declining car sales and lower retail prices, market-induced price inflation held steady at the 2.6% level seen in June and September.

In the Czech Republic, following slightly higher rates (of 4.4 and 4.3%) in October and November, the twelve-month rate of CPI inflation dropped to 4% in December, due to changes in volatile energy and food prices.

The rate of net inflation, excluding regulated prices and indirect taxes, decreased from 3.2% in September to 3% at the year-end, remaining for the third consecutive year below the Czech Central Bank's target.

CPI inflation in Poland dropped significantly in the final quarter, after the flat levels of the first nine months. The rate was down at 8.5% in December from 10.3% in September. This was not only due to decreasing energy prices, but also lower food price inflation and the strong appreciation of the zloty.

***Chart I-3* Changes in import prices and various exchange rate indices**
Same period a year earlier = 100

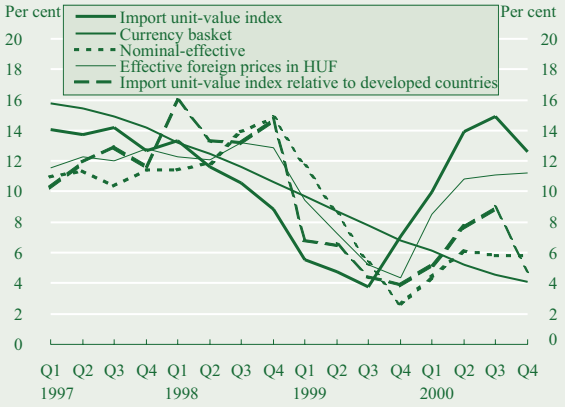


***Chart I-4* Seasonally adjusted import unit value index**

***Table I-2* International inflation data, 1999–2000**
Percentage changes on a year earlier

	June 2000		September 2000		December 2000	
	Producer	Consumer	Producer	Consumer	Producer	Consumer
	price changes					
United States	4.3	3.7	3.3	3.5	3.6	3.4
Japan	n/a	–0.7	n/a	–0.8	n/a	–0.5
Germany	2.9	2.0	4.3	2.6	4.2	2.2
Czech Republic	5.1	4.1	5.2	4.1	5.0	4.0
Poland	8.9	10.2	8.3	10.3	5.7	8.5
Hungary	11.6	9.1	12.8	10.3	12.4	10.1
EU-11	5.6	2.3	6.2	2.8	5.4	2.6
EU-15	5.0	2.1	5.5	2.5	4.7	2.3

Source: IMF IFS and Global Data Watch, J.P. Morgan's publications for 2000

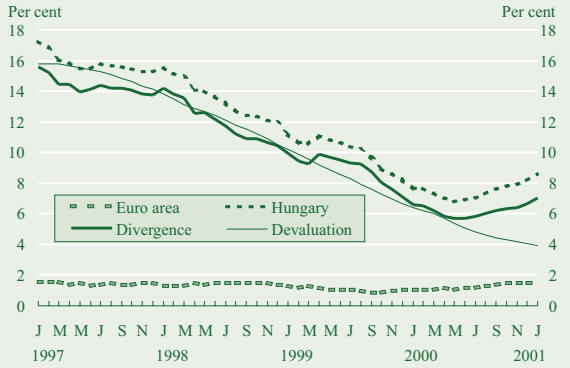
2 Inflation convergence

The Hungarian Harmonised Index of Consumer Prices, calculated in accordance with the methodology used by Eurostat, stood at 10 per cent in December. This implies that the inflation differential has been in the range of 7.5% and 8% for the past six months, reflecting a halt in the previous trend of convergence. As noted in the December *Report*, the interruption of convergence was originally attributable to the increased sensitivity of the Hungarian economy to the energy price shock as well as the asymmetric food price shock experienced last summer. On the other hand, the fact that convergence has failed to resume signals divergence in inflation expectations.

Monetary policy is mainly concerned with the changes of industrial goods and market services prices. A comparison of inflation with that in the euro area in respect of these categories only shows that in the second half of 2000 the previous convergence controlled by the exchange rate path ceased *(see Charts I-5 and I-6)*.

Recently, Poland has been the only country in Central and Eastern Europe (in a comparable position to Hungary) that has been able to make genuine progress in terms of inflation convergence towards the euro area. Of the Visegrad countries, the Czech Republic is in the best position, with its excess inflation of just under 2%, while the other four countries have to trim between 6% to 8% off their inflation rates *(see Chart I-7)*.

Chart I-5* Inflation differential as the average of industrial goods and market service price indices and the nominal path of the forint



* Inflation differential in percentage points between the twelve-month inflation rates in Hungary and the euro area, in respect of the category of industrial goods + market services. The chart shows the retrospective 12-month rate of the nominal devaluation of the forint.

***Chart I-6* Inflation convergence: difference between the harmonised price indices of Hungary and the euro area**

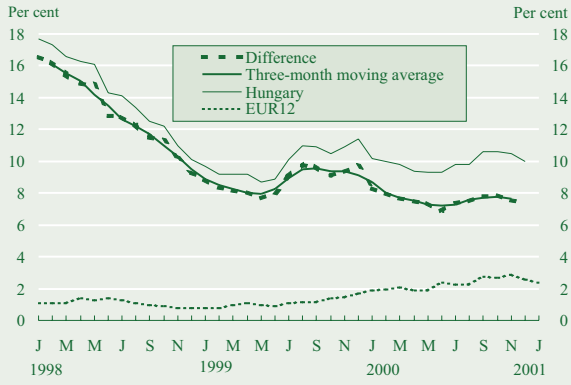
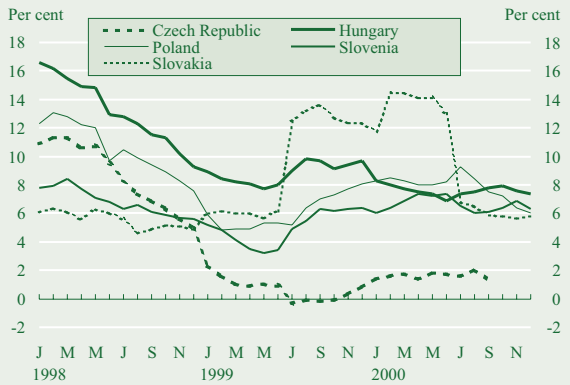


***Chart I-7* Inflation differentials relative to the euro area, based on twelve-month indices**



Source: Eurostat.

3 Components of changes in consumer prices

Industrial goods

Changes in the prices of internationally traded *industrial goods* play a prominent role from the aspect of monetary policy. Both foreign and domestic prices in this category are fairly stable. As no short-term effects distort the related index, changes in industrial goods prices convey high-quality information on the effects of monetary policy and the exchange rate path on the trend of inflation.

The price index of *industrial goods*, accounting for 26.8% of the consumer basket, rose to 5.1% in the year to January 2001. The price level of *consumer durables* remained nearly stable, with the annual index at 1.5% in January. Goods used for current consumption, with a weight of 19.4%, increased in price by 6.5% *(see Chart I-8)*.

The average rate of industrial goods price inflation was exceeded by that of *home improvement and maintenance goods* and *owner occupied housing* which includes building materials. This can be partly attributed to higher specific energy requirement and partly to the cyclical position of the construction industry, with particular regard to home building projects, comprised by the consumer price index *(see Chart I-9)*.

In April 2000, the Government and the National Bank of Hungary implemented a cut in the devaluation rate of the forint (to

0.3% a month).[2] This brought the rate of pre-announced devaluation down from 4.3% in October to 4%. The slight rise in the price inflation of internationally traded goods and its faster-than-usual divergence from the nominal devaluation rate of the forint is still not in sharp contradiction with the exchange rate path *(see Chart I-10)*.

The reason for this is that imported inflation gained momentum, with the euro-area industrial goods price index up from the previous 0.5–0.6% annual rate to 1.1% in January 2001. Thus, it comes as no surprise that Hungarian industrial goods price inflation also gathered pace. This implies that there are no tensions that would jeopardise the effectiveness of the Hungarian disinflation process, in other words, the pre-announced exchange rate path is continuing to act as a nominal anchor.

Market services

The price index of non-traded market services is exceeding tradables price inflation to an ever increasing degree.

Services prices rose at a nearly 8.1% higher rate in the year to January than the aggregate price index for industrial goods. According to calculations by National Bank analysts, the varying rate of productivity growth across the various sectors explains a lower inflation differential over the long term, given the current stage of economic convergence. Nevertheless, the 7.6% change in the price ratio, characteristic of the year 2000, is expected to moderate over the long term *(see Chart I-11)*.

The twelve-month price index for *market services*, with a weight of 20.2% in the consumer basket, followed an upward trend beginning from the third quarter and rose to 13.1% in January. In the following section the notions of food price shock and wage inflation inertia are investigated by dividing *market services* into three groups. These are 1) the *food-price sensitive*[3] group, with a 4% weight, 2) *wage-sensitive*[4] services, which are highly labour-intensive and account for 9% of the consumer basket, and 3) *other*[5] items, with a weight of 7.2%, i.e. *market services* that have remained outside the former two groups *(see Chart I-12)*.

Starting from last July, the food price shock appeared to have a strong impact on catering-related services, pushing up the annual price index of this group to 14.5% in January. The August upsurge in the price inflation of *wage-intensive* services, continued during the fourth quarter, pushing up the twelve-month in-

***Chart I-8* Changes in industrial goods prices**
Twelve-month index

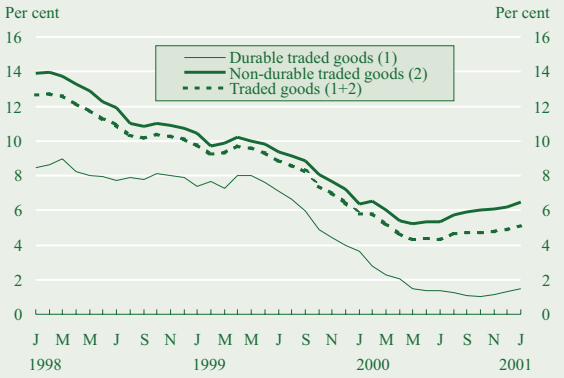


***Chart I-9* Industrial goods and services prices related to home improvement and maintenance**

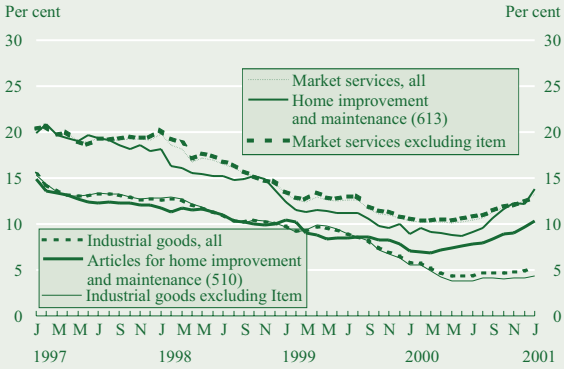


***Chart I-10* Twelve-month relative inflation rate of industrial goods**

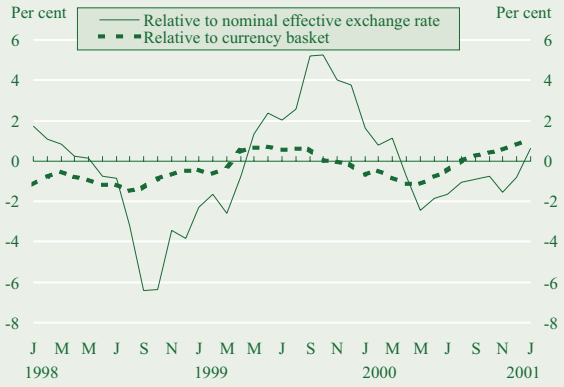


***Chart I-11* Twelve-month price indices relating to industrial goods and services**

[2] On March 2nd, the Central Bank Council passed a decision to reduce the forint's monthly devaluation rate to 0.2%, effective of April 1, 2001.

[3] The *food-price-sensitive* group comprises *restaurant and canteen, school and kindergarten/creche meals, and buffet goods*, as well as – due to the statistical properties of the stratum – *domestic holidays without a voucher.*

[4] The *wage-sensitive* category comprises *clothes, household appliances, home improvement* and *vehicle repair, cleaning/laundry, beauty services, health and education, maintenance of cultural items*, as well as *espresso coffee.*

[5] This category includes the items that have been left out of the two special groups, such as *newspapers/periodicals, books, textbooks, apartment block service charge, car rental, taxi, haulage, theatre, cinema, sports events, holiday abroad, photographic supplies and the rest of (unlisted) services.*

***Chart I-12* Inflation relating to the sub-groups within services**

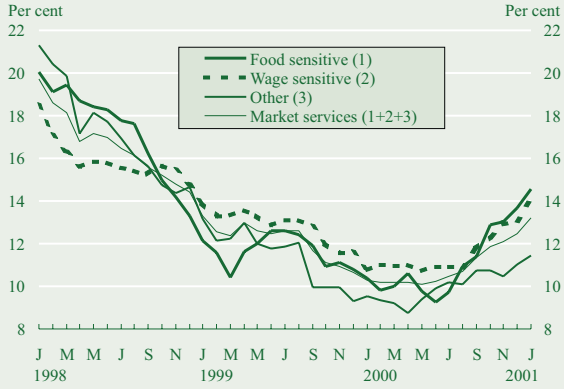
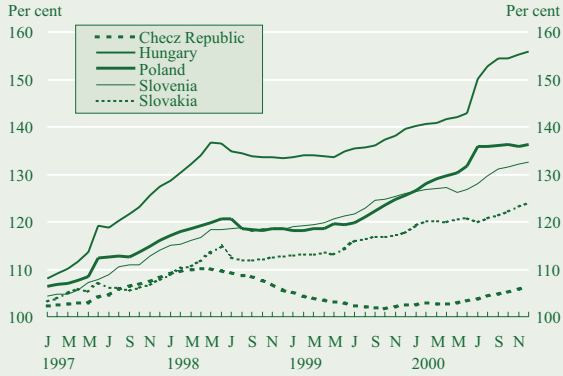
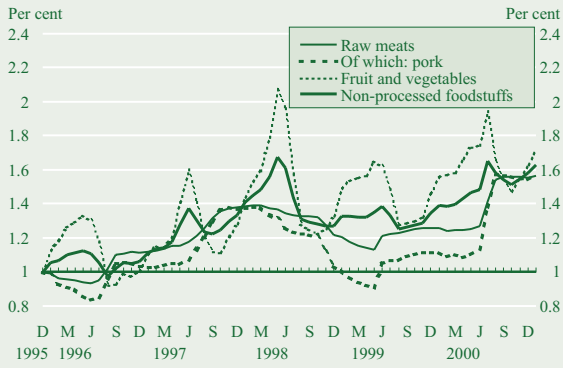


***Chart I-13* Seasonally adjusted levels of food prices in the Visegrád countries**



Source: Eurostat; National Bank calculations.

***Chart I-14* Prices of non-processed foodstuffs**



dex to 14% in January. At the same time, labour market data do not seem to confirm any acceleration in wage inflation within this sector.

The above break-down of the price index of market services reveals that faster inflation in respect of this group cannot be traced back to any well-defined individual sub-group. The comprehensive nature of the phenomenon suggests that its likely causes are either changes in aggregate demand or a rise in inflation expectations. An argument against the likelihood of the former explanation is the lack of evidence for any acceleration in household consumption growth in the second half of 2000.

The most plausible explanation for the faster rate of market services price inflation and the opening of the gap between the inflation rates relating to services and industrial goods prices is that the setters of services prices may have interpreted the halt in disinflation differently from other economic agents. Apparently, they have viewed it not as the outcome of one-off shocks, but as part of an overall persistent trend. Thus, their inflation expectations have been high, which accounts for the faster rate of price increases. Our analysis suggests that these shocks will cease to hamper disinflation in 2001, bringing about a correction in the trend of the change in the price level involved.

Food prices

As noted in the December *Report*, Hungary and other neighbouring countries were hit by an adverse agricultural price shock, exogenous to monetary policy. Its effect can be best illustrated through a comparison with Poland, a country very similar to Hungary in respect of its agriculture *(see Chart I-13)*.

Due to the base-period effect, the "winding down" of the shock will exert downward pressure on the twelve-month price index in the middle of the year. It should be kept in mind, however, that food prices, with special regard to those of non-processed foodstuffs, are extremely volatile – thus it is entirely possible that the sector may be hit by another major (exogenous) shock in the course of 2001.

The considerable volatility of food prices is one of the greatest hindrances to forecasting inflation, as food has a substantial weight of 19% in the consumer basket, including 5.3% for non-processed foodstuffs.

Twelve-month food price inflation stood at 15.2% in January 2001. Prices of non-processed and processed foodstuffs rose by 17.2% and 14.3%, respectively, in the year to January. This was primarily due to higher raw meat prices, with a kilo of pork costing 40% more than a year earlier. This major adjustment to the low and decreasing prices seen in previous years brought the price of pork back to the level of three years earlier *(see Chart I-14)*.

Changes in the price of processed foodstuffs provide more accurate information for the analysis of inflationary trends. Repricing, typical of the first month of the year, was probably a key contributor to the unfavourable index for January 2001. Part of the effect of the mid-2000 rise in the price of non-processed foodstuffs, the raw material input of the sector, is only now surfacing. Conse-

quently, processed foodstuffs increased in price in January 2001 at a rate 2% faster than a year earlier, by 3.7% in one single month *(see Chart I-15)*.

Energy

In 2000 Q4, energy import prices continued to increase in a quarter-on-quarter comparison despite the significant drop in the world price for crude oil in November *(see Chart I-2)*. This was partly due to the fact that the price of natural gas imported by Hungary is linked to the world price of oil, following it with a nine-month lag in a smoothed way. The unfavourable implication for Hungary is that the price for imported natural gas will rise even in the first half of 2001, despite the downward trend world-wide. At the same time, as the government can influence natural gas prices via administrative measures, the rise in the price has only partially been incorporated into inflation.

As a result of world market developments, market-determined energy prices rose at an exceptionally fast pace in the world market in the course of the second half of 2000. This trend seemed to slow down in the course of December and was virtually flat in January 20001. Still, the twelve-month index rose by an exceptionally high rate of 32.6%, which, thanks to the small weight of 1.34% of the category in the basket, contributed only 0.44% to the January 2001 rate of the annual CPI. Thanks to the Government's anti-inflationary commitment, regulated energy prices rose at a much slower rate than inflation or, even more conspicuously, international energy prices. Although amounting to only 8.3% in January, the twelve-month rate was still above the 6.2% rate for a year earlier or the slightly higher than 5% rate measured in the middle of the year.

There is a conspicuously widening gap between centrally controlled household energy and market-set energy price indices (8.8% and 29.2%) as well as centrally regulated but non-household energy prices. The *direct* impact of imported energy prices on domestic consumer prices was considerably dampened by economic policy to the extent that only a small portion of the increase in input costs was allowed to be passed on to household prices by the central setters of pipeline gas and public transport prices. Freezing the excise duty content of motor fuel prices implies that there are no additional costs imposed on either private transport expenditure or haulage. As it is not possible for central price setting to be far removed from market developments over the long term, the current situation is not free of tension unless world market trends change for the better *(see Chart I-16)*.

January marks the beginning of the year when electricity prices are regulated. At the start of 2001, these prices were raised by 6%.

Motor fuel prices remained flat in November, and dropped substantially in the course of December and January, by over 8% altogether.[6] This was the consequence of favourable world mar-

***Chart I-15* Changes in food prices**

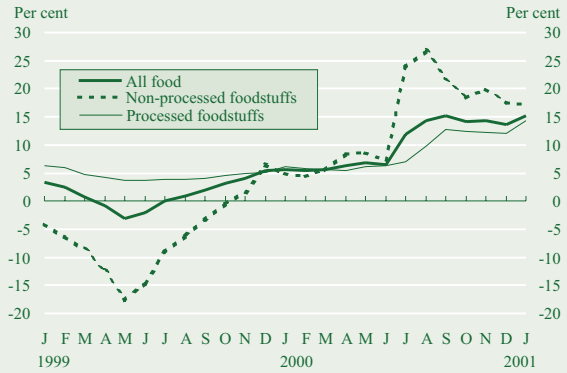
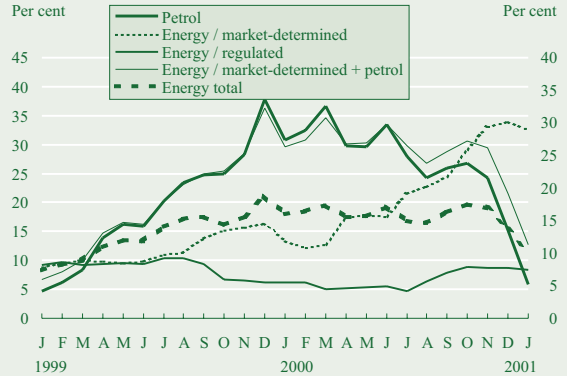


***Chart I-16* Changes in energy prices**



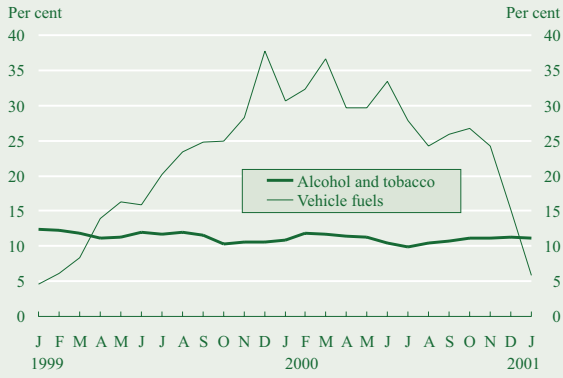
[6] The price of petrol went up again at the end of January, but due to the method of statistical accounting, this will only be reflected in the February inflation data.

ket developments and the fact that the government did not valorise the excise duty rate of motor fuels (accounting for some 40% of the consumer price). In February, motor fuel prices are expected to increase to the level seen at the end of 2000.

As a result of the above factors, the twelve-month price index of *energy producing materials*, accounting for 13.3% of the consumer basket, dropped to 9.8% in January, its lowest level since April 1999.

Excisables and goods with regulated prices

***Chart I-17* Changes in excisable goods prices**



In respect of *excisables,* with a 14.1% weight, the previous trend continued *(see Chart I-17).*

Prices for *alcohol* and *tobacco,* accounting for 9.1% of the consumer basket, rose by 11.3% at the year-end, which exceeded the rise in the headline CPI. In respect of tobacco, this was due to developments during 2000 (such as the increase in tobacco's excise duty content early in the year and higher import prices at mid-year). The fourth quarter saw no significant rise in prices.

Wine prices went up by 16% over one year, and, unlike previously, the trend did not taper off in the fourth quarter. This was partly due to the introduction of excise regulations during the year and the ensuing extra costs (in terms of accounting and the use of tax caps). Twelve-month CPI in this category was over 11% in January, partly as a result of the excise duty valorization. In respect of wines, the excise duty on wines made of fruits other than grapes rose four-fold (to HUF 80 per litre), while that on wines made from grapes remained unchanged. The excise duty on beer rose by 5%, but the price increase at the beginning of the year was more drastic than a year earlier. The taxes on different types of alcohol increased by 6–10% on the whole.

In respect of tobacco, despite the 15% increase[7] in the fixed tax rate, the products on supermarket shelves still carry last year's tax caps, implying that the effect of the tax rise is only to be felt over the coming months.

The excise duty on *petrol* remained unchanged.

The anti-inflationary impact of the strict central pricing policy was not only felt in respect of regulated household energy prices, but throughout the entire category of regulated prices, up by 7.8% on a year earlier. Prices of *pharmaceuticals* remained unchanged in the fourth quarter, and the annual index increased by a moderate rate of 3.2%. This was due to the government's June measure of fixing prices for 180 days. Non-subsidised pharmaceuticals are to increase in price in March.

The twelve-month price index of *regulated services,* accounting for 9% of the consumer basket, was at 7.8%, much lower than that of market services (12.5%). In 2000 Q4, only a few items saw adjustment in price, with the overall quarterly growth rate amounting to 0.2%.

Rises in *centrally controlled* prices – for transport and communications – did not exceed the planned target of 6% *(see Chart I-18).* A 6% rise in local transport triggered cost-side tension in respect of *transport services* as the pre-agreed rise in charges failed to cover the costs incurred by higher-than-expected fuel prices.

[7] The high tax valorization is aimed at approximating the EU tax rate.

Table I-3 **Centrally regulated or influenced prices ***
Year-on-year and ten-month (in 2000) growth rates**

Per cent

	Weight in 2000	Dec. 1999	Twelve-month price indices							Difference in percentage points	January 2001
			2000							1999–2000	
			Jan.	March	June	Sep.	Oct.	Nov.	Dec.		
Controlled prices	**17.99**	**17.6**	**13.9**	**10.9**	**9.4**	**6.5**	**6.9**	**7.6**	**7.5**	**–10.0**	**7.7**
Goods	**8.99**	**16.4**	**16.2**	**13.2**	**13.7**	**5.8**	**6.5**	**7.7**	**7.7**	**–8.7**	**7.1**
Of which											
Household energy	**7.29**	**6.2**	**6.2**	**5.1**	**5.5**	**7.9**	**8.8**	**8.8**	**8.8**	**2.5**	**8.3**
Central and district heating	1.84	6.0	5.6	5.8	6.3	7.5	9.6	9.4	9.3	3.4	9.8
Electricity	3.29	10.1	10.2	7.4	7.8	6.3	6.3	6.3	6.3	–3.7	5.1
Gas supplied through pipes	2.16	1.1	1.0	1.0	1.4	10.6	12.0	12.0	12.0	10.9	12.0
Pharmaceuticals, medical products	**1.70**	**56.9**	**55.4**	**42.9**	**43.5**	**–0.9**	**–1.0**	**3.2**	**3.2**	**–53.7**	**1.9**
Services	**9.00**	**18.7**	**11.7**	**8.8**	**5.6**	**7.2**	**7.2**	**7.4**	**7.3**	**–11.4**	**8.3**
Of which:											
Housing	2.48	15.3	16.2	13.7	12.3	12.0	12.1	12.2	12.1	–3.2	13.8
Transport	1.89	13.4	5.9	6.3	6.1	6.3	6.3	6.9	6.9	–6.4	8.1
Communications	3.78	25.3	11.5	6.6	2.1	6.0	6.0	6.2	6.0	–19.3	6.1

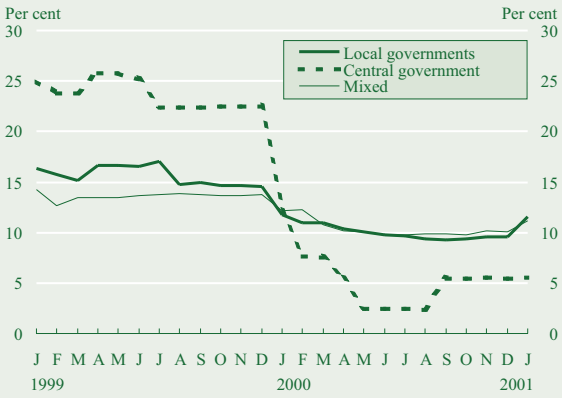
* Television subscription fees, carrying a 0.66% weight in the consumer price index, have been divided into a centrally regulated portion (0.31%) and a market subscription fee (0.36%). Regulated prices include only the former component, which has not changed since last year.
** Due to rounding, sums do not always add up accurately.

Long-distance transport prices went up by 10%. The price of *telephone services* increased by 6%, corresponding to the '*price cap*', which reflects considerable disinflation relative to a year earlier. The annual rate of inflation relating to houses and flats owned by *local authorities* amounted to 12.1%, with the extra costs incurred herein largely passed on to consumer prices. Rents increased at an exceptionally high rate (of 17%).

The 10-percentage-point disinflation experienced in the category of regulated prices in 2000 reduced the annual rate of inflation by 1.8 percentage points, relative to the previous year.

In respect of services, regulated prices in January were 3.2% up on the end of the previous year. The fact that the year-on-year growth rate was higher than last January can be attributed to a number of factors. First of all, there was a rapid rise in the prices of housing-related services (at 5.1% as against 3.6% at the beginning of last year). Whether this is the result of the pricing strategy of local authorities or the fact that price changes normally dated for the period January to March have been brought forward to the first month of the year will become clear later when the monthly data become available. Transport charges were raised by 6.5%, also in excess of the rate for last year, which is expected to have only negligible disinflationary effect for the year as a whole. Postal services prices went up by 6%. Those telephone charges which belong to the measured category are scheduled to go up from February at a rate only minimally lower than last year. The television subscription charge, which remained unchanged in 2000, also rose in January *(see Table I-3)*.

Chart I-18 **Breakdown of regulated price levels according to regulating authority**



4 Core inflation

The Bank describes the trend of inflation in terms of a *core inflation index* calculated using the Bank's own methodology. This index excludes the effect of volatile and statistically problematic items,[8] such as seasonal foodstuffs, market-priced energy producing materials and *pharmaceuticals*, which previously introduced significant bias into the index due to the method of their statistical accounting. The core inflation index, by removing temporary effects and the "noise" from the inflation process, is computed with the aim to pinpoint the particular components of inflation with which monetary policy is primarily concerned with.

Twelve-month core inflation rose to 10.5% in January, its highest rate for the past two years *(see Table I-4)*. This was partly due to a one-off jump in the price of non-processed foodstuffs, the effect of which is only partially removed from the index. Nevertheless, the persistent rise in the services price index warns of the danger of a build-up in inflation inertia, and the corresponding long-term interruption in disinflation.

In addition to the CPI, the Central Statistical Office also publishes a core inflation index *(see Table I-5)*. The main difference between the two indices is that the CSO index omits all non-processed foodstuffs[9] and energy from the consumer basket, but includes the price changes of pharmaceuticals. This index internationally referred to as *ex food and energy* index stood at 9.7% in January 2001.

Compared with the CPI, the two core inflation indices were worsened by the fact that neither reflects the favourable decrease in the price of *motor fuels* in January. The divergence between the indices calculated by the Bank and the CSO is due to their different treatment of the price indices for meats and pharmaceuticals *(see Chart I-19)*.

Table I-4 **Components of the NBH core inflation and the consumer price index**

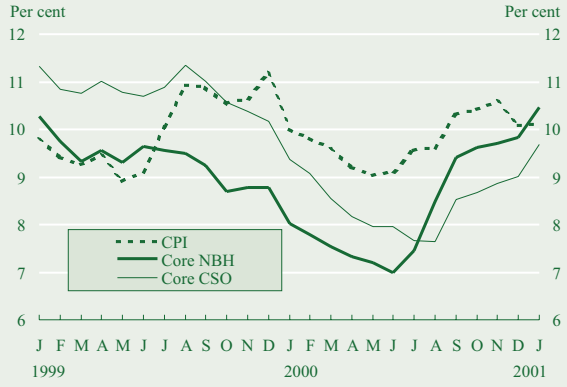
Per cent

	2000	2001	Nov./Nov.	Dec./Dec.	Jan./Jan.
Unprocessed foodstuffs	2.7	2.6	0.18	0.05	–0.01
Household energy + vehicle fuels	5.7	5.8	0.81	0.32	–0.18
Pharmaceuticals	1.7	1.9	–0.13	–0.12	–0.16
Total			0.87	0.25	–0.34
CPI	*100.0*	*100.0*	*110.6*	*110.1*	*110.1*
MNB core inflation	*89.9*	*89.8*	*109.7*	*109.8*	*110.5*

Table I-5 **Components of the NBH core inflation and the CSO core inflation**

	2000	2001	Nov./Nov.	Dec./Dec.	Jan./Jan.
Pharmaceuticals	1.7	1.9	–0.12	–0.12	–0.17
Energy	7.8	7.6	–0.27	–0.27	–0.17
Unprocessed food	2.7	2.7	–0.45	–0.43	–0.45
Total			–0.84	–0.82	–0.79
CSO core inflation	*81.1*	*81.4*	*108.9*	*109.0*	*109.7*
NBH core inflation	*89.9*	*89.8*	*109.7*	*109.8*	*110.5*

Chart I-19 **Comparison of core inflation indices and the CPI**



[8] Items excluded because of their unstable seasonality are eggs, potatoes, fresh vegetables and fruit.

[9] The excluded category includes meats and fishes, in addition to the aforementioned items.

II. Monetary policy

1 Monetary conditions and changes in the interest rate and the exchange rate

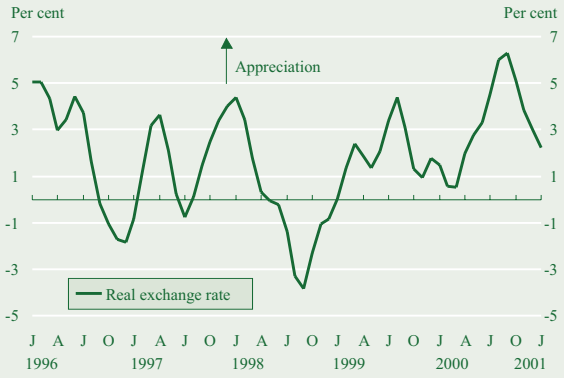
In October and November 2000, monetary policy tightened to an exceptional degree relative to earlier in the year, but by January 2001, monetary conditions had broadly returned to the level seen before the tightening. This implies that monetary policy is currently at least as tight as it was in the first half of 2000.

The appreciation of the real exchange rate peaked in September and October, then declined at a steady rate until January *(see Chart II-1)*. Nevertheless, real appreciation calculated for January (with an annualised rate of 2.2%) still exceeded the average rate for the first half of 2000. Real appreciation decreased in spite of the fact that trend inflation in the euro area fell off at a rate not spectacular in terms of the twelve-month indices, but considerable after seasonal adjustment. It should be noted that the three-month price index derived from the trend-cycle of the seasonally adjusted price level in Hungary tended to be rather volatile over the past two quarters. Unfortunately, this fed through to the short-term measure of real appreciation based on the three-month index, reducing its information content.

Changes in the real interest rate, the other component of monetary conditions, over the final two quarters of 2000 cannot be judged unequivocally, due to divergence between the various measures of real interest rates *(see Chart II-2)*. Box II-1 of the December *Report* describes at length the alternative measures of the real interest rate. The twelve-month *ex ante* real interest rate, which we regard as having the highest information content, rose significantly from around 3% in the third quarter to over 3.8% in November and December, in the aftermath of the central bank's October cut in the interest rate. Over the first two months of 2001, due to the fall in nominal interest rates and slightly higher inflation expectations, the ex ante real interest rate returned to the 3% level seen prior to the monetary tightening in autumn 2000.

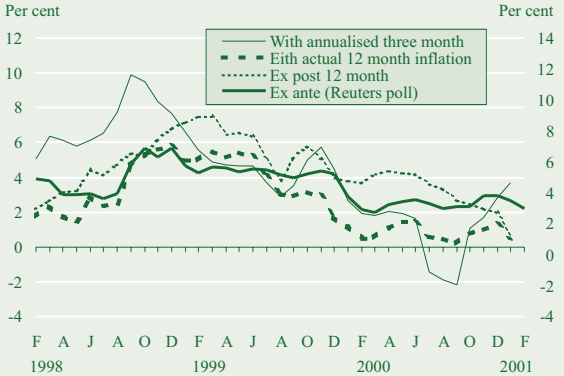
The factors to blame for the significant, 90–140-basis-point drop in the yields on long-term investments in December included above all the decrease in the yields on the euro, serving as an anchor currency, and second, improved global investor sentiment about emerging markets. By contrast, domestic inflation expectations had only a minor impact on yields until mid-February. The central bank responded to the fall in market yields and the pick-up in capital inflow by implementing two cuts (on January 8th and February 5th) in the maximum interest rate on the two-week deposit facility. The result was a reduction totalling

Chart II-1* Monetary conditions: the real exchange rate calculated with EMU inflation



* The indicator depicted in the chart is derived from trend inflation for the past three months after subtracting the rate of the announced devaluation for the period and that of EMU trend inflation, and annualising the result. Trend inflation rates are obtained by seasonal adjustment. For a detailed description of the method of calculating the indicator, see Box in September 2000 *Report*.

Chart II-2* Monetary conditions: real interest rate calculated with different techniques



* *When calculating the contemporaneous real interest rate* the current one-year benchmark yield is deflated with the latest (year-on-year) rate of inflation. The calculation of the *short-term real interest rate* is based on the current measure of the three-month benchmark yield and the inflation rate of the preceding three months derived from the trend-cycle of the seasonally adjusted price level. The *ex post real interest rate* denotes the twelve-month nominal yield of a year ago deflated with inflation measured over the past twelve months. The *ex ante real interest rate* is obtained by deflating the current one-year nominal yield with macroeconomic analysts' average inflation forecasts for the same time horizon based on a Reuters survey. For a detailed description of the alternative measures of the real interest rate and their calculation techniques, refer to Box II-1 in the *Quarterly Report on Inflation*, December 2000.

Chart II-3 **Central bank interest rates and short-term market yields**

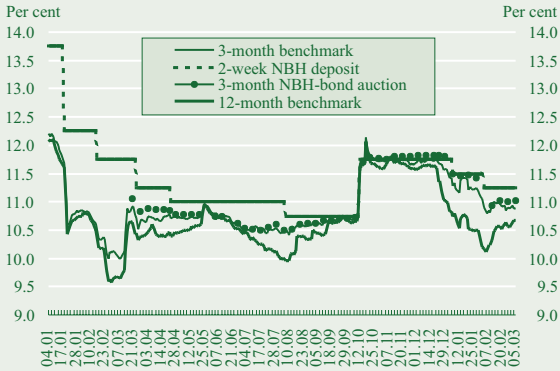
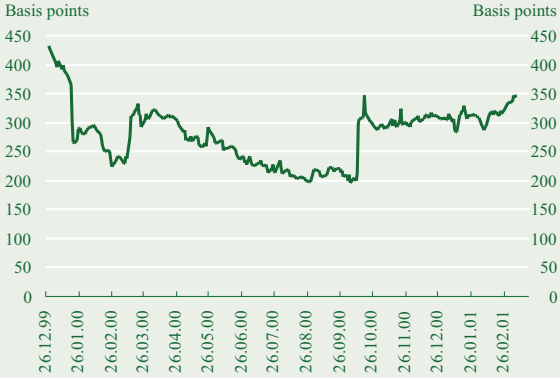
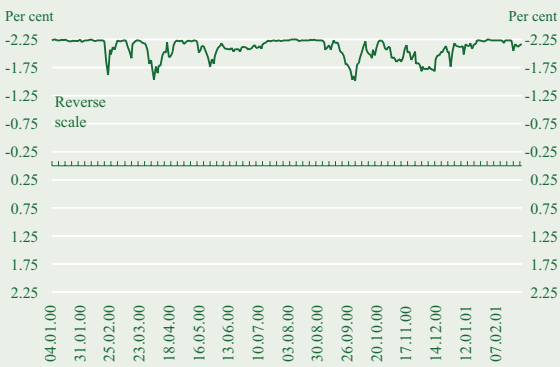


Chart II-4 **Three-month interest rate premium on the forint***



*Calculation of the interest rate premium is based on the assumption that the date of the reduction to 0.2% in the monthly devaluation rate, which the market had knowledge of, was April 1, 2001.

Chart II-5 **Intraband position of the forint**



50 basis-points, countering some of the October 100-basis-point interest rate hike *(see Chart II-3).* This move was enabled by a turn for the better in respect of the two key factors contributing to recent adverse inflationary developments. Notably, the world price for oil fell by around 25% and the euro's exchange rate strengthened by 10% against the dollar. During January the prices of these two key assets did not continue to exert disinflationary pressure, but they stabilised at levels which foreshadowed a more favourable inflation path than that seen in September and October, enabling monetary policy to be eased. The slope of the 0–1-year section of the one-year implied forward curve became steeper at end-December, reflecting market expectations of a faster decrease in short-term interest rates in the year 2001. This may be associated with the proposed cut in the devaluation rate scheduled to take effect on April 1st, announced by the Government late in December. The announcement brought the date of the cut in the devaluation rate forward in the expectations of the market, which is also reflected in interest rate expectations and forward yields. The three-month interest rate premium on the forint *(see Chart II-4)* has stabilised around the 300-basis-point level since the October interest rate hike.

In contrast with strong third-quarter demand for conversion, the central bank had to buy foreign currency amounting to only HUF 34 billion during the fourth quarter. This low demand for conversion was the result of opposing developments. Certain components of interest-rate sensitive capital inflows, especially foreign investments in forint-denominated government securities and corporate-sector foreign currency borrowing, were quite substantial. However, they were offset by non-residents' equity sales, low FDI inflow and the high deficit on the current account of the balance of payments, not unusual in the fourth quarter. The banks' open foreign currency position did not have a major influence on fourth-quarter conversion, not as in January, when it increased by as much as roughly HUF 100 billion. This value was approaching that for February 2000, which is regarded as an episode of exceptionally buoyant inflow of interest-rate-sensitive capital. January witnessed a considerable improvement in global investment sentiment about emerging countries, which is also likely to stimulate interest-rate-sensitive capital inflows.

Shifts in the intra-band position of the forint's exchange rate reflected low conversion demand in the fourth quarter *(see Chart II-5).* From October to December, the exchange rate fluctuated in the 30–50-basis-point range, off the strong edge of the band. From late January, however, the rate returned to the strong edge, and the central bank had to intervene on several occasions. The forint broke slightly away from the strong edge only after February 20th, upon escalation of the financial crisis in Turkey.

In the aftermath of last October's interest rate hike by the central bank, commercial banks smoothed household deposit rates to a much greater extent than short-term rates on lending to the corporate sector. The central bank's interest rate hike was nearly completely passed on to the latter rates. This response by the commercial banks corresponded to their pricing policy seen during previous instances of interest rate increases. For the second half of 2000 as a whole, the spread between corporate borrowing rates and short-term market yields seemed to stabilise below the 150-basis-point average of recent years.

Table II-1 **Monetary base**

HUF billions

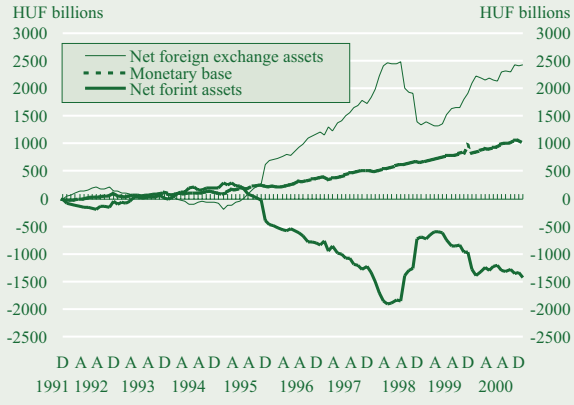
	2000						2001
	Opening	March	June	September	November	December	January
I Monetary base (II+III)	1,439.0	1,373.5	1,420.6	1,503.9	1,552.6	1,561.0	1,496.3
Non-bank notes and coin	846.2	762.9	809.6	846.4	880.7	876.4	818.6
Other notes and coin	109.7	73.4	79.5	81.0	78.6	90.3	76.4
Reserves	483.1	537.2	531.5	576.5	593.3	594.3	601.2
II Net forint assets (b+c+d-a)	101.1	–248.6	–159.2	–243.6	–293.4	–278.8	–359.6
a) Sterilisation instruments	619.3	884.2	805.7	881.5	830.8	917.8	656.1
Of which: NBH bills	0.0	96.8	235.3	470.4	458.1	461.0	554.3
b) Banking sector loans	120.3	117.1	104.5	102.1	95.8	87.3	85.0
c) Net claims on government	517.9	443.3	454.9	466.2	373.7	486.3	192.5
Of which:Treasury Account (–)	193.4	267.5	250.1	213.1	301.8	170.7	270.9
Government securities (+)	401.2	393.4	378.8	371.1	368.0	367.5	173.9
Other (+)	310.1	317.4	326.2	308.2	307.5	289.5	289.5
d) Other	82.2	75.2	87.0	69.6	67.9	65.4	19.0
III Net foreign exchange assets	1,337.9	1,622.1	1,579.8	1,747.6	1,846.0	1,839.8	1,855.8
Net foreign	504.4	700.7	736.9	936.3	1,080.8	1,024.5	960.7
Assets	3,269.1	3,476.6	3,435.6	3,872.3	3,992.5	3,765.4	3,628.3
Liabilities	2,764.7	2,775.9	2,698.7	2,936.1	2,911.7	2,740.9	2,667.6
Net domestic	833.4	921.4	842.9	811.4	765.2	815.3	895.1
Assets	1,550.4	1,569.9	1,452.4	1,408.4	1,358.6	1,384.8	1,381.3
Liabilities	717.0	648.5	609.5	597.1	593.4	569.5	486.1

The real growth rate of broad money aggregates (M3 and M4) continued to decrease in 2000 Q4. This was partly due to the ongoing decline in the financial saving rate and partly to the fact that in the final quarter, both household consumption and business investment picked up. These latter developments stimulated demand for more liquid assets, exerting upward pressure on narrow money (M1) growth in the fourth quarter. Real growth in households' net financial wealth slacked off considerably. This was equally due to a decrease in the growth rate of gross financial wealth in real terms and a faster increase in household liabilities.

2000 Q4 witnessed a rise in the net financing requirement of non-financial companies. The factor at work here was firms' declining level of disposable income (especially in energy-intensive sectors) throughout the second half of 2000, because of adverse shifts in energy prices and a moderate-to-rising trend in investment activity for the second half as a whole.

Corporate-sector borrowing was dominated by foreign currency loans. In particular, funds borrowed from abroad expanded most strongly, while the rapid increase in domestic foreign currency borrowing seen over the second and third quarters came to an end. This may imply that the accommodation of the loan structure of commercial banks to the new regulation on open foreign exchange positions effective as of July 2000, reflected in higher domestic foreign currency lending, had tapered off by the beginning of the fourth quarter.

Chart II-6 **Monetary base and its components**



1.1 Monetary base and its components

Following temporarily higher growth in the monetary base, annual growth in this indicator fell to 13.1% in the period from November to January *(see Table II-1 and Chart II-6)*, thanks to the modification of the reserve requirement. From August 2000 on, the rise in the effective reserve ratio, as discussed in the December *Report*, led to an average annual growth rate of 20.4% in re-

serve assets, in contrast with 16.1%, characteristic of the previous six months. In the period December to January, this high growth in reserve assets was offset by weak annual growth in demand for notes and coin. This demand reflected the usual seasonality, i.e. there was an upsurge in cash balances in the run-up to the holiday season, especially in November, but the January fall-off was steeper than experienced in previous years. Apart from the effect of the regulatory change, the increase in mandatory reserves reflects the development of M3, and the upsurge in November could be attributed to higher M3 growth.

The key impact on the composition of net forint assets has been the new regulation on the reserve requirement. The central bank neutralised the excess liquidity generated by the reduction in the reserve requirement from 11% to 7% by selling government bonds amounting to approximately HUF 200 billion and issuing NBH-bills of HUF 37 billion. This, together with the increase on the Treasury Account had significantly decreased the National Bank's net claims on the Government by January 2001. In November and December, the level of NBH-bills within the stock of sterilization instruments remained unchanged in a quarter-on-quarter comparison. Only January saw an upsurge, part of which was caused by the aforementioned amendment to the reserve requirement. From October to December 2000, the stock of the two-week deposit facility rose by HUF 62 billion, followed in January by a decline of over HUF 150 billion. The figure for the sterilization instruments in Table II-1 reflects a much greater decrease due to a technical correction. This row in the table contains the adjustment for the difference between the end-of-month and monthly average stock of the banks' mandatory reserves. This adjustment was exceptionally large in January 2001, as the banks deposited HUF 200 billion less on their central bank account on January 31st, as a result of the lower reserve requirement. However, this did not affect the level of net forint assets because of the aforementioned government bond sales and NBH-bill issue.

1.2 Demand for forint conversion and its components

Following the strong demand for forint conversion in 2000 Q3, the fourth quarter saw a slowdown, with conversion amounting to merely HUF 33.7 billion *(see Table II-2).* This happened despite relatively high interest-rate-sensitive capital inflows amounting to HUF 144.2 billion, with speculative inflows also up on the previous quarter. At the same time, these inflows of capital were offset by the high current account deficit, customary in the fourth quarter, with the December deficit being conspicuously high, even allowing for seasonality. FDI inflow was quite low relative to previous quarters, only covering some one-fourth of the current account deficit adjusted for the net foreign interest payment of the National Bank. In respect of net portfolio equity investments, the outflow originating in 2000 Q2 continued, while there was a considerable inflow into government securities in the fourth quarter, especially in December, thanks primarily to the decline in euro yields and improving investment confidence in emerging markets. The final quarter saw an upsurge in foreign exchange loans taken out by the corporate sector, with particular

regard to direct borrowing from abroad. In contrast with the previous three quarters, there was a turnaround in the ratio of foreign and domestic foreign exchange borrowing, with borrowing from abroad taking the lead. Corporate foreign exchange borrowing accounts for the bulk of the interest-rate-sensitive capital inflow.

For 2000 as a whole, demand for forint conversion was lower than in 1999, with most transactions concentrated in the first quarter and the month of August. The two years differed most significantly in terms of net portfolio investments, the effect of derivatives and corporate foreign exchange borrowing. The fact that much higher amounts of interest-rate-sensitive and speculative capital flowed in than in 1999 could be explained by higher investments in government securities, the upward pressure of derivatives on conversion and high foreign exchange borrowing. In a contrasting development, there was large-scale outflow of equities for the year as a whole and the conversion effect of domestic foreign currency deposits also contributed strongly to the decline in the demand for forint conversion.

Table II-2 **Components of demand for forint conversion***

HUF billions

	1999 total	2000							
		Q1	Q2	Q3	October	November	December	Q4	Total
A Conversion	807.6	374.0	22.6	212.9	33.7	0.0	0.0	33.7	643.2
a) Intervention in inter-bank foreign exchange market	708.4	374.2	20.4	212.9	33.7	0.0	0.0	33.7	641.2
b) NBH purchases from general government	99.2	–0.2	2.2	0.0	0.0	0.0	0.0	0.0	2.0
Sources of conversion (I+ ...+ IX)	807.6	374.0	22.6	212.9	33.7	0.0	0.0	33.7	643.2
I Current account balance corrected for net foreign interest payments (1+2)	–398.5	–75.2	–107.3	–8.0	–16.6	–64.5	–148.4	–229.6	–420.0
1 Current account balance	–497.8	–96.9	–125.2	–33.6	–14.4	–76.4	–154.5	–245.4	–501.0
2 Net foreign interest payments by NBH**	99.3	21.7	17.9	25.6	–2.2	11.9	6.1	15.8	81.0
II Foreign direct investment	407.5	63.6	170.4	99.3	27.3	–0.5	29.7	56.5	389.8
III Intervention due to commercial banks***	–11.5	33.0	–15.6	23.6	–34.7	20.7	–27.8	–41.8	–0.8
IV Effect of derivatives****	–58.2	75.1	–41.5	–4.5	–6.7	–9.4	11.5	–4.7	24.4
V Intervention due to domestic foreign exchange deposits	–1.6	–7.4	–10.8	–11.4	–22.0	–37.1	9.6	–49.5	–79.1
VI Net portfolio investments (1+2)	303.6	154.0	–79.8	2.0	–13.1	7.9	28.3	23.1	99.3
1. Government securities	152.3	142.9	6.4	61.6	19.9	21.0	41.8	82.8	293.7
2. Equity+	151.3	11.1	–86.2	–59.6	–33.1	–13.1	–13.5	–59.6	–194.4
VII Corporate foreign exchange borrowing (1+2) = (a+b)	237.1	11.0	88.2	55.2	57.5	75.1	24.9	157.5	312.0
1. Domestic	154.3	77.0	120.8	83.3	24.4	–6.1	30.2	48.4	329.6
2. Foreign	82.7	–66.0	–32.6	–28.1	33.1	81.2	–5.3	109.1	–17.6
a) Shorter than one year	–73.6	–32.8	–10.2	–48.2	19.4	10.0	–1.1	28.2	–62.9
b) In excess of one year	310.7	43.7	98.4	103.4	38.1	65.2	26.0	129.2	374.8
VIII Capital transfers	8.2	3.8	14.5	19.5	7.0	4.4	6.9	18.3	56.1
IX Others	321.0	116.1	4.4	31.1	35.2	3.4	65.4	104.0	255.5
B Interest rate-sensitive (III+IV+V+VI/1+VII)	318.1	254.5	26.8	124.6	14.0	70.3	60.0	144.2	550.2
C Speculative	9.0	218.2	–60.9	32.6	–2.1	42.2	24.3	64.5	254.4

* Figures for the third quarter contained some mistakes in the December *Report*.
** Corrected for the net foreign interest payments of the general government.
*** Conversion effect of the change in commercial banks' total open position, i.e. the portion of open positions not hedged by derivative transactions.
**** Conversion effect of the change in forward contracts. With these two items the negative sign indicates the closing of long forint positions built up earlier.
+ From the fourth quarter, the capital flows linked to bank equities are recorded with the 'Equity' item instead of the 'Others' item.

Box II-1 Foreign exchange market activities of the banking system from December 2000 to February 2001

Immediately after closing the December *Report*, commercial banks changed their behaviour, with a renewed increase in their demand for foreign exchange funds. This resulted once more in an on-balance-sheet open position well in excess of HUF 100 billion *(see Chart II-7)*. This figure approaches the amount which prompted the National Bank to amend the regulation on open positions in February 2000, in order to make this activity more costly for commercial banks. Apparently, some banks find it worthwhile to absorb the extra costs imposed by the new regulation, in order to increase their foreign exchange liabilities.

***Chart II-7* Open positions of the banking system**

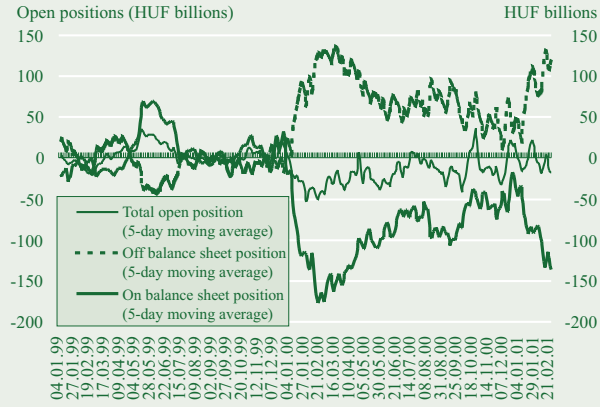
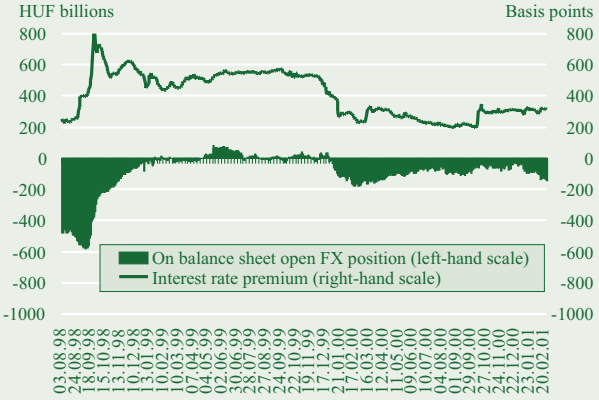


***Chart II-8* On-balance-sheet open FX position of the banking system and the interest rate premium on forint assets**

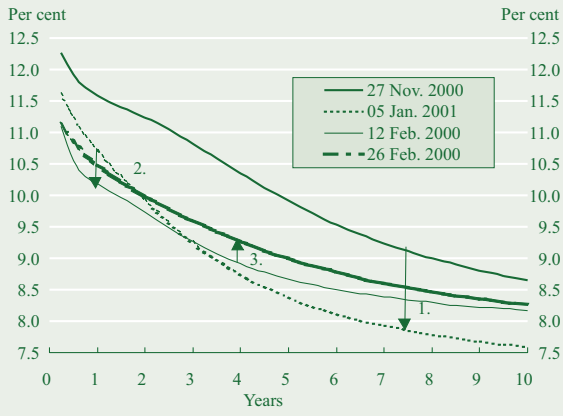


The increase in the on-balance-sheet open position did not lead to the reopening of the total open position. In this respect, the banks have not abandoned their recent cautious attitude in aggregate terms, and are not taking any exchange rate risk. This implies that they are speculating on the difference between yields rather than exchange rate gains in favour of forint assets.

During the period under review, the interest rate premium on forint assets remained virtually unchanged compared with the roughly 300-basis-point value seen at the end of the previous period. The yields required by international investors had already increased at the end of the previous period, and this atmosphere has continued to determine international investment flows ever since. Changes in the forint's interest rate premium and the on-balance-sheet open position of the banking system indicate *(see Chart II-8)* that, in addition to the value of banking-system liabilities, the level of the interest rate premium also approached that seen a year ago.

2 Yield curve, interest rate and inflation expectations

***Chart II-9* Zero-coupon yield curves**



The Bank's December *Report* tracked developments on the Hungarian government securities market through the end of November 2000. Since then there has been a decrease in zero coupon yields of all maturities, in contrast with the significant rise in the previous quarter. Compared with the situation at end-November, there was a 90–120-basis-point downward shift in the three-month to five-year section of the yield curve, while at the same time a much smaller, roughly 40-basis-point drop occurred at the longest maturity of ten years. The decrease in yields was not distributed evenly over time *(see Chart II-9)*. From late November to early January, the decrease in yields was on large scale, amounting to 80–140 basis points, with medium-term yields affected most strongly. The drop in yields over this period was due to factors determining non-residents' demand for government securities, with special regard to the decline in euro yields and changes in the risk premium required on forint yields. Then, from early January to mid-February, short-term yields adjusted to the previous decline in long-term market yields, partly as a result of the central bank's two interest rate cuts, while long-term yields were already starting to rise. This led to a turn

around the two to three year maturity of the yield curve. This was presumably due to the interruption and subsequent adverse shift in the downward trend of the world oil prices seen since early December and the strengthening of the euro against the dollar over the same period. In mid-February, following the publication of the higher-than-expected rate of inflation, market participants made an upward shift in their short-term (1–2 year) inflation expectations, which brought about a 20–25-basis-point rise in yields. Thus, on the whole, rather than decline, short-to-medium-term inflation expectations deteriorated slightly in the period of December to February.

The following section contains an in-depth analysis of the factors at work in the change in yields over the period under review.

The substantial decline in the level of interest rates on the euro, serving as an anchor currency, had a decisive impact on forint yields in December 2000. The decline in euro yields at all maturities occurred despite the fact that the European Central Bank made no cut in its benchmark rate during the period under review. The decrease in euro yields could be attributed, to a great extent, to the Fed's two interest rate cuts (on January 3rd and 31st) totalling 100 basis points, prompted by an apparent slowdown in US economic growth. These cuts led to a drop in market yields on the dollar of 100–140 basis points from December to February. Fears of a recession and statements by the Fed's chairman spurred expectations of an interest rate cut in the USA as early as December, leading to an over 10% rise in the euro's exchange rate against the dollar before mid-January. From the point of view of rising euro-area inflation, a long-term appreciation of the euro could be a favourable development. This would imply tighter monetary conditions without the ECB raising interest rates. As a combined result of all the above factors, medium-term zero coupon yields on the euro *(see Chart II-10)* decreased by 40–70 basis points by early January, simultaneously with a somewhat slower decline in short-term yields. All in all, the euro yield curve became less steep, and in the range of up to two years the curve assumed an unusually inverse shape, which implies that investors expect euro yields to continue falling over the next year, even though not at a rapid pace. In addition to the events overseas, the decline in oil prices since November, which has probably improved inflation expectations in the euro area, may also have contributed to the decrease in euro yields. The yields obtained on the market of Hungarian government securities rapidly followed changes in euro yields, although expressed in terms of basis points the decrease was nearly double the figure for the fall in euro yields, in respect of medium-term yields *(see Chart II-11)*. This was probably due to the fact that the drop in the risk premium required on forint yields strengthened the effect of the fall in euro yields. In contrast to the previous quarter, investor sentiment about emerging markets improved considerably in December and January, reflected in a significant drop in the foreign-exchange bond spreads of these countries. The average spread on Hungarian foreign exchange government bonds, an indicator of country-specific risk, also declined during this period.

The decline in the required yield on forint investments resulted in significant interest-rate induced capital inflows, pushing up foreign investors' government security holdings by roughly HUF 70 billion by mid-February *(see Chart II-14)*. The

Chart II-10 **Zero-coupon yields**

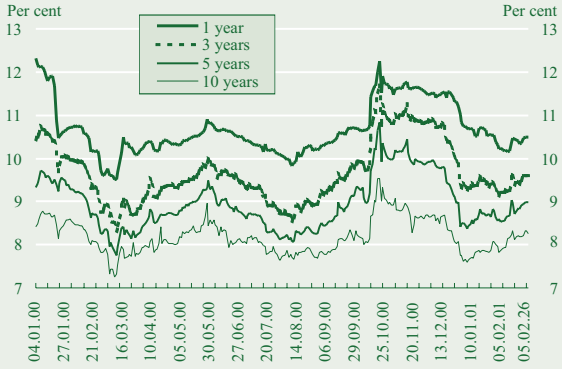


Chart II-11 **Three-year forint and euro zero-coupon yields**

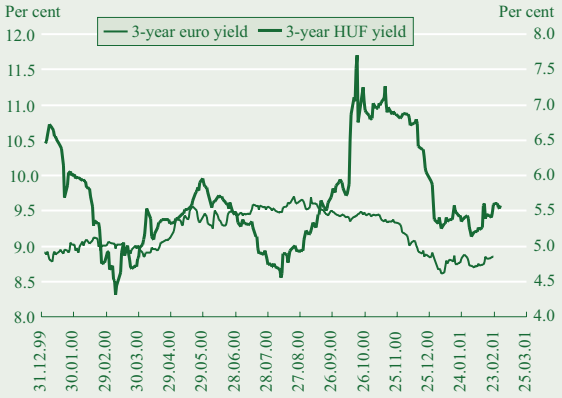


Chart II-12 **Reuters survey of macro analysts' inflation expectations**
Year-to-year inflation in December

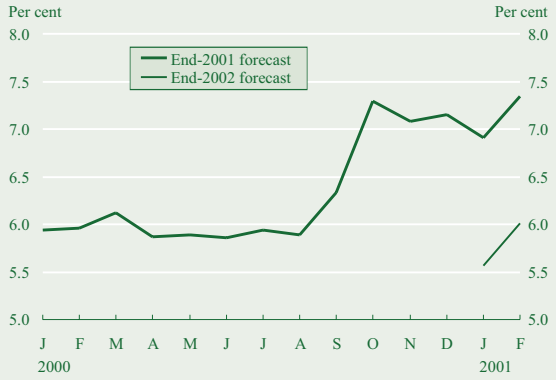


Chart II-13 **Reuters survey of monthly inflation expectations versus actual inflation rates**

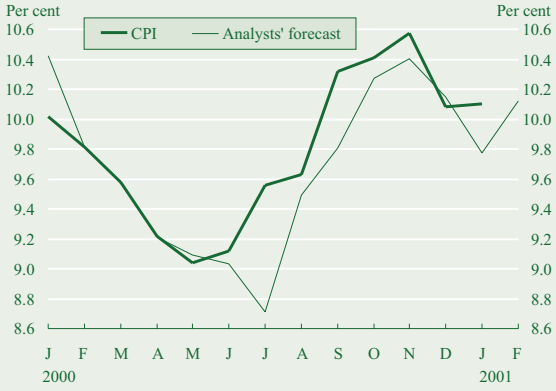


Chart II-14 **Government security holdings of non-residents as registered by KELER and the three-year zero coupon rate**

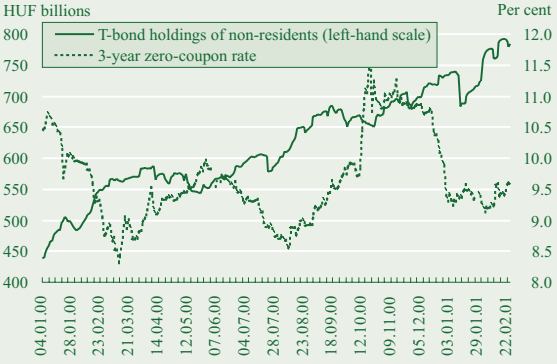


Chart II-15 **One-year implied forward curves**

average remaining time to maturity of the total stock rose slightly, with foreigners investing not only in specifically interest-rate-sensitive short-term instruments, but also in medium-to-long term ones (especially at the 2-to-3-year and 10-year maturities).

In response to the fall in yields on government securities in the aftermath of the decline in the euro yields and the risk premium, the National Bank cut the maximum interest rate on the two-week deposit facility on two occasions – each time by 25 basis points. The first reduction, effective of January 8th, did not catch the market by surprise and thus left yields unaffected. With this measure the Bank also intended to signal to the market that the stronger euro and lower oil prices were affecting the trend of inflation in a beneficial way. The week before the February 5th interest rate cut saw an acceleration in interest-rate-sensitive capital inflows, attracting foreign investments of HUF 50 billion in the course of just a few days, leading the central bank to intervene strongly. As central bank policy makers regarded the downward pressure on the level of interest rates as lasting, they took steps to align central bank rates closer to market yields.

The decline in long-term yields seen from December to early January was not accompanied with a decline in inflation expectations relating to the coming year. The December survey by Reuters even reflects a slight rise in the rate of inflation expected for end-2001, compared with November *(see Chart II-12)*.

Inflation expectations moderated somewhat in January, thanks presumably to the decrease in oil prices which began in late November and the strengthening of the euro. However, the January rate of year-on-year inflation (10.1%), published on February 13th, again exceeded analysts' expectations (9.78%). On the day of its announcement, forint yields rose by 10–30 basis points at all maturities. According to the Reuters survey in late February, inflation expectations for December 2001 rose once again to the October 2000 level, and the rate expected for end-2002 was also up significantly, by around 45 basis points.

The rise in yields in the second half of February was thus primarily attributable to worsening inflation expectations *(see Chart II-13)*, and, to a smaller extent, the slight upturn in euro yields, as well as the Turkish financial crisis after February 21st, with its likely upward pressure on the required risk premium.

Following the announcement of the January inflation rate there was a steady rise in foreigners' government security holdings, together with rising yields, in contrast to the period from December to January.[1] This indicates that the yields required by domestic investors (of which inflation expectations are the most volatile component) grew at a higher rate than those demanded by non-Hungarian residents (influenced more strongly by projected depreciation and the risk premium). In other words, the primary factor behind the rise in yields was higher domestic inflation expectations.

The shifts in the forward curves derived from the zero coupon yields provide the best information on changes in market partici-

[1] The abrupt fall in foreigners' government security holdings in mid-January was due to the maturing of the government bond 2001/G, of which non-residents' holdings amounted to HUF 50 billion, rather than an active portfolio management choice. The renewal of foreign holdings took a couple weeks, which is a relatively long time. This was because the immediate replenishment of expiring government securities on the low-liquidity Hungarian secondary market relative to the portfolio size of foreign investment funds would have had a serious impact on prices.

pants' expectations of short-term interest rates *(see Chart II-15)*. Between early December and late February, there was no significant change in the one-year interest-rate level expected four or five years ahead, while interest rate expectations for the coming two or three years declined considerably. It should also be noted that, in addition to a shift in levels, the annual yield path in 2001 also reflects a faster pace of decrease, i.e. between December and February there was a roughly 50-basis-point rise in the difference between spot rates and one-year yields one year ahead. The faster decrease in the expected interest rate can be attributed to the fact that the cut in the devaluation rate of the forint appeared, or in more precise terms, shifted forward in time, in market participants' expectations.

3 Interest rate policy of commercial banks

From November 2000 to January 2001, commercial banks' lending rates to the corporate sector followed the changes in the yields on short-term government securities, i.e. there was a clear fall in interest rates only from January, considering the period following the central bank's interest rate hike in October. By contrast, the effect of the fall in market interest rates has not yet fed through to short-term household deposit rates *(see Chart II-16)*. An analysis of average interest rates in the period since October reveals that the 1% interest rate hike by the central bank in October was almost completely passed on by the commercial banks to corporate-sector lending rates, whereas household deposit rates were only raised by 0.5 percentage points on average. As far as companies' deposit rates are concerned, the increase had started earlier, which makes the effect of the interest rate hike less easy to interpret.

A comparison of short-term corporate lending rates and market yields *(see Chart II-17)* indicates that the spread between these items narrowed markedly in the second half of 2000, relative to previous years, when it fluctuated around 1.5 percentage points. In the period under review, stronger inter-bank competition played the greatest role, simultaneously with a rise in lending activity. There has been no considerable change in the spread between market interest rates and household deposit rates, which have been fluctuating around 1.5% ever since January 1998.

Consumer credit by commercial banks was affected by the usual seasonality, with a significant pick-up in lending late in the year, due to the holiday season. The previous slow decline in consumer lending rates came to a halt in November, due to the central bank's interest rate hike and the strong demand for credit. In a simultaneous development, after a decreasing trend from May, the margin between consumer credit rates and twelve-month household deposit rates appeared to reverse in November *(see Chart II-18 and II-19)*, due mainly to the fact that medium-to-long-term deposit rates already began to fall off in November. New lending contracts related to building projects were at a much lower volume than consumer credit transactions, but the annual growth rates reflect exceptionally strong expansion. The final quarter saw a decline in building loans, due, in all likelihood, to seasonal effects.

***Chart II-16* Commercial bank interest rates and market yields**

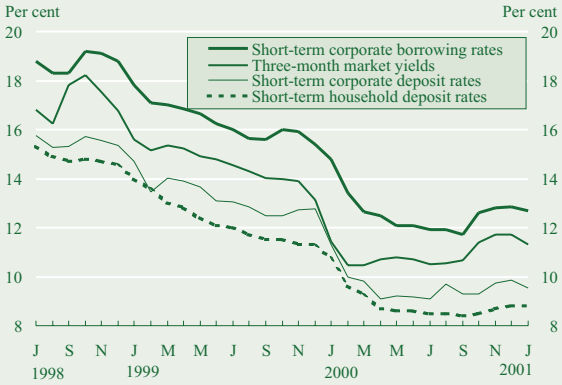


***Chart II-17* Spread between short-term corporate lending rates and market yields**

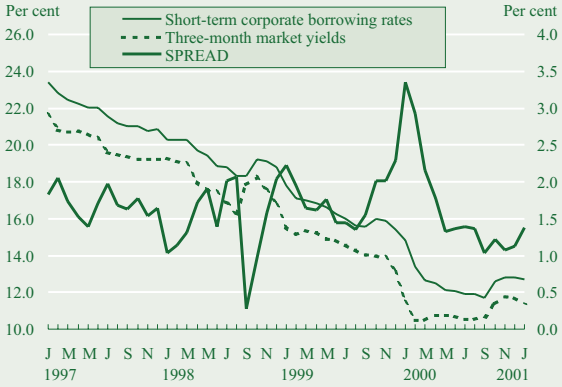


***Chart II-18* Spread between yields on government securities and household deposit rates**

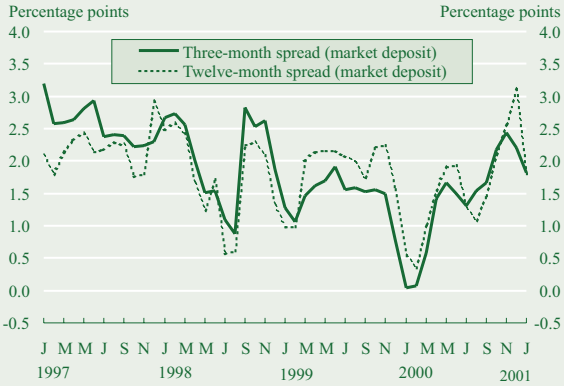


***Chart II-19* Lending to households**

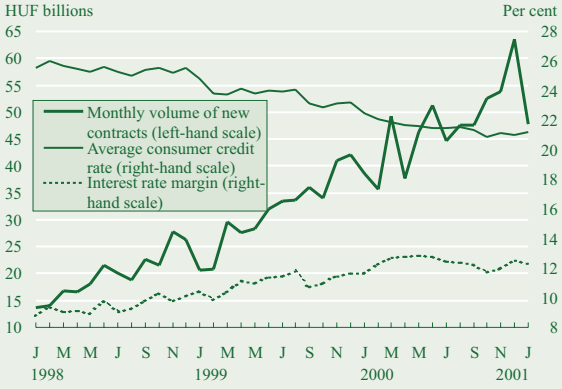


Chart II-20 Real growth rates of monetary aggregates
Three-month moving average;
same month a year ago = 100

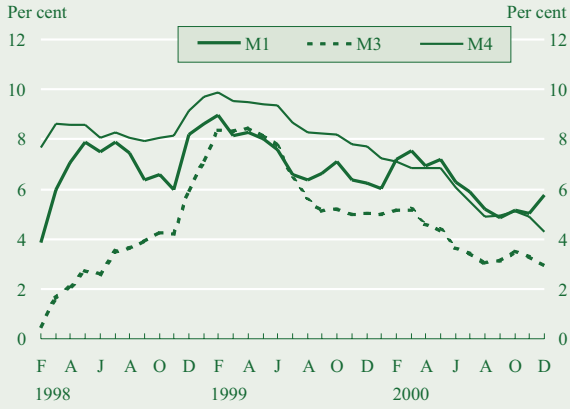


Chart II-21 Real growth rate of M1
Three-month moving average; same month a year ago = 100

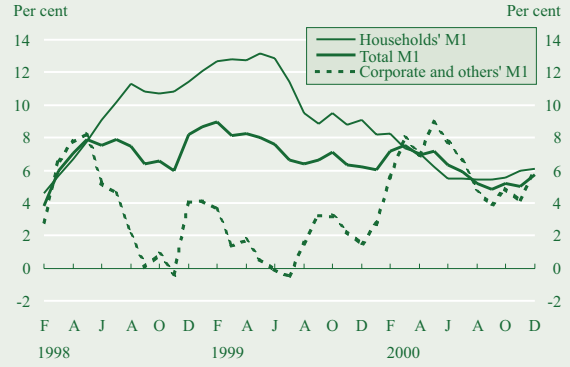


Chart II-22 Real growth rate of M3
Three-month moving average; same month a year ago = 100

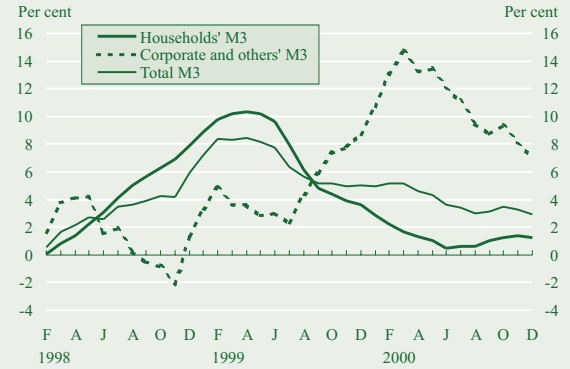
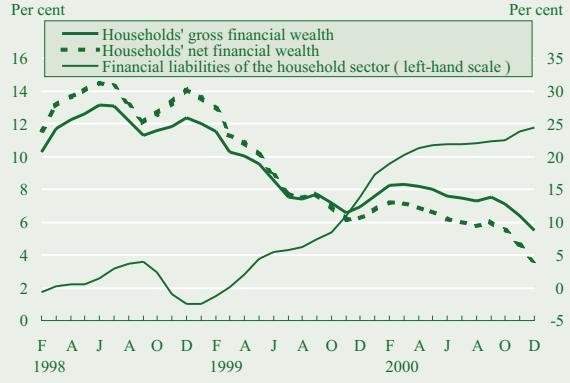


Chart II-23 Twelve-month real growth rates of net financial wealth, gross financial wealth and household financial liabilities
Seasonally adjusted; three-month moving average



4 Monetary aggregates

The surge in the real growth of broad money measures over the final month of 2000 Q3 proved to be temporary, and real growth in M3 and M4 returned to its slowing trend *(see Chart II-20)*. The trend in household portfolios tended to indicate a decrease in the weight of saving transactions within the banking system, together with an upsurge in consumption and a major pick-up in the propensity to invest during the third quarter, which also exerted downward pressure on real growth in financial assets. In accordance with these tendencies, real M1 growth was faster during the quarter, as a result of the upsurge in household and corporate sight deposits. This was because both sectors needed large amounts of liquid assets to support a considerable volume of transactions.

Household-sector demand for cash, adjusted for the effect of the year 2000 date change, continued to expand at a steady rate. At the same time, the real value of sight deposits held by households – with special regard to small businesses, which are also included with the household sector - rose considerably during the quarter, spurring growth in the household component of real M1 *(see Chart II-21)*.

At the same time, the final quarter of 2000 witnessed an interruption in the slowdown of firms' demand for cash and sight deposits, which started at the beginning of the second quarter. Firms began to switch from long-term assets, especially government securities accumulated due to postponed investment projects, and partly from time deposits, to holding sight deposits. This brought about a significant rise in the level of the latter holdings.

In addition to slower M3 growth *(see Chart II-22)*, the factors behind the subdued growth rate of M4 – comprising M3 and government security holdings outside the banking system – included a drop in the real growth rate of government security holdings to 4% from the double-digit range prevalent in the first half of 2000. During the final quarter, firms reduced their government security holdings, in contrast with individuals, who bought large amounts for the first time in 2000. However, this latter development was not reflected in the twelve-month rate as households acted similarly in the previous year.

Households increased their net financial wealth at a markedly slower rate *(see Chart II-23)*. This was due both to slower growth in gross real financial wealth and to a faster, trend-like expansion in household liabilities. For the reasons noted above, households reduced the weight of time deposits and non-banking securities in their portfolios, simultaneously with a steady rise in the weight of assets outside the money supply, such as pension fund savings, life insurance premium assets and equities. At the same time, the real growth rate of the latter assets was slower, due to higher base-period values.

The velocity of circulation *(see Chart II-24)* continued to slow during the fourth quarter, as real M1 growth was still higher than growth in both consumption and GDP volumes. The divergence between the two measures can be attributed to the steadily rising weight of household consumption, relative to the gross domestic product.

5 Demand for corporate credit

The financing requirement of the non-bank corporate sector (excluding credit institutions and the Hungarian Privatisation and State Holding Company) rose in 2000 Q4. In addition to the increase in the financing requirement of non-bank financial companies, there was significant deterioration in the net position of other financial companies vis-à-vis the banking system. The rise in other financial businesses' demand for funds is probably attributable to the fact that this sector acts as a mediator of credit towards non-bank companies. This implies that the worsening in its net position vis-à-vis the banking system also satisfies non-bank companies' demand for funds in an indirect way *(see Charts II-26 and II-27)*.

In the final quarter of 2000 the structure of corporate borrowing changed relative to the preceding three quarters, with foreign financing regaining importance within foreign exchange loans. Simultaneously, the weight of domestic FX borrowing declined, which may imply that companies are gradually returning to the financing structure prevalent prior to 1999 Q4, at least in respect of the foreign-domestic ratio of foreign exchange loans.

In contrast to the previous period, in 2000 the corporate sector relied on the domestic banking system rather than foreign lenders to satisfy its foreign-currency financing requirement *(see Chart II-26)*. This development spurred growth in the domestic stock of foreign exchange lending, which had been quite low compared with the demand for FX funds. Growth in FX-denominated domestic lending peaked in 2000 Q2 and Q3. However, the fourth quarter saw a reversal of the trend, with a renewed rise in the proportion of funds borrowed from abroad, simultaneously with a plunge in both the weight of domestic FX loans within new lending and the up-to-then high rate of growth. A major cause of this reversal must have been the accommodation of Hungarian commercial banks to the regulation on foreign exchange open positions, effective as of July 2000, which had led to a one-off shift in the lending structure via pushing up the level of domestic FX lending.

Against a stable macroeconomic background, the proportion of loans for terms in excess of one year increased within the terms structure of credit, especially in respect of domestic foreign currency loans, but in terms of forint loans as well.

The structure of corporate financial assets developed along different lines from those seen in previous quarters. The sector increased the weight of its liquid assets, together with a rise in portfolio assets, in contrast to a plunge in companies' government security holdings, similarly to previous years. At the same time, acquisitions by some regionally expanding domestic enterprises led to a rise in the sector's foreign-exchange-denominated claims on non-residents. Still, the denomination structure of assets continues to differ significantly from that of liabilities, corporate-sector assets typically being forint-denominated. Thus, even though the weight of foreign-exchange loans declined somewhat within new lending, the deterioration in firms' net position occurred primarily in terms of the foreign-exchange position, due to the negligible role of FX assets, while the forint position improved slightly *(see Chart II-25)*.

Chart II-24 **Velocity of M1** (1997 Q1 = 1)

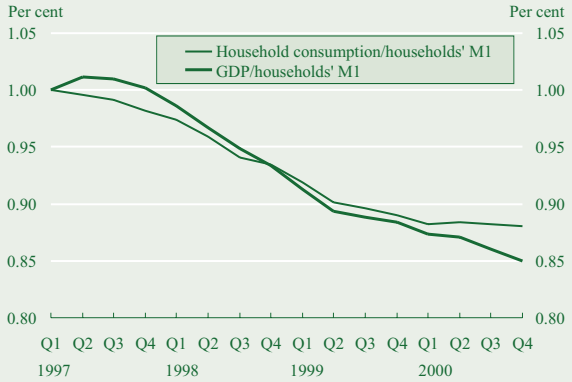
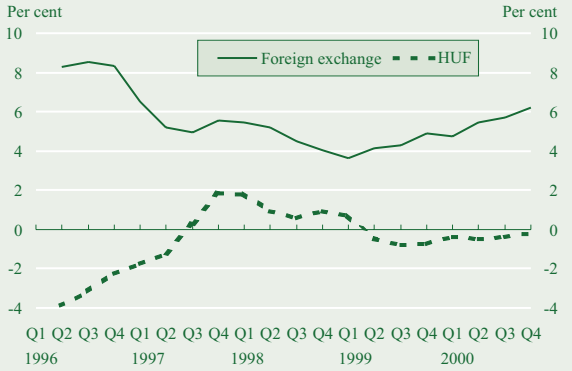


Chart II-25 **Operational quarterly financing requirement of the non-financial sector as a proportion of GDP** (Three-month moving average)



* Corporate sector: excluding financial institutions and the Hungarian Privatisation and State Holding Company. A change from the methodology used in the December Report is that now the corporate sector includes the so-called other financial companies.

Chart II-26 **Operational borrowing structure of the corporate sector** (Seven-month moving average; at December 1995 prices)

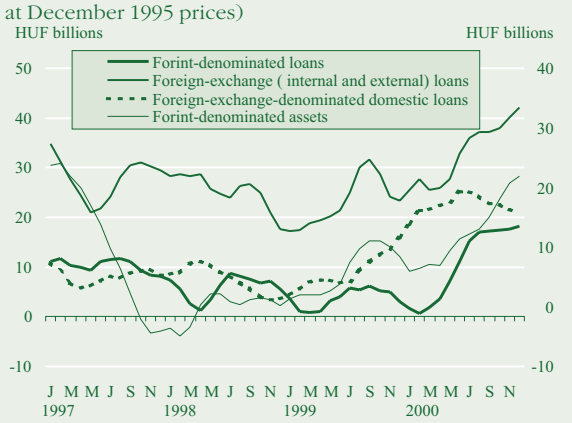
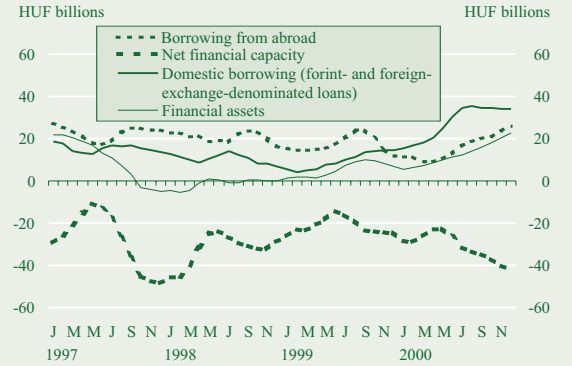


Chart II-27 **Structure of the net position of the non-bank corporate sector**

Seven-month moving average; at December 1995 prices



III. Demand

Chart III-1 **Contribution of domestic absorption and national account-based net exports to GDP growth**

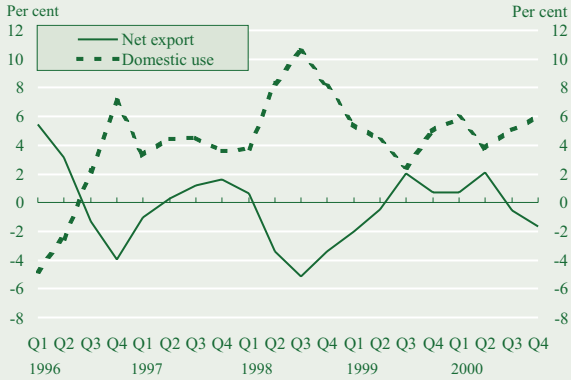


Table III-1 **Annual growth rate of GDP and its components***

Percentage changes on a year earlier

	1999					2000				
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total
	NBH estimates				CSO preliminary data	NBH estimates				
Final consumption	4.3	4.3	4.1	3.6	4.1	3.0	3.2	3.0	4.1	3.3
Household consumption	4.5	5.0	4.6	4.4	4.6	3.3	3.5	3.3	4.5	3.7
Public consumption	3.2	0.0	1.4	–1.3	0.8	0.9	1.0	0.9	1.5	1.1
Gross capital formation**	8.0	3.9	–1.4	7.4	4.4	12.8	4.7	9.8	9.2	9.0
Fixed capital formation	5.7	6.1	3.6	7.5	5.9	7.0	7.2	2.2	8.4	6.5
Total domestic absorption	5.3	4.2	2.4	4.8	4.2	5.7	3.6	5.0	5.8	5.1
Exports	9.5	9.8	13.6	18.9	13.2	21.1	21.0	20.0	25.0	21.9
Imports	12.9	10.2	9.3	16.6	12.3	18.6	16.4	20.6	26.8	20.9
GDP	3.4	3.8	4.5	5.7	4.4	6.6	5.8	4.5	4.2	5.3

* The Bank's quarterly GDP estimates are based on the quarterly GDP data published in April 2000 by the Central Statistical Office on the period 1995–1999. However, the quarterly data on 1999 may differ from those published in the aforementioned publication as they are estimates adjusted by the Bank for the second publication of annual data published by the CSO in September 2000. The estimates are consistent with the Bank analyses describing the income positions of individual income holders.

** Includes the statistical discrepancy, represented by the difference between the results of calculations for production and absorption.

Table III-2 **Contribution to GDP growth by individual items of absorption**

Percentage changes on a year earlier

	1999					2000				
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total
	NBH estimates				CSO preliminary data	NBH estimates				
Final consumption	3.2	3.1	3.0	2.6	2.9	2.2	2.2	2.1	2.8	2.4
Household consumption	2.9	3.1	2.8	2.7	2.8	2.1	2.1	2.0	2.7	2.3
Public consumption	0.3	0.0	0.2	–0.1	0.1	0.1	0.1	0.1	0.1	0.1
Gross capital formation*	2.2	1.2	–0.5	2.4	1.4	3.7	1.5	3.0	3.1	2.8
Fixed capital formation	0.8	1.3	0.9	2.6	1.4	0.9	1.5	0.6	2.9	1.6
Total domestic absorption	5.4	4.3	2.5	5.0	4.3	5.9	3.7	5.1	5.9	5.2
Exports	5.0	5.2	7.3	10.1	7.0	11.7	11.8	11.6	15.0	12.6
Imports	7.0	5.7	5.3	9.4	6.9	11.0	9.7	12.2	16.7	12.5
Net exports	–2.0	–0.5	2.0	0.7	0.1	0.7	2.1	–0.6	–1.7	0.1
GDP	3.4	3.8	4.5	5.7	4.4	6.6	5.8	4.5	4.2	5.3

* Includes the statistical discrepancy, represented by the difference between the results of calculations for production and absorption.

According to preliminary data, the Hungarian economy grew by 4.2% in 2000 Q4, representing an increase of 5.3% for the year as a whole, relative to the previous year. Although exports continued to expand rapidly during the fourth quarter, domestic absorption came to the forefront as the driving force behind GDP growth. Thus, it is no surprise that there was a substantial rise in import demand. The net export rate exerted downward pressure on economic growth in the final quarter (–1.7%), while the contribution of domestic absorption to GDP growth gathered pace *(see Chart III-1)*.

The gap between national accounts-based annual export and import growth rates already began to widen in the third quarter, with imports increasing more rapidly. The fourth quarter saw the gap continue to open, simultaneously with exceptionally strong export and import growth rates, up by 25% and 26.8% respectively over a year earlier. At the same time, the terms of trade continued to deteriorate during the fourth quarter, although somewhat more slowly than previously (by 2.4 percentage points).

Of the components of domestic absorption, consumer spending played a more important role in the expansion of GDP in the fourth quarter (2.8%). This was due to the fact that household consumption gathered considerable pace late in the year, rising by 4.5% in real terms in a year-on-year comparison *(see Table III-1)*. At the same time, operational incomes increased much faster than before, at the same rate as consumption. Public consumption rose moderately throughout the year, including the fourth quarter.

Whole-economy fixed capital formation also contributed strongly (by 2.9%) to economic growth during the fourth quarter *(see Table III-2)*.

The annual growth rate of whole-economy investment amounted to 8.4% in the final quarter, reflecting a pick-up in investment following a mid-year slump.

Stockbuilding, the other major capital formation item, along with other unspecified components of absorption, contributed to fourth-quarter GDP growth at a substantially lower rate than previously, although it still remained positive. The level of industrial output stocks, which account for some one-fourth of total inventories, fell off during the fourth quarter,[1] which probably occurred simultaneously with an increase in the level of input stocks. This seems likely in view of the fact that the volume of goods sold domestically for further processing during the final

[1] Based on industrial statistical data.

quarter was up by 10% on a year earlier, parallel to a similar upsurge in intermediate goods imports, in a quarter-on-quarter comparison.

1 Household consumption

Household consumption in 2000 Q4 gathered considerable pace relative to previous quarters, with the gap between consumption and income growth narrowing significantly. Total household real income rose by 4%, essentially due to the 5.2% rise in net labour earnings, accounting for over half of household income. Social benefits in cash rose fastest in real terms (6.4%), thanks to a retroactive rise in pensions. Overall income growth outstripped growth in mixed incomes (2.3%) and benefits in kind (1.3%).

In 2000 Q4, total income growth again fell short of operational income growth (4.5%, *see Table III-3)* – i.e. adjusted for the portion of interest income compensating for inflation – while consumption and operational income expanded at identical rates *(see Chart III-2)*.

The fact that consumption rose at a higher rate in 2000 Q4 than in the previous quarters is explained by the spending patterns of households, which enjoyed an increase in income. Both one-off wage payments and pecuniary social benefits affected those sections of society (social sector workers, old-age pensioners) with a high marginal propensity to consume.

Against the background of a substantial income rise, there was no major shift in the gross investment rate,[2] due to the high propensity to consume in the strata mentioned above. The rate stood at 10.6% in 2000 Q4, compared with 10.4% in the third quarter and 10.9% in 1999 Q4. As regards the composition of gross savings, the financial saving rate continued to moderate. The household investment rate rose by 0.7 percentage points and 1 percentage point in year-on-year and quarter-on-quarter comparison, respectively, reaching 7.4% in the fourth quarter *(see Chart III-3)*.

Household investment expenditure was dominated by home building and other housing-related investment projects, with a ratio to fourth-quarter operational income of 5.8% in the final quarter, up 0.9 percentage points on a year earlier. Housing investment growth took place simultaneously with higher credit extension for home investment projects *(see Chart III-4)*.

In 2000 Q4, the level of net financial savings was similar to the higher-than-usual third-quarter level. Unlike previously, households saved a higher portion of their income in the third quarter, and a lower portion in the fourth quarter. The inflation-adjusted[3] net financing capacity of households declined slightly in the fourth quarter. Changes in the stock of financial assets (HUF 149.7 billion) and borrowing (HUF 46.3 billion) remained similar to those in the previous quarter.

[2] All saving rates mentioned in this section are operational categories and seasonally adjusted

[3] Adjusted for the inflation compensation included in interest receipts.

Table III-3 **Annual growth of household income and consumption in real terms**

Percentage change on a year earlier

	1999	2000			
		Q1	Q2	Q3	Q4
Total income	2.0	1.2	1.6	1.5	4.0
Operational income	2.8	0.8	1.5	1.8	4.5
Volume of consumption	4.6	3.3	3.5	3.3	4.5

Chart III-2 **Real growth rate of household consumption and operational income**

Percentage changes on a year earlier; three-term moving average

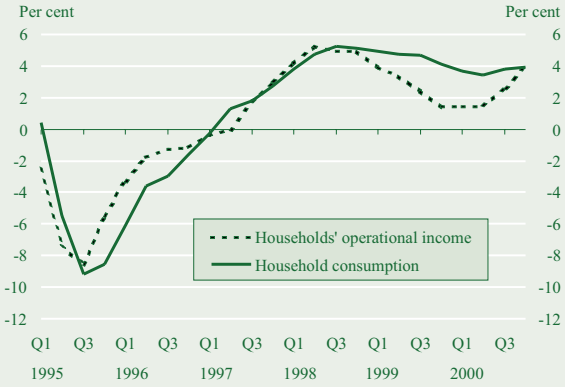
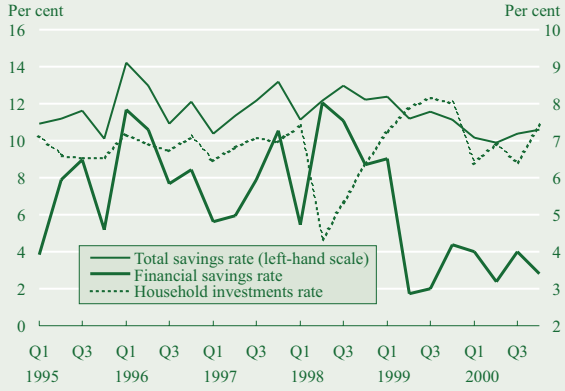
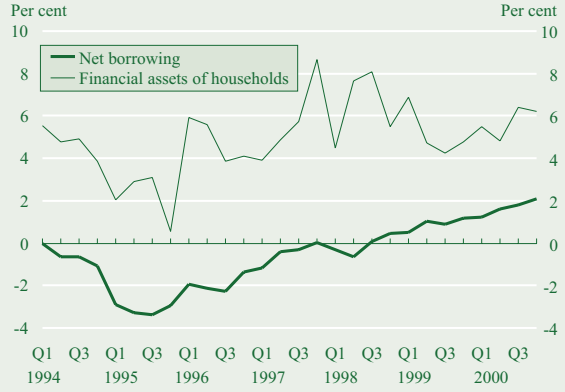


Chart III-3 **Changes in the household saving rate and its components***



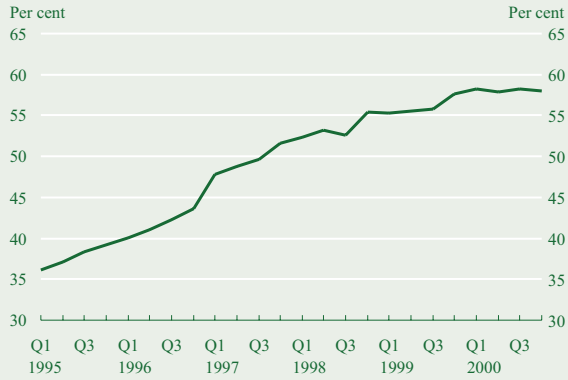
* Seasonally adjusted data as a percentage of operational disposable income.

Chart III-4 **Net household borrowing and financial assets***



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

Chart III-5 **Households' net financial wealth as a percentage of trend disposable income**



Pension fund contributions, which have been one of the key elements of financial assets for a long time, rose at the seasonally normal rate during the fourth quarter, i.e. faster than during the year.[4] There was also an upsurge in savings on deposit accounts both in a year-on-year and quarter-on-quarter comparison.[5] In respect of household saving, the final quarter was the first quarter in 2000 when households bought significantly higher amounts of government securities, simultaneously with a slowdown and, in the fourth quarter, decrease in the demand for unit trust investments, replacing a long upward trend. Compared with the third quarter, there was a nearly two-fold increase in foreign-currency savings, with cash holdings showing a downward trend. All in all, households tended to prefer short-term, low-risk investment facilities in 2000 Q4.

In the fourth quarter, the stock of credit was double for the figure for a year earlier, due to a major increase in building loans from 2000 Q2, thanks to the effect of housing loans offered on favourable terms. Consumer and collateral loans have rises at a persistently high, although not accelerating, rate. Home building and property purchase lending combined expanded at a faster rate than consumer credit in the fourth quarter, after adjusting interest rates for the effect of inflation *(see Chart III-5)*.

2 Investment

In 2000 Q4, whole-economy real investment expanded by 8.4% in a year-on-year comparison, bringing total volume growth to approximately 6.5% for the year as a whole. Although fourth-quarter data reflect a pick-up in investment activity, following a mid-year slowdown, annual performance still falls short of the level which was expected based on industrial output, domestic sales of investment goods, new orders and the long-standing, high rate of capacity utilisation (at 80%). On the other hand, quarterly indices computed from seasonally adjusted data indicate that investment activity is likely to pick up in 2001.

An analysis of investment by industry *(see Table III-4)* reveals that despite an upswing in investment, the volume of material production increased only slightly if at all, similarly to the previous quarters. Although manufacturing investment rose by nearly 5% in real terms relative to the previous year, together with the electricity sector, which was also up by over 5%, in other, traditionally weak, sectors (such as agriculture and mining) investment even fell short of the level for the previous year. In addition, fourth-quarter investment in the construction industry also remained flat in real terms.

As far as material services are concerned, Q4 investment remained as buoyant as in the first half of the year (up by 10% in volume terms), underlining the temporary nature of the weak performance in Q3. The increase was probably due to factors including strong investment performance in the transport and

[4] Out-of-schedule, supplementary contributions are usually concentrated at the end of the year.

[5] In respect of this component of the portfolio, data for 1999 Q4 are not suitable for comparison, due to increased cash holdings because of worries about the millennium date change.

communications sector, and the real estate transactions sector (10% and over 15%, respectively). In the former, growth was due more to strong investment activity within the communications sector rather than the effect of motorway construction, while in respect of the latter, the surge in home building projects may have contributed strongly. The performance of the hotels sector was rather uneven for the year as a whole. While there was no real growth in investment in the fourth quarter, the annual growth rate of 10% suggests strong activity. The rate of investment within financial services remained unchanged in the fourth quarter, still falling short of the level for the previous year in real terms.

Although investment related to property transactions tended to be rather volatile across the individual quarters, the subdued rate of housing construction activity seen in the past few years seems to be turning around. The number of building permits issued continued to increase considerably in 2000 Q4, up 50% on a year earlier. As a result of the steady growth experienced since early 1999, the number of permits issued over 1999–2000 amounted to 75,000. However, figures for the previous few years (70,000 and 54,000 permits issued in 1995–1996 and 1997–1998, respectively) indicate that growth in home building projects has climbed back to the level for 1995–1996, following a low in 1997–1998.

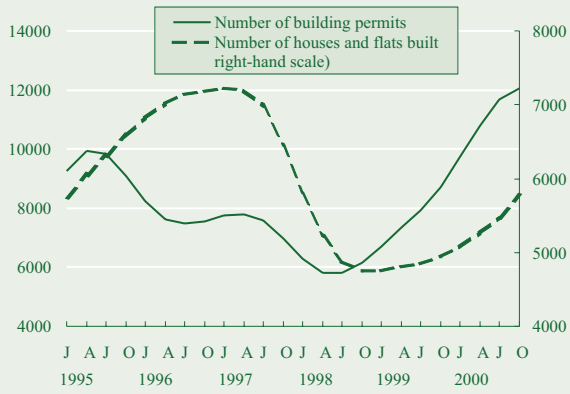
The number of completed homes follows the number of building permits only after a lag (average construction time is roughly seven quarters, with considerable variance). Nevertheless, seasonally adjusted data already reflect slow growth in the number of completed homes since mid-1999. This rate seemed to gather pace towards the end of 2000 (the fourth-quarter figure for completed homes was up by 27% on a year earlier). *(See Chart II-6.)*

Table III-4 **Whole-economy investment growth rates**

Per cent

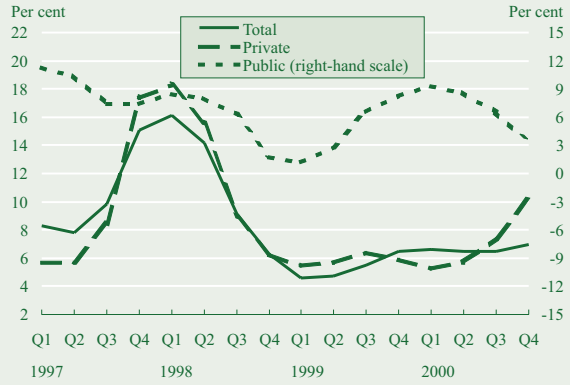
	1999		2000			
	Distribution	Volume index	Q1	Q2	Q3	Q4
			Same period of previous year = 100			
Agriculture, hunting and forestry, fishing	3.3	97.6	84.3	83.2	92.1	86.0
Mining	0.4	106.8	82.6	75.9	88.6	57.4
Manufacturing	26.1	114.2	102.3	107.2	101.4	104.8
Electricity, gas, steam and water supply	6.9	99.8	95.3	91.3	106.1	105.3
Construction	1.9	106.5	105.3	106.9	110.8	94.5
Material production, total:	*38.7*	*109.7*	*99.9*	*101.9*	*101.9*	*102.1*
Wholesale and retail trade, repair of motor vehicles, motorcycles, personal and household goods	7.5	125.7	105.2	111.3	103.7	106.5
Hotels and restaurants	1.1	124.8	114.6	104.2	134.6	97.8
Transport, storage, postal services and communications	17.9	94.4	136.7	107.6	94.5	110.3
Financial intermediation	2.8	78.5	92.1	98.2	134.6	97.8
Real estate, renting, business acitivities and housing investment	19.2	116.5	99.2	120.1	94.5	110.3
Material services, total:	*48.6*	*107.7*	*112.2*	*112.2*	*99.6*	*108.9*
Material production + material services, total:	*87.2*	*108.6*	*106.2*	*107.3*	*100.6*	*106.2*
Public administration and defence, compulsory social security	4.3	81.4	147.9	107.6	111.0	145.5
Education	2.0	112.7	115.8	103.0	108.8	99.5
Health and social work	2.1	87.3	116.3	102.9	98.8	94.3
Other community, social and personal services activities	4.3	87.5	88.4	110.6	111.8	100.7
Non-material services, total:	*12.8*	*89.4*	*117.6*	*107.2*	*109.0*	*116.4*
Total	**100.0**	**105.3**	**107.0**	**107.2**	**102.2**	**108.4**

Chart III-6* Number of building permits issued and completed homes



* Seasonally adjusted data.

***Chart III-7* Changes in fixed investment**
Annualised quarterly growth rates



Within non-material services, only public administration and defence increased investment volume, at an exceptionally high rate of 45%. After 2000 Q2, health investment remained virtually flat, while education grew by 5% for the year as a whole. On the whole, this group of services can boast of the strongest investment activity in 2000 (admittedly, the small weight of these areas prevent them from making anything more than a negligible impact on the amount of whole-economy investment).

The material and technical composition of investment reflects some change as construction investment projects grew about 3 percentage points faster than machinery investment, for the first time in the past few years.

In terms of investment broken down by income holders, the volume of public sector projects grew at a roughly 10% rate in the final quarter, just as in the third quarter *(see Chart III-7)*. However, Q4 growth was more the outcome of central government projects. Private-sector investment as a whole rose by around 7%, with the 5–6% growth rate of corporate investment only partially offset by strong household investment.

3 The fiscal stance

According to preliminary data, the SNA-based primary balance deteriorated by 3.5% of GDP in 2000 Q4 in a year-on-year comparison – thus the general government expanded demand to this extent *(see Table III-5)*. Despite the volatility in the demand effect across the different quarters, demand was restricted by 0.3% of GDP for the year as a whole. As pointed out in our previous *Reports*, the considerable sub-annual volatility in the demand effect can be largely traced back to a number of factors, which must be taken account of when interpreting the fundamental trends in the fiscal stance.

***Table III-5* General government deficit as a percentage of GDP**

Per cent

	1999					2000				
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Preliminary
1 Central budget balance excluding privatisation	–8.9	–2.6	–1.5	0.2	–2.9	–4.3	–1.1	–0.4	–5.4	–2.9
Of which:										
2 Primary balance (excluding NBH)	1.0	3.0	4.1	5.8	3.6	3.0	4.2	4.2	–1.0	2.5
3 Interest balance	–9.6	–6.4	–6.0	–5.5	–6.7	–7.4	–5.5	–4.8	–4.4	–5.5
4 NBH profits and losses	–0.3	0.8	0.3	–0.1	0.2	0.2	0.2	0.2	0.0	0.1
5 Balance of segregated funds excl. privatisation	–0.9	–0.1	0.0	–0.4	–0.4	0.1	–0.1	0.2	–0.1	0.0
6 Balance of Social Security funds excl. privatisation	–2.2	–1.1	–1.2	–0.2	–1.1	–0.8	–0.8	–0.7	–0.5	–0.7
7 Balance of local governments excl. privatisation	1.6	–1.0	0.6	–0.9	0.0	1.3	–0.7	0.0	–1.7	–0.3
8 Primary balance of local governments	1.4	–1.2	0.4	–1.1	–0.2	1.1	–0.9	–0.1	–1.8	–0.5
9 General government balance excluding privatisation	–10.5	–4.8	–2.1	–1.4	–4.4	–3.6	–2.7	–0.9	–7.7	–3.9
10 Out of this: primary balance	–0.7	0.6	3.4	4.0	2.0	3.5	2.4	3.7	–3.4	1.3
11 Accrual-based deficit of general government	–9.5	–5.3	–3.5	–1.1	–4.6	–3.5	–3.6	–1.8	–6.2	–3.9
12 Accrual-based primary balance	–1.5	0.7	2.7	4.5	1.8	2.4	2.0	3.3	–1.7	1.3
13 Deficit correction for financial transactions	0.3	–0.1	–0.1	–0.3	–0.1	–0.2	–0.2	–0.2	–0.4	–0.3
14 Deficit of Privatisation and State Holding Company	–0.3	–0.5	–0.8	–1.5	–0.8	–0.8	0.0	–0.4	1.4	0.1
15 SNA financing requirement (15=11+13+14)	–9.5	–5.9	–4.4	–2.9	–5.5	–4.4	–3.9	–2.4	–5.2	–4.0
16 SNA primary balance (16=12+13+14)	–1.5	0.1	1.8	2.7	0.9	1.4	1.7	2.8	–0.7	1.2
17 Effect of the pension reform	0.5	0.5	0.4	0.6	0.5	0.5	0.5	0.5	0.5	0.5
18 Demand effect (changes in lines 16 and 17)	1.5	–0.5	–0.9	–2.2	–0.6	–2.9	–1.7	–1.0	3.5	–0.3

There was a surplus generated on the receipts side, as after mid-1999 VAT revenues started to return to the normal level.[6] Other key factors were faster-than-expected growth and inflation, while only part of expenditures (pension expenditures) followed automatically with a time lag. In addition, the lower-than-expected privatisation revenues also put a brake on spending by the Hungarian Privatisation Agency (ÁPV Rt.), which was eventually financed by surplus budgetary receipts, just like the wage compensation received by the health and social sector.

In 2000 Q4, net VAT receipts fell off in real terms *(see Table III-6),* due to the fact that it was in the final quarter that the annual growth in VAT refunds, accounted for in terms of the accruals-based approach, caught up with the annual growth rate of receipts. (The VAT refunding system has been subject to several changes, which have exerted great influence on the sub-annual timing of refunds. This effect has been removed in principle by our accruals-based estimation.)

The budget used some of the extra tax revenues to give the ÁPV Rt. a grant amounting to 1% of GDP. This was because the company's privatisation revenues had dried up and there was a provisional ban on the sales of its reserves held in the form of shares. Thus, it was short of funds to finance its expenditures laid down by statute – expenditures to which further items had been added at the beginning of the year. Thus, the ÁPV Rt. was also unable to have the expected deficit. This is why the budget exempted it from its obligatory contributions and advanced a direct grant in the final quarter. This helped the Agency meet its expenditures and build up a surplus in the final quarter, which helped it do away with the small deficit it had accumulated.

In respect of cash benefits to households, pension payments, which account for nearly 70% of total transfers, were raised with retroactive effect in 2000 Q4, as provided for by statute and due primarily to slower-than-expected disinflation.[7] Other transfer payments decreased overall in real terms (in particular with regard to local authorities). Consequently, for the year as a whole, transfer payments to households did not exceed the level for the previous year in real terms, despite the rise in pensions. (The fact that in 1999 pensions were fully adjusted at the beginning of the year accounts for the different seasonality between the two years, *see Table III-7.)*

During the year the extra revenues were used to compensate health care and social sector workers, in the form of supplementary payments, for the unfavourable effects of the unexpected inflationary development. Paid in the third and fourth quarters, these sums amounted to 0.1% and 0.05% of GDP, respectively. Then, during the final days of the year, faster-than-expected economic growth and higher revenues prompted the Government to make another round of unscheduled pension and wage payments, amounting to 0.3% of GDP. These sums were deposited

Table III-6 **VAT in real terms**
Percentage changes on a year earlier

	1999				2000			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Domestic VAT revenues*	0.7	1.6	3.7	10.9	19.7	7.2	5.2	4.6
Import VAT refund**	8.9	3.0	0.1	3.2	12.4	4.7	7.1	13.1
Net VAT revenues	–9.0	0.5	7.1	18.4	30.0	9.3	3.4	–2.5

* Without further adjustments (for customs surety).
** Based on estimated accrual-based settlement.

Table III-7 **Selected public expenditures* in real terms****
Percentage changes on a year earlier

Per cent

	2000			
	Q1	H1	Q1–Q3	Preliminary
Pensions (including disability benefits)	–1.7	–1.3	–1.3	1.4
Sick-pay	5.9	12.2	5.0	3.9
Social benefits (central budget)	–5.2	–0.8	–2.2	–2.6
Social benefits (local authorities)	–12.0	–12.6	–9.7	–8.5
Household transfers, total	**–2.8**	**–1.5**	**–1.8**	**0.0**
Investment (central budget)	21.8	–3.5	0.8	7.9
Investment (local authorities)	–5.5	13.0	15.0	9.0
Gross investment expenditure	**6.1**	**4.4**	**7.7**	**8.4**

* *Source:* Public sector statistics, therefore this differs from CSO figures.
** Using the price indices for public consumption and investment.

[6] In the first half of 1999, the timing of VAT receipts temporarily diverged from in the business cycle.

[7] Pensions were raised on the basis of the Swiss indexation method, which is linked to inflation and net average earnings, with a 30%, 70% weight respectively. Inflation was higher than originally projected, and average net earnings were also higher by broadly the same rate as the extra inflation (this implies that the increase in real wages was close to the expected rate).

on an account[8] at the end of the year to be paid only in 2001. As far as the demand effect of this measure is concerned, pensioners and public sector employees will probably spend these windfall gains at the time of their receipt. This means that they are to be accounted for as part of the SNA deficit at that date.

The rise in the share of investment projects within expenditure seems to be a favourable development. No factual data are available on local authorities' investment spending in the final quarter. Despite strong growth over the previous few quarters, we did not expect further growth in real terms for the fourth quarter. By contrast, the central expenditure on institutional investment projects rose at a higher rate than previously, offsetting the fourth-quarter drop in the real value of priority projects.

4 External demand

As noted in the December *Report*, external economic activity peaked in 2000 Q3, in line with our expectations, while the fourth quarter witnessed a slowdown in growth. Of the components of GDP, both net exports and domestic absorption growth declined in the euro area. At the same time, there are many signs pointing towards the likelihood that domestic absorption will continue to grow at a relatively fast rate: (1) Both consumer and industrial confidence indices remain high; (2) In 2001, several large euro-area member countries have implemented major tax cuts, exerting upward pressure on household disposable income.

In 2000 Q3,[9] euro-area GDP growth fell to 2.8% in real terms, compared with annualised quarterly growth rates of 3.6% for the previous three quarters. Year-on-year GDP growth was at 3.4% in real terms, compared to 3.8% in previous quarters *(see Tables III-8 and III-9)*. The primary cause of this was lower quarter-on-quarter growth in private consumption, which fell to 1.2% in 2000 Q3, down from 3.2% in the previous two quarters. This decline had been foreshadowed by the September drop in the consumer confidence index, due probably to the steadily rising level of oil prices. Nevertheless, consumer and industrial confidence remained high in the euro area. The quarter-on-quarter consumer confidence index rose slightly in the fourth quarter, while the value of the industrial confidence index remained unchanged relative to the previous quarter. The fourth quarter saw a minor rise in the number of new cars registered relative to the quarter before, but the figure was still down in a year-on-year comparison.

Table III-8 **Main macroeconomic indicators in the euro area I**

Percentage change on a year earlier, seasonally adjusted data

Per cent

	1999			2000			
	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Real GDP	2.1	2.6	3.3	3.5	3.8	3.4	
Domestic absorption	3.0	3.0	2.8	2.5	3.2	3.1	
Private consumption	2.7	2.6	2.6	2.6	3.1	2.5	
Public consumption	1.4	1.6	1.5	1.7	1.8	1.6	
Gross fixed capital formation	5.6	5.8	5.4	5.4	4.8	4.2	
Stockbuilding*	–0.1	–0.1	–0.1	–0.4	0.0	0.4	
Exports	2.2	5.7	10.3	13.2	12.1	12.1	
Imports	4.8	7.1	9.2	10.7	10.6	11.4	
Net exports*	–0.8	–0.3	0.5	1.0	0.7	0.4	
New car registration	8.5	6.6	–0.6	1.5	0.2	–7.8	–3.0
Retail sale	2.2	2.3	3.1	2.5	3.2	2.6	

Source: ECB Monthly Bulletin, February 2001.
* Contribution to real GDP in terms of percentage points.

Table III-9 **Main macroeconomic indicators in the euro area II**

Percentage change on a quarter earlier; annualised, seasonally adjusted data

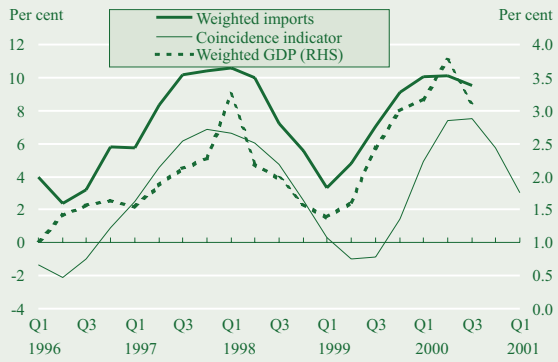
Per cent

	1999		2000		
	Q2	Q3	Q1	Q2	Q3
Real GDP	4.1	3.6	3.6	3.6	2.8
Domestic absorption	2.8	2.8	2.8	3.6	2.4
Private consumption	3.2	2.4	3.2	3.2	1.2
Public consumption	1.6	1.6	2.8	1.2	0.8
Gross fixed capital formation	7.8	1.2	7.4	3.2	5.3
Stockbuilding*	–0.8	1.2	–1.2	0.8	0.4
Exports	12.6	15.2	11.2	9.5	12.6
Imports	9.5	13.0	10.0	10.0	13.0
Net exports*	1.2	0.8	0.8	0.0	0.0

Source: ECB Monthly Bulletin, February 2001.
* Contribution to real GDP in terms of percentage points.

Chart III-8 **Foreign demand in Hungary's main export markets**

Percentage change on a year earlier; same period in previous year = 100



[8] At the end of the year, HUF 94.5 billion was placed on a deposit account. This sum comprises HUF 35 billion in subsidies for the ÁPV Rt, 40 billion to supplement pensions and wages and HUF 19.5 billion earmarked for home building projects. These sums are accounted for as part of the budget deficit. On the other hand the SNA accounting of the ÁPV Rt. subsidies is accounted as improvement in the Agency's balance for last year. The other two items will be recorded with the SNA deficit in 2001, at the time of the actual payment. (In 2000 Q4, these items together with the other subsidies granted to the ÁPV Rt. accounted for 4.6% of the 5.4% budget deficit.)

[9] Because of the time lag in data publication, GDP statistics for the euro area are only available until the third quarter.

External demand for Hungarian exports is measured in terms of the (effective) import and GDP of our main trading partners weighted with the Hungarian export structure.[10] In 2000 Q3, the year-on-year rise in this weighted GDP and effective imports stood at 3.1% and 9.5%, respectively. The weighted coincidence indicator of our main trading partners shows that external demand growth is likely to decline in 2000 Q4 and 2001 Q1 *(see Chart III-8)*.

In 2000 Q3 and Q4, business conditions in CEFTA countries did not follow a clear trend, with some countries experiencing a slowdown and others an up-turn in activity. Poland's second-quarter real GDP growth of 5.2% fell to 3.3% in the third quarter and 2.2% in the fourth quarter. The Czech economy continued to expand slightly, with year-on-year GDP growth at 1.9% and 2.2% in the second and third quarters, respectively. In Slovakia growth rose from 1.9% in the second quarter to 2.5%. Thanks to high world prices for energy and commodities, the economies of the CIS countries continued to grow at a robust rate, with Russian real GDP up by 6.8% and 7.9% in the third and fourth quarters, respectively.

According to estimates derived from preliminary data, in 2000 Q4, total exports of goods and services rose by 25% in a year-on-year comparison, compared with goods and services imports of 26.8%. In this manner, net exports reduced GDP growth by 1.7 percentage points. Volume and value data relating to the balance of trade continued to diverge in the fourth quarter, due broadly to changes in the terms of trade, which continued to worsen, although at a somewhat slower pace. In a new development, the balance of trade at constant prices also began to show clear signs of deterioration, due to the fact that the import volume exceeded the export volume *(see Chart III-9)*. In the fourth quarter, annual euro value indices reflect that import growth, 6 percentage points higher than goods export growth, was comprised of accelerating investment goods imports and a considerable decline in the effect of energy prices.

The balance of services continued to improve, but was unable to offset the worsening trend in the goods trade, which resulted in the negative contribution to GDP of the combined balance of goods and services.

In 2000 Q4, customs-statistics-based exports and imports amounted to EUR 9,012 million and EUR 10,406 million, respectively. There was a deficit of EUR 1,394 million on the balance of trade, up by EUR 665 million on a year earlier. For the time being, the fourth-quarter decline in external business activity does not seem to have fed through to export figures, since there is no fall-off in the quarterly growth rate of the trend of either the volume or the euro value data in a quarter-on-quarter comparison. There is even evidence of some acceleration in the indices *(see Charts III-10 and III-11)*. In respect of import figures, trade value data slowed down slightly and volume data gathered some pace. As the past two quarters saw systematically higher growth in the euro value indices of imports than of exports, the customs-statistics based balance of trade continued to deteriorate despite strong export growth *(see Chart III-12)*. The new data indicate more and more clearly that the deterioration in the trade

[10] See *Quarterly Report on Inflation*, June 2000.

Chart III-9 **Balance of trade based on customs statistics at constant prices**

Chart III-10 **Export and import trends based on customs statistics**

Annualised quarterly growth rates in euro terms

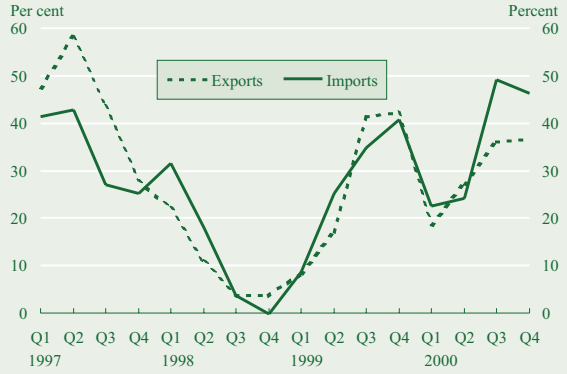


Chart III-11 **Export and import volumes**

Annualised quarterly growth rates

Chart III-12 **Balance of trade based on customs statistics in euro terms**

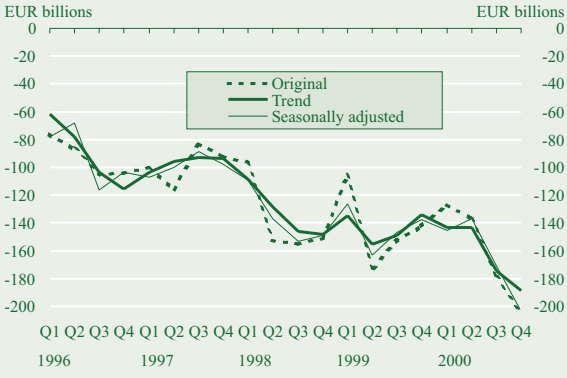


***Chart III-13* Exports to developed countries**

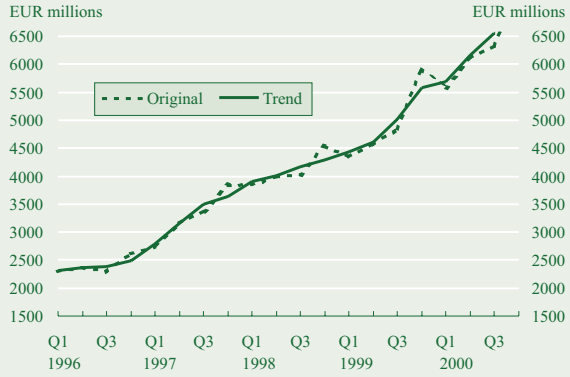


***Chart III-14* Exports to CEFTA**

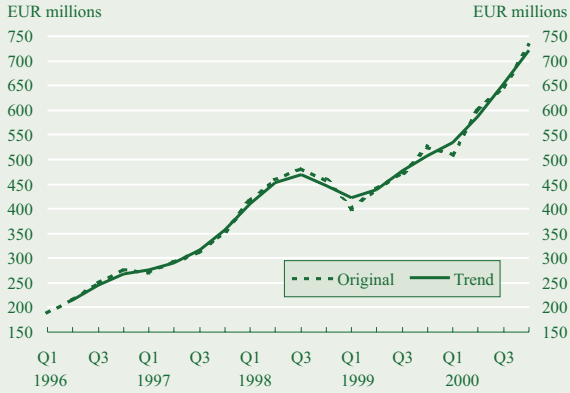


***Chart III-15* Exports to CIS**

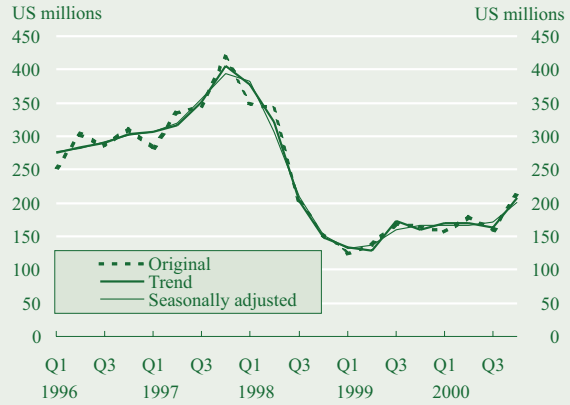
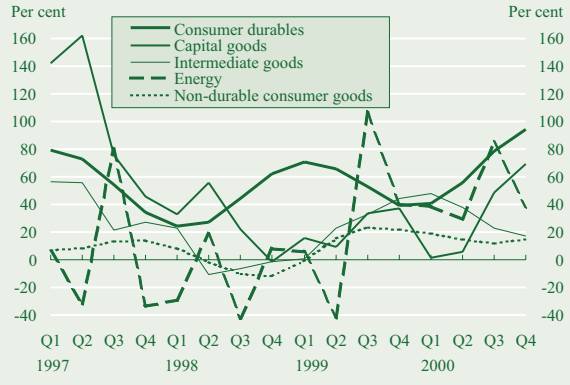


***Chart III-16* Annualised trend growth rates in various export categories**

Value index in euro terms



balance reflects a long-term trend, although the worsening in the terms of trade still remains a major contributory factor (down by 2.6% from 3.1% in the previous quarter).

As noted above, the fourth-quarter export growth did not yet reflect the slowdown in external demand. Exports to developed countries remained strong during 2000 Q4 *(see Chart III-13)*. The pick-up in exports to CEFTA countries, first experienced in 1999 Q1, continued at a steady pace *(see Chart III-14)*. This area saw the highest growth in demand for Hungarian exports, up by 39% on an annual basis, exceeding export growth to both developed countries (26%) and EU countries (24%). Exports to CIS countries picked up markedly in the fourth quarter, for the first time since the Russian crisis *(see Chart III-15)*. While previous high growth rates were essentially due to low base-period values, this time there was also a clear rise in the trend value in a quarter-on-quarter comparison. This may reflect the effects of an upsurge in demand stimulated by favourable business conditions in Russia.

An analysis of the composition of exports *(see Chart III-16)* reveals that durables exports continued to top the list. Short-term indices indicate that the Q3 recovery in investment goods exports also continued. Non-durable goods were exported at a slowly growing rate, while the quarter-on-quarter slowdown in the trend of intermediate goods exports excluding energy continued in the fourth quarter. An analysis of the export trends in the above goods shows that investment goods and durable goods contributed to total export growth at a markedly higher rate, simultaneously with a decline in the importance of intermediate goods. This suggests that the previous stagnation on the durable goods markets of our main export markets was only temporary *(see Chart III-17)*.

The SITC breakdown of exports *(see Chart III-18)* shows that machinery and equipment exports continued to grow at the fastest pace. Accounting for nearly 60% of total exports, this product category was the driving force behind export growth. This was equally due to an upsurge in both investment goods and consumer durables exports. Manufactured goods were exported at a steadily growing rate. Commodity export growth continued to slow in a quarter-on-quarter comparison, while food exports fell off.

An analysis of the breakdown of imports shows that in respect of consumer durables the trends seen in the previous quarter continued,[11] with a growth rate very similar to that of investment goods. Intermediate goods imports continued to show very high growth at nearly 40%. Imports of non-durable consumer goods grew at a basically unchanged rate *(see Chart III-19)*. On the other hand, there was a plunge in energy import growth in the final quarter. At the moment it cannot be determined if this represents a long-term trend. It seems certain that this may be related to the unusually mild winter, which has changed seasonality. At the same time, international energy prices exerted downward

[11] It should be noted that in the December Report we spoke of a decline in consumer durables imports on the basis of the annual rate of trend growth. The subsequent addition of about EUR 100 million to the third-quarter import figures led to a fundamental change in the trend data.

pressure on the import value of certain energy-producing materials in the final quarter.

As a result, final-quarter energy imports contributed to import growth at a significantly lower rate, whereas investment goods began to play a greater role. Import growth in respect of the other product categories remained unchanged *(see Chart III-20)*. In December we reported a slower increase in investment goods imports, associated with low investment growth. However, currently available information and revisions indicate that this effect must have been only temporary, as investment goods imports were clearly the driving force behind import growth in the fourth quarter. This is in line with the temporary slowdown in whole-economy and machinery investment growth seen in the third quarter.

Thanks to its continued favourable performance, the services category contributed to the improvement of the external balance in 2000 Q4, although to a slightly lower extent than in the previous quarters. The services balance on the balance of payments amounted to EUR 414 million, as a result of receipts of EUR 1,924 million and expenditure of EUR 1,510 million, with the surplus up EUR 72 million on a year earlier.

The improvement in the services balance can be attributed to the EUR 89 million increase in the travel surplus. The travel balance for 2000 Q4 recorded a surplus of EUR 579 million, as a result of EUR 915 million in receipts and EUR 335 million in expenditure *(see Chart III-21)*. Seasonally adjusted data indicate that receipts from tourism increased at an even pace during the year, with three-month annualised indices and the year-on-year euro value index growing at 20%.

The fourth quarter witnessed an upsurge in expenditures, with the euro value index amounting to 29% in a year-on-year comparison.

The fact that the trend of tourism increased in the fourth quarter *(see Chart III-22)* is also supported by other data on travel turnover. The fourth-quarter figure for tourist arrivals was up 15% on a year earlier, compared with a 1% rise in the previous quarter. For the year as a whole, this figure rose by 8%. The number of tourist nights spent in public accommodation units rose by 6% in the fourth quarter, compared with 2% in the third quarter.

The number of Hungarians travelling abroad rose by 4% for the year as a whole. The third-quarter decline of 2% was followed by a 10% increase in the fourth quarter.

The services balance excluding travel worsened slightly in the fourth quarter, creating a deficit of EUR 166 million as a result of receipts of EUR 1,009 million and expenditure of EUR 1,175 million. This deficit exceeds the figure for 1999 Q4 by EUR 17 million *(see Chart III-23)*. In a year-on-year comparison, the annual balance of services other than tourism remains EUR 172 million better than it was in 1999.

The trend of receipts and expenditures also rose significantly in the fourth quarter. While the fall in the services deficit recorded in previous quarters in terms of seasonally adjusted data was brought about by an increase in receipts and a flat level of expenditures, the fourth quarter witnessed a jump in expenditures. As the exceptionally high fourth-quarter figures introduced a degree of uncertainty into seasonal adjustment, moving averages were used to calculate the trend.

Chart III-17 **Contribution of various product categories to export trend growth**

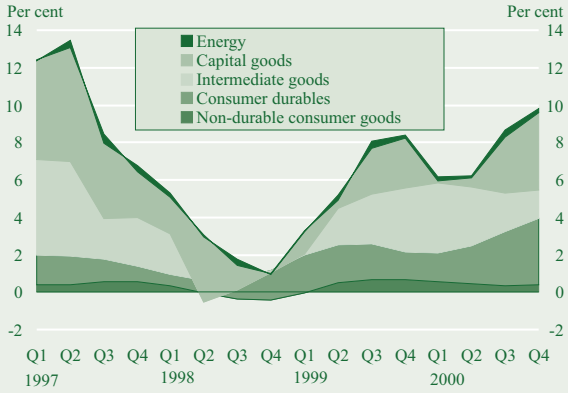


Chart III-18 **Annualised quarterly trend growth rates in the SITC-5 export categories**

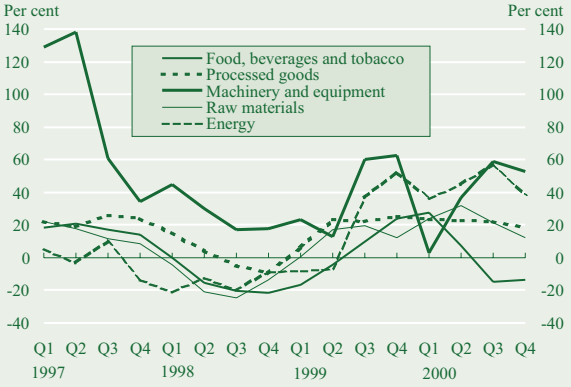


Chart III-19 **Annualised trend growth rates in various import categories**

Chart III-20 **Contribution of various product categories to import trend growth**

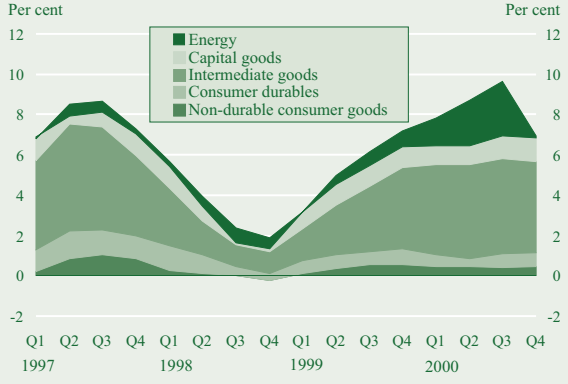


Chart III-21 **Travel balance**

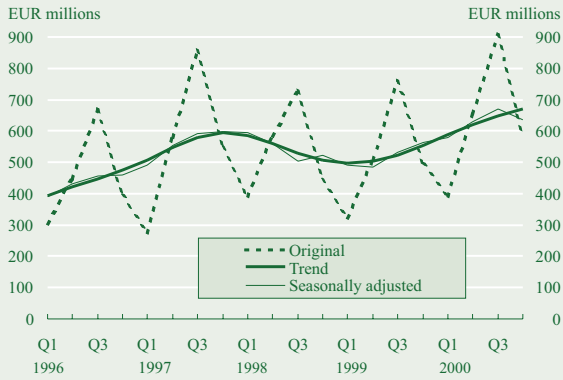


Chart III-22 **Trend of travel receipts and expenditures**

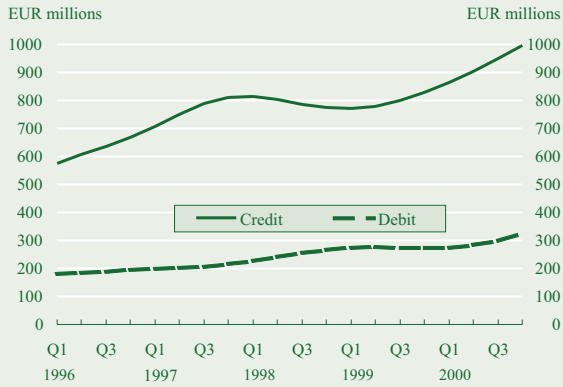
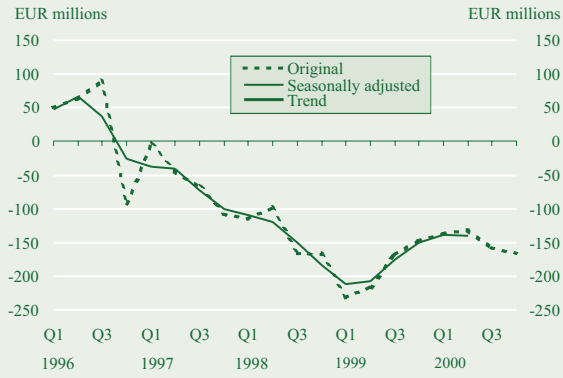


Chart III-23 **Balance of other services**



The euro-based, quarter-on-quarter annualised value index rose by 24% in respect of receipts and 22% in respect of expenditures.

A close look at the performance of the different services reveals signs of long-term improvement only in the balance of construction and installation. Although the improvement seen in 2000 in the balance of services other than tourism was apparently interrupted in the fourth quarter, receipts still rose substantially, thanks to buoyant external activity and an increase in goods exports. In respect of expenditures, one-off factors accounted for the improvement in the previous quarters, and similarly, the upsurge in fourth-quarter expenditure is also assumed to be due to a one-off factor and not a long-term change in the trend.

IV. Supply

1 Labour market

In 2000 Q4, certain labour market trends which had been observed during the year took on more definite shape. First, the economy continued to experience growth in labour use, with a faster increase in employment and a steady expansion in total hours worked. On the other hand, average weekly hours worked rose at a slower pace, but this is regarded as a temporary development. The low level of labour reserves continues to give rise to concerns about labour market tightening within the rapidly growing sections of the economy. On the other hand, the flat rates of private sector wage inflation could be seen as a sign of accommodation to the halt in disinflation. In a new development the earlier upsurge in wage inflation in the trade and repair sector started to reverse.

The public sector wage index, adjusted for the effect of the one-off wage payments to health care workers in July 2000, remained broadly at the third quarter level. This implies that there were no supplementary payments made at the end of the year to compensate for higher inflation in 2000. This is scheduled for early in 2001, but its effect on demand may have fed through to household consumption in the fourth quarter already.

1.1 Labour utilisation

From the point of view of monetary policy, the amount of labour used to produce marketed goods and services provides key information on the relationship between labour demand and supply; the public sector labour force is best analysed in terms of other indicators.

Labour utilisation can also be measured in terms of the number of employed and hours worked. The latter indicator can be regarded as more accurate, being the measure of the actual labour used in the course of production.

The household labour force survey (LFS) of the Central Statistical Office (CSO) classifies every individual engaged in any kind of income-generating activity as an employed person, regardless of the type of activity or its legal and tax implications. Thus, from the perspective of economic theory, the LFS is the most reliable source of information on private sector employment. This is because the institutional labour statistics (ILS), an alternative data source based on the survey of businesses employing over five people, only provide information on workers who have been officially registered as employees. Due to the nature of the regulatory framework in Hungary, this latter survey introduces system-

***Chart IV-1* Level of employment and the rate of change**

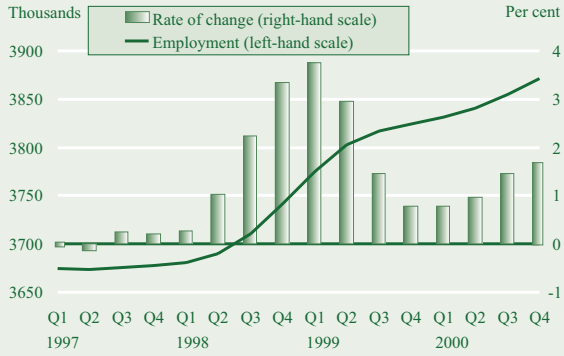
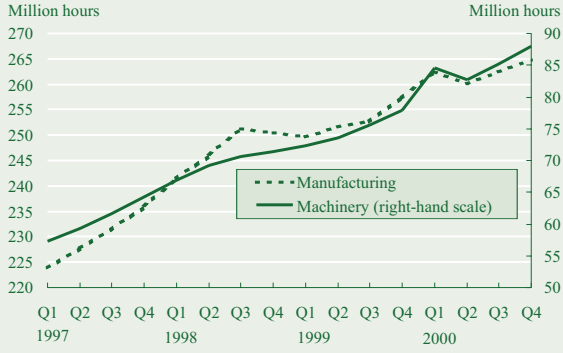


***Chart IV-2* Total hours worked in the manufacturing and machinery sectors**



atic bias into the data. In terms of the LFS, whole-economy employment growth gained momentum in the fourth quarter *(see Chart IV-1)*, up 1.4% on a year earlier, which implies a high annualised quarterly rate of 1.7%. Apparently, the slowdown in the number of employed seen in late 1999 and early 2000 was only temporary, and the rate of growth seems to be gathering pace again. This seems to be the case especially in the private sector, excluding the agricultural sector, where the number of employed people increased by 2.3% in a year-on-year comparison. Manufacturing and construction saw especially strong growth, up by nearly 5% and over 10% respectively in the fourth quarter, after removing seasonal effects. Employment figures in manufacturing can only be tracked using the ILS statistics. These statistics reflect the continuation of earlier trends, with the machinery sector and the basic metal manufacturing and metal processing sector topping the list in terms of employment growth (up by 9% and 2% respectively, year on year). There were also strong increases in respect of market services, with annualised quarterly growth rates of 3% within trade and repair, 9% within hotels and catering and 4% within the real estate and business activities sector.

The CSO's ILS survey indicates that the decrease in the number of people employed in the fiscal sector continued, even though at a somewhat slower pace. However, as will be shown below, it was not the white-collar labour force most relevant from the point of view of the private sector, with special regard to the labour demand within market services and tightening of the labour market, that was reduced by the government. It was more the number of manual workers that declined, with that of white-collar workers even increasing slightly within public services, particularly in education.

The number of total hours worked, which is a better estimate of effective labour utilisation, paints a similar picture as above. This may come as a surprise at first, as the ILS estimate for total hours worked in the private sector in the fourth quarter fell by 3.2% in a year-on-year comparison. This development, which occurred mainly because of the December data and affected all sectors, implies that that the drop in fourth-quarter labour utilisation from 851 million hours in 1999 to 824 hours in 2000 could be due to the fourth quarter number of working days being lower than a year earlier. However, in the absence of data series of sufficient length, this can only be ascertained in respect of manual labour in manufacturing.[1] Our calculations confirm that the decrease was indeed caused by the effect of the number of working days. After correction for this effect, the rise in the amount of hours worked in the machinery sector and the basic metal manufacturing and metal processing sector remains significant. Despite flat-to-falling levels in other sectors, the trend of total manufacturing hours worked continued to increase *(see Chart IV-2)*. This implies that the extensive growth in the private sector continued in the fourth quarter.

[1] Due to the calendar effect, the fourth quarter of 2000 contained four fewer working days, i.e. 6% less, than the previous year.

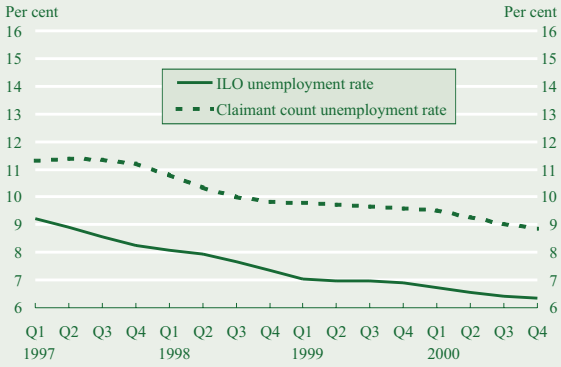
1.2 Labour reserves and the risk of labour market tightening

In recent years, Hungarian economic growth has been characterised by a wide-spread increase in labour use. However, this may be limited by a shortage of supply should the level of labour reserves be inadequate. Over the short term, businesses may respond to such a situation by intensifying the utilisation of the employed labour force by increasing the average weekly hours worked. However, such efforts may run against both 'natural' and regulatory restrictions. After the possibilities of increasing labour intensity are exhausted, competition for workers may exert steady upward pressure on real wages, which in due course may lead to rises in the price of products uncontrolled by foreign trade competition, possibly eventually slowing down the process of disinflation. Over the long term, a tight labour market tends to raise capital-intensity, and even a cutback in production is not out of question. Therefore, monitoring labour reserves and labour market bottlenecks is a crucial element of central bank analysis.

The adequacy of labour reserves can be judged in terms of the "capacity utilisation" of the potential labour force. Let us first look at the 15–74 age group, which is considered by international standards as the demographic basis of labour supply. The size of this group has been steadily declining since the mid-nineties. Within this group, the proportion of economically active persons – the actual labour supply – has been increasing since 1998. This is reflected in the activity (or participation) rate, which rose to 53.8% in the fourth quarter, approaching the level for 1994. Although this ratio is far below those typical for European countries, this does not imply that the level of available labour reserves equals (100–53.8) = 46.2%.

In the broadest sense, the reserve force of labour within the 15–74 age group consists of the non-employed, which comprise both the unemployed and the inactive sections of the population. The employment rate, which reflects the proportion of employed people, stood at 50.4% in 2000 Q4, after a steady rise since 1996. Nevertheless, it cannot be said that the proportion of labour reserves stands at 49.6% as domestic and international experience shows that the inactive, who are by definition not even present on the labour market, cannot be regarded as part of the *effective* reserve force of labour. The reason for this is that from the point of view of the central bank, the effective labour supply comprises the sections that are relatively easy to activate and that are approximate substitutes for employed people and therefore exert downward pressure on wages. Excluding the inactive section and identifying effective reserves with the unemployed, its proportion, represented by the unemployment rate, sank to 6.3% in the fourth quarter. On the other hand, several years of vigorous economic growth has already absorbed the unemployed who were easy to reactivate. This suggests that those currently unemployed cannot be fully regarded as part of the effective labour supply, because of the level of their qualifications, skills and demographic features, etc., in addition to the low geographical mobility characteristic of Hungary. The contribution of the individual groups to the effective labour supply can be estimated via microeconomic empirical research *(see Box)*.

Chart IV-3 **Labour reserves: unemployment rates***



* Based on seasonally adjusted series.

Box IV-1 Estimating effective labour reserves

From the perspective of monetary policy, the labour force is regarded as the capacity available for economic growth. We will examine if changes in employment could run up against supply-side barriers, which could trigger higher wages rises. To this end, we will track changes in labour demand and in the available *effective* labour reserves. The latter are defined as comprising non-employed people who, being close substitutes to employed people, exert downward pressure on wage growth.

Previously only international experience and economic logic helped us decide which groups of non-employed may be included with the effective reserve force of labour. The conclusion then was that labour reserves did not comprise the inactive group in general and the relatively unqualified, unskilled and/or long-term unemployed. Joint research with the Human Resources Department of the Budapest University of Economics has enabled us to produce direct empirical estimates on how "strong" the individual groups are in terms of labour supply. The following section presents our preliminary results on the classification of unemployed people according to education qualifications.

The research confirms our previous conjecture: the *probability* that groups with relatively unfavourable characteristics will receive a job is lower than average. *Chart IV-4* depicts relative probabilities for the years 1998–2000. Applying these indicators as weights to the individual groups will give a numerical estimate for the effective reserve force of labour and the unemployment rate *(see Chart IV-5)*. Our calculations show that by late 2000 the proportion of effective unemployment had sunk well below that indicated by the traditional unemployment rate. This suggests that private-sector labour demand may indeed lead to a risk of labour market bottlenecks.

Chart IV-4 **Relative probabilities of receiving a job in respect of specific unemployed groups**

Chart IV-5 **Original and effective rates of unemployment**

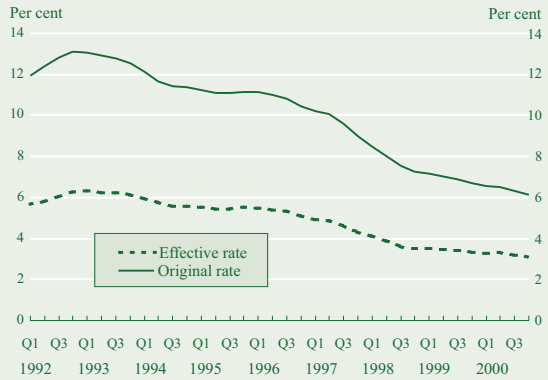
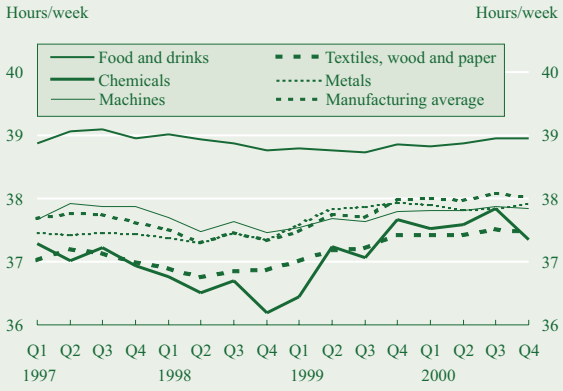


Chart IV-6 **Average hours worked** (hours/week)



As noted above, when demand for labour runs into limits in supply, businesses may respond by a more intensive utilisation of the people already employed. This is reflected in changes in average weekly hours worked, for which long data series are only available in respect of manual workers in manufacturing. The available data show that the average number of weekly hours worked has been on a steady rise since 1993. This general trend was not interrupted in the fourth quarter, although growth lost momentum and even reversed in respect of certain sectors, such as the chemical industry *(see Chart IV-6)*.[2]

1.3 Wage inflation

Our calculations suggest that in the fourth quarter, previous trends in wage inflation intensified. This means that throughout most of the private sector wage inflation decreased at a slower pace, with fourth-quarter rates remaining near the earlier rates

[2] The statistical procedure applied as a means of adjusting for the above-noted significant fourth-quarter drop in the number of working days slightly modifies our estimates for *previous* quarters. This is a "natural" consequence of the method, which leaves evaluation unaffected.

(see Chart IV-7). This is due to the interruption of the disinflation process: thanks to the flexibility of domestic wage bargaining, wages managed to accommodate to changes in the rate of inflation.

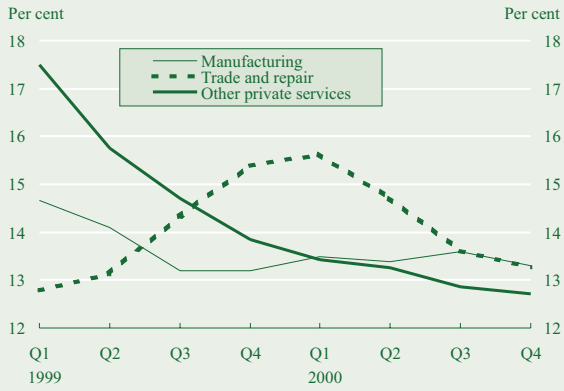
An analysis of the different branches of the private sector reveals that the divergence in wage growth seen in 2000 became even more marked during the fourth quarter. In the second half of 2000, wage indices for manufacturing and trade and repair were relatively high, while those for other market services, excluding the latter category, were low, in contrast to the indices for 1998 and 1999. This may be due to the combined effect of three developments. First, labour market tightening caused by robust manufacturing growth exerted upward pressure on the manufacturing wage index. Second, excessive demand seen within market services declined relative to 1998. Third, the jump in trade and repair wage indices may be due to measurement problems generated by the ongoing restructuring of the sector.

Within manufacturing, wages in the machinery sector and the basic metal manufacturing and metal processing sector are of interest because of the potential labour-market bottlenecks. Fourth-quarter wage inflation rates in these branches were above average, just as previously. This was partly due to above-average growth in productivity in respect of these industries and partly to labour market tightening as a result of the brisk increase in the number of employed people seen in recent years. There was an overall slowdown in the wage inflation of other market services, excluding trade and repair. As noted in the December *Report*, the trade and repair category produced exceptionally high rates of wage inflation in 2000, relative to 1998 and 1999. As noted, the current large-scale restructuring of trade services makes it difficult to evaluate changes in the price of "one unit of work". The category's wage index decreased considerably in the fourth quarter, which might imply that the nature of "the work" measured in the base period and the period under review now correspond, and that there was an easing in relatively excessive demand for labour, caused by the rapid growth in the number of employed people.

Table IV-1 shows wage inflation indices based on wage payments received on a *regular* basis as adjusted for the effect of changes in the number of hours worked. As wages always contain "fixed monthly" components which are paid regardless of the hours worked, there is an upward bias in the wage inflation indices because of the 5–6% drop in hours worked seen in the fourth quarter. The high Q4 figures could imply that wage indices declined to a lesser extent than could have been expected on the basis of the drop in the hours worked – and probably in the value produced. This is equal to deterioration in enterprises' per-unit profitability *(see more in section 3)*. However, if this was really due to the sudden drop in the number of hours worked, then it can be viewed as a temporary development.

In respect of public services, the figures in the table are appropriate as they are not distorted by the hours worked. As noted in the December *Report*, the one-off wage payment received by health-care workers in July – not incorporated into basic wages - exerted considerable upward pressure on the sector's third-quarter wage index. Due to the one-off nature of the measure, its effect has been removed from the indices. Thus, the corrected public sector indices for the fourth quarter were similar to those

Chart IV-7* Quarterly rates of wage inflation



* Annualised quarter-on-quarter indices, computed from seasonally adjusted data series.

Table IV-1* Wage inflation

Per cent

	Average for 1999	2000				Average for the year
		Q1	Q2	Q3	Q4	
Manufacturing	**16.1**	12.7	14.2	14.4	15.8	**14.3**
Trade	**14.2**	17.1	18.5	18.3	17.9	**18.0**
Other private sector services	**17.4**	12.0	12.3	12.2	15.6	**13.0**
Private sector	***15.8***	*12.8*	*13.7*	*13.9*	*15.9*	***14.1***
Public sector	**17.0**	12.1	9.7	11.2	11.5	**11.1**
Total	**16.2**	**12.6**	**12.5**	**13.1**	**14.5**	**13.2**

* Data on the private sector: wage payments received on a regular basis, adjusted for changes in hours worked. Public services: excluding one-off health-sector payments in July 2000. The National Bank's own calculations.

Chart IV-8* Average capacity utilisation in manufacturing

* Seasonally adjusted data. *Source:* Kopint-Datorg.

Chart IV-9* Share of manufacturing firms with a shortage of capacities, relative to prospective orders

* Seasonally adjusted data. *Source:* Kopint-Datorg.

Chart IV-10* Share of manufacturing firms with a surplus of capacities, relative to prospective orders

* Seasonally adjusted data. *Source:* Kopint-Datorg.

obtained for the third quarter. This implies that higher-than-expected inflation did not lead to any wage compensation at the year-end. Nevertheless, as prospective payments also tend to have an effect on household consumption, it cannot be ruled out that the payments promised for early in 2001 had an impact on demand at the end of 2000.

2 Capacity utilisation

In 2000 Q4, growth in average capacity utilisation[3] in the manufacturing industry continued at a slow pace in terms of the seasonally adjusted data, reaching its ten-year peak in this quarter *(see Chart IV-8)*. Dynamic output and export growth, which moderated somewhat relative to the first nine months, and slightly stronger investment activity were the factors at work in achieving such a high level of capacity utilisation. The utilisation of technical capacities was above average in respect of machinery and building materials manufacturing.

The relationship between technical capacities and prospective demand for the coming 12 months in terms of seasonally adjusted data reflected the continuation of the rise in the proportion of firms reporting a shortage of capacities. In a new development not seen since 1999 Q2, the fourth quarter saw a slight rise in the weight of firms expecting excess capacities. This is probably due to the fact that manufacturing firms expect slower output growth in the coming months *(see Charts IV-9 and IV-10)*.

Just as in the third quarter, the fourth-quarter share of firms reporting a shortage of capacities relative to prospective sales possibilities was high in the construction and machinery industries, predominantly affecting large exporters located in Budapest (and vicinity). Mostly machinery manufacturers were dissatisfied with the quality and technological standard of capacities.

3 Competitiveness

In 2000 Q4, the nominal effective exchange rate index of the forint depreciated by 6.1% on a year earlier, thanks largely to cross exchange rate movements – most notably the weakening of the dollar against the euro – (accounting for roughly 2%). Despite these favourable cross exchange rate movements, conducive to competitiveness, price-based indicators continued to be characterised by a trend of real appreciation, but at a rate which reflected no major change from the point of view of competitiveness. The CPI-based real exchange rate appreciated by around 1% in real terms, relative to a year earlier *(see Chart IV-11)*, which is in line with the growth in real appreciation expected over the long term. The manufacturing-price-based real exchange rate index continued to increase at a buoyant pace *(see*

[3] The survey used as the source of the above information did not cover a few large multinational companies with manufacturing operations in Hungary – which carry exceptional weight on account of their sales revenues. (The situation and Short-term Prospect of Manufacturing and Construction Industry Enterprises in January 2001, a quarterly survey of the business cycle, by Kopint-Datorg, January 2001).

Chart IV-12), with annual appreciation amounting to over 4%. This was again almost fully due to the composition effect, discussed in previous Reports. Therefore, the index from which the composition effect is removed appreciated by hardly 1% in real terms. [4]

It has been unfavourable from the aspect of competitiveness that the real depreciation in the unit labour-cost-based indicator, uninterrupted since 1995, appeared to come to a halt during the final quarters *(see Chart IV-13)*. While manufacturing investment growth slowed down and manufacturing productivity also improved at a lower rate in 2000, against the backdrop of less buoyant activity, wages in the manufacturing industry rose at a steady rate of roughly 15%.[5]

***Chart IV-11* Real exchange rate based on the CPI**

***Chart IV-12* Original and reweighted real effective exchange rates based on manufacturing wholesale prices**

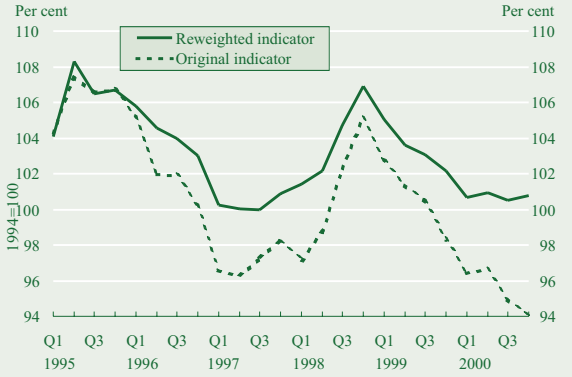
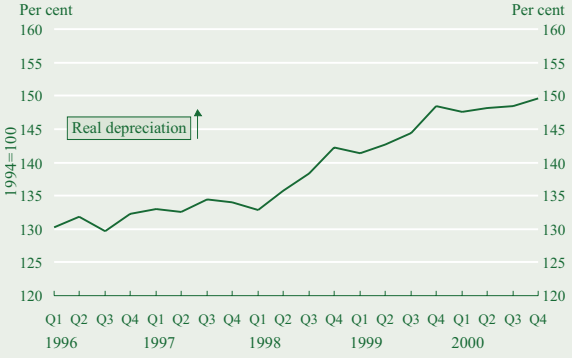


***Chart IV-13* Real effective exchange rate of the forint based on unit labour costs**

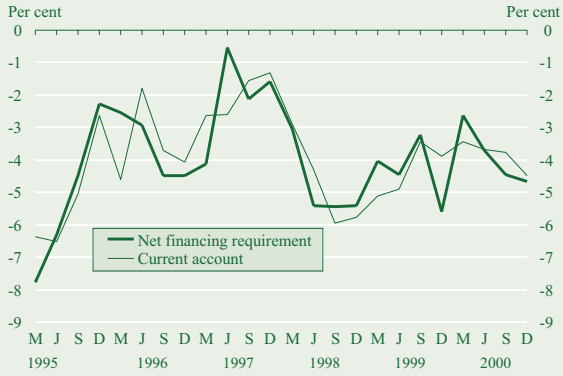


[4] As described in the December Report, the manufacturing-price-based real exchange rate, adjusted for the composition effect, applies identical weights to foreign and domestic price indices for the individual industries. This way the statistical distortion arising from the difference between the compositions of the Hungarian and the foreign manufacturing sector is removed from the index.

[5] It should be noted, however, that the slowdown in productivity per employed person was largely due to the decrease in the hours worked. (For a detailed description of changes in hours worked, *see section 1 of IV.*) However, this drop in worked hours is not reflected in the wage indices. Provided this is due to the lower adaptability of wages (presence of fixed components, etc.), then the halt in the improvement of competitiveness can be regarded as a temporary development. If, however, the underlying cause is a tightening in the labour market, then it may also reflect a lasting change in producers' profitability.

V. External equilibrium

Chart V-1 **Seasonally adjusted net financing requirement and current account deficit as a percentage of GDP***



*Net financing requirement denotes the saving – investment balance of the economy adjusted for inflation, which in turn defines a theoretical current account balance.[2]

1 Net saving position

The Hungarian economy continued to suffer from price losses seen since mid-1999, even though the terms of trade seemed to be worsening at a slower pace during the final quarter of 2000, compared with the exceptionally fast rate measured in 2000 Q3. In addition to the loss in the terms of trade, the increase in domestic demand played a gradually greater role in the 3.1 percentage points year-on-year deterioration in the balance of trade at current prices. Domestic economic agents' stronger demand and the worsening terms of trade led to a rise in the real-economy financing requirement. In addition to faster consumption growth, investment (which is relatively import intensive) also began to expand. The near-term prospect is that there will probably be a slight improvement in the terms of trade, which is expected to put a brake on further deterioration in the balance of trade.

Against the backdrop of a nominal deterioration in the balance of goods and services, the effect of profit repatriation through foreign residents' current transfers declined by 2.4 percentage points.[1] The deterioration in the trade deficit and the decrease in net profit transfers led to a 0.7 percentage points increase in Hungary's net financing requirement, amounting to about 6.3% of quarterly GDP. The trend of the GDP-proportionate deficit on the current account of the balance of payments also worsened *(see Chart V-1)*.

Disposable income increased and the striking discrepancy between the two years characterising the distribution of general

[1] As far as foreign current transfer payments were concerned, unrequited transfers had a neutral impact as a proportion of GDP (adjusted for the structure of GDP), while income transfers improved equilibrium position by over 2.4 percentage points. At the same time, cash-flow lags could have also played a role since the GDP-proportionate balance of net foreign market transfers peaked during 2000 Q3 relative to the same periods of the last few years. This may be a natural consequence of a steady expansion in foreign ownership stakes, but the effect of cash-flow time lags between the two quarters may also be a factor.

[2] The discrepancy between the published and the theoretical current account of the balance of payments stems from the fact that the Hungarian balance of payments statistics are still based on the cash-flow concept. This implies that they ignore transactions between Hungarian residents and foreign residents where there are no money flows involved. Furthermore, it may also occur that money flows that can be seen as revaluation in terms of economic theory are recorded as transactions. Another factor to blame for the discrepancy is that there may be a timing difference between real transactions and payment flows. The smaller the measured interval, the larger the relative discrepancy, i.e. the size of the difference between the data measured in terms of the accruals concept and those based on the cash-flow concept, as is illustrated by the quarterly data in the balance of payments current account and the net external financing requirement.

government[3] and private sector income[4] over the previous few quarters declined. Comparison is rendered difficult by the fact that the loss incurred as a result of natural disasters and the steady deterioration in the terms of trade in 1999 caused stronger-than-usual fluctuations in economic agents' income positions.[5] In the final quarter of 2000, the general government expanded demand,[6] which led to a 2-percentage-point rise in the public sector financing requirement as a proportion of GDP. This was accompanied by higher private sector consumption and investment spending, which, however, did not push up their net financing requirement. Retained earnings boosted companies' own resources to an extent which allowed a drop (of roughly 1.4 percentage points) in private sector demand for funds in the final quarter. Thanks to weaker profit repatriation flows, the increased spending by domestic economic agents and continuing high losses due to deteriorating terms of trade, Hungary's external financing requirement only increased by about 0.7 percentage points, at a much lower rate than that of the worsening in the balance of trade.

In 2000 Q4, household-sector disposable income grew basically at the same rate as GDP. In contrast, total household spending rose faster than income, which reduced net household financing capacity by roughly 0.5 percentage points to 2.9% (as a proportion of GDP). During the final quarter, household consumption rose at a faster pace than household disposable income. This was accompanied by stronger investment spending as a result of government subsidies encouraging home building projects. At the same time, the portion of incomes going into financial savings tapered off. Household borrowing continued to expand. This trend is also being supported by the development of money markets, which is facilitating the reallocation of households' financial assets towards a portfolio marked by a higher debt-to-income ratio.

With robust economic growth, corporate-sector[7] disposable income increased by 2.4 percentage points as a proportion of GDP in 2000 Q4. This development was due to several tempo-

[3] As in the December *Report,* the Hungarian Privatisation and State Holding Company (ÁPV Rt.) is no longer recorded in the corporate data section, but within the general government data. This is because the APV Rt. is engaged in quasi fiscal operations and is also treated by official (CSO) statistics as part of the general government. (The fact that until now the Bank did not fully rely on the official statistics in the 'savings and investment balances' was due to an absence of sufficient information.) Recently there have emerged other justifications grounded in economic theory in support of the transfer of the APV Rt. Until now, the Agency's operations were much more balanced and its expenditure was funded by its privatisation revenues. With these resources beginning to dry up, the importance of central budget reallocation has strengthened, bringing about major fluctuations in the income positions of the two types of public organisations. This may also conceal the real role of the general government in controlling demand. The consolidated combined balance shows a more balanced impact.

[4] Denoting companies and households.

[5] In the first half of the year, government receipts fell short of the projected level, simultaneously with unscheduled expenses, putting temporary upward pressure on private sector income. From the middle of the year, however, the effect of government tightening and the terms of trade led to an improvement in general government financing.

[6] Nevertheless, for the year as a whole, the general government continued to have a demand-contracting effect.

[7] The term 'corporate sector' refers to non-financial companies, financial companies and non-profit business units.

Table V-1 **Inflation-adjusted savings and investment by sectors as a percentage of GDP***

Per cent

	1998	1999					2000				
	Year	Q1	Q2	Q3	Q4	Year	Q1	Q2	Q3	Q4	Year
Gross domestic product	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**
+ net income transfers	–4.0	–2.1	–4.1	–2.6	–4.8	–3.5	–2.1	–5.8	–3.4	–2.4	–3.4
+ unrequited transfers	2.2	1.6	1.9	2.3	2.0	2.0	2.1	2.3	2.2	2.0	2.1
Disposable income**	**98.2**	**99.6**	**97.8**	**99.7**	**97.2**	**98.5**	**100.0**	**96.5**	**98.8**	**99.6**	**98.7**
– households	70.9	75.3	70.3	70.9	69.9	71.5	74.0	69.0	71.1	71.0	71.2
– corporate sector	14.8	16.0	17.0	16.6	10.2	14.8	12.0	14.9	12.9	12.6	13.1
– public sector	12.5	8.3	10.5	12.2	17.1	12.3	14.0	12.6	14.7	16.0	14.4
Final consumption	**72.4**	**77.8**	**73.2**	**72.6**	**71.9**	**73.7**	**77.1**	**72.7**	**73.4**	**73.0**	**74.0**
– household consumption	62.3	66.6	63.1	63.0	62.5	63.7	66.3	62.9	64.0	63.7	64.2
– public consumption	10.2	11.2	10.2	9.6	9.4	10.0	10.8	9.9	9.5	9.3	9.8
Gross savings***	**25.7**	**21.8**	**24.6**	**27.1**	**25.3**	**24.8**	**22.8**	**23.7**	**25.4**	**26.5**	**24.7**
– households	8.7	8.7	7.2	7.9	7.4	7.8	7.7	6.2	7.2	7.3	7.1
– corporate sector	14.8	16.0	17.0	16.6	10.2	14.8	12.0	14.9	12.9	12.6	13.1
– public sector	2.3	–2.9	0.3	2.6	7.7	2.2	3.2	2.7	5.2	6.7	4.6
Net capital transfers											
– households	0.2	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.4
– corporate sector	1.4	0.6	0.9	1.2	2.0	1.2	1.6	0.9	0.8	2.5	1.5
– public sector	–1.6	–1.0	–1.2	–1.5	–2.3	–1.5	–2.0	–1.2	–1.2	–2.9	–1.9
Investment	**29.7**	**26.5**	**29.4**	**27.9**	**30.9**	**28.8**	**27.7**	**29.6**	**29.4**	**32.8**	**30.0**
– household investment	4.2	5.2	5.2	5.8	4.2	5.1	5.6	4.7	4.5	4.8	4.9
– corporate investment and inventories	21.7	18.7	21.4	18.8	20.5	19.9	19.5	22.5	21.2	21.3	21.1
– public investment	3.8	2.6	2.8	3.2	6.2	3.8	2.6	2.5	3.8	6.7	4.0
Net foreign financing requirement	**–3.9**	**–4.7**	**–4.9**	**–0.7**	**–5.5**	**–4.0**	**–4.9**	**–5.9**	**–4.1**	**–6.3**	**–5.3**
Financing capacity of households	4.7	3.9	2.3	2.4	3.5	3.0	2.4	1.9	3.1	2.9	2.6
Corporate sector financing requirement	–5.5	–2.1	–3.5	–1.0	–8.2	–3.9	–5.8	–6.7	–7.5	–6.3	–6.6
Public sector financing requirement	–3.2	–6.5	–3.7	–2.1	–0.8	–3.1	–1.5	–1.0	0.2	–2.9	–1.3

Notes: Bank estimates, preliminary data. Due to rounding, the individual figures do not sum up to the rounded totals.
* Indicators approximate the accruals concept. Savings do not contain forint effects from exchange rate changes on household deposit and credit portfolios. Interest expenditure in the general government balance is presented using the accruals concept, and the Hungarian Privatisation and State Holding Company is part of the public sector (SNA-based deficit).
** Disposable income includes the sum of the gross domestic product for the given period and the balance of the income transfers and unrequited transfers to non-residents and by non-residents to Hungary (according to balance-of-payments statistics).
*** Gross saving = disposable income (gross, i.e. including the value for depreciation in the given year) less final consumption.

rary and contrasting factors: a) The GDP-proportionate indicator was at a low in the same period of the previous year due to a number of restrictive government measures at the time and losses incurred as a result of worsening terms of trade. Available data suggest that costs continued to increase in 2000 due to the fact that the adverse impact on corporate profitability of the deteriorating terms of trade was not offset by a comparable reduction in nominal labour costs. This is primarily attributable to internal structural effects. As some of the market participants (concurring with international expectations) did not expect world energy prices to remain persistently high, the resulting costs exceeded their expectations. At the same time, those segments of the economy which increased export volume at a robust rate were able to rely on this volume surplus to offset the loss caused by the deterioration in the terms of trade.[8] b) The level of companies' own financial assets increased as current transfers by foreign residents fell off significantly, putting upward pressure on the proportion of profits ploughed back into business. c) There was a change in the income relations between the government and the corporate sector. While in the same quarter of 1999 the government played a restricting role (due presumably to deferred payments of current and capital transfers during the year), in the final quarter of 2000, the government expanded demand, improving the financial situation of firms *(see Table V-1)*.

[8] This is suggested by the results of surveys conducted by TÁRKI Social Research Center Inc on the situation and prospects of the largest manufacturing firms.

All in all, companies were able to increase the level of their own financial assets to such an extent that the corporate sector financing requirement decreased despite the expansion in investment spending. Factors at work in this increase in investment spending at current prices include changes in the price structure pushing up expenses.[9] Corporate-sector investment volume also increased by approximately 5.5–6%. Budgetary subsidies (cf. the Széchenyi Plan) and a favourable change in the terms of trade may further increase the proportion of firms' own financial assets the near future, enabling them to maintain or possibly curb their financing requirement as a percentage of GDP simultaneously with stronger investment activity.

2 Current account and its financing

In 2000 Q4, the deficit on the current account of the balance of payments amounted to EUR 928 million, higher than the level justified by normal seasonality *(see Table V-2)*. Although the trend of the balance of services continued to improve slightly, there was still a significant deterioration in the balance of goods. At the same time, the balance of transfers followed a slightly downward trend *(see Chart V-2)*. In contrast with previous quarters, this was the result of the trend of net transfers of incomes earned on debt-type investments. On the other hand, the trend of net non-debt income transfers improved during the fourth quarter, thanks to the significantly lower-than-expected level of profit transfers in December. Thus, the prediction by the December *Report* proved correct, as the deteriorating trend of the balance of goods pushed up the annual current account deficit in nominal terms to a value nearly identical to that seen in 1999. This has been the primary influence on the position of the seasonally adjusted current account *(see Chart V-3)*.[10]

In addition to the significant deficit on current account there was a net capital outflow of EUR 123 million, linked to the items of non-debt-generating investments, while the current deficit was financed by a net capital inflow of EUR 900 million into debt-type investments *(see Table V-3)*.

In respect of *non-debt-generating* items, net equity purchases and the acquisition of ownership stakes within foreign direct investment amounted to merely EUR 104 million as a result of an inflow of nearly EUR 500 million and an outflow of EUR 400 million. However, nearly three quarters of the outflow is accounted for by the financial settlement of a MOL Hungarian Oil and Gas PLC investment in Slovakia, which had been made public some time previously. Although the remaining amount is higher than

Table V-2 **Current account**

EUR millions

	1999 Q4	2000 Q4	Change	1999 Q4	2000 Q4	Change
I Goods	–612	–1,095	–483	–2,054	–2,596	–543
Credit (exports)	5,957	7,764	1,807	20,521	27,560	7,038
Debt (imports)	6,569	8,859	2,290	22,575	30,156	7,581
2 Services	342	413	71	1,315	1,939	625
Travel, net	490	580	89	2,078	2,533	455
Other services, net	–148	–166	–18	–763	–593	170
3 Incomes	–603	–332	271	–1,557	–1,705	–149
On debt, net	–453	–120	332	–857	–883	–26
On non-debt, net	–151	–212	–61	–704	–825	–121
Wages, net	0	0	–1	4	3	–1
4 Current transfers	103	87	–16	320	442	121
Current account (=1+2+3+4)	**–770**	**–928**	**–158**	**–1,975**	**–1,921**	**55**

Chart V-2 **Real-economy transactions and the trend of the transfer balance**

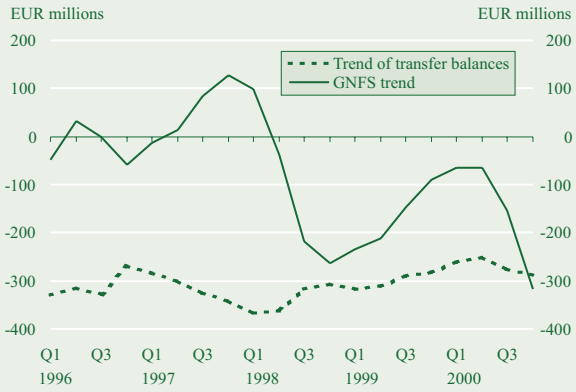


Chart V-3 **Current account**

[9] While the investment price index was nearly 1 percentage point lower than the GDP deflator in 1999, it was 1.5 percentage point higher in 2000 Q4.

[10] With the end of the fourth quarter there was a full year available for analysing the time series of the current account of the balance of payments. This enabled us to re-estimate the seasonal components and the models determining the ARIMA representation. Consequently, however, the resulting trend revision is much larger than that applied to the data included in the quarterly reports during the year. The time series model used for seasonal adjustment in respect of services other than tourism and non-debt incomes has been revised to a large extent.

Table V-3 **Financing the current account**

EUR millions

	1999. Q4	2000. Q4	Change	1999. Q1–Q4	2000. Q1–Q4	Change
(1) Current account deficit	**770**	**928**	**158**	**1,975**	**1,921**	**–55**
(2) Total financing	**648**	**774**	**126**	**2,200**	**1,705**	**–495**
– non-debt (=2b.1+2c.1)	**639**	**–123**	**–762**	**2,457**	**474**	**–1,984**
– debt (=2a+2b.2+2c.2)	**9**	**897**	**888**	**–257**	**1,232**	**1,489**
(2a) NBH and the government (=2a.1+2a.2)	–399	273	672	–1,023	–343	679
(2a.1) Debt transactions	570	562	–8	1,219	815	–404
– o/w government securities	412	313	–99	601	1,132	531
(2a.2) International reserves	–969	–288	680	–2,242	–1,158	1,083
(2b) Private sector (=2b.1+2b.2)	324	287	–37	1,588	517	–1,072
(2b.1) Equity transactions	240	–226	–466	1,141	–664	–1,806
– Credit institutions	178	–32	–209	182	28	–154
– Corporate sectors	62	–194	–257	959	–692	–1,651
(2b.2) Debt transactions	84	513	429	447	1,181	734
– Credit institutions	135	100	–35	116	1,236	1,120
– Corporate sectors	–51	414	464	331	–55	–386
(2c) Direct investment (=2c.1+2c.2)	723	214	–509	1,635	1,532	–102
(2c.1) Equity capital	399	104	–296	1,316	1,138	–178
– in Hungary	503	497	–6	1,552	1,759	207
– Abroad	–104	–394	–290	–236	–621	–385
(2c.2) Intercompany loans	324	110	–214	319	394	76
– in Hungary	312	113	–199	321	376	55
– Abroad	12	–3	–15	–2	18	21
(3) Capital account	**69**	**122**	**53**	**31**	**298**	**267**
NEO (=1–2–3)	**52**	**32**	**–21**	**–256**	**–83**	**174**

the usual quarterly averages, it is by no means unprecedented. Net portfolio equity purchases abroad comprised an outflow of EUR 226 million, on an approximately equal measure with the figures for the previous two quarters. This involved somewhat lower net equity purchases abroad by Hungarian residents (EUR 30 million), while foreign investors sold off Hungarian shares of EUR 200 million in net terms during the quarter. A look at the distribution of securities transactions[11] reveals that financial enterprises (above all, insurance companies and pension funds) were the largest domestic equity purchasers, but non-financial firms also played a significant role. The factors to blame for the ongoing withdrawal of foreign capital include the general lack of confidence in East European stock markets, weak third-quarter business performance and the uncertainty surrounding Borsodchem. This latter affair even marred the reputation of Hungarian financial supervision, which had enjoyed exceptionally high esteem in Eastern and Central Europe.

In respect of *debt*-type financing, medium-term borrowing by the National Bank and the Government had a neutral balance, as the EUR 400 million issue in November was largely offset by repayments in October and December. Foreigners bought government securities amounting to EUR 313 million in net terms, proving that it is not the Hungarian capital market as a whole but only the equity market that foreign residents have become reluctant to invest in. Another favourable development is that growth was stronger at long maturities than at short maturities. Alongside a net inflow of EUR 250 million into short portfolio and other investments, transactions affecting the foreign exchange reserves increased claims on non-residents by EUR 288 million (including EUR 130 million of intervention-type foreign exchange purchases).

Net private sector borrowing amounted to over EUR 500 million in 2000 Q4, of which credit institutions accounted for EUR 100 million. This fell far short of the increase in direct borrowing abroad. On the whole, corporate sector borrowing during the quarter amounted to over EUR 400 million. In respect of intercompany loans, there was a net capital inflow of EUR 110 million during the quarter, involving almost exclusively subsidiaries established in Hungary.

The capital account, comprising transactions in unrequited capital transfers, non-produced and non-financial assets, showed a surplus of EUR 122 million in the fourth quarter.

3 International investment position

As a result of the high deficit on the current account of the balance of payments, there was a shift in the net international investment position, pushing up net foreign liabilities from EUR 30.5 billion at end-September to EUR 31.3 billion at end-De-

[11] Comparison is made difficult by the fact that in respect of equities only securities traded on the stock exchange are recorded in the securities statistics, whereas the balance of payments also includes the turnover in OTC markets. Furthermore, the statistics on securities do not differentiate between transactions in terms of direct investment and portfolio investment.

cember *(see Table V-4)*. Net foreign liabilities in the form of non-debt elements remained unchanged, due basically to cross-exchange-rate and stock price changes. By contrast, debt-type net foreign liabilities rose from EUR 11.5 billion to EUR 12.2 billion *(see Chart V-4)*. Net foreign debt calculated exclusive of foreigners' forint-denominated government security holdings and intercompany loans rose to EUR 6.3 billion by the end of the fourth quarter. The level of international reserves rose to EUR 12.1 billion. The relatively small increase can be attributed to cross exchange rate changes due to the strengthening of the euro (in November and December).

In respect of *non-debt* foreign assets, Hungarian residents' direct investments abroad excluding intercompany loans rose to EUR 1.9 billion. The relatively low rise in the stock of outward FDI despite substantial direct investments abroad can be attributed to the fact that the majority of investments are accounted in dollars, their original denomination. Thus, despite the large-scale Slovakian investment by MOL, FDI rose by only EUR 160 million due to the weakening of the dollar against the euro. The level of foreigners' portfolio equity investments rose to approximately EUR 250 million. Foreigners' stock of FDI in Hungary exclusive of intercompany loans amounted to EUR 18 billion at the end of the fourth quarter, while their portfolio equity holdings fell from EUR 3.6 billion to EUR 3.2 billion. The stock exchange index dropped by 1,400 points to below 6,900 points from early October to late November, rising again by nearly 1,000 points in the course of December. The plunge in stock market prices account for roughly EUR 200 million of the total decrease in fourth-quarter equity holdings.

The two key factors in the increase of *debt*-type net foreign liabilities were the decline in the stock of financial derivatives included within the portfolio claims on foreign residents and the increase in the level of corporate sector direct borrowing.

Total debt-type investments (excluding forint-denominated government securities and intercompany loans) constitute net foreign-exchange-denominated foreign debt. This debt rose from EUR 6 billion at the end of the third quarter to 6.3 billion, largely as a result of the pick-up in the corporate sector's direct borrowing abroad. As the net foreign debt of the Bank and the Government remained virtually unchanged, claims on foreign residents for the public sector as a whole exceeded liabilities *(see Table V-5)*. Gross foreign debt rose to EUR 26.9 billion, with the private sector's share exceeding that of the public sector for the first time.

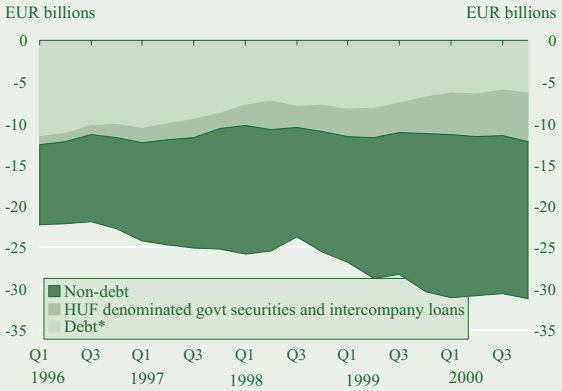
Table V-4 **International investment position**

EUR billions

	1999	2000	
	Dec.	Sep.	Dec.
Net international investment position (=1–2)	**–30.4**	**–30.5**	**–31.3**
– non-debt (=1a.1+1b.1–2a.1–2b.1)	**–19.1**	**–19.0**	**–19.0**
– debt (=1a.2+1b.2+1c+1d–2a.2–2b.2–2c)	**–11.4**	**–11.5**	**–12.2**
(1) Foreign assets (=1a+..+1d)	**19.1**	**23.0**	**23.0**
(1a) Direct investment abroad	1.6	2.0	2.2
(1a.1) Equity capital	1.4	1.8	1.9
(1a.2) Other capital (intercompany loans)	0.2	0.2	0.2
(1b) Portfolio investment	1.2	2.1	1.7
(1b.1) Equity securities	0.1	0.2	0.2
(1b.2) Debt securities	1.2	1.9	1.4
(1c) Other investment	5.6	6.9	7.1
(1d) International reserves	10.8	12.0	12.1
(2) Foreign liabilities (=2a+..+2c)	**49.6**	**53.6**	**54.2**
(2a) Direct investment in Hungary	19.1	20.7	21.4
(2a.1) Equity capital	16.2	17.4	18.0
(2a.2) Other capital (intercompany loans)	2.9	3.3	3.4
(2b) Portfolio investment	16.9	16.4	16.2
(2b.1) Equity securities	4.3	3.6	3.2
(2b.2) Debt securities	12.6	12.8	13.0
(2c) Other liabilities	13.5	16.5	16.7
MEMORANDUM ITEMS			
(M) Government securities held by foreigners	1.7	2.5	2.8
Gross foreign debt* (=2b.2+2c–M)	**24.4**	**26.8**	**26.9**
Net foreign debt* (=2b.2+2c–M–1b.2–1c–1d)	**6.9**	**6.0**	**6.3**

* Excluding non-Hungarian residents' holdings of government securities and intercompany loans.

Chart V-4 **Components of net international investment position**



* Excluding government securities held by foreigners and intercompany loans.

Table V-5 **Composition of foreign debt* by sectors**

	December 1999		September 2000		December 2000	
	EUR billions	%	EUR billions	%	EUR billions	%
(1) Gross foreign debt (=1a+1b)	**24.4**	**100.0**	**26.8**	**100.0**	**26.9**	**100.0**
(1a) NBH and government	13.4	54.9	13.6	50.8	13.3	49.3
NBH	9.8	39.9	9.9	36.7	9.2	34.1
Government	3.7	15.0	3.8	14.1	4.1	15.2
(1b) Private sector	11.0	45.1	13.2	49.2	13.6	50.7
Credit institutions	5.5	22.6	6.3	23.3	6.1	22.8
Corporate sector	5.5	22.5	6.9	25.9	7.5	27.9
(2) Net foreign debt (=2a+2b)	**6.9**	**100.0**	**6.0**	**100.0**	**6.3**	**100.0**
(2a) NBH and government	1.3	19.3	–0.2	–3.6	–0.2	–3.0
NBH	–1.9	–26.8	–3.5	–59.1	–3.9	–61.2
Government	3.2	46.1	3.3	55.5	3.7	58.2
(2b) Private sector	5.6	80.7	6.2	103.6	6.5	103.0
Credit institutions	2.0	28.4	3.1	51.2	3.1	48.8
Corporate sector	3.6	52.3	3.1	52.4	3.4	54.2

* Excluding government securities held by foreigners and intercompany loans.

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QUARTERLY REPORT ON INFLATION

March
2001

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„The Quarterly Report on Inflation" is published by the National Bank of Hungary with the aim of providing the general public with regular information on the current and expected state of inflation as well as the Bank's interpretation of macroeconomic developments determining inflation. Wider access to information on monetary policy objectives is expected to lead to a better understanding of the Bank's policy responses.

The goal of this publication is to describe and interpret the developments of the preceding quarter.[1]

✧ ✧ ✧

[1] The previous issues of the "Quaterly Report on Inflation" are available on the home page of the National Bank of Hungary.

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Quarterly report on inflation

September 2000

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Summary

The goal of the National Bank of Hungary is to achieve price stability and a sustainable decline in inflation. The predictability and moderate interest rates associated with a low inflation are both factors which foster long-term, rapid economic growth. A crawling peg exchange rate regime is the main instrument which is used to help achieve the inflation target. Such a regime facilitates the development of a nominal path which does not endanger the country's external balance, while simultaneously ensuring convergence of the domestic inflation rate towards the level of Hungary's main trading partners.

In January 2001 the consumer price index (CPI) stood at 10.1%, reflecting a slow decline relative to 2000 Q3. The annual core CPI calculated by the Central Statistical Office (CSO) was 9.7% in January, while the National Bank's core index rose to 10.5%. The inflation differential relative to the euro area has hovered in the 7.5–8% range for the past six months. For a considerable time economic policy did not respond to the temporary interruption in convergence by changing the nominal path of the exchange rate. The rate of devaluation has not been cut by the Government or the central bank for one year, since April 2000, because the economic shocks that fueled inflation last year primarily affected the supply side of the economy.

High inflation has resulted from a combination of several factors. The main factor continued to be food and energy prices. In 2001, food and crude oil prices are expected to increase at a much slower pace than last year, but the long-term impact of last year's price rises will only allow the more favourable development to be reflected in the CPI in the second half of the year. At the same time, imported inflation is expected to have a favourable impact on this year's rate of inflation. Both the weakening of the dollar against the euro and slower growth in the euro area may exert downward pressure on the rate of imported inflation. In addition, subdued rises in regulated prices will also support the disinflation process.

The rate of inflation *in industrial goods* prices, which are most directly influenced by exchange rate policy, fell short of the average rate for the consumer basket, in accordance with previous trends. However, there was a slight increase at year-end, due to an acceleration in imported inflation in this category, as the industrial goods price index of the euro area has been rising steadily since September. Faster increases in prices for market services exert lasting upward pressure on the price level. The gap between the inflation rates for services and industrial goods rose to 8% in January. The factors to blame for the doubling of this divergence over the past 1½ years include a long-term pick-up in consumer demand, which has enabled the non-traded services sector to raise prices. At the same time, a tighter labour market has also exerted increasingly strong pressure on costs in the services sector, where the cost-side impact of nominal wage increases is not being offset by productivity growth similar to that seen in the manufacturing sector. Nevertheless, explanations based on differences in economic cycles and productivity rates can only partly account for the significant increase in the gap between these inflation rates. We believe that prices have increased at such high rate in the services sector due to the inertia generated by last year's cost shock, as this sector is not disciplined by foreign competition. Hence, this price increase can be regarded as a secondary effect of last year's inflationary shock. However, mone-

tary policy response to secondary effects differs from that to original effects. As far as the original supply shocks are concerned, a great price has to be paid in terms of output loss if their temporary upward pressure on the price level is to be alleviated. Therefore, most central banks partly accommodate these effects (e.g. the energy price shock created inflationary pressure in every developed country). In respect of secondary inertial effects, however, central banks make an effort to mitigate them by tightening monetary conditions if necessary.

Monetary policy can primarily influence the nominal path of the economy through the exchange rate path. The Government and the central bank agreed to cut the forint's monthly rate of devaluation to 0.2%, effective as of April 1, 2001. This will bring down the size of pre-announced devaluation from 4% last year to 2.7% for the year as a whole. This reduction was made possible by the fact that those factors unrelated to monetary policy which exerted upward pressure on inflation in 2000 are expected to have a favourable impact on the inflation path this year. In addition, the tightness of the labour market and the inertial effects clearly affecting the trends in services prices justify tightening monetary conditions so that the reallocation of labour takes place on the lines of efficiency requirements, rather than inflation-boosting wage competition.

GDP growth in 2000 Q4 continued to decelerate, slowing to 4.2% according to preliminary figures. The driving force behind growth continued to be external demand (with export growth of 25% of GDP). Domestic absorption also contributed to the expansion in GDP, with household consumption and investment up by 4.5% and 8.4%, respectively. The rise in domestic absorption entailed a higher demand for imports, which rose by 26.8% as a proportion of GDP. Although the terms of trade deteriorated at a slower pace in the final quarter (2.4%), the GDP-based[1] deficit increased in nominal terms. Altogether, changes in net exports decreased GDP growth by 1.7%. As noted in the December Report, the expansion in domestic absorption was not commensurate with the acceleration in import growth, assuming that there was no upsarge in the economy's import requirement. Higher import growth is being attributed to a rise in inventories, and for the time being it remains unclear whether or not the higher import requirement is associated with a prospective increase in domestic demand or in exports.

The economies of our main trading partners are expected to slow down. Nevertheless, fourth-quarter export figures did not reflect this downturn, with export growth up on the previous quarter. Demand for Hungarian products was still highest in CEFTA countries, with exports to that area growing at a higher twelve-month rate (39%) than those to both developed countries (26%), and EU countries (24%). For the first time since the Russian crisis, exports to CIS countries also picked up in the fourth quarter.

In terms of the components of domestic demand, household consumption was shaped by one-off factors. Higher-than-expected inflation led to one-off wage compensations in the budget sector, and retroactive pension payments in December. These benefits involved groups of consumers with a low marginal propensity to save. Annual growth in operational income rose from 1.8% to 4.5%, and annual consumption growth from 3.3% to 4.5%, relative to the previous quarter. This considerable one-off rise in income did not push up the gross saving rate (10.6% as a percentage of operational income). As in previous quarters, the financial saving ratio (3.4%), an element of gross savings, continued to decline. The year-on-year household investment rate rose by 0.7 percentage points to 7.4%, thanks primarily to stronger spending on home building projects.

Following a mid-year slowdown, investment activity began to pick up in 2000 Q4, with the whole-economy rate up by 8.4% in real terms. An analysis according to income holders reveals that the volume of public-sector investment grew by 10%, similar to the previous quarter. Private-sector investment grew at a lower rate of around 7% in real terms, as a result of 5–6% growth in the corporate sector and the strong investment activity of households. Corporate sector invest-

[1] Exports and imports according to the National Accounts.

ment growth still fell short of the level expected based on industrial output, domestic sales of investment goods, new orders and the persistently high (80%) rate of capacity utilisation.

Against the backdrop of a fluctuating demand effect across the different quarters, for the year as a whole, general government restricted aggregate demand by 0.3% of GDP. The better-than-projected position was brought about by the automatic stabilizer, as fiscal receipts were partly increased by stronger-than-projected economic growth and higher inflation. The extra revenues were partly used during the year to make supplementary wage payments to health care and social sector workers in compensation for the unexpected inflationary developments. Pensions were also raised with a retroactive effect. All in all, transfer payments to households remained unchanged in real terms for the year as a whole. As far as the expenditure structure is concerned, the rise in the proportion of investment projects is a welcome development.

As indicated by the relatively low investment activity in the corporate sector, economic growth has not yet been hampered by tight capacities. Nevertheless, potential labour force utilisation continued to rise and the unemployment rate fell to 6.3%, simultaneously with an increase in labour intensity (implied, for instance, by the rise in the hours worked). Demand pressure on the labour market was eased by a further rise in the participation rate (at 53.8% in 2000 Q4). Retroactive wage corrections in the final quarter make the interpretation of wage inflation indices somewhat difficult. Private sector wage inflation is estimated to have increased by 13% in the fourth quarter, identical to that seen in the third quarter. The adverse impact of wage increases on competitiveness was offset by higher productivity within the manufacturing sector. However, there was an interruption in the steady improvement of unit wage cost real exchange rate indices seen in previous years.

The fourth quarter saw an increase in the economy's external financing requirement, leading to a year-on-year rise of 0.7% of GDP in borrowing abroad. The deterioration in the terms of trade accounts for 1.6% of the 6.3% net external financing requirement as a proportion of GDP. As the increase in trade data registered in the customs statistics is only reflected in the balance of payments after a time lag, the current account deficit based on balance-of-payments statistics painted a slightly more favourable picture than the external financing position. In 2000 Q4, the deficit on current account amounted to EUR 928 million. The current deficit was primarily financed by debt-type investments, comprising EUR 313 million in net government security purchases by non-residents and EUR 500 million in private-sector borrowing. It was accompanied by a net capital outflow of EUR 123 million, as FDI outflow exceeded the inflow of investments into Hungary.

A sectoral analysis of the external financing requirement reveals that the corporate sector improved its net position, even though firms' income positions have been affected by worsening terms of trade, and the investment spending to GDP ratio has also increased. At the same time, the fact that profit repatriation did not take place on such a large scale in December as in previous years counterbalanced the aforementioned effects. In line with the trend seen in previous quarters, households continued to reduce their net saving position (by 0.6% of GDP). In addition, despite tight fiscal policy for the year as a whole, the different timing of expenditures relative to the previous year exerted upward pressure on the public-sector financing requirement in the final quarter.

The strengthening of the inertial components of inflation and the development of labour-market bottlenecks made it necessary to tighten monetary conditions. Higher inflation in 2000 resulted in tighter monetary conditions even without a cut in the rate of devaluation. However, short-term indices, removing the base-period effect of the inflationary shock experienced in 2000 Q3, suggest that real appreciation has been on a steady decline since October, amounting to 2.2% in January 2001. This called for further tightening, leading the Government to announce a further cut in the rate of devaluation in December, to become effective on 1st April, 2001.

Since late October, when interest rates were raised by 100 basis points, the central bank has made two 25-basis-point cuts in its benchmark rates. The interest rate premium has been relatively stable of late, fluctuating around 300 basis points. The greatest influence on Hungarian interest rates since end-November has been the downward shift in the yield curve within the euro area. The weakening of the dollar against the euro and slower growth foreshadow an easing in the ECB's monetary policy. The factors behind falling forint yields include to a certain extent the decrease in the expected devaluation rate. As a result of these effects, forint yields at the one-year maturity dropped to the level (10.7%) seen before the October interest rate hike. According to the Reuters poll on inflation, this implies an annual real interest rate of 3%.

Yields also fell at the medium-to-long end of the yield curve. In effect, the decline of long-term yields on forint investments followed the shifts in the euro yield curve, whereas medium-term yields fell at nearly double the rate for euro yields. The likely cause of this is the decline in the required risk premium. In the period December to January, investors' confidence in emerging countries improved significantly, in contrast with the previous quarter.

The fourth quarter witnessed low demand for forint conversion, despite substantial inflows of interest-rate-sensitive capital. This capital inflow, mainly into government securities and foreign currency lending to companies, was offset by a high deficit on the current account of the balance of payments, low net FDI inflow and equity sales by foreign residents. The position of the forint's exchange rate within the trading band reflected low demand for conversion in the fourth quarter. From October to December, the exchange rate fluctuated in the 30–50 basis point range, off the strong edge of the band. Then, from end-January 2001, the rate returned to the strong edge, causing the central bank to intervene on several occasions. It was only with the escalation of the Turkish financial crisis after February 20th that the exchange rate shifted slightly from the strong edge of the band.

Broad money aggregates (M3 and M4) continued to grow at a slower pace in real terms in 2000 Q4. This was partly due to the continued downward trend in the financial saving rate. A fourth-quarter pick-up in both household consumption and corporate investment resulted in higher demand for liquid assets, which in turn brought about a rise in narrow money (M1) growth in the final quarter.

Main macroeconomic indicators

	1999				2000			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	Growth rate (at constant prices) Same period of previous year = 100							
GDP*	3.4	3.8	4.5	5.7	6.6	5.8	4.5	4.2
Of which: domestic absorption	5.3	4.2	2.4	4.8	5.7	3.6	5.0	5.8
– final consumption	4.3	4.3	4.1	3.6	3.0	3.2	3.0	4.1
= household consumption	4.5	5.0	4.6	4.4	3.3	3.5	3.3	4.5
– investment	8.0	3.9	–1.4	7.4	12.8	4.7	9.8	9.2
= fixed investment	5.7	6.1	3.6	7.5	7.0	7.2	2.2	8.4
Exports (GDP)	9.5	9.8	13.6	18.9	21.1	21.0	20.0	25.0
Imports (GDP)	12.9	10.2	9.3	16.6	18.6	16.4	20.6	26.8
Real effective exchange rate index**								
On CPI basis	2.6	0.1	–3.5	–5.8	–3.1	–1.0	–1.2	–1.1
On PPI basis	5.7	2.6	–1.8	–6.4	–6.1	–4.8	–5.5	–4.3
On unit labour cost basis (on value-added basis)	6.4	5.1	4.4	4.4	4.4	3.9	2.8	0.8
On unit labour cost basis (on gross output basis)	9.0	6.1	6.9	7.0	9.7	12.1	11.7	9.8
Deficit	*As a percentage of GDP*							
General government deficit (cash flow basis))***	–9.5	–5.9	–4.4	–2.9	–4.5	–3.9	–2.5	–4.9
General government primary balance***	–1.5	0.1	1.8	2.7	1.3	1.6	2.6	–0.5
	EUR billions							
Current account balance	–0.5	–0.6	–0.1	–0.8	–0.4	–0.5	–0.1	–0.9
Foreign direct investment (net)****	0.3	0.3	0.3	0.7	0.2	0.7	0.4	0.2
Savings rate[+] (%)	8.4	6.5	6.9	8.4	6.8	6.0	7.6	7.1
Unemployment rate [++] (%)	7.4	6.9	7.0	6.5	6.7	6.5	6.3	6.0
Wage inflation [+++] (Same period a year earlier = 100 %)	16.4	16.2	16.1	16.0	12.6	12.5	13.1	14.5
Net average per capita income in real terms[++++] (Same period a year earlier = 100%)	5.0	5.0	3.6	3.8	2.1	3.2	2.8	3.5

* These entries are partially based on Bank estimates.
** Positive figures indicate real 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.
**** Including intercompany loans.
[+] Net financial saving of households as a percentage of total household income (**not** including the revaluation total due to exchange rate changes and other factors).
[++] Based on the labour-market survey of the Central Statistical Office, number of unemployed people as a percentage of the active population; seasonally adjusted data.
[+++] Wage inflation as calculated by the National Bank, see Report of June 2000.
[++++] National Bank estimate of net earnings of employees in companies employing at least five persons and for the entire fiscal sector, taking into account the effect of income tax changes.

Main monetary indicators

	1998				1999				2000			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	Percentage changes on a year earlier											
Inflation (CPI)**	16.4	14.2	12.5	10.3	9.3	9.1	10.9	11.2	9.6	9.1	10.3	10.1
Producer price index**	13.5	11.6	10.4	7.1	4.9	4.3	4.8	8.2	9.9	11.6	12.8	12.4
Devaluation rate of the forint's central parity	12.9	12.2	11.4	10.3	9.4	8.4	7.5	6.5	5.9	5.0	4.3	4.0
	*Real growth of monetary aggregates** Percentage changes on a year earlier*											
M0	1.7	3.3	3.7	5.8	8.5	7.9	3.9	11.5	6.2	5.1	6.0	–1.5
M1	6.7	9.1	7.9	6.1	7.1	6.3	5.6	6.8	6.9	7.6	5.4	1.6
M3	2.3	4.0	4.6	4.4	8.0	7.1	5.0	4.3	5.0	4.2	3.0	2.3
M4	10.0	9.8	9.4	9.4	9.1	9.0	7.7	6.9	6.6	6.5	4.7	4.1
	*Real growth of the stock of lending by financial institutions** Percentage changes on a year earlier*											
Corporate sector, foreign + domestic	13.1	14.5	16.4	11.2	13.4	10.8	7.0	13.4	17.3	22.6	24.0	23.1
Corporate sector, domestic	14.5	15.5	15.6	9.9	11.0	7.2	3.5	11.3	15.7	20.7	23.3	19.5
Household	–11.4	–2.4	2.4	0.8	11.6	14.0	17.8	20.4	28.0	30.6	30.8	33.1
	*Interest rates **											
Reverse repo/two-week deposit***	18.75	18.00	18.00	16.75	16.00	15.25	14.75	14.25	11.25	11.00	10.75	11.75
90-day Treasury bill	18.65	17.33	19.06	16.10	15.68	14.74	14.07	12.44	10.63	10.50	10.75	11.58
12-month Treasury bill	18.70	17.32	18.96	15.88	15.61	14.77	14.17	12.33	10.42	10.42	10.71	11.02
3-year Treasury bond	17.42	16.31	18.00	14.18	14.01	14.03	13.45	10.75	9.09	9.43	9.95	9.73
Budapest Stock Exchange (BUX)	8,656	7,806	4,571	6,308	5,490	6,486	6,747	8,819	10,000	8,318	8,270	7,850
Interest rate premium (bsp)****	364	363	674	533	531	551	551	426	309	227	208	307
	Conversion											
Conversion, EUR millions	2,253	850	–1,996	–175	313	239	1,211	1,043	1,466	79	815	128
Banking sector net foreign borrowing,† EUR millions*	854	231	–617	–158	7	–173	151	312	707	8	464	68
Corporate sector net borrowing, †† EUR millions*	384	–24	209	579	113	766	393	335	–186	–227	–269	329

* Based on methodology considerations, the Bank has retroactively revised the monthly balance of payments accounts, as well as certain entries for foreign-related assets and liabilities published for 1995–1999.
** At the end of the period, in respect of government securities, benchmark yields of the State Debt Management Centre.
*** The maturity of the reverse deposit facility was reduced from one month to two weeks as of January 8, 1999.
**** Interest rate premium: excess yield on three-month T-bill investment over the devaluation rate and foreign interest rates. The current devaluation rate was modified upon official announcement of the change.
† Excluding privatisation revenues.
†† Including inter-company loans.

I. Inflation

Disinflation was interrupted during the first half of 2000, as is clearly illustrated by the turnaround in the 12-month trend. Following a slight third-quarter rise, the *consumer price index* stabilised above 10%, standing at 10.1% in January 2001. The annual core inflation index published by the Central Statistical Office (CSO) was 9.7% in January, while the core index calculated by the National Bank stood at 10.5%. This means that the latter index has crept back up to the level seen two years ago.

Industrial goods and *market services* prices are a key focus of monetary policy. The former conveys information on the effectiveness of the transmission mechanism of exchange rate policy and the fulfilment of the nominal anchor function. The latter category reflects on the credibility and sustainability of exchange-rate-based disinflation.

In keeping with previous tendencies, year-on-year inflation in *industrial goods,* directly influenced by the exchange rate of the forint, remained low, at 5.1% in January, below the average rate for the consumer basket, thus exerting downward pressure on the CPI measure of inflation. At the end of 2000, prices started to gather pace in this category, enlarging the difference from the nominal devaluation path of the forint above the usual rate. The factor at work here was the acceleration of imported inflation in respect of this category, with the euro-area industrial goods price index climbing steadily ever since September.

Another downward pressure on the level of consumer prices was the fact that *centrally controlled prices* rose below the average rate in a year-on-year comparison.

Since May 2000 the 12-month rate of price inflation in *market services* has been rising at a steadily faster pace, gaining momentum directly from external factors, such as energy and food price shocks. At the same time, the most powerful driving force behind the steady climb experienced for more than six months now is the inertia of inflation expectations. This means that economic agents in this sector view the interruption of the downward trend in inflation not merely as the result of one-off exogenous shocks, and they tend to expect an unfavourable turn in the trend of disinflation. As suggested by our analysis below, the food price shock has in effect been completely, and the energy price shock partially, absorbed by the inflation process in Hungary. Therefore, disinflation is expected to resume in the near term, reining in the price level of market services as well, even if after some lags.

The upsurge in *food prices* has generated major inflationary pressure, driven primarily by a considerable rise in agricultural goods prices, due to exogenous factors. The *market* determined price level of *household energy* soared over the past year. How-

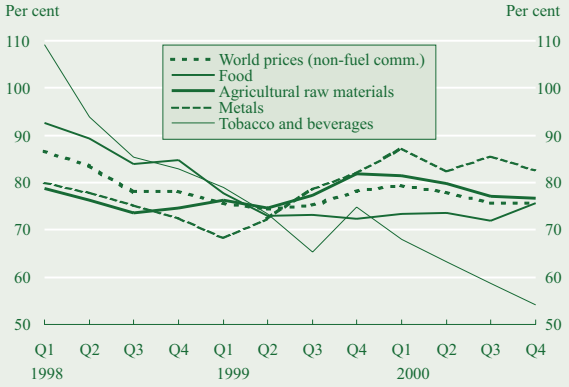
Table I-1 **Inflation rate of different goods and services***
Relative to same month a year earlier

Per cent

	Weight in CPI	1999	2000						2001
		December	March	June	September	October	November	December	January
Consumer Price Index (CPI)	**100.0**	**11.2**	**9.6**	**9.1**	**10.3**	**10.4**	**10.6**	**10.1**	**10.1**
Of which:									
Industrial products, excluding food, alcohol, tobacco and petrol	26.7	6.5	5.2	4.3	4.7	4.7	4.8	4.9	5.1
Petrol	4.9	37.8	36.7	33.4	25.9	26.7	24.2	15.2	5.9
Non-regulated household energy prices	1.3	16.5	12.7	17.6	24.4	29.2	33.2	34.0	32.6
Food	19.1	5.4	5.6	6.4	15.3	14.1	14.3	13.6	15.2
Regulated prices	18.0	17.6	10.9	9.4	6.6	7.0	7.7	7.6	7.7
Of which: energy	7.3	6.2	5.1	5.5	7.9	8.8	8.8	8.8	8.3
services	9.0	18.7	8.8	5.6	5.8	5.9	6.9	6.9	7.2
Market services	20.6	10.8	10.2	10.3	11.4	11.9	12.1	12.5	13.2
Alcohol and tobacco	9.4	10.6	11.7	10.5	10.7	11.2	11.1	11.3	11.2
Core inflation	89.9	8.8	7.5	7.0	9.4	9.6	9.7	9.8	10.5
Depreciation of the nominal effective exchange rate		2.7	4.1	6.2	5.6	5.4	6.3	5.7	4.5
Pre-announced nominal devaluation of the forint		6.7	6.0	5.1	4.4	4.3	4.2	4.0	4.0

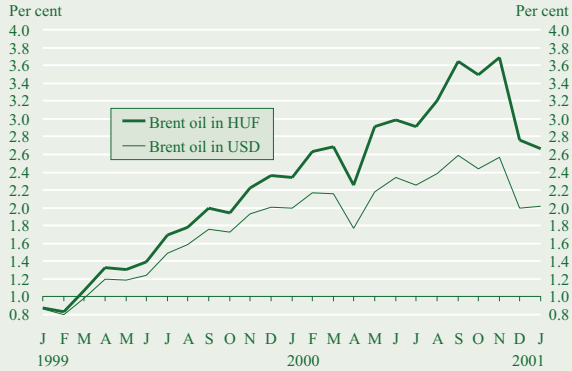
* The classification of items included in the consumer basket is different from that applied by the Central Statistical Office. See the Bank's *Quarterly Inflation Reports* for more details.

Chart I-1 **World market price levels of commodities**
Excluding energy 1995 = 100



Source: IMF IFS. Seasonally adjusted prices in dollars. Luxury goods: coffee, tea, cacao.

Chart I-2 **World market price for oil in dollar and forint terms**
Average for 1998 = 1



ever, due to the relatively small weight of this category in the CPI, it has only had negligible inflationary pressure. As *centrally regulated energy prices* were fixed at a low level, they have pushed down inflation *(see Table I-1)*.

1 Imported inflation

Our analysis reveals that imported inflationary pressure began to moderate in 2000 Q4, due largely to a decrease in world prices for oil and the weaker dollar. These favourable developments also fed through to other areas: the average world price of commodities excluding energy remained subdued and import price indices relating to Central and East European countries began to decline.

World market prices for certain raw materials showed a mixed picture in the final quarter of 2000: the three-quarter long decline in commodity prices excluding energy was interrupted, whereas the rapid rise in crude oil prices was replaced by a decrease of 2.5%. The fourth-quarter price level of commodities excluding energy remained unchanged on the whole, as a result of a 5% rise in food prices and a 2–8% decline in the prices of other product groups *(see Charts I-1 and I-2)*.

Fourth-quarter figures for the various exchange rate indices and the import unit value index *(see Chart I-3)* reflect an easing in imported inflationary pressure in 2000 Q4. The import unit value index fell by 3 percentage points to 12% during the course of one quarter. The unit value index exceeded the pre-announced devaluation rate of the forint by 7.9% and the nominal effective exchange rate index by 6.2%, down from higher rates in the third quarter. The 11.2% growth rate of the index derived from effective foreign prices[1] was slightly above the rate for the previous quarter.

[1] The imported inflation indicator calculated with effective foreign prices is constructed by multiplying the weighted average of the producer price indices of Hungary's main trading partners by the nominal effective exchange rate index.

The quarter-on-quarter indices calculated from the seasonally adjusted indices enable a more exact analysis of these developments *(see Chart I-4)*. Although the import unit value index reflects a slight increase in imported inflationary pressure, the clear downward shift in the trend similarly to the previous quarter implies that the decline in imported inflation has been uninterrupted.

The fourth-quarter slowdown in import price growth was equally present in Hungarian trade with developed countries and Central and East European countries. The slower increase in import prices was based on lower growth in machinery prices imported from developed countries and energy prices imported from Central and Eastern Europe. Remarkably, the price level of goods imported from Central and East Europe increased by 30.6% relative to a year earlier, a much lower rate than in the previous quarter.

Of the various product categories and in a year-on-year comparison, energy prices continued to increase at the fastest pace – by 62.7% – in the fourth quarter. Nevertheless, they did so at a significantly slower pace than in the third quarter, when they were up by 83.9%. Machinery is the other main product group where import prices grew at a considerably slower pace of 5.5%, compared with 9.2% in the previous quarter.

The prices of processed goods rose at a virtually unchanged rate, while the prices of food and raw materials, accounting for a small portion of imports, outstripped the rate of increase for the third quarter.

In 2000, CPI inflation in the euro area was consistently higher than the European Central Bank's 2% medium-term target *(see Table I-2)*.

The rate peaked at 2.9% in November. In December the rise in the level of consumer prices slowed to 2.6%, thanks to lower oil prices and the stronger euro. CPI inflation excluding energy prices was up by 1.7%. The highest rate of inflation was measured in Ireland at 4.6%, while the lowest rates were seen in France and Austria, at 1.7% and 1.8%, respectively. By the end of the year, there was also a drop in the excessively high industrial producer price indices measured in September.

In the United States, consumer prices continued to increase at a virtually unchanged rate, fluctuating in the range of 3.4–3.5% in the final quarter. The fourth-quarter slowdown in economic growth was not reflected in the rate of core inflation. Despite declining car sales and lower retail prices, market-induced price inflation held steady at the 2.6% level seen in June and September.

In the Czech Republic, following slightly higher rates (of 4.4 and 4.3%) in October and November, the twelve-month rate of CPI inflation dropped to 4% in December, due to changes in volatile energy and food prices.

The rate of net inflation, excluding regulated prices and indirect taxes, decreased from 3.2% in September to 3% at the year-end, remaining for the third consecutive year below the Czech Central Bank's target.

CPI inflation in Poland dropped significantly in the final quarter, after the flat levels of the first nine months. The rate was down at 8.5% in December from 10.3% in September. This was not only due to decreasing energy prices, but also lower food price inflation and the strong appreciation of the zloty.

***Chart I-3* Changes in import prices and various exchange rate indices**
Same period a year earlier = 100

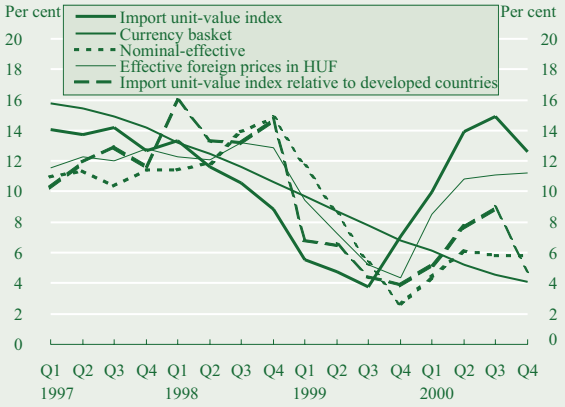


***Chart I-4* Seasonally adjusted import unit value index**

***Table I-2* International inflation data, 1999–2000**
Percentage changes on a year earlier

	June 2000		September 2000		December 2000	
	Producer	Consumer	Producer	Consumer	Producer	Consumer
	price changes					
United States	4.3	3.7	3.3	3.5	3.6	3.4
Japan	n/a	–0.7	n/a	–0.8	n/a	–0.5
Germany	2.9	2.0	4.3	2.6	4.2	2.2
Czech Republic	5.1	4.1	5.2	4.1	5.0	4.0
Poland	8.9	10.2	8.3	10.3	5.7	8.5
Hungary	11.6	9.1	12.8	10.3	12.4	10.1
EU-11	5.6	2.3	6.2	2.8	5.4	2.6
EU-15	5.0	2.1	5.5	2.5	4.7	2.3

Source: IMF IFS and Global Data Watch, J.P. Morgan's publications for 2000

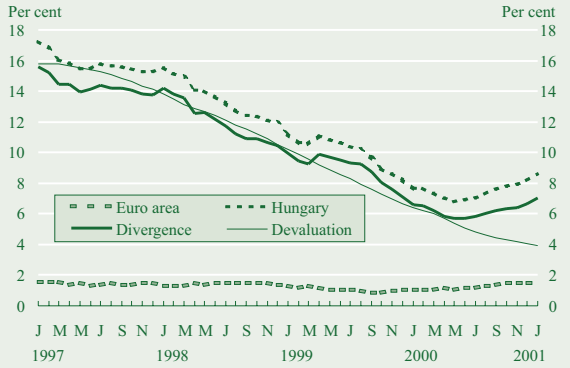
2 Inflation convergence

The Hungarian Harmonised Index of Consumer Prices, calculated in accordance with the methodology used by Eurostat, stood at 10 per cent in December. This implies that the inflation differential has been in the range of 7.5% and 8% for the past six months, reflecting a halt in the previous trend of convergence. As noted in the December *Report*, the interruption of convergence was originally attributable to the increased sensitivity of the Hungarian economy to the energy price shock as well as the asymmetric food price shock experienced last summer. On the other hand, the fact that convergence has failed to resume signals divergence in inflation expectations.

Monetary policy is mainly concerned with the changes of industrial goods and market services prices. A comparison of inflation with that in the euro area in respect of these categories only shows that in the second half of 2000 the previous convergence controlled by the exchange rate path ceased *(see Charts I-5 and I-6)*.

Recently, Poland has been the only country in Central and Eastern Europe (in a comparable position to Hungary) that has been able to make genuine progress in terms of inflation convergence towards the euro area. Of the Visegrad countries, the Czech Republic is in the best position, with its excess inflation of just under 2%, while the other four countries have to trim between 6% to 8% off their inflation rates *(see Chart I-7)*.

Chart I-5* Inflation differential as the average of industrial goods and market service price indices and the nominal path of the forint



* Inflation differential in percentage points between the twelve-month inflation rates in Hungary and the euro area, in respect of the category of industrial goods + market services. The chart shows the retrospective 12-month rate of the nominal devaluation of the forint.

***Chart I-6* Inflation convergence: difference between the harmonised price indices of Hungary and the euro area**

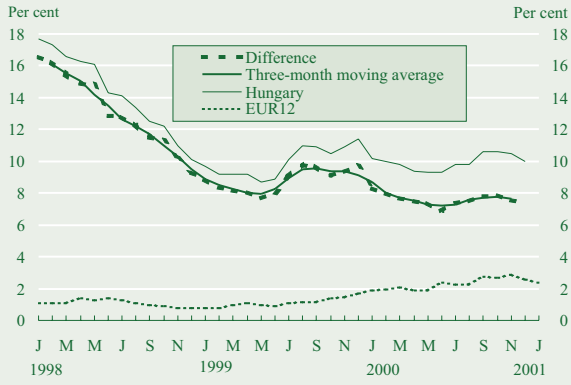
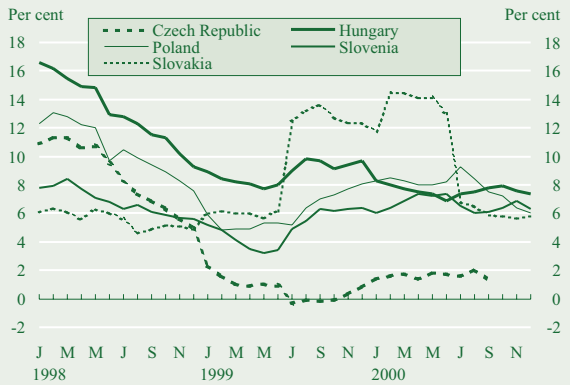


***Chart I-7* Inflation differentials relative to the euro area, based on twelve-month indices**



Source: Eurostat.

3 Components of changes in consumer prices

Industrial goods

Changes in the prices of internationally traded *industrial goods* play a prominent role from the aspect of monetary policy. Both foreign and domestic prices in this category are fairly stable. As no short-term effects distort the related index, changes in industrial goods prices convey high-quality information on the effects of monetary policy and the exchange rate path on the trend of inflation.

The price index of *industrial goods*, accounting for 26.8% of the consumer basket, rose to 5.1% in the year to January 2001. The price level of *consumer durables* remained nearly stable, with the annual index at 1.5% in January. Goods used for current consumption, with a weight of 19.4%, increased in price by 6.5% *(see Chart I-8)*.

The average rate of industrial goods price inflation was exceeded by that of *home improvement and maintenance goods* and *owner occupied housing* which includes building materials. This can be partly attributed to higher specific energy requirement and partly to the cyclical position of the construction industry, with particular regard to home building projects, comprised by the consumer price index *(see Chart I-9)*.

In April 2000, the Government and the National Bank of Hungary implemented a cut in the devaluation rate of the forint (to

0.3% a month).[2] This brought the rate of pre-announced devaluation down from 4.3% in October to 4%. The slight rise in the price inflation of internationally traded goods and its faster-than-usual divergence from the nominal devaluation rate of the forint is still not in sharp contradiction with the exchange rate path *(see Chart I-10)*.

The reason for this is that imported inflation gained momentum, with the euro-area industrial goods price index up from the previous 0.5–0.6% annual rate to 1.1% in January 2001. Thus, it comes as no surprise that Hungarian industrial goods price inflation also gathered pace. This implies that there are no tensions that would jeopardise the effectiveness of the Hungarian disinflation process, in other words, the pre-announced exchange rate path is continuing to act as a nominal anchor.

Market services

The price index of non-traded market services is exceeding tradables price inflation to an ever increasing degree.

Services prices rose at a nearly 8.1% higher rate in the year to January than the aggregate price index for industrial goods. According to calculations by National Bank analysts, the varying rate of productivity growth across the various sectors explains a lower inflation differential over the long term, given the current stage of economic convergence. Nevertheless, the 7.6% change in the price ratio, characteristic of the year 2000, is expected to moderate over the long term *(see Chart I-11)*.

The twelve-month price index for *market services*, with a weight of 20.2% in the consumer basket, followed an upward trend beginning from the third quarter and rose to 13.1% in January. In the following section the notions of food price shock and wage inflation inertia are investigated by dividing *market services* into three groups. These are 1) the *food-price sensitive*[3] group, with a 4% weight, 2) *wage-sensitive*[4] services, which are highly labour-intensive and account for 9% of the consumer basket, and 3) *other*[5] items, with a weight of 7.2%, i.e. *market services* that have remained outside the former two groups *(see Chart I-12)*.

Starting from last July, the food price shock appeared to have a strong impact on catering-related services, pushing up the annual price index of this group to 14.5% in January. The August upsurge in the price inflation of *wage-intensive* services, continued during the fourth quarter, pushing up the twelve-month in-

***Chart I-8* Changes in industrial goods prices**
Twelve-month index

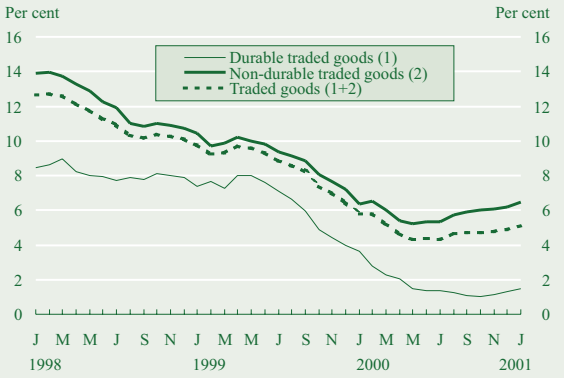


***Chart I-9* Industrial goods and services prices related to home improvement and maintenance**

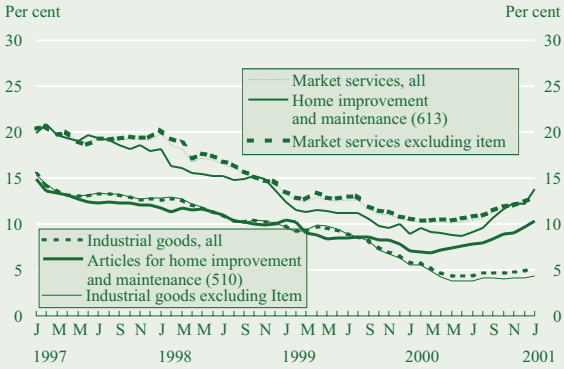


***Chart I-10* Twelve-month relative inflation rate of industrial goods**

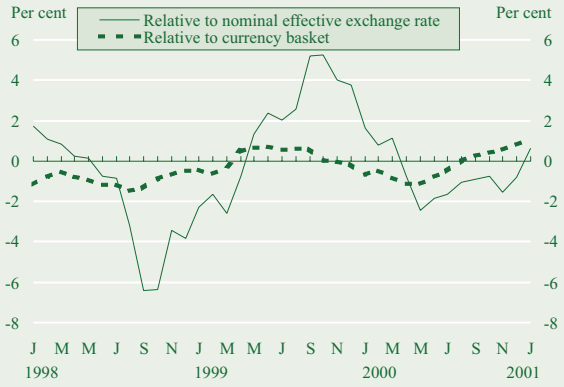


***Chart I-11* Twelve-month price indices relating to industrial goods and services**

[2] On March 2nd, the Central Bank Council passed a decision to reduce the forint's monthly devaluation rate to 0.2%, effective of April 1, 2001.

[3] The *food-price-sensitive* group comprises *restaurant and canteen, school and kindergarten/creche meals, and buffet goods*, as well as – due to the statistical properties of the stratum – *domestic holidays without a voucher.*

[4] The *wage-sensitive* category comprises *clothes, household appliances, home improvement* and *vehicle repair, cleaning/laundry, beauty services, health and education, maintenance of cultural items*, as well as *espresso coffee.*

[5] This category includes the items that have been left out of the two special groups, such as *newspapers/periodicals, books, textbooks, apartment block service charge, car rental, taxi, haulage, theatre, cinema, sports events, holiday abroad, photographic supplies and the rest of (unlisted) services.*

***Chart I-12* Inflation relating to the sub-groups within services**

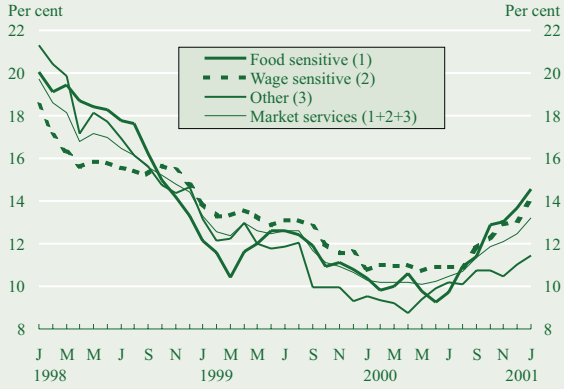
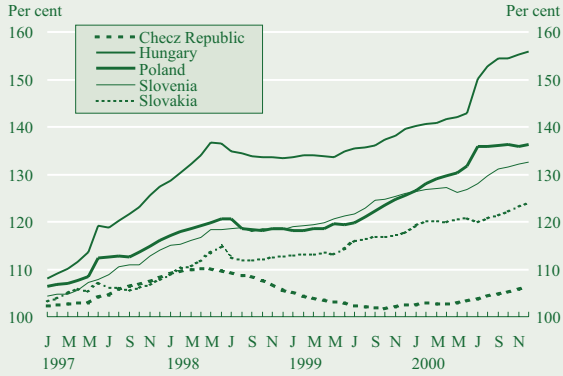
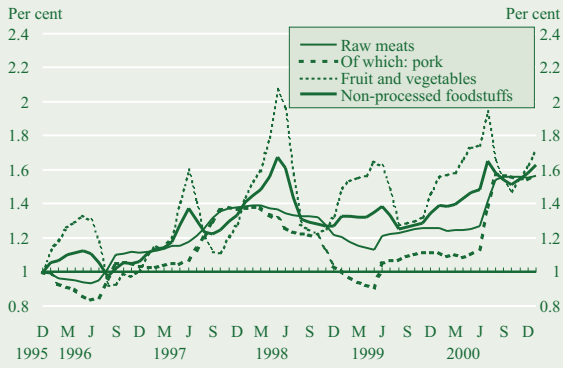


***Chart I-13* Seasonally adjusted levels of food prices in the Visegrád countries**



Source: Eurostat; National Bank calculations.

***Chart I-14* Prices of non-processed foodstuffs**



dex to 14% in January. At the same time, labour market data do not seem to confirm any acceleration in wage inflation within this sector.

The above break-down of the price index of market services reveals that faster inflation in respect of this group cannot be traced back to any well-defined individual sub-group. The comprehensive nature of the phenomenon suggests that its likely causes are either changes in aggregate demand or a rise in inflation expectations. An argument against the likelihood of the former explanation is the lack of evidence for any acceleration in household consumption growth in the second half of 2000.

The most plausible explanation for the faster rate of market services price inflation and the opening of the gap between the inflation rates relating to services and industrial goods prices is that the setters of services prices may have interpreted the halt in disinflation differently from other economic agents. Apparently, they have viewed it not as the outcome of one-off shocks, but as part of an overall persistent trend. Thus, their inflation expectations have been high, which accounts for the faster rate of price increases. Our analysis suggests that these shocks will cease to hamper disinflation in 2001, bringing about a correction in the trend of the change in the price level involved.

Food prices

As noted in the December *Report*, Hungary and other neighbouring countries were hit by an adverse agricultural price shock, exogenous to monetary policy. Its effect can be best illustrated through a comparison with Poland, a country very similar to Hungary in respect of its agriculture *(see Chart I-13)*.

Due to the base-period effect, the "winding down" of the shock will exert downward pressure on the twelve-month price index in the middle of the year. It should be kept in mind, however, that food prices, with special regard to those of non-processed foodstuffs, are extremely volatile – thus it is entirely possible that the sector may be hit by another major (exogenous) shock in the course of 2001.

The considerable volatility of food prices is one of the greatest hindrances to forecasting inflation, as food has a substantial weight of 19% in the consumer basket, including 5.3% for non-processed foodstuffs.

Twelve-month food price inflation stood at 15.2% in January 2001. Prices of non-processed and processed foodstuffs rose by 17.2% and 14.3%, respectively, in the year to January. This was primarily due to higher raw meat prices, with a kilo of pork costing 40% more than a year earlier. This major adjustment to the low and decreasing prices seen in previous years brought the price of pork back to the level of three years earlier *(see Chart I-14)*.

Changes in the price of processed foodstuffs provide more accurate information for the analysis of inflationary trends. Repricing, typical of the first month of the year, was probably a key contributor to the unfavourable index for January 2001. Part of the effect of the mid-2000 rise in the price of non-processed foodstuffs, the raw material input of the sector, is only now surfacing. Conse-

quently, processed foodstuffs increased in price in January 2001 at a rate 2% faster than a year earlier, by 3.7% in one single month *(see Chart I-15)*.

Energy

In 2000 Q4, energy import prices continued to increase in a quarter-on-quarter comparison despite the significant drop in the world price for crude oil in November *(see Chart I-2)*. This was partly due to the fact that the price of natural gas imported by Hungary is linked to the world price of oil, following it with a nine-month lag in a smoothed way. The unfavourable implication for Hungary is that the price for imported natural gas will rise even in the first half of 2001, despite the downward trend world-wide. At the same time, as the government can influence natural gas prices via administrative measures, the rise in the price has only partially been incorporated into inflation.

As a result of world market developments, market-determined energy prices rose at an exceptionally fast pace in the world market in the course of the second half of 2000. This trend seemed to slow down in the course of December and was virtually flat in January 20001. Still, the twelve-month index rose by an exceptionally high rate of 32.6%, which, thanks to the small weight of 1.34% of the category in the basket, contributed only 0.44% to the January 2001 rate of the annual CPI. Thanks to the Government's anti-inflationary commitment, regulated energy prices rose at a much slower rate than inflation or, even more conspicuously, international energy prices. Although amounting to only 8.3% in January, the twelve-month rate was still above the 6.2% rate for a year earlier or the slightly higher than 5% rate measured in the middle of the year.

There is a conspicuously widening gap between centrally controlled household energy and market-set energy price indices (8.8% and 29.2%) as well as centrally regulated but non-household energy prices. The *direct* impact of imported energy prices on domestic consumer prices was considerably dampened by economic policy to the extent that only a small portion of the increase in input costs was allowed to be passed on to household prices by the central setters of pipeline gas and public transport prices. Freezing the excise duty content of motor fuel prices implies that there are no additional costs imposed on either private transport expenditure or haulage. As it is not possible for central price setting to be far removed from market developments over the long term, the current situation is not free of tension unless world market trends change for the better *(see Chart I-16)*.

January marks the beginning of the year when electricity prices are regulated. At the start of 2001, these prices were raised by 6%.

Motor fuel prices remained flat in November, and dropped substantially in the course of December and January, by over 8% altogether.[6] This was the consequence of favourable world mar-

***Chart I-15* Changes in food prices**

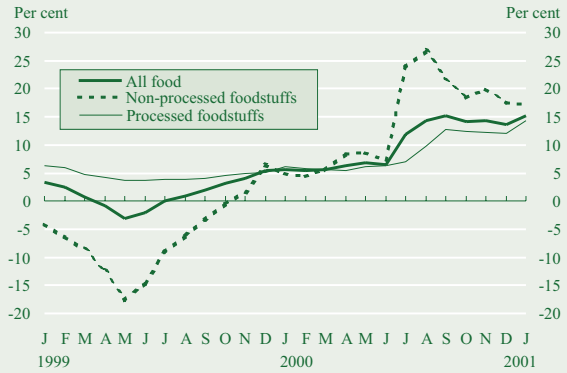
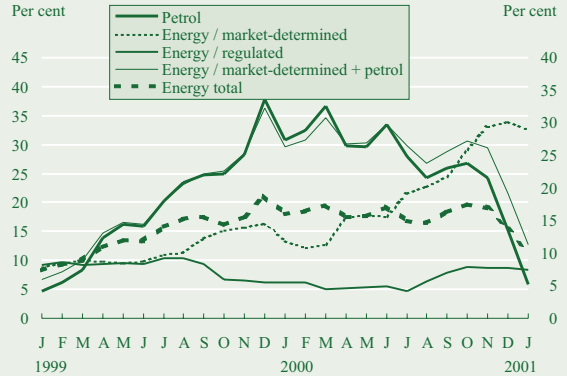


***Chart I-16* Changes in energy prices**



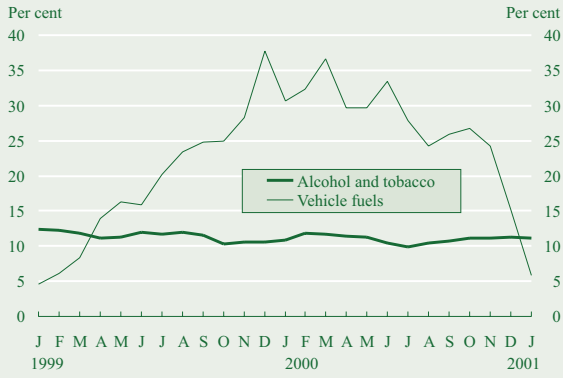
[6] The price of petrol went up again at the end of January, but due to the method of statistical accounting, this will only be reflected in the February inflation data.

ket developments and the fact that the government did not valorise the excise duty rate of motor fuels (accounting for some 40% of the consumer price). In February, motor fuel prices are expected to increase to the level seen at the end of 2000.

As a result of the above factors, the twelve-month price index of *energy producing materials*, accounting for 13.3% of the consumer basket, dropped to 9.8% in January, its lowest level since April 1999.

Excisables and goods with regulated prices

***Chart I-17* Changes in excisable goods prices**



In respect of *excisables,* with a 14.1% weight, the previous trend continued *(see Chart I-17).*

Prices for *alcohol* and *tobacco,* accounting for 9.1% of the consumer basket, rose by 11.3% at the year-end, which exceeded the rise in the headline CPI. In respect of tobacco, this was due to developments during 2000 (such as the increase in tobacco's excise duty content early in the year and higher import prices at mid-year). The fourth quarter saw no significant rise in prices.

Wine prices went up by 16% over one year, and, unlike previously, the trend did not taper off in the fourth quarter. This was partly due to the introduction of excise regulations during the year and the ensuing extra costs (in terms of accounting and the use of tax caps). Twelve-month CPI in this category was over 11% in January, partly as a result of the excise duty valorization. In respect of wines, the excise duty on wines made of fruits other than grapes rose four-fold (to HUF 80 per litre), while that on wines made from grapes remained unchanged. The excise duty on beer rose by 5%, but the price increase at the beginning of the year was more drastic than a year earlier. The taxes on different types of alcohol increased by 6–10% on the whole.

In respect of tobacco, despite the 15% increase[7] in the fixed tax rate, the products on supermarket shelves still carry last year's tax caps, implying that the effect of the tax rise is only to be felt over the coming months.

The excise duty on *petrol* remained unchanged.

The anti-inflationary impact of the strict central pricing policy was not only felt in respect of regulated household energy prices, but throughout the entire category of regulated prices, up by 7.8% on a year earlier. Prices of *pharmaceuticals* remained unchanged in the fourth quarter, and the annual index increased by a moderate rate of 3.2%. This was due to the government's June measure of fixing prices for 180 days. Non-subsidised pharmaceuticals are to increase in price in March.

The twelve-month price index of *regulated services,* accounting for 9% of the consumer basket, was at 7.8%, much lower than that of market services (12.5%). In 2000 Q4, only a few items saw adjustment in price, with the overall quarterly growth rate amounting to 0.2%.

Rises in *centrally controlled* prices – for transport and communications – did not exceed the planned target of 6% *(see Chart I-18).* A 6% rise in local transport triggered cost-side tension in respect of *transport services* as the pre-agreed rise in charges failed to cover the costs incurred by higher-than-expected fuel prices.

[7] The high tax valorization is aimed at approximating the EU tax rate.

Table I-3 **Centrally regulated or influenced prices ***
Year-on-year and ten-month (in 2000) growth rates**

Per cent

	Weight in 2000	Dec. 1999	Twelve-month price indices							Difference in percentage points	January 2001
			2000							1999–2000	
			Jan.	March	June	Sep.	Oct.	Nov.	Dec.		
Controlled prices	**17.99**	**17.6**	**13.9**	**10.9**	**9.4**	**6.5**	**6.9**	**7.6**	**7.5**	**–10.0**	**7.7**
Goods	**8.99**	**16.4**	**16.2**	**13.2**	**13.7**	**5.8**	**6.5**	**7.7**	**7.7**	**–8.7**	**7.1**
Of which											
Household energy	**7.29**	**6.2**	**6.2**	**5.1**	**5.5**	**7.9**	**8.8**	**8.8**	**8.8**	**2.5**	**8.3**
Central and district heating	1.84	6.0	5.6	5.8	6.3	7.5	9.6	9.4	9.3	3.4	9.8
Electricity	3.29	10.1	10.2	7.4	7.8	6.3	6.3	6.3	6.3	–3.7	5.1
Gas supplied through pipes	2.16	1.1	1.0	1.0	1.4	10.6	12.0	12.0	12.0	10.9	12.0
Pharmaceuticals, medical products	**1.70**	**56.9**	**55.4**	**42.9**	**43.5**	**–0.9**	**–1.0**	**3.2**	**3.2**	**–53.7**	**1.9**
Services	**9.00**	**18.7**	**11.7**	**8.8**	**5.6**	**7.2**	**7.2**	**7.4**	**7.3**	**–11.4**	**8.3**
Of which:											
Housing	2.48	15.3	16.2	13.7	12.3	12.0	12.1	12.2	12.1	–3.2	13.8
Transport	1.89	13.4	5.9	6.3	6.1	6.3	6.3	6.9	6.9	–6.4	8.1
Communications	3.78	25.3	11.5	6.6	2.1	6.0	6.0	6.2	6.0	–19.3	6.1

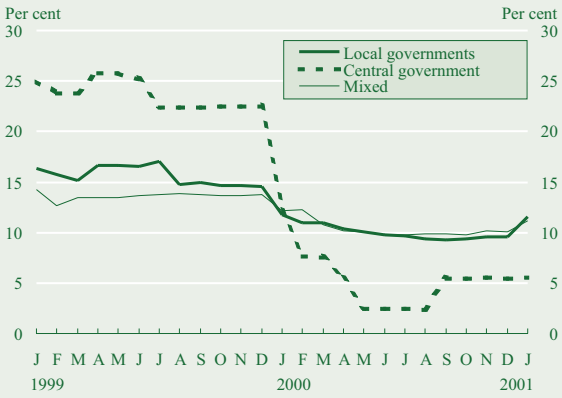
* Television subscription fees, carrying a 0.66% weight in the consumer price index, have been divided into a centrally regulated portion (0.31%) and a market subscription fee (0.36%). Regulated prices include only the former component, which has not changed since last year.
** Due to rounding, sums do not always add up accurately.

Long-distance transport prices went up by 10%. The price of *telephone services* increased by 6%, corresponding to the '*price cap*', which reflects considerable disinflation relative to a year earlier. The annual rate of inflation relating to houses and flats owned by *local authorities* amounted to 12.1%, with the extra costs incurred herein largely passed on to consumer prices. Rents increased at an exceptionally high rate (of 17%).

The 10-percentage-point disinflation experienced in the category of regulated prices in 2000 reduced the annual rate of inflation by 1.8 percentage points, relative to the previous year.

In respect of services, regulated prices in January were 3.2% up on the end of the previous year. The fact that the year-on-year growth rate was higher than last January can be attributed to a number of factors. First of all, there was a rapid rise in the prices of housing-related services (at 5.1% as against 3.6% at the beginning of last year). Whether this is the result of the pricing strategy of local authorities or the fact that price changes normally dated for the period January to March have been brought forward to the first month of the year will become clear later when the monthly data become available. Transport charges were raised by 6.5%, also in excess of the rate for last year, which is expected to have only negligible disinflationary effect for the year as a whole. Postal services prices went up by 6%. Those telephone charges which belong to the measured category are scheduled to go up from February at a rate only minimally lower than last year. The television subscription charge, which remained unchanged in 2000, also rose in January *(see Table I-3)*.

Chart I-18 **Breakdown of regulated price levels according to regulating authority**



4 Core inflation

The Bank describes the trend of inflation in terms of a *core inflation index* calculated using the Bank's own methodology. This index excludes the effect of volatile and statistically problematic items,[8] such as seasonal foodstuffs, market-priced energy producing materials and *pharmaceuticals*, which previously introduced significant bias into the index due to the method of their statistical accounting. The core inflation index, by removing temporary effects and the "noise" from the inflation process, is computed with the aim to pinpoint the particular components of inflation with which monetary policy is primarily concerned with.

Twelve-month core inflation rose to 10.5% in January, its highest rate for the past two years *(see Table I-4)*. This was partly due to a one-off jump in the price of non-processed foodstuffs, the effect of which is only partially removed from the index. Nevertheless, the persistent rise in the services price index warns of the danger of a build-up in inflation inertia, and the corresponding long-term interruption in disinflation.

In addition to the CPI, the Central Statistical Office also publishes a core inflation index *(see Table I-5)*. The main difference between the two indices is that the CSO index omits all non-processed foodstuffs[9] and energy from the consumer basket, but includes the price changes of pharmaceuticals. This index internationally referred to as *ex food and energy* index stood at 9.7% in January 2001.

Compared with the CPI, the two core inflation indices were worsened by the fact that neither reflects the favourable decrease in the price of *motor fuels* in January. The divergence between the indices calculated by the Bank and the CSO is due to their different treatment of the price indices for meats and pharmaceuticals *(see Chart I-19)*.

Table I-4 **Components of the NBH core inflation and the consumer price index**

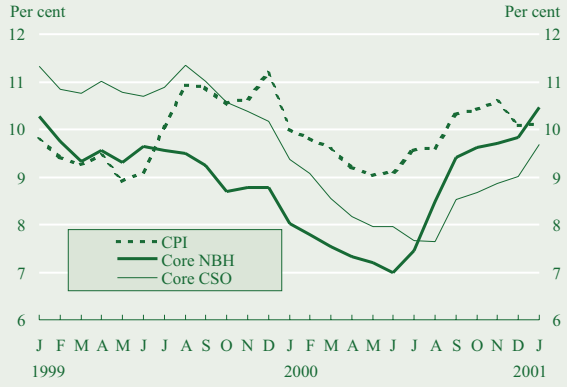
Per cent

	2000	2001	Nov./Nov.	Dec./Dec.	Jan./Jan.
Unprocessed foodstuffs	2.7	2.6	0.18	0.05	–0.01
Household energy + vehicle fuels	5.7	5.8	0.81	0.32	–0.18
Pharmaceuticals	1.7	1.9	–0.13	–0.12	–0.16
Total			0.87	0.25	–0.34
CPI	*100.0*	*100.0*	*110.6*	*110.1*	*110.1*
MNB core inflation	*89.9*	*89.8*	*109.7*	*109.8*	*110.5*

Table I-5 **Components of the NBH core inflation and the CSO core inflation**

	2000	2001	Nov./Nov.	Dec./Dec.	Jan./Jan.
Pharmaceuticals	1.7	1.9	–0.12	–0.12	–0.17
Energy	7.8	7.6	–0.27	–0.27	–0.17
Unprocessed food	2.7	2.7	–0.45	–0.43	–0.45
Total			–0.84	–0.82	–0.79
CSO core inflation	*81.1*	*81.4*	*108.9*	*109.0*	*109.7*
NBH core inflation	*89.9*	*89.8*	*109.7*	*109.8*	*110.5*

Chart I-19 **Comparison of core inflation indices and the CPI**



[8] Items excluded because of their unstable seasonality are eggs, potatoes, fresh vegetables and fruit.

[9] The excluded category includes meats and fishes, in addition to the aforementioned items.

II. Monetary policy

1 Monetary conditions and changes in the interest rate and the exchange rate

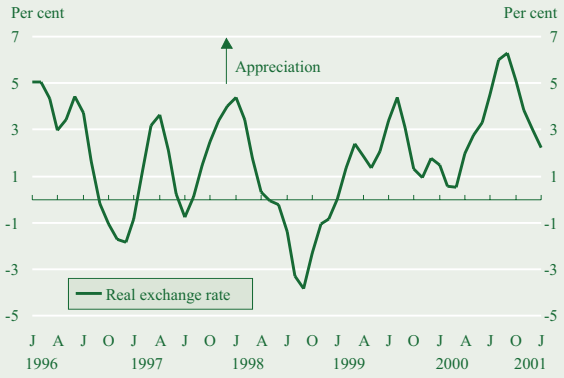
In October and November 2000, monetary policy tightened to an exceptional degree relative to earlier in the year, but by January 2001, monetary conditions had broadly returned to the level seen before the tightening. This implies that monetary policy is currently at least as tight as it was in the first half of 2000.

The appreciation of the real exchange rate peaked in September and October, then declined at a steady rate until January *(see Chart II-1)*. Nevertheless, real appreciation calculated for January (with an annualised rate of 2.2%) still exceeded the average rate for the first half of 2000. Real appreciation decreased in spite of the fact that trend inflation in the euro area fell off at a rate not spectacular in terms of the twelve-month indices, but considerable after seasonal adjustment. It should be noted that the three-month price index derived from the trend-cycle of the seasonally adjusted price level in Hungary tended to be rather volatile over the past two quarters. Unfortunately, this fed through to the short-term measure of real appreciation based on the three-month index, reducing its information content.

Changes in the real interest rate, the other component of monetary conditions, over the final two quarters of 2000 cannot be judged unequivocally, due to divergence between the various measures of real interest rates *(see Chart II-2)*. Box II-1 of the December *Report* describes at length the alternative measures of the real interest rate. The twelve-month *ex ante* real interest rate, which we regard as having the highest information content, rose significantly from around 3% in the third quarter to over 3.8% in November and December, in the aftermath of the central bank's October cut in the interest rate. Over the first two months of 2001, due to the fall in nominal interest rates and slightly higher inflation expectations, the ex ante real interest rate returned to the 3% level seen prior to the monetary tightening in autumn 2000.

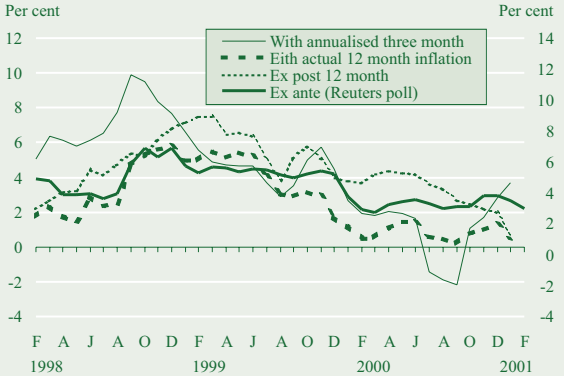
The factors to blame for the significant, 90–140-basis-point drop in the yields on long-term investments in December included above all the decrease in the yields on the euro, serving as an anchor currency, and second, improved global investor sentiment about emerging markets. By contrast, domestic inflation expectations had only a minor impact on yields until mid-February. The central bank responded to the fall in market yields and the pick-up in capital inflow by implementing two cuts (on January 8th and February 5th) in the maximum interest rate on the two-week deposit facility. The result was a reduction totalling

Chart II-1* Monetary conditions: the real exchange rate calculated with EMU inflation



* The indicator depicted in the chart is derived from trend inflation for the past three months after subtracting the rate of the announced devaluation for the period and that of EMU trend inflation, and annualising the result. Trend inflation rates are obtained by seasonal adjustment. For a detailed description of the method of calculating the indicator, see Box in September 2000 *Report*.

Chart II-2* Monetary conditions: real interest rate calculated with different techniques



* *When calculating the contemporaneous real interest rate* the current one-year benchmark yield is deflated with the latest (year-on-year) rate of inflation. The calculation of the *short-term real interest rate* is based on the current measure of the three-month benchmark yield and the inflation rate of the preceding three months derived from the trend-cycle of the seasonally adjusted price level. The *ex post real interest rate* denotes the twelve-month nominal yield of a year ago deflated with inflation measured over the past twelve months. The *ex ante real interest rate* is obtained by deflating the current one-year nominal yield with macroeconomic analysts' average inflation forecasts for the same time horizon based on a Reuters survey. For a detailed description of the alternative measures of the real interest rate and their calculation techniques, refer to Box II-1 in the *Quarterly Report on Inflation*, December 2000.

Chart II-3 **Central bank interest rates and short-term market yields**

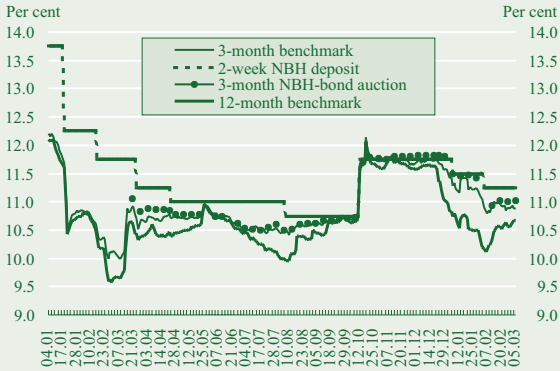
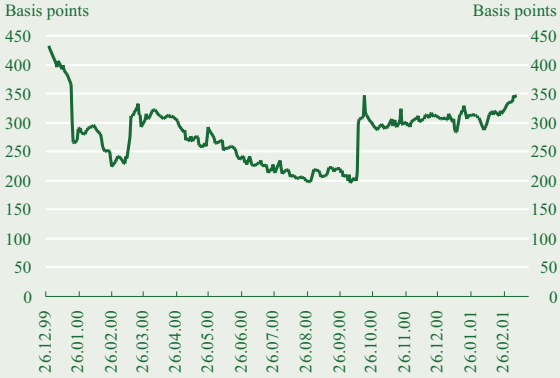
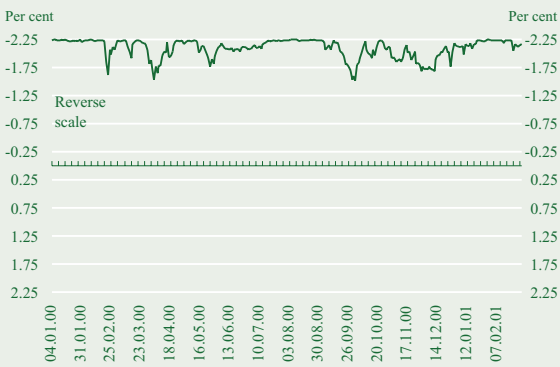


Chart II-4 **Three-month interest rate premium on the forint***



*Calculation of the interest rate premium is based on the assumption that the date of the reduction to 0.2% in the monthly devaluation rate, which the market had knowledge of, was April 1, 2001.

Chart II-5 **Intraband position of the forint**



50 basis-points, countering some of the October 100-basis-point interest rate hike *(see Chart II-3).* This move was enabled by a turn for the better in respect of the two key factors contributing to recent adverse inflationary developments. Notably, the world price for oil fell by around 25% and the euro's exchange rate strengthened by 10% against the dollar. During January the prices of these two key assets did not continue to exert disinflationary pressure, but they stabilised at levels which foreshadowed a more favourable inflation path than that seen in September and October, enabling monetary policy to be eased. The slope of the 0–1-year section of the one-year implied forward curve became steeper at end-December, reflecting market expectations of a faster decrease in short-term interest rates in the year 2001. This may be associated with the proposed cut in the devaluation rate scheduled to take effect on April 1st, announced by the Government late in December. The announcement brought the date of the cut in the devaluation rate forward in the expectations of the market, which is also reflected in interest rate expectations and forward yields. The three-month interest rate premium on the forint *(see Chart II-4)* has stabilised around the 300-basis-point level since the October interest rate hike.

In contrast with strong third-quarter demand for conversion, the central bank had to buy foreign currency amounting to only HUF 34 billion during the fourth quarter. This low demand for conversion was the result of opposing developments. Certain components of interest-rate sensitive capital inflows, especially foreign investments in forint-denominated government securities and corporate-sector foreign currency borrowing, were quite substantial. However, they were offset by non-residents' equity sales, low FDI inflow and the high deficit on the current account of the balance of payments, not unusual in the fourth quarter. The banks' open foreign currency position did not have a major influence on fourth-quarter conversion, not as in January, when it increased by as much as roughly HUF 100 billion. This value was approaching that for February 2000, which is regarded as an episode of exceptionally buoyant inflow of interest-rate-sensitive capital. January witnessed a considerable improvement in global investment sentiment about emerging countries, which is also likely to stimulate interest-rate-sensitive capital inflows.

Shifts in the intra-band position of the forint's exchange rate reflected low conversion demand in the fourth quarter *(see Chart II-5).* From October to December, the exchange rate fluctuated in the 30–50-basis-point range, off the strong edge of the band. From late January, however, the rate returned to the strong edge, and the central bank had to intervene on several occasions. The forint broke slightly away from the strong edge only after February 20th, upon escalation of the financial crisis in Turkey.

In the aftermath of last October's interest rate hike by the central bank, commercial banks smoothed household deposit rates to a much greater extent than short-term rates on lending to the corporate sector. The central bank's interest rate hike was nearly completely passed on to the latter rates. This response by the commercial banks corresponded to their pricing policy seen during previous instances of interest rate increases. For the second half of 2000 as a whole, the spread between corporate borrowing rates and short-term market yields seemed to stabilise below the 150-basis-point average of recent years.

Table II-1 **Monetary base**

HUF billions

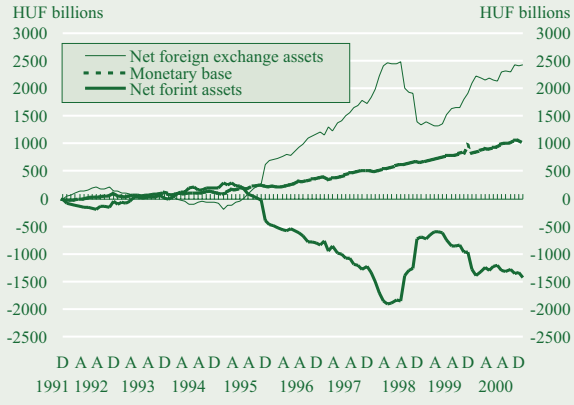
	2000						2001
	Opening	March	June	September	November	December	January
I Monetary base (II+III)	1,439.0	1,373.5	1,420.6	1,503.9	1,552.6	1,561.0	1,496.3
Non-bank notes and coin	846.2	762.9	809.6	846.4	880.7	876.4	818.6
Other notes and coin	109.7	73.4	79.5	81.0	78.6	90.3	76.4
Reserves	483.1	537.2	531.5	576.5	593.3	594.3	601.2
II Net forint assets (b+c+d-a)	101.1	–248.6	–159.2	–243.6	–293.4	–278.8	–359.6
a) Sterilisation instruments	619.3	884.2	805.7	881.5	830.8	917.8	656.1
Of which: NBH bills	0.0	96.8	235.3	470.4	458.1	461.0	554.3
b) Banking sector loans	120.3	117.1	104.5	102.1	95.8	87.3	85.0
c) Net claims on government	517.9	443.3	454.9	466.2	373.7	486.3	192.5
Of which:Treasury Account (–)	193.4	267.5	250.1	213.1	301.8	170.7	270.9
Government securities (+)	401.2	393.4	378.8	371.1	368.0	367.5	173.9
Other (+)	310.1	317.4	326.2	308.2	307.5	289.5	289.5
d) Other	82.2	75.2	87.0	69.6	67.9	65.4	19.0
III Net foreign exchange assets	1,337.9	1,622.1	1,579.8	1,747.6	1,846.0	1,839.8	1,855.8
Net foreign	504.4	700.7	736.9	936.3	1,080.8	1,024.5	960.7
Assets	3,269.1	3,476.6	3,435.6	3,872.3	3,992.5	3,765.4	3,628.3
Liabilities	2,764.7	2,775.9	2,698.7	2,936.1	2,911.7	2,740.9	2,667.6
Net domestic	833.4	921.4	842.9	811.4	765.2	815.3	895.1
Assets	1,550.4	1,569.9	1,452.4	1,408.4	1,358.6	1,384.8	1,381.3
Liabilities	717.0	648.5	609.5	597.1	593.4	569.5	486.1

The real growth rate of broad money aggregates (M3 and M4) continued to decrease in 2000 Q4. This was partly due to the ongoing decline in the financial saving rate and partly to the fact that in the final quarter, both household consumption and business investment picked up. These latter developments stimulated demand for more liquid assets, exerting upward pressure on narrow money (M1) growth in the fourth quarter. Real growth in households' net financial wealth slacked off considerably. This was equally due to a decrease in the growth rate of gross financial wealth in real terms and a faster increase in household liabilities.

2000 Q4 witnessed a rise in the net financing requirement of non-financial companies. The factor at work here was firms' declining level of disposable income (especially in energy-intensive sectors) throughout the second half of 2000, because of adverse shifts in energy prices and a moderate-to-rising trend in investment activity for the second half as a whole.

Corporate-sector borrowing was dominated by foreign currency loans. In particular, funds borrowed from abroad expanded most strongly, while the rapid increase in domestic foreign currency borrowing seen over the second and third quarters came to an end. This may imply that the accommodation of the loan structure of commercial banks to the new regulation on open foreign exchange positions effective as of July 2000, reflected in higher domestic foreign currency lending, had tapered off by the beginning of the fourth quarter.

Chart II-6 **Monetary base and its components**



1.1 Monetary base and its components

Following temporarily higher growth in the monetary base, annual growth in this indicator fell to 13.1% in the period from November to January *(see Table II-1 and Chart II-6)*, thanks to the modification of the reserve requirement. From August 2000 on, the rise in the effective reserve ratio, as discussed in the December *Report*, led to an average annual growth rate of 20.4% in re-

serve assets, in contrast with 16.1%, characteristic of the previous six months. In the period December to January, this high growth in reserve assets was offset by weak annual growth in demand for notes and coin. This demand reflected the usual seasonality, i.e. there was an upsurge in cash balances in the run-up to the holiday season, especially in November, but the January fall-off was steeper than experienced in previous years. Apart from the effect of the regulatory change, the increase in mandatory reserves reflects the development of M3, and the upsurge in November could be attributed to higher M3 growth.

The key impact on the composition of net forint assets has been the new regulation on the reserve requirement. The central bank neutralised the excess liquidity generated by the reduction in the reserve requirement from 11% to 7% by selling government bonds amounting to approximately HUF 200 billion and issuing NBH-bills of HUF 37 billion. This, together with the increase on the Treasury Account had significantly decreased the National Bank's net claims on the Government by January 2001. In November and December, the level of NBH-bills within the stock of sterilization instruments remained unchanged in a quarter-on-quarter comparison. Only January saw an upsurge, part of which was caused by the aforementioned amendment to the reserve requirement. From October to December 2000, the stock of the two-week deposit facility rose by HUF 62 billion, followed in January by a decline of over HUF 150 billion. The figure for the sterilization instruments in Table II-1 reflects a much greater decrease due to a technical correction. This row in the table contains the adjustment for the difference between the end-of-month and monthly average stock of the banks' mandatory reserves. This adjustment was exceptionally large in January 2001, as the banks deposited HUF 200 billion less on their central bank account on January 31st, as a result of the lower reserve requirement. However, this did not affect the level of net forint assets because of the aforementioned government bond sales and NBH-bill issue.

1.2 Demand for forint conversion and its components

Following the strong demand for forint conversion in 2000 Q3, the fourth quarter saw a slowdown, with conversion amounting to merely HUF 33.7 billion *(see Table II-2).* This happened despite relatively high interest-rate-sensitive capital inflows amounting to HUF 144.2 billion, with speculative inflows also up on the previous quarter. At the same time, these inflows of capital were offset by the high current account deficit, customary in the fourth quarter, with the December deficit being conspicuously high, even allowing for seasonality. FDI inflow was quite low relative to previous quarters, only covering some one-fourth of the current account deficit adjusted for the net foreign interest payment of the National Bank. In respect of net portfolio equity investments, the outflow originating in 2000 Q2 continued, while there was a considerable inflow into government securities in the fourth quarter, especially in December, thanks primarily to the decline in euro yields and improving investment confidence in emerging markets. The final quarter saw an upsurge in foreign exchange loans taken out by the corporate sector, with particular

regard to direct borrowing from abroad. In contrast with the previous three quarters, there was a turnaround in the ratio of foreign and domestic foreign exchange borrowing, with borrowing from abroad taking the lead. Corporate foreign exchange borrowing accounts for the bulk of the interest-rate-sensitive capital inflow.

For 2000 as a whole, demand for forint conversion was lower than in 1999, with most transactions concentrated in the first quarter and the month of August. The two years differed most significantly in terms of net portfolio investments, the effect of derivatives and corporate foreign exchange borrowing. The fact that much higher amounts of interest-rate-sensitive and speculative capital flowed in than in 1999 could be explained by higher investments in government securities, the upward pressure of derivatives on conversion and high foreign exchange borrowing. In a contrasting development, there was large-scale outflow of equities for the year as a whole and the conversion effect of domestic foreign currency deposits also contributed strongly to the decline in the demand for forint conversion.

Table II-2 **Components of demand for forint conversion***

HUF billions

	1999 total	2000							
		Q1	Q2	Q3	October	November	December	Q4	Total
A Conversion	807.6	374.0	22.6	212.9	33.7	0.0	0.0	33.7	643.2
a) Intervention in inter-bank foreign exchange market	708.4	374.2	20.4	212.9	33.7	0.0	0.0	33.7	641.2
b) NBH purchases from general government	99.2	–0.2	2.2	0.0	0.0	0.0	0.0	0.0	2.0
Sources of conversion (I+ ...+ IX)	807.6	374.0	22.6	212.9	33.7	0.0	0.0	33.7	643.2
I Current account balance corrected for net foreign interest payments (1+2)	–398.5	–75.2	–107.3	–8.0	–16.6	–64.5	–148.4	–229.6	–420.0
1 Current account balance	–497.8	–96.9	–125.2	–33.6	–14.4	–76.4	–154.5	–245.4	–501.0
2 Net foreign interest payments by NBH**	99.3	21.7	17.9	25.6	–2.2	11.9	6.1	15.8	81.0
II Foreign direct investment	407.5	63.6	170.4	99.3	27.3	–0.5	29.7	56.5	389.8
III Intervention due to commercial banks***	–11.5	33.0	–15.6	23.6	–34.7	20.7	–27.8	–41.8	–0.8
IV Effect of derivatives****	–58.2	75.1	–41.5	–4.5	–6.7	–9.4	11.5	–4.7	24.4
V Intervention due to domestic foreign exchange deposits	–1.6	–7.4	–10.8	–11.4	–22.0	–37.1	9.6	–49.5	–79.1
VI Net portfolio investments (1+2)	303.6	154.0	–79.8	2.0	–13.1	7.9	28.3	23.1	99.3
1. Government securities	152.3	142.9	6.4	61.6	19.9	21.0	41.8	82.8	293.7
2. Equity+	151.3	11.1	–86.2	–59.6	–33.1	–13.1	–13.5	–59.6	–194.4
VII Corporate foreign exchange borrowing (1+2) = (a+b)	237.1	11.0	88.2	55.2	57.5	75.1	24.9	157.5	312.0
1. Domestic	154.3	77.0	120.8	83.3	24.4	–6.1	30.2	48.4	329.6
2. Foreign	82.7	–66.0	–32.6	–28.1	33.1	81.2	–5.3	109.1	–17.6
a) Shorter than one year	–73.6	–32.8	–10.2	–48.2	19.4	10.0	–1.1	28.2	–62.9
b) In excess of one year	310.7	43.7	98.4	103.4	38.1	65.2	26.0	129.2	374.8
VIII Capital transfers	8.2	3.8	14.5	19.5	7.0	4.4	6.9	18.3	56.1
IX Others	321.0	116.1	4.4	31.1	35.2	3.4	65.4	104.0	255.5
B Interest rate-sensitive (III+IV+V+VI/1+VII)	318.1	254.5	26.8	124.6	14.0	70.3	60.0	144.2	550.2
C Speculative	9.0	218.2	–60.9	32.6	–2.1	42.2	24.3	64.5	254.4

* Figures for the third quarter contained some mistakes in the December *Report*.
** Corrected for the net foreign interest payments of the general government.
*** Conversion effect of the change in commercial banks' total open position, i.e. the portion of open positions not hedged by derivative transactions.
**** Conversion effect of the change in forward contracts. With these two items the negative sign indicates the closing of long forint positions built up earlier.
+ From the fourth quarter, the capital flows linked to bank equities are recorded with the 'Equity' item instead of the 'Others' item.

Box II-1 Foreign exchange market activities of the banking system from December 2000 to February 2001

Immediately after closing the December *Report*, commercial banks changed their behaviour, with a renewed increase in their demand for foreign exchange funds. This resulted once more in an on-balance-sheet open position well in excess of HUF 100 billion *(see Chart II-7)*. This figure approaches the amount which prompted the National Bank to amend the regulation on open positions in February 2000, in order to make this activity more costly for commercial banks. Apparently, some banks find it worthwhile to absorb the extra costs imposed by the new regulation, in order to increase their foreign exchange liabilities.

***Chart II-7* Open positions of the banking system**

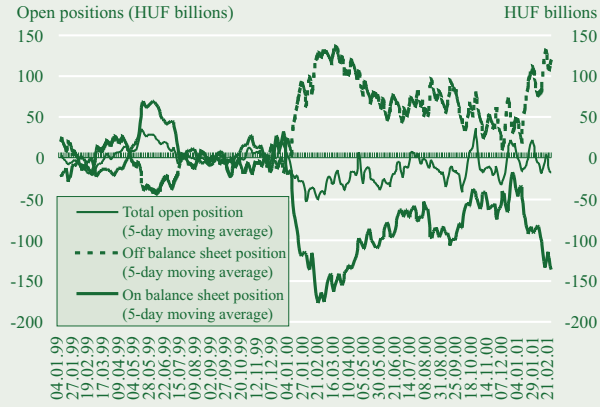
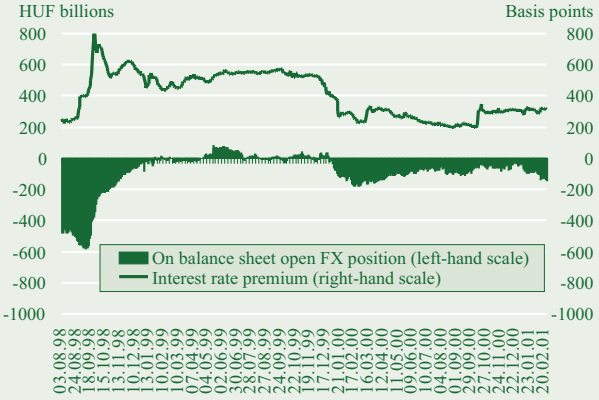


***Chart II-8* On-balance-sheet open FX position of the banking system and the interest rate premium on forint assets**

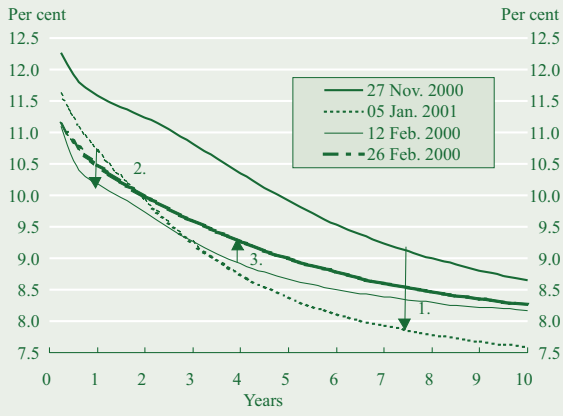


The increase in the on-balance-sheet open position did not lead to the reopening of the total open position. In this respect, the banks have not abandoned their recent cautious attitude in aggregate terms, and are not taking any exchange rate risk. This implies that they are speculating on the difference between yields rather than exchange rate gains in favour of forint assets.

During the period under review, the interest rate premium on forint assets remained virtually unchanged compared with the roughly 300-basis-point value seen at the end of the previous period. The yields required by international investors had already increased at the end of the previous period, and this atmosphere has continued to determine international investment flows ever since. Changes in the forint's interest rate premium and the on-balance-sheet open position of the banking system indicate *(see Chart II-8)* that, in addition to the value of banking-system liabilities, the level of the interest rate premium also approached that seen a year ago.

2 Yield curve, interest rate and inflation expectations

***Chart II-9* Zero-coupon yield curves**



The Bank's December *Report* tracked developments on the Hungarian government securities market through the end of November 2000. Since then there has been a decrease in zero coupon yields of all maturities, in contrast with the significant rise in the previous quarter. Compared with the situation at end-November, there was a 90–120-basis-point downward shift in the three-month to five-year section of the yield curve, while at the same time a much smaller, roughly 40-basis-point drop occurred at the longest maturity of ten years. The decrease in yields was not distributed evenly over time *(see Chart II-9)*. From late November to early January, the decrease in yields was on large scale, amounting to 80–140 basis points, with medium-term yields affected most strongly. The drop in yields over this period was due to factors determining non-residents' demand for government securities, with special regard to the decline in euro yields and changes in the risk premium required on forint yields. Then, from early January to mid-February, short-term yields adjusted to the previous decline in long-term market yields, partly as a result of the central bank's two interest rate cuts, while long-term yields were already starting to rise. This led to a turn

around the two to three year maturity of the yield curve. This was presumably due to the interruption and subsequent adverse shift in the downward trend of the world oil prices seen since early December and the strengthening of the euro against the dollar over the same period. In mid-February, following the publication of the higher-than-expected rate of inflation, market participants made an upward shift in their short-term (1–2 year) inflation expectations, which brought about a 20–25-basis-point rise in yields. Thus, on the whole, rather than decline, short-to-medium-term inflation expectations deteriorated slightly in the period of December to February.

The following section contains an in-depth analysis of the factors at work in the change in yields over the period under review.

The substantial decline in the level of interest rates on the euro, serving as an anchor currency, had a decisive impact on forint yields in December 2000. The decline in euro yields at all maturities occurred despite the fact that the European Central Bank made no cut in its benchmark rate during the period under review. The decrease in euro yields could be attributed, to a great extent, to the Fed's two interest rate cuts (on January 3rd and 31st) totalling 100 basis points, prompted by an apparent slowdown in US economic growth. These cuts led to a drop in market yields on the dollar of 100–140 basis points from December to February. Fears of a recession and statements by the Fed's chairman spurred expectations of an interest rate cut in the USA as early as December, leading to an over 10% rise in the euro's exchange rate against the dollar before mid-January. From the point of view of rising euro-area inflation, a long-term appreciation of the euro could be a favourable development. This would imply tighter monetary conditions without the ECB raising interest rates. As a combined result of all the above factors, medium-term zero coupon yields on the euro *(see Chart II-10)* decreased by 40–70 basis points by early January, simultaneously with a somewhat slower decline in short-term yields. All in all, the euro yield curve became less steep, and in the range of up to two years the curve assumed an unusually inverse shape, which implies that investors expect euro yields to continue falling over the next year, even though not at a rapid pace. In addition to the events overseas, the decline in oil prices since November, which has probably improved inflation expectations in the euro area, may also have contributed to the decrease in euro yields. The yields obtained on the market of Hungarian government securities rapidly followed changes in euro yields, although expressed in terms of basis points the decrease was nearly double the figure for the fall in euro yields, in respect of medium-term yields *(see Chart II-11)*. This was probably due to the fact that the drop in the risk premium required on forint yields strengthened the effect of the fall in euro yields. In contrast to the previous quarter, investor sentiment about emerging markets improved considerably in December and January, reflected in a significant drop in the foreign-exchange bond spreads of these countries. The average spread on Hungarian foreign exchange government bonds, an indicator of country-specific risk, also declined during this period.

The decline in the required yield on forint investments resulted in significant interest-rate induced capital inflows, pushing up foreign investors' government security holdings by roughly HUF 70 billion by mid-February *(see Chart II-14)*. The

Chart II-10 **Zero-coupon yields**

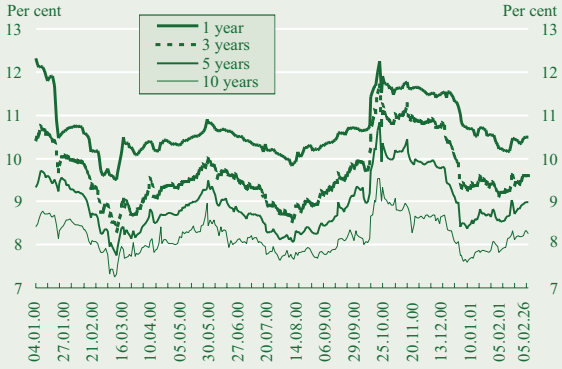


Chart II-11 **Three-year forint and euro zero-coupon yields**

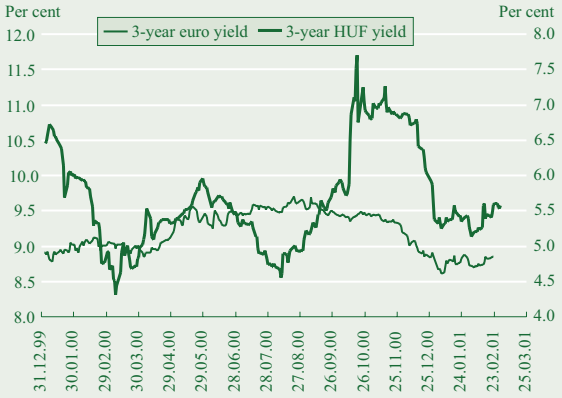


Chart II-12 **Reuters survey of macro analysts' inflation expectations**
Year-to-year inflation in December

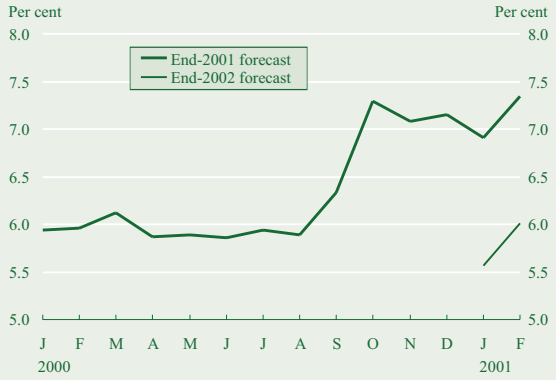


Chart II-13 **Reuters survey of monthly inflation expectations versus actual inflation rates**

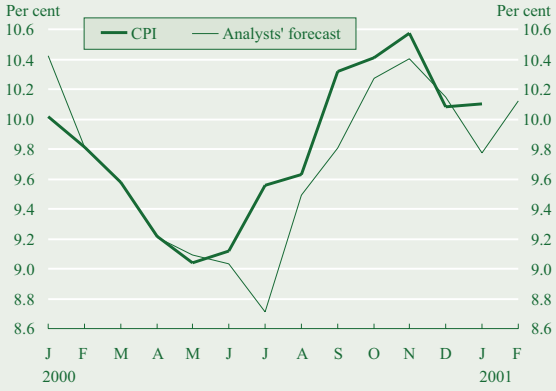


Chart II-14 **Government security holdings of non-residents as registered by KELER and the three-year zero coupon rate**

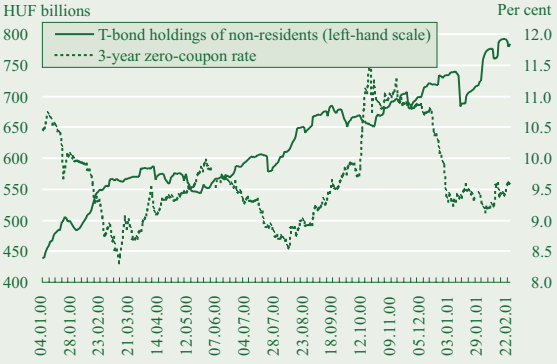


Chart II-15 **One-year implied forward curves**

average remaining time to maturity of the total stock rose slightly, with foreigners investing not only in specifically interest-rate-sensitive short-term instruments, but also in medium-to-long term ones (especially at the 2-to-3-year and 10-year maturities).

In response to the fall in yields on government securities in the aftermath of the decline in the euro yields and the risk premium, the National Bank cut the maximum interest rate on the two-week deposit facility on two occasions – each time by 25 basis points. The first reduction, effective of January 8th, did not catch the market by surprise and thus left yields unaffected. With this measure the Bank also intended to signal to the market that the stronger euro and lower oil prices were affecting the trend of inflation in a beneficial way. The week before the February 5th interest rate cut saw an acceleration in interest-rate-sensitive capital inflows, attracting foreign investments of HUF 50 billion in the course of just a few days, leading the central bank to intervene strongly. As central bank policy makers regarded the downward pressure on the level of interest rates as lasting, they took steps to align central bank rates closer to market yields.

The decline in long-term yields seen from December to early January was not accompanied with a decline in inflation expectations relating to the coming year. The December survey by Reuters even reflects a slight rise in the rate of inflation expected for end-2001, compared with November *(see Chart II-12)*.

Inflation expectations moderated somewhat in January, thanks presumably to the decrease in oil prices which began in late November and the strengthening of the euro. However, the January rate of year-on-year inflation (10.1%), published on February 13th, again exceeded analysts' expectations (9.78%). On the day of its announcement, forint yields rose by 10–30 basis points at all maturities. According to the Reuters survey in late February, inflation expectations for December 2001 rose once again to the October 2000 level, and the rate expected for end-2002 was also up significantly, by around 45 basis points.

The rise in yields in the second half of February was thus primarily attributable to worsening inflation expectations *(see Chart II-13)*, and, to a smaller extent, the slight upturn in euro yields, as well as the Turkish financial crisis after February 21st, with its likely upward pressure on the required risk premium.

Following the announcement of the January inflation rate there was a steady rise in foreigners' government security holdings, together with rising yields, in contrast to the period from December to January.[1] This indicates that the yields required by domestic investors (of which inflation expectations are the most volatile component) grew at a higher rate than those demanded by non-Hungarian residents (influenced more strongly by projected depreciation and the risk premium). In other words, the primary factor behind the rise in yields was higher domestic inflation expectations.

The shifts in the forward curves derived from the zero coupon yields provide the best information on changes in market partici-

[1] The abrupt fall in foreigners' government security holdings in mid-January was due to the maturing of the government bond 2001/G, of which non-residents' holdings amounted to HUF 50 billion, rather than an active portfolio management choice. The renewal of foreign holdings took a couple weeks, which is a relatively long time. This was because the immediate replenishment of expiring government securities on the low-liquidity Hungarian secondary market relative to the portfolio size of foreign investment funds would have had a serious impact on prices.

pants' expectations of short-term interest rates *(see Chart II-15)*. Between early December and late February, there was no significant change in the one-year interest-rate level expected four or five years ahead, while interest rate expectations for the coming two or three years declined considerably. It should also be noted that, in addition to a shift in levels, the annual yield path in 2001 also reflects a faster pace of decrease, i.e. between December and February there was a roughly 50-basis-point rise in the difference between spot rates and one-year yields one year ahead. The faster decrease in the expected interest rate can be attributed to the fact that the cut in the devaluation rate of the forint appeared, or in more precise terms, shifted forward in time, in market participants' expectations.

3 Interest rate policy of commercial banks

From November 2000 to January 2001, commercial banks' lending rates to the corporate sector followed the changes in the yields on short-term government securities, i.e. there was a clear fall in interest rates only from January, considering the period following the central bank's interest rate hike in October. By contrast, the effect of the fall in market interest rates has not yet fed through to short-term household deposit rates *(see Chart II-16)*. An analysis of average interest rates in the period since October reveals that the 1% interest rate hike by the central bank in October was almost completely passed on by the commercial banks to corporate-sector lending rates, whereas household deposit rates were only raised by 0.5 percentage points on average. As far as companies' deposit rates are concerned, the increase had started earlier, which makes the effect of the interest rate hike less easy to interpret.

A comparison of short-term corporate lending rates and market yields *(see Chart II-17)* indicates that the spread between these items narrowed markedly in the second half of 2000, relative to previous years, when it fluctuated around 1.5 percentage points. In the period under review, stronger inter-bank competition played the greatest role, simultaneously with a rise in lending activity. There has been no considerable change in the spread between market interest rates and household deposit rates, which have been fluctuating around 1.5% ever since January 1998.

Consumer credit by commercial banks was affected by the usual seasonality, with a significant pick-up in lending late in the year, due to the holiday season. The previous slow decline in consumer lending rates came to a halt in November, due to the central bank's interest rate hike and the strong demand for credit. In a simultaneous development, after a decreasing trend from May, the margin between consumer credit rates and twelve-month household deposit rates appeared to reverse in November *(see Chart II-18 and II-19)*, due mainly to the fact that medium-to-long-term deposit rates already began to fall off in November. New lending contracts related to building projects were at a much lower volume than consumer credit transactions, but the annual growth rates reflect exceptionally strong expansion. The final quarter saw a decline in building loans, due, in all likelihood, to seasonal effects.

***Chart II-16* Commercial bank interest rates and market yields**

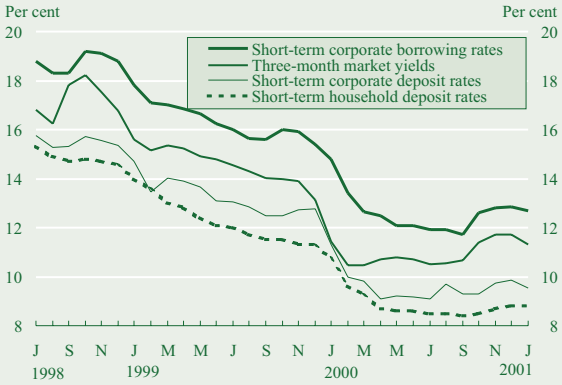


***Chart II-17* Spread between short-term corporate lending rates and market yields**

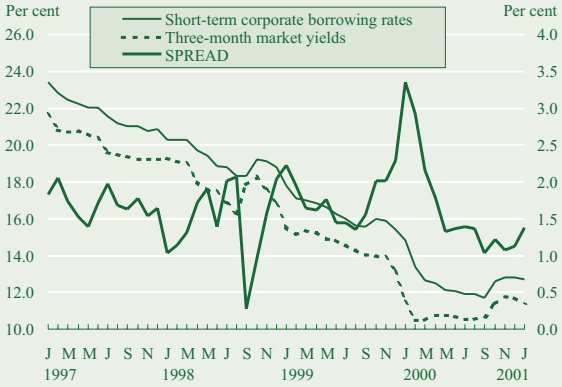


***Chart II-18* Spread between yields on government securities and household deposit rates**

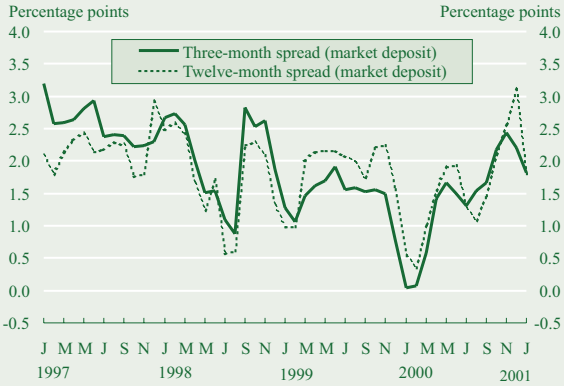


***Chart II-19* Lending to households**

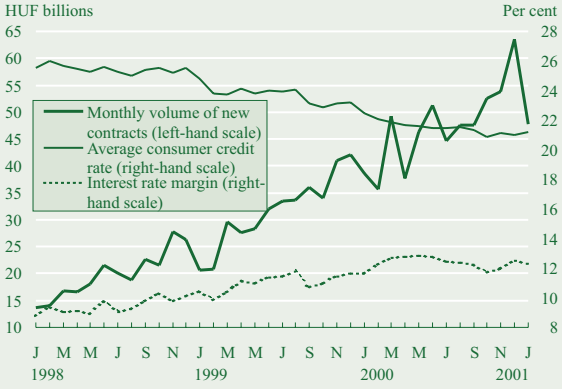


Chart II-20 Real growth rates of monetary aggregates
Three-month moving average;
same month a year ago = 100

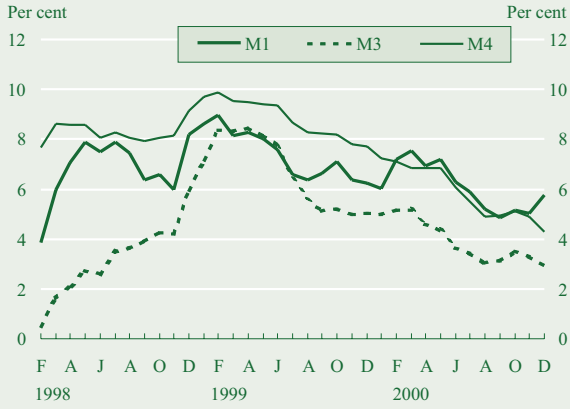


Chart II-21 Real growth rate of M1
Three-month moving average; same month a year ago = 100

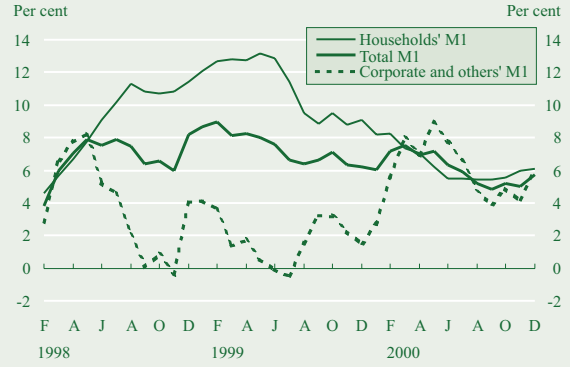


Chart II-22 Real growth rate of M3
Three-month moving average; same month a year ago = 100

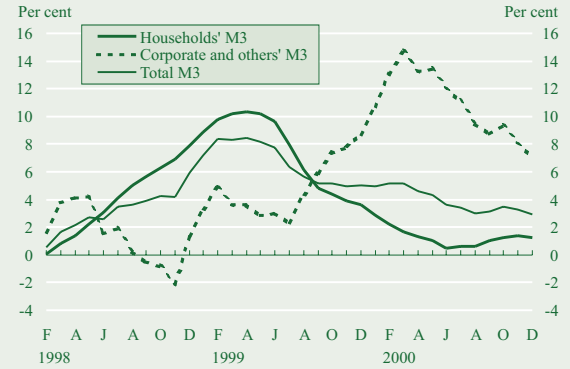
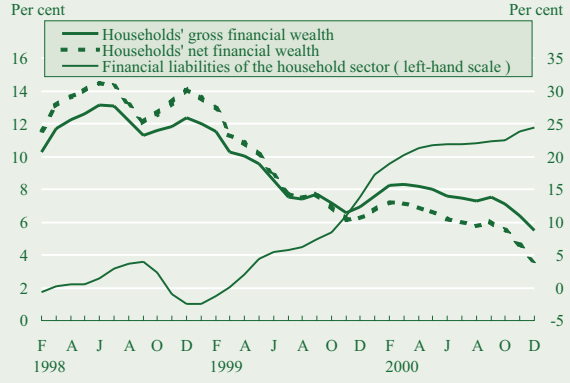


Chart II-23 Twelve-month real growth rates of net financial wealth, gross financial wealth and household financial liabilities
Seasonally adjusted; three-month moving average



4 Monetary aggregates

The surge in the real growth of broad money measures over the final month of 2000 Q3 proved to be temporary, and real growth in M3 and M4 returned to its slowing trend *(see Chart II-20)*. The trend in household portfolios tended to indicate a decrease in the weight of saving transactions within the banking system, together with an upsurge in consumption and a major pick-up in the propensity to invest during the third quarter, which also exerted downward pressure on real growth in financial assets. In accordance with these tendencies, real M1 growth was faster during the quarter, as a result of the upsurge in household and corporate sight deposits. This was because both sectors needed large amounts of liquid assets to support a considerable volume of transactions.

Household-sector demand for cash, adjusted for the effect of the year 2000 date change, continued to expand at a steady rate. At the same time, the real value of sight deposits held by households – with special regard to small businesses, which are also included with the household sector - rose considerably during the quarter, spurring growth in the household component of real M1 *(see Chart II-21)*.

At the same time, the final quarter of 2000 witnessed an interruption in the slowdown of firms' demand for cash and sight deposits, which started at the beginning of the second quarter. Firms began to switch from long-term assets, especially government securities accumulated due to postponed investment projects, and partly from time deposits, to holding sight deposits. This brought about a significant rise in the level of the latter holdings.

In addition to slower M3 growth *(see Chart II-22)*, the factors behind the subdued growth rate of M4 – comprising M3 and government security holdings outside the banking system – included a drop in the real growth rate of government security holdings to 4% from the double-digit range prevalent in the first half of 2000. During the final quarter, firms reduced their government security holdings, in contrast with individuals, who bought large amounts for the first time in 2000. However, this latter development was not reflected in the twelve-month rate as households acted similarly in the previous year.

Households increased their net financial wealth at a markedly slower rate *(see Chart II-23)*. This was due both to slower growth in gross real financial wealth and to a faster, trend-like expansion in household liabilities. For the reasons noted above, households reduced the weight of time deposits and non-banking securities in their portfolios, simultaneously with a steady rise in the weight of assets outside the money supply, such as pension fund savings, life insurance premium assets and equities. At the same time, the real growth rate of the latter assets was slower, due to higher base-period values.

The velocity of circulation *(see Chart II-24)* continued to slow during the fourth quarter, as real M1 growth was still higher than growth in both consumption and GDP volumes. The divergence between the two measures can be attributed to the steadily rising weight of household consumption, relative to the gross domestic product.

5 Demand for corporate credit

The financing requirement of the non-bank corporate sector (excluding credit institutions and the Hungarian Privatisation and State Holding Company) rose in 2000 Q4. In addition to the increase in the financing requirement of non-bank financial companies, there was significant deterioration in the net position of other financial companies vis-à-vis the banking system. The rise in other financial businesses' demand for funds is probably attributable to the fact that this sector acts as a mediator of credit towards non-bank companies. This implies that the worsening in its net position vis-à-vis the banking system also satisfies non-bank companies' demand for funds in an indirect way *(see Charts II-26 and II-27)*.

In the final quarter of 2000 the structure of corporate borrowing changed relative to the preceding three quarters, with foreign financing regaining importance within foreign exchange loans. Simultaneously, the weight of domestic FX borrowing declined, which may imply that companies are gradually returning to the financing structure prevalent prior to 1999 Q4, at least in respect of the foreign-domestic ratio of foreign exchange loans.

In contrast to the previous period, in 2000 the corporate sector relied on the domestic banking system rather than foreign lenders to satisfy its foreign-currency financing requirement *(see Chart II-26)*. This development spurred growth in the domestic stock of foreign exchange lending, which had been quite low compared with the demand for FX funds. Growth in FX-denominated domestic lending peaked in 2000 Q2 and Q3. However, the fourth quarter saw a reversal of the trend, with a renewed rise in the proportion of funds borrowed from abroad, simultaneously with a plunge in both the weight of domestic FX loans within new lending and the up-to-then high rate of growth. A major cause of this reversal must have been the accommodation of Hungarian commercial banks to the regulation on foreign exchange open positions, effective as of July 2000, which had led to a one-off shift in the lending structure via pushing up the level of domestic FX lending.

Against a stable macroeconomic background, the proportion of loans for terms in excess of one year increased within the terms structure of credit, especially in respect of domestic foreign currency loans, but in terms of forint loans as well.

The structure of corporate financial assets developed along different lines from those seen in previous quarters. The sector increased the weight of its liquid assets, together with a rise in portfolio assets, in contrast to a plunge in companies' government security holdings, similarly to previous years. At the same time, acquisitions by some regionally expanding domestic enterprises led to a rise in the sector's foreign-exchange-denominated claims on non-residents. Still, the denomination structure of assets continues to differ significantly from that of liabilities, corporate-sector assets typically being forint-denominated. Thus, even though the weight of foreign-exchange loans declined somewhat within new lending, the deterioration in firms' net position occurred primarily in terms of the foreign-exchange position, due to the negligible role of FX assets, while the forint position improved slightly *(see Chart II-25)*.

Chart II-24 **Velocity of M1** (1997 Q1 = 1)

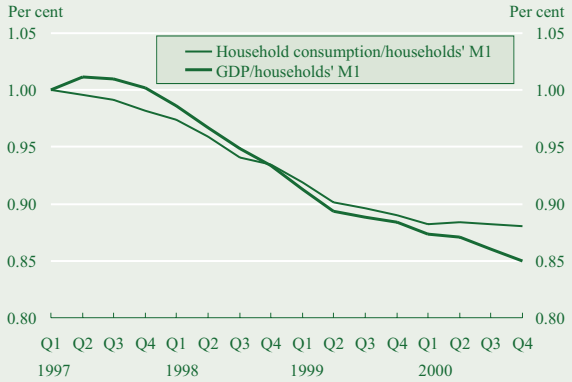
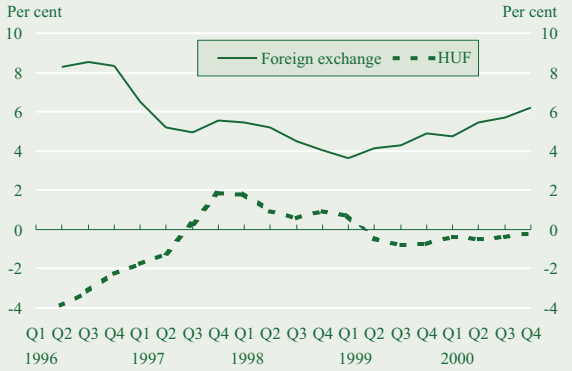


Chart II-25 **Operational quarterly financing requirement of the non-financial sector as a proportion of GDP** (Three-month moving average)



* Corporate sector: excluding financial institutions and the Hungarian Privatisation and State Holding Company. A change from the methodology used in the December Report is that now the corporate sector includes the so-called other financial companies.

Chart II-26 **Operational borrowing structure of the corporate sector** (Seven-month moving average; at December 1995 prices)

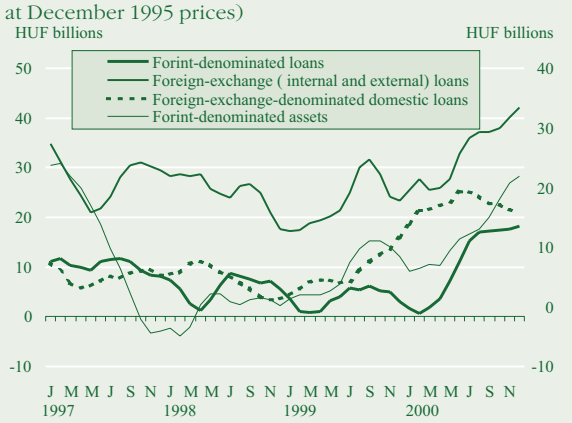
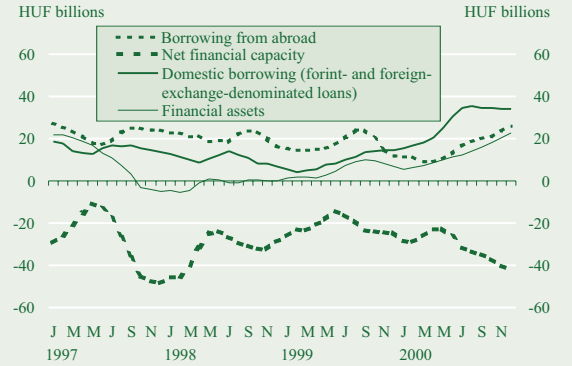


Chart II-27 **Structure of the net position of the non-bank corporate sector**

Seven-month moving average; at December 1995 prices



III. Demand

Chart III-1 **Contribution of domestic absorption and national account-based net exports to GDP growth**

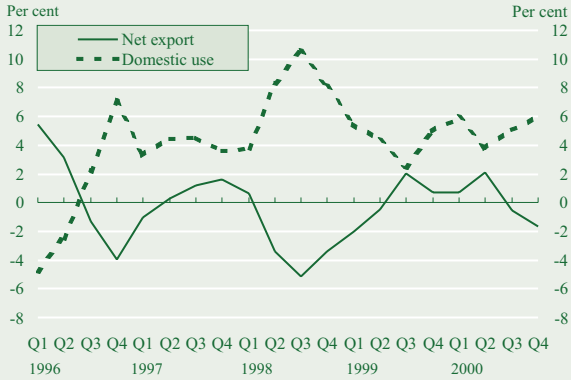


Table III-1 **Annual growth rate of GDP and its components***

Percentage changes on a year earlier

	1999					2000				
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total
	NBH estimates				CSO preliminary data	NBH estimates				
Final consumption	4.3	4.3	4.1	3.6	4.1	3.0	3.2	3.0	4.1	3.3
Household consumption	4.5	5.0	4.6	4.4	4.6	3.3	3.5	3.3	4.5	3.7
Public consumption	3.2	0.0	1.4	–1.3	0.8	0.9	1.0	0.9	1.5	1.1
Gross capital formation**	8.0	3.9	–1.4	7.4	4.4	12.8	4.7	9.8	9.2	9.0
Fixed capital formation	5.7	6.1	3.6	7.5	5.9	7.0	7.2	2.2	8.4	6.5
Total domestic absorption	5.3	4.2	2.4	4.8	4.2	5.7	3.6	5.0	5.8	5.1
Exports	9.5	9.8	13.6	18.9	13.2	21.1	21.0	20.0	25.0	21.9
Imports	12.9	10.2	9.3	16.6	12.3	18.6	16.4	20.6	26.8	20.9
GDP	3.4	3.8	4.5	5.7	4.4	6.6	5.8	4.5	4.2	5.3

* The Bank's quarterly GDP estimates are based on the quarterly GDP data published in April 2000 by the Central Statistical Office on the period 1995–1999. However, the quarterly data on 1999 may differ from those published in the aforementioned publication as they are estimates adjusted by the Bank for the second publication of annual data published by the CSO in September 2000. The estimates are consistent with the Bank analyses describing the income positions of individual income holders.

** Includes the statistical discrepancy, represented by the difference between the results of calculations for production and absorption.

Table III-2 **Contribution to GDP growth by individual items of absorption**

Percentage changes on a year earlier

	1999					2000				
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total
	NBH estimates				CSO preliminary data	NBH estimates				
Final consumption	3.2	3.1	3.0	2.6	2.9	2.2	2.2	2.1	2.8	2.4
Household consumption	2.9	3.1	2.8	2.7	2.8	2.1	2.1	2.0	2.7	2.3
Public consumption	0.3	0.0	0.2	–0.1	0.1	0.1	0.1	0.1	0.1	0.1
Gross capital formation*	2.2	1.2	–0.5	2.4	1.4	3.7	1.5	3.0	3.1	2.8
Fixed capital formation	0.8	1.3	0.9	2.6	1.4	0.9	1.5	0.6	2.9	1.6
Total domestic absorption	5.4	4.3	2.5	5.0	4.3	5.9	3.7	5.1	5.9	5.2
Exports	5.0	5.2	7.3	10.1	7.0	11.7	11.8	11.6	15.0	12.6
Imports	7.0	5.7	5.3	9.4	6.9	11.0	9.7	12.2	16.7	12.5
Net exports	–2.0	–0.5	2.0	0.7	0.1	0.7	2.1	–0.6	–1.7	0.1
GDP	3.4	3.8	4.5	5.7	4.4	6.6	5.8	4.5	4.2	5.3

* Includes the statistical discrepancy, represented by the difference between the results of calculations for production and absorption.

According to preliminary data, the Hungarian economy grew by 4.2% in 2000 Q4, representing an increase of 5.3% for the year as a whole, relative to the previous year. Although exports continued to expand rapidly during the fourth quarter, domestic absorption came to the forefront as the driving force behind GDP growth. Thus, it is no surprise that there was a substantial rise in import demand. The net export rate exerted downward pressure on economic growth in the final quarter (–1.7%), while the contribution of domestic absorption to GDP growth gathered pace *(see Chart III-1)*.

The gap between national accounts-based annual export and import growth rates already began to widen in the third quarter, with imports increasing more rapidly. The fourth quarter saw the gap continue to open, simultaneously with exceptionally strong export and import growth rates, up by 25% and 26.8% respectively over a year earlier. At the same time, the terms of trade continued to deteriorate during the fourth quarter, although somewhat more slowly than previously (by 2.4 percentage points).

Of the components of domestic absorption, consumer spending played a more important role in the expansion of GDP in the fourth quarter (2.8%). This was due to the fact that household consumption gathered considerable pace late in the year, rising by 4.5% in real terms in a year-on-year comparison *(see Table III-1)*. At the same time, operational incomes increased much faster than before, at the same rate as consumption. Public consumption rose moderately throughout the year, including the fourth quarter.

Whole-economy fixed capital formation also contributed strongly (by 2.9%) to economic growth during the fourth quarter *(see Table III-2)*.

The annual growth rate of whole-economy investment amounted to 8.4% in the final quarter, reflecting a pick-up in investment following a mid-year slump.

Stockbuilding, the other major capital formation item, along with other unspecified components of absorption, contributed to fourth-quarter GDP growth at a substantially lower rate than previously, although it still remained positive. The level of industrial output stocks, which account for some one-fourth of total inventories, fell off during the fourth quarter,[1] which probably occurred simultaneously with an increase in the level of input stocks. This seems likely in view of the fact that the volume of goods sold domestically for further processing during the final

[1] Based on industrial statistical data.

quarter was up by 10% on a year earlier, parallel to a similar upsurge in intermediate goods imports, in a quarter-on-quarter comparison.

1 Household consumption

Household consumption in 2000 Q4 gathered considerable pace relative to previous quarters, with the gap between consumption and income growth narrowing significantly. Total household real income rose by 4%, essentially due to the 5.2% rise in net labour earnings, accounting for over half of household income. Social benefits in cash rose fastest in real terms (6.4%), thanks to a retroactive rise in pensions. Overall income growth outstripped growth in mixed incomes (2.3%) and benefits in kind (1.3%).

In 2000 Q4, total income growth again fell short of operational income growth (4.5%, *see Table III-3)* – i.e. adjusted for the portion of interest income compensating for inflation – while consumption and operational income expanded at identical rates *(see Chart III-2)*.

The fact that consumption rose at a higher rate in 2000 Q4 than in the previous quarters is explained by the spending patterns of households, which enjoyed an increase in income. Both one-off wage payments and pecuniary social benefits affected those sections of society (social sector workers, old-age pensioners) with a high marginal propensity to consume.

Against the background of a substantial income rise, there was no major shift in the gross investment rate,[2] due to the high propensity to consume in the strata mentioned above. The rate stood at 10.6% in 2000 Q4, compared with 10.4% in the third quarter and 10.9% in 1999 Q4. As regards the composition of gross savings, the financial saving rate continued to moderate. The household investment rate rose by 0.7 percentage points and 1 percentage point in year-on-year and quarter-on-quarter comparison, respectively, reaching 7.4% in the fourth quarter *(see Chart III-3)*.

Household investment expenditure was dominated by home building and other housing-related investment projects, with a ratio to fourth-quarter operational income of 5.8% in the final quarter, up 0.9 percentage points on a year earlier. Housing investment growth took place simultaneously with higher credit extension for home investment projects *(see Chart III-4)*.

In 2000 Q4, the level of net financial savings was similar to the higher-than-usual third-quarter level. Unlike previously, households saved a higher portion of their income in the third quarter, and a lower portion in the fourth quarter. The inflation-adjusted[3] net financing capacity of households declined slightly in the fourth quarter. Changes in the stock of financial assets (HUF 149.7 billion) and borrowing (HUF 46.3 billion) remained similar to those in the previous quarter.

[2] All saving rates mentioned in this section are operational categories and seasonally adjusted

[3] Adjusted for the inflation compensation included in interest receipts.

Table III-3 **Annual growth of household income and consumption in real terms**

Percentage change on a year earlier

	1999	2000			
		Q1	Q2	Q3	Q4
Total income	2.0	1.2	1.6	1.5	4.0
Operational income	2.8	0.8	1.5	1.8	4.5
Volume of consumption	4.6	3.3	3.5	3.3	4.5

Chart III-2 **Real growth rate of household consumption and operational income**

Percentage changes on a year earlier; three-term moving average

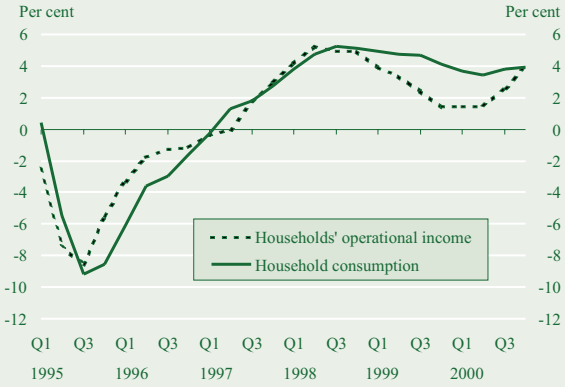
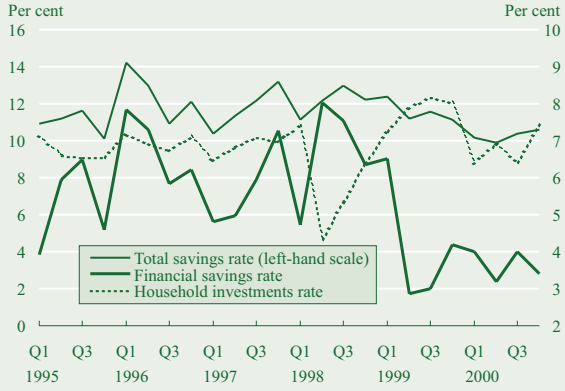
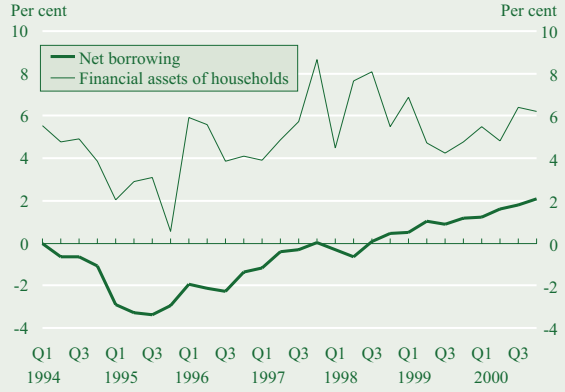


Chart III-3 **Changes in the household saving rate and its components***



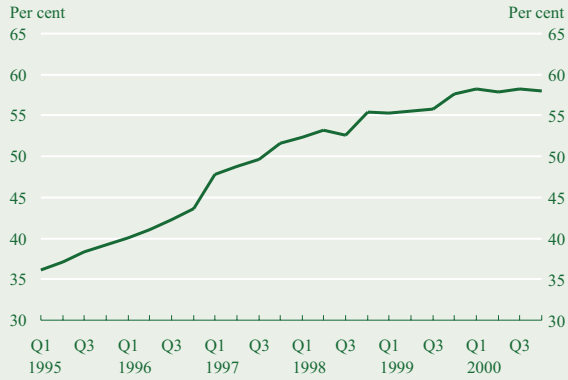
* Seasonally adjusted data as a percentage of operational disposable income.

Chart III-4 **Net household borrowing and financial assets***



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

Chart III-5 **Households' net financial wealth as a percentage of trend disposable income**



Pension fund contributions, which have been one of the key elements of financial assets for a long time, rose at the seasonally normal rate during the fourth quarter, i.e. faster than during the year.[4] There was also an upsurge in savings on deposit accounts both in a year-on-year and quarter-on-quarter comparison.[5] In respect of household saving, the final quarter was the first quarter in 2000 when households bought significantly higher amounts of government securities, simultaneously with a slowdown and, in the fourth quarter, decrease in the demand for unit trust investments, replacing a long upward trend. Compared with the third quarter, there was a nearly two-fold increase in foreign-currency savings, with cash holdings showing a downward trend. All in all, households tended to prefer short-term, low-risk investment facilities in 2000 Q4.

In the fourth quarter, the stock of credit was double for the figure for a year earlier, due to a major increase in building loans from 2000 Q2, thanks to the effect of housing loans offered on favourable terms. Consumer and collateral loans have rises at a persistently high, although not accelerating, rate. Home building and property purchase lending combined expanded at a faster rate than consumer credit in the fourth quarter, after adjusting interest rates for the effect of inflation *(see Chart III-5)*.

2 Investment

In 2000 Q4, whole-economy real investment expanded by 8.4% in a year-on-year comparison, bringing total volume growth to approximately 6.5% for the year as a whole. Although fourth-quarter data reflect a pick-up in investment activity, following a mid-year slowdown, annual performance still falls short of the level which was expected based on industrial output, domestic sales of investment goods, new orders and the long-standing, high rate of capacity utilisation (at 80%). On the other hand, quarterly indices computed from seasonally adjusted data indicate that investment activity is likely to pick up in 2001.

An analysis of investment by industry *(see Table III-4)* reveals that despite an upswing in investment, the volume of material production increased only slightly if at all, similarly to the previous quarters. Although manufacturing investment rose by nearly 5% in real terms relative to the previous year, together with the electricity sector, which was also up by over 5%, in other, traditionally weak, sectors (such as agriculture and mining) investment even fell short of the level for the previous year. In addition, fourth-quarter investment in the construction industry also remained flat in real terms.

As far as material services are concerned, Q4 investment remained as buoyant as in the first half of the year (up by 10% in volume terms), underlining the temporary nature of the weak performance in Q3. The increase was probably due to factors including strong investment performance in the transport and

[4] Out-of-schedule, supplementary contributions are usually concentrated at the end of the year.

[5] In respect of this component of the portfolio, data for 1999 Q4 are not suitable for comparison, due to increased cash holdings because of worries about the millennium date change.

communications sector, and the real estate transactions sector (10% and over 15%, respectively). In the former, growth was due more to strong investment activity within the communications sector rather than the effect of motorway construction, while in respect of the latter, the surge in home building projects may have contributed strongly. The performance of the hotels sector was rather uneven for the year as a whole. While there was no real growth in investment in the fourth quarter, the annual growth rate of 10% suggests strong activity. The rate of investment within financial services remained unchanged in the fourth quarter, still falling short of the level for the previous year in real terms.

Although investment related to property transactions tended to be rather volatile across the individual quarters, the subdued rate of housing construction activity seen in the past few years seems to be turning around. The number of building permits issued continued to increase considerably in 2000 Q4, up 50% on a year earlier. As a result of the steady growth experienced since early 1999, the number of permits issued over 1999–2000 amounted to 75,000. However, figures for the previous few years (70,000 and 54,000 permits issued in 1995–1996 and 1997–1998, respectively) indicate that growth in home building projects has climbed back to the level for 1995–1996, following a low in 1997–1998.

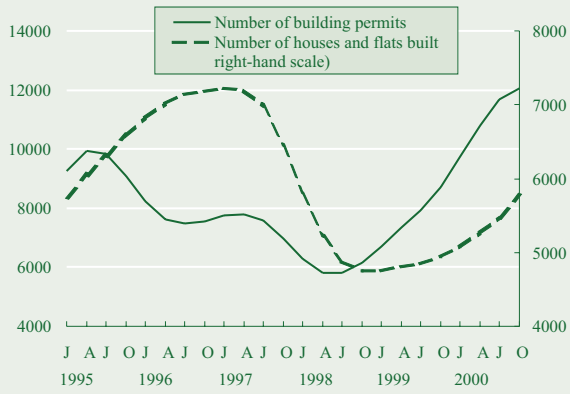
The number of completed homes follows the number of building permits only after a lag (average construction time is roughly seven quarters, with considerable variance). Nevertheless, seasonally adjusted data already reflect slow growth in the number of completed homes since mid-1999. This rate seemed to gather pace towards the end of 2000 (the fourth-quarter figure for completed homes was up by 27% on a year earlier). *(See Chart II-6.)*

Table III-4 **Whole-economy investment growth rates**

Per cent

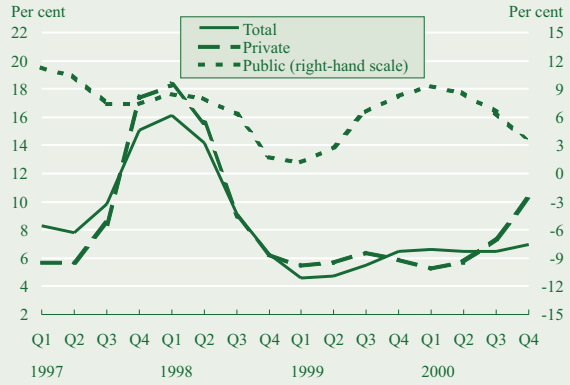
	1999		2000			
	Distribution	Volume index	Q1	Q2	Q3	Q4
			Same period of previous year = 100			
Agriculture, hunting and forestry, fishing	3.3	97.6	84.3	83.2	92.1	86.0
Mining	0.4	106.8	82.6	75.9	88.6	57.4
Manufacturing	26.1	114.2	102.3	107.2	101.4	104.8
Electricity, gas, steam and water supply	6.9	99.8	95.3	91.3	106.1	105.3
Construction	1.9	106.5	105.3	106.9	110.8	94.5
Material production, total:	*38.7*	*109.7*	*99.9*	*101.9*	*101.9*	*102.1*
Wholesale and retail trade, repair of motor vehicles, motorcycles, personal and household goods	7.5	125.7	105.2	111.3	103.7	106.5
Hotels and restaurants	1.1	124.8	114.6	104.2	134.6	97.8
Transport, storage, postal services and communications	17.9	94.4	136.7	107.6	94.5	110.3
Financial intermediation	2.8	78.5	92.1	98.2	134.6	97.8
Real estate, renting, business acitivities and housing investment	19.2	116.5	99.2	120.1	94.5	110.3
Material services, total:	*48.6*	*107.7*	*112.2*	*112.2*	*99.6*	*108.9*
Material production + material services, total:	*87.2*	*108.6*	*106.2*	*107.3*	*100.6*	*106.2*
Public administration and defence, compulsory social security	4.3	81.4	147.9	107.6	111.0	145.5
Education	2.0	112.7	115.8	103.0	108.8	99.5
Health and social work	2.1	87.3	116.3	102.9	98.8	94.3
Other community, social and personal services activities	4.3	87.5	88.4	110.6	111.8	100.7
Non-material services, total:	*12.8*	*89.4*	*117.6*	*107.2*	*109.0*	*116.4*
Total	**100.0**	**105.3**	**107.0**	**107.2**	**102.2**	**108.4**

Chart III-6* Number of building permits issued and completed homes



* Seasonally adjusted data.

***Chart III-7* Changes in fixed investment**
Annualised quarterly growth rates



Within non-material services, only public administration and defence increased investment volume, at an exceptionally high rate of 45%. After 2000 Q2, health investment remained virtually flat, while education grew by 5% for the year as a whole. On the whole, this group of services can boast of the strongest investment activity in 2000 (admittedly, the small weight of these areas prevent them from making anything more than a negligible impact on the amount of whole-economy investment).

The material and technical composition of investment reflects some change as construction investment projects grew about 3 percentage points faster than machinery investment, for the first time in the past few years.

In terms of investment broken down by income holders, the volume of public sector projects grew at a roughly 10% rate in the final quarter, just as in the third quarter *(see Chart III-7)*. However, Q4 growth was more the outcome of central government projects. Private-sector investment as a whole rose by around 7%, with the 5–6% growth rate of corporate investment only partially offset by strong household investment.

3 The fiscal stance

According to preliminary data, the SNA-based primary balance deteriorated by 3.5% of GDP in 2000 Q4 in a year-on-year comparison – thus the general government expanded demand to this extent *(see Table III-5)*. Despite the volatility in the demand effect across the different quarters, demand was restricted by 0.3% of GDP for the year as a whole. As pointed out in our previous *Reports*, the considerable sub-annual volatility in the demand effect can be largely traced back to a number of factors, which must be taken account of when interpreting the fundamental trends in the fiscal stance.

***Table III-5* General government deficit as a percentage of GDP**

Per cent

	1999					2000				
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Preliminary
1 Central budget balance excluding privatisation	–8.9	–2.6	–1.5	0.2	–2.9	–4.3	–1.1	–0.4	–5.4	–2.9
Of which:										
2 Primary balance (excluding NBH)	1.0	3.0	4.1	5.8	3.6	3.0	4.2	4.2	–1.0	2.5
3 Interest balance	–9.6	–6.4	–6.0	–5.5	–6.7	–7.4	–5.5	–4.8	–4.4	–5.5
4 NBH profits and losses	–0.3	0.8	0.3	–0.1	0.2	0.2	0.2	0.2	0.0	0.1
5 Balance of segregated funds excl. privatisation	–0.9	–0.1	0.0	–0.4	–0.4	0.1	–0.1	0.2	–0.1	0.0
6 Balance of Social Security funds excl. privatisation	–2.2	–1.1	–1.2	–0.2	–1.1	–0.8	–0.8	–0.7	–0.5	–0.7
7 Balance of local governments excl. privatisation	1.6	–1.0	0.6	–0.9	0.0	1.3	–0.7	0.0	–1.7	–0.3
8 Primary balance of local governments	1.4	–1.2	0.4	–1.1	–0.2	1.1	–0.9	–0.1	–1.8	–0.5
9 General government balance excluding privatisation	–10.5	–4.8	–2.1	–1.4	–4.4	–3.6	–2.7	–0.9	–7.7	–3.9
10 Out of this: primary balance	–0.7	0.6	3.4	4.0	2.0	3.5	2.4	3.7	–3.4	1.3
11 Accrual-based deficit of general government	–9.5	–5.3	–3.5	–1.1	–4.6	–3.5	–3.6	–1.8	–6.2	–3.9
12 Accrual-based primary balance	–1.5	0.7	2.7	4.5	1.8	2.4	2.0	3.3	–1.7	1.3
13 Deficit correction for financial transactions	0.3	–0.1	–0.1	–0.3	–0.1	–0.2	–0.2	–0.2	–0.4	–0.3
14 Deficit of Privatisation and State Holding Company	–0.3	–0.5	–0.8	–1.5	–0.8	–0.8	0.0	–0.4	1.4	0.1
15 SNA financing requirement (15=11+13+14)	–9.5	–5.9	–4.4	–2.9	–5.5	–4.4	–3.9	–2.4	–5.2	–4.0
16 SNA primary balance (16=12+13+14)	–1.5	0.1	1.8	2.7	0.9	1.4	1.7	2.8	–0.7	1.2
17 Effect of the pension reform	0.5	0.5	0.4	0.6	0.5	0.5	0.5	0.5	0.5	0.5
18 Demand effect (changes in lines 16 and 17)	1.5	–0.5	–0.9	–2.2	–0.6	–2.9	–1.7	–1.0	3.5	–0.3

There was a surplus generated on the receipts side, as after mid-1999 VAT revenues started to return to the normal level.[6] Other key factors were faster-than-expected growth and inflation, while only part of expenditures (pension expenditures) followed automatically with a time lag. In addition, the lower-than-expected privatisation revenues also put a brake on spending by the Hungarian Privatisation Agency (ÁPV Rt.), which was eventually financed by surplus budgetary receipts, just like the wage compensation received by the health and social sector.

In 2000 Q4, net VAT receipts fell off in real terms *(see Table III-6),* due to the fact that it was in the final quarter that the annual growth in VAT refunds, accounted for in terms of the accruals-based approach, caught up with the annual growth rate of receipts. (The VAT refunding system has been subject to several changes, which have exerted great influence on the sub-annual timing of refunds. This effect has been removed in principle by our accruals-based estimation.)

The budget used some of the extra tax revenues to give the ÁPV Rt. a grant amounting to 1% of GDP. This was because the company's privatisation revenues had dried up and there was a provisional ban on the sales of its reserves held in the form of shares. Thus, it was short of funds to finance its expenditures laid down by statute – expenditures to which further items had been added at the beginning of the year. Thus, the ÁPV Rt. was also unable to have the expected deficit. This is why the budget exempted it from its obligatory contributions and advanced a direct grant in the final quarter. This helped the Agency meet its expenditures and build up a surplus in the final quarter, which helped it do away with the small deficit it had accumulated.

In respect of cash benefits to households, pension payments, which account for nearly 70% of total transfers, were raised with retroactive effect in 2000 Q4, as provided for by statute and due primarily to slower-than-expected disinflation.[7] Other transfer payments decreased overall in real terms (in particular with regard to local authorities). Consequently, for the year as a whole, transfer payments to households did not exceed the level for the previous year in real terms, despite the rise in pensions. (The fact that in 1999 pensions were fully adjusted at the beginning of the year accounts for the different seasonality between the two years, *see Table III-7.)*

During the year the extra revenues were used to compensate health care and social sector workers, in the form of supplementary payments, for the unfavourable effects of the unexpected inflationary development. Paid in the third and fourth quarters, these sums amounted to 0.1% and 0.05% of GDP, respectively. Then, during the final days of the year, faster-than-expected economic growth and higher revenues prompted the Government to make another round of unscheduled pension and wage payments, amounting to 0.3% of GDP. These sums were deposited

Table III-6 **VAT in real terms**
Percentage changes on a year earlier

	1999				2000			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Domestic VAT revenues*	0.7	1.6	3.7	10.9	19.7	7.2	5.2	4.6
Import VAT refund**	8.9	3.0	0.1	3.2	12.4	4.7	7.1	13.1
Net VAT revenues	–9.0	0.5	7.1	18.4	30.0	9.3	3.4	–2.5

* Without further adjustments (for customs surety).
** Based on estimated accrual-based settlement.

Table III-7 **Selected public expenditures* in real terms****
Percentage changes on a year earlier

Per cent

	2000			
	Q1	H1	Q1–Q3	Preliminary
Pensions (including disability benefits)	–1.7	–1.3	–1.3	1.4
Sick-pay	5.9	12.2	5.0	3.9
Social benefits (central budget)	–5.2	–0.8	–2.2	–2.6
Social benefits (local authorities)	–12.0	–12.6	–9.7	–8.5
Household transfers, total	**–2.8**	**–1.5**	**–1.8**	**0.0**
Investment (central budget)	21.8	–3.5	0.8	7.9
Investment (local authorities)	–5.5	13.0	15.0	9.0
Gross investment expenditure	**6.1**	**4.4**	**7.7**	**8.4**

* *Source:* Public sector statistics, therefore this differs from CSO figures.
** Using the price indices for public consumption and investment.

[6] In the first half of 1999, the timing of VAT receipts temporarily diverged from in the business cycle.

[7] Pensions were raised on the basis of the Swiss indexation method, which is linked to inflation and net average earnings, with a 30%, 70% weight respectively. Inflation was higher than originally projected, and average net earnings were also higher by broadly the same rate as the extra inflation (this implies that the increase in real wages was close to the expected rate).

on an account[8] at the end of the year to be paid only in 2001. As far as the demand effect of this measure is concerned, pensioners and public sector employees will probably spend these windfall gains at the time of their receipt. This means that they are to be accounted for as part of the SNA deficit at that date.

The rise in the share of investment projects within expenditure seems to be a favourable development. No factual data are available on local authorities' investment spending in the final quarter. Despite strong growth over the previous few quarters, we did not expect further growth in real terms for the fourth quarter. By contrast, the central expenditure on institutional investment projects rose at a higher rate than previously, offsetting the fourth-quarter drop in the real value of priority projects.

4 External demand

As noted in the December *Report*, external economic activity peaked in 2000 Q3, in line with our expectations, while the fourth quarter witnessed a slowdown in growth. Of the components of GDP, both net exports and domestic absorption growth declined in the euro area. At the same time, there are many signs pointing towards the likelihood that domestic absorption will continue to grow at a relatively fast rate: (1) Both consumer and industrial confidence indices remain high; (2) In 2001, several large euro-area member countries have implemented major tax cuts, exerting upward pressure on household disposable income.

In 2000 Q3,[9] euro-area GDP growth fell to 2.8% in real terms, compared with annualised quarterly growth rates of 3.6% for the previous three quarters. Year-on-year GDP growth was at 3.4% in real terms, compared to 3.8% in previous quarters *(see Tables III-8 and III-9)*. The primary cause of this was lower quarter-on-quarter growth in private consumption, which fell to 1.2% in 2000 Q3, down from 3.2% in the previous two quarters. This decline had been foreshadowed by the September drop in the consumer confidence index, due probably to the steadily rising level of oil prices. Nevertheless, consumer and industrial confidence remained high in the euro area. The quarter-on-quarter consumer confidence index rose slightly in the fourth quarter, while the value of the industrial confidence index remained unchanged relative to the previous quarter. The fourth quarter saw a minor rise in the number of new cars registered relative to the quarter before, but the figure was still down in a year-on-year comparison.

Table III-8 **Main macroeconomic indicators in the euro area I**

Percentage change on a year earlier, seasonally adjusted data

Per cent

	1999			2000			
	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Real GDP	2.1	2.6	3.3	3.5	3.8	3.4	
Domestic absorption	3.0	3.0	2.8	2.5	3.2	3.1	
Private consumption	2.7	2.6	2.6	2.6	3.1	2.5	
Public consumption	1.4	1.6	1.5	1.7	1.8	1.6	
Gross fixed capital formation	5.6	5.8	5.4	5.4	4.8	4.2	
Stockbuilding*	–0.1	–0.1	–0.1	–0.4	0.0	0.4	
Exports	2.2	5.7	10.3	13.2	12.1	12.1	
Imports	4.8	7.1	9.2	10.7	10.6	11.4	
Net exports*	–0.8	–0.3	0.5	1.0	0.7	0.4	
New car registration	8.5	6.6	–0.6	1.5	0.2	–7.8	–3.0
Retail sale	2.2	2.3	3.1	2.5	3.2	2.6	

Source: ECB Monthly Bulletin, February 2001.
* Contribution to real GDP in terms of percentage points.

Table III-9 **Main macroeconomic indicators in the euro area II**

Percentage change on a quarter earlier; annualised, seasonally adjusted data

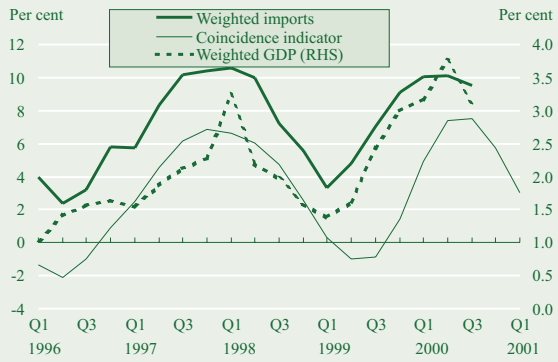
Per cent

	1999		2000		
	Q2	Q3	Q1	Q2	Q3
Real GDP	4.1	3.6	3.6	3.6	2.8
Domestic absorption	2.8	2.8	2.8	3.6	2.4
Private consumption	3.2	2.4	3.2	3.2	1.2
Public consumption	1.6	1.6	2.8	1.2	0.8
Gross fixed capital formation	7.8	1.2	7.4	3.2	5.3
Stockbuilding*	–0.8	1.2	–1.2	0.8	0.4
Exports	12.6	15.2	11.2	9.5	12.6
Imports	9.5	13.0	10.0	10.0	13.0
Net exports*	1.2	0.8	0.8	0.0	0.0

Source: ECB Monthly Bulletin, February 2001.
* Contribution to real GDP in terms of percentage points.

Chart III-8 **Foreign demand in Hungary's main export markets**

Percentage change on a year earlier; same period in previous year = 100



[8] At the end of the year, HUF 94.5 billion was placed on a deposit account. This sum comprises HUF 35 billion in subsidies for the ÁPV Rt, 40 billion to supplement pensions and wages and HUF 19.5 billion earmarked for home building projects. These sums are accounted for as part of the budget deficit. On the other hand the SNA accounting of the ÁPV Rt. subsidies is accounted as improvement in the Agency's balance for last year. The other two items will be recorded with the SNA deficit in 2001, at the time of the actual payment. (In 2000 Q4, these items together with the other subsidies granted to the ÁPV Rt. accounted for 4.6% of the 5.4% budget deficit.)

[9] Because of the time lag in data publication, GDP statistics for the euro area are only available until the third quarter.

External demand for Hungarian exports is measured in terms of the (effective) import and GDP of our main trading partners weighted with the Hungarian export structure.[10] In 2000 Q3, the year-on-year rise in this weighted GDP and effective imports stood at 3.1% and 9.5%, respectively. The weighted coincidence indicator of our main trading partners shows that external demand growth is likely to decline in 2000 Q4 and 2001 Q1 *(see Chart III-8)*.

In 2000 Q3 and Q4, business conditions in CEFTA countries did not follow a clear trend, with some countries experiencing a slowdown and others an up-turn in activity. Poland's second-quarter real GDP growth of 5.2% fell to 3.3% in the third quarter and 2.2% in the fourth quarter. The Czech economy continued to expand slightly, with year-on-year GDP growth at 1.9% and 2.2% in the second and third quarters, respectively. In Slovakia growth rose from 1.9% in the second quarter to 2.5%. Thanks to high world prices for energy and commodities, the economies of the CIS countries continued to grow at a robust rate, with Russian real GDP up by 6.8% and 7.9% in the third and fourth quarters, respectively.

According to estimates derived from preliminary data, in 2000 Q4, total exports of goods and services rose by 25% in a year-on-year comparison, compared with goods and services imports of 26.8%. In this manner, net exports reduced GDP growth by 1.7 percentage points. Volume and value data relating to the balance of trade continued to diverge in the fourth quarter, due broadly to changes in the terms of trade, which continued to worsen, although at a somewhat slower pace. In a new development, the balance of trade at constant prices also began to show clear signs of deterioration, due to the fact that the import volume exceeded the export volume *(see Chart III-9)*. In the fourth quarter, annual euro value indices reflect that import growth, 6 percentage points higher than goods export growth, was comprised of accelerating investment goods imports and a considerable decline in the effect of energy prices.

The balance of services continued to improve, but was unable to offset the worsening trend in the goods trade, which resulted in the negative contribution to GDP of the combined balance of goods and services.

In 2000 Q4, customs-statistics-based exports and imports amounted to EUR 9,012 million and EUR 10,406 million, respectively. There was a deficit of EUR 1,394 million on the balance of trade, up by EUR 665 million on a year earlier. For the time being, the fourth-quarter decline in external business activity does not seem to have fed through to export figures, since there is no fall-off in the quarterly growth rate of the trend of either the volume or the euro value data in a quarter-on-quarter comparison. There is even evidence of some acceleration in the indices *(see Charts III-10 and III-11)*. In respect of import figures, trade value data slowed down slightly and volume data gathered some pace. As the past two quarters saw systematically higher growth in the euro value indices of imports than of exports, the customs-statistics based balance of trade continued to deteriorate despite strong export growth *(see Chart III-12)*. The new data indicate more and more clearly that the deterioration in the trade

[10] See *Quarterly Report on Inflation*, June 2000.

Chart III-9 **Balance of trade based on customs statistics at constant prices**

Chart III-10 **Export and import trends based on customs statistics**

Annualised quarterly growth rates in euro terms

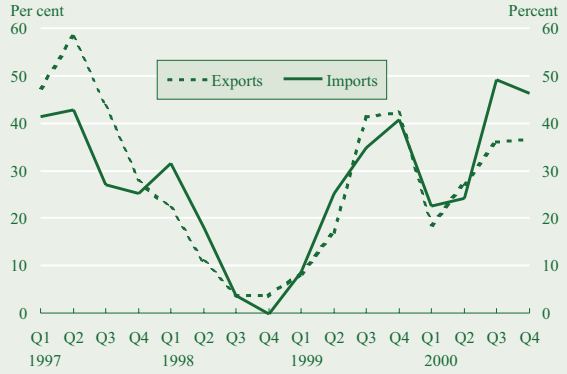


Chart III-11 **Export and import volumes**

Annualised quarterly growth rates

Chart III-12 **Balance of trade based on customs statistics in euro terms**

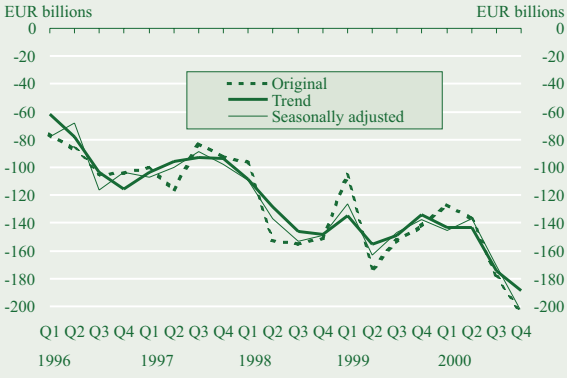


***Chart III-13* Exports to developed countries**

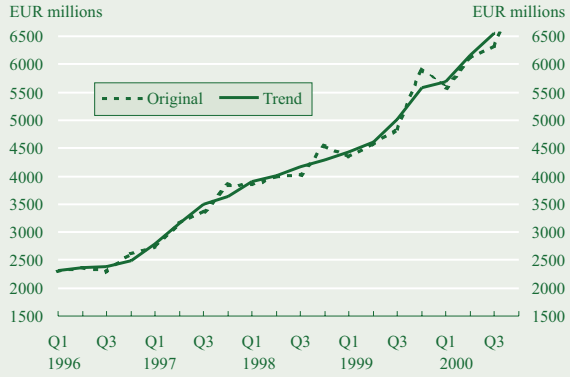


***Chart III-14* Exports to CEFTA**

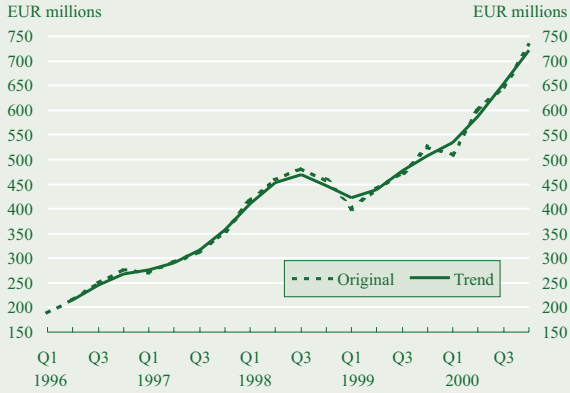


***Chart III-15* Exports to CIS**

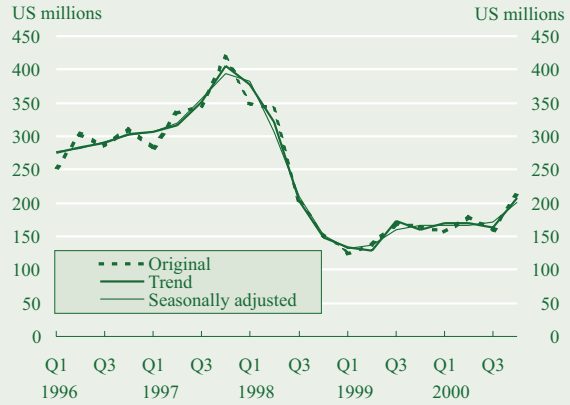
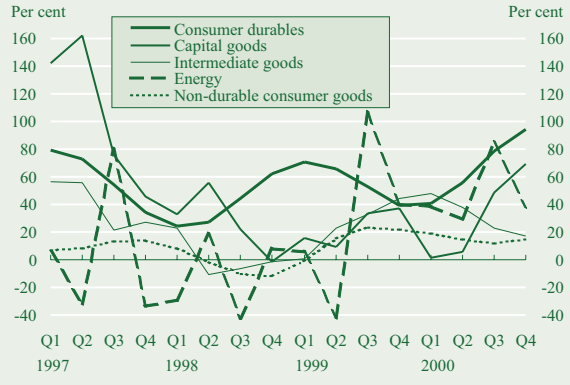


***Chart III-16* Annualised trend growth rates in various export categories**

Value index in euro terms



balance reflects a long-term trend, although the worsening in the terms of trade still remains a major contributory factor (down by 2.6% from 3.1% in the previous quarter).

As noted above, the fourth-quarter export growth did not yet reflect the slowdown in external demand. Exports to developed countries remained strong during 2000 Q4 *(see Chart III-13)*. The pick-up in exports to CEFTA countries, first experienced in 1999 Q1, continued at a steady pace *(see Chart III-14)*. This area saw the highest growth in demand for Hungarian exports, up by 39% on an annual basis, exceeding export growth to both developed countries (26%) and EU countries (24%). Exports to CIS countries picked up markedly in the fourth quarter, for the first time since the Russian crisis *(see Chart III-15)*. While previous high growth rates were essentially due to low base-period values, this time there was also a clear rise in the trend value in a quarter-on-quarter comparison. This may reflect the effects of an upsurge in demand stimulated by favourable business conditions in Russia.

An analysis of the composition of exports *(see Chart III-16)* reveals that durables exports continued to top the list. Short-term indices indicate that the Q3 recovery in investment goods exports also continued. Non-durable goods were exported at a slowly growing rate, while the quarter-on-quarter slowdown in the trend of intermediate goods exports excluding energy continued in the fourth quarter. An analysis of the export trends in the above goods shows that investment goods and durable goods contributed to total export growth at a markedly higher rate, simultaneously with a decline in the importance of intermediate goods. This suggests that the previous stagnation on the durable goods markets of our main export markets was only temporary *(see Chart III-17)*.

The SITC breakdown of exports *(see Chart III-18)* shows that machinery and equipment exports continued to grow at the fastest pace. Accounting for nearly 60% of total exports, this product category was the driving force behind export growth. This was equally due to an upsurge in both investment goods and consumer durables exports. Manufactured goods were exported at a steadily growing rate. Commodity export growth continued to slow in a quarter-on-quarter comparison, while food exports fell off.

An analysis of the breakdown of imports shows that in respect of consumer durables the trends seen in the previous quarter continued,[11] with a growth rate very similar to that of investment goods. Intermediate goods imports continued to show very high growth at nearly 40%. Imports of non-durable consumer goods grew at a basically unchanged rate *(see Chart III-19)*. On the other hand, there was a plunge in energy import growth in the final quarter. At the moment it cannot be determined if this represents a long-term trend. It seems certain that this may be related to the unusually mild winter, which has changed seasonality. At the same time, international energy prices exerted downward

[11] It should be noted that in the December Report we spoke of a decline in consumer durables imports on the basis of the annual rate of trend growth. The subsequent addition of about EUR 100 million to the third-quarter import figures led to a fundamental change in the trend data.

pressure on the import value of certain energy-producing materials in the final quarter.

As a result, final-quarter energy imports contributed to import growth at a significantly lower rate, whereas investment goods began to play a greater role. Import growth in respect of the other product categories remained unchanged *(see Chart III-20)*. In December we reported a slower increase in investment goods imports, associated with low investment growth. However, currently available information and revisions indicate that this effect must have been only temporary, as investment goods imports were clearly the driving force behind import growth in the fourth quarter. This is in line with the temporary slowdown in whole-economy and machinery investment growth seen in the third quarter.

Thanks to its continued favourable performance, the services category contributed to the improvement of the external balance in 2000 Q4, although to a slightly lower extent than in the previous quarters. The services balance on the balance of payments amounted to EUR 414 million, as a result of receipts of EUR 1,924 million and expenditure of EUR 1,510 million, with the surplus up EUR 72 million on a year earlier.

The improvement in the services balance can be attributed to the EUR 89 million increase in the travel surplus. The travel balance for 2000 Q4 recorded a surplus of EUR 579 million, as a result of EUR 915 million in receipts and EUR 335 million in expenditure *(see Chart III-21)*. Seasonally adjusted data indicate that receipts from tourism increased at an even pace during the year, with three-month annualised indices and the year-on-year euro value index growing at 20%.

The fourth quarter witnessed an upsurge in expenditures, with the euro value index amounting to 29% in a year-on-year comparison.

The fact that the trend of tourism increased in the fourth quarter *(see Chart III-22)* is also supported by other data on travel turnover. The fourth-quarter figure for tourist arrivals was up 15% on a year earlier, compared with a 1% rise in the previous quarter. For the year as a whole, this figure rose by 8%. The number of tourist nights spent in public accommodation units rose by 6% in the fourth quarter, compared with 2% in the third quarter.

The number of Hungarians travelling abroad rose by 4% for the year as a whole. The third-quarter decline of 2% was followed by a 10% increase in the fourth quarter.

The services balance excluding travel worsened slightly in the fourth quarter, creating a deficit of EUR 166 million as a result of receipts of EUR 1,009 million and expenditure of EUR 1,175 million. This deficit exceeds the figure for 1999 Q4 by EUR 17 million *(see Chart III-23)*. In a year-on-year comparison, the annual balance of services other than tourism remains EUR 172 million better than it was in 1999.

The trend of receipts and expenditures also rose significantly in the fourth quarter. While the fall in the services deficit recorded in previous quarters in terms of seasonally adjusted data was brought about by an increase in receipts and a flat level of expenditures, the fourth quarter witnessed a jump in expenditures. As the exceptionally high fourth-quarter figures introduced a degree of uncertainty into seasonal adjustment, moving averages were used to calculate the trend.

Chart III-17 **Contribution of various product categories to export trend growth**

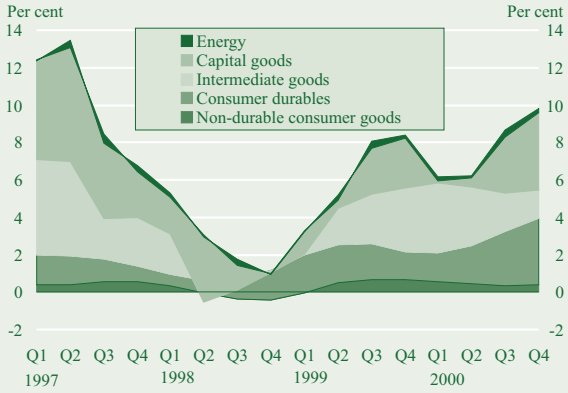


Chart III-18 **Annualised quarterly trend growth rates in the SITC-5 export categories**

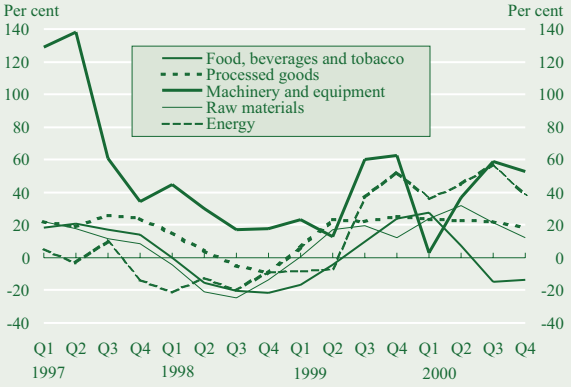


Chart III-19 **Annualised trend growth rates in various import categories**

Chart III-20 **Contribution of various product categories to import trend growth**

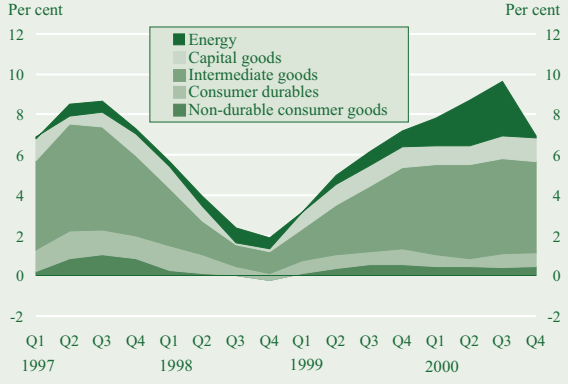


Chart III-21 **Travel balance**

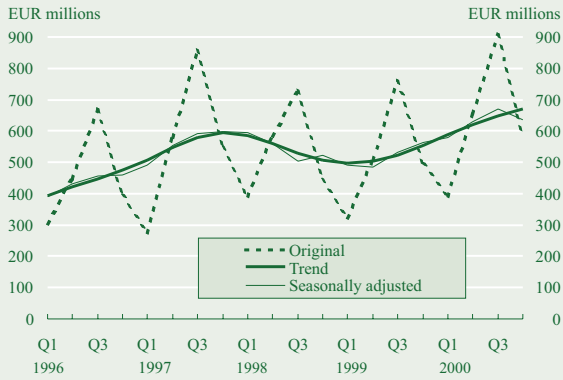


Chart III-22 **Trend of travel receipts and expenditures**

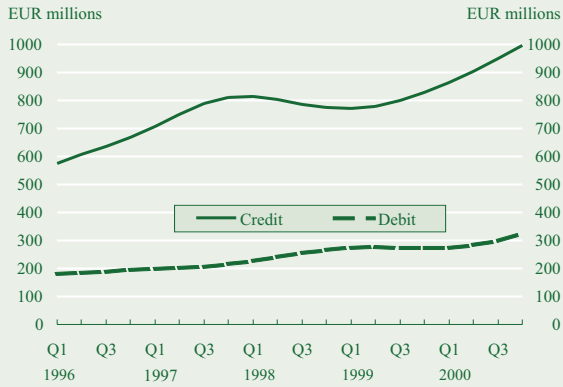
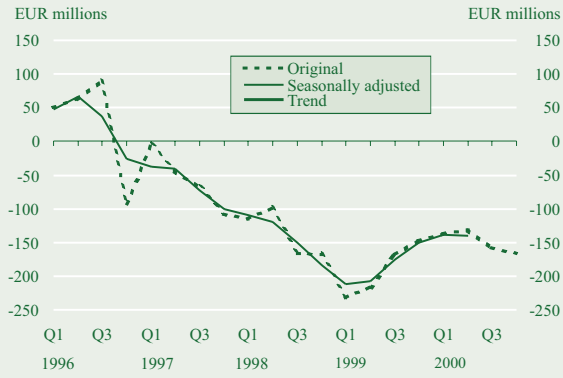


Chart III-23 **Balance of other services**



The euro-based, quarter-on-quarter annualised value index rose by 24% in respect of receipts and 22% in respect of expenditures.

A close look at the performance of the different services reveals signs of long-term improvement only in the balance of construction and installation. Although the improvement seen in 2000 in the balance of services other than tourism was apparently interrupted in the fourth quarter, receipts still rose substantially, thanks to buoyant external activity and an increase in goods exports. In respect of expenditures, one-off factors accounted for the improvement in the previous quarters, and similarly, the upsurge in fourth-quarter expenditure is also assumed to be due to a one-off factor and not a long-term change in the trend.

IV. Supply

1 Labour market

In 2000 Q4, certain labour market trends which had been observed during the year took on more definite shape. First, the economy continued to experience growth in labour use, with a faster increase in employment and a steady expansion in total hours worked. On the other hand, average weekly hours worked rose at a slower pace, but this is regarded as a temporary development. The low level of labour reserves continues to give rise to concerns about labour market tightening within the rapidly growing sections of the economy. On the other hand, the flat rates of private sector wage inflation could be seen as a sign of accommodation to the halt in disinflation. In a new development the earlier upsurge in wage inflation in the trade and repair sector started to reverse.

The public sector wage index, adjusted for the effect of the one-off wage payments to health care workers in July 2000, remained broadly at the third quarter level. This implies that there were no supplementary payments made at the end of the year to compensate for higher inflation in 2000. This is scheduled for early in 2001, but its effect on demand may have fed through to household consumption in the fourth quarter already.

1.1 Labour utilisation

From the point of view of monetary policy, the amount of labour used to produce marketed goods and services provides key information on the relationship between labour demand and supply; the public sector labour force is best analysed in terms of other indicators.

Labour utilisation can also be measured in terms of the number of employed and hours worked. The latter indicator can be regarded as more accurate, being the measure of the actual labour used in the course of production.

The household labour force survey (LFS) of the Central Statistical Office (CSO) classifies every individual engaged in any kind of income-generating activity as an employed person, regardless of the type of activity or its legal and tax implications. Thus, from the perspective of economic theory, the LFS is the most reliable source of information on private sector employment. This is because the institutional labour statistics (ILS), an alternative data source based on the survey of businesses employing over five people, only provide information on workers who have been officially registered as employees. Due to the nature of the regulatory framework in Hungary, this latter survey introduces system-

***Chart IV-1* Level of employment and the rate of change**

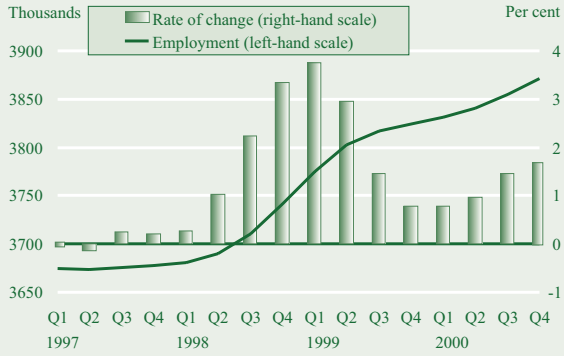
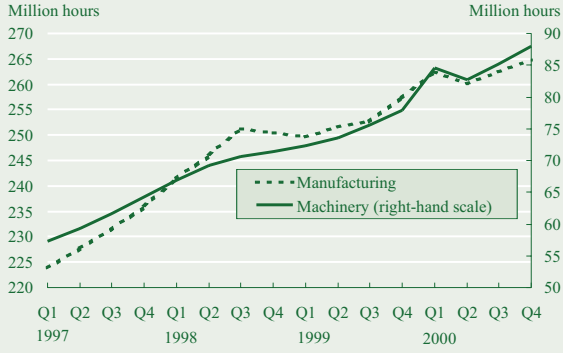


***Chart IV-2* Total hours worked in the manufacturing and machinery sectors**



atic bias into the data. In terms of the LFS, whole-economy employment growth gained momentum in the fourth quarter *(see Chart IV-1)*, up 1.4% on a year earlier, which implies a high annualised quarterly rate of 1.7%. Apparently, the slowdown in the number of employed seen in late 1999 and early 2000 was only temporary, and the rate of growth seems to be gathering pace again. This seems to be the case especially in the private sector, excluding the agricultural sector, where the number of employed people increased by 2.3% in a year-on-year comparison. Manufacturing and construction saw especially strong growth, up by nearly 5% and over 10% respectively in the fourth quarter, after removing seasonal effects. Employment figures in manufacturing can only be tracked using the ILS statistics. These statistics reflect the continuation of earlier trends, with the machinery sector and the basic metal manufacturing and metal processing sector topping the list in terms of employment growth (up by 9% and 2% respectively, year on year). There were also strong increases in respect of market services, with annualised quarterly growth rates of 3% within trade and repair, 9% within hotels and catering and 4% within the real estate and business activities sector.

The CSO's ILS survey indicates that the decrease in the number of people employed in the fiscal sector continued, even though at a somewhat slower pace. However, as will be shown below, it was not the white-collar labour force most relevant from the point of view of the private sector, with special regard to the labour demand within market services and tightening of the labour market, that was reduced by the government. It was more the number of manual workers that declined, with that of white-collar workers even increasing slightly within public services, particularly in education.

The number of total hours worked, which is a better estimate of effective labour utilisation, paints a similar picture as above. This may come as a surprise at first, as the ILS estimate for total hours worked in the private sector in the fourth quarter fell by 3.2% in a year-on-year comparison. This development, which occurred mainly because of the December data and affected all sectors, implies that that the drop in fourth-quarter labour utilisation from 851 million hours in 1999 to 824 hours in 2000 could be due to the fourth quarter number of working days being lower than a year earlier. However, in the absence of data series of sufficient length, this can only be ascertained in respect of manual labour in manufacturing.[1] Our calculations confirm that the decrease was indeed caused by the effect of the number of working days. After correction for this effect, the rise in the amount of hours worked in the machinery sector and the basic metal manufacturing and metal processing sector remains significant. Despite flat-to-falling levels in other sectors, the trend of total manufacturing hours worked continued to increase *(see Chart IV-2)*. This implies that the extensive growth in the private sector continued in the fourth quarter.

[1] Due to the calendar effect, the fourth quarter of 2000 contained four fewer working days, i.e. 6% less, than the previous year.

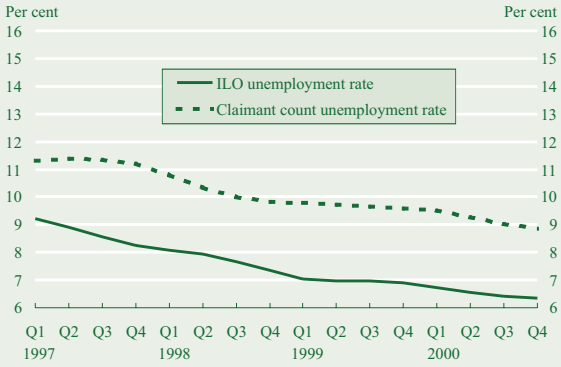
1.2 Labour reserves and the risk of labour market tightening

In recent years, Hungarian economic growth has been characterised by a wide-spread increase in labour use. However, this may be limited by a shortage of supply should the level of labour reserves be inadequate. Over the short term, businesses may respond to such a situation by intensifying the utilisation of the employed labour force by increasing the average weekly hours worked. However, such efforts may run against both 'natural' and regulatory restrictions. After the possibilities of increasing labour intensity are exhausted, competition for workers may exert steady upward pressure on real wages, which in due course may lead to rises in the price of products uncontrolled by foreign trade competition, possibly eventually slowing down the process of disinflation. Over the long term, a tight labour market tends to raise capital-intensity, and even a cutback in production is not out of question. Therefore, monitoring labour reserves and labour market bottlenecks is a crucial element of central bank analysis.

The adequacy of labour reserves can be judged in terms of the "capacity utilisation" of the potential labour force. Let us first look at the 15–74 age group, which is considered by international standards as the demographic basis of labour supply. The size of this group has been steadily declining since the mid-nineties. Within this group, the proportion of economically active persons – the actual labour supply – has been increasing since 1998. This is reflected in the activity (or participation) rate, which rose to 53.8% in the fourth quarter, approaching the level for 1994. Although this ratio is far below those typical for European countries, this does not imply that the level of available labour reserves equals (100–53.8) = 46.2%.

In the broadest sense, the reserve force of labour within the 15–74 age group consists of the non-employed, which comprise both the unemployed and the inactive sections of the population. The employment rate, which reflects the proportion of employed people, stood at 50.4% in 2000 Q4, after a steady rise since 1996. Nevertheless, it cannot be said that the proportion of labour reserves stands at 49.6% as domestic and international experience shows that the inactive, who are by definition not even present on the labour market, cannot be regarded as part of the *effective* reserve force of labour. The reason for this is that from the point of view of the central bank, the effective labour supply comprises the sections that are relatively easy to activate and that are approximate substitutes for employed people and therefore exert downward pressure on wages. Excluding the inactive section and identifying effective reserves with the unemployed, its proportion, represented by the unemployment rate, sank to 6.3% in the fourth quarter. On the other hand, several years of vigorous economic growth has already absorbed the unemployed who were easy to reactivate. This suggests that those currently unemployed cannot be fully regarded as part of the effective labour supply, because of the level of their qualifications, skills and demographic features, etc., in addition to the low geographical mobility characteristic of Hungary. The contribution of the individual groups to the effective labour supply can be estimated via microeconomic empirical research *(see Box)*.

Chart IV-3 **Labour reserves: unemployment rates***



* Based on seasonally adjusted series.

Box IV-1 Estimating effective labour reserves

From the perspective of monetary policy, the labour force is regarded as the capacity available for economic growth. We will examine if changes in employment could run up against supply-side barriers, which could trigger higher wages rises. To this end, we will track changes in labour demand and in the available *effective* labour reserves. The latter are defined as comprising non-employed people who, being close substitutes to employed people, exert downward pressure on wage growth.

Previously only international experience and economic logic helped us decide which groups of non-employed may be included with the effective reserve force of labour. The conclusion then was that labour reserves did not comprise the inactive group in general and the relatively unqualified, unskilled and/or long-term unemployed. Joint research with the Human Resources Department of the Budapest University of Economics has enabled us to produce direct empirical estimates on how "strong" the individual groups are in terms of labour supply. The following section presents our preliminary results on the classification of unemployed people according to education qualifications.

The research confirms our previous conjecture: the *probability* that groups with relatively unfavourable characteristics will receive a job is lower than average. *Chart IV-4* depicts relative probabilities for the years 1998–2000. Applying these indicators as weights to the individual groups will give a numerical estimate for the effective reserve force of labour and the unemployment rate *(see Chart IV-5)*. Our calculations show that by late 2000 the proportion of effective unemployment had sunk well below that indicated by the traditional unemployment rate. This suggests that private-sector labour demand may indeed lead to a risk of labour market bottlenecks.

Chart IV-4 **Relative probabilities of receiving a job in respect of specific unemployed groups**

Chart IV-5 **Original and effective rates of unemployment**

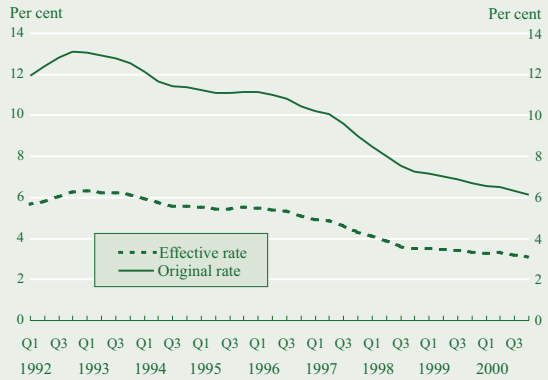
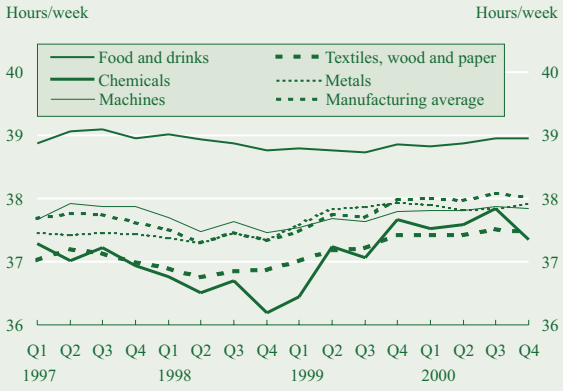


Chart IV-6 **Average hours worked** (hours/week)



As noted above, when demand for labour runs into limits in supply, businesses may respond by a more intensive utilisation of the people already employed. This is reflected in changes in average weekly hours worked, for which long data series are only available in respect of manual workers in manufacturing. The available data show that the average number of weekly hours worked has been on a steady rise since 1993. This general trend was not interrupted in the fourth quarter, although growth lost momentum and even reversed in respect of certain sectors, such as the chemical industry *(see Chart IV-6)*.[2]

1.3 Wage inflation

Our calculations suggest that in the fourth quarter, previous trends in wage inflation intensified. This means that throughout most of the private sector wage inflation decreased at a slower pace, with fourth-quarter rates remaining near the earlier rates

[2] The statistical procedure applied as a means of adjusting for the above-noted significant fourth-quarter drop in the number of working days slightly modifies our estimates for *previous* quarters. This is a "natural" consequence of the method, which leaves evaluation unaffected.

(see Chart IV-7). This is due to the interruption of the disinflation process: thanks to the flexibility of domestic wage bargaining, wages managed to accommodate to changes in the rate of inflation.

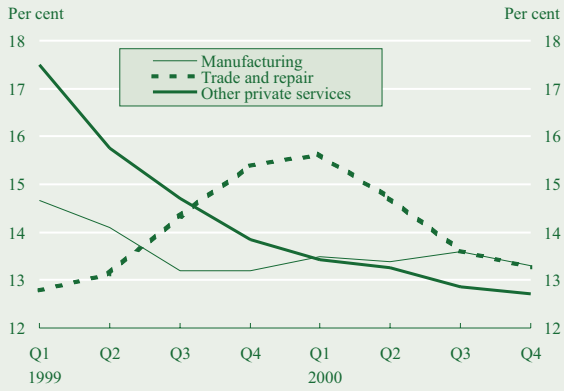
An analysis of the different branches of the private sector reveals that the divergence in wage growth seen in 2000 became even more marked during the fourth quarter. In the second half of 2000, wage indices for manufacturing and trade and repair were relatively high, while those for other market services, excluding the latter category, were low, in contrast to the indices for 1998 and 1999. This may be due to the combined effect of three developments. First, labour market tightening caused by robust manufacturing growth exerted upward pressure on the manufacturing wage index. Second, excessive demand seen within market services declined relative to 1998. Third, the jump in trade and repair wage indices may be due to measurement problems generated by the ongoing restructuring of the sector.

Within manufacturing, wages in the machinery sector and the basic metal manufacturing and metal processing sector are of interest because of the potential labour-market bottlenecks. Fourth-quarter wage inflation rates in these branches were above average, just as previously. This was partly due to above-average growth in productivity in respect of these industries and partly to labour market tightening as a result of the brisk increase in the number of employed people seen in recent years. There was an overall slowdown in the wage inflation of other market services, excluding trade and repair. As noted in the December *Report*, the trade and repair category produced exceptionally high rates of wage inflation in 2000, relative to 1998 and 1999. As noted, the current large-scale restructuring of trade services makes it difficult to evaluate changes in the price of "one unit of work". The category's wage index decreased considerably in the fourth quarter, which might imply that the nature of "the work" measured in the base period and the period under review now correspond, and that there was an easing in relatively excessive demand for labour, caused by the rapid growth in the number of employed people.

Table IV-1 shows wage inflation indices based on wage payments received on a *regular* basis as adjusted for the effect of changes in the number of hours worked. As wages always contain "fixed monthly" components which are paid regardless of the hours worked, there is an upward bias in the wage inflation indices because of the 5–6% drop in hours worked seen in the fourth quarter. The high Q4 figures could imply that wage indices declined to a lesser extent than could have been expected on the basis of the drop in the hours worked – and probably in the value produced. This is equal to deterioration in enterprises' per-unit profitability *(see more in section 3)*. However, if this was really due to the sudden drop in the number of hours worked, then it can be viewed as a temporary development.

In respect of public services, the figures in the table are appropriate as they are not distorted by the hours worked. As noted in the December *Report*, the one-off wage payment received by health-care workers in July – not incorporated into basic wages - exerted considerable upward pressure on the sector's third-quarter wage index. Due to the one-off nature of the measure, its effect has been removed from the indices. Thus, the corrected public sector indices for the fourth quarter were similar to those

Chart IV-7* Quarterly rates of wage inflation



* Annualised quarter-on-quarter indices, computed from seasonally adjusted data series.

Table IV-1* Wage inflation

Per cent

	Average for 1999	2000				Average for the year
		Q1	Q2	Q3	Q4	
Manufacturing	**16.1**	12.7	14.2	14.4	15.8	**14.3**
Trade	**14.2**	17.1	18.5	18.3	17.9	**18.0**
Other private sector services	**17.4**	12.0	12.3	12.2	15.6	**13.0**
Private sector	***15.8***	*12.8*	*13.7*	*13.9*	*15.9*	***14.1***
Public sector	**17.0**	12.1	9.7	11.2	11.5	**11.1**
Total	**16.2**	**12.6**	**12.5**	**13.1**	**14.5**	**13.2**

* Data on the private sector: wage payments received on a regular basis, adjusted for changes in hours worked. Public services: excluding one-off health-sector payments in July 2000. The National Bank's own calculations.

Chart IV-8* Average capacity utilisation in manufacturing

* Seasonally adjusted data. *Source:* Kopint-Datorg.

Chart IV-9* Share of manufacturing firms with a shortage of capacities, relative to prospective orders

* Seasonally adjusted data. *Source:* Kopint-Datorg.

Chart IV-10* Share of manufacturing firms with a surplus of capacities, relative to prospective orders

* Seasonally adjusted data. *Source:* Kopint-Datorg.

obtained for the third quarter. This implies that higher-than-expected inflation did not lead to any wage compensation at the year-end. Nevertheless, as prospective payments also tend to have an effect on household consumption, it cannot be ruled out that the payments promised for early in 2001 had an impact on demand at the end of 2000.

2 Capacity utilisation

In 2000 Q4, growth in average capacity utilisation[3] in the manufacturing industry continued at a slow pace in terms of the seasonally adjusted data, reaching its ten-year peak in this quarter *(see Chart IV-8)*. Dynamic output and export growth, which moderated somewhat relative to the first nine months, and slightly stronger investment activity were the factors at work in achieving such a high level of capacity utilisation. The utilisation of technical capacities was above average in respect of machinery and building materials manufacturing.

The relationship between technical capacities and prospective demand for the coming 12 months in terms of seasonally adjusted data reflected the continuation of the rise in the proportion of firms reporting a shortage of capacities. In a new development not seen since 1999 Q2, the fourth quarter saw a slight rise in the weight of firms expecting excess capacities. This is probably due to the fact that manufacturing firms expect slower output growth in the coming months *(see Charts IV-9 and IV-10)*.

Just as in the third quarter, the fourth-quarter share of firms reporting a shortage of capacities relative to prospective sales possibilities was high in the construction and machinery industries, predominantly affecting large exporters located in Budapest (and vicinity). Mostly machinery manufacturers were dissatisfied with the quality and technological standard of capacities.

3 Competitiveness

In 2000 Q4, the nominal effective exchange rate index of the forint depreciated by 6.1% on a year earlier, thanks largely to cross exchange rate movements – most notably the weakening of the dollar against the euro – (accounting for roughly 2%). Despite these favourable cross exchange rate movements, conducive to competitiveness, price-based indicators continued to be characterised by a trend of real appreciation, but at a rate which reflected no major change from the point of view of competitiveness. The CPI-based real exchange rate appreciated by around 1% in real terms, relative to a year earlier *(see Chart IV-11)*, which is in line with the growth in real appreciation expected over the long term. The manufacturing-price-based real exchange rate index continued to increase at a buoyant pace *(see*

[3] The survey used as the source of the above information did not cover a few large multinational companies with manufacturing operations in Hungary – which carry exceptional weight on account of their sales revenues. (The situation and Short-term Prospect of Manufacturing and Construction Industry Enterprises in January 2001, a quarterly survey of the business cycle, by Kopint-Datorg, January 2001).

Chart IV-12), with annual appreciation amounting to over 4%. This was again almost fully due to the composition effect, discussed in previous Reports. Therefore, the index from which the composition effect is removed appreciated by hardly 1% in real terms. [4]

It has been unfavourable from the aspect of competitiveness that the real depreciation in the unit labour-cost-based indicator, uninterrupted since 1995, appeared to come to a halt during the final quarters *(see Chart IV-13)*. While manufacturing investment growth slowed down and manufacturing productivity also improved at a lower rate in 2000, against the backdrop of less buoyant activity, wages in the manufacturing industry rose at a steady rate of roughly 15%.[5]

***Chart IV-11* Real exchange rate based on the CPI**

***Chart IV-12* Original and reweighted real effective exchange rates based on manufacturing wholesale prices**

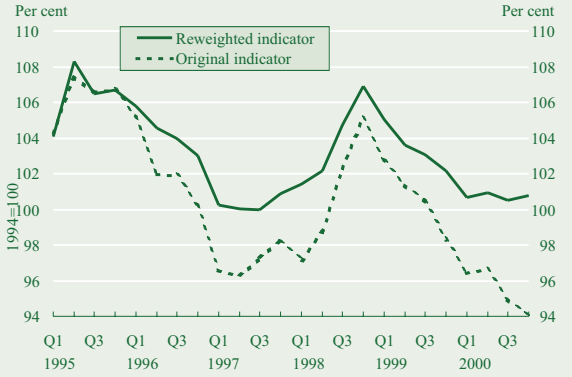
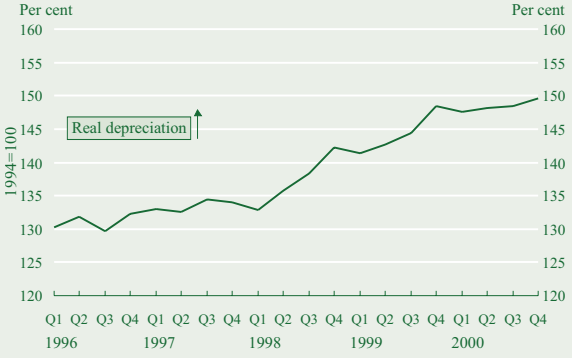


***Chart IV-13* Real effective exchange rate of the forint based on unit labour costs**

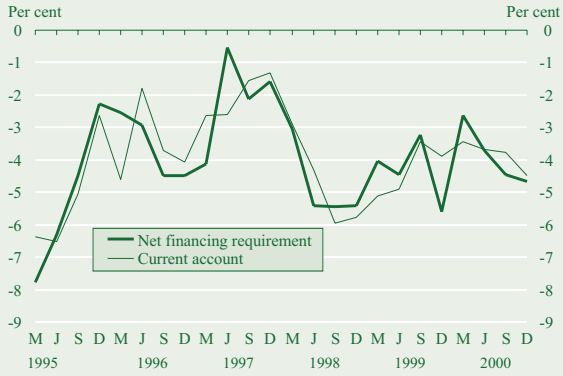


[4] As described in the December Report, the manufacturing-price-based real exchange rate, adjusted for the composition effect, applies identical weights to foreign and domestic price indices for the individual industries. This way the statistical distortion arising from the difference between the compositions of the Hungarian and the foreign manufacturing sector is removed from the index.

[5] It should be noted, however, that the slowdown in productivity per employed person was largely due to the decrease in the hours worked. (For a detailed description of changes in hours worked, *see section 1 of IV.*) However, this drop in worked hours is not reflected in the wage indices. Provided this is due to the lower adaptability of wages (presence of fixed components, etc.), then the halt in the improvement of competitiveness can be regarded as a temporary development. If, however, the underlying cause is a tightening in the labour market, then it may also reflect a lasting change in producers' profitability.

V. External equilibrium

Chart V-1 **Seasonally adjusted net financing requirement and current account deficit as a percentage of GDP***



*Net financing requirement denotes the saving – investment balance of the economy adjusted for inflation, which in turn defines a theoretical current account balance.[2]

1 Net saving position

The Hungarian economy continued to suffer from price losses seen since mid-1999, even though the terms of trade seemed to be worsening at a slower pace during the final quarter of 2000, compared with the exceptionally fast rate measured in 2000 Q3. In addition to the loss in the terms of trade, the increase in domestic demand played a gradually greater role in the 3.1 percentage points year-on-year deterioration in the balance of trade at current prices. Domestic economic agents' stronger demand and the worsening terms of trade led to a rise in the real-economy financing requirement. In addition to faster consumption growth, investment (which is relatively import intensive) also began to expand. The near-term prospect is that there will probably be a slight improvement in the terms of trade, which is expected to put a brake on further deterioration in the balance of trade.

Against the backdrop of a nominal deterioration in the balance of goods and services, the effect of profit repatriation through foreign residents' current transfers declined by 2.4 percentage points.[1] The deterioration in the trade deficit and the decrease in net profit transfers led to a 0.7 percentage points increase in Hungary's net financing requirement, amounting to about 6.3% of quarterly GDP. The trend of the GDP-proportionate deficit on the current account of the balance of payments also worsened *(see Chart V-1)*.

Disposable income increased and the striking discrepancy between the two years characterising the distribution of general

[1] As far as foreign current transfer payments were concerned, unrequited transfers had a neutral impact as a proportion of GDP (adjusted for the structure of GDP), while income transfers improved equilibrium position by over 2.4 percentage points. At the same time, cash-flow lags could have also played a role since the GDP-proportionate balance of net foreign market transfers peaked during 2000 Q3 relative to the same periods of the last few years. This may be a natural consequence of a steady expansion in foreign ownership stakes, but the effect of cash-flow time lags between the two quarters may also be a factor.

[2] The discrepancy between the published and the theoretical current account of the balance of payments stems from the fact that the Hungarian balance of payments statistics are still based on the cash-flow concept. This implies that they ignore transactions between Hungarian residents and foreign residents where there are no money flows involved. Furthermore, it may also occur that money flows that can be seen as revaluation in terms of economic theory are recorded as transactions. Another factor to blame for the discrepancy is that there may be a timing difference between real transactions and payment flows. The smaller the measured interval, the larger the relative discrepancy, i.e. the size of the difference between the data measured in terms of the accruals concept and those based on the cash-flow concept, as is illustrated by the quarterly data in the balance of payments current account and the net external financing requirement.

government[3] and private sector income[4] over the previous few quarters declined. Comparison is rendered difficult by the fact that the loss incurred as a result of natural disasters and the steady deterioration in the terms of trade in 1999 caused stronger-than-usual fluctuations in economic agents' income positions.[5] In the final quarter of 2000, the general government expanded demand,[6] which led to a 2-percentage-point rise in the public sector financing requirement as a proportion of GDP. This was accompanied by higher private sector consumption and investment spending, which, however, did not push up their net financing requirement. Retained earnings boosted companies' own resources to an extent which allowed a drop (of roughly 1.4 percentage points) in private sector demand for funds in the final quarter. Thanks to weaker profit repatriation flows, the increased spending by domestic economic agents and continuing high losses due to deteriorating terms of trade, Hungary's external financing requirement only increased by about 0.7 percentage points, at a much lower rate than that of the worsening in the balance of trade.

In 2000 Q4, household-sector disposable income grew basically at the same rate as GDP. In contrast, total household spending rose faster than income, which reduced net household financing capacity by roughly 0.5 percentage points to 2.9% (as a proportion of GDP). During the final quarter, household consumption rose at a faster pace than household disposable income. This was accompanied by stronger investment spending as a result of government subsidies encouraging home building projects. At the same time, the portion of incomes going into financial savings tapered off. Household borrowing continued to expand. This trend is also being supported by the development of money markets, which is facilitating the reallocation of households' financial assets towards a portfolio marked by a higher debt-to-income ratio.

With robust economic growth, corporate-sector[7] disposable income increased by 2.4 percentage points as a proportion of GDP in 2000 Q4. This development was due to several tempo-

[3] As in the December *Report,* the Hungarian Privatisation and State Holding Company (ÁPV Rt.) is no longer recorded in the corporate data section, but within the general government data. This is because the APV Rt. is engaged in quasi fiscal operations and is also treated by official (CSO) statistics as part of the general government. (The fact that until now the Bank did not fully rely on the official statistics in the 'savings and investment balances' was due to an absence of sufficient information.) Recently there have emerged other justifications grounded in economic theory in support of the transfer of the APV Rt. Until now, the Agency's operations were much more balanced and its expenditure was funded by its privatisation revenues. With these resources beginning to dry up, the importance of central budget reallocation has strengthened, bringing about major fluctuations in the income positions of the two types of public organisations. This may also conceal the real role of the general government in controlling demand. The consolidated combined balance shows a more balanced impact.

[4] Denoting companies and households.

[5] In the first half of the year, government receipts fell short of the projected level, simultaneously with unscheduled expenses, putting temporary upward pressure on private sector income. From the middle of the year, however, the effect of government tightening and the terms of trade led to an improvement in general government financing.

[6] Nevertheless, for the year as a whole, the general government continued to have a demand-contracting effect.

[7] The term 'corporate sector' refers to non-financial companies, financial companies and non-profit business units.

Table V-1 **Inflation-adjusted savings and investment by sectors as a percentage of GDP***

Per cent

	1998	1999					2000				
	Year	Q1	Q2	Q3	Q4	Year	Q1	Q2	Q3	Q4	Year
Gross domestic product	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**
+ net income transfers	–4.0	–2.1	–4.1	–2.6	–4.8	–3.5	–2.1	–5.8	–3.4	–2.4	–3.4
+ unrequited transfers	2.2	1.6	1.9	2.3	2.0	2.0	2.1	2.3	2.2	2.0	2.1
Disposable income**	**98.2**	**99.6**	**97.8**	**99.7**	**97.2**	**98.5**	**100.0**	**96.5**	**98.8**	**99.6**	**98.7**
– households	70.9	75.3	70.3	70.9	69.9	71.5	74.0	69.0	71.1	71.0	71.2
– corporate sector	14.8	16.0	17.0	16.6	10.2	14.8	12.0	14.9	12.9	12.6	13.1
– public sector	12.5	8.3	10.5	12.2	17.1	12.3	14.0	12.6	14.7	16.0	14.4
Final consumption	**72.4**	**77.8**	**73.2**	**72.6**	**71.9**	**73.7**	**77.1**	**72.7**	**73.4**	**73.0**	**74.0**
– household consumption	62.3	66.6	63.1	63.0	62.5	63.7	66.3	62.9	64.0	63.7	64.2
– public consumption	10.2	11.2	10.2	9.6	9.4	10.0	10.8	9.9	9.5	9.3	9.8
Gross savings***	**25.7**	**21.8**	**24.6**	**27.1**	**25.3**	**24.8**	**22.8**	**23.7**	**25.4**	**26.5**	**24.7**
– households	8.7	8.7	7.2	7.9	7.4	7.8	7.7	6.2	7.2	7.3	7.1
– corporate sector	14.8	16.0	17.0	16.6	10.2	14.8	12.0	14.9	12.9	12.6	13.1
– public sector	2.3	–2.9	0.3	2.6	7.7	2.2	3.2	2.7	5.2	6.7	4.6
Net capital transfers											
– households	0.2	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.4
– corporate sector	1.4	0.6	0.9	1.2	2.0	1.2	1.6	0.9	0.8	2.5	1.5
– public sector	–1.6	–1.0	–1.2	–1.5	–2.3	–1.5	–2.0	–1.2	–1.2	–2.9	–1.9
Investment	**29.7**	**26.5**	**29.4**	**27.9**	**30.9**	**28.8**	**27.7**	**29.6**	**29.4**	**32.8**	**30.0**
– household investment	4.2	5.2	5.2	5.8	4.2	5.1	5.6	4.7	4.5	4.8	4.9
– corporate investment and inventories	21.7	18.7	21.4	18.8	20.5	19.9	19.5	22.5	21.2	21.3	21.1
– public investment	3.8	2.6	2.8	3.2	6.2	3.8	2.6	2.5	3.8	6.7	4.0
Net foreign financing requirement	**–3.9**	**–4.7**	**–4.9**	**–0.7**	**–5.5**	**–4.0**	**–4.9**	**–5.9**	**–4.1**	**–6.3**	**–5.3**
Financing capacity of households	4.7	3.9	2.3	2.4	3.5	3.0	2.4	1.9	3.1	2.9	2.6
Corporate sector financing requirement	–5.5	–2.1	–3.5	–1.0	–8.2	–3.9	–5.8	–6.7	–7.5	–6.3	–6.6
Public sector financing requirement	–3.2	–6.5	–3.7	–2.1	–0.8	–3.1	–1.5	–1.0	0.2	–2.9	–1.3

Notes: Bank estimates, preliminary data. Due to rounding, the individual figures do not sum up to the rounded totals.
* Indicators approximate the accruals concept. Savings do not contain forint effects from exchange rate changes on household deposit and credit portfolios. Interest expenditure in the general government balance is presented using the accruals concept, and the Hungarian Privatisation and State Holding Company is part of the public sector (SNA-based deficit).
** Disposable income includes the sum of the gross domestic product for the given period and the balance of the income transfers and unrequited transfers to non-residents and by non-residents to Hungary (according to balance-of-payments statistics).
*** Gross saving = disposable income (gross, i.e. including the value for depreciation in the given year) less final consumption.

rary and contrasting factors: a) The GDP-proportionate indicator was at a low in the same period of the previous year due to a number of restrictive government measures at the time and losses incurred as a result of worsening terms of trade. Available data suggest that costs continued to increase in 2000 due to the fact that the adverse impact on corporate profitability of the deteriorating terms of trade was not offset by a comparable reduction in nominal labour costs. This is primarily attributable to internal structural effects. As some of the market participants (concurring with international expectations) did not expect world energy prices to remain persistently high, the resulting costs exceeded their expectations. At the same time, those segments of the economy which increased export volume at a robust rate were able to rely on this volume surplus to offset the loss caused by the deterioration in the terms of trade.[8] b) The level of companies' own financial assets increased as current transfers by foreign residents fell off significantly, putting upward pressure on the proportion of profits ploughed back into business. c) There was a change in the income relations between the government and the corporate sector. While in the same quarter of 1999 the government played a restricting role (due presumably to deferred payments of current and capital transfers during the year), in the final quarter of 2000, the government expanded demand, improving the financial situation of firms *(see Table V-1)*.

[8] This is suggested by the results of surveys conducted by TÁRKI Social Research Center Inc on the situation and prospects of the largest manufacturing firms.

All in all, companies were able to increase the level of their own financial assets to such an extent that the corporate sector financing requirement decreased despite the expansion in investment spending. Factors at work in this increase in investment spending at current prices include changes in the price structure pushing up expenses.[9] Corporate-sector investment volume also increased by approximately 5.5–6%. Budgetary subsidies (cf. the Széchenyi Plan) and a favourable change in the terms of trade may further increase the proportion of firms' own financial assets the near future, enabling them to maintain or possibly curb their financing requirement as a percentage of GDP simultaneously with stronger investment activity.

2 Current account and its financing

In 2000 Q4, the deficit on the current account of the balance of payments amounted to EUR 928 million, higher than the level justified by normal seasonality *(see Table V-2)*. Although the trend of the balance of services continued to improve slightly, there was still a significant deterioration in the balance of goods. At the same time, the balance of transfers followed a slightly downward trend *(see Chart V-2)*. In contrast with previous quarters, this was the result of the trend of net transfers of incomes earned on debt-type investments. On the other hand, the trend of net non-debt income transfers improved during the fourth quarter, thanks to the significantly lower-than-expected level of profit transfers in December. Thus, the prediction by the December *Report* proved correct, as the deteriorating trend of the balance of goods pushed up the annual current account deficit in nominal terms to a value nearly identical to that seen in 1999. This has been the primary influence on the position of the seasonally adjusted current account *(see Chart V-3)*.[10]

In addition to the significant deficit on current account there was a net capital outflow of EUR 123 million, linked to the items of non-debt-generating investments, while the current deficit was financed by a net capital inflow of EUR 900 million into debt-type investments *(see Table V-3)*.

In respect of *non-debt-generating* items, net equity purchases and the acquisition of ownership stakes within foreign direct investment amounted to merely EUR 104 million as a result of an inflow of nearly EUR 500 million and an outflow of EUR 400 million. However, nearly three quarters of the outflow is accounted for by the financial settlement of a MOL Hungarian Oil and Gas PLC investment in Slovakia, which had been made public some time previously. Although the remaining amount is higher than

Table V-2 **Current account**

EUR millions

	1999 Q4	2000 Q4	Change	1999 Q4	2000 Q4	Change
I Goods	–612	–1,095	–483	–2,054	–2,596	–543
Credit (exports)	5,957	7,764	1,807	20,521	27,560	7,038
Debt (imports)	6,569	8,859	2,290	22,575	30,156	7,581
2 Services	342	413	71	1,315	1,939	625
Travel, net	490	580	89	2,078	2,533	455
Other services, net	–148	–166	–18	–763	–593	170
3 Incomes	–603	–332	271	–1,557	–1,705	–149
On debt, net	–453	–120	332	–857	–883	–26
On non-debt, net	–151	–212	–61	–704	–825	–121
Wages, net	0	0	–1	4	3	–1
4 Current transfers	103	87	–16	320	442	121
Current account (=1+2+3+4)	**–770**	**–928**	**–158**	**–1,975**	**–1,921**	**55**

Chart V-2 **Real-economy transactions and the trend of the transfer balance**

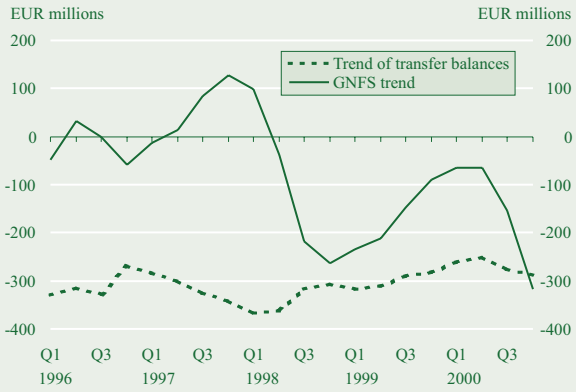


Chart V-3 **Current account**

[9] While the investment price index was nearly 1 percentage point lower than the GDP deflator in 1999, it was 1.5 percentage point higher in 2000 Q4.

[10] With the end of the fourth quarter there was a full year available for analysing the time series of the current account of the balance of payments. This enabled us to re-estimate the seasonal components and the models determining the ARIMA representation. Consequently, however, the resulting trend revision is much larger than that applied to the data included in the quarterly reports during the year. The time series model used for seasonal adjustment in respect of services other than tourism and non-debt incomes has been revised to a large extent.

Table V-3 **Financing the current account**

EUR millions

	1999. Q4	2000. Q4	Change	1999. Q1–Q4	2000. Q1–Q4	Change
(1) Current account deficit	**770**	**928**	**158**	**1,975**	**1,921**	**–55**
(2) Total financing	**648**	**774**	**126**	**2,200**	**1,705**	**–495**
– non-debt (=2b.1+2c.1)	**639**	**–123**	**–762**	**2,457**	**474**	**–1,984**
– debt (=2a+2b.2+2c.2)	**9**	**897**	**888**	**–257**	**1,232**	**1,489**
(2a) NBH and the government (=2a.1+2a.2)	–399	273	672	–1,023	–343	679
(2a.1) Debt transactions	570	562	–8	1,219	815	–404
– o/w government securities	412	313	–99	601	1,132	531
(2a.2) International reserves	–969	–288	680	–2,242	–1,158	1,083
(2b) Private sector (=2b.1+2b.2)	324	287	–37	1,588	517	–1,072
(2b.1) Equity transactions	240	–226	–466	1,141	–664	–1,806
– Credit institutions	178	–32	–209	182	28	–154
– Corporate sectors	62	–194	–257	959	–692	–1,651
(2b.2) Debt transactions	84	513	429	447	1,181	734
– Credit institutions	135	100	–35	116	1,236	1,120
– Corporate sectors	–51	414	464	331	–55	–386
(2c) Direct investment (=2c.1+2c.2)	723	214	–509	1,635	1,532	–102
(2c.1) Equity capital	399	104	–296	1,316	1,138	–178
– in Hungary	503	497	–6	1,552	1,759	207
– Abroad	–104	–394	–290	–236	–621	–385
(2c.2) Intercompany loans	324	110	–214	319	394	76
– in Hungary	312	113	–199	321	376	55
– Abroad	12	–3	–15	–2	18	21
(3) Capital account	**69**	**122**	**53**	**31**	**298**	**267**
NEO (=1–2–3)	**52**	**32**	**–21**	**–256**	**–83**	**174**

the usual quarterly averages, it is by no means unprecedented. Net portfolio equity purchases abroad comprised an outflow of EUR 226 million, on an approximately equal measure with the figures for the previous two quarters. This involved somewhat lower net equity purchases abroad by Hungarian residents (EUR 30 million), while foreign investors sold off Hungarian shares of EUR 200 million in net terms during the quarter. A look at the distribution of securities transactions[11] reveals that financial enterprises (above all, insurance companies and pension funds) were the largest domestic equity purchasers, but non-financial firms also played a significant role. The factors to blame for the ongoing withdrawal of foreign capital include the general lack of confidence in East European stock markets, weak third-quarter business performance and the uncertainty surrounding Borsodchem. This latter affair even marred the reputation of Hungarian financial supervision, which had enjoyed exceptionally high esteem in Eastern and Central Europe.

In respect of *debt*-type financing, medium-term borrowing by the National Bank and the Government had a neutral balance, as the EUR 400 million issue in November was largely offset by repayments in October and December. Foreigners bought government securities amounting to EUR 313 million in net terms, proving that it is not the Hungarian capital market as a whole but only the equity market that foreign residents have become reluctant to invest in. Another favourable development is that growth was stronger at long maturities than at short maturities. Alongside a net inflow of EUR 250 million into short portfolio and other investments, transactions affecting the foreign exchange reserves increased claims on non-residents by EUR 288 million (including EUR 130 million of intervention-type foreign exchange purchases).

Net private sector borrowing amounted to over EUR 500 million in 2000 Q4, of which credit institutions accounted for EUR 100 million. This fell far short of the increase in direct borrowing abroad. On the whole, corporate sector borrowing during the quarter amounted to over EUR 400 million. In respect of intercompany loans, there was a net capital inflow of EUR 110 million during the quarter, involving almost exclusively subsidiaries established in Hungary.

The capital account, comprising transactions in unrequited capital transfers, non-produced and non-financial assets, showed a surplus of EUR 122 million in the fourth quarter.

3 International investment position

As a result of the high deficit on the current account of the balance of payments, there was a shift in the net international investment position, pushing up net foreign liabilities from EUR 30.5 billion at end-September to EUR 31.3 billion at end-De-

[11] Comparison is made difficult by the fact that in respect of equities only securities traded on the stock exchange are recorded in the securities statistics, whereas the balance of payments also includes the turnover in OTC markets. Furthermore, the statistics on securities do not differentiate between transactions in terms of direct investment and portfolio investment.

cember *(see Table V-4)*. Net foreign liabilities in the form of non-debt elements remained unchanged, due basically to cross-exchange-rate and stock price changes. By contrast, debt-type net foreign liabilities rose from EUR 11.5 billion to EUR 12.2 billion *(see Chart V-4)*. Net foreign debt calculated exclusive of foreigners' forint-denominated government security holdings and intercompany loans rose to EUR 6.3 billion by the end of the fourth quarter. The level of international reserves rose to EUR 12.1 billion. The relatively small increase can be attributed to cross exchange rate changes due to the strengthening of the euro (in November and December).

In respect of *non-debt* foreign assets, Hungarian residents' direct investments abroad excluding intercompany loans rose to EUR 1.9 billion. The relatively low rise in the stock of outward FDI despite substantial direct investments abroad can be attributed to the fact that the majority of investments are accounted in dollars, their original denomination. Thus, despite the large-scale Slovakian investment by MOL, FDI rose by only EUR 160 million due to the weakening of the dollar against the euro. The level of foreigners' portfolio equity investments rose to approximately EUR 250 million. Foreigners' stock of FDI in Hungary exclusive of intercompany loans amounted to EUR 18 billion at the end of the fourth quarter, while their portfolio equity holdings fell from EUR 3.6 billion to EUR 3.2 billion. The stock exchange index dropped by 1,400 points to below 6,900 points from early October to late November, rising again by nearly 1,000 points in the course of December. The plunge in stock market prices account for roughly EUR 200 million of the total decrease in fourth-quarter equity holdings.

The two key factors in the increase of *debt*-type net foreign liabilities were the decline in the stock of financial derivatives included within the portfolio claims on foreign residents and the increase in the level of corporate sector direct borrowing.

Total debt-type investments (excluding forint-denominated government securities and intercompany loans) constitute net foreign-exchange-denominated foreign debt. This debt rose from EUR 6 billion at the end of the third quarter to 6.3 billion, largely as a result of the pick-up in the corporate sector's direct borrowing abroad. As the net foreign debt of the Bank and the Government remained virtually unchanged, claims on foreign residents for the public sector as a whole exceeded liabilities *(see Table V-5)*. Gross foreign debt rose to EUR 26.9 billion, with the private sector's share exceeding that of the public sector for the first time.

Table V-4 **International investment position**

EUR billions

	1999	2000	
	Dec.	Sep.	Dec.
Net international investment position (=1–2)	**–30.4**	**–30.5**	**–31.3**
– non-debt (=1a.1+1b.1–2a.1–2b.1)	**–19.1**	**–19.0**	**–19.0**
– debt (=1a.2+1b.2+1c+1d–2a.2–2b.2–2c)	**–11.4**	**–11.5**	**–12.2**
(1) Foreign assets (=1a+..+1d)	**19.1**	**23.0**	**23.0**
(1a) Direct investment abroad	1.6	2.0	2.2
(1a.1) Equity capital	1.4	1.8	1.9
(1a.2) Other capital (intercompany loans)	0.2	0.2	0.2
(1b) Portfolio investment	1.2	2.1	1.7
(1b.1) Equity securities	0.1	0.2	0.2
(1b.2) Debt securities	1.2	1.9	1.4
(1c) Other investment	5.6	6.9	7.1
(1d) International reserves	10.8	12.0	12.1
(2) Foreign liabilities (=2a+..+2c)	**49.6**	**53.6**	**54.2**
(2a) Direct investment in Hungary	19.1	20.7	21.4
(2a.1) Equity capital	16.2	17.4	18.0
(2a.2) Other capital (intercompany loans)	2.9	3.3	3.4
(2b) Portfolio investment	16.9	16.4	16.2
(2b.1) Equity securities	4.3	3.6	3.2
(2b.2) Debt securities	12.6	12.8	13.0
(2c) Other liabilities	13.5	16.5	16.7
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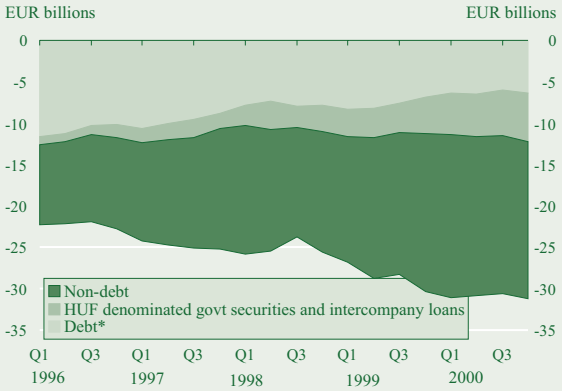
(M) Government securities held by foreigners	1.7	2.5	2.8
Gross foreign debt* (=2b.2+2c–M)	**24.4**	**26.8**	**26.9**
Net foreign debt* (=2b.2+2c–M–1b.2–1c–1d)	**6.9**	**6.0**	**6.3**

* Excluding non-Hungarian residents' holdings of government securities and intercompany loans.

Chart V-4 **Components of net international investment position**



* Excluding government securities held by foreigners and intercompany loans.

Table V-5 **Composition of foreign debt* by sectors**

	December 1999		September 2000		December 2000	
	EUR billions	%	EUR billions	%	EUR billions	%
(1) Gross foreign debt (=1a+1b)	**24.4**	**100.0**	**26.8**	**100.0**	**26.9**	**100.0**
(1a) NBH and government	13.4	54.9	13.6	50.8	13.3	49.3
NBH	9.8	39.9	9.9	36.7	9.2	34.1
Government	3.7	15.0	3.8	14.1	4.1	15.2
(1b) Private sector	11.0	45.1	13.2	49.2	13.6	50.7
Credit institutions	5.5	22.6	6.3	23.3	6.1	22.8
Corporate sector	5.5	22.5	6.9	25.9	7.5	27.9
(2) Net foreign debt (=2a+2b)	**6.9**	**100.0**	**6.0**	**100.0**	**6.3**	**100.0**
(2a) NBH and government	1.3	19.3	–0.2	–3.6	–0.2	–3.0
NBH	–1.9	–26.8	–3.5	–59.1	–3.9	–61.2
Government	3.2	46.1	3.3	55.5	3.7	58.2
(2b) Private sector	5.6	80.7	6.2	103.6	6.5	103.0
Credit institutions	2.0	28.4	3.1	51.2	3.1	48.8
Corporate sector	3.6	52.3	3.1	52.4	3.4	54.2

* Excluding government securities held by foreigners and intercompany loans.

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