

BANK OF FINLAND  
ANNUAL REPORT 1996



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# The Governor's Review

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Coherent economic policies and a stable international environment provided the appropriate conditions for steady growth and balanced performance of the Finnish economy in 1996. The rise in the price level was moderate and exchange rates remained fairly stable. For these reasons, it was possible to lower the instrumental interest rates of monetary policy to levels that were low by both historical and international standards. Long-term market rates followed the downward trend in short-term rates. Positive outcomes included a reduction in the central government deficit and an end to the banks' protracted series of financial losses. High unemployment continued to pose a serious problem.

The consumer price index rose by about 1 per cent in 1996, and the indicator of underlying inflation, which serves as a basis for monetary policy, was even more subdued. During the summer and autumn months, a lively public discussion ensued on the possibility of deflation. There were however no signs of a general decline in the price level, and the entire configuration of asset prices, for example, trended upward.

Exports and investment failed to provide a robust stimulus to economic growth in 1996, but owing to a healthy rise in private

consumption expenditure, total output is estimated to have grown by more than 3 per cent. The market outlook for exports improved in the latter part of the year. Investment expenditure was buoyed mainly by previously started large-scale investment projects in the manufacturing sector, but construction activity picked up markedly in the latter part of the year. Because of a recovery in the service and construction sectors, the employment situation improved slightly, which had a salutary effect on expectations and demand in the household and corporate sectors.

The growth in domestic demand helped to constrain the general government deficit, ie the combined deficit of central and local governments and social security funds. Nonetheless, the central government deficit remained large by both historical and international standards. The indebtedness of households and firms again eased considerably and the total external indebtedness of the economy declined.

The Bank of Finland continued to relax monetary policy in 1996. In the course of the year, the tender rate was lowered from 4.25 per cent to 3.0 per cent and the financial markets remained calm. The external value of the markka fluctuated to some extent but on the whole remained relatively stable. As the year

progressed, the long-term interest rate moved considerably closer to the comparable German rate, and by the final months of the year the differential had stabilized at about ½ percentage point above the German rate.

One significant development in 1996 was the continued strengthening of the banks and the termination of a period of several years of negative financial results. The aggregate result turned positive largely because of reduced loan losses and lower cost levels. Nonetheless, domestic banks' profitability and capital adequacy still did not reach levels that can be considered good by international standards.

Improved economic balance and steady economic policy enabled the Bank of Finland to make a proposal in October to the Government concerning the joining of the markka to the EU's Exchange Rate Mechanism (ERM). The proposal was approved and negotiations with other EU countries led to an agreed ECU central rate for the markka of FIM 5.80661, corresponding to a central rate against the Deutschemark of FIM 3.04. The agreed markka exchange rate configuration vis-à-vis major ERM currencies corresponds to the average level of recent years. After Italy joined the ERM in November, the markka's ECU central rate became FIM 5.85424. Bilateral central rates against other ERM currencies were not affected.

Finland's purpose in joining the ERM was to ensure its eligibility to be among the first group of countries to move into Stage Three of EMU. According to the text of the Maastricht Treaty, the exchange rate convergence criterion requires exchange rate stability for two years prior to the examination and participation in the ERM. It now appears that the final decision on eligibility for Stage Three of EMU is slated for spring 1998.

As the Bank of Finland reaffirmed in connection with the ERM linkup, the mone-

tary policy objective remains that of keeping the inflation rate at about 2 per cent, which accords with the major EU countries. The inflation objective is consistent with the stable exchange rate objective. However, in the event of a disturbance, ERM participation would imply precedence of the exchange rate objective. The ERM's wide ( $\pm 15$  per cent) fluctuation margins provide a good buffer against speculative activity, but clearly the need to meet the EMU exchange rate criterion and to maintain economic balance requires a much more stable course for exchange rates. Continuing progress in balancing central government finances and maintenance of the moderate cost trend are key factors as regards exchange rate stability.

It is apparent that the easing of monetary policy and confidence in improving economic prospects will provide support for domestic demand over the near future. With exports also picking up again, the growth of total output could reach 4 per cent in 1997. It appears that the rise in the price level will stay near the targeted level. The decline in unemployment should continue but again at a very sluggish pace. In order to accelerate the decline in the unemployment rate, the tax wedge should be narrowed further and the social security and tax systems should be made more work-friendly.

It appears likely that Finland will be able to meet all the economic convergence criteria for EMU, ie those pertaining to inflation, exchange rates, the long-term interest rate, and the public sector deficit and debt. The decision on which countries are to participate in Stage Three of EMU is to be made in spring 1998, only a little over a year from now, and before that time the Act on the Bank of Finland should be amended so that the EMU requirement regarding central bank independence can be fulfilled.

Practical preparations within the EU for Economic and Monetary Union have progressed according to plans. The Bank of Finland has participated in the work of creating the European System of Central Banks, in both the European Monetary Institute (EMI) and the EU's Monetary Committee. The preparatory work involves inter alia strategy and instruments for the conduct of a single monetary policy as well as detailed planning of the payment system. Progress has also been made in specifying the legal status of the single currency – the euro – as well as in the design of euro notes and coins. Much work has also been required in the development of an exchange rate system covering both EMU participants and other EU states.

The Bank of Finland's own preparations for Stage Three of EMU have intensified. The adoption of a single currency re-

quires broad changes in the payment systems of the banks and the Bank of Finland. One major change will be the fusion of national payment systems into an EU-wide payment system. The Bank of Finland supports efficient and secure solutions, which will at the same time provide the best possible environment for banking and securities markets in Finland. Cooperative efforts in EMU matters between the banks and the Bank of Finland have intensified in all areas of concern, and the Bank of Finland is participating in the national EMU project of the Ministry of Finance.



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# Monetary Policy

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Conditions in 1996 were quite favourable for the conduct of monetary policy. Monetary conditions remained generally positive and confidence increased in the continuation of stable economic performance. The rise in consumer prices was subdued owing partly to the slowing in the rise of domestic labour costs, a decline in firms' financing costs (as interest rates fell) and moderate developments in import prices. According to the EU-recommended interim harmonized consumer price index, the rise in Finnish prices did not differ essentially from the average rise in the major countries in the Exchange Rate Mechanism (ERM) of the European Union (EU).

Recession tainted the economic performance of continental Europe in the early part of the year, but in spring exports led a pickup in growth, albeit at a sluggish pace. Inflationary pressures subsided and inflation differentials between EU countries narrowed. This enabled monetary policy easing in all the Member States. The reduction in public sector deficits progressed more slowly than desired, and the associated uncertainty slowed the decline in long-term interest rates as well as the growth in private consumption and investment.

The volume of Finland's total output picked up again in early 1996. On the other

hand, cyclically sensitive branches of the export sector suffered in the first half of the year from the continued sluggishness of demand, as reflected in a decline in export prices and worsening in the terms of trade. Growth was buoyed in the early part of the year by domestic (especially private consumption) demand. In the latter part of the year growth prospects were firmed by an increase in export orders and a recovery in construction investment. Unemployment continued to decline sluggishly.

The general government financial deficit and debt declined to below the convergence levels prescribed in the Maastricht Treaty. Although the central government deficit in particular declined substantially, it still remained at a high level. Because of the high level of liquidity in the domestic financial markets, the central government was able to finance its deficit almost entirely from domestic sources.

The external value of the markka remained quite stable throughout the year. Although the currency did weaken somewhat in the early part of the year, by mid-year it had regained almost all the lost ground. Calmness in the Finnish foreign exchange market resulted not only from domestic factors but also from the calm that prevailed in the inter-

national financial and foreign exchange markets. Fluctuations abroad in exchange rates and interest rates were more restrained than in recent years and short-term interest rates declined in many countries.

In conjunction with subdued inflation expectations, it was also the case in Finland that the key monetary policy interest rates could be lowered to historically low levels. The tender rate was cut to 3 per cent, matching the nearly corresponding German rate. Another positive development was the decline in Finnish long-term market rates to levels that were very low even by international standards. At the end of the year these rates were below 6.5 per cent and differentials against corresponding German rates were only about ½ percentage point.

The growth in domestic demand was restrained by firms' and households' efforts to further strengthen their financial position. The corporate sector in particular sharply reduced its net foreign debt, which was partly reflected in the large surplus on the current account of the balance of payments. Nonetheless, the volume of markka-denominated bank lending finally edged into a recovery phase after many years of decline. The behaviour of bank deposits and the money stock was to an extent quite extraordinary, as large amounts of funds were shifted from one type of account to another.

With the outlook remaining positive for economic growth, central government fiscal consolidation and inflation, Finland saw fit to join the ERM as from 14 October 1996. This was accomplished smoothly without any significant market-induced change in the markka's exchange rate. The agreed markka central rates against the ECU and Deutsche-mark reflected a slightly weaker markka than did the prevailing market rate. Following the linkup, market rates edged slowly toward the

central rates. While the basic thrust of monetary policy as regards the inflation target did not change with the ERM linkup, the economic policy role of exchange rate stability was upgraded.

## **Price developments were subdued**

The rise in consumer prices was constrained during 1996 by the slowing of the rise in labour costs, a decline in fixed costs in the wake of declining interest rates and restrained import price developments. The indicator of underlying inflation, which excludes indirect taxes and thus does not reflect rises therein, rose by less than the other indices of consumer prices. The indicator was further constrained by reductions in certain subsidies that do not affect consumer prices (Chart 1).

With prices rising at a lower rate than the Bank of Finland's inflation target of about 2 per cent, deflation became a topic of public discussion in the summer and autumn of 1996. There were however no signs of a decline in the overall price level; the price declines that did occur were limited to certain commodity groups. For instance, the rise in food prices in the first half of the year showed that the effect of EU membership had already dissipated. It is however noteworthy that price changes in highly competitive commodity markets were very small.

Despite the improvement in the economic outlook and vigorous growth in the demand for consumer commodities, inflation expectations remained subdued. At the end of the year households were anticipating a rise in the price level of about 1.5 per cent for 1997. Results from surveys of companies also pointed to low inflation expectations.

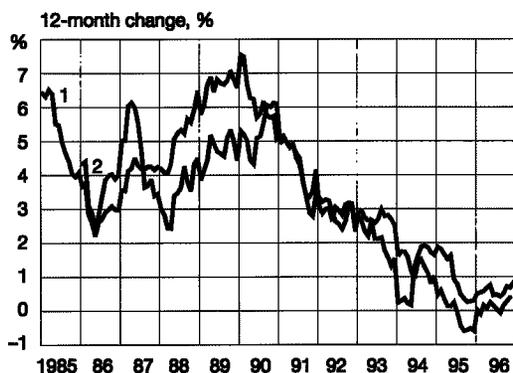
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**Confidence  
in a stable economic  
performance  
increased.**

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**Chart 1.**

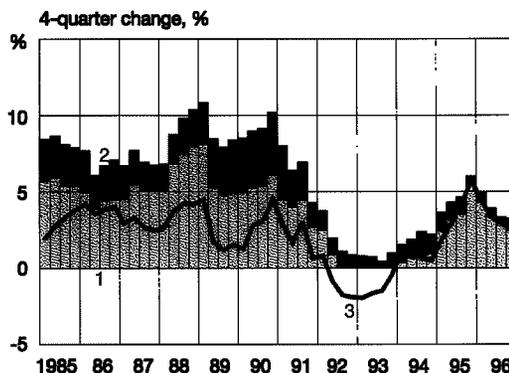
**Consumer prices**



1. Consumer price index  
2. Indicator of underlying inflation

**Chart 2.**

**Level of earnings**



1. Negotiated wages  
2. Wage drift  
3. Real earnings

External inflationary pressures were modest. The dollar prices of raw materials, with the exception of energy, continued to rise in the early part of the year. However, by early spring the rise had halted, partly as a result of companies' efforts to reduce their inventories of raw materials. The decline in the world price of oil proved to be temporary and the price increased again in the latter half of the year. Producer prices either remained steady or fell in many countries, and moderate wage developments helped to slow inflation.

In six EU Member States the twelve-month rate of change in the interim harmonized consumer price index was under 2.0 per cent in December 1996. By this measure, Finland's inflation performance, though remaining among the best in the EU, did not differ significantly from the average performance for EU countries (Table). The importance of the harmonized consumer price index is underscored by the fact that it will be

used in evaluating fulfilment of the EMU criteria.

**Table. EU interim harmonized consumer price index**

	December 1996 12-month change, %
EU 15	2.2
Austria	2.3
Belgium	2.6
Denmark	2.4
Finland	1.6
France	1.8
Germany	1.3
Greece	7.0
Ireland	2.3
Italy	2.7
Luxembourg	1.9
Netherlands	1.9
Portugal	2.9
Spain	3.0
Sweden	0.4
United Kingdom	2.8

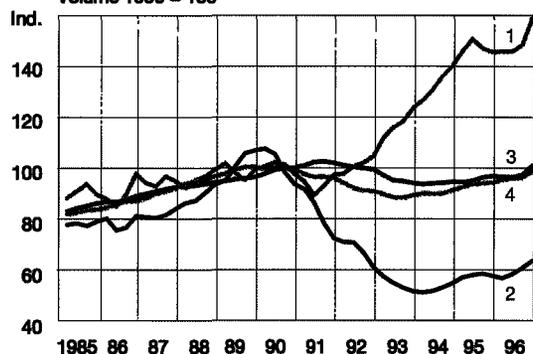
Markka-valued prices of goods imports increased by 2.2 per cent on average, partly as

**Chart 3.**

**Structure of GDP growth**

**Main components of demand**

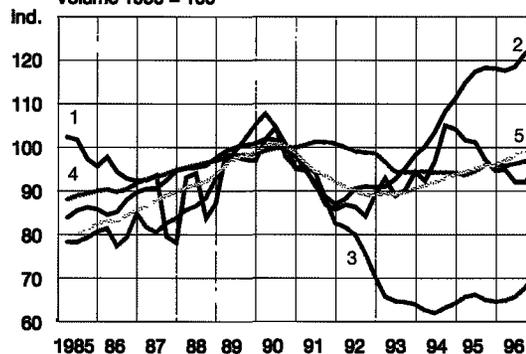
2-quarter moving average  
Volume 1990 = 100



- 1. Exports
- 2. Fixed investment
- 3. Public sector consumption
- 4. Private sector consumption

**Main components of supply**

2-quarter moving average  
Volume 1990 = 100



- 1. Primary production
- 2. Total manufacturing
- 3. Construction
- 4. Public sector services
- 5. Private sector services

a result of a depreciation in the markka's external value of more than 3.5 per cent from 1995. The rise in markka-valued export prices came to a halt at the end of 1995. In spring 1996 these prices turned sharply downward owing to a decline in forest industry and basic metals prices. Between December 1995 and December 1996 export prices declined by 5.1 per cent while the terms of trade weakened by 7.2 per cent. Producer prices remained fairly stable on average throughout the year.

In Finland the rise in labour costs was constrained by the effects of the moderate two-year wage settlement of autumn 1995, a reduction in wage drift and a slight decrease in indirect labour costs. The nominal level of earnings at end-1996 was on average 3.3 per cent higher than a year earlier (Chart 2). Differences between rates of change in earnings levels of different sectors narrowed noticeably. The reduction in wage drift was partly

the result of a continuation of subdued inflation expectations.

Unit labour costs, ie wages and employers' social security contributions per unit of output, rose by 1.7 per cent. The rise was partly due to a subnormal improvement in average labour productivity. The subnormal improvement was mainly a reflection of the concentration of output growth in labour-intensive industries and certain production problems in export firms that did not resort to layoffs. The rise in unit labour costs was moderate in regard to the production of consumer commodities. As moreover the rise in import prices was concentrated mainly in energy prices, import prices did not exert pronounced upward pressure on consumer prices.

Nor did asset prices reflect deflationary tendencies. The decline in interest rates heightened the attractiveness of housing as an investment outlet and prices of existing dwell-

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**Production aimed at the domestic markets picked up.**

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ings throughout the country turned up at the start of the year. This in turn helped to boost housing sales and construction. Real prices of real estate nonetheless remained very low and thus the price rise did not increase inflation expectations. The decline in stumpage prices came to a halt in June and new agreements brought prices back to their level of autumn 1995. It is estimated that prices rose by 4–5 per cent from the level that had prevailed in the spring, which explains the noticeable pickup in timber sales from the depressed levels of the first half of the year.

**Economic growth recovered****Private consumption boosted aggregate demand**

The uncertainty associated with international economic conditions and Finland's export prospects was reduced when economic conditions in continental Europe began to improve slowly after the start of the year. The volume of exports picked up following a noticeable decline that had continued into the early months of 1996 (Chart 3). Because of a weak performance in the early part of the year, goods and services exports increased only modestly in volume terms, by less than 4 per cent for the year as a whole. The largest gain in exports was recorded by the metal and engineering industries, due mainly to continued rapid growth in exports of electronics products and large-value ship deliveries. Forest industry export volume however lagged behind the 1995 level.

Consumer confidence in economic improvement began to strengthen in April 1996. Favourable expectations led to higher consumption and lower savings relative to income, and the volume of consumption expenditure rose by substantially more than

real disposable income. Income growth was constrained by a decline in transfer payments to households, due to cuts in central government spending, and by the exceptional payment of two tax refunds in 1995 (one delayed from 1994). The rapid growth of real wages continued in 1996.

Households' confidence in economic improvement, reduced indebtedness and lower interest rates were also reflected in the pickup in sales of dwellings. The focal point of demand was again existing dwellings, but housing construction also picked up in the latter half of the year. A substantial part of housing finance went into basic repairs, owing partly to support provided by the central government. The stock of housing loans began to expand in the early part of summer as interest rates declined and uncertainty diminished as to the direction of future interest rate changes.

The recovery of demand, the strengthening of firms' capital structures, the rise in the capacity utilization rate and lower interest rates substantially improved companies' investment possibilities. However, because of weak export performance, investment project start-ups declined in the forest industries. Investment growth in manufacturing was buoyed mainly by previously initiated large investment projects. In the domestically-oriented sector, demand and output volume remained below their cyclical peak levels of 1990. The third year of growth in domestic demand and the need to modernize production capacity however spurred investment activity among domestically-oriented firms.

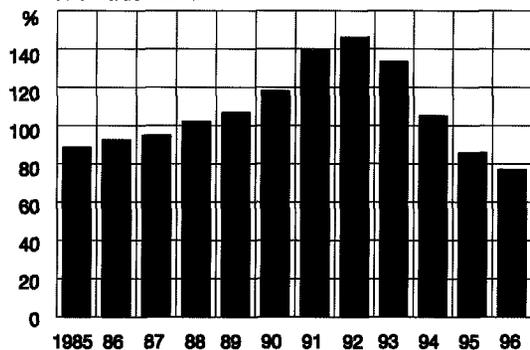
Firms' profitability remained good on average even though lower export prices had a dampening effect on profitability of production for export as compared to 1995 – a particularly good year in this respect. Firms

**Chart 4.**

**Liabilities**

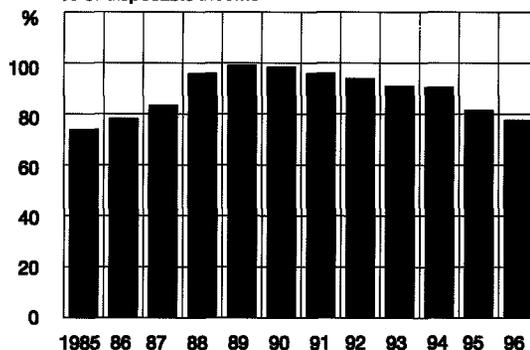
**Private sector**

% of value added



**Household sector**

% of disposable income



financed their investments largely from retained earnings while continuing to reduce their indebtedness (Chart 4).

Because of the large deficit and debt of the public sector, fiscal policy continued to be tight. In order to consolidate central government finances, savings amounting to about FIM 10 billion were effected in legally mandated expenditures. Central government transfer payments to local governments were cut by FIM 4 billion. Transfers to households were also reduced, albeit with some cushioning provided via tax cuts. Public sector demand grew only slightly in 1996. Local government investment however increased notably owing to basic repairs of buildings and the continuation of a several-year period of financial strengthening. Public sector expenditure (excl. financial investment expenditure) continued to decline relative to GDP. Total sector expenditure grew by less than 3.5 per cent in real terms.

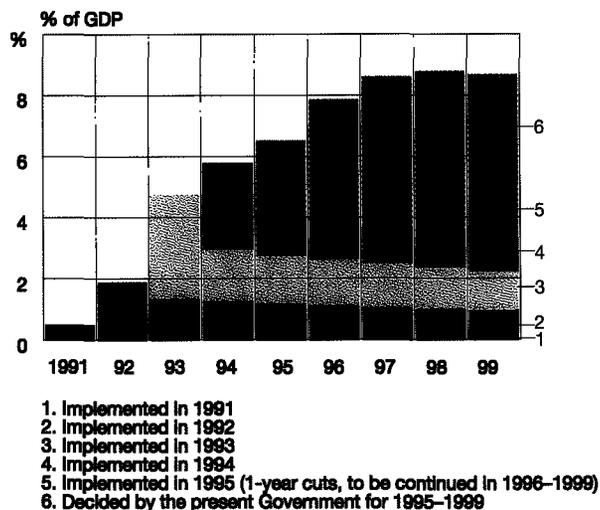
**Total output expanded vigorously toward yearend**

The degree of economic dichotomization was substantially reduced when a slowing in the growth of export-led manufacturing output was offset by a pickup in production based on domestic demand. In the spring economic growth decelerated, due largely to a substantial decline in forest industry output. Reduced commercial fellings were a reflection of lower production levels due to sluggish demand and to forest industry firms' desire to push down stumpage prices and reduce inventories.

In the last quarter of 1996 total output was 5-6 per cent higher than in the year-earlier period. This was partly due to accelerated growth in manufacturing output due to stronger order books and an improvement in the outlook for exports. Output in the service industries continued to grow at a rapid pace in the second half of the year. And construction activity also picked up sharply in late summer as new construction accelerated.

**Chart 5.**

**Cuts in central government outlays, 1991–1999**



Although GDP growth picked up sharply during the course of the year, growth for the whole year was only slightly over 3 per cent. In large part, this was due to the lack of momentum from 1995, from which the carry-over growth effect was practically nil. Capacity restraints played virtually no role in constraining growth. According to a survey on business confidence conducted by the Confederation of Finnish Industry and Employers, capacity and labour supply restraints were felt during the year only to a slight extent and mainly in the metal and engineering industries, which saw the largest pickup in production.

**Unemployment declined slightly**

The slow improvement in the employment situation continued in 1996 although the rise in aggregate output was fairly sluggish, especially in the first half of the year. The im-

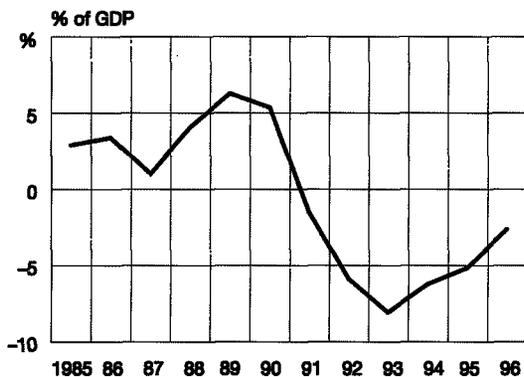
provement reflected the increasing concentration of output in labour-intensive manufacturing and service sectors and was fostered by the moderate wage settlement signed in 1995 as well as the slight narrowing of the tax wedge and increase in labour market flexibility that resulted from the Government's employment programme.

The number of employed persons was on average in 1996 about 27 400 higher (seasonally adjusted) than in 1995. The improvement in employment in turn had a positive effect on the expectations of households and firms, as was reflected inter alia in the acceleration of growth in private consumption, especially toward the end of the year. The number of employed increased most in the service sector. The employment situation also improved markedly in construction as compared to the prior year. By contrast, substantial reductions in employment were recorded in primary production and manufacturing.

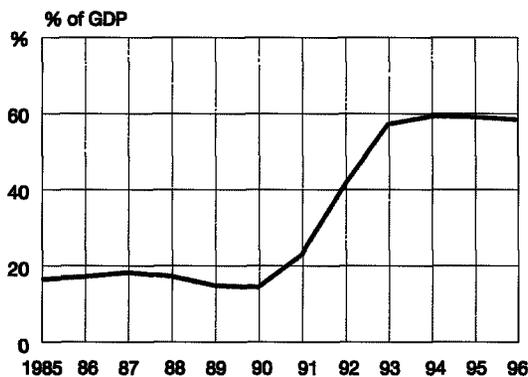
**Chart 6.**

**Public finances**

**General government financial surplus/deficit**



**Public debt**



Because of the increase in the labour supply, unemployment declined by less than might have been expected in light of the increase in employment. In December the seasonally adjusted unemployment rate was 15.6 per cent. The number of long-time unemployed remained at a high level although youth unemployment declined substantially in 1996. As in recent years, unemployment was most serious in the construction sector.

**The public sector met the Maastricht criteria**

Growth in households' demand and wages bolstered tax revenues and thus helped to reduce the public sector deficit. The central government deficit narrowed at a particularly rapid pace in the first half of the year. The second half of the year however saw a relatively large number of spending increases, partly related to employment enhancement

and bank support, and this again widened the deficit. For 1996 the central government's net borrowing requirement was less than FIM 40 billion, ie more than FIM 20 billion less than for 1995. Interest expenditure, which was relatively little affected by the decline in domestic and international interest rates because the bulk of central government debt is fixed-term debt, actually rose by a sixth and amounted to slightly over 15 per cent of total central government expenditure.

In agreeing on expenditures for the period 1997–1999 in February 1996, the Government decided on new measures for the further consolidation of central government finances. Permanent expenditure savings were increased altogether by FIM 1.7 billion, starting with 1997. These additional cuts, together with previously agreed cuts, will raise the total amount of expenditure savings for the parliamentary term 1995–1999 to more than FIM 23 billion. As from 1991 total sav-

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**Finland met the Maastricht Treaty criteria for general government deficit and debt.**

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ings amount to nearly 9 per cent of GDP (Chart 5).

In September the Government presented its refined convergence programme to the EU Council. According to the programme's baseline scenario, Finland's general government deficit will decline to 1.4 per cent of GDP in 1997, and in 1999 the financial position will move into surplus. General government debt is estimated to amount to 62 per cent of GDP in 1996 and to level off at about 60 per cent two years later. The debt ratio estimation is based inter alia on the assumption that central government borrowing from the TEL pension funds will amount to FIM 15 billion in each of 1996 and 1997. Because these pension funds are included in the general government sector, this type of (intra-sectoral) borrowing is excluded from the consolidated general government debt.

The rapid narrowing of the central government deficit, along with the large surplus of the social security funds, was sufficient to reduce the general government financial deficit by more than enough to meet the Maastricht Treaty criterion (three per cent of GDP) already in 1996. The general government debt criterion (60 per cent of GDP on a consolidated basis) was also fulfilled in 1996 (Chart 6). The employment pension funds again invested the bulk of their surplus resources in central government bonds as firms financed their fixed investments mainly from retained earnings while paying down accumulated debts.

Because resources had been set aside earlier for bank support payments, the central government debt grew by less than the net borrowing requirement and amounted to FIM 395.5 billion at end-1996. Growth in the debt was also constrained by certain one-off measures such as central government revenues from asset sales and securitization of Finnish Housing Fund loans.

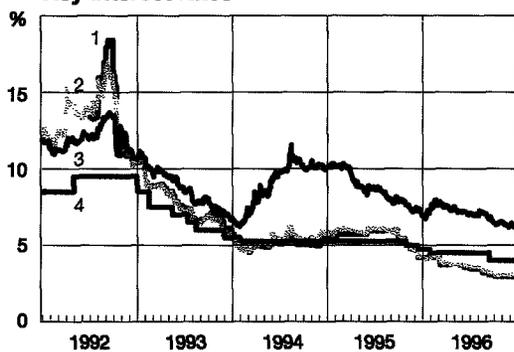
The central government's foreign currency-denominated debt remained nearly unchanged at FIM 175 billion. This is very high by international standards, and efforts should be made to reduce it. Prospects appear to be promising in light of forecasted surpluses on the current account for the coming years. Repayments of foreign currency-denominated debt were still relatively modest in 1996, amounting to about FIM 13 billion, but they are scheduled to increase to about FIM 30 billion in 1997. The central government continued to cooperate with the central bank in the conduct of foreign exchange transactions and thus the management of foreign currency-denominated debt was tightly linked to the management of the country's international reserve assets.

The central government was able to meet its borrowing needs almost entirely in the domestic bond market, as the demand for these instruments was strong and interest rates fell markedly. The stock of publicly-issued bonds grew from FIM 144 billion to FIM 178 billion in the course of 1996. At the end of the year the five outstanding benchmark bonds together amounted to FIM 125 billion. The amount of short-term Treasury bills outstanding declined by FIM 1 billion, to just under FIM 37 billion.

The improving trend in public sector finances was reflected in the slightly easier fiscal policy set for 1997 as compared to earlier plans. Expenditure cuts will be effected as planned. At the same time, public investments aimed at reducing unemployment as well as subsidy payments to the private sector will be increased. It was decided to continue to reduce taxes in 1997, on a larger scale than originally planned. The consolidation of public finances will also foster moderate developments in long-term market interest rates and bank lending rates.

Chart 7.

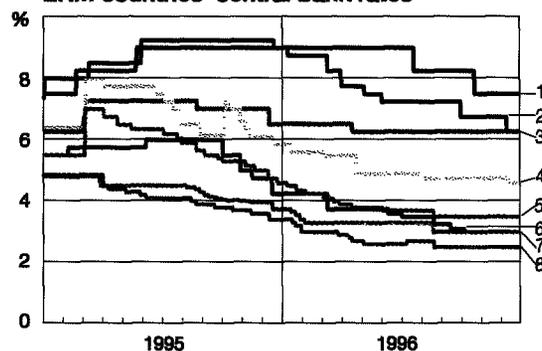
Key interest rates



1. Bank of Finland's tender rate
2. 3-month HELIBOR
3. 10-year government bond yield
4. Bank of Finland's base rate

Chart 8.

ERM countries' central bank rates



1. Italy: discount rate
2. Spain: repo rate
3. Ireland: short-term facility rate
4. France: repo rate
5. Denmark: repo rate
6. Finland: tender rate
7. Germany: repo rate
8. Netherlands: special advance rate

## Monetary policy was relaxed

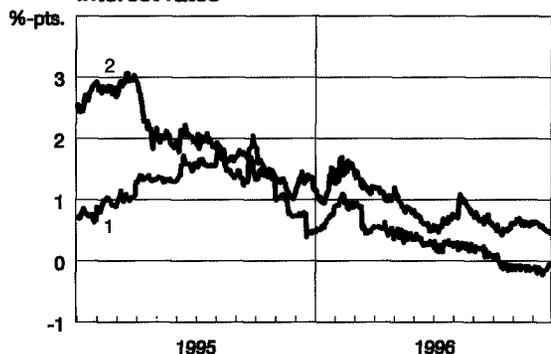
### Interest rates declined around the turn of the years 1995–1996

The Bank of Finland began a process of substantial monetary policy easing in October 1995. The tender rate was quickly lowered from the 6 per cent level, so that by the end of 1995 it was down to 4.25 per cent (Chart 7). The 0.5 percentage point reduction of 19 December was based on the inflation outlook for 1996 and 1997: inflation appeared to be lodged at a level clearly below 2 per cent. Despite declining interest rates, the markka's external value still appreciated slightly in the latter part of the year. When the markka was at its strongest, the Deutschemark was worth about FIM 2.97. The market apparently viewed the markka as being overvalued at that point and in December 1995 the markka began to gradually depreciate.

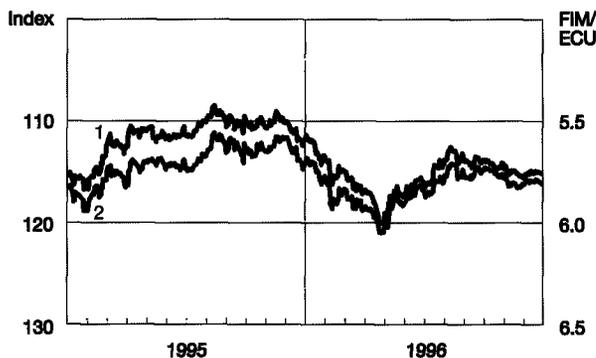
Long-term market interest rates were at the same time clearly trending downward,

partly because rates were declining abroad and partly because of domestic factors, mainly easing inflation and improving central government finances. The annual yield on the central government's ten-year bond (remaining maturity slightly less than nine years) declined from about 8 per cent in autumn 1995 to 7.20 per cent at the start of 1996. The lowering of the tender rate accelerated the downward trend in market interest rates. Thus it was decided on 11 January 1996 to lower the base rate from 4.75 per cent to 4.50 as from the start of February.

During the latter half of 1995 interest rates also declined widely in countries around the world (Chart 8). This decline was however more tentative than in Finland. The differential between the Finnish tender rate and the Bundesbank's repo rate narrowed in the waning months of 1995 from just under 2 percentage points to about ½ percentage point. The narrowing of the three-month differential was equally pronounced (Chart 9).

**Chart 9.****Differential between Finnish and German interest rates**

1. 3-month HELIBOR less 3-month euro-DEM rate
2. Finnish government bond (2004, 2006) yield less German 10-year government bond yield

**Chart 10.****Markka's external value**

1. Trade-weighted currency index, 1982 = 100
2. Markka's exchange rate against the ECU

Rising curve means markka appreciation.

In early 1996 foreign interest rates went into a more rapid decline when both economic growth and inflation proved to be more subdued than anticipated. The German repo rate, which was 3.75 per cent at the start of 1996, was lowered four times in January, to 3.30 per cent at the start of February. The core EU countries moved closely in step with the decline in German rates. The Swedish central bank also started lowering its repo rate (in small steps) in January. From its level of 8.91 per cent at the start of 1996, the Swedish repo rate was lowered quite steadily by about ½ percentage point per month.

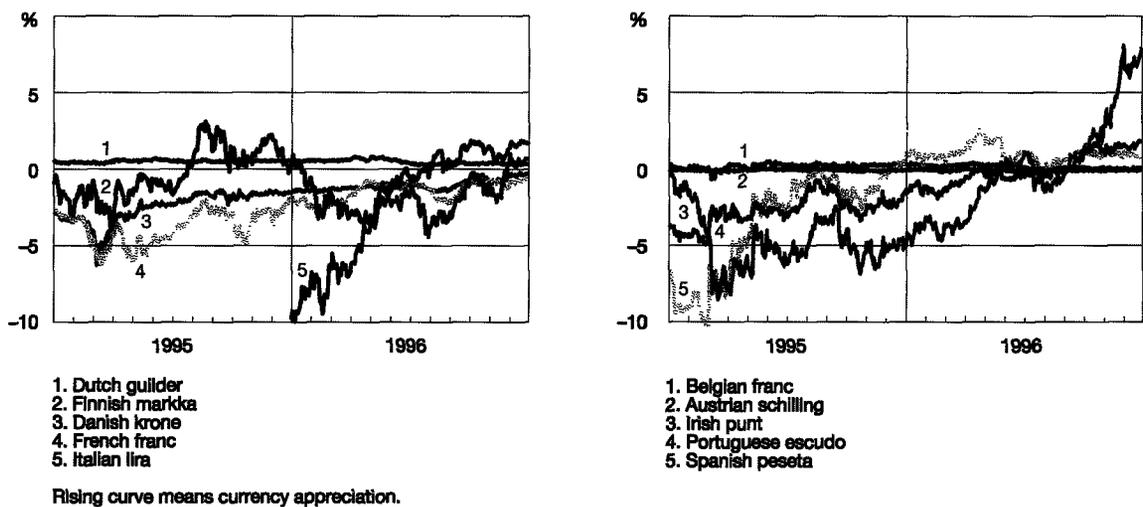
During the latter half of January and through February, the Finnish foreign exchange and financial markets experienced a degree of uneasiness, partly for external reasons. Market uncertainty was largely related to signs of a possible upturn in US interest rates. The unease spread particularly among several of the EU fringe countries, including Sweden. In fact, the US central bank lowered

its target (federal funds) rate again at the end of January by ½ percentage point to 5.25 per cent and kept it unchanged for the rest of the year. Domestic news also added to the uncertainty, viz poor unemployment figures for December and pessimistic forecasts of Finnish economic performance. The differential in the three-month interest rate vis-à-vis Germany widened to about 1 percentage point. The ten-year yield increased from less than 7 per cent to about 8 per cent before starting to decline again at the end of February.

After the market situation had calmed, the Bank of Finland lowered the tender rate on 13 March by ½ percentage point to 3.75 per cent. The cut was based on a forecasted decline and stabilization of inflation at 1.5–2 per cent by yearend. The lower-inflation forecast was influenced by similar trends abroad as well as certain domestic factors.

Chart 11.

Deviations of ERM-currency exchange rates from their central DEM rates



**The markka weakened in the early part of the year**

The markka continued to depreciate in the early months of 1996 (Chart 10). In this respect, the markka's behaviour differed from that of other small EU-country currencies, which were generally quite stable or even upwardly biased. Within the ERM, exchange rates were mutually converging (Chart 11). At the start of the year the deviation between the strongest and weakest currency (Irish punt) was still more than 5 per cent, but by summer it had narrowed to about 2 per cent.

The weakening of the markka was a result of several pieces of worse-than-expected news as well as speculation concerning Finland's joining the ERM. In the media and in the markets the view was expressed that the markka's external market value was too high for an ERM linkup. The Deutschemerk was valued at about FIM 3.16 in May, ie about 6 per cent higher than in December 1995. The values of the US dollar and Swedish krona

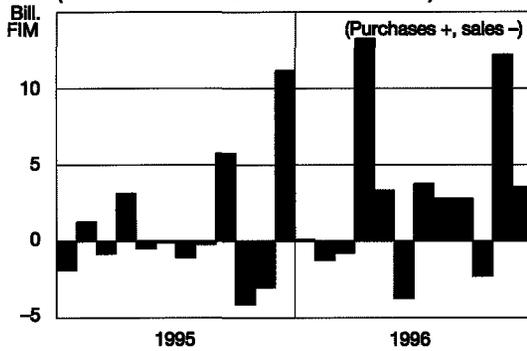
rose by nearly 10 per cent. The markka value of the Swedish krona returned to about FIM 0.70, which was about the same as it had been prior to the markka devaluation in November 1991. The trade-weighted currency index rose by about 7 per cent.

The Bank of Finland buoyed the markka by selling foreign exchange when the markka was depreciating most rapidly. The intent of the intervention, however, was not to reverse the trend, which was clearly dictated by genuine market pressures, but merely to dampen exchange rate fluctuations. The heaviest interventions were carried out in January when nearly FIM 4 billion worth of foreign currency was sold (Chart 12). Altogether in January–April sales amounted to FIM 6.8 billion worth of foreign currency. All these operations were executed in the spot market. Fluctuations in the value of the markka were natural in the floating rate environment, nor was the magnitude of depreciation considered sufficient to jeopardize the inflation target.

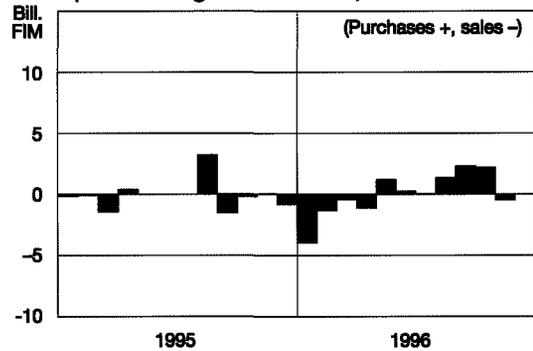
Chart 12.

Bank of Finland's operations in the money and foreign exchange markets

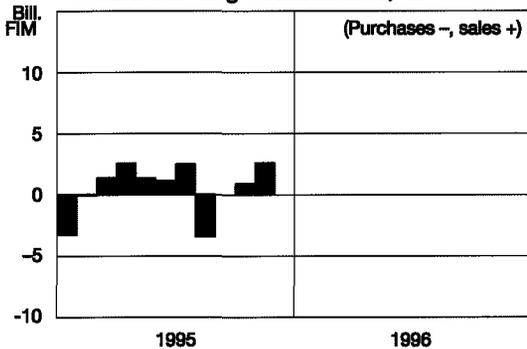
Money market operations, net  
(incl. effect of matured transactions)



Spot exchange transactions, net



Forward exchange transactions, net



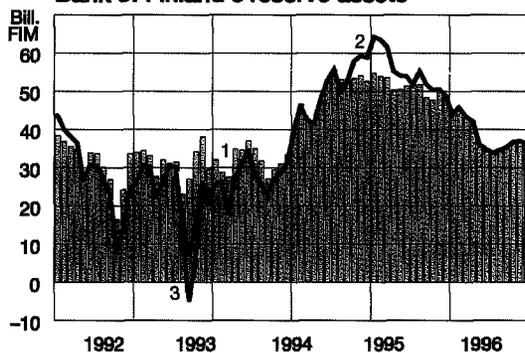
As a result of the intervention operations, the Bank of Finland's international reserve assets declined substantially (Chart 13). This was also in accord with the Bank's objectives. The vast reserves accumulated in 1994 and 1995 were considered excessive in the context of a floating exchange rate regime. At the start of the year reserve assets amounted to FIM 48.9 billion; by end-April they were down to FIM 42.1 billion.

In May the markka again began to appreciate, rapidly at first, so that by June it had regained half of its value-loss as from the start of the year. The markka's appreciation was slightly more pronounced in terms of the

Deutschemark than the trade-weighted index. One factor in the markka's appreciation was the entry into force of the new Currency Act on 10 June, following an entire spring of parliamentary deliberation. The new law did not specifically define Finland's exchange rate system but instead focused on the related decisionmaking procedure. The most significant aspect of the change was that it provided the possibility of linking the markka to the ERM if that course of action were to be decided. At this stage the markka gained strength mainly because of foreigners' investments in markka financial assets. The Bank of Finland again dampened exchange

Chart 13.

Bank of Finland's reserve assets



1. Reserve assets
2. Reserve assets + forward position
3. Net reserve assets (incl. forward position + currency support loans)

rate fluctuations, this time by purchasing foreign exchange. Purchases in May amounted to FIM 1.2 billion. In the summer months small lots of foreign exchange were purchased, to a total value of FIM 1.7 billion.

Despite the purchases of foreign exchange, the country's international reserve assets declined in May by FIM 6.1 billion. This was due to an unusual concentration in May of the central government's debt-service payments of principal and interest. Reserve assets continued to decline somewhat during the summer because of government outlays; at end-July they stood at FIM 33.9 billion. After that, reserve assets began to accumulate mainly because of new central government borrowing abroad, especially in August, but also because the Bank of Finland purchased foreign currency from the markets to some extent.

**The tender rate was lowered further in summer and early autumn**

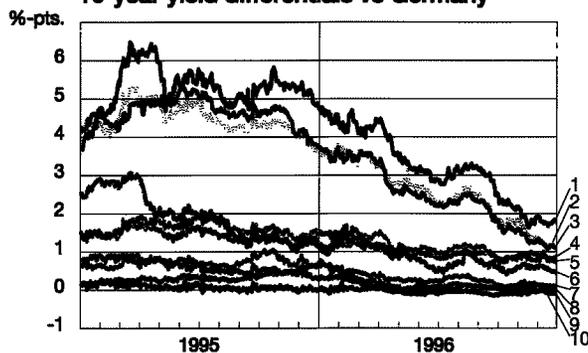
In other countries interest rate declines were relatively modest in spring and early sum-

mer. Germany did however cut its discount and Lombard rates by 0.5 percentage point on 18 April, to 2.5 per cent and 4.5 per cent respectively. A cut in the repo rate was anticipated on several occasions but the Bundesbank refrained. France and Denmark, whose key policy rates had been about a percentage point above German rates at the start of the year, (cautiously) lowered those rates, thus narrowing the differentials against the German repo rate. EU fringe countries, in which key policy rates had been around 9 per cent at the start of the year, were able to cut those rates substantially. The cuts in short-term rates were again most pronounced in Sweden, where the central bank's repo rate dropped below 6 per cent in summer.

Finland's tender rate also continued to decline in the summer but now in smaller steps. On 14 June the tender rate was lowered by 0.15 percentage point to 3.60 per cent and on 5 July to 3.50 per cent. Underlying the decline in interest rates were expectations of lower inflation. Finland's key monetary policy interest rates had again approached Ger-

Chart 14.

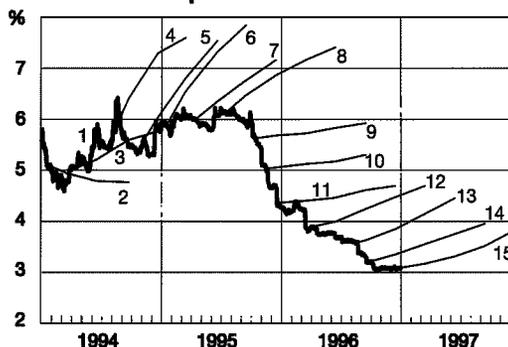
10-year yield differentials vs Germany



1. Italy
2. Spain
3. Portugal
4. Ireland
5. Denmark
6. Finland
7. Belgium
8. Austria
9. France
10. Netherlands

Chart 15.

Actual and expected 3-month interest rates\*



- |                            |                              |
|----------------------------|------------------------------|
| 1. 3-month HELIBOR         | 10. Expected rate 15.11.1995 |
| 2. Expected rate 15.1.1994 | 11. " 20.12.1995             |
| 3. " 15.4.1994             | 12. " 1.4.1996               |
| 4. " 15.7.1994             | 13. " 16.8.1996              |
| 5. " 14.10.1994            | 14. " 23.9.1996              |
| 6. " 16.1.1995             | 15. " 31.12.1996             |
| 7. " 13.4.1995             |                              |
| 8. " 14.7.1995             |                              |
| 9. " 13.10.1995            |                              |

\* Expected rates based on forward rates.

man levels. In July–August the tender rate was only 0.20 percentage point above the German repo rate, nor was the three-month rate differential much wider.

A positive development was the convergence of long-term interest rates, which are completely market-determined, toward German levels. At the start of May a ten-year government bond became available also in Finland. The bond was accorded benchmark status in August and was thus reported in the official statistics. This resulted in a 0.3 percentage point upward revision in the time series. Using this bond for comparative purposes, the ten-year yield differential against Germany narrowed from about 1.2 percentage points in May to 0.8 percentage point in June. Finnish interest rate performance in this respect was also good relative to other EU countries, as Finland was able to lodge itself, along with Denmark and Ireland, in a kind of middle group. The group's ten-year

rates were about a percentage point higher than those of the Germany-centred core group (Chart 14). Long-term rates in several southern European countries and Sweden, despite their downward movements, were still more than 2 percentage points above comparable German rates.

In summer many countries experienced a phase of gradually rising long-term interest rates and narrowing differentials against German rates. The unease was again related to developments in the USA and depreciation of the dollar, which in turn weakened the currencies of the EU fringe countries. Finland too was affected but only for a very short time. Around the end of July the ten-year rate in Finland began to decline again, even faster than in other countries with relatively low interest rates.

Following a long period of anticipation in the markets, the Bundesbank finally on 22 August lowered its repo rate, now by an

unexpectedly large 0.3 percentage point to 3.0 per cent. The rate cut gave the Bank of Finland some leeway to cut its tender rate even though the German rate was not considered the exact lower bound for the Finnish rate. On 23 August the Bank of Finland lowered the tender rate for the third time in the summer, this time to 3.25 per cent.

By then, the base rate was already 1.25 percentage points above the tender rate. The interest rate configuration was made more consistent with the decision of 27 August to lower the base rate to 4 per cent as from mid-September. The base rate had during the year continued to rapidly lose status as a reference rate for bank deposits and loans; by yearend the share of deposits and lending tied to the base rate had fallen to less than a fifth.

On 18 September the tender rate was cut again by 0.15 percentage point to 3.10 per cent and on 9 October to 3.0 per cent. Arguments for lowering the rate included the long-standing moderate inflation outlook, the narrowing of differentials between domestic and foreign interest rates, and market confidence in the markka.

On several occasions during the year it became apparent that the markets' short-horizon expectations were for lower short-term market rates. By contrast, forward rate agreements continually signalled market expectations of an upturn in short-term interest rates in the coming months (Chart 15). The expected rate increase remained at about 1 percentage point from the start of the year through the next four quarterly changes, after which it dropped to about ½ percentage point in the autumn.

The yield on the ten-year Finnish government bond fell in September–October to about 6.5 per cent. The rate was very low, not only by Finnish historical standards but also by international standards. The differential

against the comparable German rate was narrowed to about a mere 0.4 percentage point, ie to slightly over half of the corresponding differential for Denmark, a country that had long enjoyed stable monetary conditions. The narrowing of the differential was partly the result of a reinforced conviction that Finland was seriously aiming to be among the first countries to enter Stage Three of EMU. Moreover, expectations firmed that Finland would also meet the EMU criteria regarding government finances. The decline in long-term interest rates was also influenced by liquidity conditions in the financial markets. For one thing, the insurance companies were having a difficult time finding investment outlets for their long-term funds, which in turn increased the demand for government bonds.

In the summer the markka appreciated further. Particularly in September–October domestic firms converted large amounts of foreign exchange into markkaa. In the early part of autumn the markka exchange rate versus the Deutschemark generally remained a few penniä above FIM 3 but strengthened in September–October to just under FIM 3. Abroad (also among the ERM countries), local currencies came under a degree of pressure in summer and early autumn. This was especially true of the French franc, in this case mainly for domestic-policy reasons. The franc nonetheless stood the test well and exchange rate gaps only widened to 2–3 per cent. All in all, conditions within the ERM became more stable, as was reflected also in a clear converging trend over the year in ERM-country long-term interest rates, despite the bouts of uneasiness.

### **Finland joined the ERM in October**

On the basis of a proposal by the Bank of Finland, the Council of State decided on

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**The differential  
between  
Finnish and German  
long-term interest  
rates narrowed.**

---

12 October to join the Finnish markka to the EU's Exchange Rate Mechanism ERM. The markka's central rate configuration was agreed between representatives of finance ministries and central banks within the Monetary Committee, under the ECOFIN Council. The markka's ECU central rate was set at FIM 5.80661, the corresponding Deutschemark central rate being FIM 3.0400. The agreed central rates versus the major ERM currencies were close to corresponding average market levels for the previous couple years. In the same connection, the Bank of Finland and other ERM central banks set the exact markka bilateral central rates and fluctuation limits. Finland's membership in the ERM became effective on Monday, 14 October.

In joining the ERM, Finland's aim was to consolidate its cooperation with EU countries with respect to exchange rate policy. Finland's membership in the Economic and Monetary Union (EMU) is based on Parliamentary ratification of accession to the EU and is also included in the present Government's programme. It now appears that the confirmation of countries that qualify for the EMU will be made in spring 1998. According to the text of the Maastricht Treaty, the convergence criterion concerning exchange rates is that an exchange rate must remain stable for two years prior to the examination and the country must participate in the ERM of the European Monetary System (EMS). In Finland it was considered essential to fulfil the criteria in a strict sense in order to ensure its opportunity to decide on entry to Stage Three of EMU.

The Bank of Finland and the Government together had considered the possibility of joining the markka to the ERM on the assumption that only solutions consistent with sustainable economic performance and stable money would come into question. In

1995 and 1996 the Finnish economy continued to progress toward better balance although unemployment declined more sluggishly than targeted. Conditions were favourable for stabilizing the price level; the economy's indebtedness diminished; and the growth in the central government debt was slowed significantly. The markka's exchange rate remained quite stable through 1995 and 1996 and interest rate differentials against major EU countries narrowed substantially. Forecasts also presented a promising outlook for the future.

The Bank of Finland had already in February 1993 specified its monetary policy target: stable inflation at about 2 per cent a year. This was in line with the targets of major ERM countries. This aspect of Finland's monetary policy did not change with entry into the ERM, although exchange rate stability assumed greater importance. The Bank of Finland is obliged to ensure that the markka's exchange rate against each of the other ERM currencies remains within the  $\pm 15$  per cent margins. While the wide margins provide an important speculation preventive, the effective bilateral margins are considerably narrower.

There are a number of technicalities associated with the definition of the fluctuation margins. The margins are not exactly  $\pm 15$  per cent. Because bilateral intervention limits must be the same in terms of each of two currencies, the markka value of a given ERM currency can rise (markka depreciates) by about 16.12 per cent from the bilateral central rate or decline (markka appreciates) by about 13.88 per cent. For example, with a central rate of FIM 3.04 the Deutschemark intervention limits become FIM 3.53 and FIM 2.62.

Because all ERM currencies are subject to fluctuation margins, a particular cur-

rency cannot usually fluctuate to the full extent of its bilateral margins. Thus, for example, the markka's effective bilateral margins are usually substantially smaller than  $\pm 15$  per cent and they fluctuate continuously in response to changes in other bilateral rates. The greater the gap between the strongest and weakest ERM currencies, the narrower the markka's effective fluctuation margins. The effective margins are nonetheless always at least equal to half of the formal margins. Besides these technical limits, monetary measures can of course also be used to enforce specific margins.

In connection with entry into the ERM, the markka's central rate against the ECU basket was also defined. The ECU's status within the ERM is however different from that of member countries' currencies in that fluctuation margins against the ECU are not defined or applied. Also in this respect, the Finnish markka's ERM linkup differs from the situation in the period 7 June 1991 – 8 September 1992 when the markka was linked to the ECU and its fluctuation limits against the ECU basket were specified.

Finland's ERM linkup did not affect the definition of the ECU, which was spelled out and fixed in the Maastricht Treaty, based on the 12 EU currencies that were then included in the ECU basket. Thus even since the joining of the Finnish markka to the ERM, the non-ERM currencies of the UK, Italy (which joined later) and Greece have remained in the ECU basket while the ERM currencies of Austria and Finland, as well as the non-ERM Swedish currency, have been excluded.

Finland's linkup with the ERM was in principle more tightly binding than an earlier linkup would have been because of the nearness of Stage Three, only slightly more than two years away. The chosen central rates clearly constitute a point of departure in de-

termining probable fixed rates against the future single currency – the euro. It appears that this concept had a steadying effect on the course of exchange rates and interest rates as soon as it was widely believed that EMU would be realized and would include Finland. The ERM linkup did not immediately end Finland's independence in terms of interest rates but it does constrain rates. Moreover, a highly active interest rate policy would compromise the spirit of the ERM and the run-up to Stage Three of EMU, except for situations of extreme pressure on the markka's exchange rate.

### **The markka remained stable after the ERM linkup**

The ERM linkup was achieved in an atmosphere of flexibility and tranquility, which was certainly partly due to the fact that both the timing and the chosen central rate were about in line with market expectations. The chosen ECU central rate and corresponding Deutschemark central rate were about  $1\frac{1}{2}$  per cent weaker than prevailing market rates. At the time of the linkup the Deutschemark's market rate was about FIM 2.99 compared to the agreed central rate of FIM 3.04.

After the markets opened following the ERM linkup, the markka's exchange rate and long-term interest rates remained fairly steady. The Finnish markka joined the strong group of ERM currencies as measured by comparison with ECU central rates. Later, in October–November the markka depreciated slightly but still remained on the strong side of the core currencies. The Deutschemark's market rate approached its markka central rate but returned at yearend to about FIM 2.99. The differential between Finnish and German long-term interest rates fluctuated in a range of about 0.4–0.6 percentage point as the year wound down.

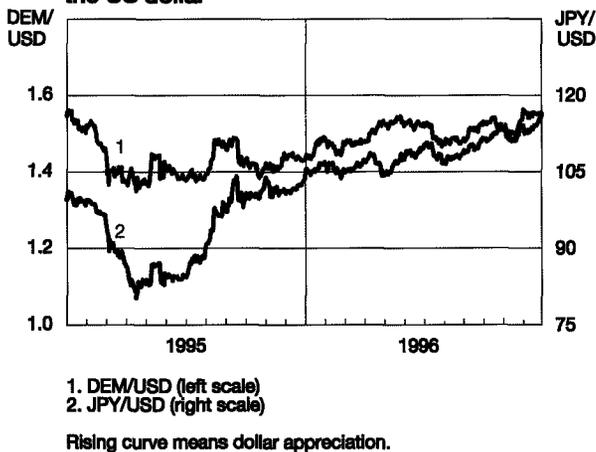
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**Both the central rate and the timing were well in accord with market expectations.**

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Chart 16.

Deutschemark and yen exchange rates vs the US dollar



In many countries key monetary policy interest rates were lowered again slightly at the end of 1996. The Swedish repo rate ended the year at 4.10 per cent. On the other hand, there were also signs of upward pressure on rates in the international markets. The UK, which had lowered its base rate three times in the first half of 1996 (for the last time on 6 June by 0.25 percentage point to 5.75 per cent), raised its base rate back up to 6.0 per cent on 30 October. The reason for the action was excessive inflationary pressure relative to the inflation target. But owing to strong economic growth, the UK was however in a different position from that of the continental European countries. The latter had experienced low growth and low inflation throughout 1996, although growth did pick up somewhat.

Following the ERM linkup the Bank of Finland intervened in the exchange market only to a minor extent and in both directions, in order to dampen fluctuations. During the latter months of the year, the reserve assets

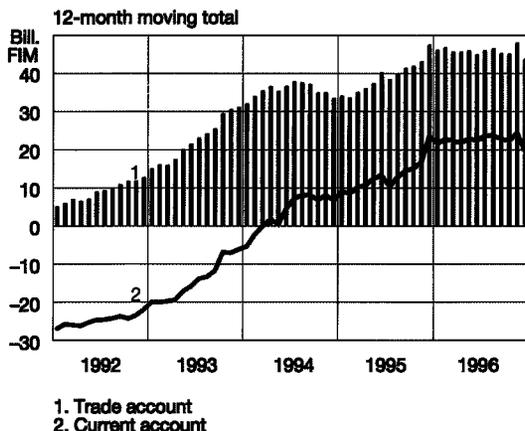
remained nearly unchanged, amounting to over FIM 36.4 billion at yearend. Stability in the foreign exchange markets in 1996 was partly reflected in the fact that the Bank of Finland found no cause to operate in the forward markets for the entire year. The Bank's forward position stayed at zero throughout the year, for the first time since the liberalization of the forward markets in 1980.

On 25 November the Italian lira was re-joined to the ERM. This did not affect the markka's central rates and fluctuation margins against the other ERM currencies. However, the markka's ECU central rate did change, from FIM 5.80661 to FIM 5.85424, largely because the lira joined the ERM at a relatively strong central rate, which raised the value of the ECU basket vis-à-vis all the ERM currencies.

At yearend the strongest ERM currency was the Irish punt, which widened the gap between ERM currencies in November–December to 7–8 per cent. The rise in the punt's value was mainly due to the strength-

Chart 17.

Trade account and current account



ening of the pound sterling. The US dollar also appreciated further against the Deutschemark at the end of the year, reaching DEM 1.55 compared with DEM 1.43 at the start of the year (Chart 16). Against the Japanese yen, the dollar appreciated by even more in relative terms.

**Monetary policy framework was not changed**

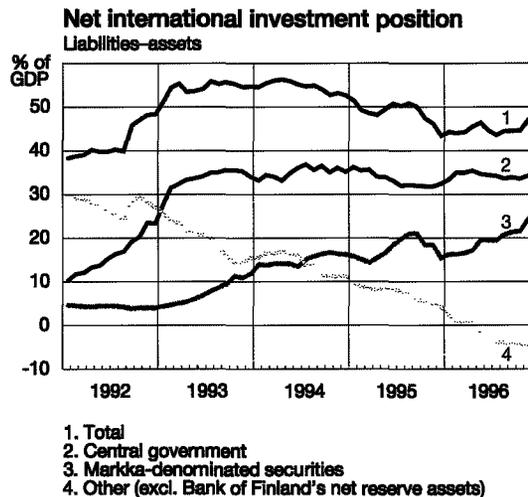
There were no significant revisions in the instruments of monetary policy in 1996. Major reforms had been effected in recent years, and in 1996 the aim was mainly to firmly establish the new arrangements. The key modification, which took place in October 1995, was the changeover to monthly averaging of reserves in the fulfilment of minimum reserve requirements. In this connection, a new liquidity system was adopted.

The interest rate margin on liquidity credit vis-à-vis the tender rate was kept at 2 percentage points throughout the year. At the end of the year the liquidity credit rate was

thus 5 per cent. The maturity on liquidity credit again remained at seven days all year long. The interest rate margin on excess reserves was also kept unchanged, which required a separate decision in conjunction with each cut in the tender rate. At yearend the excess reserve rate was only 1 per cent.

Under the averaging arrangement, banks have been able to use all of their roughly FIM 7 billion in reserve deposits for managing their liquidity. Reserve deposit balances have as a result fluctuated widely from day to day. The peak for 1996 was FIM 18.2 billion (31 January) and the low point a mere FIM 1.0 billion (24 July). The reform has clearly reduced the Bank of Finland's need to smooth out liquidity in the money market. Prior to the reform in 1995, the Bank of Finland had held money market tenders on 13 days per month on average, in 1996 only on seven days. The desired smoothing of the overnight rate, however, has not been fully achieved. In the early stages and yet in the early part of 1996, the fluctuations did damp-

Chart 18.



en, but especially in late summer the overnight rate gyrated widely on several occasions. Overall, average fluctuations have not changed significantly.

All money market operations in 1996 were conducted via tenders; spot purchases and sales were not used. Generally the tenders drained liquidity from the system, although there were also several loosening operations, especially toward yearend.

Representatives of the Bank of Finland participated under the auspices of the European Monetary Institute (EMI) in the development of monetary policy instruments to be used by the European System of Central Banks (ESCB). The Bank of Finland's present arsenal of monetary policy instruments appears to measure up fairly well in all aspects to the requirements of the likely policy apparatus of the European Central Bank. Nonetheless, the Bank of Finland will need to refine its monetary policy tools in the coming years for use in the ESCB.

## Debts of firms and households and the money supply

### The surplus on the current account reflected the savings surplus of the corporate and household sectors

One of the underlying factors contributing to the markka's stability in 1996 was Finland's large surplus on the current account, which amounted to FIM 19.2 billion or 3.4 per cent of aggregate output (Chart 17). It is significant that the large surplus was generated when the central government and general government deficits relative to GDP were 7 per cent and 2.6 per cent respectively. The large current account surplus reflected a notable decline in the indebtedness of the private sector.

The 1996 surplus on the trade account was FIM 43.6 billion. Exports turned up in the second quarter, partly because of the timing of ship deliveries. The upturn did not

gather steam until the last quarter when demand picked up in the Finnish export markets.

A change in the structure of demand raised the import-share of supply. Goods trade had in prior years generated such large surpluses that despite rapid growth in import volume and pronounced weakening of the terms of trade, the trade surplus declined only slightly.

Of the other current account components, the services balance strengthened notably from the prior year. Transport receipts increased more rapidly than travel and transport expenditures. The reduction in foreign currency-denominated debt and decline in borrowing rates strengthened the balance on the investment income account. The current transfers account remained clearly negative, partly because payments of membership fees to the EU exceeded subsidy receipts from the EU.

The corporate sector in particular has strengthened its financial position in recent years after being plagued by heavy indebtedness in the early 1990s. The sector's aggregate debt is already small compared to what it was in the first half of the 1980s. The reduction in indebtedness of the corporate sector has been fostered by a decline in firms' investments and a substantial improvement in profitability. Although firms' incomes did decline slightly in 1996, profitability remained high. It was possible in 1996 to finance investment largely from retained earnings, as the total corporate sector continues to generate a savings surplus, ie its investments in financial assets are growing faster than its liabilities. The still-fairly-high real interest rate and the removal of the devaluation option appear to have made firms more cautious about taking on new debt.

Households also continued to generate modest savings surpluses. Household sector indebtedness has diminished in recent years,

albeit less dramatically than that of the corporate sector. The surpluses of social security funds and municipalities in 1996 were about the same as in 1995. Municipalities' savings allowed them to further reduce their indebtedness.

### **Finland's indebtedness declined**

The ratio of Finland's net international investment position (liabilities–assets) to GDP, which was over 50 per cent in 1993 and 1994, was down to somewhat more than 40 per cent at the end of 1996 (Chart 18). This measure of the external 'debt' includes the market value of share holdings. Because of the surge in share prices, the figure rose in 1996. The decline in external liabilities has taken place in the private sector as the central government's share of the net external liabilities has grown to three-fourths. The central government's foreign debt is almost entirely denominated in foreign currencies; the stock of markka bonds held abroad was only slightly more than FIM 20 billion. Again virtually the entire amount of government markka bonds issued in 1996 remained in Finland while foreigners' holdings of government markka bonds grew by only about FIM 5 billion.

Although the net foreign debt of the private sector has faded, firms' gross debts are still large and actually exceed those of the central government. In the balance of payments statistics, 'debt' (viz liabilities in the international investment position) includes foreigners' investments in Finnish shares. The value of these holdings again increased sharply in 1996, from FIM 64 billion to FIM 109 billion. Of the increase, only FIM 9 billion comprised foreigners' purchases of shares with the rest representing capital gains.

The flow of firms' investment from Finland abroad, which had turned up in

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**The central government's foreign debt is almost entirely denominated in foreign currencies.**

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recent years, accelerated sharply in 1996. Finnish firms continued to invest abroad in large volumes. The stock of Finnish direct investment abroad grew from FIM 66 billion to FIM 83 billion in 1996, to stand at nearly twice the stock of foreign direct investment in Finland. For the first time, foreign bonds became a significant mode of investment. The stock grew from FIM 10 billion to FIM 25 billion. Share investments abroad were less important but grew from FIM 3 billion to FIM 7 billion.

Of banks' capital exports, about FIM 10 billion resulted from the cutback in Finnish firms' net stock of forward exchange sales. Foreigners' forward transactions were also aimed against the markka. The forward exchange markets were apparently influenced by the decline in markka short-term interest rates relative to rates abroad, but other factors were involved such as the decline in the value of exports of the forest industries (which are active users of forward contracts).

### **Bank lending picked up slowly**

Weak demand for bank loans has constrained economic growth for a number of years and has been a prime factor in the persistence of banks' profitability problems. In 1996 banks' markka lending accelerated slightly.

At the end of the year the stock of markka lending was FIM 270 billion. Corporate lending and housing loans increased while consumer lending declined again slightly (Chart 19). Foreign currency-denominated lending fell by FIM 9 billion to FIM 24 billion, which was only a fifth of the peak level reached in the early part of the decade. Combined markka and foreign currency lending declined again, to about FIM 295 billion. This compares with a peak in excess of FIM 400 billion reached at the end of

1991. It is clear that the required adjustment stemming from the serious overindebtedness of the early part of the decade is nearly complete and creditworthy borrowers are becoming easier to find.

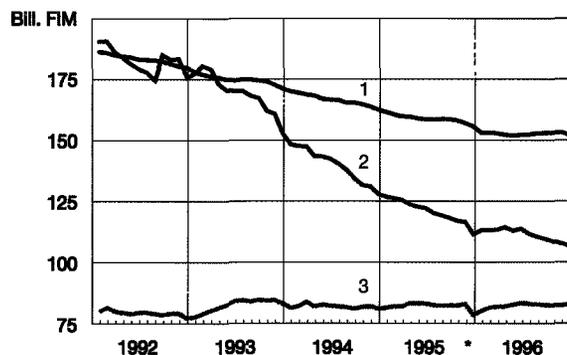
One factor that helped boost the demand for credit last year was the decline in lending rates, which followed the decline in key reference rates. Of these, the three- and twelve-month HELIBOR rates both fell by more than a full percentage point in 1996, to 3.1 per cent and 3.4 per cent respectively. In terms of the average for the whole year, the decline amounted to more than 2 percentage points. The banks' own reference rates fell in the course of the year from about 6 per cent to a range of  $3\frac{3}{4}$  –  $4\frac{1}{4}$  per cent.

One particularly important development was the decline in the rate on new loans in autumn 1995 from almost 8 per cent to just over 6 per cent. The major impact of this decline on the demand for credit clearly did not occur until 1996. Over the course of the year the interest rate level for new loans declined further by nearly a percentage point, to close the year at about 5 per cent. To some extent the average rate was reduced via banking groups' internal lending arrangements. The average rate on the stock of lending to households at yearend was just over 6 per cent; the average for new housing loans was under 6 per cent.

New loans were again tied mainly to highly sensitive reference rates. This meant that in general it was the borrowers who had to face the interest rate risk, and this in turn may have reduced the propensity to borrow. On the other hand, interest rate risk was clearly perceived to be smaller than before, with the establishment of a more favourable inflation outlook.

**Chart 19.**

**Bank lending to companies and households**

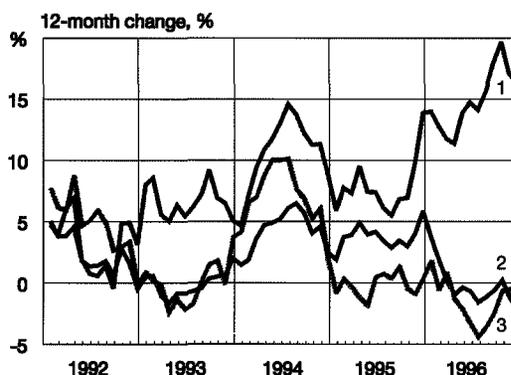


1. Lending to households, stock
2. Lending to companies, marka- and foreign currency-denominated, stock
3. Lending to companies, marka-denominated, stock

\* Bank loans amounting to about FIM 5 bill. were transferred to asset management companies in Dec 1995.

**Chart 20.**

**Monetary aggregates**



1. M1 (narrow money)
2. M2 (broad money)
3. M3 (broad money + bank CDs held by the public)

**The structure of deposits changed substantially**

The structure of bank deposits underwent significant change, which had a notable effect on the growth of the narrow money stock (M1). Overall, bank deposits declined by nearly 3 per cent, and this was reflected also in the halt of growth in the broader monetary aggregates (Chart 20). Broad money (M2) fell by about 2 per cent in the course of 1996, with most of the drop occurring in the first half of the year. M3, which includes bank CDs held by the public, fell by about 1 per cent.

The structural change in deposits concerned mainly the gradual elimination of taxfree high-yield deposit accounts. The three-year fixed-term deposit accounts were generally completely eliminated although a small amount was carried over into 1997. FIM 14 billion was released from these deposits in 1996. In addition, a large part of the funds held in two-year accounts, FIM 20 bil-

lion, was released. The opening of new deposits of this type is no longer permitted. At yearend FIM 28 billion remained in the two-year accounts. Fixed-term accounts subject to withholding tax declined by FIM 20 billion.

Households' liquid cheque and transaction accounts increased by FIM 25 billion. This substantial transfer of funds was reflected in the large 16 per cent growth in narrow money (M1) in 1996. The increase occurred fairly steadily through the year. The funds transfer was affected not only by the elimination of taxfree fixed-term accounts but also especially by the decline to low levels in interest rates on fixed-term accounts, in line with the overall level of interest rates. Virtually all deposit funds were shifted into tax-free accounts, as their maximum interest rate under income tax law was kept at 2 per cent despite the decline in interest rates. With the withholding tax rate at 28 per cent, banks would have needed to pay over 2.7 per cent

interest on accounts subject to the tax – hardly a practical alternative. The average interest rate on banks' total funding fell from 2.69 per cent in December 1995 to 1.73 per cent in December 1996.

In this situation there was also some shifting of deposit money out of the banks although the amount remained relatively small. Investments in mutual funds doubled to about FIM 12 billion during the year. The growth occurred mainly in mutual funds specializing in debt instruments and in the waning months of the year. The amount of government 'yield bonds', which are aimed at households, increased from FIM 18 billion to FIM 31 billion in the course of the year. Insurance companies also stepped up their offerings of investment objects comparable to fixed-term deposits. It is clear that some of

the funds that were freed from fixed-term deposits were used for consumption and for dwellings purchases.

A small amount of the growth in M1 derived from an increase in the public's holdings of banknotes. After several years of slow growth, the amount of banknotes outstanding has grown rapidly in the last two years. Part of the reason for this is an institutional change: Most of the banks' cash dispensing ATMs are now handled by a separate company and all banknotes in these ATMs are reported in the statistics as being held by the public instead of as banks' till money. Moreover, the overall amount of banknotes has increased, partly as a result of economic recovery but also apparently because of other factors, including the sharp reduction in the number of bank branches.

For the financial markets 1996 was a year of generally favourable developments. The banks continued to recover from the difficulties caused by the banking crisis, and all banking groups posted positive results. Contributing to the improvement in bank profitability were, above all, a contraction in loan losses and operational expenses as well as an increase in other income. The stock of lending also started to increase in the course of the year, having decreased over the last several years. By contrast, banks' net income from financial operations declined again for the year as a whole due to a further narrowing of the margin between lending and funding rates. The decline in net income from financial operations however bottomed out toward yearend.

The capital market was marked by stable developments. Interest rates fell throughout the year, with short-term rates hitting historical lows by yearend. Interest rate differentials vis-à-vis Germany narrowed in respect of all maturities, and the shortest HELIBOR rates dropped below corresponding German rates in the latter part of the year. Central government borrowing focused increasingly on markka-denominated debt. The stock of markka-denominated government bonds expanded significantly, and the aver-

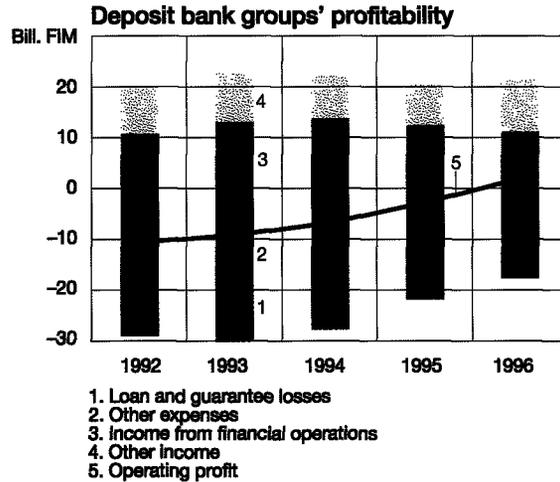
age maturity on new borrowing lengthened. Government yield bonds, which are targeted at small investors, were also well received.

The rise in share prices in the stock market was substantial and, in contrast to recent years, Nokia was not the only driving force in the market. Companies that focus on domestic markets also saw their share prices rise. Finnish listed companies, having earned record high profits in the prior year, followed with record dividend distributions in 1996. Only a moderate amount of new capital was raised in the stock market; big share issues were linked to cutbacks in government shareholdings.

## **Domestic banks' results turned positive**

Operating results of domestic deposit banks in 1996 improved significantly from the prior year, and financial results were positive for the first time since 1990. Deposit banks' combined operating profit totalled about FIM 2 billion (Chart 21), reflecting an improvement of almost FIM 5 billion on the previous year. All domestic banking groups had positive results. Despite an appreciable improvement in financial performance, do-

Chart 21.



mestic banks' return on equity was still low by international standards.

Deposit banks' net income from financial operations for the year as a whole was smaller than for 1995, but the downtrend came to a halt in the course of the year. Net income from financial operations is composed of banks' interest income less interest expenses. Hence, net income from financial operations is affected by developments in the stock of both lending and deposits as well as by the margin between lending and funding rates. In addition, the amount of low-yield assets, notably nonperforming assets, has an impact on net income from financial operations.

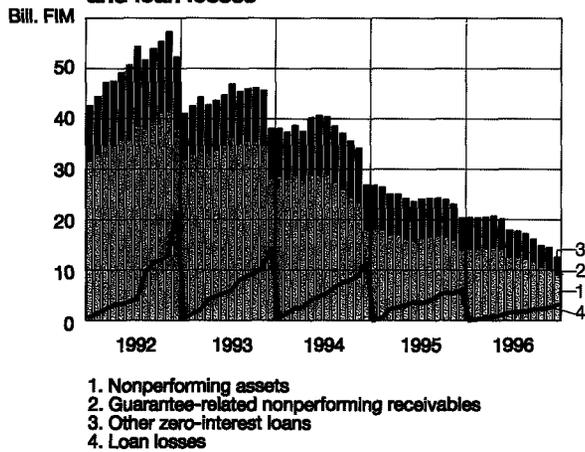
The stock of markka lending started to expand in 1996. This was due to improved economic expectations and low interest rates. Markka-denominated corporate lending increased in the early part of the year, and in the latter months the growth focused on household loans. The volume of new housing loans to households in particular was considerably higher than in the prior year. However, the positive effect of a larger stock of lending

on net income from financial operations was offset by a narrowing of the margin between funding and lending rates. The impact of falling interest rates on the interest rate margin was negative in respect of the existing lending stock, as bank lending rates declined by more than funding rates. With the focus of funding mainly on transaction accounts, the interest-rate sensitivity of funding diminished further, because rates on these accounts were already very low. Nonetheless, all the large banking groups tried to respond to margin squeezing by announcing lower rates on transaction accounts.

Despite the decrease in net income from financial operations, deposit banks' total income increased, because income from other sources was sharply higher than in 1995. Other income sources include service fees, broking fees, net proceeds from securities trade and various loan-related charges. The growth of other income was, above all, influenced by exceptionally good results from securities trade during the first half of the year. The two largest individual items were profits in connection with a share issue

**Chart 22.**

**Deposit bank groups' nonperforming assets and loan losses**



by Tuko Oy and an appreciation in the value of banks' large holdings of government bonds due to the decline in the level of interest rates. By contrast, fees and commissions included in other income performed only moderately. In the latter half of the year, a pickup particularly in households' borrowing generated earnings in the form of lending-related fees and commissions. On the other hand, securities broking fees contracted, largely due to intensified competition. Also in foreign exchange dealing, tighter competition continued to reduce bank income.

### **Loan losses contracted**

Deposit banks' loan losses decreased sharply in 1996. For the whole year, loan losses totalled slightly more than FIM 3 billion, ie about half the previous year's level. However, relative to the scope of operations, loan losses remained higher than internationally accepted levels. One positive development was the increase in recoveries of assets previously booked as loan losses. In addition, there

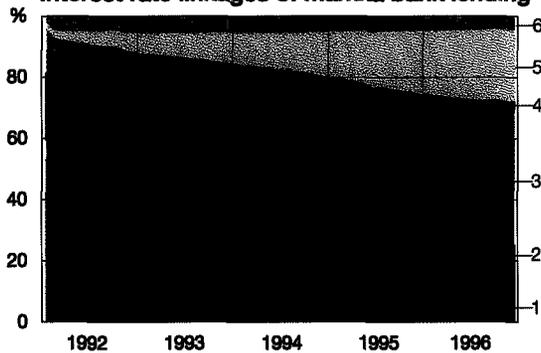
was a closer matchup between collateral values and amount of exposure as well as fewer big individual losses than before. Loan losses are expected to continue their favourable trend in 1997.

Banks' nonperforming assets continued to contract (Chart 22). The contraction was slow in the early part of the year but accelerated in the second half along with economic activity. A very positive aspect of the development of nonperforming assets was the fact that companies and households regained the ability to meet payment obligations. In prior years, nonperforming assets had decreased almost exclusively via loan losses. The portion of domestic banks' balance sheets accounted for by nonperforming and low-yield assets stemming from the banking crisis is still large by international standards. However, the fall in interest rates reduced the cost burden of low-yield assets. The moderate rise in asset prices, notably real estate prices, also eased the plight of the banks.

Banks' operational expenses declined sharply in 1996. Staff and branch downsizing

Chart 23.

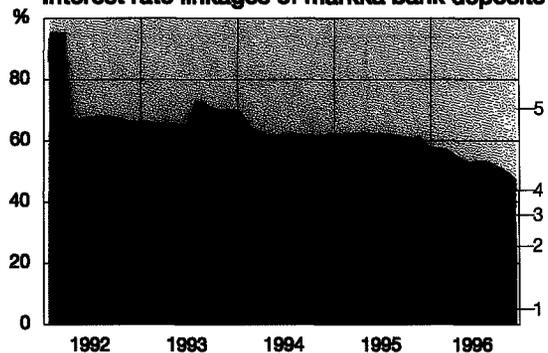
Interest rate linkages of markka bank lending



1. Tied to Bank of Finland's base rate
2. Fixed-rate
3. Tied to HELIBOR rates
4. Tied to 3- or 5-year reference rate
5. Tied to prime rate
6. Other

Chart 24.

Interest rate linkages of markka bank deposits



1. Tied to Bank of Finland's base rate
2. Fixed-rate
3. Tied to HELIBOR rates
4. Tied to prime rate
5. Other

were reflected with a lag in operational expenses. Cost cutting is also likely to continue in the coming years. Technological advances have diminished the importance of branch networks, which, in light of tightening competition, implies a need to reduce branch and staff levels, especially if one takes into account those banking services provided via post offices.

### The stock of lending turned up and transaction accounts increased in importance

The stock of both household and corporate markka lending started to grow in the course of the year. In the latter half of the year, households' demand for housing loans picked up noticeably. By contrast, the stock of foreign currency-denominated corporate loans mediated by domestic deposit banks continued to contract (for more detail, see p. 32).

As regards interest rate linkages of the lending stock, the base rate continued to decline in importance (Chart 23). The amount

of lending tied to market rates and prime rates, on the other hand, expanded further, clearly outpacing deposits tied to those rates.

Tax-exempt transaction accounts assumed greater importance in bank funding (for more detail, see p. 33). Funds held in transaction accounts were large relative to the economy's transaction needs, and thus the risk to banks of a diversion of these funds into other investment outlets has increased.

The amount of deposits tied to market rates or to market-related prime rates contracted in 1996 (Chart 24). Particularly accounts subject to withholding tax fell out of favour owing to the decline in interest rates. Short-term market rates decreased enough to reduce after-tax yields on market-tied deposits to less than the maximum legal rate on tax-exempt transaction accounts.

### Crisis management continued in 1996

Positive financial results led to an easing of domestic banks' solvency problems, and no

## Bank support 1991–1996, million FIM

		Bank of Finland		Council of State		Government Guarantee Fund		Total	
		Capital	Guarantees	Capital	Guarantees	Capital	Other	Capital and other	Guarantees
1991	Scopulus, Sponda and Solidium	4 330						4 330	
1992	Scopulus, Sponda and Solidium	9 444	600					9 444	600
	Skopbank			580		3 000		3 580	
	Savings Bank of Finland			1 094		11 400		12 494	
	Cooperative banks			1 108				1 108	
	Postipankki			903				903	
	Kansallis-Osake-Pankki			1 726				1 726	
	Unitas			1 749				1 749	
	Okobank			422				422	
	Security fund of the savings banks					500		500	
	Other			160				160	
1993	Scopulus, Sponda and Solidium	-2 722	-100					-2 722	-100
	STS-Bank (Siltapankki)					3 036		3 036	
	Savings Bank of Finland			-844		-2 656		-3 500	
	Skopbank			350	300	700		1 050	300
	Kansallis-Osake-Pankki				1 800				1 800
	Unitas				1 000				1 000
	AMC Arsenal Ltd			3 442		1 558		5 000	
	Security fund of the commercial banks and Postipankki Ltd					-357		-357	
	Security fund of the savings banks					-345		-345	
1994	Sponda	-1 220	-500					-1 220	-500
	AMC Arsenal Ltd			6 000	28 000			6 000	28 000
	Savings Bank of Finland					-686	232	-454	
	Skopbank			450	-174		256	706	-174
1995	AMC Arsenal Ltd			8 000			-579	7 421	
	Skopbank				-36				-36
	Security fund of the savings banks					-155		-155	
1996	Arsenal			3 800	-10 000			3 800	-10 000
	Sale of Sponda shares	-1 232		1 232					
	Loan assets from Sponda	-4 532						-4 532	
	Skopbank				-45				-45
<b>Total</b>		<b>4 068</b>	<b>0</b>	<b>30 172</b>	<b>20 845</b>	<b>15 995</b>	<b>-91</b>	<b>50 144</b>	<b>20 845</b>
	Bank of Finland's total interest losses	900							
	Bank of Finland's final total loss	4 968							

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## Deposit protection reform enables repeal of Parliament's bank support resolution.

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new capital support was required. However, repayments have not yet been made on preferred capital certificates issued by banks in 1992 to the Council of State for capital support. Interest was paid on the certificates for the first time in 1995.

The Arsenal Group, which is comprised of the government's asset management companies, continued to dispose of its asset holdings. Arsenal received FIM 3.8 billion worth of new capital support in 1996, which is intended to cover its winding-up operations. The government guarantee issued in support of the Arsenal Group's funding operations was reduced from FIM 28 billion to FIM 18 billion.

In connection with the takeover of Skopbank in 1991, the Bank of Finland acquired a large amount of assets that were transferred to its subsidiaries specifically set up for the purpose, ie Scopulus, Sponda and Solidium. The Cabinet Economic Policy Committee decided on 9 January 1996 to purchase the Sponda Group from the Bank of Finland, to repay the money market stabilization loans granted to the Sponda Group by the Bank of Finland and to compensate the Bank for forgone interest income in connection with the Skopbank operation. In accord with a sales contract signed 23 May 1996, the government paid FIM 1 232 million for the shares of Sponda Oy and took over responsibility for its loans. FIM 1 760 million was paid in compensation for forgone interest income. With the Bank's forgone interest estimated at FIM 2660 million, this left the Bank with net forgone interest of FIM 900 million.

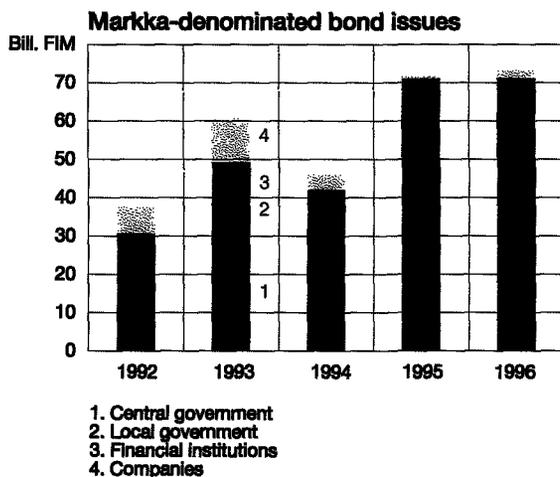
The final cost to the Bank of Finland of the Skopbank operation turned out to be a loss of about FIM 5 billion in equity capital.

## Further progress in financial legislation

The Council of State in 1995 set up a working group to prepare for the practical implementation of limited deposit protection. The working group, headed by the Ministry of Finance, reported its findings on 5 November 1996. The report contains a proposal to limit deposit protection (to less than 100 per cent) and to establish a common deposit guarantee fund for all the banks. The proposal was drawn up in the form of a Government bill and is slated for introduction to Parliament in spring 1997. The reform would become effective at the beginning of 1998, with the intention that Parliament's bank support resolution would subsequently be repealed. The present arrangement, under which the government has final responsibility for banking sector obligations, contrasts sharply to international practice.

The purpose of the deposit protection reform is to help improve the efficiency and functionality of the financial system and at the same time to reduce society's lender-of-last-resort obligation. According to the proposal, deposits from the public will be secured in the event of a bank insolvency up to FIM 150 000 per depositor/bank. Limiting deposit protection ultimately transfers some of the risk inherent in investment-type deposits from society to deposit holders. After the reform, large bank deposits will be on a more equal footing vis-à-vis other investment outlets. Moreover, a bank's risk taking and solvency will also have an impact on the price of its funding. A prudent and risk-averse bank will get funds more cheaply than a high-risk bank. Keeping the protection in place up to FIM 150 000 will safeguard ordinary deposits and ensure the reliability of normal payment flows.

Chart 25.



Legislation on a more coherent organization for the cooperative banks was passed by Parliament in early June 1996. It enables the commitment of cooperative banks to joint responsibility on a wider scale than before. Because each cooperative bank must decide on participation via its own operative procedures, the new organization will not become operative until summer 1997 at the earliest. All the cooperative banks participating in the organization will be treated via joint responsibility as a single entity *inter alia* in respect of solvency and large exposures. The proprietary independence of individual cooperative banks will nonetheless be retained within the new organization. The central association of cooperative banks will become the central body of the new organization and Okobank will be its subsidiary. Many small cooperative banks are apparently opting out of the new organization, at least at the initial stage.

Implementation of EU directives in legislation on domestic credit institutions was continued in 1996. The working group on the Credit Institutions Act made a propos-

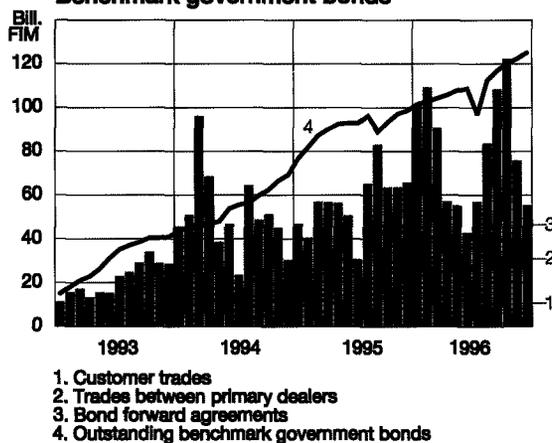
al in the form of a Government bill for incorporation of the capital adequacy directive in the Credit Institutions Act. The legislative amendment was approved by Parliament in early June and became effective at the beginning of August. A proposal for implementing the directive on prudential supervision of credit institutions (BCCI directive) in the Credit Institutions Act was introduced to Parliament in September, and in December Parliament approved the proposed amendments. These amendments take credit institutions' market risks better into account in the calculation of their own funds and enhance the efficiency of credit institution supervision *inter alia* by increasing the responsibility of auditors.

### **The capital market developed steadily**

Government bonds accounted for the bulk of new issues in the markka bond market, as in the previous year (Chart 25). The volume of government markka issues was less than in 1995. However, the central government debt

Chart 26.

**Benchmark government bonds**



became increasingly markka denominated. The demand for government bonds at the auctions remained good throughout the year; hence new borrowing is likely to continue to focus on markka issues. Lower domestic interest rates also argue for markka borrowing.

Companies were more active than in 1995 in tapping the capital markets for debt capital. Several large domestic companies issued bonds, with Nokia and Metsä-Serla being the biggest borrowers in the markka bond market. Because the issue volumes were fairly small, the amount of financing raised by companies in the capital market remained modest. Nor did the small size of the issues help promote the development of a liquid secondary market. However, the issues were well received, which bodes well for future bond financing activities.

Financial institutions also issued bonds in 1996. These issues were on average larger than other corporate issues. Merita Bank issued in the largest amounts, denominated in markkaa and aimed at both domestic and foreign investors. A domestic issue was aimed at institutional investors.

The government asset management company Arsenal Ltd issued two bonds during the year, both maturing in 1999. The first issue amounted to FIM 2.5 billion and the second to FIM 500 million. Arsenal bonds are fully guaranteed by the government.

### **The market for benchmark bonds expanded**

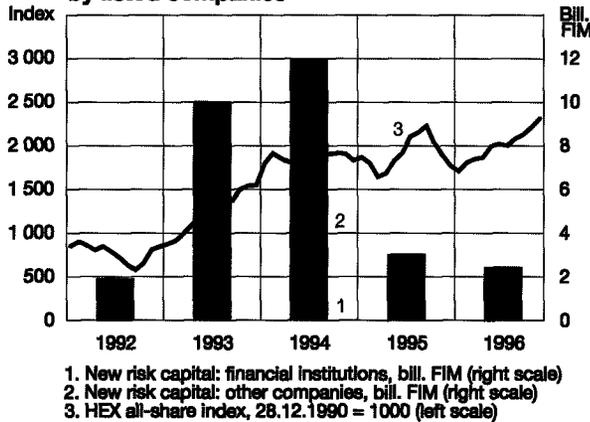
The primary dealer system developed steadily in 1996, with a marked expansion in the volume of secondary market trade in benchmark government bonds (Chart 26). The growth occurred in trade both between primary dealers and particularly between primary dealers and customers.

Den Danske Bank was approved for system access on 20 December 1996 and started operating as a primary dealer on 15 January 1997. This increases the number of primary dealers by one.

Trade in bond forwards, which had started in 1994, picked up notably in 1996. Both transactions between primary dealers

Chart 27.

Share prices and acquisition of risk capital by listed companies



and customer contracts increased. Trading in bond forwards was brisk particularly toward yearend, and the amount of contracts entered into exceeded FIM 40 billion during the final months of the year (Chart 26).

### Turnover increased on the Helsinki Stock Exchange as prices rose

Share prices on the Helsinki Stock Exchange developed propitiously throughout the year 1996 (Chart 27). The change in the Helsinki Stock Exchange all-share index from end-1995 to end-1996 was 46.5 per cent. The index reached an all-time high at yearend. Similar trends were observed in New York and on several European stock exchanges, which also influenced the outcome in Helsinki. The prime factors behind the favourable trend in share prices were the fall in interest rates and widespread confidence in a favourable economic outlook. One aspect worth noting was the improved performance of bank shares in the latter half of the year,

which reflected restored confidence in the banking sector on the strength of improved financial results.

Share turnover on the Helsinki Stock Exchange again achieved a new high. Total turnover in 1996 was FIM 101.3 billion, which reflected an increase of 22 per cent on the previous year. The growth was due to increased turnover in shares other than those of Nokia. The rise in share prices also helped to boost the markka value of turnover.

The stock market played a very modest role in corporate financing in 1996. Only a few issues were arranged. Companies were able to cover a fairly large part of their new capital requirements out of retained earnings. On the basis of surveys of corporate confidence conducted in the early part of the year, investments planned for the coming years were on a lower level for instance than those planned a year earlier. In the next few years, the stock market may well increase in importance as a source for corporate financing if the share of investment financing accounted for by retained earnings should decline. The indebtedness of Finnish compa-

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**Shareholder agreement signed on a national securities depository.**

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nies has diminished but is still quite high, especially in cyclically sensitive sectors such as the metal and engineering and forest industries.

Finnish companies continued to distribute a small portion of their profits as dividends to shareholders compared with international standards. Nonetheless, the amount of dividends paid by listed companies rose significantly and reached a new high.

The government continued to reduce its shareholdings in 1996. In the early part of the year it sold Valmet Oy shares via an international issue. The company also bought back some government-owned shares, thereby reducing the government's ownership interest to 20 per cent. Accordingly, Valmet can no longer be considered a state-owned company. Kemira Oy conducted a share issue in October in which old shares held by the government were sold along with the new shares. The issue reduced the government's ownership interest in Kemira from 72 per cent to less than 54 per cent. The government is likely to continue to reduce its ownership interest in listed companies in the coming years.

**The derivatives market continued to expand**

Turnover in all derivative contracts increased on the year earlier figure. Growth was particularly pronounced in interest rate and currency derivative contracts. In fact, the focus of the money market seems to have shifted from CDs and Treasury bills to forward rate agreements. By contrast, developments in stock-related derivatives were more moderate than in the previous year. Clearing and settlement of markka-denominated derivatives concentrated increasingly in SOM Ltd, Securities and Derivatives Exchange, Clearing House (SOM). Clearing and settlement of markka-

denominated derivative contracts was almost totally centralized in the SOM clearing and settlement system.

**Mutual funds gained increasing popularity**

Market capitalization of mutual funds that invest in Finland expanded substantially in the course of 1996. There were however big differences between the various types of funds. Fixed income funds, notably those focusing on short-term instruments, vigorously expanded their market capitalization in the latter part of the year. Market capitalization of equity and balanced funds remained roughly unchanged.

So-called short term funds started operations at the beginning of 1996. These funds concentrate their investments on CDs and secondary market-traded debt instruments with remaining maturities of less than one year. Thus price changes due to interest rate movements (and the associated risks) are smaller for this type of fund than for other types of funds. Short term funds grew rapidly throughout the year and by mid-year had become the most important type of mutual fund. Firms showed a preference for short term funds over other types of funds, and indeed these funds are well suited as a vehicle for corporate cash management. The investor's risk is fairly small, and the yields normally exceed those on bank deposits. Short term funds can be expected in the coming years to continue to increase their relative importance as an investment outlet particularly for liquid corporate resources.

## **Important development projects pending in the capital market**

The conversion of government bonds into book-entry form in 1996 was a major step forward in the development of the bond market. The government began issuing bonds in book-entry form in December 1995, and the conversion of outstanding bonds into book-entry form started in April 1996. Benchmark government bonds, which were converted first, account for the bulk of government markka-denominated debt and comprise the most important sector of the bond market as a whole. The conversion was implemented in stages during the spring and early summer. At yearend most benchmark government bonds had been converted into book-entry form. In this initial stage, the conversion applied only to benchmark bonds traded in the wholesale market. Yield bonds held by households will be converted into book-entry form later. In the future, it will also be possible to convert and issue corporate bonds in book-entry form.

Conversion of bonds into book-entry form means that physical debt instruments are transformed into electronic accounting records in book-entry accounts maintained in a book-entry system. Government bonds have been issued in a book-entry debt securities system operated by the Helsinki Money Market Center Ltd. Conversion of bonds into book-entry form improves the functionality of the markets while upgrading the speed, efficiency and security of clearing and settlement procedures.

A significant boost was given to efforts to upgrade securities registration and clearing and settlement procedures by a decision to combine the business operations of the Helsinki Money Market Center and the Central Share Register of Finland and the trade

clearing and settlement functions of the Helsinki Stock Exchange into the Finnish Central Securities Depository Ltd. The parties involved signed the relevant shareholder agreement in May 1996 and agreed on the sale of the combined operations to the Finnish Central Securities Depository in November. Parliament approved a Government bill to amend the Act on the Book-Entry Securities System and enact other provisions on the implementation of a national securities depository. This legislation became effective 1 January 1997, and the Finnish Central Securities Depository began operations at the beginning of 1997.

Concentration of clearing and settlement operations in the Finnish Central Securities Depository improves the efficiency of clearing and settlement and thereby the functionality of the Finnish securities markets in an environment of constantly tightening international competition. The Bank of Finland's ownership interest in the Finnish Central Securities Depository is 24.4 per cent and the whole public sector's interest is 40 per cent. The private sector thus holds a majority interest. The private shareholder base is composed of issuers acting via the Depository: Merita Bank, Postipankki, Okobank, Aktia Savings Bank Ltd and Helsingin Arvosuuskeskus Oy (a book-entry securities centre in Helsinki).

## **Investment firms legislation became effective**

Parliament approved legislation on investment firms in early June, which became effective at the beginning of August 1996. The act implements in Finland the directive on the provision of investment services in the securities market (ISD) and the directive on

the capital adequacy of investment firms (CAD). At the same time, the Securities Broking Firms Act was repealed. The Investment Firms Act contains provisions inter alia on authorized investment services, business start-up, capital requirements, operations, financial statements, risk management and supervision. The authorizing body is the Ministry of Finance. At the same time, legislation was enacted concerning foreign investment firms' freedom to provide services in Finland. These legislative actions are connected with the application of EU principles regarding the freedom to provide services and the establishment of a business in the financial services field.

The implementation of the investment services directive also made it possible to bring the Finnish money and bond markets in line with the EU's regulated markets concept. The relevant decision will be made by the Council of State. The Bank of Finland has the right of initiative in matters concerning the money and bond markets if they have an effect on the Bank of Finland's discharge of duties. So far the Bank of Finland has not deemed it necessary to exercise its right of initiative.

## **Investment activities of pension insurance companies will undergo changes**

A working group set up to consider the investment activities of pension insurance companies submitted its report in November 1996. The working group proposes a strengthening of pension insurance companies' capital structures and an upgrading of the management of employment pension assets in an attempt to facilitate the diversification of investments. The yield on employment pension assets lags behind the average yield on capital market instruments. The proposed changes aim inter alia at making the TEL-relending system (insurance companies' lending of pension insurance premiums back to the insured companies) more market oriented and at increasing the share of equity in pension insurance companies' portfolios. Diversification is considered necessary in order to achieve a better balance between return and risk. The working group proposal is not expected to have significant influence on overall financial market developments.

In the field of payment systems, the most important trends have been the development of electronic systems, the utilization of data communications and the close integration of different systems. Operationally, payment processing is becoming more rapid and more internationalized. These developments have brought pressure for change both in banks' payment systems and in the Bank of Finland's interbank funds transfer (BOF) system. In planning for these changes, much attention has been paid to the management of risk.

In 1996 the main features in the Bank of Finland's work related to payments systems were the further development of domestic payment systems and the changes that are necessary in view of Stage Three of the EU's Economic and Monetary Union (EMU). Some decisions connected with the BOF system were made in order to develop its risk management capability and to improve banks' liquidity management.

The Bank of Finland participated actively in the EMI's preparatory work on payment systems. A considerable amount of resources was committed to domestic preparations for Stage Three of EMU. Much preparatory work was done on the introduction of the TARGET system, which will link

together the EU countries' national real-time gross settlement (RTGS) systems, which are usually managed by the central bank. These preparations also influenced the development of domestic payment systems.

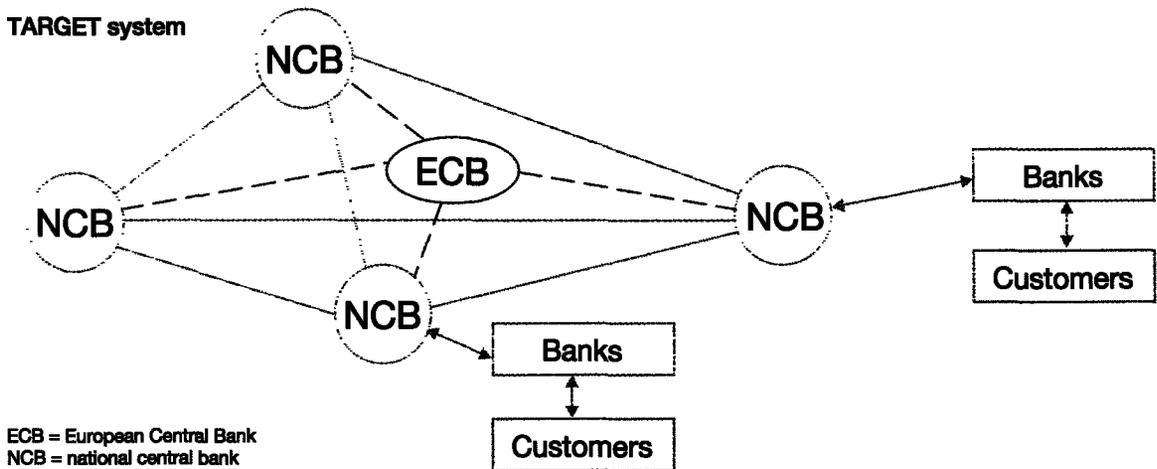
Studies concerning electronic money were done in several international fora: the EMI's Working Group on EU Payment Systems (WPGS) and Banking Supervisory Sub-Committee (BSSC); the European Commission; and the G-10.

## **Close cooperation on Finland's payment system**

The Bank of Finland and the banks operating in the country worked in close cooperation to develop Finnish payment systems and reduce the risks entailed. This cooperation was based on the Payment Systems Management Group and its sub-group, the Payment Systems Cooperation Group, which were established in 1995. During 1996 there were two other specialist groups working under the two main groups: a working group developing the settlement of domestic payments and a working group on the clearing and settlement of markka-denominated foreign payments (Loro Group). In addition to the Bank

Chart 28.

TARGET system



of Finland, the banks operating in Finland and the Finnish Bankers' Association participated in these working groups.

The working groups aimed especially at reducing counterparty risk for payment intermediating banks. Counterparty risk arises if the receiving bank credits the payee's account before the sending bank has settled the payment, i.e. transferred the cover funds via the BOF system. In such a situation, if the sending bank goes into liquidation or encounters liquidity problems, the receiving bank may incur a deficit equal to the size of the payment, which may later become a loss to the receiving bank. If the deficit becomes so large that the receiving bank is unable to settle its own payments to other banks, the other banks may likewise become unable to settle their own payments. This will cause interbank payment transfers to come to a halt, i.e. the problems of a single bank can spread over a large area. The losses in turn may set off a domino effect, meaning that the bank incurring the loss may also go into liquidation etc. Consequently, the realization of counterparty risk may affect both the fluidity

of payment transfers and the stability of the payment and financial systems.

In the course of 1996, the working groups completed their proposals on the development of the BOF system. On the basis of these proposals, it will be possible to substantially reduce the risks inherent in the intermediation of domestic payments without any deterioration in the level of banks' customer services.

### **Bank of Finland's interbank funds transfer system was developed further**

In 1996 the most important development project concerning the Bank of Finland's interbank funds transfer system was the preparatory work for the linking of the system to the EU-wide TARGET system (Trans-European Automated Real-time Gross Settlement Express Transfer). The TARGET system will be created by linking together the member states' RTGS systems.

The TARGET system will be used exclusively for the intermediation of euro-de-

nominated payments. Countries that do not participate in Stage Three of EMU from the start may also link their RTGS systems to TARGET. The main object of the system is to settle payments related to the single monetary policy carried out in the EMU countries. In addition, the TARGET system will provide an effective and secure means to settle cross-border payments. Consequently, besides payments related to the single monetary policy, the system may also be used for the intermediation of interbank and customer payments.

Interbank and customer payments will pass through the TARGET system as follows: The sending bank will send a payment message to its home national central bank (NCB) which in turn will send the message via the system to the central bank of the country in which the receiving bank is located. The latter NCB will send the payment to the receiving bank (Chart 28). Customers will make and receive payments through banks.

The risk-free nature of the TARGET system is based on the fact that it is a real-time gross settlement (RTGS) system. In an RTGS system payments have immediate contractual finality. Gross settlement means that each payment is settled with central bank funds; payments are not netted against each other. Another principle of this type of system is that the receiving bank's central bank account is not credited until the sending bank's account is debited. Thus the receiving bank is assured that the payment is unconditional and irrevocable and that there is no exposure to credit or liquidity risk.

In the TARGET system, it will be possible to settle cross-border payments faster than in current systems. In fact, same-day settlement will be possible, which is not presently the case with all countries. Same-day settlement will reduce the settlement lag

for payments sent to such countries by at least one day. As payments flow directly from sending bank to receiving bank via the central banks of the countries in question, it is no longer necessary to resort to a chain of correspondent banks.

The Bank of Finland and the banks have together worked out a solution by which TARGET payments will be transferred as SWIFT messages between the Bank of Finland and the banks operating in Finland. As the TARGET system will be closed daily at the same time in all participating countries, ie at 19.00 Finnish time, the operating hours of the BOF system will be extended accordingly. With the introduction of the TARGET system, the national money markets will also remain open longer than before and so more payments can be settled in a single day.

The European Central Bank (ECB), which will begin to operate as a central bank at the start of 1999, will execute certain control procedures in the TARGET system at the end of each day in order to ensure the correctness of payments processed during the day and verify that the net sums of the transactions tally. The ECB will also check to see that all payment messages sent from one national central bank to another have been received and that the total values of payment messages sent and received between the NCBs are equal.

A cooperative project with the banks was initiated with the aim of meeting risk management needs related to domestic payment transfers. The effort resulted in a decision in principle by which a receiving bank will not credit the payee's account until it receives sufficient funds from the sending bank. This procedure will eliminate counterparty risk from customer payments.

The introduction of this settlement method will require some changes in clear-

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**TARGET will serve  
also the needs of  
banks and  
their customers.**

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ing procedures if the present level of banks' customer services is to be maintained. Consequently, a new and fully automated second clearing process will be introduced in addition to the present afternoon clearing (at 15.45 Finnish time). The automated second clearing will be carried out after the banks are closed so that customers' payments that have arrived during the day can be cleared and settled before the beginning of the next banking day. This will enable banks to enter the previous banking day's payments into payees' accounts before opening on the next banking day. This solution eliminates counterparty risk while maintaining the present level of banks' customer services. According to plans, the new second clearing will be introduced in autumn 1998.

The clearing of markka-denominated cross-border (loro) payments exceeding FIM 50 000 currently takes place at Merita Bank. The netted cover funds are transferred in a special loro clearing process within the BOF system. This exposes the banks to intraday counterparty risk, because payments are entered in payees' accounts before cover funds are received. The counterparty risk is considerable: The total value of interbank loro payments on a given day may exceed the total value of domestic customer payments.

In order to reduce risk, it was decided that the loro clearing procedure would be discontinued and that markka-denominated foreign payments exceeding FIM 50 000 will be settled on a gross basis in the BOF system. Furthermore, the principle will obtain by which the payee's account will not be credited until the payer's account has been debited. This practice is to be introduced during the first half of 1998. The processing of loro payments of less than FIM 50 000 will not be changed; as before, these payments will be intermediated in Finland in the same way as

domestic payments, and the netted cover funds will be transferred within the payment clearing process of the BOF system.

Large and urgent domestic payments are currently processed in the so-called POPS system for express transfers and large cheques. In the future, POPS payments exceeding a specific markka amount will be processed on a gross basis in the BOF system. Smaller payments will be netted and a limit will be set for the net sum. When the net limit is reached, a gross settlement will be effected in the BOF system. The net limit will be the same as the minimum amount of a payment processed on a gross basis. The banks agree with each other on bilateral net limits and minimum gross amounts. It is intended to introduce the gross settlement procedure in mid-1997 and the net settlement procedure in mid-1998.

During the next few years, the change-over to gross settlement with respect to markka-denominated foreign (loro) payments, express transfers and large cheques will bring many new challenges. Banks will need to revamp their liquidity management procedures. Many payments that were previously netted will be settled on a gross basis in the BOF system. The number of payments will also increase, placing heavier demands on the systems of the Bank of Finland and the banks and necessitating their further automatization.

In order to facilitate banks' liquidity management and ensure fluid payment transfers, the Bank of Finland decided to develop a payment queuing procedure as part of the BOF system. If a sending bank's account at the Bank of Finland does not have adequate funds to cover a payment, the payment order will be put into a queue based on order of arrival and priority rating. When adequate funds enter the sending bank's account, pay-

ments in the queue will be settled automatically, subject to payment queuing specifications. The queuing procedure will be applied to both same-day and following-day payments and is slated for start-up before 1999.

A considerable share of large-value payment transactions is connected with Finnish clearing house operations, and it is of utmost importance that there be no risk involved in their payment transactions. The clearing houses include the Helsinki Money Market Center, whose operations were taken over by the Finnish Central Securities Depository (FCSD) at the beginning of 1997, and SOM Ltd, Securities and Derivatives Exchange, Clearing House. The clearing functions of the Helsinki Stock Exchange were also taken over by the FCSD at the beginning of 1997. Some payments are settled via clearing houses' current accounts at the Bank of Finland; the rest are settled via bank accounts, absent central bank involvement. In the latter case, the payments to be settled expose the clearing houses to counterparty risk. In 1996 a project was initiated involving the Bank of Finland, the banks and the Finnish Bankers' Association. The purpose is to study the possibility of reducing risks and increasing the speed and effectiveness of payment processing by creating automatic interfaces between payment systems of clearing houses and banks.

Access to the BOF system is available either via a workstation application provided by the Bank of Finland or directly through the users' own application. Of these alternatives, the banks currently use the workstation application, entering their transactions manually. However, increasing amounts of payments for gross settlement will bring pressure to automate interfaces between banks' systems and the BOF system.

## **Cooperation was intensified in financial supervision**

Cooperation between the Bank of Finland and the Financial Supervision Authority in the area of financial supervision was started already in 1995 with the initiation of the joint MAJAVA project. The aim of the project was to define the risks connected with payment systems and to develop a supervision strategy on the basis of those risks.

One of the risk categories highlighted in the project in 1996 was settlement risk in foreign exchange transactions, ie the risk that a participant having fulfilled its own obligation in a foreign exchange transaction will not receive quid pro quo. This part of the project was based on a report on settlement risk in foreign exchange transactions published by the G-10 in spring 1996. Following publication of the report, several other countries' central banks and supervisory authorities also initiated studies focusing on the improvement of settlement risk management.

## **Electronic money was developed further**

Electronic money is a rapidly developing new means of payment which is likely to see very wide usage and which may partly replace traditional methods of payment. It should be noted that card money and network money are not two different entities but rather two different operating environments of electronic money. Before long, it will be possible to transfer electronic money loaded in a card via a card reader to an electronic purse program in a computer and to use the money to make payments via a network. The required technology has already been developed.

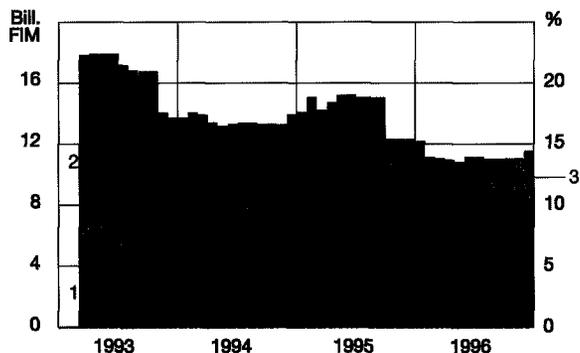
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**Electronic money  
can be accessed  
via cards or  
computer networks.**

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**Chart 29.**

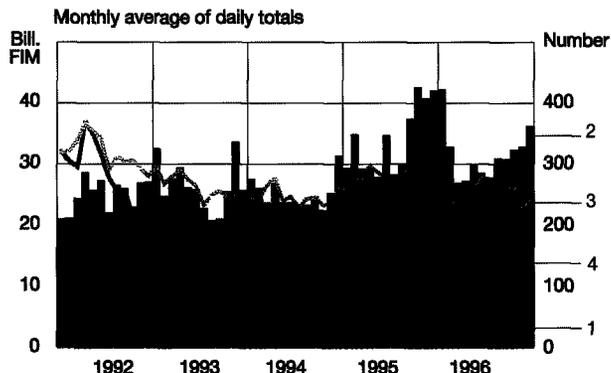
**Banks' intraday credit limits**



1. Collateralized part of limits, bill. FIM
2. Uncollateralized part of limits, bill. FIM
3. Average usage rate of limits, %

**Chart 30.**

**Payment transactions in the Bank of Finland's interbank funds transfer system**



1. Transactions between account holders, bill. FIM
2. Transactions between the Bank of Finland and account holders, bill. FIM
3. Transactions between account holders, number
4. Transactions between the Bank of Finland and account holders, number

There are several electronic money systems in operation in Finland. Avant I is a multi-purpose prepaid card system managed by Automatia Rahakortit Oy, a company owned jointly by three Finnish banks. In addition to Avant I, there are several public transport card systems and city card systems and one network money system. Automatia has also developed a new multi-purpose prepaid card called Avant II, which it plans to introduce throughout the country in the first quarter of 1997.

In Finland there is no specific legislation governing electronic money. The Bank of Finland participated in a working group on the regulation of electronic money, which was appointed by the Ministry of Finance. The working group submitted a proposal on the regulation of electronic money systems in December 1996.

The regulation proposed by the working group aims at safeguarding the position of the user by imposing obligations on the issuer of electronic money. The working group

recommended that only credit institutions and payment media firms should be allowed to issue electronic money for general use and in large amounts. Issuing institutions should meet certain standards with respect to liquidity and solvency as well as technical and organizational security. The payment media firm is a new entity, which is entitled to engage only in the issuance of electronic money and closely related activities. According to the proposal, a payment media firm would be subject to credit institution legislation to the extent applicable.

According to the working group, electronic money systems involving small-volume or single-purpose purchasing power would require little or no regulation. Strict regulation was not considered necessary because it would slow the development of such systems; because an issuer's insolvency or payment difficulties were estimated to have only minor consequences; and because limiting the use of electronic money would reduce the temptation for abuse.

The report of the working group on the regulation of electronic money forms a basis for the difficult task of drafting legislation governing electronic money. The legislation must be extensive enough to protect the user but yet it should not restrict competition or technological development. Furthermore, the legislation should be sufficiently compatible with corresponding legislation in other countries, because electronic money is particularly well suited for cross-border payments.

Legislation governing electronic money is still in need of further clarification in other countries as well. According to a recommendation issued by the EMI in 1994, only credit institutions should be allowed to issue multi-purpose prepaid cards. However, only a few European countries have incorporated the recommendation in their legislation, and some countries are either considering or have already taken other approaches to the regulation of electronic money systems.

The needs and current regulatory practices regarding electronic money are being studied internationally in various quarters. Several EMI working groups are examining the issues, and the EU Commission is studying, among other things, whether there is a need to harmonize national legislation in this area. The EU Commission will issue a statement on electronic money sometime in 1997. An extensive study on electronic money was also done within the auspices of the G-10. The G-10 countries could not however agree on the need for regulation, although many of them considered that some degree of regulation would be necessary.

## **Banks' current account overdrafts became subject to 100 per cent collateral requirements**

The Bank of Finland's intraday current account overdraft facility became subject to a 100 per cent collateral requirement as from 2 January 1996. Full collateralization increased banks' collateral costs and led to a slight reduction in the total amount of banks' credit limits compared with the end of 1995 (Chart 29). Except for the early part of the year, the usage rate for credit limits fluctuated somewhat more and was on average lower than in 1995. The reduction in the usage rate was partly due to the fact that while banks' reserves were transferred to their current accounts at the Bank of Finland in October 1995, the credit limits were not lowered pro rata in all cases. This increase in liquidity is fully reflected only in the figure for the entire year 1996 (see Appendices, Table 17).

In the BOF system, the number and size of payments decreased to some extent compared to 1995. The decrease was partly due to the merger of Kansallis-Osake-Pankki and Union Bank of Finland to form Merita Bank. When the merger is taken into account, the number and size of payments in the BOF system have actually grown (Chart 30).

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**The need to regulate electronic money is being studied internationally.**

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# Maintenance of the Currency Supply

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The operating environment for currency supply maintenance continued to develop in the same direction as in previous years. In the last few years, some of the important aspects of this environment have been the limited (by international standards) use of cash as a means of payment, the decrease in banks' cash holdings relative to the public's currency holdings and the increase in the flow of banknotes through the Bank of Finland.

The Bank of Finland participated in preparations for the issue of euro-denominated notes and coins (more detail on pp. 63-64). Although preparations are still incomplete, attempts have been made already at this stage to anticipate future needs for development projects on currency supply services.

## **Currency in circulation increased but is still small by international standards**

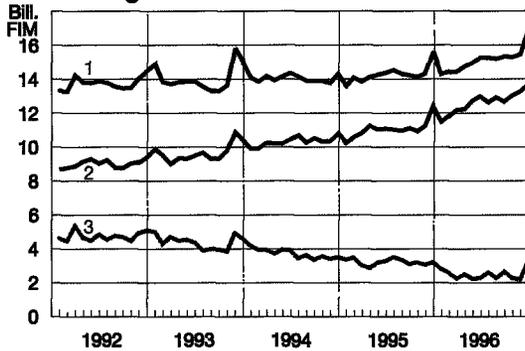
The amount of currency in circulation, which had started to grow in 1995 with the recovery of private consumption, continued to increase during 1996. The figure averaged about FIM 15 billion in 1996, having remained at some FIM 14 billion throughout the first half of the 1990s (Chart 31).

Relative to GDP, the amount of currency in circulation remained almost unchanged in 1996, at about 2.7 per cent (Chart 32). Owing to the development of the payment system, the ratio has clearly decreased over the long run, apart from a period of exceptional growth from the latter part of the 1980s to 1993. This exceptional growth was due to the banks' till-money credit facility, which was in operation until June 1993, and to the contraction in GDP from 1991 to 1993. In the next few years, the more widespread use of electronic card and network money may to some extent replace the use of traditional notes and coin as means of payment.

Relative to GDP, the amount of currency in circulation in Finland is the lowest of the EU countries, apart from Luxembourg, which forms a monetary union with Belgium. In the other EU countries, currency/GDP ratios range from about 3 to more than 10 per cent. The main reasons for the relatively small amount of currency in circulation are considered to be the sophistication of the Finnish payment system, the minor use of banknotes for hoarding and the small size of markka cash holdings abroad. Furthermore, the significance of the so-called underground economy, which favours the use of cash as a payment medium, is estimated to

Chart 31.

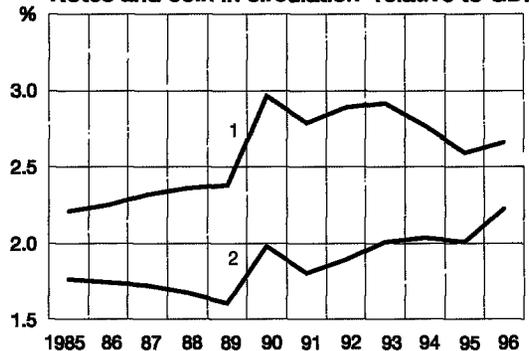
Holdings of notes and coin



1. Notes and coin in circulation
2. Notes and coin held by the public
3. Banks' cash holdings

Chart 32.

Notes and coin in circulation\* relative to GDP



1. Notes and coin in circulation
2. Notes and coin held by the public

\* The annual average of end-month figures.

be relatively small in Finland. This view is based on two surveys carried out by the Bank of Finland (Bank of Finland publications A:87/1993 and A:97/1996). According to these surveys, households and business firms use about a half of the currency held by the public as active balances, which is a fairly large proportion by international standards.

### Banks' share in the demand for cash continued to decrease

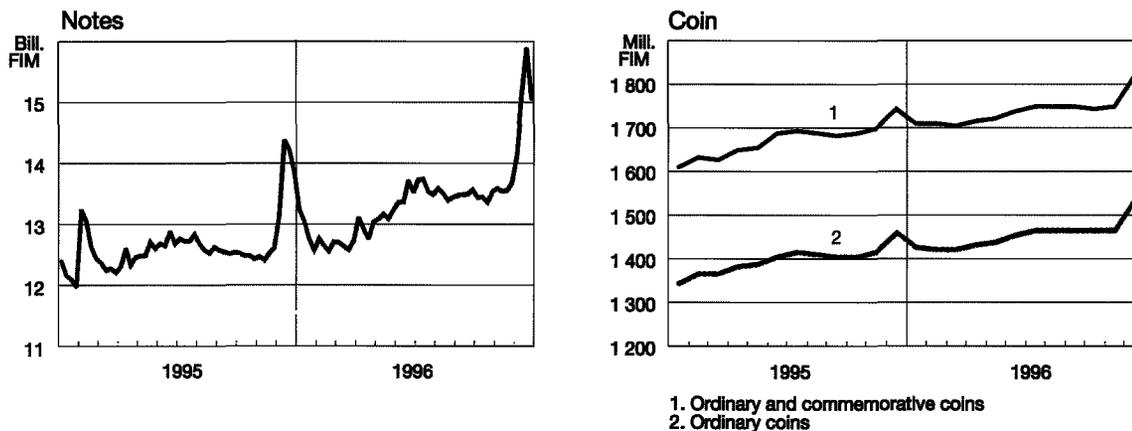
In 1996 banks' share in the amount of currency in circulation continued to decrease, both in relative and absolute terms, while the share held by the public increased (Chart 31). At yearend banks' cash holdings totalled FIM 3 245 million while public holdings amounted to FIM 13 645 million. Throughout the year, the banks' average share was only 16.5 per cent, compared to a peak of almost 40 per cent at the end of 1991. The declining trend is primarily due to the termination of the till-money credit facility and intense rationalization measures carried out by

banks in the last few years, especially the contraction of branch networks. However, banks' share in the amount of currency in circulation is still very large by historical and even international standards, and it may therefore be expected to decline further.

The decrease in banks' share in the amount of currency in circulation in the last couple years has also been partly due to a statistical factor: between June 1994 and end-1996, banks transferred control of more than 90 per cent of their ATM operation to their jointly owned ATM company, Automatia Pankkiautomaatit Oy. In the statistics however, Automatia is not included in the banking sector and thus its cash holdings are treated as currency held by the public. Banks' share in the amount of currency in circulation would however not change significantly even if the cash held in Automatia's ATMs were treated as cash held by banks.

Chart 33.

Value of notes and coin in circulation



**Flow of banknotes restrained by a handling fee**

The rate at which banknotes flow through the Bank of Finland continued to increase in 1996 and amounted to 6.7 times a year on average, as against 5.7 times in 1995. As recently as 1992, the flow-through rate was 3.5. In the other EU countries, the rate usually ranges from 1.5 to 3 times a year. The increase in the flow-through rate is mainly due to the termination of the till-money credit facility, to various rationalization measures carried out by banks and to the fact that note processing services have been provided by the Bank of Finland free of charge.

Because one of the statutory duties of the Bank of Finland is to ensure the quality and authenticity of banknotes, it is important that notes flow through the Bank of Finland sufficiently often. On the basis of international comparisons, it has been estimated that an adequate annual flow-through would be about three. A rate much higher than this would not be reasonable from the standpoint of the economy as a whole or the utilization

of the central bank's resources. For this reason, the Bank of Finland decided to introduce a note handling fee from the beginning of 1997, applicable only to the extent that the annual flow-through exceeds three. The fee covers costs only, in accord with the Act on the Grounds for Levying Government Fees.

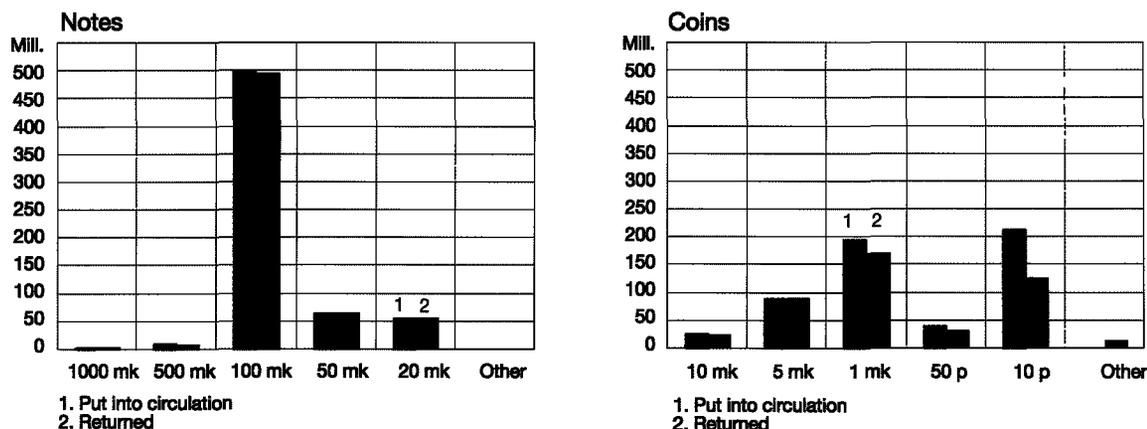
A coin handling fee, which was introduced already on 1 March 1995, has clearly lowered the frequency at which coins are returned to the Bank of Finland for handling.

**The amount of notes in circulation increased**

The amount of notes and coin in circulation increased by 8.2 per cent in 1996 and was FIM 16 891 million at yearend (see Appendices, Table 14). The increase in the amount of currency in circulation was mainly due to the growth in the amount of notes in circulation. The amount of notes increased steadily over the year, so that for instance on 31 October 1996 the amount of notes was FIM 13 548 million, whereas at the same date in the years

**Chart 34.**

**Flow of notes and coin through the Bank of Finland, 1996**



1993–1995 the amount was more than FIM 1 000 million smaller.

In December the amount of notes in circulation was increased by tax refunds and normal seasonal variation. The amount of notes increased by 8.7 per cent during 1996 (Chart 33).

The amount of coin in circulation increased by FIM 72 million or by 4.1 per cent in 1996. In the previous year, the increase had been 6.3 per cent. The amount of ordinary coins increased by FIM 70 million and the amount of commemorative coins by FIM 2 million.

**Flows of notes continued to increase**

In 1996 the banks ordered notes from the Bank of Finland to a value of FIM 64 925 million, which was 16.8 per cent more than in the previous year. The number of notes ordered was 637 million, of which 100 markkaa notes accounted for 79 per cent (Chart 34). The number of returned notes also increased; returned notes numbered 632 million or

19.2 per cent more than in the previous year. The value of the returned notes amounted to FIM 63 717 million.

**Flows of coins decreased**

The Bank of Finland put into circulation ordinary coins with a total face value of FIM 965 million and received returned coins amounting to FIM 895 million. Compared with 1995, the amount of coin issued was 10.0 per cent lower and the amount of returned coin 9.2 per cent lower.

One commemorative coin was issued in 1996. The obverse side of the coin bears a self-portrait of the Finnish painter Helene Schjerfbeck and the reverse side shows a palette. The nominal value of the silver coin is 100 markkaa and the issue is limited to 33 000 coins.

According to an EU Council regulation, the central bank of an EU member state may not hold more than 10 per cent of the total value of coin in circulation. The regulation is based on the Maastricht Treaty prohi-

bition against central bank financing of the central government. The total value of coin held by the Bank of Finland peaked on 29 February 1996 when it accounted for 10.0 per cent of the total amount of coin in circulation. At yearend, the corresponding share was 5.0 per cent.

### **Old notes and coins were returned slowly**

At the end of 1993, the Bank of Finland and the Ministry of Finance annulled the validity of certain notes and coins. According to the Currency Act, the Bank of Finland is however obliged to redeem these notes and coins from the public until the end of 2003. In 1996 the Bank of Finland redeemed annulled notes to a total value of FIM 3 million and coins to a total value of FIM 2 million.

### **The number of counterfeit notes decreased**

The number of counterfeit Finnish banknotes detected in 1996 was less than in 1995. Most of the counterfeit banknotes, which numbered 76, were the result of single forgeries.

As in previous years, the Bank of Finland arranged training for persons whose jobs involve the handling of money and provided them with material to assist them in the recognition of genuine banknotes.

### **More currency supply services made subject to a charge**

During 1996 the Bank of Finland charged its customers a coin handling fee. The fee was FIM 5 for a package of coins containing 20 rolls purchased from the Bank or for the return of a bag of 1 000 coins to the Bank. The fee was introduced in March 1995 in order to reduce the flow of coins between the Bank of Finland and its customers. In 1996 the number of packages of coins purchased from the Bank of Finland decreased by 5.8 per cent and the number of bags of coins returned to the Bank decreased by 6.3 per cent compared with the previous year. The fees charged by the Bank of Finland in 1996 totalled FIM 5.3 million.

The Bank of Finland charged FIM 6.7 million for currency supply services to banks using the Bank's data system. The charges were FIM 0.8 million lower than in the previous year, which was due to the centralization of currency supply services provided to banks and the reduction in banks' branch networks.

In order to curb the increase in the amount of notes handled (see Appendices, Table 15), the Bank of Finland introduced a FIM 0.85 note handling fee as from 1 January 1997. The fee is charged for the purchase or return of 100 banknotes of the same denomination. Like the other service fees charged for currency supply services, the note handling fee covers costs only, in accord with the Act on the Grounds for Levying Government Fees.

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# Cooperation with the European Union

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## **Preparation for Economic and Monetary Union**

Preparation for Economic and Monetary Union (EMU) of the European Union was one of the focuses in the Bank of Finland's activities in 1996. At the EU level the Bank was involved in the preparatory work both within the European Monetary Institute (EMI) and outside it, particularly in the Monetary Committee of the EU. The EMI plays an important part in the preparations, especially with respect to monetary and foreign exchange policy and payments systems. A substantial part of the EMU preparations, especially drafting of EU legislation, is carried out in Brussels. As regards the drafting of legislation, the EMI is only entitled to render opinions.

Since the start of Stage Two of Economic and Monetary Union at the beginning of 1994, the EMI has been the centre of EU member states' cooperation on monetary and foreign exchange policy and continued preparations for Stage Three, which will begin 1 January 1999. The preparatory work is directed by the EMI's internal working programme, which comprises all currently known projects that must be implemented before Stage Three. These projects cover all

central banking activities. The Bank of Finland has been involved in all areas of the EMI's work.

The work has progressed in accord with the programme, under the leadership of the EMI's highest body, the EMI Council, and involves its Committee of Alternates and a number of subcommittees and working groups. The Bank of Finland is represented in all these bodies, the latter of which are as follows: the monetary policy, foreign exchange policy and banking supervisory subcommittees and working groups on payment systems, European banknotes, statistics, accounting, information systems and legal issues. Moreover, a number of task forces dealing with certain specific matters operate under the working groups. During the year under review the Bank of Finland was represented on the EMI Council by Ms Sirkka Hämäläinen, Chairman of the Bank of Finland's Board, and in the Committee of Alternates by Mr Matti Vanhala, Member of the Board.

In 1996 the most important matters prepared within the EMI working programme were strategies and instruments of monetary policy; introduction of TARGET, which is a real-time gross settlement transfer system covering the whole EU area and de-

signed to meet the needs of the single monetary policy; and development of an exchange rate mechanism for linking the currencies of the EU member states outside EMU to the euro. One important specific issue was the definition and allocation of the so-called monetary income accruing to the national central banks from note issuance.

Also specification of the legal status of the euro and problems associated with central banks' independence required much preparatory work. The Banking Supervisory Subcommittee discussed enhancement of cooperation on banking supervision between member states as well as the possible role of the European Central Bank (ECB) and European System of Central Banks (ESCB) in supervision and promotion of stability of the financial system in Stage Three of EMU. At the end of 1996 the EMI Council selected one proposal as the basis for continued work on the design of the new European banknotes.

In April 1996 the EMI published its second annual report covering economic, monetary and foreign exchange policy developments in the European Union as well as its own tasks and activities. The annual report also contains a detailed description of work done in 1996 in preparation for Stage Three of EMU. In the summer the EMI published a second TARGET report describing the operating principles of this EU-wide transfer system.

In the ESCB, which is gradually taking shape, many aspects of the single monetary policy will be implemented via the national central banks, although policymaking will be concentrated in the Governing Council of the European Central Bank, composed of national central bank governors and the ECB Executive Board.

In November the EMI published (also in Finnish) a report on progress toward economic convergence of the member states.

The EU Commission drew up a corresponding report. Both the EMI and the Commission conclude in their reports that there are not yet enough EU member states fulfilling the criteria of economic convergence laid down in the Maastricht Treaty, and they assess the extent to which national provisions on central banks comply with Treaty requirements. Both reports conclude *inter alia* that present legislation on the Bank of Finland is inconsistent with the Treaty. The inconsistencies concern both the provisions on the role of the Parliamentary Supervisory Council and those on the Governor and other members of the Board.

A report was drawn up also on future ECB arrangements. This report, published in early 1997, contains *inter alia* a general description of the operational framework for the future single monetary policy, a detailed description of the operational modes and instructions to counterparties. The report is intended to inform concerned parties as early as possible about solutions to be implemented, so as to allow them sufficient time for necessary preparations.

The Bank of Finland and the Ministry of Finance each sent representatives to the meetings of the EU Monetary Committee and its Committee of Alternates and to the meetings of the EU Economic Policy Committee. The Bank was represented on the Monetary Committee by Mr Matti Vanhala, Member of the Board. Among the most important tasks of the Committee in 1996 were drafting of a stability and growth pact, preparation of draft regulations on the legal status of the euro, determination of principles for the new exchange rate mechanism as well as monitoring and assessment of overall economic developments.

In a national EMU project headed by the Ministry of Finance, the Bank of Finland

was involved in preparatory efforts that will ensure in particular that all legislative tasks and other preparations for Stage Three of EMU in respect to all segments of society be completed before 1999. The Bank of Finland and the Finnish banks exchanged information in many fora on the content and progress of the EMU process and on further necessary measures. The cooperation was most concrete in matters concerning the new payment system, since the EMI as well has made considerable progress in practical preparations for the system.

With Stage Three of EMU approaching, the Bank of Finland further intensified its internal preparatory work. On the basis of the EMI working programme, the Bank drew up its own working programme, which included reports of the various units on their EMU-preparation projects.

### **Monetary, foreign exchange and fiscal policy**

The EMI continued to develop, in greater detail, an operational framework for ESCB monetary policy. The preparatory efforts concerned market operations of the future ECB and the related instruments; credit and deposit facilities for counterparties; a minimum reserve system; criteria for selecting counterparties; and collateral for central bank financing. Considerable progress was made in all areas, but many open questions remained at both the ECB and national central bank level. In the course of the year the strategy of the single monetary policy was discussed under the EMI auspices. One of the topics discussed was the relationship between the money supply (intermediate) target and the inflation target.

The Bank of Finland's monetary policy instruments already accord fairly closely with the likely end product of EMI's prepara-

tory work. The greatest pressure for change will probably concern collateral for central bank financing, especially the possible use of private debt instruments as collateral and the use of collateral from the euro area outside of Finland. Moreover, the operating hours of the system will be extended.

The most important achievement in the field of foreign exchange policy was the drafting of a proposal for the so-called new ERM (ERM 2), which includes the specification of exchange rate relations between member states participating in the euro area and non-participating member states. Partly on the basis of the proposal, the Commission drafted a proposal for the new exchange rate mechanism, to replace the present European Exchange Rate Mechanism as from 1 January 1999. The proposal was supported in principle at the Dublin summit meeting in December. The model now taking shape conforms closely to the Bank of Finland's view of how exchange rate relations between member states inside and outside of the euro area should be organized.

Whereas in the present ERM central rates of different countries' currencies are defined in relation to each other, ERM 2 will be based on central rates defined only against the central currency of the mechanism, the euro. The fluctuation margins would still be relatively wide, but presumably member states participating in ERM 2 will generally endeavour to keep market rates near the respective central rates. Both the European Central Bank and the non-euro area national central banks will be able to cease their foreign exchange interventions if these jeopardize the price stability objective.

As in the present ERM, the central rate and the fluctuation margins will be set by agreement between concerned parties. For ERM 2, the concerned parties are the ECB,

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**Preparations were stepped up for the single monetary policy.**

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ministers of the euro area states, and ministers and central bank governors of non-euro area member states participating in the ERM. Participation in ERM 2 is optional. Non-euro area member states can also agree separately with the ECB on closer exchange rate cooperation.

Like the present arrangement, ERM 2 calls for stability-oriented economic and monetary policy and policy coordination between participating countries. In order to ensure budgetary discipline, a special stability and growth pact between the euro area countries is slated for implementation in Stage Three. The pact was extensively discussed by the Monetary Committee during the year under review. Within the framework of the pact, the euro area countries will report to the Council of Ministers on their medium-term economic outlook and economic, especially budgetary, policies within their 'stability programmes'. According to the draft pact, the countries are to aim at maintaining balanced budgets for the public sector, which means that the financial balance must be zero or positive over the medium term.

If a country's general government deficit exceeds 3 per cent of GDP, a procedure laid down in the Maastricht Treaty will be initiated by the EU Commission. According to the timetable outlined in the stability and growth pact, sanctions (heavy fines in extreme cases) could be imposed on the country as soon as the following year, if it fails to take effective corrective measures. Member states not participating in the euro area will also be required to prepare convergence programmes in accord with the Maastricht Treaty, but sanctions defined in the stability and growth pact cannot be imposed on them. The draft pact is essentially compatible with the Bank of Finland's views.

## **Payment systems**

EU member states continued to cooperate closely on the development of payment systems. The EMI Working Group on EU Payment Systems is in charge of establishing a system that enables implementation of the single monetary policy throughout the EU area from the start of Stage Three.

The TARGET system will be formed by linking together the national RTGS systems of the EU states. In Stage Three payments related to the single monetary policy will be effected via the TARGET system, which can also be used for effecting other payments.

The general specifications for the TARGET system were largely completed in 1996. The RTGS system that has been in use in Finland since 1991 will require further elaboration before it can be interlinked with the TARGET system. Among the remaining open questions are pricing of TARGET payments, provision of intraday liquidity to the central banks of the member states remaining outside EMU at the start of Stage Three, and principles concerning system operating hours during national holidays falling on weekdays. These questions will be considered further in 1997.

Like many other projects related to EMU, the introduction of the TARGET system also calls for extensive efforts on design and development of information systems. System testing will commence in summer 1997. Cooperation between internal auditors of EU states' central banks was initiated through a working group on the auditing of the TARGET project.

In addition to matters concerning payment transactions, further work was done in 1996 on securities settlement. Management of collateral for securities must be developed so as to enable cross-border use of collateral

in connection with both monetary policy and payment transactions in Stage Three. Discussions on this issue resulted in a 'correspondent central banking model' and a 'guarantee model', both of which make it possible to use collateral located abroad when obtaining central bank financing from one's home central bank.

The EMI also started to examine the significance as legal tender of electronic cash, ie prepaid cards and network money, as well as the position that central banks as payment system supervisors and liquidity regulators should take vis-à-vis electronic cash.

### **Accounting principles**

In 1996 the EMI working group on accounting issues drew up a proposal for ECB/ESCB accounting principles. These principles will be applied to annual accounts, calculation of monetary income and all balance sheet reports required by the ESCB. Accounting provisions are based on the principles of transparency and prudence. The balance sheet is valued for the most part at market value. Among the most important accounting issues to arise during the year under review were the concept of monetary income, which required a thorough examination, and how it should be calculated.

### **Monetary income**

In carrying out its monetary policy tasks, eg issuing notes, the European System of Central Banks will generate so-called monetary income. Principles for calculating and allocating this income are laid down in the Maastricht Treaty. Detailed alternative calculation methods were thoroughly examined in the course of the year. The Treaty however permits the use of a simplified calculation method during a transitional period of up to five years. During 1996 the use of this option

seemed to become increasingly likely, but the issue will continue to be examined in 1997.

### **Supervision and stability**

The EMI's Banking Supervisory Sub-Committee discussed, among other things, what the future role of the ECB/ESCB should be under the Maastricht Treaty as regards banking supervision and financial market stability issues. National authorities will probably bear the main responsibility for banking supervision also in EMU. Discussions on the ECB's role as a liquidity provider were still in progress at yearend.

The Sub-Committee and its working groups also examined and monitored financial sector systemic risks and changes therein during the run-up to Stage Three of EMU. In addition, they analyzed the pressure for change and the adaption to EMU of the financial sector, especially the banking system. The Sub-Committee also drew up a report on exchange of information between the ECB, the national central banks and the supervisory authorities.

### **Drafting of legislation on the euro**

In the course of 1996 the EMI and the Commission cooperated in drafting regulations for the Council of Ministers on the introduction of the euro. The Commission submitted proposals on the regulations in October. Provisions on the introduction of the euro will be included in two separate regulations. One of them should enter into force as soon as possible, ie during 1997. This regulation is intended to establish the legal certainty that the markets need, regarding for instance continuity of contracts, and to facilitate technical preparations for the changeover to the euro. The regulation provides generally that the introduction of the euro will not alter any terms

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**Preparations  
went ahead for  
the introduction of  
the euro.**

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of existing contracts. Furthermore, it is laid down that with effect from 1 January 1999 all references to the official ECU will be replaced by references to the euro, ie that one euro will correspond to one ECU. Each euro area country will be allowed to use only its confirmed conversion rate. The regulation also specifies methods of converting irrevocably fixed conversion rates and of rounding off monetary sums.

The main regulation on the introduction of the euro, which includes transitional provisions, will enter into force at the start of 1999. According to this regulation, the currency of the member states participating in Stage Three of Economic and Monetary Union will be the euro as from 1 January 1999. During a transitional period, running till end-2001 at the latest, national monetary legislation will still be applied, and the euro can be expressed in terms of either national currency units or euro units. Issuance of European banknotes and coins will start at the beginning of 2002 at the latest. National notes and coins can continue to circulate as legal tender for at most six months after the end of the transitional period.

### **European banknotes and coins**

A design competition for European banknotes was arranged in the course of 1996. The competitors were banknote designers nominated by national central banks. They were asked to draft their designs using as the theme either 'ages and styles of Europe' or 'abstract/modern'. The winner was selected in three phases: First a jury of experts preselected a set of designs, which were then submitted for appraisal to groups representing the general public of their respective countries. In the final phase the winner was selected by the EMI Council, which consists of the governors of the national central banks.

The outcome of the design competition for the common European banknotes was made public in December. The winning draft design series, designed by Mr Robert Kalina from Austria, depicts the various trends in styles in Europe's cultural history, using windows, gates and bridges as themes. This design will serve as the basis for preparation of the banknote series, which must comply with all the prescribed technical and security requirements. The question remains as to whether the notes will incorporate a national feature of the original country of issuance. Final decisions on the notes to be issued will be made in 1998 by the Governing Council of the ECB.

The EMI Working Group on Printing and Issuing a European Banknote also continued technical preparations for the production of the banknote series. During 1996 the group launched a test banknote project in order to examine various printing works' capacity to produce identical European banknotes complying with technical specifications. Likewise, the group is examining the readability by sorting machines of test notes produced by various printing works printed on various types of banknote paper.

When the problems associated with banknote production have been solved, the preparatory work will increasingly focus on issues related to currency supply maintenance. The first question to be decided relates to the exchange and withdrawal of euro area currencies after they have been irrevocably fixed on 1 January 1999.

Introduction of euro-denominated coins is being prepared in step with the European banknotes. The Mint Directors' Working Group under the ECOFIN Council is in charge of the project.

## Statistics

In the early months of 1996 final preparations for the statistical requirements of Stage Three of EMU continued. The major issue in the area of money and banking statistics was formulation of a consolidated balance sheet of monetary financial institutions in the future monetary union. In the future, balance sheet and related data will be reported both monthly and quarterly. Monthly reports are necessary for calculating the EMU monetary and credit aggregates. Maturity categories applicable to the key loan and deposit items were another important issue. Classification will be by original maturity in the compilation of monetary and credit aggregates and in the rules concerning a possible minimum reserve system.

As regards balance of payments statistics, agreement was reached on common concepts and classifications, based on the IMF Balance of Payments Manual, to be applied in EMU statistics. Interpretations of the Manual were clarified, and it was agreed as to how monthly balance of payments statistics could be simplified so as to speed up their production. A particular problem associated with the balance of payments is the identification of the assets and liabilities of the EMU area. Balance of payments statistics on cross-border flows and stocks can be compiled wholly in accord with the IMF Manual only gradually, after the start of Stage Three.

In July the EMI Council approved the statistical requirements in the form of a single implementation package. Beside statistics on money and banking and balance of payments, these requirements also concern the economic statistics for which EURO-STAT, the Statistical Office of the European Communities, is responsible. In the same context an explanatory booklet describing

the EMI's statistical requirements was approved. The national central banks distributed the booklet especially to financial institutions subject to reporting requirements.

Following approval of the statistical requirements, the focus of the work shifted to national central banks, which are responsible for implementing the data collection requirements at the national level. The first money and banking statistics to comply with the new statistical requirements must be submitted to the ECB in summer 1998, and they must cover also the first half of 1998. Data on cross-border transactions for EMU area balance of payments purposes are to be produced starting at the beginning of 1999 and data on assets and liabilities gradually thereafter.

The Working Group on Statistics was also involved in drafting an ECB statistical regulation. The essential topics covered by the regulation are the definition of entities subject to reporting requirements, possible sanctions for failure to report and especially the meaning of confidentiality of statistical data. Toward the end of 1996 the information system requirements pertaining to ESCB statistics received much attention.

## Information technology

On the basis of the EMI's preparatory work, a preliminary analysis was drafted on the changes in information technology that Stage Three of EMU will cause in respect to the Bank of Finland's major activities; initial drafts of resource plans were also completed. In 1996 projects were launched on TARGET, on replacement of the teleconference system and on specifications for the ESCB's telecommunications network. The major work on specification and implementation of information technology projects will be carried out in 1997 and 1998.

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**European banknotes  
depict trends in styles  
in cultural history.**

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## Other work of the EU

In the course of 1996 the Banking Advisory Committee assisting the Commission dealt *inter alia* with projects concerning revision of directives on financial markets as well as issues relating to electronic money legislation and supervision. Much attention was also paid to the Commission's Green Paper on 'Financial Services: Meeting Consumers' Expectations', which focuses particularly on the consumer's position in distance selling of financial services.

Experts at the Bank of Finland took part in the EU's legislative work in working groups under the Commission and the Council. Among the issues dealt with in the Council were a proposal concerning a directive on finality of settlement and collateral, treatment of lending collateralized by real estate in the calculation of solvency, as well as inclusion of provisions on commodity and stock-related derivatives in the annexes of the directive on solvency ratios for credit institutions. A directive on the reorganization and winding up of a credit institution was nearly completed technically, but no political decision was made on it. Also final approval of the directives on a protection scheme for small investors and cross-border transfers was still pending at the end of the year.

The project on the Securities Committee reached its final stage in 1996. This project concerns establishment of a committee corresponding to the Banking Advisory Committee for dealing with matters of legislation on and development of securities markets.

In the Commission, experts *inter alia* outlined principles of supervision of financial conglomerates, drafted amendments to the directive on the capital adequacy of investment firms and credit institutions (CAD directive) and worked on provisions on accounting and annual accounts *vis-à-vis* derivative contracts.

In the Committee of Secretaries General, which is responsible for preparation of EU matters in Finland, the Bank of Finland was represented by Mr Esko Ollila, Member of the Board. Furthermore, the Bank was represented on preparatory subcommittees dealing with the following matters: economic and monetary policy, international finance issues, taxation, financial services and capital movements, and insurance services. The Bank also cooperated with EU coordinators of various ministries and participated in Finland's preparations for the Inter-Governmental Conference.

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# Other International Cooperation

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## **Bank for International Settlements**

The Bank for International Settlements (BIS) operates as a bank and cooperative body for central banks. Governors and experts from central banks convene monthly in Basle to discuss monetary and economic policy issues. The conditions of the financial markets as well as other current matters of concern to central banks are also included on the agenda.

The BIS maintains a data bank that is used in monitoring technical assistance provided by central banks to economies in transition. In 1996 the BIS also handled the practical arrangements for the monitoring and coordination meetings on technical assistance, held under the auspices of the International Monetary Fund. Representatives of the Bank of Finland attended these meetings.

## **International Monetary Fund**

Article IV consultations between the International Monetary Fund (IMF) and Finland were arranged in May. During the consultations the Fund's economists analyzed the state of the Finnish economy. The consulta-

tion report was discussed by the Executive Board of the Fund in July.

Ms Sirkka Hämäläinen, Chairman of the Board of the Bank of Finland, acted as Finland's representative on the Fund's Board of Governors. Mr Esko Ollila, Member of the Board, served as her deputy.

The joint constituency of the Nordic and Baltic countries was represented on the Fund's Executive Board by Ms Eva Srejber from Sweden. The central bank of Sweden coordinated the preparation of constituency positions.

In 1996 experts from the Bank of Finland served in various assignments involving technical assistance provided to economies in transition under the direction of the IMF. At the end of the year the Bank initiated preparations for its participation in the training programme for the staff of the Russian central bank (EC-TACIS). The programme is a joint project of EU member states' central banks, coordinated by the IMF and financed by the EU.

Increasing globalization of the IMF's operational environment as well as structural changes in the economies of its members strained the Fund's resources and operational modes more than ever before. In 1996 the IMF's activities focused on surveillance of

member countries' economies, ensuring the sufficiency of financial resources and helping poor and indebted member countries to cope with their problems.

In April the IMF introduced the Special Data Dissemination Standard as a means of enhancing the surveillance of member countries' economies. Applying a mutually agreed statistical framework, member countries provide institutional data on contents and compilation principles for 17 statistical series on macroeconomic and financial matters. The IMF collects the data on an electronic bulletin board, where they are accessible via Internet. It is intended that country-specific statistical series will become similarly accessible later on. This arrangement was introduced on 19 September, when 18 countries, including Finland, were approved as participants. The transitional period for the arrangement will expire at the end of 1998. In all, 60–70 countries are expected to participate in the arrangement. Moreover, preparations are under way for the creation of IMF-wide standards for the dissemination of economic and financial data by member countries.

Increasing globalization of the international economy and large individual financing arrangements have put increasing strains on IMF liquidity. A majority of the IMF's Executive Board are in favour of a substantial enlargement of IMF quotas. The enlargement is being prepared for implementation during the eleventh general quota review period, which expires in March 1998.

The IMF is also endeavouring to enhance its operational capacity by increasing the amounts it can borrow from member countries. The New Arrangements to Borrow (NAB) were negotiated in 1996 as a supplement to the existing General Arrangements to Borrow (GAB), which is maintained in co-

operation with the G-10 countries. The amount of available financing has doubled to SDR 34 billion. The new arrangements are intended to reduce the systemic risk that can jeopardize the entire international financial system. Financing is available from 25 IMF member countries or their central banks. Their financial contributions are determined primarily by member countries' pro rata IMF membership quotas. The minimum financial contribution for participation in the arrangements is 1 per cent of the total amount, ie SDR 340 million, which is the amount of Finland's planned contribution. The agreement has been approved by the Executive Board of the IMF and is awaiting consideration by the national authorities of the participating countries.

The Enhanced Structural Adjustment Facility (ESAF) is a financing facility whereby the IMF assists poor and indebted member countries. The Executive Board of the IMF has agreed that this facility is to be self-sustainable. This would however require additional contributions from member countries in 2000–2004. Discussions by the Executive Board of the IMF on various forms of financing, inter alia sale of IMF gold or loans and/or contributions from individual countries, have not yet produced a decision. Financing of the ESAF is an important question, because it is through the ESAF that the IMF intends to participate in the joint IMF-World Bank initiative for assistance to poor and indebted countries. This Highly Indebted Poor Countries (HIPC) Initiative is based on the idea that a country that successfully completes an adjustment programme can, if given some debt relief, get its debt situation under control over the medium term. Although financing of the ESAF is still an open issue, the member countries have agreed that the IMF should prepare now for the use of its

existing financial resources in order to be able to participate as necessary in the debt relief initiative.

The Finnish government allocated FIM 15 million of the appropriations budgeted for multilateral development cooperation to the financing of the HIPC initiative. Due to this financing decision, which was made at the end of the year under review, the IMF opened a provisional special account that is available to all countries for financing the HIPC initiative even before the technical facilities for the initiative are ready.

Recently, there has been wide support among members of the IMF Executive Board for the idea that all member countries should have the opportunity to obtain an equitable share of SDRs. It is now intended that new SDRs should be allocated to member countries so that respective cumulative shares of the SDRs reflect relative IMF quotas. Allocation according to the equity principle makes it necessary to amend the IMF's Articles of Agreement.

In the discussions of the IMF Executive Board, the Bank of Finland, through its representative, endeavoured to influence future reforms so as to prevent them from jeopardizing the IMF's traditional task of providing provisional balance of payments financing. Along with this task, the Bank also supported the creation of enhanced means of preventing systemic risk from jeopardizing international monetary and exchange rate systems (NAB arrangements). On the other hand, the Bank of Finland had some reservations about proposals for increasing the role of development aid-type financing of IMF activities.

## **Other international activities**

The Nordic Financial Commission (NFU), which is a forum for cooperation between the Nordic countries' central banks and ministries of finance, held three meetings during the year under review. These meetings focused on issues to be dealt with by the IMF Executive Board. European integration was also included on the agenda. Guidelines for positions to be presented to the Executive Board were also prepared at two joint coordination meetings of the Nordic and Baltic countries.

Within the Organization for Economic Cooperation and Development (OECD), representatives of the Bank of Finland participated inter alia in the work of the Economic Policy Committee, the Committee on Financial Markets, the Committee on Capital Movements and Invisible Transactions as well as in the related working parties. Moreover, the Bank's representatives attended meetings of experts monitoring conditions in the economies in transition.

In March representatives of the OECD paid their regular visit to Finland for a country review. The reviews were considered at a meeting in June, and the country report was published in August.

A representative of the Bank of Finland worked with a delegation of officials preparing joint statements for OECD negotiations on a Multilateral Agreement on Investment (MAI).

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**Finland allocated funds for the IMF's debt relief programme.**

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# Reserve Assets

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Finland's foreign reserve assets are invested with the primary objectives of maintaining sufficient liquidity for interventions in foreign exchange markets and avoiding risk in order to preserve the value of the reserves. Within these constraints, the objective is to obtain the best possible return.

Reserve assets are invested mainly in foreign currency-denominated debt instruments in international financial markets. Part of the reserves are also held in the form of gold and special drawing rights (SDRs) issued by the International Monetary Fund (IMF).

The main risks associated with the investment of reserve assets are exchange rate risk, interest rate risk, credit risk and liquidity risk. Risks are managed as an integrated whole; in practice, the principal methods of managing risk are portfolio diversification and prudent selection of investment instruments and counterparties. Compliance with risk limits associated with authorizations is monitored continuously.

The most important source of uncertainty affecting the reserve assets is exchange rate risk. In order to mitigate changes in the value of reserves, the Bank of Finland diversifies its foreign exchange asset holdings among different currencies. The curren-

cy distribution is monitored continuously and updated in periodic evaluations. The most important investment currencies in 1996 were the Deutschemark, US dollar, French franc, pound sterling and Japanese yen.

Interest rate risk is controlled *inter alia* by means of portfolio diversification and limits placed on interest rate risk. These risk limits were modified in the course of the year but remained conservative so as to preserve the value of the reserve assets.

The liquidity of the reserve assets is secured by the use of a wide range of liquid investment instruments. Credit risk is reduced by investing the bulk of the reserves in securities issued by governments of the countries referred to above and in repurchase agreements based on such securities.

During the year, a new internally developed risk management and performance evaluation system was introduced. In addition, investment risk monitoring was reorganized and streamlined.

The declining trend in international interest rates that marked 1995 was reversed in 1996 as interest rates started to rise again in several markets. The rise began in the United States as a result of a larger-than-expected increase in employment and private consumption, which led to expectations of mon-

etary policy tightening. In the early part of the year, these developments were discernible in Europe, where weak economic conditions and falling short-term interest rates were not reflected in a decline in long-term interest rates until the second half of the year. However, enhanced expectations that Economic and Monetary Union would materialize according to schedule accelerated the fall in interest rates. Due to an improved economic outlook, the United Kingdom parted from the general trend in Europe toward the end of the year and the Bank of England raised interest rates in order to dampen inflationary pressures. Sluggish economic growth and a banking crisis kept interest rates low in Japan. In general, interest rates stayed at historically low levels in 1996, and bond yields declined as a result.

The convertible reserve assets of the Bank of Finland decreased in 1996 by FIM 12 467 million, amounting to FIM 36 397

million at yearend. The decline was chiefly due to currency interventions and principal and interest payments on the central government's foreign debt. The Bank of Finland did not enter into any forward exchange agreements during the year under review.

The main items of the convertible reserves at the end of 1996 and changes in the course of the year are shown below:

	Reserve assets 31 Dec 1996	Reserve assets 29 Dec 1995	Change
mill. FIM			
Gold	1 742	1 742	0
Special drawing rights	1 344	1 569	-225
IMF reserve tranche	1 953	1 685	268
ECU-claim on the EMI	2 541	3 363	-822
Foreign ex- change assets	28 817	40 506	-11 688
Total	36 397	48 865	-12 467

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# Research, Statistics, Information and Publications

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## **Economic analysis and research**

Assessment of the inflation outlook and influencing factors is a key concern in the monitoring of economic performance. The linkup of the markka to the Exchange Rate Mechanism (ERM) meant an increasing focus on the analysis of economic developments and monetary policy in countries participating in the ERM. The Bank's regular reviews of developments in the domestic financial markets dealt inter alia with banks' profitability and securities markets.

Analysis of economic performance is closely connected with the Bank of Finland's forecasting work. Information obtained in connection with this analysis forms the basis for assessing the future course of the economy, and continuous comparisons are made between actual economic developments and forecasts. The Bank of Finland's views on future economic trends, particularly as regards inflation, are published inter alia in the Bank of Finland Bulletin on a quarterly basis.

During the year, an upgraded econometric macromodel (BOF5) was added to the Bank's forecasting tools.

The Bank of Finland's economic research focuses mainly on macroeconomic issues that support the planning of monetary

policy and on the operation of the financial markets, including matters pertaining to payment instruments and payment systems.

In 1996 macroeconomic research concentrated on issues related to the transmission of monetary policy, evaluation of the markka's equilibrium exchange rate and further development of inflation forecasting methodology. Inflation analysis focused on assessment of the usefulness of information provided by various inflation indicators. Equilibrium exchange rate analyses were carried out in connection with the markka's linkup with the ERM. In the area of foreign exchange markets, a study was published dealing with measurement and causes of devaluation expectations in the ERM. Factors underlying industrial countries' successes in exporting were analysed in a study of problems inherent in the interrelationships between competitiveness, structure of exports and economic growth. A project on the demand for money being conducted in the Bank's research department is providing assistance for setting monetary policy strategy and forecasting inflation.

In the area of financial markets, research focused on the effects of banking regulation on banks' behaviour, in particular from the late 1980s onwards; the banking

crisis experience from the perspective of supervisory jurisprudence; pricing principles for deposit insurance; and the effects of budgetary savings. An ongoing research project is analysing banks' progress in risk monitoring and risk management. In addition, work continued on an extensive statistical study of Finnish economic history. The aim of this study is to compile a consistent set of basic statistics describing the functioning of Finnish financial markets from the 1860s to the 1990s.

Research on economies in transition has become an established part of the Bank's research activities, and international awareness of the Bank's work in this area is increasing. Monitoring, analysis and research continued to focus on stabilization policy and social consequences of economic reform in Russia as well as on Baltic states' monetary policy and external economic relations. Other areas of concern were the development of the EU's relations with the eastern economies and Finnish direct investment in transition economies. As a result of an international effort, a book on Russia's financial system was published. A number of visiting economists at the Bank did research on eastern economies.

## **Information management**

### **Information services and production of statistics**

The revision of national statistics in anticipation of Stage Three of EMU requires, starting in 1998, certain changes in compilation methods and a widening of the statistical base as well as intensification and rationalization of cooperation between statistical authorities. Preparations for changes in compilation methods began during the year under review. In September 1996 Finland joined the first group

of countries to observe the IMF's special data dissemination standard (SDDS), which describes data content, compilation and dissemination methods and is available via Internet.

Revision of the national reporting system for banks continued within the joint working group (Virati) of three Finnish authorities: the Financial Supervision Authority, the Bank of Finland and Statistics Finland. In early summer bank data reporters were provided with the second stage of the standardized data collection procedure of the authorities (Virati 2), which covers the collection of data that was excluded from the revised bank reporting system based on financial statements. In the same connection, banks were informed as to classification criteria and definitions. As part of the revision, the three authorities' data collection procedures were harmonized in terms of definitions and, where applicable, a uniform series of tables. Computerized collection procedures have also been harmonized. The standardized reporting procedure includes the following data required by the Bank of Finland: data needed for the calculation of money and credit aggregates, key lending and deposit rates and interest rate linkages of loans and deposits. The new data collection procedure was initiated on 1 January 1997.

In connection with balance of payments statistics, the Bank of Finland continued to conduct a special survey on Finland's foreign trade, which proved to be invaluable in its successful efforts to estimate foreign trade statistics prior to official releases. The Bank decided not to continue the survey after 1996, since the National Board of Customs managed to substantially shorten the lead-time for the release of official statistics. In addition, the National Board of Customs decided on more timely release of preliminary

data. The Bank of Finland was able to meet the timetable for member states' reporting of balance of payments data to the EMI and Eurostat.

In cooperation with the Ministry of Trade and Industry, the Bank of Finland continued its semi-annual financial surveys of ancillary service firms. The survey was conducted and reported together with a similar survey carried out by the Confederation of Finnish Industry and Employers. The survey is used in monitoring firms' financing as regards availability, terms, problems and plans. In addition, information was collected on firms' expectations as to future macroeconomic developments, such as the rate of inflation and interest rates.

The Bank of Finland's library acquired additional electronic data bases. The Bank's economists and others in need of information now have access to external data bases and digitalized publications from their own workstations.

## **Information technology**

Preparation for Stage Three of EMU in the area of information technology was one of the Bank of Finland's key activities during the year. The Bank participated in the standardization of the authorities' joint data collection procedure in cooperation with Statistics Finland and the Financial Supervision Authority. The decision was made during the year to finally abandon the mainframe-based information systems used by the Bank's economists. A new office system was introduced. Further improvements were made to the back office system used by the Market Operations and Payments and Settlement Departments. It was also decided to update the UNISYS mainframes.

## **Information and publications**

The Bank of Finland continued its policy of openness through active efforts to increase the public's understanding of central bank policy. New development projects were realized in the area of information and communication. In connection with the 75th anniversary of the Bank of Finland Bulletin in September, the Bank opened a website on the Internet and released a new brochure on the Banks' activities.

The Bank's website aims at meeting the needs of Internet users interested in the Bank of Finland and the Finnish economy by, in addition to providing a general description of the Bank's activities, displaying current press releases and providing ample statistical data in the form of charts and tables as well as information on the Bank's latest publications. A multimedia presentation gives a comprehensive picture of the Bank, its activities and its operating environment.

It was considered important that the Bank should provide information on the progress of EMU preparations within the Bank's operational areas. Several articles were published on the subject in the periodical *Markka & talous*. In its research series A, the Bank of Finland published a book, *Euro – the single currency*, which contains articles written by several authors dealing mainly with the future activities of the new central bank and the single currency.

*Markka & talous* appeared four times during the year. In addition, a special issue was published, titled *Inflaatio, hyvinvointi ja rahapolitiikka* (Inflation, Welfare and Monetary Policy) and composed largely of previously published articles on the inflation theme. A special issue of the Bank of Finland Bulletin, *Financial Markets in Finland*, appeared in December.

The Bank's year book (annual report) appeared as usual in the spring. Five publications were issued in the Bank's Series A and three in Series E<sup>1</sup>. The statistical review, Financial Markets, appeared monthly, and standard balance of payments statistics were released in the statistical bulletin series. Thirty-one papers appeared in the Discussion Papers series, which comprises research and analytical studies conducted in the various departments of the Bank. The Review of Economies in Transition, which contains studies and reports on developments in central and eastern European economies, appeared six times during the year.

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<sup>1</sup> A list of the Bank of Finland's publications for 1996 is included in the Appendices.

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# In-house Operations, Organization and Staff

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## Bank of Finland's operating expenses and budget

	Budgeted 1997	Realized 1996	Realized 1995
	mill. FIM		
<b>Expenses</b>			
Salaries	155.3 <sup>1</sup>	149.9	146.9
Social security costs	90.4	84.0	84.7
Travel and training	15.2	11.3	10.3
Information technology expenses	22.6	21.5	23.0
Banknote printing	20.6	18.6	34.4
Real estate expenses	27.8	26.8	26.3
Other expenses	29.2	25.1	28.4
<b>Total</b>	<b>361.0</b>	<b>337.1</b>	<b>354.2</b>
<b>Investment</b>			
Equipment and machinery	50.6	22.5	17.7
Real estate	23.2	14.2	32.4
<b>Total</b>	<b>73.8</b>	<b>36.7</b>	<b>50.0</b>
<b>Total expenses</b>	<b>434.9</b>	<b>373.8</b>	<b>404.2</b>
<b>Income</b>			
Sale of services	29.6	21.7	22.9
Return on real estate	31.5	33.0	35.9
<b>Total income</b>	<b>61.1</b>	<b>54.7</b>	<b>58.8</b>
<b>NET RESULT</b>	<b>373.8</b>	<b>319.1</b>	<b>345.4</b>

<sup>1</sup> Takes into account only budgeted increase in personnel.

## Organization

The Bank's operating environment and changes in long-run trends were evaluated

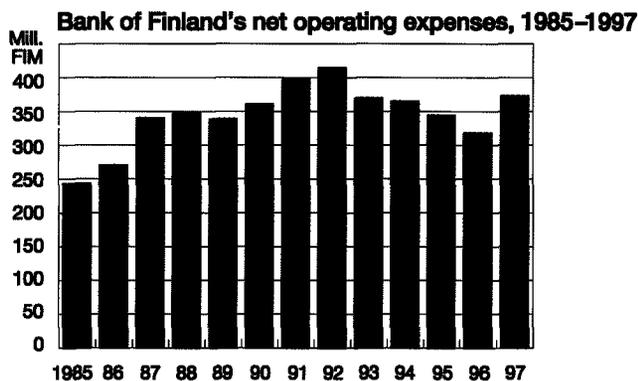
with the aid of various scenarios used for strategic planning purposes. Managers and experts brainstormed on the direction of future change in the operating environment of the central bank and Financial Supervision Authority, on how the Bank should prepare for the change and on the Bank's objectives within the changing environment.

On the basis of these scenarios, the Bank's management identified and specified the objectives and overall strategy for the Bank's course of action over the next few years. Extensive in-house discussions were held and strategies defined for a wide range of activities, from monetary policy to communications.

An organizational change was implemented in the Financial Markets Department in 1996: the Securities Markets Office was merged into the Market Structure Office. In the same connection, four persons from the Financial Markets Department were transferred to the Financial Supervision Authority in order to increase the latter's expertise in payment systems and matters pertaining to banking structure and the EU.

The Bank's management system was enhanced with the introduction of process-based cooperation between departments in three different operational areas. One work-

Chart 35.



ing group streamlined the Bank's preparations for Economic and Monetary Union by, among other things, drawing up a preliminary EMU action programme for the Bank of Finland. Another working group considered how the Bank's cooperation in the area of payment systems could be improved, both internally and externally with banks and authorities. A third group pondered in-house cooperation on monetary policy planning.

Opportunities for direct contact and discussions between the Governor and other bank employees were increased with the initiation of morning coffee sessions, to which the whole staff is invited to join the Governor. Those present can discuss topical economic or Bank-internal matters as they see fit.

## Personnel

At the end of 1996 a total of 766 persons were employed by the Bank of Finland; staff at the head office numbered 655, at branches 111. The total includes 41 persons on leave of absence and 59 on fixed-term contracts. A total of 34 staff members participated in internal job exchanges and eight were em-

ployed at the EMI. At the end of the year, the number of staff employed by the Bank was 30 less than at the end of the previous year. A contributory factor in the decrease was that not all posts declared vacant had been filled.

### Key development measures in 1996

A personnel strategy for the Bank was jointly drafted by top and middle managers and staff representatives. The aim was to see that the Bank's organization and personnel are fit for participation in EMU so as to ensure the Bank's success in international cooperation. Over the next few years, the challenges for personnel policy will focus on the development of staff structure, skills and managerial ability.

The Bank's performance review procedure was revised in 1996. A total of seven training sessions for superiors were arranged during the year, with nearly all supervisory staff taking part. The performance review is a firmly established practice at the Bank, which applies to the entire staff.

In spring 1996 a project was started with the aim of designing a new salary scheme for employees other than managers

and experts. The basis of the new salary scheme is appraisal of employees according to job requirements and work performance. The salary scheme is constructed along the same lines as that applied to managers and experts (ESA system). The former age increments are to be rescinded, and such qualities as versatility, competence and ability to work with others will be emphasized and rewarded under the new system. The system is to be introduced in summer 1997.

The Bank initiated a discussion with Diacor Health Services on activities for maintaining employees' working capacity. Some 200 staff members attended seminars on the theme. During the year, a framework was laid out for activities that will help maintain working capacity. Employees were informed and efforts were made to positively influence their attitudes. Plan implementation will begin in 1997.

Amendments corresponding to those made to the government employee pension scheme were incorporated in the Bank of Finland's pension regulations. These entail a revision of the procedure for petitions of appeal and a gradual increase from four to ten in the number of years forming the basis for calculation of the pension benefit. The purpose is to attain pension levels commensurate with work input. The employment pension index was divided into two parts. The Bank further enunciated its view that rehabilitation should always be favoured over a disability pension.

## **Training**

Staff training at the Bank of Finland focused on developing skills required for participation in EU and EMI working groups and on enhancing professional and information

technology skills. The Bank's expenditures on training amounted to FIM 5.6 million or 3.7 per cent of total salaries.

The Bank arranged internal training for its personnel, including management and supervisory training, communications and language training, economics training for specialists and training in the use of IT. Staff of both the central bank and the Financial Supervision Authority participated in these training programmes.

An internal management development programme, in which a total of 82 managers participated, was completed during 1996, as was a training programme for secretaries held in the early part of the year.

Over 200 employees participated in foreign language training. In connection with the introduction of new electronic office systems, each staff member underwent IT training.

Specialists' economics training focused on the EU, the EMI and major European countries' monetary policy as well as a deeper knowledge of monetary policy instruments and risk management.

As in previous years, the Bank of Finland extended training assistance to central banks of eastern economies. The main target was the central bank of Russia. Officials of Eesti Pank (the central bank of Estonia) attended training sessions arranged for the Bank of Finland's own experts.

The second 18-month Young Professionals training programme for a small number of newly qualified economists continued during 1996. The aim of the Bank is to recruit programme participants for fixed-term expert posts at the central bank. The Bank decided to start a third Young Professionals programme in autumn 1997.



# Financial Statements

Profit and loss account, million FIM

	1 Jan - 31 Dec 1996		1 Jan - 31 Dec 1995	
<b>INTEREST INCOME</b>				
<b>Domestic (1)</b>				
Liquidity credits	6.7		8.0	
Certificates of deposit	-		7.0	
Securities with repurchase commitments	249.8		201.9	
Net interest on forward transactions	-		8.1	
Financing of domestic deliveries (KTR)	6.6		15.4	
Bonds	151.2		226.2	
Loans for stabilizing the money market	16.0		-	
Other	25.8	456.1	37.5	504.0
<b>Foreign (2)</b>				
IMF	107.5		107.3	
Securities	1 338.9		2 129.9	
Other currency claims	473.6	1 920.1	739.4	2 976.6
<b>Total interest income</b>		2 376.2		3 480.6
<b>INTEREST EXPENSE</b>				
<b>Domestic (3)</b>				
Call money deposits	-		-29.7	
Certificates of deposit	-857.3		-2 046.6	
Reserve deposits	-5.9		-4.1	
Investment deposits	-14.9		-34.0	
Other	-0.6	-878.6	-5.2	-2 119.6
<b>Foreign</b>				
IMF	-37.8		-43.2	
Other	-19.2	-57.0	-12.6	-55.9
<b>Total interest expense</b>		-935.6		-2 175.5
<b>INTEREST MARGIN (4)</b>		1 440.6		1 305.2
<b>OTHER INCOME FROM CENTRAL BANK OPERATIONS (5)</b>				
Commissions and fees	19.4		20.6	
Other	88.4	107.8	107.1	127.7
<b>OTHER EXPENSE FROM CENTRAL BANK OPERATIONS (6)</b>				
Salaries	-149.9		-146.9	
Social security costs	-83.8		-84.7	
Purchase of banknotes	-18.6		-34.4	
Depreciation	-74.7		-105.1	
Other	-85.0	-411.9	-88.1	-459.3

	1 Jan - 31 Dec 1996		1 Jan - 31 Dec 1995	
<b>EXPENSE AND INCOME RELATED TO FINANCIAL SUPERVISION (7)</b>				
Salaries	-26.8		-22.4	
Depreciation	-1.2		-0.4	
Other	-22.3		-22.6	
Supervision fees charged by the Financial Supervision Authority	50.3	0.0	45.5	0.0
<b>EXPENSE AND INCOME DUE TO SAFEGUARDING THE STABILITY OF THE MONEY MARKET (8)</b>				
Writeoff of capitalized expenditure and losses	-1 400.0		-	
Income on sale of shares	1 232.2		-	
Interest compensation	1 760.0	1 592.2	-	-
<b>PROFIT BEFORE VALUATION ADJUSTMENTS AND PROVISIONS</b>		2 728.7		973.5
<b>Valuation gain/loss on foreign securities (9)</b>		298.4		883.9
<b>Exchange rate gain/loss (10)</b>		1 668.8		-2 130.5
<b>Writeoff of capitalized exchange rate adjustments (10)</b>		-865.2		-
<b>Change in pension provision (11)</b>		-77.2		-95.9
<b>Increase (-) / reduction (+) in provisions (in accord with section 30 of the Act on the Bank of Finland) (11)</b>		-3 753.6		369.0
<b>PROFIT FOR THE FINANCIAL YEAR (12)</b>		0.0		0.0

Balance sheet, million FIM

ASSETS

	31 Dec 1996		31 Dec 1995	
<b>Reserve assets (1)</b>				
Gold	1 742.2		1 742.1	
Special drawing rights	1 344.1		1 569.0	
IMF reserve tranche	1 952.7		1 685.1	
ECU-claim on the European Monetary Institute	2 541.3		3 363.1	
Foreign exchange assets	28 817.3	36 397.5	40 505.5	48 864.8
<b>Other foreign claims (1)</b>				
Markka subscription to Finland's quota in the IMF	3 793.8		3 910.8	
Share in the European Monetary Institute	59.1	3 852.8	58.2	3 969.1
<b>Claims on financial institutions (2)</b>				
Securities with repurchase commitments	11 625.6		7 075.8	
Bonds	195.8		416.5	
Other	1 675.5	13 496.9	1 338.7	8 831.0
<b>Claims on the public sector (3)</b>				
Total coinage	1 906.5	1 906.5	1 882.4	1 882.4
<b>Claims on corporations (4)</b>				
Financing of domestic deliveries (KTR)	69.7		185.2	
Other	2 196.7	2 266.5	2 700.3	2 885.5
<b>Other assets (5)</b>				
Loans for stabilizing the money market	–		4 532.0	
Accrued items	489.5		972.2	
Other	108.5	598.0	141.0	5 645.2
<b>Valuation account (13)</b>				
		–		643.0
<b>Capitalized expenditures and losses due to safeguarding the stability of the money market (6)</b>				
		–		1 400.0
<b>Total</b>		<b>58 518.2</b>		<b>74 121.0</b>

## LIABILITIES

	31 Dec 1996		31 Dec 1995	
<b>Foreign currency liabilities (1)</b>		934.4		1 214.2
<b>Other foreign liabilities (1)</b>				
IMF markka accounts	3 793.8		3 910.9	
Allocations of special drawing rights	951.4	4 745.3	926.5	4 837.5
<b>Notes and coin in circulation (7)</b>				
Notes	15 076.2		13 867.9	
Coin	1 814.7	16 890.9	1 743.1	15 611.0
<b>Certificates of deposit (8)</b>		15 530.0		27 090.0
<b>Liabilities to financial institutions (9)</b>				
Reserve deposits	6 828.7		15 675.7	
Other	1 500.3	8 329.0	1 100.9	16 776.6
<b>Liabilities to the public sector (10)</b>				
Current accounts	–		0.0	
Deposits of the Government Guarantee Fund	–	–	75.2	75.3
<b>Liabilities to corporations (11)</b>				
Deposits for investment and ship purchase	574.3	574.3	994.0	994.0
<b>Other liabilities (12)</b>				
Accrued items	192.9		300.0	
Other liabilities	27.4	220.2	26.9	326.9
<b>Valuation account (13)</b>		260.0		–
<b>Provisions (14)</b>				
Pension provision	1 516.3		1 431.4	
Other	3 753.6	5 269.9	–	1 431.4
<b>Capital accounts (15)</b>				
Primary capital	5 000.0		5 000.0	
Reserve fund	764.1		764.1	
Profit for the financial year	0.0	5 764.1	0.0	5 764.1
<b>Total</b>		<b>58 518.2</b>		<b>74 121.0</b>

## Appendices to the financial statements

	<b>31 Dec 1996</b>	<b>31 Dec 1995</b>
<b>Note issue, million FIM</b>		
Right of note issue	35 874	48 120
Used right of note issue	16 024	15 170
Unused right of note issue	19 850	32 950
<b>Foreign currency futures contracts, million FIM</b>		
Purchase contracts <sup>1</sup>	879	38
Sales contracts <sup>1</sup>	429	6 276
<b>Shares and other interests, nominal value, million FIM</b> (Bank of Finland's holding in parentheses)		
Scopulus Oy	2 (100 %)	2 (100 %)
Sponda Oy	-	300 (100 %)
Setec Oy	40 (100 %)	40 (100 %)
Helsinki Money Market Center Ltd	35 (52 %)	35 (52 %)
Finnish Central Securities Depository Ltd	11 (24.44 %)	.
Bank for International Settlements	55 (1.67 %)	53 (1.67 %)
Shares in housing companies	1	1
Real estate shares	1	1
Other shares and interests	1	1
Total	146	433

<sup>1</sup> Middle rate of the currency as at the last business day of the year.

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**The Bank of Finland's real estate**

Building	Address	Year of completion	Volume cu.m (approx.)
Helsinki	Rauhankatu 16	1883/1961	49 500
	Rauhankatu 19	1954	33 000
	Unioninkatu 33	1848	17 500
	Snellmaninkatu 23	1896/1988	27 500
	Liisankatu 14	1928	48 500
	Ramsinniementie 34	1920/1983	4 500
Joensuu	Torikatu 34	1984	11 000
Kuopio	Kauppakatu 25-27	1912	7 500
	Puutarhakatu 4	1993	11 900
Mikkeli	Päiviönkatu 15	1965	7 500
Oulu	Kajaaninkatu 8	1973	17 000
Tampere	Hämeenkatu 13	1942	36 000
Turku	Linnankatu 20	1914	10 500
Vantaa	Suometsäntie 1	1979	311 500
Inari	Saariselkä	1968/1976	2 000

Helsinki 5 February 1997

THE BOARD OF THE BANK OF FINLAND

Sirkka Hämäläinen, Chairman

Harri Holkeri

Esko Ollila

Matti Vanhala

Matti Louekoski

## Notes to the financial statements

### Accounting principles applied

The Bank of Finland's balance sheet follows a sectoral division which depicts financial relations between the central bank and the foreign and domestic sectors. The valuation principles applied in the balance sheet are explained in the notes to the various items. In accord with the Act on the Bank of Finland, fixed assets, shareholdings and long-term expenditures are entered in full as expenditures in the year of acquisition and thus do not appear on the balance sheet. The Bank of Finland's shareholdings, other ownership interests and real estate are listed in the appendices to the financial statements.

Foreign currency-denominated assets and liabilities have been converted into markkaa at the middle exchange rates as at 31 December 1996. All exchange rate differences related to foreign-currency denominated assets or liabilities in balance sheet or off-balance sheet items are entered as profits or losses.

In accordance with section 17, subsection 1, paragraph 2, of the Act on the Bank of Finland, the Parliamentary Supervisory Council confirms the accounting principles applied.

### Notes to the profit and loss account

#### 1. Domestic interest income

Domestic interest income, FIM 456 million, includes FIM 250 million in interest income on securities with repurchase commitments, FIM 151 million in interest income on bonds

and FIM 16 million in interest income on loans for stabilizing the money market.

#### 2. Foreign interest income

Foreign interest income amounted to FIM 1 920 million, which is FIM 1 057 million less than in the previous year.

#### 3. Domestic interest expense

Domestic interest expense, FIM 879 million, includes FIM 857 million in interest expense on CDs issued by the Bank of Finland. Domestic interest expense decreased by FIM 1 241 million from the previous year.

#### 4. Interest margin

The interest margin amounted to FIM 1 441 million.

#### 5. Other central banking income

Other central banking income, FIM 108 million, includes FIM 19 million in commissions and fees, FIM 17 million in dividend income, FIM 36 million in gains on sales of real estate, shares and other ownership interests and FIM 28 million in rental income.

#### 6. Other central banking expense

Salaries amounted to FIM 150 million. Social security costs include FIM 61 million in pensions paid.

Purchases of banknotes amounted to FIM 19 million, which was FIM 15 million less than in the previous year.

In accord with the Act on the Bank of Finland, acquisitions of fixed assets and other long-term expenditures are entered as expense under depreciation in the year they are incurred by the Bank. Thus depreciation, FIM 75 million, includes all acquisitions of fixed assets and other long-term expenses for the financial year. Depreciation includes the purchase price of shares in Suomen Arvo-

paperikeskus Oy (Finnish Central Securities Depository Ltd), FIM 22 million; the subscription in kind entered in connection with the incorporation of two office buildings, FIM 16 million, expenses for repair and renovation of buildings, FIM 14 million; and depreciation on machinery and equipment, FIM 19 million.

#### **7. Expense and income related to financial supervision**

The operating costs (salaries, depreciation, other expense) of the Financial Supervision Authority, which operates in connection with the Bank, are shown as separate items in the Bank of Finland's profit and loss account. These costs are covered by supervision fees subsequently collected from the supervised entities.

#### **8. Expense and income due to safeguarding the stability of the money market**

Losses incurred by the Bank of Finland as a result of the sale of Skopbank's shares and preferred capital certificates to the Government Guarantee Fund were capitalized in the balance sheet for 1992. The remaining part of this balance sheet item was written off in the 1996 financial statements. The shares of Sponda Oy and other financial assets held by the Bank of Finland in connection with the takeover of Skopbank were transferred to the State in May 1996. The State paid FIM 1 232 million for the shares and FIM 1 760 million as compensation to the Bank of Finland for forgone interest related to the financing of asset management companies.

#### **9. Valuation gain/loss on foreign securities**

Valuation gain/loss on foreign securities includes gains and losses on sales of securities

and, for securities holdings, the amortized premium or discount and the difference between the acquisition price (adjusted by the amortized premium/discount) and the market value, if the market value is lower. A net valuation gain of FIM 298 million was entered in respect of foreign securities in 1996.

#### **10. Exchange rate gain/loss**

Exchange rate gain/loss includes all exchange-rate-induced changes in the values of foreign currency claims and liabilities and off-balance sheet items, as well as net earnings from foreign exchange dealings. In 1996 exchange rate gains amounted to FIM 1 669 million. Exchange rate adjustments of FIM 865 million, entered in the valuation account of the balance sheet in the previous financial year, were entered as expenses in the current financial statements.

#### **11. Changes in provisions**

Employees' pension contributions totalling FIM 8 million were collected from salaries during 1996 and transferred to the pension provision. In addition, the pension provision was increased by the interest calculated on employees' pension contributions and on pension provisions made during the previous years at a rate equivalent to the base rate plus 1 percentage point. The pension provision was increased by a total of FIM 85 million.

The provision in accord with section 30 of the Act on the Bank of Finland was increased by FIM 3 754 million.

#### **12. Profit for the financial year**

A profit of zero markkaa was reported for the financial year.

## Notes to the balance sheet

### 1. Reserve assets and other foreign items

As in previous years, gold was entered in the balance sheet at the value of FIM 35/g. On 31 December 1996, the market price of gold was FIM 55/g. At the end of the year, the Bank's holdings of gold totalled 49 776 kilos. In accord with the agreement on the European Monetary System, the Bank of Finland exchanged with the European Monetary Institute 20 per cent of its gold and dollar reserves for ECUs on the basis of revolving swaps. This part of the gold and dollar reserves is included in the balance sheet in the ECU-claim on the European Monetary Institute.

The counterpart to the item 'special drawing rights' under reserve assets is the item 'allocations of special drawing rights' under other foreign liabilities. Interest accrues on both items at the SDR interest rate.

The SDR-denominated reserve tranche and the markka subscription together form Finland's quota in the IMF. The counterpart of the markka subscription is included in the IMF markka accounts under other foreign liabilities. The markka subscription and the corresponding markka accounts are linked to the exchange rate of the special drawing right (SDR) in accord with IMF practice. Other foreign claims also include Finland's ECU-denominated membership share in the European Monetary Institute.

Foreign exchange assets consist mainly of foreign securities issued or guaranteed by governments and foreign bank deposits. The item also includes foreign sight accounts as well as foreign means of payment held by the Bank of Finland.

Securities are entered at the time of acquisition at acquisition cost. Subsequently, the difference between a security's acquisi-

tion cost and nominal value is amortized as profits or losses over the remaining maturity of the security. At the balance sheet date, the acquisition cost of a security (adjusted by amortized premium/discount) is compared to the current market value and the lower of the two values is entered in the balance sheet.

Foreign currency liabilities include markka claims of international organizations and foreign banks on the Bank of Finland and inter alia the ECU-denominated claim of the European Union.

### 2. Claims on financial institutions

Liquidity credits are short-term claims of the Bank of Finland on banking institutions entitled to central bank financing.

Securities with repurchase commitments (repos) are used in money market operations. They are entered in the balance sheet at the nominal value of the repo transaction. Securities eligible for use in repo transactions are markka-denominated benchmark government bonds and Treasury bills, Bank of Finland CDs and debt instruments issued by the asset management company Arsenal.

Bonds issued by banking institutions are generally held for investment purposes; they are valued at nominal value.

### 3. Claims on the public sector

Total coinage indicates the State's liability to the Bank of Finland arising from its obligation to redeem coins.

### 4. Claims on corporations

Credits for financing domestic deliveries have been granted either in the form of loans or bonds. Bonds are valued at nominal value. The interest rate ranges from the base rate to the base rate plus 1– 2.5 percentage points.

The item 'other' consists mainly of securities classified as investments and valued at nominal value.

#### **5. Other assets**

In 1995 other assets included loans for stabilizing the money market, which were used to finance the operations of Sponda Oy, a company established in connection with the Bank of Finland's takeover of Skopbank for the purpose of liquidating Skopbank's large risk exposures. These loans were turned over to the State in connection with the sale of Sponda shares.

Accrued items are mainly interest receivables. Other assets also include FIM 98 million in staff housing loans. The interest rate charged on old housing loans is the same as the base rate; the rate on loans granted after 16 February 1993 is the base rate plus 2 percentage points.

#### **6. Capitalized expenditures and losses due to safeguarding the stability of the money market**

The losses incurred to the Bank of Finland as a result of the sale of Skopbank's shares and preferred capital certificates to the Government Guarantee Fund in 1992 were capitalized in the balance sheet. The remaining part of this item was written off in the 1996 financial statements.

#### **7. Notes and coin in circulation**

Notes and coin in circulation consists of notes and coin held by the public and banking institutions.

#### **8. Certificates of deposit**

Certificates of deposit issued by the Bank of Finland are used in money market operations and are valued at nominal value. The difference between nominal value and issue price

is entered as an accrued item and is allocated to interest expense over the maturity of the instrument.

#### **9. Liabilities to financial institutions**

Banking institutions subject to the minimum reserve requirement that have access to the liquidity credit facility and a current account at the Bank of Finland fulfil their minimum reserve requirements on the basis of monthly averages of end-of-day current account balances. The Bank of Finland may pay interest on deposits in excess of the minimum reserve requirement. On 31 December 1996 the excess reserve rate was 1.0 per cent.

#### **10. Liabilities to the public sector**

In 1995 liabilities to the public sector included the Government Guarantee Fund's current account and deposit accounts at the Bank of Finland.

#### **11. Liabilities to corporations**

Deposits for investment and ship purchases comprise statutory deposits made with the Bank of Finland by companies that have made an investment or ship purchase reserve. The deposits bear interest at a rate determined according to the Investment Reserves Act.

#### **12. Other liabilities**

Accrued items consist mainly of accrued interest payable.

Other liabilities include FIM 9 million of notes in circulation in the old denomination.

#### **13. Valuation account**

The valuation account balance at 31 December 1996 reflects the difference between the book value and contractual price of gold underlying the ECU swap.

**14. Provisions**

The Bank of Finland's pension liabilities total FIM 1 865 million; 81 per cent of this amount, FIM 1 516 million, is covered by the provision.

Other provisions include the provision provided for under section 30 of the Act on the Bank of Finland, FIM 3 754 million.

**15. Capital accounts**

The Bank's primary capital and reserve fund were unchanged.

## Auditors' report

We, the Auditors elected by Parliament, have audited the accounts, including the financial statements, and the management of the Bank of Finland for 1996 to the extent required by sound auditing practice.

In the course of the accounting year, the Internal Audit Department of the Bank of Finland has carried out the audit of the Bank's accounting and operations. We have examined the reports issued on the internal audit at the Bank.

We have read the Annual Report of the Bank of Finland, and the Board has provided us with information on the Bank's operations.

The financial statements of the Bank of Finland have been prepared in keeping with the principles on closing the accounts confirmed by the Parliamentary Supervisory Board and current regulations.

On the basis of the above and in the absence of any further comments raised by the audit, we propose that the profit and loss account and balance sheet be confirmed and that the Board be discharged from liability for the accounting year audited by us.

Helsinki, 6 March 1997

### AUDITORS OF THE BANK OF FINLAND

Kauko Heikkinen

Jorma Kukkonen

Johannes Leppänen

Leena Luhtanen

Martti Tiuri

*J. Kalervo Virtanen*  
Authorized Public Accountant



# Appendices

## Measures concerning monetary and foreign exchange policy and the financial markets

January

### **Reorganization of the responsibilities of the government and the Bank of Finland**

On 9 January, the Cabinet Economic Policy Committee took the following decisions in principle:

- responsibility for the Sponda group, which was owned by the Bank of Finland and which was set up to manage Skopbank's assets (real estate and shares), would be transferred to the Council of State
- the government would settle its coinage-related debt to the Bank of Finland in the amount of some FIM 2 billion.

The required measures were prepared in connection with the first supplementary budget for 1996.

### **The Government Guarantee Fund**

On 9 January, the Cabinet Economic Policy Committee decided to propose that the Government Guarantee Fund be transferred to the authority of the Council of State as from the beginning of April.

February

### **Base rate**

The Parliamentary Supervisory Council lowered the Bank of Finland's base rate from 4.75 per cent to 4.50 per cent with effect from 1 February.

March

### **Tender rate**

On 13 March, the Bank of Finland lowered its tender rate from 4.25 per cent to 3.75 per cent. In addition, the interest rate on banks' excess reserves was cut from 2.25 per cent to 1.75 per cent.

May

### **The Government Guarantee Fund moved to the Ministry of Finance**

On 1 May, the Government Guarantee Fund ceased to operate as a separate unit and its employment contracts were allowed to expire. The Fund, which was previously subordinate to Parliament, was made subordinate to the Council of State, operating in connection with the Ministry of Finance. Fund personnel were also transferred to the Ministry.

### **The government took over Sponda**

On 23 May, the Finnish government bought the entire share capital of Sponda Oy at a purchase price of FIM 1 232 million. The Bank of Finland originally set up Sponda Oy in 1991 to manage the real estate and equity assets transferred from Skopbank after the bank ran into severe liquidity and solvency problems.

June

### **Currency Act amended**

On 10 June, the amendments to the Currency Act entered into force. The amendments enabled the joining of the markka to the EU Exchange Rate Mechanism (ERM).

**Tender rate**

On 14 June, the Bank of Finland lowered its tender rate from 3.75 per cent to 3.60 per cent. In addition, the interest rate on banks' excess reserves was cut from 1.75 per cent to 1.60 per cent.

July

**Tender rate**

On 5 July, the Bank of Finland lowered its tender rate from 3.60 per cent to 3.50 per cent. In addition, the interest rate on banks' excess reserves was cut from 1.60 per cent to 1.50 per cent.

August

**Bank of Finland's guidelines for credit institutions**

On 1 August, the Bank of Finland issued its monetary policy-related guidelines for credit institutions as a complete set. The contents remained essentially unchanged.

**Tender rate**

On 23 August, the Bank of Finland lowered its tender rate from 3.50 per cent to 3.25 per cent. In addition, the interest rate on banks' excess reserves was cut from 1.50 per cent to 1.25 per cent.

September

**Base rate**

The Parliamentary Supervisory Council lowered the Bank of Finland's base rate from 4.50 per cent to 4.00 per cent with effect from 16 September.

**Tender rate**

On 18 September, the Bank of Finland lowered its tender rate from 3.25 per cent to 3.10 per cent. In addition, the interest rate on banks' excess reserves was cut from 1.25 per cent to 1.10 per cent.

October

**Tender rate**

On 9 October, the Bank of Finland lowered its tender rate from 3.10 per cent to 3.00 per cent. In addition, the interest rate on banks' excess reserves was cut from 1.10 per cent to 1.00 per cent.

**Finland joined the ERM**

Finland joined the EU Exchange Rate Mechanism (ERM) as of 14 October 1996.

# Main statements issued by the Bank of Finland in 1996

## Statements concerning the development of the financial markets

- To the Ministry of Finance concerning the setting up of a working group examining the need to regulate electronic cash, 19 January.
- To the Ministry of Finance concerning legislation on a centralized entity for the cooperative banks, 25 January.
- To the Securities Association concerning annulment of bonds after their transfer to the book-entry securities system, 2 February.
- To the Ministry of Finance concerning amendment of the Act on the Government Guarantee Fund, 7 February.
- To the Financial Supervision Authority concerning proposals for Regulations on registers and declarations of insider holdings, 7 February.
- To the Ministry of Finance concerning amendment of the legislation on credit institutions, 8 February.
- To the Ministry of Finance concerning the Government's proposals for an act on investment services and for amending the Securities Markets Act, 19 February.
- To the Ministry of Finance concerning amendments to the rules and regulations of the Finnish Options Exchange Ltd, 20 February.
- To the Ministry of Finance concerning extension of Helsingin Arvo-osuuskeskus Oy's authorization, 20 February.
- To the Financial Supervision Authority concerning amendment to the Guideline on credit institutions' places of business in Finland, 5 March.
- To the Ministry of Trade and Industry concerning the commissioner's report on the development of public guarantee activities, 6 March.
- To the Financial Supervision Authority concerning amendment to the Regulation on foreign exchange risks, 20 March.
- To the Ministry of Trade and Industry concerning a report on the conduct of an evaluation of the Regional Development Fund, 11 April.
- To the Financial Supervision Authority concerning a proposal on a guideline on reporting information on administrative staff, directors and managers, 25 April.
- To the Ministry of Trade and Industry concerning the report of the monitoring group for the State Guarantee Office, 13 May.
- To the Financial Supervision Authority concerning proposals on reporting and disclosure of securities trades, 23 May.
- To the Ministry of Justice concerning the report of the Guarantee Committee, 30 May.
- To the Financial Supervision Authority concerning proposals for amending its regulations and guidelines, 11 June.
- To the Ministry of Finance concerning confirmation of the rules and regulations of the Helsinki Stock Exchange, 23 July.
- To the Ministry of Finance concerning EL-EX Sähköpörssi Oy's application for authorization, 24 July.
- To the Office of Free Competition concerning an application for an exemption in connection with cooperation on prepaid cards, 22 August.
- To the Financial Supervision Authority concerning examination of fitness and propriety of owners, directors and managers of credit institutions and securities brokerage firms, 26 August.
- To the Ministry of Finance concerning a draft of the Government's proposal for intensifying the supervision of credit institutions, securities brokerage firms and management companies, 28 August.
- To the Financial Supervision Authority concerning interim reports of credit institutions and securities brokerage firms, 29 August.
- To the Ministry of Trade and Industry concerning draft proposals on the equalization of interest rates on export credits subsidized with public funds, 29 August.

- To the Ministry of Finance concerning the lowering of the maximum interest rate on tax-exempt bank deposits, 29 August.
- To the Ministry of Finance concerning legislation needed to establish a national securities centre, 30 August.
- To the Ministry of Finance concerning an OECD inquiry on institutional investors and financial markets in OECD countries, 9 September.
- To the Ministry of Finance concerning a draft decision on listing particulars, 12 September.
- To the Ministry of Finance concerning the Green Paper of the European Commission and consumer protection in connection with financial services, 16 September.
- To the Financial Supervision Authority concerning a proposal for amendments to the Regulation on the annual accounts of credit institutions, 16 September.
- To the Ministry of Justice concerning a draft convention on transfer of financed claims, 11 October.
- To the Ministry of Finance concerning extension of the Act on Restrictions on the Use of Index Clauses, 17 October.
- To the Financial Supervision Authority concerning the reporting procedures of securities brokerage firms, 8 November.
- To the Financial Supervision Authority concerning new regulations on the annual accounts and consolidated accounts of securities brokerage firms, 25 November.
- To the Financial Supervision Authority concerning a draft proposal on the calculation of the solvency ratio, 26 November.
- To the Ministry of Finance concerning amendment to rules and regulations of SOM Ltd, Securities and Derivatives Exchange, Clearing House, 26 November.
- To the Ministry of Finance concerning the Finnish Central Securities Depository Ltd's right to take preparatory measures for starting operations as a central securities depository, 17 December.
- To the Ministry of Finance concerning authorization of the Finnish Central Securities Depository Ltd, 30 December.
- To the Ministry of Finance concerning the memorandum of the working group on deposit insurance, 2 January 1997.

#### **Other statements**

- To the Ministry of Finance concerning a change in value-added taxation on gold, 12 January.
- To the Ministry of Finance concerning a commemorative coin to be issued in honour of Helene Schjerfbeck and visual arts, 30 January.
- To the Ministry for Foreign Affairs concerning Russia's proposal for a convention on cooperation in monetary affairs and exports control, 8 February.
- To the Supreme Court concerning Rautakirja Oy's complaint about application of the Act on Value-Added Tax to electronic payments with prepaid cards, 1 March.
- To the Parliamentary Committee for developing the audit of public accounts concerning a draft act on the audit of public accounts, 17 April.
- To the Ministry for Foreign Affairs concerning partnership and cooperation agreements of the European Union, 22 May, 20 June and 3 July.
- To the Ministry of Education concerning determination of the maximum interest rate and the service charge on study loans, 30 May.
- To the Ministry of Transport and Communications concerning a proposal on the compatibility of payment systems for transport services in the Nordic countries, 27 August.
- To the Ministry of Justice concerning the Convention on international guarantees, 19 September.
- To the Ministry of Education concerning determination of the maximum interest rate and the service charge on study loans, 27 November.
- To the Ministry of Finance concerning abolition of the legal tender status of old 1 and 5 markka coins, 4 December.



## Tables

Discrepancies between constituent figures and totals are due to rounding.

0 less than half the final digit shown

. logically impossible

.. data not available

- nil

\_ change in contents of series

Table 1.

## Monthly balance sheet of the Bank of Finland in 1996, million FIM

ASSETS	I	II	III
<b>Reserve assets</b>	<b>43 993</b>	<b>45 778</b>	<b>43 475</b>
Gold	1 742	1 742	1 742
Special drawing rights	1 174	1 061	1 165
IMF reserve tranche	1 716	1 767	1 802
ECU-claim on the European Monetary Institute	3 337	3 376	3 435
Foreign exchange assets	36 023	37 832	35 330
<b>Other foreign claims</b>	<b>3 969</b>	<b>3 923</b>	<b>3 930</b>
Markka subscription to Finland's quota in the IMF	3 911	3 864	3 870
Share in the European Monetary Institute	59	59	60
<b>Claims on financial institutions</b>	<b>4 907</b>	<b>5 242</b>	<b>3 943</b>
Liquidity credits	-	1 439	-
Securities with repurchase commitments	3 182	2 095	2 244
Bonds	386	369	360
Other	1 339	1 339	1 339
<b>Claims on the public sector</b>	<b>1 879</b>	<b>1 880</b>	<b>1 874</b>
Total coinage	1 879	1 880	1 874
Loans for stabilizing the money market	-	-	-
Other	-	-	-
<b>Claims on corporations</b>	<b>2 870</b>	<b>2 860</b>	<b>2 853</b>
Financing of domestic deliveries (KTR)	170	159	153
Other	2 700	2 700	2 700
<b>Other assets</b>	<b>5 534</b>	<b>5 446</b>	<b>5 387</b>
Loans for stabilizing the money market	4 532	4 532	4 532
Accrued items	864	776	704
Other	138	138	151
<b>Capitalized expenditures and losses due to safeguarding the stability of the money market</b>	<b>1 400</b>	<b>1 400</b>	<b>1 400</b>
<b>Total</b>	<b>64 551</b>	<b>66 528</b>	<b>62 861</b>

IV	V	VI	VII	VIII	IX	X	XI	XII
<b>42 063</b>	<b>35 985</b>	<b>34 707</b>	<b>33 854</b>	<b>34 590</b>	<b>35 315</b>	<b>36 703</b>	<b>36 985</b>	<b>36 397</b>
1 742	1 742	1 742	1 742	1 742	1 742	1 742	1 742	1 742
1 401	1 474	1 243	1 187	1 186	1 412	1 017	1 044	1 344
1 864	1 953	1 908	1 880	1 909	1 928	1 915	1 945	1 953
3 070	3 002	2 964	2 642	2 613	2 614	2 519	2 541	2 541
33 986	27 814	26 851	26 402	27 139	27 619	29 510	29 713	28 817
<b>3 929</b>	<b>3 793</b>	<b>4 103</b>	<b>4 102</b>	<b>4 054</b>	<b>4 053</b>	<b>4 053</b>	<b>4 053</b>	<b>3 853</b>
3 867	3 733	4 043	4 043	3 996	3 995	3 994	3 994	3 794
61	60	59	59	58	58	59	59	59
<b>5 110</b>	<b>11 874</b>	<b>9 884</b>	<b>8 527</b>	<b>11 961</b>	<b>12 089</b>	<b>12 578</b>	<b>9 640</b>	<b>13 497</b>
-	-	-	-	-	-	-	721	-
3 430	10 237	7 887	6 540	9 988	10 147	10 683	7 041	11 626
332	289	260	249	249	224	206	198	196
1 348	1 348	1 738	1 738	1 723	1 719	1 689	1 681	1 676
<b>1 873</b>	<b>6 670</b>	<b>6 460</b>	<b>6 460</b>	<b>6 297</b>	<b>5 998</b>	<b>5 982</b>	<b>5 987</b>	<b>1 906</b>
1 873	1 880	1 880	1 880	1 877	1 882	1 882	1 886	1 906
-	3 942	3 732	3 732	3 572	3 268	3 268	3 268	-
-	848	848	848	848	848	832	832	-
<b>2 596</b>	<b>2 456</b>	<b>2 452</b>	<b>2 444</b>	<b>2 435</b>	<b>2 429</b>	<b>2 419</b>	<b>2 271</b>	<b>2 266</b>
138	129	124	117	108	102	92	74	70
2 457	2 327	2 327	2 327	2 327	2 327	2 327	2 197	2 197
<b>5 353</b>	<b>603</b>	<b>617</b>	<b>597</b>	<b>549</b>	<b>644</b>	<b>618</b>	<b>654</b>	<b>598</b>
4 532	-	-	-	-	-	-	-	-
689	470	483	470	422	535	511	527	490
132	134	134	127	127	109	107	127	108
<b>1 400</b>	<b>-</b>							
<b>62 323</b>	<b>62 781</b>	<b>59 623</b>	<b>57 384</b>	<b>61 285</b>	<b>61 928</b>	<b>63 753</b>	<b>60 989</b>	<b>58 518</b>

Table 1. (cont.)

LIABILITIES	I	II	III
<b>Foreign currency liabilities</b>	<b>493</b>	<b>597</b>	<b>456</b>
<b>Other foreign liabilities</b>	<b>4 854</b>	<b>4 810</b>	<b>4 838</b>
IMF markka accounts	3 911	3 864	3 870
Allocations of special drawing rights	944	946	968
<b>Notes and coin in circulation</b>	<b>14 293</b>	<b>14 428</b>	<b>14 448</b>
Notes	12 584	12 720	12 743
Coin	1 709	1 709	1 705
<b>Certificates of deposit</b>	<b>16 743</b>	<b>28 325</b>	<b>25 426</b>
<b>Liabilities to financial institutions</b>	<b>19 256</b>	<b>9 192</b>	<b>7 665</b>
Reserve deposits	18 155	8 092	6 564
Other	1 101	1 101	1 101
<b>Liabilities to the public sector</b>	<b>132</b>	<b>54</b>	<b>40</b>
Current accounts	0	0	0
Deposits of the Government Guarantee Fund	132	53	39
<b>Liabilities to corporations</b>	<b>944</b>	<b>892</b>	<b>875</b>
Deposits for investment and ship purchase	944	892	875
<b>Other liabilities</b>	<b>294</b>	<b>284</b>	<b>284</b>
Accrued items	269	260	256
Other	25	24	28
<b>Valuation account</b>	<b>346</b>	<b>751</b>	<b>1 635</b>
<b>Provisions</b>	<b>1 431</b>	<b>1 431</b>	<b>1 431</b>
Pension provision	1 431	1 431	1 431
Other provisions	-	-	-
<b>Capital accounts</b>	<b>5 764</b>	<b>5 764</b>	<b>5 764</b>
Primary capital	5 000	5 000	5 000
Reserve fund	764	764	764
Net earnings	-	-	-
<b>Total</b>	<b>64 551</b>	<b>66 528</b>	<b>62 861</b>

IV	V	VI	VII	VIII	IX	X	XI	XII
<b>542</b>	<b>807</b>	<b>1 119</b>	<b>1 184</b>	<b>1 707</b>	<b>891</b>	<b>988</b>	<b>1 199</b>	<b>934</b>
<b>4 867</b>	<b>4 711</b>	<b>4 999</b>	<b>4 984</b>	<b>4 927</b>	<b>4 936</b>	<b>4 928</b>	<b>4 942</b>	<b>4 745</b>
3 867	3 734	4 044	4 043	3 996	3 995	3 994	3 994	3 794
1 000	978	955	941	932	940	934	948	951
<b>14 759</b>	<b>14 967</b>	<b>15 275</b>	<b>15 251</b>	<b>15 201</b>	<b>15 331</b>	<b>15 296</b>	<b>15 449</b>	<b>16 891</b>
13 042	13 244	13 537	13 499	13 451	13 582	13 548	13 698	15 076
1 717	1 723	1 737	1 752	1 751	1 750	1 747	1 751	1 815
<b>20 350</b>	<b>20 700</b>	<b>21 420</b>	<b>16 445</b>	<b>21 920</b>	<b>24 650</b>	<b>24 920</b>	<b>22 160</b>	<b>15 530</b>
<b>10 207</b>	<b>9 901</b>	<b>5 691</b>	<b>8 703</b>	<b>6 900</b>	<b>5 176</b>	<b>6 632</b>	<b>5 646</b>	<b>8 329</b>
8 831	8 790	4 191	7 203	5 400	3 676	5 131	4 145	6 829
1 376	1 110	1 500	1 500	1 500	1 500	1 501	1 500	1 500
<b>342</b>	<b>0</b>	<b>0</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
0	0	0	-	-	-	-	-	-
341	-	-	-	-	-	-	-	-
<b>829</b>	<b>786</b>	<b>767</b>	<b>746</b>	<b>735</b>	<b>697</b>	<b>665</b>	<b>606</b>	<b>574</b>
829	786	767	746	735	697	665	606	574
<b>268</b>	<b>256</b>	<b>264</b>	<b>267</b>	<b>270</b>	<b>243</b>	<b>258</b>	<b>243</b>	<b>220</b>
242	229	226	239	241	208	225	209	193
26	27	37	28	29	35	33	34	27
<b>2 964</b>	<b>3 457</b>	<b>2 893</b>	<b>2 608</b>	<b>2 429</b>	<b>2 809</b>	<b>2 872</b>	<b>3 549</b>	<b>260</b>
<b>1 431</b>	<b>5 270</b>							
1 431	1 431	1 431	1 431	1 431	1 431	1 431	1 431	1 516
-	-	-	-	-	-	-	-	3 754
<b>5 764</b>								
5 000	5 000	5 000	5 000	5 000	5 000	5 000	5 000	5 000
764	764	764	764	764	764	764	764	764
-	-	-	-	-	-	-	-	0
<b>62 323</b>	<b>62 781</b>	<b>59 623</b>	<b>57 384</b>	<b>61 285</b>	<b>61 928</b>	<b>63 753</b>	<b>60 989</b>	<b>58 518</b>

Table 2.

Bank of Finland's reserve assets and forward exchange position<sup>1</sup>, million FIM

	Gold	Special drawing rights	IMF reserve tranche	ECU-claim on the European Monetary Institute	Foreign exchange assets	Reserve assets	Forward purchase contracts, net	Reserve assets and forward position
1992	2 180	564	1 732	.	25 041	29 517	-10 345	19 172
1993	2 180	664	1 747	.	28 882	33 473	-2 885	30 588
1994	2 180	1 537	1 354	.	47 672	52 743	6 079	58 822
1995	1 742	1 569	1 685	3 363	40 506	48 865	-	48 865
1996	1 742	1 344	1 953	2 541	28 817	36 397	-	36 397
<b>1996</b>								
January	1 742	1 174	1 716	3 337	36 023	43 993	-	43 993
February	1 742	1 061	1 767	3 376	37 832	45 778	-	45 778
March	1 742	1 165	1 802	3 435	35 330	43 475	-	43 475
April	1 742	1 401	1 864	3 070	33 986	42 063	-	42 063
May	1 742	1 474	1 953	3 002	27 814	35 985	-	35 985
June	1 742	1 243	1 908	2 964	26 851	34 707	-	34 707
July	1 742	1 187	1 880	2 642	26 402	33 854	-	33 854
August	1 742	1 186	1 909	2 613	27 139	34 590	-	34 590
September	1 742	1 412	1 928	2 614	27 619	35 315	-	35 315
October	1 742	1 017	1 915	2 519	29 510	36 703	-	36 703
November	1 742	1 044	1 945	2 541	29 713	36 985	-	36 985
December	1 742	1 344	1 953	2 541	28 817	36 397	-	36 397

<sup>1</sup> At middle spot rates.

Table 3.

Markka's exchange rate against the ECU and the trade-weighted currency index<sup>1</sup>

	Markka's exchange rate against the ECU	Trade-weighted currency index, 1982 = 100
1992	5.80140	116.4
1993	6.69420	132.4
1994	6.19108	123.2
1995	5.70936	111.6
1996	5.83028	115.3
<b>1996</b>		
January	5.73809	112.7
February	5.86385	115.0
March	5.89568	116.2
April	5.98143	118.3
May	5.93160	117.8
June	5.85380	116.3
July	5.82763	115.3
August	5.74674	113.5
September	5.76093	114.0
October	5.75237	114.3
November	5.81220	115.1
December	5.79898	115.2

<sup>1</sup> Daily averages.

Table 4.

## Bank of Finland's base rate

Effective	%
1.11.1979	8.50
1.2.1980	9.25
1.6.1982	8.50
1.7.1983	9.50
1.2.1985	9.00
1.1.1986	8.50
1.3.1986	8.00
19.5.1986	7.00
16.5.1988	8.00
1.1.1989	7.50
1.11.1989	8.50
1.5.1992	9.50
1.1.1993	8.50
15.2.1993	7.50
17.5.1993	7.00
15.7.1993	6.50
16.8.1993	6.00
1.12.1993	5.50
1.2.1994	5.25
1.11.1995	5.00
15.12.1995	4.75
1.2.1996	4.50
16.9.1996	4.00

Table 5.

Bank of Finland's minimum reserve system<sup>1</sup>

	Reserve requirement, %			Required reserves, mill. FIM	Excess reserves, mill. FIM	Total reserves, mill. FIM
	On deposits payable on demand	On other deposits	On other items			
1993 <sup>2</sup>	2.0	1.5	1.0	6 398	.	.
1994	2.0	1.5	1.0	6 526	.	.
1995 I-IX	2.0	1.5	1.0	6 557	.	.
1995 X-XII	2.0	1.5	1.0	6 530	616	7 146
1996	2.0	1.5	1.0	6 652	440	7 092
<b>1996</b>						
January	2.0	1.5	1.0	6 541	217	6 758
February	2.0	1.5	1.0	6 681	251	6 932
March	2.0	1.5	1.0	6 699	240	6 939
April	2.0	1.5	1.0	6 672	148	6 821
May	2.0	1.5	1.0	6 624	105	6 730
June	2.0	1.5	1.0	6 689	481	7 171
July	2.0	1.5	1.0	6 728	139	6 868
August	2.0	1.5	1.0	6 672	308	6 981
September	2.0	1.5	1.0	6 636	1 634	8 270
October	2.0	1.5	1.0	6 703	631	7 334
November	2.0	1.5	1.0	6 596	136	6 732
December	2.0	1.5	1.0	6 578	992	7 570

<sup>1</sup> Daily average as from 2 October 1995.<sup>2</sup> As from 1 July.

Table 6.

Bank of Finland's standing facilities<sup>1</sup>

	Bank of Finland's tender rate		Liquidity credit: interest rate margin, %-points	Liquidity credit: maturity, days	Call money deposits: interest rate margin, %-points	Excess reserve rate	Liquidity credits, mill. FIM
1992 <sup>2</sup>	13.85	1992	1.00	7	-3.00	.	404
1993	7.87	1993	2.00	7	-2.00	.	440
1994	5.11	1994	2.00	7	-2.00	.	14
1995	5.63	1995 I-IX	2.00	7	-2.00	.	123
		1995 X-XII	2.00	7	.	2.25	37
1996	3.57	1996	2.00	7	.	1.00	121
<b>1996</b>		<b>1996</b>					
January	4.25	January	2.00	7	.	2.25	-
February	4.25	February	2.00	7	.	2.25	50
March	3.94	March	2.00	7	.	1.75	278
April	3.75	April	2.00	7	.	1.75	153
May	3.75	May	2.00	7	.	1.75	-
June	3.67	June	2.00	7	.	1.60	-
July	3.52	July	2.00	7	.	1.50	-
August	3.43	August	2.00	7	.	1.25	544
September	3.19	September	2.00	7	.	1.10	-
October	3.03	October	2.00	7	.	1.00	-
November	3.00	November	2.00	7	.	1.00	233
December	3.00	December	2.00	7	.	1.00	186

<sup>1</sup> The values for the tender rate and liquidity credit are arithmetic means of values for calendar days. The values for interest rate margin (against the tender rate), maturity and excess reserve rate are end-of-period values.<sup>2</sup> July-December 1992.

Table 7.

Domestic interest rates<sup>1</sup>, per cent

	HELIBOR						Long-term market rates		Yields on government bonds	
	1-month	2-month	3-month	6-month	9-month	12-month	3-year	5-year	5-year	10-year
1992	13.49	13.30	13.27	13.08	13.00	12.96	13.1	13.0	12.04	.
1993	7.85	7.77	7.73	7.59	7.51	7.47	8.5	8.9	8.19	8.79
1994	5.11	5.20	5.35	5.78	6.10	6.33	8.5	9.3	8.40	9.07
1995	5.63	5.69	5.76	5.97	6.17	6.34	8.2	8.9	7.93	8.79
1996	3.58	3.60	3.63	3.74	3.86	3.99	5.8	6.8	6.03	7.08
<b>1996</b>										
January	4.21	4.20	4.20	4.24	4.32	4.41	6.1	6.9	6.31	7.03
February	4.27	4.27	4.28	4.33	4.44	4.58	6.4	7.3	6.88	7.67
March	3.95	3.98	4.01	4.12	4.23	4.36	6.4	7.5	6.81	7.71
April	3.77	3.79	3.82	3.95	4.09	4.21	6.1	7.2	6.49	7.47
May	3.75	3.76	3.76	3.86	4.02	4.16	6.1	7.4	6.46	7.36
June	3.67	3.70	3.72	3.84	3.97	4.11	6.0	7.2	6.30	7.21
July	3.54	3.58	3.63	3.78	3.93	4.07	5.9	6.9	6.19	7.07
August	3.45	3.49	3.54	3.70	3.85	4.00	5.8	6.9	6.07	7.16
September	3.19	3.23	3.28	3.43	3.56	3.67	5.4	6.5	5.61	6.92
October	3.04	3.07	3.10	3.20	3.30	3.40	5.0	5.9	5.11	6.51
November	3.02	3.05	3.08	3.21	3.33	3.46	5.0	5.9	5.11	6.47
December	3.02	3.05	3.08	3.20	3.31	3.40	5.0	5.9	4.99	6.34

<sup>1</sup> Daily averages.

Table 8.

Bank of Finland's money market operations<sup>1</sup>, million FIM

	Purchases of money market instruments	Sales of money market instruments	Matured transactions, net	Money market operations, net
1992	76 230	-137 940	60 417	-1 293
1993	86 521	-146 899	50 486	-9 892
1994	35 540	-351 820	295 165	-21 115
1995	50 435	-434 810	393 930	9 555
1996	94 080	-250 980	190 562	33 662
<b>1996</b>				
January	3 250	-26 000	22 850	100
February	2 100	-27 420	24 080	-1 240
March	2 280	-24 350	21 300	-770
April	3 500	-16 320	26 040	13 220
May	10 500	-20 060	12 880	3 320
June	7 900	-14 020	2 390	-3 730
July	6 700	-16 450	13 510	3 760
August	14 800	-21 920	9 892	2 772
September	11 900	-24 650	15 530	2 780
October	10 600	-24 920	12 030	-2 290
November	7 900	-19 340	23 630	12 190
December	12 650	-15 530	6 430	3 550

+ increases liquidity in the money market.

- decreases liquidity in the money market.

<sup>1</sup> According to trade date.

Table 9.

Bank of Finland's spot transactions<sup>1</sup> in the foreign exchange market, million FIM

	Purchases of foreign exchange (+)	Sales of foreign exchange (-)	Spot transactions, net
1992	20 050	-70 640	-50 590
1993	25 120	-45 080	-19 960
1994	20 930	-12 900	8 030
1995	4 910	-5 470	-560
1996	7 360	-7 320	40
<b>1996</b>			
January	-	-3 970	-3 970
February	-	-1 330	-1 330
March	-	-440	-440
April	-	-1 100	-1 100
May	1 200	-	1 200
June	240	-	240
July	60	-	60
August	1 350	-	1 350
September	2 310	-	2 310
October	2 200	-	2 200
November	-	-480	-480
December	-	-	-

+ increases liquidity in the money market.

- decreases liquidity in the money market.

<sup>1</sup> According to trade date.

Table 10.

Bank of Finland's forward transactions<sup>1,2</sup> in the foreign exchange market, million FIM

	Forward sales of foreign exchange (+)	Matured forward sales	Forward purchases of foreign exchange (-)	Matured forward purchases	Forward transactions, net
1992	38 710	-35 650	-5 800	4 600	1 860
1993	18 590	-28 110	-11 660	15 190	-5 990
1994	2 990	-1 320	-11 800	1 320	-8 810
1995	-	-	-15 040	20 040	5 360
1996	-	-	-	-	-
<b>1996</b>					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	-	-	-	-	-
June	-	-	-	-	-
July	-	-	-	-	-
August	-	-	-	-	-
September	-	-	-	-	-
October	-	-	-	-	-
November	-	-	-	-	-
December	-	-	-	-	-

+ increases liquidity in the money market.

- decreases liquidity in the money market.

<sup>1</sup> According to trade date.<sup>2</sup> Incl. outright deals, which do not have an immediate impact on liquidity.

Table 11.

## Foreign exchange rates: annual middle spot rates, 1991–1996, FIM

Currency	1991			1992			1993		
	Max.	Av.	Min.	Max.	Av.	Min.	Max.	Av.	Min.
1 USD, New York	4.555	4.046	3.539	5.275	4.483	3.840	6.061	5.719	5.294
1 CAD, Montreal	4.030	3.534	3.059	4.171	3.706	3.210	4.865	4.434	4.163
1 GBP, London	8.073	7.131	6.863	9.023	7.875	7.572	8.963	8.582	8.039
1 IEP, Dublin	7.456	6.511	6.214	8.733	7.636	7.201	9.101	8.371	7.996
1 SEK, Stockholm	0.7623	0.6684	0.6430	0.8845	0.7714	0.7369	0.8106	0.7350	0.6826
1 NOK, Oslo	0.7107	0.6236	0.5966	0.8170	0.7222	0.6888	0.8585	0.8059	0.7648
1 DKK, Copenhagen	0.7182	0.6322	0.6074	0.8580	0.7444	0.6968	0.9527	0.8822	0.8296
1 ISK, Reykjavik	0.0778	0.0684	0.0652	0.0873	0.0778	0.0725	0.0924	0.0846	0.0788
1 DEM, Frankfurt	2.7905	2.4380	2.3237	3.3097	2.8769	2.7122	3.6450	3.4584	3.2704
1 NLG, Amsterdam	2.4766	2.1634	2.0620	2.9440	2.5552	2.4079	3.2395	3.0787	2.9102
1 BEF, Brussels	0.1354	0.1184	0.1129	0.1608	0.1397	0.1310	0.1767	0.1655	0.1580
1 CHF, Zurich	3.1458	2.8208	2.7407	3.6828	3.2000	2.9228	4.1700	3.8706	3.6253
1 FRF, Paris	0.8162	0.7169	0.6863	0.9682	0.8486	0.7947	1.0756	1.0096	0.9581
1 ITL, Rome	0.00370	0.00326	0.00314	0.00423	0.00364	0.00332	0.00394	0.00364	0.00337
1 ATS, Vienna	0.3964	0.3464	0.3301	0.4704	0.4088	0.3854	0.5182	0.4916	0.4653
1 PTE, Lisbon	0.0321	0.0280	0.0266	0.0370	0.0332	0.0309	0.0402	0.0356	0.0326
1 ESP, Madrid	0.0443	0.0389	0.0376	0.0498	0.0438	0.0424	0.0512	0.0451	0.0405
1 GRD, Athens	0.0250 <sup>1</sup>	0.0224 <sup>1</sup>	0.0220 <sup>1</sup>	0.0260	0.0235	0.0220	0.0270	0.0250	0.0230
1 EEK, Tallinn	.	.	.	.	.	.	0.4556	0.4323	0.4088
1 JPY, Tokyo	0.03508	0.03008	0.02677	0.04234	0.03546	0.03098	0.05827	0.05168	0.04263
1 AUD, Melbourne	3.580	3.152	2.758	3.632	3.289	2.757	4.306	3.885	3.569
1 special drawing right (SDR)	6.29360	5.52733	5.13880	7.25239	6.31546	5.70934	8.33894	7.98671	7.31083
1 XEU (ECU, official)	5.69975	4.99941	4.78708	6.55826	5.80527	5.52941	7.09113	6.69567	6.39406
1 XEU (ECU, commercial)	5.698	5.003	4.777	6.553	5.798	5.526	7.101	6.685	6.380

<sup>1</sup> For seven months.

Currency	1994			1995			1996		
	Max.	Av.	Min.	Max.	Av.	Min.	Max.	Av.	Min.
1 USD, New York	5.7999	5.2184	4.5345	4.8071	4.3658	4.1839	4.8487	4.5905	4.3311
1 CAD, Montreal	4.412	3.824	3.351	3.424	3.181	3.029	3.559	3.367	3.181
1 GBP, London	8.596	7.982	7.363	7.556	6.891	6.515	7.869	7.164	6.711
1 IEP, Dublin	8.284	7.799	7.238	7.476	6.999	6.728	7.788	7.345	6.932
1 SEK, Stockholm	0.7076	0.6758	0.6339	0.6576	0.6123	0.5713	0.7154	0.6847	0.6483
1 NOK, Oslo	0.7744	0.7393	0.6900	0.7148	0.6889	0.6714	0.7377	0.7111	0.6833
1 DKK, Copenhagen	0.8590	0.8207	0.7705	0.7942	0.7790	0.7608	0.8218	0.7921	0.7762
1 ISK, Reykjavik	0.0797	0.0745	0.0682	0.0708	0.0674	0.0648	0.0723	0.0689	0.0664
1 DEM, Frankfurt	3.3625	3.2169	3.0115	3.1595	3.0471	2.9465	3.1685	3.0530	2.9820
1 NLG, Amsterdam	3.0028	2.8684	2.6862	2.8201	2.7202	2.6334	2.8313	2.7247	2.6569
1 BEF, Brussels	0.1635	0.1561	0.1463	0.1533	0.1481	0.1435	0.1542	0.1484	0.1447
1 CHF, Zurich	4.0067	3.8179	3.5755	3.8405	3.6941	3.5426	3.9216	3.7211	3.4382
1 FRF, Paris	0.9853	0.9406	0.8749	0.9044	0.8748	0.8562	0.9383	0.8978	0.8777
1 ITL, Rome	0.00345	0.00324	0.00290	0.00296	0.00268	0.00247	0.00311	0.00298	0.00276
1 ATS, Vienna	0.4779	0.4573	0.4275	0.4490	0.4331	0.4189	0.4506	0.4340	0.4238
1 PTE, Lisbon	0.0328	0.0314	0.0294	0.0303	0.0291	0.0284	0.0310	0.0298	0.0290
1 ESP, Madrid	0.0408	0.0390	0.0357	0.0361	0.0350	0.0336	0.0382	0.0363	0.0353
1 GRD, Athens	0.0230	0.0215	0.0195	0.0201	0.0189	0.0180	0.0199	0.0191	0.0180
1 EEK, Tallinn	0.4203	0.4021	0.3764	0.3949	0.3809	0.3683	0.3961	0.3816	0.3728
1 JPY, Tokyo	0.05436	0.05106	0.04672	0.05222	0.04663	0.04106	0.04635	0.04225	0.03961
1 AUD, Melbourne	4.102	3.814	3.330	3.683	3.238	3.022	3.843	3.593	3.224
1 special drawing right (SDR)	7.93658	7.46629	6.77181	6.99188	6.61879	6.27940	7.01119	6.66357	6.41782
1 XEU (ECU, official)	6.48523	6.19123	5.76407	5.94442	5.70826	5.56099	6.05011	5.82852	5.68470
1 XEU (ECU, commercial)	6.475	6.175	5.729	5.919	5.644	5.457	5.961	5.751	5.543

Table 12.

## Foreign exchange rates: monthly middle spot rates in 1996, FIM

Currency	January			February			March		
	Max.	Av.	Min.	Max.	Av.	Min.	Max.	Av.	Min.
1 USD, New York	4.5815	4.4425	4.3311	4.6239	4.5520	4.4972	4.6544	4.6019	4.5531
1 CAD, Montreal	3.326	3.251	3.181	3.369	3.309	3.265	3.414	3.370	3.320
1 GBP, London	6.905	6.797	6.711	7.084	6.991	6.900	7.085	7.026	6.957
1 IEP, Dublin	7.161	7.032	6.932	7.289	7.200	7.131	7.296	7.234	7.163
1 SEK, Stockholm	0.6697	0.6608	0.6502	0.6741	0.6611	0.6483	0.6970	0.6836	0.6695
1 NOK, Oslo	0.7033	0.6923	0.6833	0.7184	0.7107	0.6993	0.7226	0.7158	0.7084
1 DKK, Copenhagen	0.7964	0.7859	0.7781	0.8111	0.8026	0.7901	0.8130	0.8062	0.7978
1 ISK, Reykjavik	0.0687	0.0673	0.0664	0.0694	0.0687	0.0679	0.0701	0.0694	0.0685
1 DEM, Frankfurt	3.0800	3.0398	3.0100	3.1395	3.1048	3.0565	3.1385	3.1140	3.0825
1 NLG, Amsterdam	2.7506	2.7145	2.6888	2.8046	2.7725	2.7295	2.8047	2.7818	2.7529
1 BEF, Brussels	0.1498	0.1479	0.1465	0.1527	0.1510	0.1487	0.1527	0.1515	0.1499
1 CHF, Zurich	3.8247	3.7670	3.7333	3.8589	3.8076	3.7465	3.8921	3.8459	3.7770
1 FRF, Paris	0.8966	0.8878	0.8809	0.9135	0.9028	0.8910	0.9201	0.9095	0.8994
1 ITL, Rome	0.00286	0.00281	0.00276	0.00294	0.00289	0.00287	0.00296	0.00294	0.00292
1 ATS, Vienna	0.4381	0.4323	0.4279	0.4463	0.4414	0.4347	0.4463	0.4427	0.4378
1 PTE, Lisbon	0.0297	0.0293	0.0290	0.0302	0.0299	0.0295	0.0304	0.0301	0.0297
1 ESP, Madrid	0.0364	0.0361	0.0357	0.0373	0.0368	0.0363	0.0373	0.0370	0.0365
1 GRD, Athens	0.0186	0.0185	0.0180	0.0190	0.0188	0.0185	0.0192	0.0190	0.0188
1 EEK, Tallinn	0.3850	0.3800	0.3762	0.3924	0.3881	0.3821	0.3923	0.3892	0.3853
1 JPY, Tokyo	0.04290	0.04206	0.04116	0.04339	0.04305	0.04256	0.04376	0.04346	0.04306
1 AUD, Melbourne	3.394	3.293	3.224	3.494	3.439	3.385	3.639	3.549	3.467
1 special drawing right (SDR)	6.66233	6.51994	6.41782	6.75399	6.67427	6.62132	6.78602	6.72716	6.66640
1 XEU (ECU, official)	5.81272	5.73809	5.68470	5.93389	5.86385	5.78218	5.94300	5.89568	5.83601
1 XEU (ECU, commercial)	5.647	5.609	5.543	5.778	5.704	5.617	5.820	5.772	5.706

Currency	April			May			June		
	Max.	Av.	Min.	Max.	Av.	Min.	Max.	Av.	Min.
1 USD, New York	4.8487	4.7313	4.6271	4.8335	4.7568	4.7016	4.7138	4.6713	4.6277
1 CAD, Montreal	3.558	3.482	3.412	3.559	3.475	3.427	3.454	3.420	3.380
1 GBP, London	7.308	7.169	7.059	7.284	7.207	7.125	7.280	7.204	7.145
1 IEP, Dublin	7.549	7.402	7.274	7.517	7.437	7.353	7.455	7.398	7.346
1 SEK, Stockholm	0.7154	0.7040	0.6934	0.7079	0.6996	0.6940	0.7028	0.6991	0.6957
1 NOK, Oslo	0.7377	0.7285	0.7206	0.7338	0.7233	0.7145	0.7205	0.7153	0.7112
1 DKK, Copenhagen	0.8218	0.8147	0.8089	0.8179	0.8038	0.7940	0.7980	0.7933	0.7882
1 ISK, Reykjavik	0.0723	0.0709	0.0698	0.0720	0.0706	0.0697	0.0701	0.0695	0.0689
1 DEM, Frankfurt	3.1685	3.1434	3.1215	3.1555	3.1028	3.0655	3.0815	3.0590	3.0365
1 NLG, Amsterdam	2.8313	2.8109	2.7931	2.8253	2.7755	2.7441	2.7530	2.7310	2.7092
1 BEF, Brussels	0.1542	0.1530	0.1520	0.1535	0.1509	0.1491	0.1499	0.1487	0.1476
1 CHF, Zurich	3.9216	3.8805	3.8428	3.8735	3.7924	3.7321	3.7639	3.7172	3.6825
1 FRF, Paris	0.9383	0.9262	0.9162	0.9331	0.9170	0.9051	0.9100	0.9026	0.8965
1 ITL, Rome	0.00311	0.00302	0.00295	0.00309	0.00306	0.00302	0.00304	0.00303	0.00302
1 ATS, Vienna	0.4506	0.4470	0.4439	0.4487	0.4412	0.4360	0.4382	0.4348	0.4315
1 PTE, Lisbon	0.0310	0.0306	0.0303	0.0307	0.0302	0.0298	0.0299	0.0297	0.0295
1 ESP, Madrid	0.0382	0.0377	0.0372	0.0379	0.0372	0.0367	0.0366	0.0363	0.0361
1 GRD, Athens	0.0199	0.0195	0.0192	0.0198	0.0196	0.0194	0.0195	0.0193	0.0192
1 EEK, Tallinn	0.3961	0.3929	0.3902	0.3944	0.3878	0.3832	0.3852	0.3824	0.3796
1 JPY, Tokyo	0.04635	0.04411	0.04297	0.04603	0.04474	0.04369	0.04358	0.04292	0.04226
1 AUD, Melbourne	3.833	3.719	3.615	3.843	3.790	3.725	3.762	3.698	3.648
1 special drawing right (SDR)	7.01119	6.86087	6.74876	6.98784	6.87179	6.77519	6.78595	6.74035	6.69040
1 XEU (ECU, official)	6.05011	5.98143	5.92254	6.02394	5.93160	5.86194	5.89777	5.85380	5.81628
1 XEU (ECU, commercial)	5.961	5.882	5.808	5.927	5.844	5.767	5.817	5.787	5.750

Table 12. (cont.)

Currency	July			August			September		
	Max.	Av.	Min.	Max.	Av.	Min.	Max.	Av.	Min.
1 USD, New York	4.6829	4.5888	4.4822	4.5205	4.4777	4.4372	4.5895	4.5383	4.4950
1 CAD, Montreal	3.441	3.352	3.259	3.299	3.263	3.238	3.353	3.313	3.279
1 GBP, London	7.291	7.128	6.978	7.016	6.941	6.882	7.141	7.075	7.032
1 IEP, Dublin	7.469	7.354	7.233	7.285	7.215	7.151	7.362	7.309	7.259
1 SEK, Stockholm	0.7007	0.6909	0.6800	0.6832	0.6765	0.6671	0.6896	0.6834	0.6770
1 NOK, Oslo	0.7186	0.7113	0.7049	0.7055	0.6986	0.6945	0.7066	0.7029	0.7001
1 DKK, Copenhagen	0.7953	0.7910	0.7868	0.7885	0.7816	0.7762	0.7860	0.7826	0.7779
1 ISK, Reykjavik	0.0697	0.0687	0.0676	0.0682	0.0676	0.0670	0.0685	0.0680	0.0675
1 DEM, Frankfurt	3.0645	3.0495	3.0355	3.0455	3.0210	3.0015	3.0345	3.0145	2.9915
1 NLG, Amsterdam	2.7320	2.7171	2.7028	2.7146	2.6932	2.6750	2.7069	2.6889	2.6682
1 BEF, Brussels	0.1488	0.1480	0.1472	0.1478	0.1466	0.1457	0.1473	0.1464	0.1453
1 CHF, Zurich	3.7734	3.7178	3.6913	3.7652	3.7227	3.6921	3.7332	3.6860	3.6368
1 FRF, Paris	0.9063	0.9006	0.8948	0.8971	0.8848	0.8777	0.8878	0.8854	0.8791
1 ITL, Rome	0.00305	0.00301	0.00294	0.00298	0.00295	0.00293	0.00301	0.00299	0.00297
1 ATS, Vienna	0.4353	0.4334	0.4315	0.4329	0.4293	0.4264	0.4311	0.4284	0.4251
1 PTE, Lisbon	0.0298	0.0297	0.0295	0.0296	0.0294	0.0292	0.0296	0.0295	0.0294
1 ESP, Madrid	0.0364	0.0361	0.0357	0.0359	0.0356	0.0353	0.0360	0.0358	0.0356
1 GRD, Athens	0.0195	0.0193	0.0190	0.0191	0.0189	0.0188	0.0190	0.0190	0.0188
1 EEK, Tallinn	0.3831	0.3812	0.3794	0.3807	0.3776	0.3752	0.3793	0.3768	0.3739
1 JPY, Tokyo	0.04242	0.04200	0.04124	0.04212	0.04153	0.04116	0.04160	0.04132	0.04102
1 AUD, Melbourne	3.721	3.622	3.464	3.569	3.506	3.451	3.658	3.598	3.554
1 special drawing right (SDR)	6.74651	6.65070	6.53993	6.57864	6.52988	6.48075	6.62802	6.57191	6.54716
1 XEU (ECU, official)	5.87548	5.82763	5.77765	5.79574	5.74674	5.71115	5.78449	5.76093	5.72721
1 XEU (ECU, commercial)	5.813	5.762	5.704	5.730	5.683	5.645	5.735	5.714	5.677

Currency	October			November			December		
	Max.	Av.	Min.	Max.	Av.	Min.	Max.	Av.	Min.
1 USD, New York	4.6138	4.5714	4.5248	4.6070	4.5500	4.5155	4.6732	4.6398	4.6137
1 CAD, Montreal	3.419	3.383	3.346	3.435	3.400	3.372	3.459	3.409	3.375
1 GBP, London	7.369	7.245	7.125	7.742	7.571	7.433	7.869	7.726	7.627
1 IEP, Dublin	7.427	7.352	7.288	7.748	7.576	7.433	7.788	7.709	7.655
1 SEK, Stockholm	0.6962	0.6925	0.6875	0.6909	0.6869	0.6826	0.6886	0.6799	0.6748
1 NOK, Oslo	0.7099	0.7049	0.7013	0.7197	0.7162	0.7117	0.7209	0.7173	0.7137
1 DKK, Copenhagen	0.7841	0.7803	0.7778	0.7866	0.7839	0.7800	0.7823	0.7809	0.7796
1 ISK, Reykjavik	0.0685	0.0681	0.0678	0.0693	0.0687	0.0682	0.0700	0.0692	0.0687
1 DEM, Frankfurt	3.0065	2.9918	2.9830	3.0230	3.0106	2.9960	2.9955	2.9883	2.9820
1 NLG, Amsterdam	2.6801	2.6669	2.6586	2.6959	2.6843	2.6725	2.6702	2.6635	2.6569
1 BEF, Brussels	0.1459	0.1452	0.1448	0.1468	0.1461	0.1455	0.1453	0.1450	0.1447
1 CHF, Zurich	3.6538	3.6337	3.6011	3.5994	3.5703	3.5438	3.5336	3.4927	3.4382
1 FRF, Paris	0.8893	0.8846	0.8813	0.8937	0.8898	0.8835	0.8865	0.8845	0.8827
1 ITL, Rome	0.00301	0.00300	0.00298	0.00304	0.00301	0.00298	0.00305	0.00304	0.00303
1 ATS, Vienna	0.4273	0.4253	0.4238	0.4296	0.4279	0.4259	0.4258	0.4247	0.4238
1 PTE, Lisbon	0.0298	0.0296	0.0294	0.0299	0.0298	0.0296	0.0297	0.0296	0.0295
1 ESP, Madrid	0.0357	0.0355	0.0355	0.0359	0.0358	0.0356	0.0356	0.0355	0.0354
1 GRD, Athens	0.0192	0.0191	0.0189	0.0191	0.0191	0.0190	0.0191	0.0189	0.0188
1 EEK, Tallinn	0.3758	0.3740	0.3729	0.3779	0.3763	0.3745	0.3744	0.3735	0.3728
1 JPY, Tokyo	0.04108	0.04071	0.03961	0.04078	0.04052	0.03987	0.04140	0.04075	0.03999
1 AUD, Melbourne	3.680	3.620	3.580	3.729	3.625	3.563	3.782	3.702	3.662
1 special drawing right (SDR)	6.62523	6.58126	6.54241	6.66747	6.60942	6.56843	6.70585	6.67218	6.64958
1 XEU (ECU, official)	5.77624	5.75237	5.73048	5.83021	5.81220	5.77694	5.81411	5.79898	5.78777
1 XEU (ECU, commercial)	5.761	5.731	5.695	5.807	5.782	5.750	5.790	5.767	5.741

Table 13.

## Deliveries of notes and coin, million FIM

	1992	1993	1994	1995	1996
<b>Notes delivered by Setec Oy</b>					
1000 markka	4 600.0	2 100.0	–	–	–
500 “	1 225.0	2 150.0	–	–	–
100 “	4 030.0	5 000.0	6 000.0	5 000.0	2 180.0
50 “	1 500.0	1 000.0	–	–	765.0
20 “	–	400.0	800.0	400.0	5.0
10 “	–	–	–	–	–
Total	11 355.0	10 650.0	6 800.0	5 400.0	2 950.0
in millions of notes	77.4	96.4	100.0	70.0	37.4
<b>Notes destroyed, in millions of notes</b>	156.2	116.1	93.8	57.7	42.1
<b>Coins delivered by the Mint of Finland</b>					
Ordinary coins					
10 markka	–	300.0	199.8	45.1	9.3
5 “	6.7	234.7	95.0	45.1	5.9
1 “	5.0	92.6	152.0	40.0	15.0
50 penni	25.0	9.9	1.5	0.5	8.5
10 “	15.0	12.0	6.0	8.5	10.5
Commemorative coins					
2000 markka	–	–	–	13.8	–
1000 “	35.0	–	–	–	–
100 “	30.0	–	9.1	8.6	3.3
10 “	–	–	–	0.0	0.0
Total	116.8	649.2	463.4	161.6	52.5
<b>Coins destroyed, in millions of coins</b>					
Ordinary coins	141.4	221.6	289.4	91.5	27.3
Commemorative coins	0.0	0.1	0.0	0.0	0.0

Table 14.

## Notes and coin in circulation, at end-year, million FIM

	1992	1993	1994	1995	1996
<b>Notes</b>					
1000 markka	3 375.8	4 053.0	3 829.2	4 440.1	5 153.3
500 "	2 547.2	2 593.0	2 286.6	2 505.0	2 562.0
100 "	5 806.7	5 489.7	5 195.7	5 540.6	6 007.8
50 "	867.0	721.3	647.1	692.5	654.2
20 "	—	283.8	364.2	396.2	413.4
10 "	583.2	272.6	58.7	50.1	45.4
5 "	20.8	20.5	.	.	.
1 "	8.0	8.2	.	.	.
Total	13 208.7	13 442.1	12 381.5	13 624.5	14 836.1
Ceased to be legal tender on 1 January 1994	(9.4) <sup>1</sup>	(9.4) <sup>1</sup>	303.0	252.8	249.5
<b>Coins</b>					
Ordinary coins					
10 markka	—	208.2	325.7	365.2	392.4
5 "	384.9	433.9	416.2	428.6	435.5
1 "	384.6	387.0	371.3	390.4	413.6
50 penni	117.6	113.6	79.9	85.9	91.5
20 "	36.4	30.7	.	.	.
10 "	90.8	96.3	85.6	96.3	105.5
5 "	20.5	19.2	.	.	.
1 "	7.6	7.5	.	.	.
Total	1 042.4	1 296.4	1 278.7	1 366.4	1 438.5
Commemorative coins					
2000 markka	—	—	—	13.8	13.8
1000 "	35.0	35.0	35.0	35.0	35.0
100 "	92.6	90.4	98.1	104.0	106.0
50 "	71.1	71.8	71.3	70.7	70.4
25 "	19.8	19.8	19.7	19.7	19.6
10 "	38.3	38.2	38.2	38.1	38.1
Total	256.8	255.2	262.3	281.3	282.9
Total coins	1 299.3	1 551.6	1 541.0	1 647.7	1 721.4
Ceased to be legal tender on 1 January 1994	(15.7) <sup>2</sup>	(15.7) <sup>2</sup>	114.2	111.1	109.0

<sup>1</sup> Notes issued before 1963.<sup>2</sup> Coins issued before 1963.

Table 15.

## Notes sorted at the Bank of Finland, in millions

	1992	1993	1994	1995	1996
1000 markka	4.2	5.6	6.0	4.9	4.6
500 "	9.4	11.1	10.9	10.5	9.4
100 "	255.1	296.3	317.5	396.0	454.8
50 "	62.0	64.8	47.9	68.6	67.1
20 "	–	0.6	15.8	73.0	48.3
10 "	142.0	116.5	48.8	1.0	–
Total	472.7	494.9	446.9	554.0	584.2

Table 16.

## Bank of Finland interbank funds transfer system

	Account holders, number	Transactions					
		Between banks, number, thousands	Value, bill. FIM	Between Bank of Finland and banks, number, thousands	Value, bill. FIM	Total number, thousands	Total value, bill. FIM
1992	21	81.1	5 466.0	70.8	883.9	151.9	6 349.8
1993	19	66.4	5 941.7	48.8	712.1	115.2	6 653.8
1994	19	62.8	5 880.6	42.5	476.2	105.3	6 356.8
1995	18	69.4	8 087.0	40.6	420.4	110.0	8 507.4
1996	17	62.9	7 380.9	36.0	588.7	98.9	7 969.6
<b>1996</b>							
January	18	6.2	876.1	3.4	55.6	9.6	931.7
February	18	5.1	635.5	3.0	55.1	8.1	690.6
March	18	4.6	526.8	2.9	39.5	7.5	566.3
April	18	4.5	502.3	2.8	43.5	7.3	545.8
May	17	5.4	559.1	2.9	70.7	8.3	629.8
June	17	5.3	505.6	2.7	37.5	8.0	543.1
July	17	5.6	599.4	3.3	42.8	8.9	642.2
August	17	5.4	643.7	3.1	38.4	8.5	682.1
September	17	5.5	588.8	3.0	59.8	8.5	648.6
October	17	6.1	692.4	3.5	53.4	9.6	745.8
November	17	4.9	648.2	3.0	42.6	7.9	690.8
December	17	4.3	603.0	2.4	49.8	6.7	652.8

Table 17.

## Banks' intraday credit limits

End of period	Total limits, mill. FIM	Collateralized part of limits, mill. FIM <sup>1</sup>	Average usage rate of limits <sup>2</sup> , %
1993	13 325	3 551	8.8
1994	13 961	4 135	9.6
1995	12 357	7 013	11.4
1996	11 547	11 547	10.1
<b>1996</b>			
January	12 192	12 192	10.3
February	11 136	11 136	8.2
March	11 065	11 065	10.2
April	10 973	10 973	9.4
May	10 828	10 828	11.2
June	11 169	11 169	6.4
July	11 157	11 157	9.7
August	11 036	11 036	12.3
September	11 037	11 037	9.3
October	11 043	11 043	9.6
November	11 057	11 057	13.6
December	11 547	11 547	10.7

<sup>1</sup> Limits fully collateralized from 1 January 1996.

<sup>2</sup> Average for the period. The usage rate of limits is calculated on the basis of current account balances at hourly intervals in the period from March to August 1993 (trial stage) and at one-minute intervals from September 1993. The rate is calculated on the basis of debt balances only.

Table 18.

## Domestic clearing operations

	Debit entries		Credit entries		Total entries	
	Number, millions	Value, bill. FIM	Number, millions	Value, bill. FIM	Number, millions	Value, bill. FIM
1992	200.8	949.7	152.1	610.1	352.9	1 559.9
1993	206.5	1 021.6	150.3	650.6	356.8	1 672.2
1994	222.6	1 063.4	151.4	802.0	374.0	1 865.4
1995	199.6	1 160.6	156.2	812.0	355.8	1 972.6
1996	128.0	897.4	139.2	1 446.1	267.2	2 343.5
<b>1996</b>						
January	13.0	121.3	14.6	78.3	27.6	199.6
February	10.2	92.0	12.7	78.8	22.9	170.8
March	9.1	79.8	11.0	103.5	20.1	183.3
April	11.0	79.9	10.4	130.1	21.4	210.0
May	10.4	70.5	11.6	131.3	22.0	201.8
June	9.7	66.0	10.8	120.0	20.5	186.0
July	11.7	66.6	11.0	129.2	22.7	195.8
August	10.1	65.4	10.5	127.5	20.6	192.9
September	10.1	63.7	11.1	114.2	21.2	177.9
October	10.5	68.0	12.4	128.3	22.9	196.3
November	9.8	58.4	11.1	140.5	20.9	198.9
December	12.4	65.8	12.0	164.4	24.4	230.2

# Bank of Finland publications in 1996

<b>Markka &amp; talous</b>	Quarterly bulletin in Finnish.
<b>Bank of Finland Bulletin</b>	11 monthly issues (double issue for June–July) and a special issue dealing with the Finnish financial markets.
<b>Bank of Finland Year Book</b>	Available separately in Finnish, Swedish and English.
<b>Economic Studies</b>	
Series A, studies intended for the general public	A:95 JOUKO RAUTAVA (ed.) Russia's Financial Markets and the Banking Sector in Transition; various authors. A:96 PAAVO PEISA (ed.) Euro – yhteinen raha (Euro – the single currency); various authors; in Finnish with English summaries. A:97 JUHANI HIRVONEN – MATTI VIRÉN Käteisrahan käyttö suomalaisissa yrityksissä (The use of cash in Finnish business firms); in Finnish with English summary. A:98 JARMO KARILUOTO Finland's Balance of Payments. Compilation methods, sources of information and the time series from 1975 to 1992. A:99 MARKKU MALKAMÄKI (ed.) Suomen rahoitusmarkkinat 1996, various authors (Financial markets in Finland).
Series E, doctoral theses and analytical studies	E:4 SINIMAARIA RANKI Realignment Expectations in the ERM: Causes and Measurement. E:5 JUHANA HUKKINEN Kilpailukyky, ulkomaankaupan rakenne ja taloudellinen kasvu. (Competitiveness, structure of foreign trade and economic growth); in Finnish with English summary E:6 EELIS HEIN Deposit Insurance: Pricing and Incentives.
<b>Discussion Papers</b>	31 research reports by various departments of the Bank of Finland appeared in the Bank of Finland Discussion Papers series.
<b>Review of Economies in Transition</b>	6 issues, prepared by the Unit for Eastern European Economies, appeared in the series.
<b>Reporting of information for the balance of payments statistics</b>	Instructions for deposit banks (separately in Finnish, Swedish and English). Instructions for enterprises (separately in Finnish, Swedish and English). Payment, currency and country codes (separately in Finnish, Swedish and English).
<b>Statistical publications</b>	Financial Markets; published monthly (trilingual edition in Finnish, Swedish and English). Finland's balance of payments – Statistical bulletin; published monthly (trilingual edition in Finnish, Swedish and English). Finland's balance of payments – Annual statistics; published annually (trilingual edition in Finnish, Swedish and English). Portfolio investment in Finland's balance of payments – Statistical bulletin; published quarterly (trilingual edition in Finnish, Swedish and English). Direct investment capital flows in Finland's balance of payments; published annually (trilingual edition in Finnish, Swedish and English). Direct investment in Finland's balance of payments; published semiannually (separately in Finnish, Swedish and English). Finnish Bond Issues; published annually (trilingual edition in Finnish, Swedish and English).
<b>Orders and subscriptions</b>	The Bank of Finland's Annual Report and research publications are available at bookshops. Publications required for official use and research purposes may be obtained directly from the Bank of Finland. The address is: Bank of Finland, Document Services/Address register, P.O.Box 160, 00101 Helsinki, phone (09) 1831, electronic mail: X.400: s=info; p=bofnet; a=mailnet; c=fi, Internet: info@bof.fi. The Bank of Finland Bulletin, Markka & talous, Discussion Papers, the Review of Economies in Transition, the statistical publications (most of the latter are subject to charge) and a list of the Bank of Finland's publications are also available at the same address.

# Management and organization of the Bank of Finland at end-1996

## Parliamentary Supervisory Council

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### Executive Committee

Ilkka Kanerva, Chairman

Johannes Koskinen, Vice Chairman

Olavi Ala-Nissilä

Kimmo Sasi

Tuulikki Hämäläinen

Mauri Pekkarinen

Virpa Puisto

Martti Korhonen

Anneli Jäätteenmäki

Secretary to the Parliamentary Supervisory Council

Anton Mäkelä

## Board

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Sirkka Hämäläinen, Chairman of the Board

Overall management and supervision of the activities of the Bank

Organization and Management Development

International Secretariat

Communications

Internal Audit Department

Management Secretarial Staff

Financial Supervision Authority, Chairman of the Board

Harri Holkeri, Member of the Board

Payment Instruments Department

Branches and Regional Offices

Administration Department

Accounting Department

Security

Unit for Eastern European Economies

Research Department

Esko Ollila, Member of the Board

Payments and Settlement Department

Financial Markets Department

Setec Oy

Matti Vanhala, Member of the Board

Economics Department

Market Operations Department

Monetary Policy Department

Matti Louekoski, Member of the Board

Personnel Department

Publication and Language Services

Information Services

Data Processing Department

Legal Affairs

Secretary to the Board

Heikki T. Hämäläinen

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Pentti Koivikko, Director

Reports to Harri Holkeri, Member of the Board

Administration Department

Payment Instruments Department, Branches and Regional Offices

Reports to Matti Louekoski, Member of the Board

Personnel Department

Basic staff administration services, terms and

conditions of employment, home loans and codetermination matters

Setec Oy, Chairman of the Board of Directors

The Financial Supervision Authority functions as an independent body in connection with the Bank of Finland; it has its own organization chart.

## Departments, Offices, Regional Offices, Branches

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<b>Accounting Department</b> Ossi Leppänen	<b>Accounts Office</b> Tuula Colliander		
<b>Administration Department</b> Urpo Levo	<b>Administrative Services Office</b> Anna Posti	<b>Technical Office</b> Harri Brandt	<b>Vantaa Real Estate Office</b> Taisto Lehtinen
<b>Information Technology Dept.</b> Pertti Simola	<b>Banking Services</b> Seija Lomma	<b>Data Centre</b> Kari Helander	<b>Monitoring Services</b> Matti Ahrenberg
	<b>Office and Internal Services</b> Juhani Rapeli	<b>Workstation and Telecommunications Services</b> Kari Sipilä	
<b>Economics Department</b> Antti Suvanto	<b>Forecasting Office</b> Martti Lehtonen	<b>Information Management</b> Ilkka Lyytikäinen	<b>Project Office</b> Vesa Vihriälä ad int.
<b>Financial Markets Department</b> Heikki Koskenkylä Ralf Pauli*	<b>Market Structures Office</b> Markku Malkamäki	<b>Payment Systems Office</b> Harry Leinonen	
<b>Information Services Department</b> Jorma Hilpinen ad int.	<b>Balance of Payments Office</b> Jarmo Nurminen	<b>Information Management</b> Jorma Hilpinen	<b>Library</b> Merja Alakulppi
<b>Internal Audit Department</b> Timo Männistö	<b>Head of Office</b> Anna-Maija Tikkanen		
<b>Market Operations Department</b> Markus Fogelholm	<b>Intervention Office</b> Olli-Pekka Lehmussaari	<b>Investment Office</b> Antti Koura ad int.	<b>Planning Office</b> Anneli Isopuro
<b>Monetary Policy Department</b> Pentti Pikkarainen	<b>Monitoring Office</b> Laura Vajanne	<b>Planning Office</b> Jarmo Kontulainen	
<b>Payments and Settlement Dept.</b> Raimo Hyvärinen	<b>Correspondent Banking Office</b> Jyrki Varstala	<b>Financial Services Office</b> Mauri Lehtinen	<b>Systems Office</b> Hannu Wiksten
<b>Payment Instruments Department</b> Antti Heinonen	<b>Bank Vault Manager</b> Kenneth Sainio	<b>Development Manager</b> Kyösti Norhomaa	<b>Systems Manager</b> Seppo Eriksson
<b>Regional Offices and Branches</b>	<b>Helsinki–Vantaa</b> Kari Lottanen	<b>Kuopio</b> Pekka Konttinen	<b>Oulu</b> Renne Kurth
	<b>Tampere</b> Martti Hagman	<b>Turku</b> Timo Tervakko	
<b>Personnel Department</b> Aura Laento Anton Mäkelä*	<b>Personnel Affairs Office</b> Sirpa Ahrenberg		
<b>Publication and Language Services</b> Antero Arimo	<b>Language Services</b> Carita Gabrán ad int.	<b>Publications Office</b> Antero Arimo **	
<b>Research Department</b> Juha Tarkka Kari Puumanen*			
<b>Unit for Eastern European Economies</b> Kari Pekonen Pekka Sutela*			

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### Special Units

<b>Communications</b> Antti Juusela	<b>International Secretariat</b> Kjell Peter Söderlund Peter Nyberg*	<b>Legal Affairs</b> Arno Lindgren	<b>Management Secretarial Staff</b> Heikki T. Hämäläinen	<b>Organization and Management Development</b> Esa Ojanen	<b>Security</b> Jyrki Ahvonen
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\*Adviser to the Board

\*\* In addition to own duties

# SETEC OY

## **Board**

Pentti Koivikko, Jorma Aranko,  
Mauri Jaakonaho, Matti Lehti

## **Managing Director**

Veli Tarvainen

## **Management Group**

Veli Tarvainen, Tom Ahlers,  
Pekka Kariola, Juhani Salovaara,  
Magnus Segercrantz, Tapio Yrjönen,  
Kristian Silfverberg (staff representative)

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