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The Governor's Review

The Finnish economy performed well in 1997, as growth continued at a robust pace and unemployment declined markedly. Inflation accelerated slightly but remained acceptable in terms of the target of about two per cent. The central government budget deficit was reduced substantially but was still large in light of present cyclical conditions. Despite a modest interest rate hike, monetary policy remained easy.

The rate of increase in consumer prices, which was only about 1 per cent in 1996, began to pick up in the course of 1997. Inflation pressures were reinforced by the disappearance of certain alleviating factors that had been present in 1996, vigorous economic growth and, in the first half of the year, a depreciation of the markka's external value as measured by the trade-weighted currency index. These pressures were especially evidenced by rises during the year in producer prices of goods aimed at domestic markets and in asset prices. At the end of the year, the twelve-month increase in consumer prices rose to almost 2 per cent. However, the increase in the Bank of Finland's monetary policy gauge, the indicator of underlying inflation, remained clearly below 2 per cent.

Aggregate output increased by over 5 per cent in 1997 due to a pickup in exports and domestic demand. The recovery of construction activity from a record long and

deep recession as well as a pickup in the services sector stemming from an increase in private consumption were reflected in an improvement in the employment situation. The reduction in the unemployment rate was however slowed by an increase in the labour supply.

The deficit of the general government sector, ie central and local governments and social security funds, declined and the EMU criteria for both the deficit and the debt were met. A reduction in the central government's budget deficit was achieved mainly by virtue of favourable economic conditions and, among other things, a sharp rise in revenue from taxes on corporate entities stemming from a number of exceptional factors. For the whole general government sector, the impact of discretionary fiscal policy measures was roughly neutral.

Enterprises' profitability remained good in 1997, and they continued to solidify their capital base and hence their resistance to cyclical fluctuations. Households' demand for new housing loans recovered markedly, but because many households simultaneously paid down their outstanding debts, the lending stock recorded only a modest increase. The economy's external indebtedness declined as the surplus on the current account increased on the prior year. Nonetheless, because of the rise in prices of Finnish shares

Inflation risks reduced inter alia by a lowering of expectations regarding growth and prices due to Asian crisis.

held by nonresidents, Finland's international investment position weakened, as in 1996.

Because of the favourable economic performance, conditions in the banking sector improved and the vigorous process of structural change among financial institutions continued inter alia in the form of various types of consolidation. Merita Bank and the Swedish Nordbanken were joined together as were Postipankki and Finnish Export Credit Ltd. The Finnish Central Securities Depository – formed in order to concentrate certain money and securities market functions – commenced operations at the start of the year, and stock market operations were centralized during the year. The financial system also experienced some decentralization in the splitting up of the cooperative banks into two groups.

The year 1997 saw a cautious turn of monetary policy in the direction of tightening. During the previous year the Bank of Finland had responded to an improved inflation outlook by lowering its tender rate to 3.0 per cent, matching the German Bundesbank's key policy rate. Because the growth rate of the Finnish economy had for several years been among the highest in Europe and the markka had depreciated markedly against the US dollar and pound sterling, inflation pressures and risks began to increase in the course of the year.

In June the Bank of Finland published a warning on the inflation risk and, because data that came in during the summer generally confirmed the view of a build-up in those factors that traditionally lead to rising prices, the Bank raised its tender rate by 25 basis points on 15 September. The rate hike, being expected by the markets, was taken in stride. In October the Bundesbank also raised its key policy rate, which in turn fomented expectations of another rate hike in Finland. During the autumn months short-term market interest rates generally rose by about 50 basis points. However, in the latter part of the year market interest rates and inflation ex-

pectations were curbed by a reduction in inflation risks that resulted from a moderate pay settlement and inter alia from a lowering of expectations regarding growth and prices due to the Asian crisis.

The foreign exchange markets remained calm throughout the year, except for a bout of turbulence in January. The disturbance began abroad, largely in connection with speculation on a strengthening of the Norwegian krone, and investors – mostly from outside Finland – also purchased large quantities of markkaa. In the course of a week, the Bank of Finland purchased foreign currency against the markka in the amount of some FIM 35 billion, after which the situation eased without any significant change in the markka's exchange rate. Although the purchases resulted in a substantial increase in the Bank of Finland's foreign reserve assets, this did not raise much concern because of the central government's scheduled sizable repayments on foreign loans. Toward year-end these repayments in fact reduced the stock of foreign reserve assets.

Throughout the year the markka remained among the strongest currencies in the EU's exchange rate mechanism (ERM) in terms of its central rate. As the year progressed, there was a firming of the markets' view that the current bilateral central rates of ERM currencies would be applied in the fixing of their euro rates. This resulted at yearend in a significant narrowing of the gap between the markka's market and central rates.

Preparations for the conduct of the single monetary policy in the EMU have been extensive and have tied up substantial resources, in the Bank of Finland and in the banking system as well as elsewhere in the economy and society.

From the standpoint of the country's payment systems, one of the key ongoing projects has been the preparation for joining the EU-wide real time gross settlement system, TARGET. The Bank of Finland adopted the full collateral requirement for all credits

that it grants to financial institutions, in line with EMU requirements. Preparations were also begun for the introduction of euro notes on 1 January 2002.

* * *

The Council, in the composition of the Heads of State or Government, is scheduled to meet in May 1998 to make decisions, in accord with the Maastricht Treaty, concerning the countries that will enter Stage Three of EMU at the start of 1999 and the start-up of the European Central Bank (ECB) on 1 July 1998. It is intended to decide on the bilateral conversion rates for effect on 1 January 1999 in connection with the selection of the countries. This will further reduce the leeway for national monetary policy manoeuvring during the transition phase. On 1 January 1999, when the Governing Council of the ECB begins to conduct the single monetary policy, there will be a changeover to a single monetary policy interest rate for the entire EMU area. National banknotes will continue to be used as means of exchange until the year 2002 and national-currency-denominated assets will be gradually redenominated in euro during the period 1 January 1999 – 1 January 2002.

One of the requirements of EMU has been that national legislation, particularly that pertaining to the central bank, be revised in line with EMU agreements. The new Act on the Bank of Finland, which entered into force at the start of 1998, fulfils the Maastricht Treaty requirements for Stage Two inter alia as regards central bank independence. However, additional legislative changes are needed for Stage Three that will enable the Bank of Finland to operate without prejudice to national legislation as a part of the European System of Central Banks. A legislative bill on these matters was introduced in Parliament in February 1998.

After the changeover to the single currency on 1 January 1999, monetary policy for the euro area will be decided by all the governors of EMU-country central banks, together with the Executive Board of the ECB. The day-to-day operations of monetary policy will be carried out by the member-country central banks, including the Bank of Finland, largely via current procedures and instruments. Member-country central banks will continue as national institutions playing a central role in respect to the functionality and stability of national payment and financial systems and will continue to maintain the national currency supplies.

Because the ECB Governing Council will operate in accord with the one-member-one-vote principle, in contrast to other EU decisionmaking bodies, the central banks in EMU countries will have a good opportunity to influence the single monetary policy. The Bank of Finland has taken this into account in setting a clear internal goal of becoming an active member of the European System of Central Banks on the basis of professionalism and its own areas of strength. It is important to emphasize that ECB monetary policy will be conducted in view of developments and needs across the entire euro area. Assuming Finland joins the EMU, one of the Bank of Finland's primary tasks will involve two-way flows between Finland and the ECB: analyses and information from Finland to the ECB for decisionmaking purposes and information on decisions and their rationale from the ECB to Finland.

Sirkka Hämäläinen

Monetary Policy

Conditions continued to be favourable in 1997 for the conduct of monetary policy. Overall economic developments were generally positive and confidence in monetary stability remained at a high level. Following a continuation of the slowly rising trend in consumer prices during the first half of the year, the rise in the price level began to accelerate in the second half. Inflation was dampened by a decline in domestic unit labour costs and, as interest rates fell, in companies' financing costs. However, there was also some upward pressure on inflation as a result of a strengthening of demand and an upward turn in import prices, partly due to exchange rate developments. As measured by the EU's harmonized CPI, the rate of increase in Finnish prices clearly picked up and by yearend was as high as the average for EU countries, ie 1.6 per cent.

EU countries recorded a notable acceleration of economic growth in 1997. Inflation also continued on a favourable path during the first half of the year. However, in the second half signs of a pickup in inflation began to appear, which induced a bit of monetary tightening in the member-countries of the EU's exchange rate mechanism (ERM). Although consolidation continued in the public sector, some countries experienced diffi-

culties in meeting the EMU convergence criteria, inter alia because of a rise in unemployment.

The economic problems experienced in some of the southeast Asian countries in late autumn and the consequent turmoil in their currency and money markets weakened those countries' economic outlook. This in turn has dampened economic growth to some extent in the United States and Europe but has at the same time modestly reduced inflation pressures around the world.

The year also saw a marked acceleration in the growth of total output in Finland. The growth in exports was particularly pronounced, but demand also picked up in construction and other parts of the sheltered sector of the economy.

The Finnish general government financial deficit and debt satisfied the EMU criteria. The central government deficit, though continuing to decline, is still quite large. The domestic money market was marked by high liquidity, and the central government was able to finance its deficit almost entirely from domestic sources.

It was possible to keep Finnish monetary policy easy throughout the year; key policy interest rates were among the lowest in the EU countries. However, in June the Bank

issued a warning concerning an increase in risks associated with an acceleration in inflation, and in September the Bank raised the tender rate by 25 basis points to 3.25 per cent. Following international trends, Finnish long-term market interest rates fell to a historically low level. For most of the year these were below 6 per cent and the differential vs the corresponding German rate was only 20–30 basis points.

Finland did not experience any serious problems in connection with its participation in the ERM. The markka's external value remained steady within the ERM, abetted by vigorous economic growth, the associated improvement in central government finances and fairly stable inflation. In the course of the year the markka remained slightly on the strong side of its DEM central rate. Finland's robust economic performance relative to other countries resulted in brief spells of upward pressure on the markka in the early part of the year and during the summer. Attainment of the basic aim of monetary policy, ie low inflation, was instrumental in achieving a high degree of success also in regard to exchange rate stability.

Enterprises and households continued to improve their financial condition, which had a slight damping effect on the growth in domestic demand. A rise in the prices of Finnish shares held by foreigners weakened the country's international investment position despite another large surplus on the current account. Growth in the stock of banks' markka-denominated lending continued at a sluggish rate. The volume of bank deposits increased slightly while the money stock followed a more normal path, ie more attuned than before to overall economic performance. Flows of funds from one type of bank account to another were large due mainly to the expiration of certain fixed-term accounts.

Inflation pressures increased

Consumer prices continued on a moderate uptrend during the first half of 1997. However, the second half of the year saw a clear build-up of inflation pressures as economic activity surged and the amount of unused production resources diminished. Moreover, markka-valued import prices rose because of a depreciation of the markka, in terms of the trade-weighted currency index. The mounting of inflation pressures during the year was most visible in rising producer prices of products aimed at domestic markets, in the continued rapid rise in asset prices, and in a buildup of consumers' inflation expectations. The Bank warned in June that the risks inherent in the inflation outlook had grown and that inflation was forecasted to accelerate during the latter part of 1997 and early part of 1998. After the tender rate hike in September, inflation pressures abated somewhat, but toward the end of the year the rate of increase in consumer prices was clearly higher than in the earlier part of the year. The indicator of underlying inflation, which excludes indirect taxes and capital costs of owner-occupied housing, rose by less than the CPI (Chart 1).

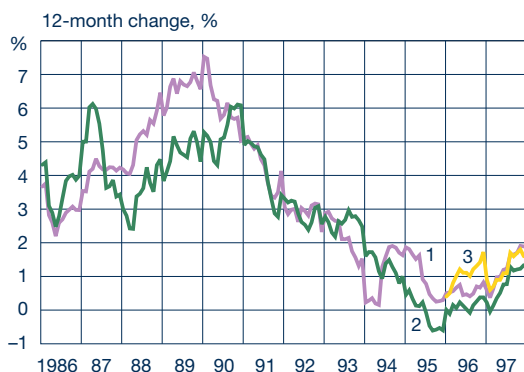
Inflation pressures from abroad were modest. Excluding energy prices, the trend in dollar-valued prices of commodities turned modestly upward in the early part of the year but levelled off as the year progressed. World prices of crude oil fell sharply in the early part of the year due to increased supplies linked to Iraqi exports of oil and production hikes in non-OPEC countries. Toward the end of the year the price of oil again resumed its downward trend.

Differences in rates of consumer price inflation across the EU area narrowed sharply in the early part of the year as the overall average rate of price advances declined. After

It was possible to keep monetary policy easy throughout the year.

Chart 1.

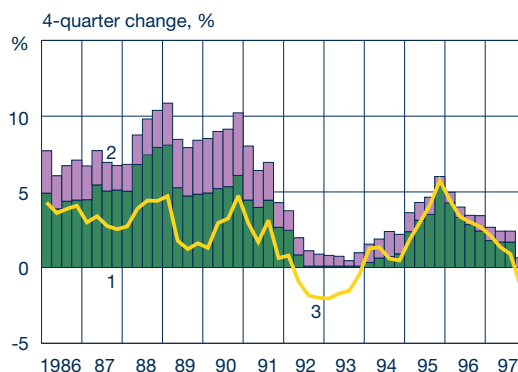
Consumer prices



- 1. Consumer price index
- 2. Indicator of underlying inflation
- 3. Harmonized CPI

Chart 2.

Level of earnings



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

mid-year, however, inflation accelerated in several EU countries. Excluding Greece, all EU countries met the inflation criterion defined in terms of the harmonized CPI. Up until autumn 1997, Finland's inflation rate had been below the average for EU countries, but by the end of the year it had risen to the average rate in the EU (Table).

Table. EU harmonized CPI

	December 1997 12-month change, %
EU 15	1.6
Austria	1.0
Belgium	0.9
Denmark	1.7
Finland	1.6
France	1.2
Germany	1.4
Greece	4.5
Ireland	1.0
Italy	1.8
Luxembourg	1.5
Netherlands	2.2
Portugal	2.1
Spain	1.9
Sweden	2.7
United Kingdom	1.8

Markka-valued prices of Finnish goods imports rose on average 1.1 per cent. A significant factor in the rise was the 2.7 per cent depreciation of the markka compared to 1996, as measured by the trade-weighted currency index. The decline in export prices, which had begun already in late 1995, came to a halt in mid-1997 as export prices of wood products and basic metals turned upward. In December 1997 export prices were 3.4 per cent higher than in December 1996. Producer prices rose in the manufacturing sector, led inter alia by prices of pulp, wood products, and basic metals. For December the twelve-month change in producer prices was clearly greater than that in consumer prices. Nonetheless, upward trends in prices of numerous commodities were reversed toward the end of the year as a result of the crisis in southeast Asia.

Moderate two-year pay settlements agreed in autumn 1995 and subdued wage drift helped curb the rise in labour costs. The level of nominal earnings was on average 2.5 per cent higher at end-1997 than a year

earlier (Chart 2). Despite rapid growth in manufacturing and especially construction activity, wage drift remained moderate for the economy as a whole. About two-thirds of the rise in the level of earnings was due to the contractual across-the-board increase in October 1996. The remainder resulted from wage drift, which in part reflected structural changes. Because wage drift was moderate, cross-sector differences in changes in the level of earnings remained small. Unit labour costs, ie wages and employers' social security contributions per unit of output, declined by 0.2 per cent.

The surging trend in asset prices ended in the first half of 1997. The rise in housing prices slowed already in the second quarter. The slowing was visible also in price data for existing two-room flats in the Helsinki metropolitan area. The levelling of the price rise was a reflection of a better balance between demand and supply. In real terms, housing prices rose to their mid-1980s level, from which they had started their rapid ascent in 1987. The pickup in demand and prices also spurred a recovery in new housing construction.

The surge in stumpage prices, which had begun already in 1996, ended in summer 1997. Nonetheless, at the end of the year stumpage prices were still higher than at the start of the year. In line with international trends, share prices on the Helsinki Stock Exchange rose sharply in the early part of the year as turnover increased notably. In late autumn uncertainty increased in international stock exchanges because of mounting problems in southeast Asia, and share prices declined substantially.

Consumers' inflation expectations increased in the course of the year but eased in the latter part of the year inter alia because of the tightening of monetary policy. In December households expected prices to rise by

nearly 1.8 per cent during the coming year. Companies' expectations regarding selling prices were also quite moderate at the end of the year.

In the pay negotiations at the end of the year, it was agreed that covered wages would rise annually by about 1.8 per cent during the settlement period, which runs until end-1999. During the same period, taxes on wages will be reduced by about 2 per cent of projected total wages for 1999. The increase in covered wages should not jeopardize attainment of the inflation target. However, there is some risk that buoyant demand could enable wage drift in excess of the moderate level of the previous settlement period.

Robust economic growth continued

Exports and investment bolstered aggregate demand

In the second half of the year the international economy began to recover from its sluggish growth performance of 1996. EU countries recorded notably faster economic growth with the help of robust growth in export demand. Finnish exports, in volume terms, also continued the strong upsurge that had begun in the early months of 1996 (Chart 3). In 1997 the volume of goods and services exports increased by 13.5 per cent, mainly as a result of a recovery in paper and pulp exports as well as rapid export growth in the metal and engineering industries, particularly the electrical and electronics industries.

Consumers' confidence in economic growth prospects remained at a record high level throughout 1997. From the start of 1996 until late spring 1997, Finnish consumers were the most optimistic in the EU area regarding their own and their country's

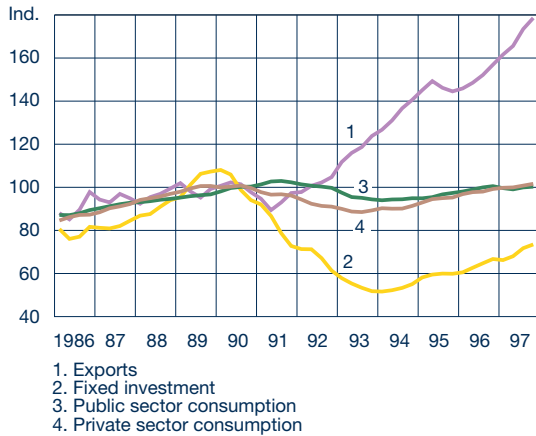
Record high confidence in economic growth.

Chart 3.

Structure of demand and supply

Main components of demand

2-quarter moving average
Volume 1990 = 100



Main components of supply

2-quarter moving average
Volume 1990 = 100

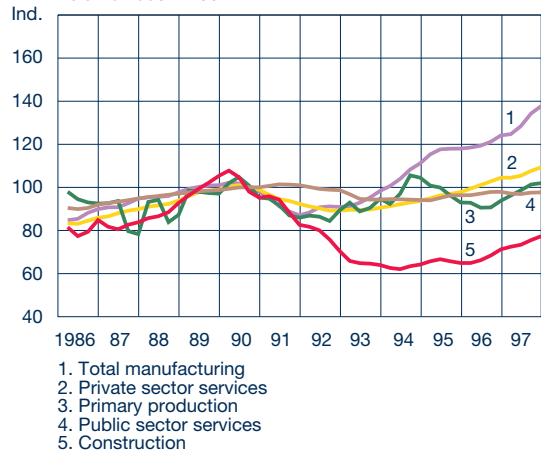
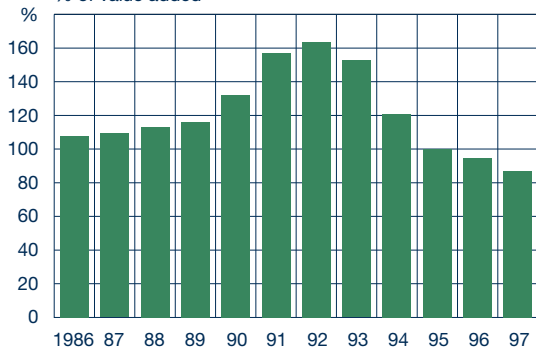


Chart 4.

Liabilities

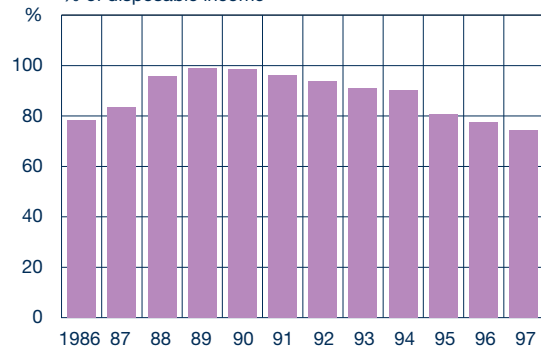
Corporate sector

% of value added



Households

% of disposable income



economic prospects. These positive expectations stimulated consumer demand, especially for durable goods. Real consumption nonetheless grew at a slightly slower pace than households' real disposable income as the savings ratio increased moderately. The favourable development of income was enhanced by increases in employment and wages

as well as a sharp rise in earnings from self-employment.

Households' confidence in a strong economic performance, a long-standing downward trend in indebtedness (Chart 4), and the low level of interest rates led to a pickup in housing purchases. Nearly half of the new housing finance again went into basic re-

pairs, spurred by the availability of state-subsidized financing. The stock of housing loans, which had declined in late 1996 – early 1997, began to clearly grow in spring 1997 as new housing loans increased sharply.

Corporate investment recovered as a result of low interest rates, the rise in housing prices, and robust growth in corporate earnings. The focus of the growth in investment was on construction, as healthy growth was recorded in both the residential and commercial sectors. The large investments in manufacturing focused mainly on the metal and engineering and domestic-demand-oriented industries. The notable investment projects in the forest industry were, in contrast to the above-mentioned industries, largely completed in 1997 and new projects were not initiated. Despite the completion of new production facilities, the capacity utilization rate rose nearly to previous peak levels in both the forestry and metal and engineering industries.

Companies' profitability remained good even though the decline in average export prices for the year restrained profitability in production for export. Companies financed their productive investments almost entirely from profits. They were able at the same time to continue to reduce their indebtedness (Chart 4).

The overall effect of discretionary fiscal policy measures was roughly neutral in 1997. While previously-decided spending cuts again resulted in sizable reductions in central government expenditure, income taxes were reduced by more than transfer payments to the private sector. The general government borrowing requirement nonetheless declined substantially due to the favourable economic performance and an exceptionally large increase in corporate tax revenues. Total demand for the general government sector increased only moderately despite

a larger increase in local government investment, and general government expenditure continued to decline relative to GDP.

Growth in total output accelerated

The year under review was the fifth year since the end of the recession that the Finnish economy has recorded rapid growth, at a rate clearly higher than the average for EU countries (Chart 5). The growth of total output was sluggish in the early stages of 1997, but a pronounced pickup occurred during the summer. For the year as a whole, output was on average more than 5.9 per cent higher than in 1996.

The growth was prompted by an upturn in forest industry output and a sharp rise in output in the metal and engineering sector, especially in the electronics and electrical industries. Output in the other industries of the private sector began to recover already toward the end of 1996, along with manufacturing output and domestic consumption. Construction in particular recovered following its worst-ever recession. The increase in aggregate income and consumption also spurred activity in the domestic services sector (Chart 3).

Despite the robust growth, capacity constraints have not yet had an extensive curbing effect on output growth. According to a survey of business confidence conducted by the Confederation of Finnish Industry and Employers, there were modest capacity and manpower constraints, particularly in the electronics and construction industries. In the construction industry, the situation varied considerably across different areas of the country, with eg the Helsinki metropolitan area suffering from an acute labour shortage. The situation was however eased with the completion of new production facilities and further possibilities to increase the capacity utilization rate.

Chart 5.

Economic performance in Finland and EU countries

Gross domestic product

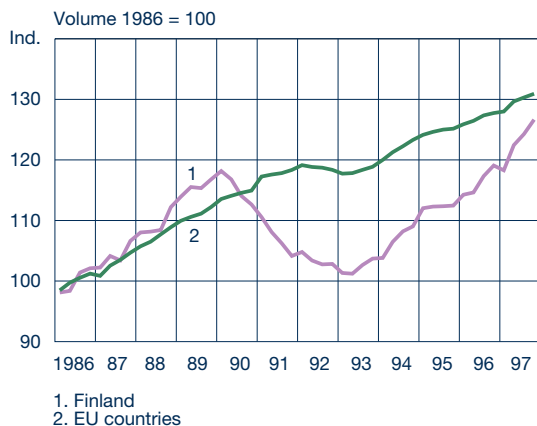
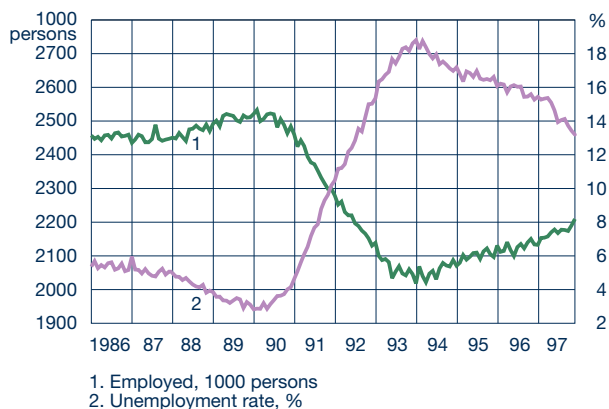


Chart 6.

Employed and unemployment rate



Source: Statistics Finland

Unemployment declined substantially

The employment situation continued to improve in 1997 (Chart 6). With the strong growth in the economy, job openings clearly increased, even in the manufacturing industries where caution and the need to consolidate balance sheets had previously restricted job offerings. The increase in employment was abetted by the extension of growth into the labour-intensive domestically oriented sectors. Employment increased most in the construction, manufacturing and domestic services industries. The growth in housing investment created jobs particularly in large cities. Employment continued to decline in the primary production and retailing sectors. Of the jobs created, the bulk were fixed-term and other nontypical jobs. During 1997 there were on average 43 000 more persons employed than in 1996.¹

¹ Comparisons of 1997 and 1996 figures for employment, labour force and unemployment are difficult because of Statistics Finland's statistical revision of its labour force survey at the start of 1997.

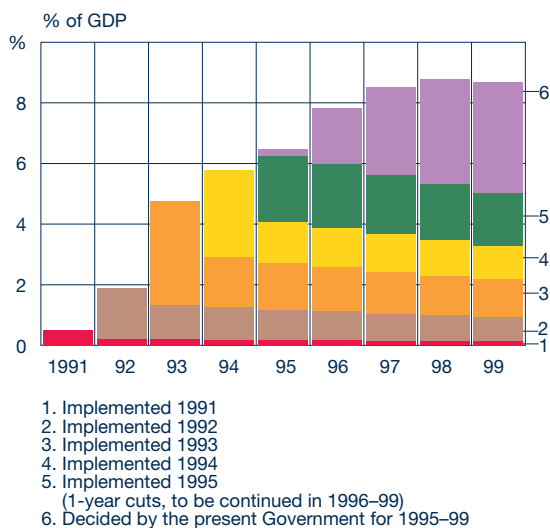
The increase in the demand for labour also stimulated an increase in the supply, which in turn slowed the reduction in unemployment. The increase in the labour supply was held back somewhat by an expansion in adult education programmes and a tightening of the eligibility requirements for unemployment benefits applicable to new entrants to the labour force. The seasonally adjusted unemployment rate was 13.1 per cent in December. During the summer months, youth and long-term unemployment declined notably, according to the revised measure. Although the greatest decline in unemployment was in construction, the unemployment rate in the sector remained quite high.

The general government sector clearly met the EMU convergence criteria

Central government revenues from direct taxes increased rapidly again in 1997, fostered by significant growth in corporate tax revenue. Some of the increase was attrib-

Chart 7.

Cuts in central government outlays, 1991–99



able to one-off factors such as the discontinuation of the transition reserve and the introduction of interest charges on tax arrears, which sped up the payment of corporate taxes. The reduction in the central government deficit was also abetted by real, and even nominal, reductions in spending that resulted from the Government's savings programme and the reduction in unemployment-related outlays. The central government's net borrowing amounted to FIM 25 billion in 1997, ie FIM 17 billion less than in 1996. Interest expenditure increased absolutely and as a share of total expenditure, to 17.5 per cent.

Fiscal policy is likely to be contractionary in 1998 because central government expenditures are slated for further cuts. Revenues should continue to record strong growth in a favourable economic environment, and the central government deficit is estimated to decline relative to GDP, to slightly more than 3 per cent. For the entire general government sector, a roughly balanced financial result is expected.

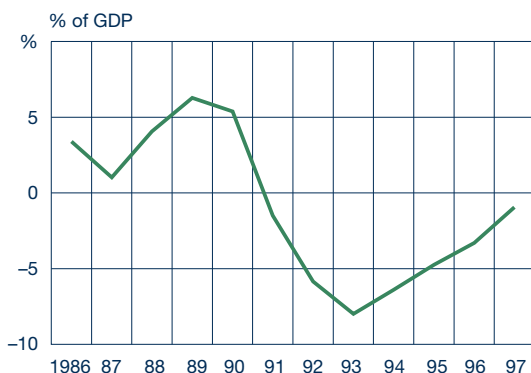
According to the Government's spending plan, annual total budget expenditure over the period 1998–2001 will remain roughly at the current nominal level of FIM 190–192 billion. The aim is to reduce central government indebtedness so that the budget will be in balance by about 2003. Additional savings in the 1998 budget, together with previously decided spending cuts, will increase total savings to FIM 60 billion for the interim period 1995–1999. Combined realized and planned cuts for the period 1991–1999 amount to 10 per cent of 1997 GDP (Chart 7).

The EU's ECOFIN Council, composed of economic and finance ministers, in May removed Finland from the list of countries with excessive general government deficits. The decision was based on the fact that the deficit had come down quickly (becoming a surplus by 1999, according to the revised 1996 convergence programme) and that the general government debt had stayed below the Maastricht Treaty reference value of 60

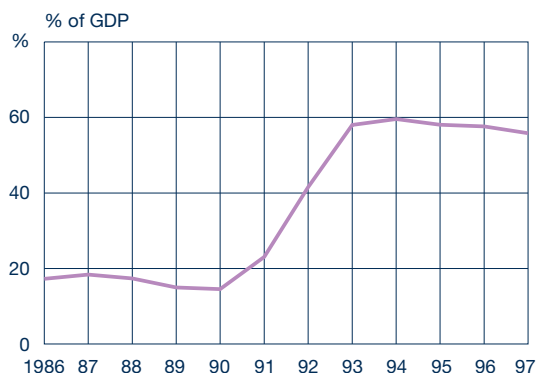
Chart 8.

Public finances

General government financial surplus/deficit



General government debt



per cent of GDP. According to preliminary data of February 1997, the 1996 deficit had amounted to 2.6 per cent of GDP, ie somewhat below the 3 per cent EMU criterion.

However, revised data published in July and December showed that the deficit had amounted to 3.5 per cent of GDP. The discrepancy resulted from a higher-than-forecasted central government deficit and lower-than-forecasted surpluses for local governments and employment pension institutions. Nonetheless, the general government debt ratio for 1996 was clearly below the target.

In 1997 the general government deficit ratio declined to 0.9 per cent and the debt ratio to 55.8 per cent (Chart 8). This means that Finland met the criteria for the general government sector that will be used in spring 1998 to select the countries that will participate in Stage Three of EMU.

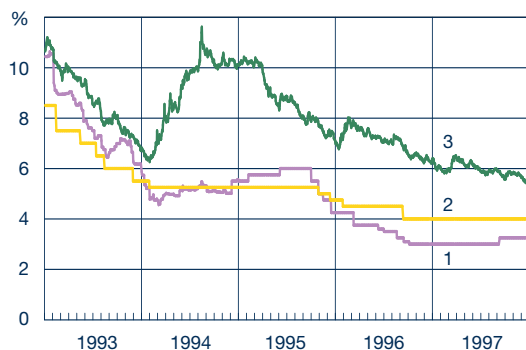
The general government deficit will narrow further in the coming years. According to the second revised version of the Government's 1995 convergence programme,

which was presented to the EU's ECOFIN Council in September, the deficit and debt of the general government sector will in the coming years develop more favourably than was previously forecasted. The deficit should disappear in 1998, and in 2001 the sector should record a surplus of 1.9 per cent and a further decline in the debt ratio.

The central government debt increased to FIM 418 billion at end-1997, which was 67.6 per cent of GDP. In earlier years, the central government financed its deficits largely from foreign sources, but in recent years it has switched for the most part from foreign currency-denominated borrowing to domestic sources. The most important example of this tendency is the employment pension institutions' heavy investment of their surpluses in Finnish government bonds. The central government's foreign currency-denominated debt declined in 1997.

Chart 9.

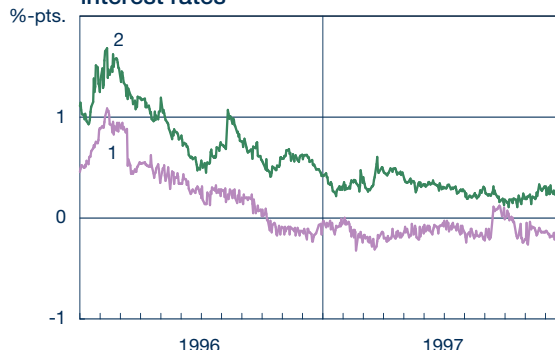
Key interest rates



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

Chart 10.

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

Monetary policy easy despite a small interest rate hike

Finnish short-term interest rates among the lowest in the EU countries

It was possible to keep monetary policy relaxed in 1997. In late 1995 and throughout 1996, monetary policy followed an easing trend so that in October the tender rate was cut to 3 per cent (Chart 9). This matched the Bundesbank's repo rate and was the second lowest in the EU countries after the key rate of the Netherlands' central bank. Despite a notable acceleration of economic growth, it was estimated at the start of the year that costs and prices would continue on a stable course and that underlying inflation would stay within range of the objective of about 2 per cent in 1997. Inflation expectations pointed to a marginal rise in prices for the year. With this backdrop, it was possible to keep the interest rate steady.

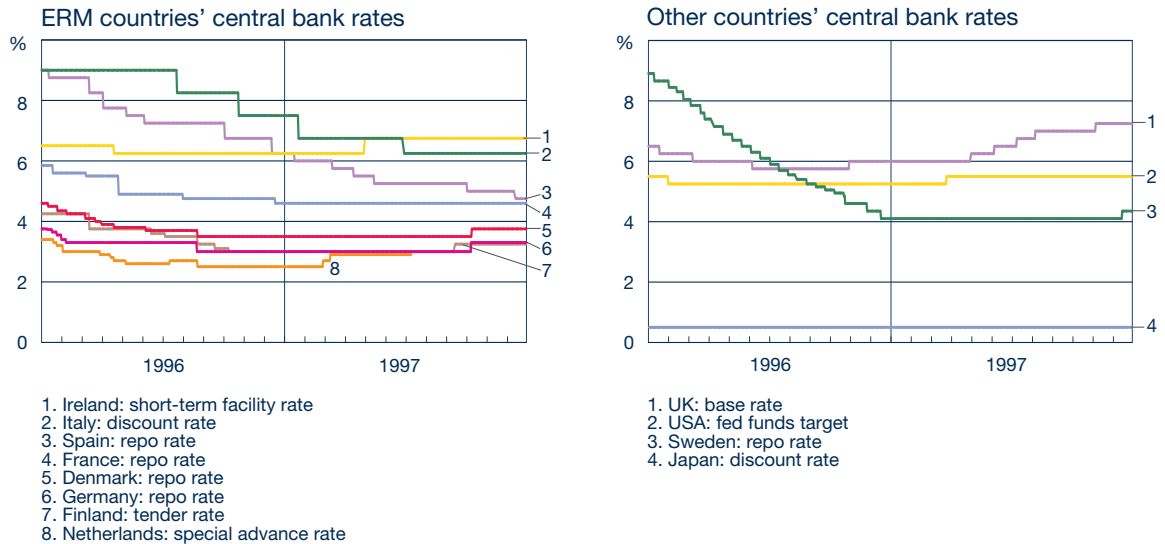
In January 1997 the yield on the government ten-year bond, maturing in April

2006, fell to about 6 per cent and the differential vs the closest equivalent long-term German rate narrowed to 20–30 basis points. By end-1996 short-term market rates had followed the tender rate down to about 3 per cent. The Finnish three-month market rate thus dropped below the corresponding German rate, after which it stayed at the same level throughout the first half of 1997 (Chart 10).

The key central bank interest rates in the core-ERM countries had been lowered to 3–3½ per cent by autumn 1996, and it was possible to continue the easy monetary policy in 1997 (Chart 11). The only exception was the Netherlands, where the central bank raised its special advance rate twice already in the early part of the year, in response to a pickup in inflation. Nonetheless, the Netherlands' key rate remained the lowest in the EU countries. In the southern EU countries – Italy, Spain and Portugal – central bank rates were lowered substantially during 1996, and the downtrend continued in 1997 as inflation eased to levels that were historically low and

Chart 11.

Central bank rates



close to those prevailing in other EU countries. Motivation for the rate cuts also included the strengthening of those countries' currencies within the ERM. These central bank rates were nonetheless clearly higher than comparable rates in the core countries during the first half of the year. In the United Kingdom and Ireland, interest rates were kept stable and relatively high compared to those in the core countries, and in Sweden the considerably relaxed stance of monetary policy adopted in 1996 was carried over into 1997.

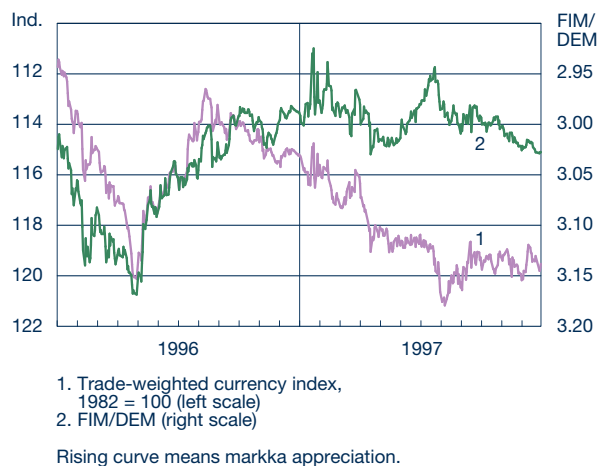
At the end of March the US central bank raised its key federal funds target rate by 25 basis points to 5.50 per cent (Chart 11) in response to continued fairly robust economic growth and an increase in the risks of higher inflation. The rate hike caused some uncertainty also in EU countries as it was interpreted as an indication of a change in the previously lax overall stance of monetary policy. The hike also fomented a temporary rise in long-term rates in both the United

States and Europe, particularly in the peripheral states of the EU. Doubts concerning realization of EMU also contributed to the temporary rise in long-term interest rates in the European countries. In this connection, the Finnish long-term rate rose to close to 6½ per cent in March-April and the differential vs the corresponding German rate widened slightly, to as much as about 50 basis points.

Also in the United Kingdom, a rapid tightening of monetary policy ensued after the elections of 1 May. The base rate was raised during the summer in four stages from 6 per cent to 7 per cent. The rationale was an increase in inflation pressures due to robust economic growth. At the same time, the new Government gave the central bank additional decisionmaking power in respect of interest rates. The bank was given operational independence to set rates so as to attain the inflation objective defined by the Ministry of Finance. At the start of May the Irish central bank also raised its key policy rate by 50

Chart 12.

Markka's external value



basis points to 6.75 per cent. The rationale given for the monetary tightening was rapid economic growth and an increased threat of inflation. In the summer monetary policy was likewise tightened in Norway because of rapid economic growth and increasing inflation pressures.

Markka subjected to upward pressure in the early part of the year

After the Finnish markka was joined to the ERM in October 1996, its external value vs the Deutschemark remained stable and it was one of the strongest ERM currencies relative to its central rate. However, the markka had begun to depreciate in the latter half of 1996, in terms of the trade-weighted currency index, and the trend continued in 1997 as the US dollar and pound sterling strengthened (Chart 12).

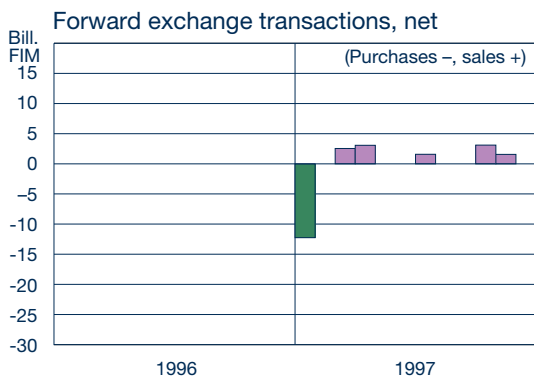
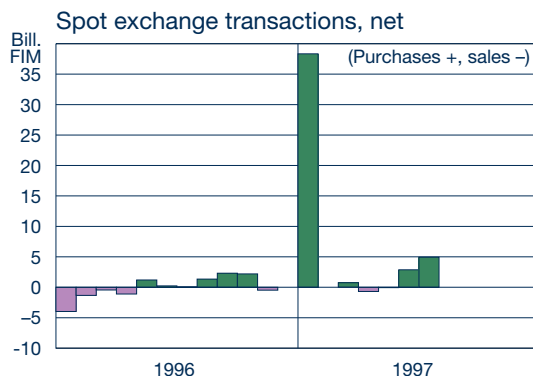
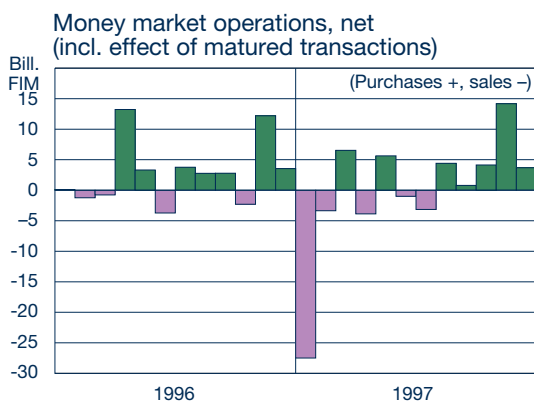
The calm that had prevailed in the currency markets was disturbed in January when the markka was subjected to temporary

upward pressure against the Deutschemark. There were several factors adding to the pressure. The Deutschemark's depreciation vs the dollar was reflected clearly in upward pressure on the currencies of peripheral European countries, which tended to appreciate against the Deutschemark. Besides the markka, the currencies of Spain, Italy and Portugal were subjected to strong upward pressure vs the Deutschemark. Dollar strengthening and Deutschemark weakening were also reflected clearly in the appreciation of the other Nordic currencies, which received an additional boost from a long-standing tendency of the Norwegian krone to appreciate.

The upward pressure on the markka also reflected an improved economic outlook as well as estimates of large investment banks indicating that the markka was undervalued. Apparently the markets were also testing the markka's ability to stay in the ERM as well as the Bank's reaction function in the currency markets.

Chart 13.

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

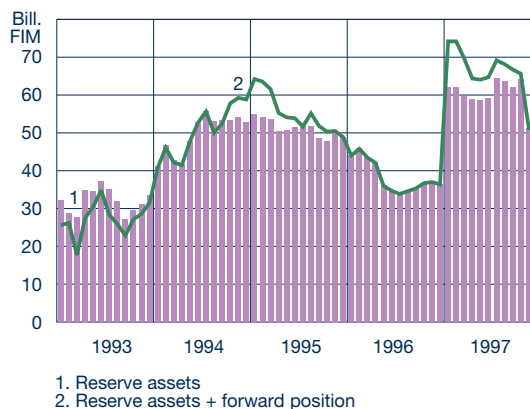


The upward pressures on the markka began to surface in the second week of January when foreign investors started to purchase markkaa. The Bank at first tried to keep the markka steady against the Deutschemerk via heavy foreign exchange purchases. The heaviest interventions occurred in the third week of January when the Bank purchased foreign exchange against the markka in the amount of FIM 35.5 billion. The effects of these spot purchases on liquidity and foreign reserve assets were partially offset by forward exchange sales amounting to FIM 12 billion (Chart 13). In the event, the markka's DEM value was kept fairly stable.

At the start of the fourth week of January the Bank of Finland allowed the markka to appreciate to the point where the deviation from its DEM central rate was momentarily almost 5 per cent. The Bank also announced that henceforth the central government might acquire foreign exchange directly from the markets when conditions were favourable. Traditionally, it has obtained foreign exchange from the Bank's holdings of foreign reserve assets. After the announcement, apparently partly as a counterreaction, the markka began to depreciate. This propelled investors to repatriate gains and further weakened the markka, which retreated to its start-

Chart 14.

Bank of Finland's foreign reserve assets



ing point within a few days. Central bank interest rates were kept stable while the markka was subjected to upward pressure, but the long-term interest rate differential vs the corresponding German rate narrowed slightly.

As a result of intervention operations, the Bank of Finland's foreign reserve assets grew substantially in January (Chart 14). This was to some extent propitious because later in the year the central government accrued sizable debt servicing costs. By the end of January 1997 the foreign reserve assets (incl. forward position) had grown to FIM 74.2 billion compared to FIM 36.4 billion at end-1996.

Markets calm in the spring and summer despite the start of a buildup of inflation pressures

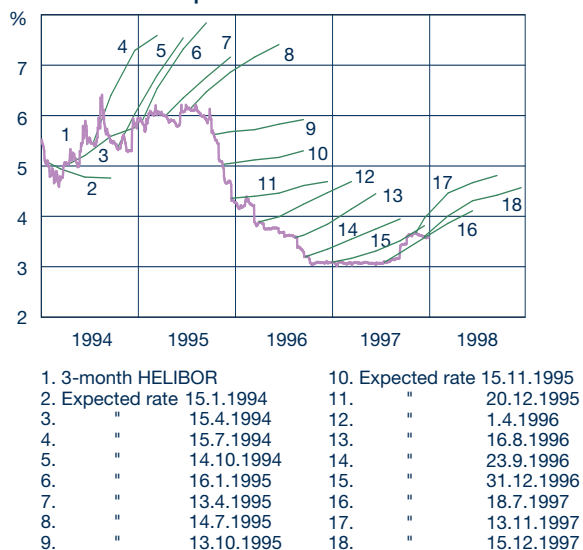
The Finnish money and foreign exchange markets were tranquil during the spring. The markka remained stable against the Deutsche mark and domestic long-term interest rates, like foreign rates, declined. However, as the economy began to pick up steam, signs of a slight uptick in inflation became visible and inflation expectations began to increase. The

Bank's spring forecast indicated that inflation would pick up toward yearend and would accelerate to more than 2 per cent at the start of 1998. In mid-June the Bank in fact announced that the risks associated with inflationary developments had increased and if realized would induce a tightening of monetary policy. Following the announcement the markets began to anticipate a tightening.

The continued favourable performance of the economy lent a favourable tone to the Finnish foreign exchange markets in the summer months. The pronounced weakening of the Deutsche mark vs the US dollar and pound sterling caused some upward pressure on the markka's DEM value. The weakening of the Deutsche mark accelerated partly due to the markets' view that Stage Three of EMU would be realized with wide participation. In July the upward pressure on the markka increased to the point where the Bank saw fit to engage in offsetting interventions amounting to about FIM 5 billion in order to prevent excessively wide fluctuations in the markka's external value. At its peak, the markka was some 3 per cent stronger than its DEM central

Chart 15.

Actual and expected 3-month interest rates*



* Expected rates based on forward rates.

rate, but by end-August the deviation was only slightly more than 1 per cent.

The domestic money market remained calm during the summer. Long-term market interest rates declined in the wake of foreign rates. The longest-term rate fell back below 6 per cent at end-June. The differential vs German long-term rates held for several months at some 20–30 basis points. Short-term market rates and forward rate agreements remained stable during the summer despite a moderate increase in market expectations of a tightening of monetary policy.

A turn in monetary policy in the autumn

On 15 September the Bank of Finland raised the tender rate 25 basis points to 3.25 per cent. The rationale was the rapid rise in asset prices, bottlenecks in certain sectors, and the markka's depreciation in terms of the trade-

weighted currency index, which had increased the pressure on import prices. In response to the rate hike, short-term market rates rose to about the same level as corresponding German rates. The policy tightening had been widely anticipated in the markets and was transferred almost in full to the HELIBOR rates, which rose by 20–25 basis points in the wake of the tender rate. Long-term interest rates, on the other hand, remained almost unchanged. The rise in interest rates had virtually no effect on the external value of the markka.

Already at the end of summer the German central bank expressed its concern about the weakness of the Deutschemark against the dollar and the related inflation pressures. After this, signs began to appear that the markets were anticipating an interest rate hike by the Bundesbank. In the event, the German central bank raised its repo rate on 9 October

by 30 basis points to 3.3 per cent. The central banks of Austria, Belgium, Denmark, France and the Netherlands followed the example of the German central bank, raising their own key rates on the same day. Although the German central bank justified its rate hike mainly on the basis of its domestic inflation outlook, the rationale entailed a concern for price stability in the future euro area. The markets generally interpreted the central banks' rate hikes as the first step toward a single monetary policy and a common interest rate level for the euro area.

Following the hikes in central bank rates, Finnish short-term spot and forward rates rose somewhat, in line with interest rates in Germany and other ERM countries. The tender rate hike of September had fostered expectations of further rate hikes in Finland, which were reinforced by the German move (Chart 15). In October, the expected rise in interest rates over the twelve-month horizon amounted to slightly over 100 basis points.

At the start of November the Bank of England continued its monetary tightening by raising its base rate to 7.25 per cent. The rationale was the persistent buoyancy of domestic demand and above-target inflation. The Swedish central bank also tightened its monetary policy in the latter part of the year while Spain and Portugal, by contrast, continued their monetary easing.

The yield on the Finnish government ten-year bond declined at the start of October to about 5.60 per cent, which was low both historically and by international standards. The differential vs the corresponding German yield narrowed at times to less than 20 basis points, ie on a par with corresponding differentials for EU countries with the most stable monetary conditions. The narrowing was partly due to the persistently positive outlook for the Finnish economy and solid

expectations that Finland would be among the first countries to move into Stage Three of EMU. Toward the end of the year the long-term rate dropped below 5½ per cent.

The markka's DEM exchange rate stabilized in August and at the end of the year was very close to the central rate. Neither of the central bank interest rate adjustments, Finnish or German, had any effect on the FIM:DEM rate. Also in terms of the trade-weighted currency index, the markka remained quite stable during the autumn. The worldwide decline in share prices in October temporarily depressed the dollar against the Deutschemark and other ERM currencies. Within the ERM, exchange rate deviations remained narrow in the latter part of the year. An exception was the Irish punt, which remained firm and was 7 per cent on the strong side of its DEM central rate at the end of the year.

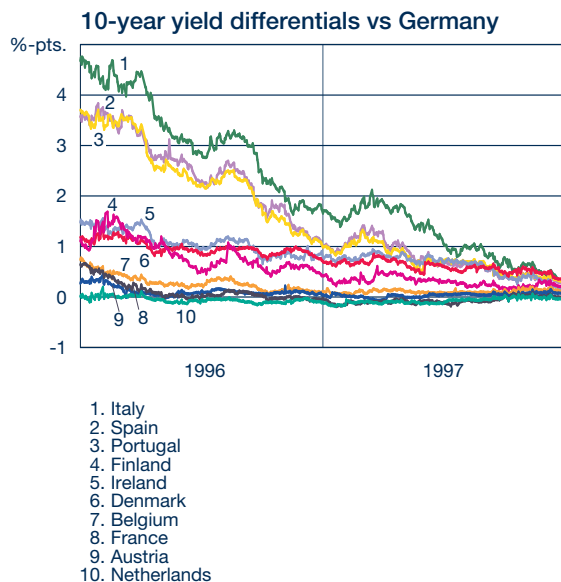
The Bank's foreign reserve assets still exceeded FIM 65 billion at end-October, but the central government's debt principal and interest payments of some FIM 20 billion in November reduced the reserve assets, which amounted to FIM 51.5 billion at the end of the year.

Convergence of long-term interest rates reflected EMU launch expectations

During 1995 and 1996 the EU economies made much progress toward convergence as defined by the EMU criteria, and the trend continued in 1997. Already by the start of the year inflation had slowed in many EU countries to the point where one could say that price stability had been attained. Likewise, noteworthy progress had been in reducing general government deficits. In 1997 nearly all EU countries were forecasted to have a deficit amounting to less than the criterion maximum of 3 per cent of GDP. Moreover,

Monetary policy tightening transferred almost in full to HELIBORs.

Chart 16.



the general government debt had begun to decline in several countries.

These positive trends had helped to bring the ERM currencies, except for the punt, closely into line with their central exchange rates. These positive trends and confidence in the launch of Stage Three of EMU were reflected most clearly in the fact that in all the EU countries long-term interest rates had come down and differentials vis-à-vis long-term interest rates in Germany, a country representing monetary stability, had narrowed considerably by the start of 1997. It was significant that interest rates had declined substantially in the peripheral EU countries in particular.

During 1997 long-term interest rates continued to approach German rates and differentials narrowed (Chart 16). The narrowing of differentials was widely seen as a reflection of the anticipation of the launch of EMU, of a further decline in short-term interest rates in some countries, and of contin-

ued convergence in inflation and other economic fundamentals.

The fall in long-term interest rates in Europe and the narrowing of rate differentials were interrupted in the late winter and early spring as US long-term interest rates rose temporarily in March and April, due to inflation fears and expectations of a rise in interest rates. As US interest rates declined in the following months, European rates resumed their convergence toward German rates. The rise in interest rates was also influenced by uncertainty regarding the EMU timetable and first-wave participants. The rates that were most sensitive to the uncertainty were long-term rates in Italy, Spain and Portugal, whose differentials vs German long-term rates widened. Uncertainty as to the launch of EMU was also reflected in February and March in rising interest rates in some non-ERM countries such as Sweden. These disturbances were felt only to a very minor extent in Finland.

In early summer long-term interest rates in the ERM countries declined in the wake of long-term rates in the United States. The markets' belief in the launch of EMU lowered interest rates in the summer particularly in the southern European countries. Contrary to rate movements in other EU countries, UK long-term rates remained stable as the 10-year rate differential vs Germany widened to about 150 basis points.

From Finland's standpoint it was propitious that the market-determined long-term interest rates stayed near long-term rates in Germany and its surrounding core group (Austria, Belgium, France, Netherlands). The differential vs Germany remained in the range of 20–30 basis points during most of the year. During the year long-term interest rates in other EU countries also moved significantly closer to the German rate so that by yearend differentials vs the German long-term rate for all the ERM countries had narrowed to no more than 50 basis points (Chart 16). The differential for Sweden against the corresponding German rate narrowed at mid-year to less than 100 basis points and for the United Kingdom the differential was about 100 basis points at the end of the year.

Policymakers in the EU countries convinced the markets that there was a strong political commitment to a timely launch of Stage Three of EMU. Important decisions were made particularly at European Council meetings in Dublin in December 1996 and in Amsterdam in June 1997 as well as at ECOFIN Council meetings. Agreements were reached on a number of matters concerning EMU preparations: on legal principles for adoption of the single currency, the euro; on the new exchange rate mechanism, ERM II; on the Stability and Growth Pact; and on the procedure for permanent fixing of exchange rates. The markets increasingly reflected a belief

that Stage Three of EMU would initially include a fairly large group of countries. These factors accounted in part for the convergence in long-term interest rates.

Tranquility in the ERM

The ERM exchange rates had approached their central rates already during 1996, and in 1997 almost all of them settled close to their respective central rates. The exception was the Irish punt, which was notably affected by large movements in the value of the (non-ERM) pound sterling. The punt had begun to appreciate toward the end of 1996 in response to robust economic growth and appreciation of the pound sterling, and throughout 1997 the punt remained clearly the strongest ERM currency compared to its central rate (Chart 17).

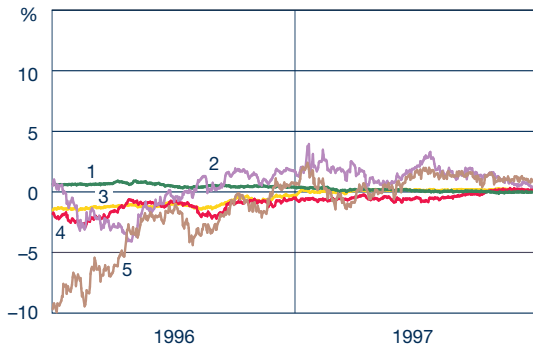
The depreciation of the Deutschemark against the dollar was a factor that helped to draw the ERM currencies closer together. Exchange rates of the core country currencies stayed very close to their DEM central rates while those of other ERM currencies also remained within margins of only a few per cent. Excluding the punt, the deviation between the weakest and strongest currencies was 4–5 per cent in the early part of the year and in the summer but narrowed to less than 2 per cent in September. The deviation between the punt and the weakest currency fluctuated in the range 6–12 per cent. The narrowing of the deviation in spring and again in autumn resulted mainly from market participants' conjectures that the central rates would be applied in the changeover to Stage Three of EMU. A worldwide decline in share prices in late October, in connection with economic problems in southeast Asia, had no significant effect on exchange rates inside the ERM.

Exchange rates between the major currencies fluctuated widely during the year.

Markets convinced of timely launch of Stage Three.

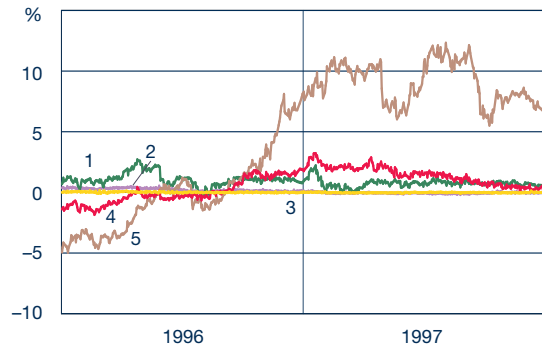
Chart 17.

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



- 1. Dutch guilder
- 2. Finnish markka
- 3. Danish krone
- 4. French franc
- 5. Italian lira

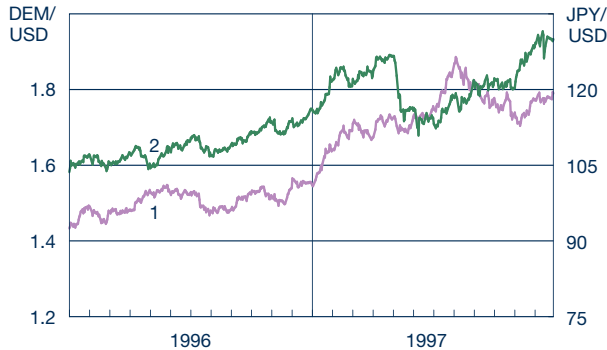
Rising curve means currency appreciation.



- 1. Spanish peseta
- 2. Belgian franc
- 3. Austrian schilling
- 4. Portuguese escudo
- 5. Irish punt

Chart 18.

Deutschemark and yen exchange rates vs the US dollar



- 1. DEM/USD (left scale)
- 2. JPY/USD (right scale)

Rising curve means dollar appreciation.

The US dollar appreciated against the Deutschemark in January–August by some 20 per cent (Chart 18). The dollar was strengthened mainly by continued favourable economic growth and expectations of a tightening of US monetary policy. An additional factor was market conjecture that EMU would be launched with wide membership.

The dollar appreciated early in the year also against the Japanese yen, but in early May that trend was temporarily reversed when expectations of a hike in US interest rates receded and for Japanese rates they increased. During the latter half of the year the dollar depreciated against the Deutschemark and appreciated against the yen. Since the mark-

ka remained stable against the Deutsche-mark, the dollar also appreciated against the markka in the early part of the year. The Finnish markka was on average 2.7 per cent weaker in 1997 than in 1996, in terms of the trade-weighted currency index.

The pound sterling appreciated by nearly 20 per cent vs the Deutschemark in the early part of the year but later lost half of the percentage gain. In the autumn the external value of the pound sterling fluctuated mainly in tune with pronouncements signalling the UK Government's attitude toward EMU membership.

Changes in the means of conducting monetary policy

Most of the central banks in EU countries began in 1997 to modify their monetary policy instruments in accord with the general documentation published by European Monetary Institute (EMI) (see page 59). The amount of time and work involved in the unification process will naturally depend on the specific characteristics of a country's policy instruments. In this respect the Bank of Finland's starting position was better than that of many other central banks because most of the instruments developed by the EMI were already included in the Bank's arsenal as a result of reforms carried out earlier in the 1990s.

In the late autumn 1997 the Bank modified its means of conducting monetary policy in line with European practice. The changes affected both open market operations and the liquidity facility; no changes were made to the minimum reserve system.

At the start of November the Bank began applying two-week maturity in both its liquidity-draining own-CD tenders and its liquidity-injecting repo tenders. These operations, which are the key operations in controlling money market liquidity, had previ-

ously been based on one-month maturity. Besides changing the maturity, the Bank shortened the payment lag for its tender operations by one day so that liquidity now flows between the Bank and a money market counterparty on the first, instead of second, business day after the trade date.

Similarly, at the start of November the Bank began to apply one-day, instead of seven-day, maturity in its liquidity credits. Under the new arrangement a bank can secure its liquidity position by obtaining an overnight liquidity credit from the Bank of Finland. The shortening of the maturity of liquidity credits and of the payment lag for tender operations have simplified the banks' liquidity management and clarified money market trading in the interbank overnight market.

Although the signalling of changes in the stance of monetary policy is still done via the tender rate, the reforms have meant that liquidity system interest rates (on liquidity credits and excess reserves) now form a more distinct interest rate corridor, within which the interbank overnight rate fluctuates. The purpose of the corridor is to eliminate extreme spikes in the overnight rate and thus to smooth out the wide (by international standards) fluctuations that previously characterized the Finnish overnight market.

Another revision to the liquidity facility concerned the maximum size of a liquidity credit. Previously, a bank was obliged to obtain liquidity credit only when it had a debit balance at the end of the day on its current account with the Bank of Finland. A bank could also obtain liquidity credit in order to keep its average reserve balance at the required level. Since the start of November banks are still obliged to obtain liquidity credit to cover debit balances on their current accounts, but other use of liquidity credit is restricted only by the full collateral requirement. In normal circumstances, liq-

Most policy instruments developed by EMI already included in the Bank's arsenal.

Foreigners' holdings of Finnish shares were a significant item in the international investment position.

uidity credit is the most expensive type of short-term financing in the interbank market so that even the previously applied maxima had no practical effects on banks' behaviour.

Despite numerous reform measures taken over a period of many years, certain necessary unifying revisions were left for 1998, in respect of the Bank's interest rate steering mechanism. For instance, the calculation of interest must be changed from the current 365-day method to the 360-day method by the start of 1999. Additional changes are needed by the start of Stage Three of EMU in connection with money market operations as regards eligibility requirements for both the securities used as collateral and the counterparties.

At the end of the year the Bank announced that it intends to discontinue the quoting of reference rates in 1998 once a final decision is made on participation in Stage Three of EMU. Quoting will be discontinued on both HELIBOR rates and the Bank's long-term reference rates. In anticipation of this, the Finnish Bankers' Association began on 16 April 1997 to quote reference rates corresponding to the HELIBOR rates calculated by the Bank. Moreover, the banks announced that they would apply the 'HELIBORS' calculated by the Bankers' Association in new customer agreements starting on 3 November 1997.

Companies' and households' debts and the money stock

The surplus on the external current account remained large

In contrast to the usual cyclical pattern, Finland's external current account continued to record surpluses. Despite the strong economic performance in 1997, the surplus widened

to FIM 33 billion or 5.3 per cent of GDP (Chart 19). The increase in the current account surplus was matched by a sizable reduction in the public sector deficit. There was also a modest reduction in the private sector surplus.

The surplus on the trade account was FIM 54 billion in 1997. The volume of goods exports grew notably during the year. The growth rate remained strong all the way to the end of the year, raising the capacity utilization rate in the paper industry to its peak.

Of the other items in the current account, the services account strengthened substantially. Receipts from transport continued to rise faster than expenditure on increased travel. The investment income account also firmed in response to the decline in the external debt (excl. nonresidents' holdings of Finnish equities). The current transfers balance remained in deficit inter alia because membership fees paid to the EU exceeded subsidy receipts and development aid expenditure increased.

The financial surplus of the private sector remained large. Households have generated surpluses every year since 1991, thus substantially reducing their total indebtedness. Nonetheless, the financial surplus of the household sector declined in 1997 due to a pronounced reversal of an earlier downturn in housing investment. The savings ratio for the household sector remained low because of favourable expectations and reduced uncertainty regarding income as well as the low level of interest income. Companies' financial surplus also declined, inter alia due to increased investment outlays.

Rise in share prices weakened Finland's international investment position

Finland's net external liabilities (liabilities – assets) amounted to FIM 268 billion at end-

Chart 19.

Trade account and current account

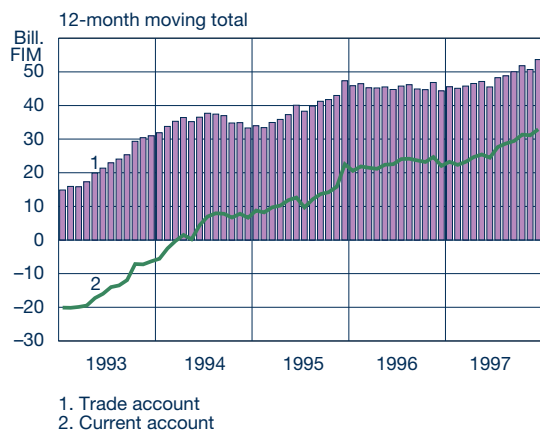
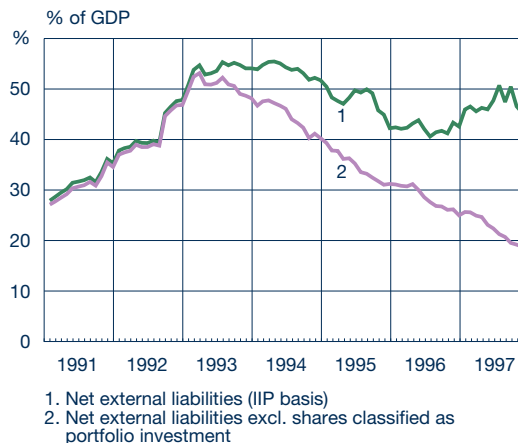


Chart 20.

Net international investment position and share ownership by foreigners



1997, equivalent to 43.3 per cent of GDP (Chart 20). Despite the large surplus on the current account, net liabilities increased, almost entirely due to a rise in Finnish share prices. This rise amounted to 32 per cent for the year as a whole in spite of a decline in share prices toward yearend and increased the market value of nonresidents' holdings of Finnish shares by about FIM 43 billion. As a result, these shareholdings became a significant item in Finland's international investment position. The net effect on the international investment position of other valuation changes, such as exchange rate changes, was small.

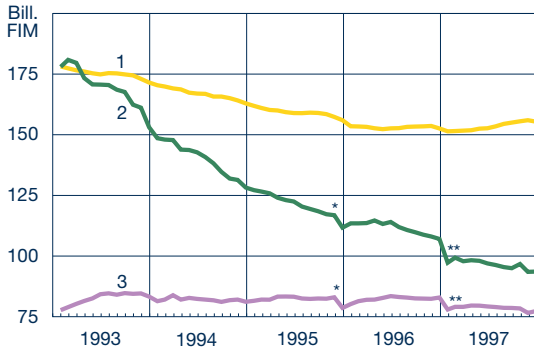
Foreign investors were attracted in 1997 by shares of Finnish companies showing solid financial results. Finnish shares were sold to nonresidents in the amount of FIM 21 billion, ie more than twice the year-earlier figure. Despite the buoyant demand for shares, the effect of the rise in share prices on the net international investment position was considerably greater than the effect of net sales of shares to nonresidents.

Finnish residents' investments abroad were also substantial, as in 1996. Finnish companies' direct investments abroad amounted to FIM 23 billion. At end-1997 the stock of direct investment abroad was FIM 110 billion, which was more than double the stock of direct investment in Finland. Residents continued to purchase foreign bonds in large amounts. These purchases amounted to FIM 15 billion, and the stock at end-1997 was FIM 42 billion. Insurance companies, for instance, diversified their portfolios by purchasing foreign securities. Investment in foreign securities was the main reason the former net external liability position of nonbank financial institutions was turned into a net external asset position. Banks had experienced the same kind of turnaround already in 1996. Net external assets of Finnish financial institutions amounted to FIM 23 billion at the end of 1997.

Redemptions of the central government's foreign currency-denominated debt in 1997 totalled about FIM 19 billion more than new borrowing. However, the depreciation of

Chart 21.

Bank lending to companies and households



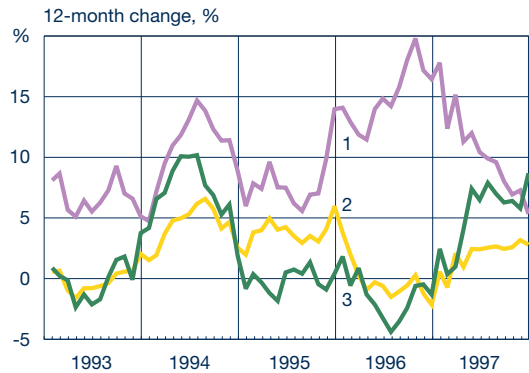
- 1. Lending to households, markka-denominated, stock
- 2. Lending to companies, markka- and foreign currency-denominated, stock
- 3. Lending to companies, markka-denominated, stock

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

** Lending stock removed in connection with statistical revision
 a) bonds and other bearer instruments that are treated as investment assets
 b) lending by foreign branches of domestic banks

Chart 22.

Monetary aggregates



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

the markka against the currencies borrowed, mainly the dollar, resulted in an increase for 1997 in the total markka-value of the central government's foreign currency-denominated debt. The central government's foreign currency-denominated debt remained at a very high level, amounting to FIM 169 billion or nearly 30 per cent of GDP at end-1997. Thus debt repayments will remain large in the coming years.

The central government's net borrowing requirement was covered, as in the last two years, mainly from the domestic financial markets, where low-interest financing was readily available. Foreigners' holdings of markka-denominated Finnish government bonds amounted to about FIM 39 billion at the end of the year. During the year foreign investors purchased FIM 17 billion worth of markka-denominated bonds, which was more than twice the amount purchased in 1996.

The stock of bank lending continued to grow sluggishly

The demand for bank loans recovered somewhat in 1997. The stock of markka-denominated bank lending grew by 4 per cent to FIM 276 billion at the end of the year. Housing loans were raised in an amount one-sixth higher than 1996, although old loans were also repaid in large amounts. Corporate loans declined slightly on the previous year (Chart 21). Foreign currency-denominated lending continued to decline, amounting to only about a sixth of the peak reached at the start of the 1990s. The total stock of markka- and foreign currency-denominated lending increased just slightly, amounting to about FIM 292 billion at the end of the year. At the end of the peak year of 1991, the stock had been about FIM 400 billion. The problems connected with over-indebtedness, which had surfaced at the start of the decade, were still visible in the subdued propensity to take on

debt despite substantially improved economic conditions.

The demand for credit was stimulated not only by the improvement in the state of the economy but also by the fact that interest rates stayed low. Interest rates on loans followed developments in the key reference rates. In the early months of the year, the three- and twelve-month HELIBOR rates still declined slightly, but they turned up somewhat in the course of the year. At the end of the year the average rate on new loans tied to HELIBOR rates was 4.5 per cent, which was 30 basis points higher than in December 1996. The banks' own reference rates were in the range of $3\frac{3}{4}$ – $4\frac{1}{4}$ per cent. In contrast to the prior year, prime rates were adjusted very infrequently. In the early part of the year Ålandsbanken and Svenska Handelsbanken lowered their prime rates and in the latter half of the year Svenska Handelsbanken, the savings banks and Merita Bank raised their reference rates slightly.

The average interest rate on new lending had fallen below 5 per cent by the end of 1996, and it remained at that level during 1997. On loans to households, the average rate was about 6 per cent in 1997. The rate on new housing loans fluctuated around $5\frac{1}{2}$ – 6 per cent during the year.

Interest rates on new loans continued to be tied in most cases to short-term reference rates or prime rates. Borrowers apparently do not estimate interest rate risk to be very large because of the relatively stable inflation outlook. The share of the stock of markka loans that is tied to HELIBOR rates increased sharply during the year, exceeding 50 per cent by end-December. The base rate continues to decline in importance as a reference rate, accounting for only 13 per cent of markka loans at the end of the year. As regards new housing loans, HELIBOR rates were the

most widely used reference rates throughout the year up until autumn, but in the final months prime rates regained their popularity. For October–December, about 60 per cent of new housing loans were tied to prime rates.

The structure of deposits changed markedly

The structure of bank deposits continued to change and at the same time the growth of the money stock moved onto a more natural path in line with overall economic performance. Total bank deposits increased by about 3 per cent. This increase as well as the structural change were reflected in the growth of the broader monetary aggregates and the slowing of the growth of narrow money (M1) (Chart 22). The stock of broad money (M2) again grew fairly slowly in 1997, 3 per cent. M3, which can fluctuate widely because it includes bank CDs held by the public, grew by about 9 per cent.

Taxfree fixed-term deposits based on special legislation have gradually disappeared. Two-year taxfree fixed-term deposits disappeared altogether when the legislation expired. In addition, fixed-term deposits subject to withholding tax decreased by FIM 11 billion, possibly due to low market interest rates. The return on these deposits was nearly the same as that on taxfree accounts.

Funds released from matured two-year accounts and accounts subject to withholding tax were shifted mainly into other taxfree accounts, on which the interest rate can be no higher than 2 per cent. Funds from similar accounts maturing in 1996 flowed mainly into transaction accounts. Households' liquid transaction accounts increased in amount in 1997 by only FIM 9 billion compared to FIM 25 billion in 1996. The average interest rate on total bank funding declined again in the first half of the year and ended the year at 1.44 per cent.

Interest rate linkages on markka-denominated bank accounts changed significantly.

The interest rate linkages on markka-denominated bank accounts changed significantly: many banks changed to fixed-term rates on transaction accounts or tied them to their own prime rates. The share of deposits tied to the base rate declined as traditional two-year taxfree deposits matured for good by the end of the year. These were for the most part replaced by taxfree deposits that can pay at most 2 per cent interest according to the tax law and which have conditions corresponding to those for pure fixed-term deposits or so-called continuous deposits, on which the interest rate is determined ex post in accord with the deposit period.

Mutual fund units, which compete with deposits, increased to slightly more than FIM 18 billion in 1997 compared to an outstanding total of almost FIM 12 billion at end-1996. The increase affected both fixed income funds and balanced funds as well as in-

ternational funds. The amount of government 'yield bonds', which are aimed at households, remained roughly unchanged at about FIM 30 billion. The rapid growth in households' voluntary investments in life and pension insurance that has been recorded over the past two years came to a halt in 1997.

The M1 stock was boosted a bit by an increase of about FIM 1 billion in the amount of banknotes in circulation. The amount of banknotes grew somewhat more slowly than in the last two years, during which time banknotes in banks' ATMs were taken over by a separate company established to handle these machines. In the statistics, banknotes in ATMs are no longer treated as bank's till money but rather as being held by the public. In 1997 the growth in the amount of banknotes was affected mainly by the recovery in private consumption.

The financial markets and the banking sector in particular underwent a number of significant structural changes in 1997. The most important events were an ownership reorganization involving Merita Bank and Nordbanken and a merger of Postipankki and Finnish Export Credit Ltd. In addition, a new cooperative bank group, the OKOBANK Group Central Cooperative, commenced operations in July. The capital market also experienced structural change. The Helsinki Stock Exchange and SOM Ltd, Securities and Derivatives Exchange, Clearing House merged, and the Finnish Central Securities Depository Ltd (FCSD) opened for business at the start of 1997.

The banks posted results clearly better than market expectations. The rapid recovery of bank profitability was largely due to reduced loan losses, gains on sales of shares and lower costs. The growth in total output and declining unemployment were prime factors in the rapid improvement in banks' profitability. The banks did not realize a single risk during the year that would have caused them larger-than-normal losses. The stellar financial performance was nonetheless to a large extent attributable to one-off items, which cannot form the basis for future profitability.

The capital market enjoyed generally stable conditions in 1997. Interest rates remained exceptionally low throughout the year and share prices rose apace. The stock market turmoil that started in Asia in the autumn however led to a pronounced worldwide fall in share prices in October. Prices also declined markedly in Finland.

The Bank of Finland participated in various projects aimed at developing financial and insurance sector supervision. The supervisory authorities discussed inter alia overall developments in financial and insurance sector supervision and agreed on information exchange and cooperation between the authorities.

Several legislative changes concerning credit institutions and investment firms became effective at the onset of 1998. Legislative reform on limitation of the deposit guarantee can be considered the most important of these projects.

Structural change accelerated in the financial sector

Global developments in the financial sector have emphasized the formation of increasingly larger units. The banking industry in

particular experienced a number of significant international mergers and sectoral arrangements in 1997. There were also a large number of cross-sectoral ownership and cooperation arrangements. Cooperation between the banking and insurance sectors in particular has been enhanced considerably over the last few years.

The expected changeover to Stage Three of Economic and Monetary Union (EMU) has clearly accelerated structural change in the European financial sector. The changes in business operations of financial sector enterprises entailed in the single currency project and the heightening of competition have resulted in enhanced efficiency in the allocation of resources. Rapid developments in information technology have also contributed to notable structural changes. Innovations and technological applications have stimulated competition within the financial sector and enabled the entry of new rivals from outside the traditional financial sector. Financial sector enterprises have likewise expanded their operations into other areas.

The banking sector

The EMU process and heightened international competition exerted a discernible influence on the Finnish banking sector as well. Finnish banks too have faced the necessity of adjusting their operations to the new competitive environment and restructuring their ownership base and modes of cooperation.

The most important structural change was in the ownership arrangements between Merita Bank and the Swedish Nordbanken. The two banks established a new holding company, MeritaNordbanken, to own and control the operations of both Merita Bank, including subsidiaries of Merita Ltd, and Nordbanken. The Finnish holding company of MeritaNordbanken, Merita Ltd, holds 40 per cent of the shares and 50 per cent of the vot-

ing power in the new company while Nordbanken holds 60 per cent of the shares and 50 per cent of the voting power. Finland is home to the new enlarged bank, but the company's operational management is located in Stockholm. Measured in terms of the balance sheet total, the new bank is the second largest Nordic bank group after Svenska Handelsbanken. MeritaNordbanken is supervised by the Finnish Financial Supervision Authority.

Reorganization of state-owned financial institutions moved ahead when the government announced its plans to combine the operations of Postipankki and Finnish Export Credit Ltd. The plans were realized later in the year when these operations were pooled under a new holding company. In the new group, Postipankki is a commercial bank that will concentrate on providing banking services to households, small and medium-sized enterprises and public sector entities. Finnish Export Credit Ltd will be selling the new financial group's domestic and international banking and financial services to large Finnish companies and their foreign clients. A new full-service investment bank was also established as part of the group.

The OKOBANK Group Central Cooperative commenced operations in July 1997. The new corporate form enables the commitment of cooperative banks to joint liability on a wider scale than before. Cooperative banks operating under joint liability will be treated as an integrated whole *inter alia* from the viewpoint of solvency, deposit protection and large exposures. A total of 251 cooperative banks, including Okobank, joined the new group. The other 44 local cooperative banks broke rank to establish a group of local cooperative banks, Paikallisosuuspankki-ryhmä (POP). The banks in this group are treated as separate banks *inter alia* in respect of deposit protection.

A working group set up by the Ministry of Trade and Industry published in August 1997 an overall review of the government special financing framework and its reorganization. A key action proposal focused on combining currently decentralized special financing activities and achieving closer cooperation between different branches of administration. The working group proposed the establishment of a new company to manage all government special financing activities. This company would assume the operations concerning small and medium-sized enterprises of Kera Ltd, a Finnish government special credit institution, and the Finnish Guarantee Board; the Finnish Guarantee Board's export guarantee services for large enterprises; and the operations of Finnfund, a Finnish government development financing company, and Fide Ltd, a Finnish government special credit institution.

Foreign banks continued to move into the Finnish financial markets. Two Nordic banks opened branches in Finland in 1997. The aggregate balance sheet of foreign bank branches located in Finland amounted to some FIM 65 billion at the end of the year and accounted for about 10 per cent of Finnish deposit banks' aggregate balance sheet. Foreign banks continued to increase their market shares in the Finnish money and capital markets. Market shares however varied substantially across the different subsectors of the financial sector.

The capital markets

Changeover to the single currency, tightening competition and developments in information technology have also forced enterprises and other entities that participate in the capital markets to enhance their operational efficiency.

The efficiency of securities registration and clearing and settlement procedures im-

proved markedly with commencement of operations by the Finnish Central Securities Depository Ltd at the onset of 1997. An agreement to combine the business operations of the Helsinki Money Market Center and Central Share Register of Finland as well as the trade clearing and settlement functions of the Helsinki Stock Exchange had been concluded already in 1996, but operations could not be started until after entry into force of revised legislation on 1 January 1997. The Bank of Finland's ownership interest in the new company is 24.4 per cent and that of the whole public sector is 40 per cent.

The FCSD sought to develop its operations and international contacts to meet the challenges posed by the changing operational environment. In May 1997 it participated in the establishment of an organization for cooperation between European national securities depositories, the European Central Securities Depositories Association or ECSDA. The ECSDA submitted a proposal on a network between the securities depositories that would facilitate improvements in clearing and settlement operations in connection with international securities trade and enable cross-border use of collateral for credits extended within the European System of Central Banks. The envisaged contacts between securities depositories would also afford market participants the opportunity to handle securities issued in foreign securities depositories in their respective domestic securities depositories.

The Helsinki Stock Exchange and SOM Ltd, Securities and Derivatives Exchange, Clearing House announced their merger in July. The new company was named HEX Oy, Helsinki Securities and Derivatives Exchange, Clearing House. Its scope of operations includes securities and derivatives exchange operations as well as derivatives clearing and settlement. The aim of the merger was to pre-

**Foreign banks
expanded their
market shares in
Finland.**

Chart 23.

Deposit bank groups' profitability

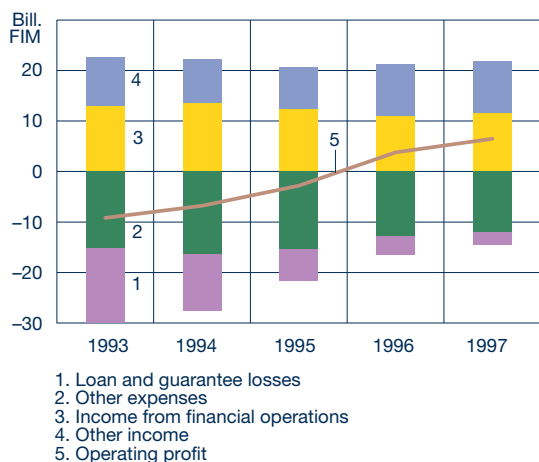
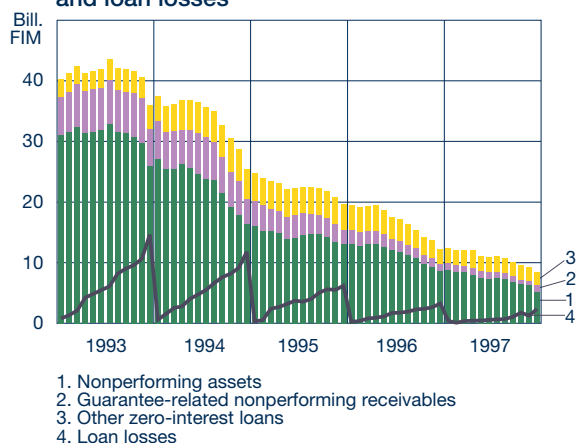


Chart 24.

Deposit bank groups' nonperforming assets and loan losses



pare for tighter national and international competition in the capital markets. Merita Bank became the largest shareholder of the company with an ownership interest of about a third. The Stockholm derivatives exchange OM is also involved, having an ownership interest of 16 per cent.

Foreign banks and banking houses were active in mergers and acquisitions business in Finland. Skandinaviska Enskilda Banken acquired Ane Gyllenberg Oy and Pankkiiriliike Carnegie Suomi Oy purchased Pankkiiriliike Oy Erik Selin Ab.

Banks' profitability and efficiency improved markedly

The large-scale reorganization and rationalization measures initiated earlier in the banking sector began to bear fruit as banks' profitability improved. The favourable financial performance that had begun in 1996 continued in 1997 as banks' results clearly exceeded

ed market expectations. The improved results also strengthened the banks' capital position. Among the major reasons for the improved financial performance were the paucity of loan losses, gains on sales of shares, a decline in operational expenses, and an increase in net income from financial operations (Chart 23). To a large extent, however, the improvement in banks' results was attributable to one-off items. Continuation of the positive trend over the next few years will depend heavily on the performance of the economy as a whole. Specifically, steady economic growth and low interest rates will be essential.

Loan losses declined in 1997 owing to robust economic growth and low interest rates (Chart 24). In addition, banks recovered significant amounts of assets previously booked as loan losses. A larger-than-expected amount of debt was recovered via collateral realizations, which enabled recoveries of assets previously booked as loan losses. This favourable trend was largely due to value apprecia-

tion of collateral assets. Real estate values in particular recorded substantial rises. The amount of nonperforming assets also contracted, albeit less than in 1996.

The banking sector's strong performance was also significantly buoyed by gains on sales of shares. Of these, the major part was booked by Merita Bank. In fact, excluding Merita Bank's trades, total net income from securities trades was poor.

The tender rate hike in mid-September led to an increase in banks' interest rate margins because, as usual, lending rates responded to the change in market rates more quickly and fully than funding rates. Competition for customers in connection with both household and corporate lending will however heat up in the future, and in this environment it will not be easy for banks to maintain their old interest rate margins.

The demand for new housing loans remained brisk throughout the year, and households' outstanding housing loans began to pick up. By contrast, the demand for corporate lending gyrated widely in the course of the year. The total stock of corporate lending has declined somewhat over the last few years; the stock of foreign currency-denominated lending in particular has been contracting thus far during the 1990s. Among the reasons for the sluggish demand for corporate lending were companies' efforts to strengthen their balance sheet structures and their use of retained earnings for financing investment.

Another factor contributing to the improvement in banks' net income from financial operations was a decrease in their low-yield assets. The major low-yield asset items have been nonperforming loans and real estate. The bulk of nonperforming loans was secured by collateral. When the value of the collateral fell below that of the underlying debt, the difference was booked as a loan loss

and the portion covered by the value of collateral remained on the balance sheet as a nonperforming asset until realization of collateral. The stock of nonperforming assets has contracted in step with collateral realizations. Protracted bankruptcy proceedings, for example, have acted as a constraint on collateral realizations. The amount of real estate holdings, albeit still large, has also been declining. The fall in interest rates helped banks reduce financing costs attributable to low-yield assets.

The banks continued to record surpluses on the funding side, which were invested in money market investments. Banks hardly competed at all for deposits, which fostered the positive trend of net income from financial operations. The amount of markka deposits with banks continued to expand in 1997. Low-interest deposits constituted the banks' core funding source, to such an extent that their large magnitude was considered a threat to the funding structure. If the public's investment behaviour changes more in line with the western European tendency to favour mutual funds and insurance as savings outlets, the banks may have to meet the competition by raising deposit rates.

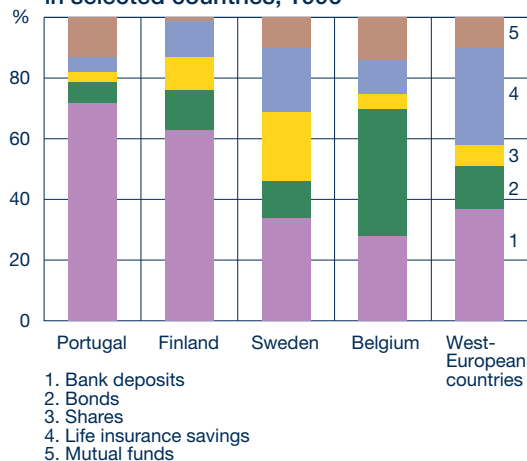
Postipankki in December redeemed in full the preferred capital certificates it had issued to the Finnish government for capital support. Moreover, Merita Bank and some banks from the cooperative and savings bank groups repaid part of their capital support in 1997.

Banks' risk management systems have developed rapidly in recent years, with banks placing particular emphasis on the management of credit and market risk. During the year the banks did not realize a single risk that would have caused them larger-than-normal losses.

**Banks' results
clearly exceeded
market expectations.**

Chart 25.

**Households' financial assets
in selected countries, 1996**



Source: Finnish Bankers' Association

The stock market was buoyant and mutual funds and derivatives markets recorded steady growth

Turnover on the Helsinki Stock Exchange increased appreciably in 1997: the previous year's turnover was surpassed already in August. By yearend international investors' holdings had risen to about 45 per cent of the market capitalization of listed shares. Foreigners' ownership share was largest in Finland of all the EU countries. Despite admissions of new companies to official listing, the Finnish stock market could still be considered fairly concentrated. Shares of the twenty most traded companies accounted for about 90 per cent of total turnover.

The popularity of mutual funds and insurance-related saving increased steadily. Nonetheless, their share in households' total financial assets continued at a rather modest level in Finland compared to other western European countries (Chart 25): the share of

mutual funds was only about 1 per cent and that of life insurance-related saving in the region of 8 per cent. In Sweden mutual funds accounted for about 10 per cent and life insurance-related saving for about 20 per cent of the total. Whereas in Sweden funds already have a long history, in Finland investment via funds can be considered to be in its infancy. Also in the other western European countries saving via funds and life insurance schemes were popular forms of investment.

In recent years banks have considerably increased their use of off-balance sheet instruments. The amount of interest rate derivatives in particular has grown apace; in 1997 the total was up by about 60 per cent on the previous year. Most interest rate derivative contracts are exchange-traded. By contrast, currency derivatives are for the most part OTC contracts, which are nonstandardized contracts entered into off the exchanges.

Chart 26.

Markka-denominated bond issues

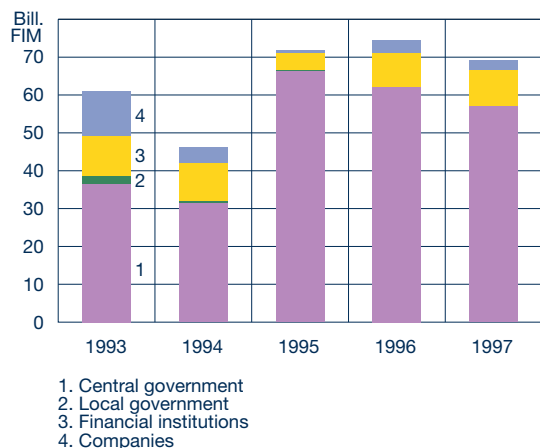
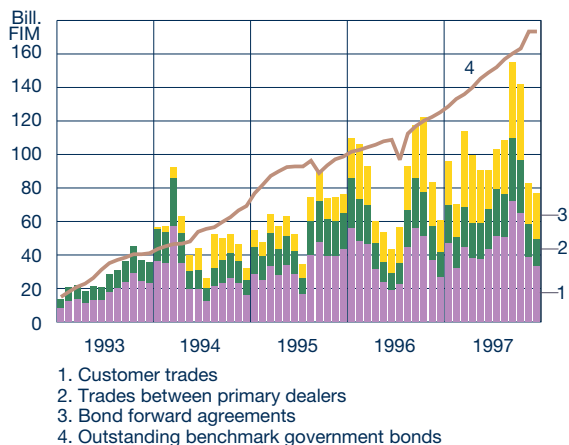


Chart 27.

Benchmark government bonds



Central government borrowing declined

Bond issues declined by 9 per cent. The central government in particular responded to diminishing borrowing requirements with a major cut in bond issues. Issues by other sectors were roughly as large as in 1996 (Chart 26).

The central government's markka-denominated borrowing focused on benchmark government bonds (Chart 27). The outstanding amount of government 'yield bonds', which are sold mainly to households, contracted to some extent over the year. Because of continued good profitability and sluggish growth in investment, companies were not very active in tapping the capital markets for long-term funding; the stock of outstanding corporate bonds actually declined by some 10 per cent in 1997. There was little need for banks to issue long-term bonds, as their lending rates were mainly tied to HELIBOR and prime rates. Outstanding bonds issued by banks and other financial institutions also contracted in 1997.

The liquidity of the secondary market for benchmark government bonds improved compared to previous years. Insurance companies, notably pension institutions, still constituted the key investor group for government bonds, albeit the growth of their investments slowed toward the end of the year. International investors increased their investments in the long-term markka bond market in 1997.

Financial supervision and legislation

The Bank is responsible for broad oversight of the stability and functionality of the financial system. Its tasks include promotion of the stability, reliability and efficiency of the payment system and overall financial system.

In 1997 developments in financial supervision affected a number of different areas. The supervisory authorities considered the overall contents of financial and insurance

Limitation of the deposit guarantee underscores the responsibility of owners, market participants and depositors to monitor a bank's financial condition.

sector supervision and came to an agreement on mutual information exchange and cooperation. Measures taken with the aim of developing financial supervision focused on the importance of supervision of corporate governance matters and sufficient market information. The Ministry of Finance appointed a commissioner to study and make a proposal on the means and possibilities of upgrading supervision of the financial and insurance sectors. The commissioner, Mr Björn Wahlroos, recommended combination of the supervision of the financial and insurance sectors under a new supervisory authority. The Ministry of Finance requested that the concerned parties submit their opinions on the proposal by the end of the year

A number of legislative revisions on credit institutions and investment firms came into effect at the onset of the year. Perhaps the most important were those concerning the deposit guarantee. Under new legislation, deposits are protected up to FIM 150 000. Coverage applies to a single depositor per bank, so that a depositor's deposits with a single bank or banking group are protected up to FIM 150 000. There is no limit on the number of deposits with different banks. Estimated on the basis of deposits held by the public in July 1996, practically 96 per cent of all such deposits and 60 per cent of their total markka value are covered. The legislative change concerning limitation of the deposit guarantee can also be regarded as a significant reform in principle, because it helps to clarify issues regarding banking sector supervision and accountability. The limitation of the deposit guarantee underscores the re-

sponsibility of owners, market participants and depositors to monitor a bank's financial condition. The reform brings the Finnish deposit insurance scheme more in line with deposit protection in other EU countries.

The legislative revisions also inter alia extended the duty to publish interim reports to cover deposit banks that are members of the OKOBANK Group Central Cooperative. The reform was aimed at increasing and clarifying public information on credit institutions' financial condition and at facilitating access to such information so as to improve the market mechanism. The legislative changes also expanded somewhat the range of credit institutions and investment firms subject to official supervision, so that in the future financial holding companies will also be supervised by the Financial Supervision Authority. There were also certain revisions to accounting regulations. The valuation principles applied to assets and liabilities were changed inter alia so that trading asset securities are always marked to market in the accounts.

The Government submitted to Parliament a legislative proposal on clearing and settlement of securities trades. The current Securities Markets Act does not contain provisions on clearing and settlement. Under the proposed legislation, professional clearing and settlement activity would be subject to authorization. Clearing houses would be governed by regulations similar to those applying to stock exchanges and options exchanges. The aim of the new legislation is to improve the position of investors, market participants and public entities in the securities markets.

One of Bank of Finland's tasks is to contribute to ensuring the reliability and efficiency of the payment system, participate in its further development and provide services in the area of payment transfers and settlement. The central bank oversees the payment systems in their entirety, whereas the Financial Supervision Authority (FSA) is responsible for the supervision of individual credit institutions and their payment system risks. Several international organizations (EU, EMI, BIS) have issued guidelines and recommendations for promoting the reliability and security of payment transfers. One aim in this context is to ensure that by end-1998 Finnish systems and their supervision meet international guidelines and EMU eligibility requirements.

With a view to developing domestic payment systems, the Bank of Finland cooperates with the banks and the Finnish Bankers' Association. The focus of the Bank's responsibility is the intermediation of large payments, a task that will be underscored in the euro environment as euro-denominated payments are transferred via the Bank to the other EU countries. In 1997 the development of the Bank's interbank funds transfer (BoF-RTGS) system and related settlement processes was continued in an effort to make

them conform to jointly agreed minimum standards for Stage Three of EMU. Efficient and credible implementation of the single monetary policy calls for reliable payment and settlement systems in the euro area. International cooperation in this area continued primarily in the European Monetary Institute (EMI) Working Groups on EU Payment Systems.

Technological advances, electronic payment systems and new means of payment pose challenges also to payment system oversight. The Bank has been monitoring developments in the use and regulation of electronic money, taking part in regulatory discussions both in Finland and within the EU.

Oversight of payment and settlement systems

The Bank is responsible for the oversight of payment and settlement systems. Consequently, definition and analysis of objectives and tasks in this area were continued in collaboration with the FSA. A joint project of the Bank and the FSA on the development of payment system supervision (MAJAVA) completed its work in November on the definition of risks inherent in domestic payment

Realization of counterparty risk may affect the fluidity of payment transfers and the stability of payment and financial systems.

systems and their regulatory and supervisory requirements.

When payment system risks are realized, the system may be impaired or may cease to operate altogether. Interbank counterparty risk arises if the recipient bank assumes responsibility for the payment and credits the payee's account before final interbank transfer of cover has taken place. Realization of counterparty risk can affect the fluidity of payment transfers and the stability of payment and financial systems if payment difficulties encountered by a single bank are allowed to spread over a large area. Counterparty risk can be eliminated inter alia by transferring cover funds in real time on a gross basis prior to crediting the payment to the customer, using a real-time gross settlement (RTGS) system.

Efforts to identify settlement risks associated with foreign exchange transactions of banks operating in Finland were continued in cooperation with the FSA. All banks maintain significant counterparty risk positions in connection with their foreign exchange transactions. The payment versus payment (PVP) principle is not realized in foreign exchange transactions. Instead, currency transfers must be effected at different times owing to differences in time zones and national delivery times. The PVP principle could be realized for instance by means of an international netting centre for foreign exchange transactions or via simultaneous interdependent RTGS transfers. Work on the identification of settlement risks was based on a report published by G-10 countries' central banks in spring 1996 concerning settlement risk in foreign exchange transactions, the need to reduce such risk, and the means of accomplishing this.

The Bank and the FSA in autumn 1997 set up joint project groups to develop overall

supervisory functions in connection with domestic clearing houses (the securities depository, derivatives exchanges and the Automatia companies). These groups are to define the principles and content of overall supervision of settlement systems. In securities trade it is possible to observe the delivery versus payment (DVP) principle and link payments with delivery of quid pro quo book-entry securities.

Development efforts continued on banks' payment systems

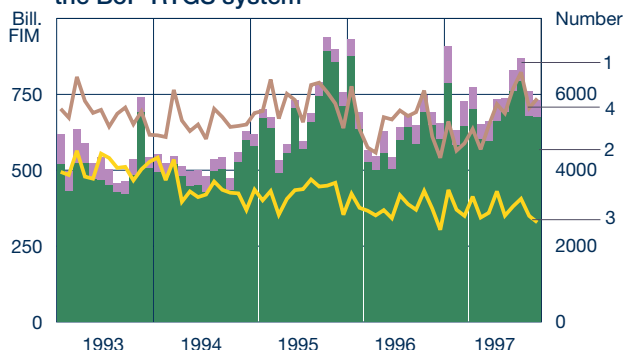
The Bank has been developing the BoF-RTGS system and other domestic payment systems in cooperation with the banks and the Finnish Bankers' Association. The aim of this development work is to improve the efficiency of the systems, to reduce risks incurred by banks in connection with payment transfers and to meet minimum requirements for EU payment transfers.

The BoF-RTGS system

In 1997 an average of 402 payments a day were made via the BoF-RTGS system. Average daily turnover, FIM 35.9 billion, amounted to 5.9 per cent of Finland's GDP. In other words, the value of these monetary flows matched the year's GDP every 17 days. Payments effected via the BoF-RTGS system increased in terms of both number and markka value over previous years (Chart 28). The biggest change occurred in the number of payments between account holders in the latter half of the year. In December 1997 these payments amounted to almost one and a half times the number recorded in December 1996. The increase was due to the introduction of transaction-specific RTGS cover transfers. Almost 30 per cent of payment transactions in the BoF-RTGS system were

Chart 28.

Payment transactions in the BoF-RTGS system



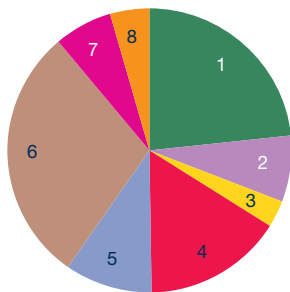
1. Transactions between account holders, bill. FIM
2. Transactions between the Bank of Finland and account holders, bill. FIM
3. Transactions between account holders, number
4. Transactions between the Bank of Finland and account holders, number

Chart 29.

BoF-RTGS system, transactions by type

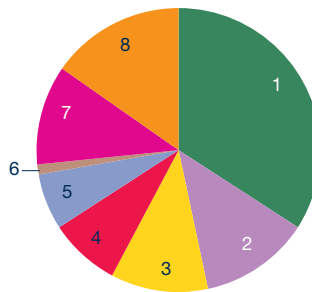
Relative number of transactions (%)

Jul - Dec 1997



1. Net settlements of securities trades (24)
2. RTGS settlements (8)
3. Net loro settlements (3)
4. Interbank net settlements (16)
5. Other payments (10)
6. Currency supply maintenance (28)
7. Monetary market transactions (7)
8. Foreign exchange trades (4)

Relative markka values (%)



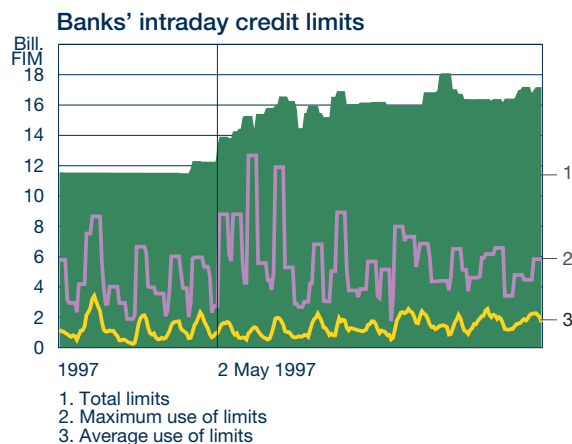
1. Net settlements of securities trades (35)
2. RTGS settlements (12)
3. Net loro settlements (11)
4. Interbank net settlements (8)
5. Other payments (7)
6. Currency supply maintenance (1)
7. Monetary market transactions (12)
8. Foreign exchange trades (14)

related to the maintenance of banks' currency supplies. However, currency supply maintenance accounted for only 1 per cent of the aggregate value of these payments, whereas securities and foreign currency trading accounted for 50 per cent (Chart 29).

Since the start of 1996 the Bank has required full collateral in granting banks intra-

day credit limits on their current accounts. According to the rules issued by the EMI, such credit limits must always be fully collateralized. In order to ease the banks' management of payment transfers within the BoF-RTGS system, the Bank on 1 May 1997 abolished the requirement for approval by its Board for changing overdraft limits. Accord-

Chart 30.



ing to the new practice, the Bank can approve a bank's request for a change in its limits upon verification of the eligibility and value of posted collateral. In fact, the banks can now flexibly apply for a change in their overdraft limits according to their intraday liquidity needs. The banks have increased the aggregate amount of their credit limits (Chart 30) in preparing for fluctuating liquidity needs and larger transaction volumes within the BoF-RTGS system as the volume of gross settlements has increased.

In August 1997 the Bank approved the basic principles for an automated collateral management service. The automation project affords the banks an opportunity to improve the processing of collateral assets held in book-entry form. The service would enable monitoring of collateral adequacy on the basis of the aggregate value of pledged book-entry securities. The project was negotiated with the banks, and preparations were started. The Finnish Central Securities Depository is responsible for developing the system, which is planned for introduction in early 1998.

Account holders can access the BoF-RTGS system via the Bank of Finland's workstation application or using their own applications. In 1997 the Bank developed a new program version of the workstation application and of the BoF-RTGS system. These involve inter alia a payment queuing procedure. If the account holder's current account at the central bank does not have adequate funds to cover a payment, the payment will not be returned to the sender but will instead be put into a queue to await adequate funds in the account. The order of queuing payments is determined inter alia by the time of arrival and the priority rating determined by the account holder. The new systems will be introduced in spring 1998.

Other domestic systems

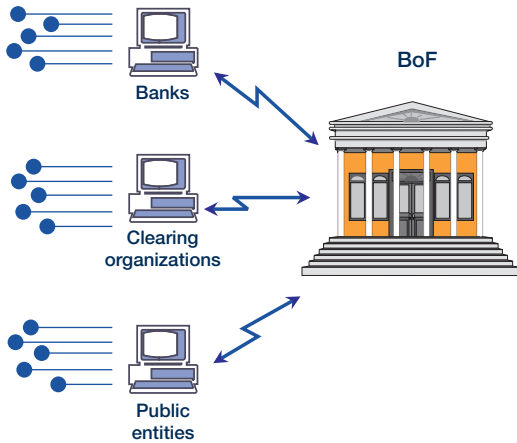
Settlement transfers between banks operating in Finland are effected via the BoF-RTGS system. In 1997 developmental efforts centred on the POPS system for express transfers and large cheques as well as the banks' payment transfer system, clearing pro-

Chart 31.

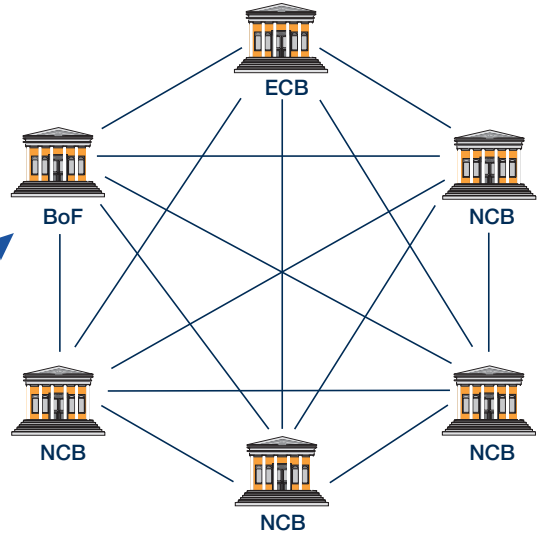
BoF-RTGS system and TARGET

BoF-RTGS system

Customers Account holders



TARGET



BoF = Bank of Finland
ECB = European Central Bank
NCB = national central bank

cedures and markka-denominated cross-border (loro) payments.

The banks introduced the POPS system in 1996 for use in real-time interbank exchange of payment data on express transfers and cheques. Payment funds were transferred in connection with banks' other payment clearing procedures. Interbank bilateral limits were introduced in June 1997 as a means of reducing counterparty risks in the POPS system. For especially large payments exceeding limits, cover is transferred between banks on a gross basis before payment is made to the customer; for payments within the limits, on a net basis at the end of the day. This practice will be changed in 1998 so that the POPS system will use bilateral net debit caps to limit exposures. When an interbank bilateral limit

is exceeded, the indebted bank will be obliged to effect a cover transfer to clear the limit.

The banks make bilateral exchanges of payment clearing data, for instance on credit transfers, card payments and direct debits, several times a day. The Bank of Finland handles the settlement by transferring cover among the banks once a day on the basis of banks' clearing calculations. Presently, some customers' payments are entered in payee accounts prior to the transfer of cover between banks, which exposes banks to counterparty risk. In order to eliminate such risk, and still maintain the customer-service level, a proposal was made to introduce a new early clearing process.

A loro payment is a markka-denominated cross-border payment between a resi-

dent and a nonresident or between nonresidents. At present, the banks exchange payment data among themselves and the cover funds are transferred either on a bilateral basis or on a netted basis in the interbank loro clearing process within the BoF-RTGS system. Loro payments are often large in value. For this reason, transferring cover via the loro clearing procedure only after payees accounts have been credited exposes the banks to substantial intraday counterparty risks. Preparatory discussions within cooperation groups set up by the Bank of Finland, domestic banks and the Finnish Bankers' Association led to a decision to change over from the existing loro clearing procedure to gross settlement of loro payments by autumn 1998. After the changeover, markka-denominated foreign payments of more than FIM 50 000 will be effected on a gross basis, whereas smaller loro payments can be handled in the banks' other payment clearing procedures.

Securities trade and related payment transfers will be undergoing major changes in the context of market integration as a result of EMU. To meet these new challenges, the Finnish Central Securities Depository, the banks, the Finnish Bankers' Association and the Bank of Finland appointed a joint working group. During the year the group prepared several reports focusing on addressing upcoming changes and planning a developmental programme for payment transfers related to securities trade.

Transaction volumes in the BoF-RTGS system are expected to grow substantially as cover transfers are increasingly effected on a gross basis. The impacts of increasing transaction volumes on banks' payment transfers within the BoF-RTGS system were assessed at the Bank by constructing models for testing liquidity. Test results suggest that the changeover to cover transfer procedures that

reduce counterparty risk will result in an increase in banks' use of intraday credit limits on current accounts and slightly wider fluctuations in account balances.

EU central banks' payment systems to be linked

The Bank of Finland's interbank funds transfer system was one of the first RTGS systems to be operational in Europe. It will be incorporated into the EU countries' joint RTGS system, TARGET (Trans-European Automated Real-time Gross Settlement Express Transfer), when the European Central Bank commences operations on 1 January 1999 (Chart 31). EU countries not participating in Stage Three may also join the TARGET system. TARGET was developed for the primary purpose of intermediating euro-denominated payments related to monetary policy and EU-wide money market transactions. EU central banks are hopeful that other large euro-denominated payments can also be transmitted via the system, as this would reduce counterparty risks. The EMI set a tentative uniform transaction price range of ECU 1.5–3 for cross-border TARGET payments.

The Bank of Finland's TARGET project, which had been launched in 1996, progressed to the implementation and testing phase in 1997. Joint testing with domestic banks commenced in May, and system upgrades were carried out during the summer. Testing in cooperation with the EMI started in September and continued until the end of the year. Joint testing among central banks will start in early 1998, and a simulation phase involving all the central banks will start in summer 1998.

Pursuant to a decision by the European Monetary Institute, TARGET will be open

on weekdays from 8 am – 7 pm Finnish time. According to the present understanding, the whole system will be closed, besides on weekends, only on Christmas Day and New Year's Day. At other times the TARGET system will be in operation if at least two EU central banks are open. National central banks will decide on their participation in the system on national holidays, in light of competitive factors, banks' wishes etc. By the onset of Stage Three – but probably earlier – the Bank will extend the operating hours of the account-holder application of the BoF-RTGS system and prepare for provision of system services also on national holidays, as per banks' preferences.

Payment by electronic means is expanding

The Bank of Finland participated in a working group set up by the Ministry of Finance on the regulation of electronic money, ie card and network money. The group's report of December 1996 examined requirements related to electronic money and general approaches to its regulation, with the aim of safeguarding the position of the user via obligations imposed on the issuer.

A new working group on electronic money, also established by the Ministry of Finance, started its work in November 1997. This group is to prepare regulations on electronic money and tentative recommendations. Electronic money and the need for its regulation were also studied internationally in EMI and EU Commission working groups on electronic money. The EU Commission began drafting a directive on electronic money in July 1997.

In Finland electronic money was used somewhat more extensively in 1997, and

there were several systems in operation. The most important of these is a multi-purpose prepaid card (Avant II), which was developed by Automatia Rahakortit Oy, a company owned jointly by three Finnish banks (Merita Bank, Postipankki and Okobank), and introduced in March 1997. Since early November Automatia has offered customers the possibility of using cards on a limited scale for effecting payments in the information network via a card reader.

Finnish payment systems continued in 1997 to rely increasingly on electronic data transmission. In the near future Internet and telephone banking will provide new opportunities for developing payment media and, as they gain wider acceptance, will set off a significant cultural change in the provision of payment services. Technological advances, electronically effected payment transactions and new means of payment also pose challenges to supervision.

Legislation on payment transactions is being drafted

With technological advances and increased use of electronics, several countries have started to focus attention on payment transactions legislation. Finland does not yet have a law specifically on regulation of means of payment, payment processes and payment transactions. Certain countries have initiated legislative reforms with a view to enacting comprehensive laws on payment transactions. Developments in Finland have been guided by EU Commission directives.

Implementation in Finland of the directive on cross-border credit transfers will change the practices in this area. The directive regulates cross-border credit transfers with a value of less than ECU 50 000 within the EU

Finland's payment systems are relying increasingly on electronic data transmission.

area. The Bank is participating in a Ministry of Justice working group that is preparing legislation on credit transfers. Provisions on domestic credit transfers will be formulated at the same time. The working group is expected to complete its work by the end of March 1998.

In June 1997 legislation entered into force on the finality of netting in connection with securities transactions, derivative contracts, foreign exchange trades and related

payments. Finnish payments legislation does not contain precise definitions of payment finality, which may weaken the competitive position of Finnish participants in the integrating markets. Work is currently under way to prepare domestic legislation, as well as an EU directive, on the finality of payments and netting. In addition, the EU Commission has begun to draft a directive on electronic money.

Maintenance of the Currency Supply

The operating environment for currency supply maintenance changed somewhat in 1997 from what it had been in recent years. The key changes were the slowing in the growth of the demand for currency, the halt of the decline in banks' cash holdings, and the reversal of the rising trend in the flow of banknotes through the Bank of Finland.

The Bank participated closely in preparations for the issue of euro-denominated notes. Preparations concentrated on production arrangements and demand estimation, the security features of banknotes, and development of a system for handling counterfeit notes (see page 63 for more information).

Currency in circulation increased but the rate of growth is slowing

The uptrend in the amount of currency in circulation, which had begun in 1995, continued on into 1997 in line with the growth in private consumption. However, in the course of 1997 the growth in the demand for banknotes and coins slowed as the use of debit and credit cards increased. The amount of currency in circulation averaged over FIM 16 billion in 1997, compared to FIM 15 billion

in 1996 and an average of about FIM 14 billion for the first half of the 1990s (Chart 32). At end-1997 currency in circulation amounted to FIM 17 817 million, reflecting an increase of 5.5 per cent in 1997 compared to a 8.2 per cent in 1996. Notes in circulation increased by FIM 847 million, which was also less than the FIM 1 208 million increase in 1996 (see Appendices, Table 1).

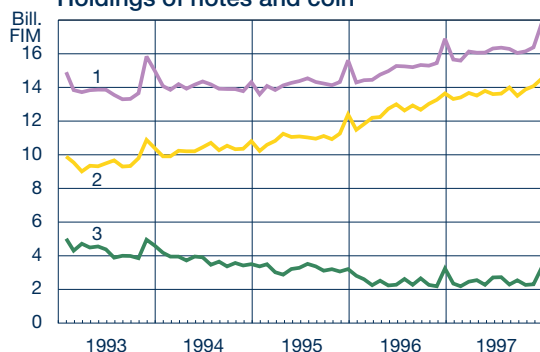
In December the amount of notes in circulation was boosted by tax refunds and normal seasonal factors. For the whole year, the amount increased by 5.6 per cent (Chart 33).

The increase in coins in circulation continued, amounting to 4.4 per cent in 1997 compared to 4.1 per cent in the previous year. The amount of ordinary coins increased by FIM 53 million and the amount of commemorative coins by FIM 26 million.

Relative to GDP, the amount of currency in circulation remained at about the same level in 1997 as in 1996, 2.6 per cent (Chart 34). The ratio has clearly been on a long-run downtrend as the payment system has developed, and judging by what has happened in the 1990s, it appears that the slightly declining trend will continue. Particularly in the coming years, electronic money may become more widely used and may to some extent replace notes and coins as means of payment.

Chart 32.

Holdings of notes and coin

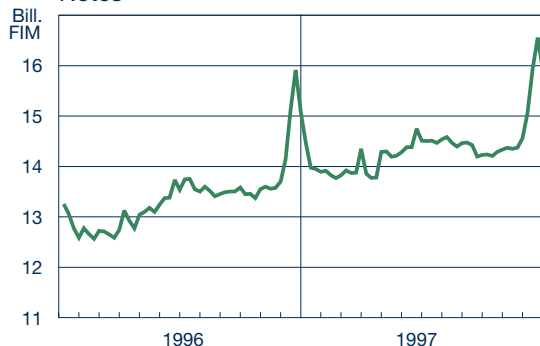


- 1. Notes and coin in circulation
- 2. Notes and coin held by the public
- 3. Banks' cash holdings

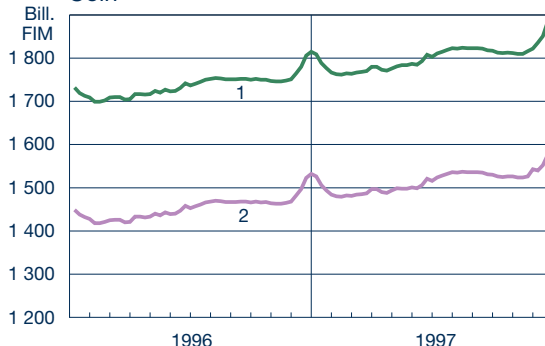
Chart 33.

Value of notes and coin in circulation

Notes



Coin



- 1. Ordinary and commemorative coins
- 2. Ordinary coins

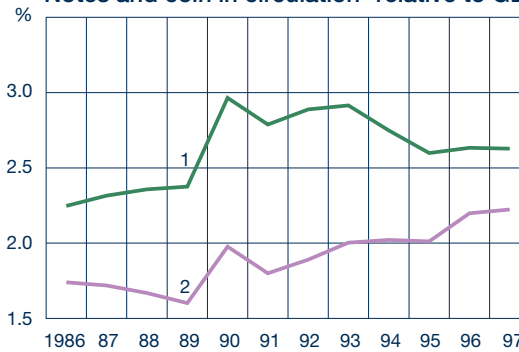
Relative to GDP, the amount of currency in circulation in Finland was still the lowest of the EU countries, except for Luxembourg, which forms a monetary union with Belgium. In the other EU countries, currency/GDP ratios varied from over 3 per cent to over 10 per cent. The main reasons for the relatively small ratio for Finland are the so-

phistication of the domestic payment system, the minor use of banknotes for hoarding and the small amount of markka notes abroad.

Banks' cash holdings remained almost unchanged in 1997, marking the end of a downtrend that had begun in 1991. Hence the increase in currency in circulation in 1997 was due to public demand for notes and coin

Chart 34.

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.

(Chart 32). At yearend banks' cash holdings totalled FIM 3 300 million while public holdings amounted to FIM 14 517 million. Cash held in ATMs owned by Automatia Pankki-automaatit Oy are also included in cash holdings of the public. This company, which was established jointly by the banks in 1994, owns over 90 per cent of all ATMs in Finland.

While the amount of currency in circulation increased in 1997, the banks' share declined by over 1 percentage point from the previous year to only about 15.3 per cent on average. Prior to the termination of the till-money credit facility and rationalization measures induced by the recession, the banks' share was almost 40 per cent at the end of 1991. However, since the banks' share is fairly large by historical and international standards, it can be expected to decline even further.

Banknotes' flow-through rate decreased

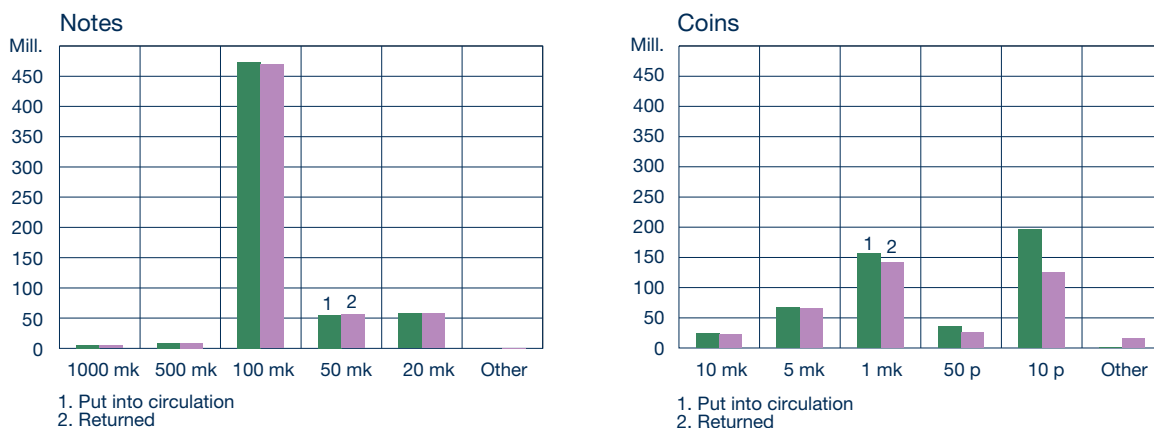
Banknotes flowed through the Bank 6.0 times on average in 1997. The strong growth in the flow-through rate that had lasted several years was thus reversed. The rate had increased to 6.7 in 1996 from just 3.5 in 1992. In the other EU countries, the annual rate generally ranges from 1.5 to 3.0.

The 100 markka note had the highest flow-through rate of all the banknotes, 8.1. The rates of other banknotes were 0.9 for the 1000 markka note, 1.9 for the 500 markka note, 4.6 for the 50 markka note and 2.9 for the 20 markka note.

The main reason for the trend reversal in the flow-through rate was the note handling fee introduced by the Bank at the onset of 1997. Like the other 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. The fee is applicable only to the extent that

Chart 35.

Flow of notes and coin through the Bank of Finland, 1997



the average annual flow-through exceeds 3.0. By European standards, this rate is considered adequate to ensure the quality and authenticity of banknotes, which is one of the Bank's statutory duties. Because of this handling fee, notes are increasingly handled in regional cash centres, which provide currency supply services to banks. At the same time, banks began to consider other ways of reducing the flow of banknotes through the Bank of Finland.

Since the average flow-through rate was still higher than the desired rate and because the problem concerns only 100 markka and 50 markka notes, the Bank decided that the note handling fee will be applied only to these denominations as from 1 January 1998. To further enhance the impact of the measure, the Bank also decided to review the handling fee every six months on the basis of the flow of banknotes in the preceding six-month period.

The amount of notes ordered by banks decreased by 6 per cent in 1997 to FIM 61.1

billion. The number of notes ordered was 601 million (Chart 35) compared to 637 million in the previous year. The number of notes returned also decreased, to 597 million, which was 6 per cent less than in 1996. The value of returned notes was FIM 60.2 billion.

The note handling fee was FIM 0.85 for 100 banknotes of the same denomination. Total fee revenue in 1997 was FIM 10.2 million.

The Bank collected FIM 5.3 million from the banks for data processing services in connection with currency supply maintenance. The charges amounted to FIM 1.4 million less than in the previous year. The decrease was due to the concentration of banks' currency supply functions in cash centres, which reduced the amount of purchases and returns of currency.

Banknote sorting capacity increased with the Bank's purchase of two new generation note-sorting machines, which will also be able to handle euro notes.

A new issue (Litt.A) of the 20 markka note

A new issue (Litt. A) was made of the 20 markka note, which was first issued in 1993. The colouring was changed to bluish green in order to make it easier to distinguish from the 100 markka note.

In 1991 a multi-dimensional optically variable feature (kinegram) was incorporated in the 1 000 and 500 markka notes, which has proved to be an effective security feature. A similar optically variable feature, a hologram, was introduced in the 20 markka note. Other security features of the 20 markka note remained unchanged.

Ongoing advances in reproduction and photoprocessing techniques pose a continuing challenge to central banks and note printing works. Banknotes are therefore continually upgraded with new security features that make them increasingly secure against attempted forgery. For this reason, new banknotes are still being issued in most EU member states, although design of the future euro notes is already well under way.

The number of counterfeit notes remained low

The number of counterfeit Finnish banknotes detected in 1997 was slightly higher than in the previous year. Most of the counterfeit notes, which numbered 188, were the result of single forgeries.

The Bank of Finland and the National Bureau of Investigation jointly organized ten training seminars in the detection of counterfeit banknotes. The Bank also provided material on recognition of genuine banknotes for persons whose jobs involve the handling of money.

Flow of coins continued to decrease

The Bank of Finland put into circulation ordinary coins with a total face value of FIM 775 million. Compared to the previous year, the amount of coin issued decreased by 20 per cent. The face value of returned coins was FIM 722 million.

The Bank received FIM 3.6 million in coin handling fees, which was FIM 1.7 million less than in 1996. The number of lots provided declined by 16 per cent. Also affecting the decline in fee revenue was a reduction in the fee level.

Three commemorative coins were issued in 1997. The 100th anniversary of the birth of the Finnish athlete Paavo Nurmi was commemorated by the issue of 51 500 silver coins in the denomination of 100 markkaa. To commemorate the 80th anniversary of Finnish independence, a gold coin in the denomination of 1000 markkaa was struck, the issue being limited to 20 000 coins. A dual-metal 25 markka coin of aluminium-bronze and cupro-nickel was also struck at the same time with an issue of 100 000 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 value of coin held by the Bank of Finland peaked on 28 February 1997 at 8.1 per cent of the amount in circulation and was 6.4 per cent at the end of the year.

By virtue of the Currency Act, the Ministry of Finance annulled the validity of the old 1 markka coins issued in 1964–1993 and the old 5 markka coins issued in 1972–1993. These coins were replaced with a new issue commencing in November 1993. At the end of year the value of annulled 1 markka coins in circulation was FIM 123 million and the

A FIM 1000 gold coin was issued to commemorate the 80th anniversary of Finland's independence.

figure for 5 markka coins was FIM 78 million. The Ministry of Finance also annulled silver commemorative coins issued in 1967–1985. The total value of these coins in circulation was FIM 127 million on 31 December 1997. The Bank of Finland is obliged to redeem annulled coins for a period of ten years

from the entry into force of the annulment, ie until 31 December 2007.

In 1997 the Bank redeemed notes and coins annulled on 1 January 1994 to a total value of FIM 6 million and FIM 2 million respectively.

Cooperation with the European Union

Preparation for Economic and Monetary Union

Preparation for Stage Three of Economic and Monetary Union (EMU) of the European Union was a focal point of the Bank of Finland's activities in 1997. At the EU level the Bank was involved in the preparatory work particularly within the European Monetary Institute (EMI) and in the Monetary Committee of the EU. The EMI plays an important role in preparations for monetary and foreign exchange policy, payments systems for the EMU and euro banknotes. The EU Commission and the Monetary Committee participate actively in preparations for Stage Three inter alia by drafting Community legislation and preparing other matters for disposition by the EU Council.

Stage Two of EMU began at the onset of 1994. Since then the EMI, in accord with the Maastricht Treaty, has continued with the practical preparations for Stage Three, which were initiated by the former Committee of Governors. Stage Three is slated to begin 1 January 1999. The Bank has been involved in all areas of the EMI's preparatory work.

The highest body responsible for the EMI's preparations is the EMI Council. The

preparatory bodies of the Council are its Committee of Alternates and a number of subcommittees and working groups. The Bank is represented in all these bodies. The subcommittees are those dealing with monetary policy, foreign exchange policy and banking supervision. The permanent working groups deal with 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 subcommittees and working groups, usually on a fixed-term basis.

During the year under review, the Bank was represented on the EMI Council by Ms Sirkka Hämäläinen, Chairman of the Bank of Finland's Board, and on the Committee of Alternates by Mr Matti Vanhala, Member of the Board.

In 1997 the most important matters prepared within the EMI were strategies and instruments of the future monetary policy; introduction of TARGET – a real-time gross settlement system covering the whole EU area and designed to meet the needs of the single financial market; and issues related to the design of euro banknotes, concerning eg their security and appearance. Active preparations were also continued in respect of the

The implementation of the single monetary policy will be decentralized among the NCBs.

definition and allocation of the 'monetary income' that will accrue to national central banks (NCBs) in the conduct of the single monetary policy and note issuance.

Further work was also done on issues related to the introduction of the euro and legislative amendments regarding NCBs as necessitated by EMU. The Banking Supervisory Sub-Committee continued its discussions on development of cooperation between member states on banking supervision as well as the possible role of the European Central Bank (ECB) and European System of Central Banks (ESCB) in supervision and promotion of financial market stability in Stage Three of EMU.

In April 1997 the EMI published its third annual report, dealing with 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.

According to the Maastricht Treaty, decisions on the single monetary policy will be made in the Governing Council of the ECB, composed of NCB governors and the ECB Executive Board. During the preparations in 1997 it was confirmed that practical measures in the conduct of the single monetary policy will be implemented in a decentralized manner by the NCBs.

The Bank 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, and on the Committee of Alternates by Mr Peter Nyberg, Adviser to the Board.

In a national EMU project headed by the Ministry of Finance, the Bank was in-

involved in preliminary efforts to ensure that all legislative tasks and other arrangements for Stage Three of EMU in respect of all segments of society will be completed before 1999. New legislation was drafted inter alia on the status of the Bank. Because the Bank will cease to calculate and quote certain reference rates by the start of Stage Three, the continuity of contracts tied to reference rates will be ensured by means of legislation and official guidelines.

The Bank used numerous fora to inform Finnish banks on EMU preparations and joint measures needed in that connection. The banks likewise reported on their own preparations to the central bank. This cooperation was most concrete in respect of payment systems, as preliminary work was done in anticipation of the introduction of the TARGET system, including the testing of national TARGET systems.

Monetary, foreign exchange and fiscal policy

The EMI continued its preliminary work on strategies for the single monetary policy. In February it published a report titled 'The single monetary policy in Stage Three: Elements of the monetary policy strategy of the ESCB'. In this report the EMI proposed that the single monetary policy be based either on an intermediate monetary target or a direct inflation target. It argued against using the exchange rate, interest rate or nominal GDP as an intermediate target. The report also assessed the effectiveness, accountability, transparency and continuity of the two recommended alternative main strategies and their variants, as well as their consistency with ESCB independence.

This assessment has been hampered because we cannot yet get empirical data on monetary policy transmission mechanisms

for the future euro area. One of the arguments in favour of monetary targeting is continuity, since Germany, the ERM anchor country, currently uses monetary targets in gauging its monetary policy. Direct inflation targeting in turn might be preferred not only because of the uncertainty involved in forecasting the demand for money but also for other reasons, including the transparency of inflation targeting to the public and its focus on the primary objective of the ECB – price stability.

Besides its intermediate target for monetary policy, the ESCB must also decide on other issues related to monetary policy strategy, such as length of the targeting period and possible room for manoeuvre around the target. The EMI will continue its planning for monetary policy strategy inter alia by means of empirical studies of member states' monetary policy transmission mechanisms and properties of various inflation indicators as well as the forecasting power and reliability of different monetary aggregates.

In January 1997 the EMI published a report titled 'The single monetary policy in Stage Three: Specification of the operational framework'. The report was an attempt to inform the public of the operational aspects of the monetary policy of the ESCB, including strategic considerations, as well as the main features of instruments, procedures and supportive operations of monetary policy that are being designed by the EMI. In the course of the year, these preparations progressed well, and in September the EMI published a document titled 'The single monetary policy in Stage Three: General documentation on ESCB monetary policy instruments and procedures'.

Although final decisions on ESCB monetary policy instruments will be made by the ECB, it is probable that the final choices

will to a large extent accord with the solutions outlined in the general documentation. Adoption of monetary policy instruments requires extended preparatory work, and the EU central banks have been preparing to implement only those alternatives discussed in the general documentation. Therefore, the ESCB is highly likely to use the general documentation as a menu from which it can select suitable instruments to form its monetary policy arsenal.

The general documentation discussed in detail open market operations, standing facilities and minimum reserve systems, as well as implementation techniques. The ESCB will use open market operations to steer interest rates, manage liquidity in the money market and signal the stance of monetary policy. The role of the standing facilities will be to dampen fluctuations in the shortest money market interest rate – the overnight rate – and possibly to signal the stance of monetary policy. If the ECB decides to adopt a minimum reserve system, it will be aimed primarily at stabilizing money market interest rates and inducing or enlarging a structural shortage of liquidity and possibly at controlling the growth of the money stock. The general documentation also specified eligibility criteria for counterparties and collateral in ESCB monetary policy operations.

Preparations were completed in 1997 for the new exchange rate mechanism, ERM II. According to a resolution approved by the European Council in Amsterdam in June, the new exchange rate mechanism will begin operating 1 January 1999 with the commencement of Stage Three. ERM II is intended for the EU states not joining the euro area. Though participation is voluntary, these states are expected to join ERM II either at the start of Stage Three or later. The new ex-

change rate mechanism will be based on central rates defined in terms of the euro. The standard fluctuation limits around the central rates will be ± 15 per cent. The central rates and standard fluctuation limits will be decided by the ministers of the member states, the ECB and the central bank governors of the states participating in ERM II according to a common procedure that involves the European Commission. Before this, the decision-makers must consult the Economic and Financial Committee to be set up at the start of Stage Three. Ministers and central bank governors of member states that have not joined ERM II will be entitled to participate in the deliberations but will not have voting rights. All parties to the agreement will have the right to initiate a confidential procedure for the adjustment of central rates.

Interventions at the standard margins will be automatic and unlimited in size. The Very Short-Term Financing facility (VSTF) will continue to be available for financing interventions. However, the ECB and NCBs participating in ERM II can suspend intervention operations if these conflict with price stability. Central banks may also agree on intramarginal interventions.

The ECB and authorities responsible for the exchange rate policies of an ERM II-participant country could agree on a closer exchange rate arrangement, eg by applying a narrower fluctuation band. The procedures involved could be mutually agreed and implemented on a formal or informal basis. Formal cooperation would involve supportive interventions.

Other preparations for foreign exchange policy focused mainly on matters related to management of the ECB's foreign reserve assets. Reserves that are transferred to the ECB balance sheet will be managed in a decentralized manner so that the NCBs will

be responsible for the practical work in accord with ECB instructions. In 1997 the internal preparations progressed to the stage of development of the necessary information technology facilities.

In summer 1997 the Banking Federation of the European Union and other interest organizations from the financial sector drew up a joint recommendation on common market practices for money, bond and foreign exchange markets in the euro area. The EMI supported the proposal with a favourable opinion.

The Stability and Growth Pact, after long hours of drafting by the Monetary Committee, was finally ratified at the European Council meeting in Amsterdam in June. The Pact comprises a resolution of the European Council and two EU Council regulations. One regulation concerns surveillance of governmental budgetary positions and enhancement of monitoring and harmonization of economic policies and the other deals with speeding up and clarifying implementation of the excessive deficit procedure.

At its meeting in June, the European Council urged the Commission and the ECOFIN Council, which consists of economic and financial ministers, to examine how member states could intensify their cooperation on economic policy in Stage Three. The Monetary Committee worked on this issue in the latter half of the year, and in December the ECOFIN Council submitted a report to the European Council on the progress of the deliberations. At its meeting in Luxembourg 12–13 December, the European Council agreed that ministers of the member states participating in the euro area could convene informally to discuss matters concerning their specific responsibilities with respect to the single currency.

Payment systems

In autumn 1997 the EMI published its Second Progress Report on the TARGET Project, specifying the operating principles of the new payment system covering the whole EU area.

During 1997 the EMI continued to cooperate closely with the NCBs on the project for development of the TARGET payment system. The TARGET system will be formed by linking together the national real-time gross settlement (RTGS) systems of EU states. In Stage Three, payments related to the single monetary policy will be effected via the TARGET system. Banks can also use TARGET for effecting other large-value payments such as interbank and customer payments. In 1997 it was agreed that TARGET would be closed on just two holidays: Christmas Day and New Year's Day. As for other holidays, NCBs are free to decide on system operation in their own countries. Cross-border payments can always be intermediated between countries whose banks are operational, irrespective of whether banks are operational in other countries.

Among the remaining open issues are pricing of TARGET payments and provision of intraday liquidity to central banks of member states remaining outside the single currency area at the start of Stage Three. If the central bank of a country outside the single currency area can obtain intraday credit from a central bank within the single currency area, companies in that country will be better able to make payments via the TARGET system, which would improve the competitiveness of TARGET as a payment mechanism.

Internal auditors of EU states' central banks took part in the TARGET preparations through the monitoring activities of a working group on the auditing of the TARGET project.

Preparatory work on securities settlement continued, with the aim of ensuring

safe and efficient use of collateral in connection with both monetary policy and payment transactions in Stage Three of EMU. In February 1997 the EMI published its guidelines on securities settlement in its document 'EU Securities Settlement Systems: Issues Related to Stage Three of EMU'. In connection with cross-border use of collateral, a 'correspondent central banking model' has been designed, which enables the use of collateral located abroad in the acquisition of central bank financing from the local NCB. The central securities depositories of the EU are planning to improve their linkages so as to enable cross-border use of collateral. Minimum requirements concerning securities settlement systems and intersystem linkages have been drafted in order to enhance security in the management of collateral for central bank credit.

So-called remote access, ie obtaining central bank financing from a foreign central bank against collateral located in either country, will not yet be possible at the start of Stage Three.

The EMI has also studied the significance of electronic cash – prepaid cards and network money – as payment media as well as what position central banks, as payment system overseers and liquidity regulators, should take vis-à-vis electronic cash.

Accounting principles

In 1997 the EMI working group on accounting issues continued its preliminary work on technical accounting matters. The group dealt inter alia with various valuation and pricing principles, accounting for off-balance sheet items, as well as drafting of transitional provisions and rules on provisioning in the balance sheet. The working group also submitted a proposal on the frequency of financial reporting for the ESCB in Stage Three.

As regards technical accounting details, work has been done on harmonization of NCBs' accounting practices. In fact it will hardly be possible to completely harmonize accounting procedures before the start of Stage Three, and some minor differences will probably remain thereafter.

Monetary income

In carrying out its monetary policy tasks – particularly note issuance – the ESCB will generate so-called monetary income. Principles for calculating and allocating this income are laid down in the Maastricht Treaty. During a transitional period of up to five years the Treaty permits the use of the so-called indirect calculation method, by which banknotes and ESCB deposit liabilities to credit institutions are used as the basis for allocating monetary income. In 1996 it was decided that this option would be used during a transitional period because the differences in structures of the balance sheets of NCBs are so pronounced that immediate changeover to the direct calculation method would be too complicated. During 1997 the calculation method and various alternatives were examined in further detail; practical work on this matter will continue in 1998.

Supervision and stability

The EMI's Banking Supervisory Sub-Committee and the EMI Council continued to discuss the future role of the ECB/ESCB as regards banking supervision and financial market stability issues. National authorities will bear the responsibility for actual banking supervision also in Stage Three of EMU. No consensus on the ECB's role as a provider of emergency liquidity has yet been reached.

The Sub-Group on Developments in Banking, which operates under the Banking Supervisory Sub-Committee, analysed fac-

tors influencing banks' medium- and long-term profitability (technical developments, overcapacity, securitization, EMU). The Sub-Committee also examined the use of macro-economic indicators in the supervision of the banking sector and individual banks.

Drafting of legislation

In October 1997 the EMI published its Legal Convergence Report, assessing the extent to which legal provisions concerning NCBs comply with the requirements of the Maastricht Treaty. According to the report the legislation concerning the Bank of Finland was not yet completely consistent with the Treaty. The most serious inconsistencies of Finnish central bank legislation with the Maastricht Treaty were removed with the entry into effect of the Act on the Bank of Finland on 1 January 1998.

During 1997 the work of the EMI Working Group of Legal Experts focused increasingly on details. The Group examined inter alia agreements on monetary policy instruments and procedures as well as on payment systems.

Provisions concerning the introduction of the euro are included in two regulations issued by the EU Council, the first of which was adopted 17 June 1997. This regulation is intended to provide the markets with the needed legal certainty regarding for instance continuity of contracts and to facilitate technical preparations for the changeover to the euro. The regulation provides that in general the introduction of the euro will not alter the terms of existing contracts and 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. The regulation also specifies methods of converting monetary amounts and rounding off once conversion rates are irrevocably fixed.

The second regulation, which concerns the actual introduction of the euro and includes transitional provisions, will enter into force at the start of 1999. According to this regulation, as from 1 January 1999 the currency of all member states participating in Stage Three of EMU will be the euro. During a transitional period running till end-2001, national monetary legislation will still apply and a euro can also be expressed in terms of national currency units. According to a decision made by the European Council at its meeting in December 1997, issuance of European banknotes and coins will start on 1 January 2002. National notes and coins will continue to circulate as legal tender during a maximum transitional period of six months.

European banknotes and coins

During 1997 the draft design series that won the design competition for European banknotes in December 1996 was further elaborated in preparation for a banknote series that complies with all the technical and security requirements. When the draft designs for euro banknotes were published in July 1997, they did not include all the details and security features that will ultimately be incorporated into euro banknotes.

During the year the test banknote project was continued in order to help study the capacities of different printing works to produce identical euro banknotes complying with technical specifications. Likewise, studies were done on the readability by sorting machines of test notes produced by different printing works and printed on different types of banknote paper.

Preparations for production and issuance of euro banknotes continued during the year. Particular attention was paid to the various alternatives in respect of production arrangements and costs. The needs regarding

issuance and storage of banknotes of different denominations were also assessed, as well as the length of the transitional period after issuance.

Currency supply maintenance was one of the focal points of the activities in 1997. One of the decisions made was on establishment of a euro area-wide data bank of counterfeit banknotes. However, no consensus was reached on how NCBs in the euro area should arrange the exchange of banknotes after the exchange rates are irrevocably fixed on 1 January 1999.

During the year under review, the EMI arranged a meeting with representatives of European banking organizations and of automation services (European Vending Association) as well as private security transporters. The meeting discussed opportunities to simplify the interbank exchange of euro and national banknotes and coins, the needs of automation service providers in respect of security features of banknotes, and logistic problems associated with currency exchange.

Work was done on the introduction of euro-denominated coins parallel to that concerning euro banknotes. The Mint Directors' Working Group under the ECOFIN Council is in charge of the project. The Monetary Committee also dealt with technical preparation of coins and assessment of related needs.

Statistics

In 1997 the first phase was initiated in the implementation of statistical requirements for Stage Three of EMU as work continued on conceptual elaboration and development of new requirements. Regarding money and banking statistics, the collection of balance sheet data was started, with close monitoring of progress in the different countries. Harmonized balance sheets for monetary financial institutions (MFIs) must be available to

**Euro coins
progressed
hand-in-hand with
banknotes.**

the ECB immediately upon its establishment. After the MFI concept was defined, the EMI prepared a provisional list of all MFIs in EU member states as at end-1996. Listed institutions were regarded as having met the definition, meaning that they transmit monetary policy to the economy and so will be subject to requirements on balance sheet reporting. The final list of MFIs will be published in spring 1998. Treatment of money market mutual funds as MFIs made it difficult to arrive at a definition since there is no Europe-wide legal definition of a money market mutual fund.

A guide for central banks on compilation of balance sheet statistics was published in 1997, and the booklet on the national institutional framework for money and banking statistics was updated.

Harmonization of statistics on interest rates and securities was initiated in late 1997. The harmonization will require so much time that the ECB will have to rely on national statistics at the onset on Stage Three.

In the area of balance of payment statistics, detailed harmonization of the concepts was completed in cooperation with the IMF. The procedures approved for derivative instruments led to amendments to the recommendations published in the 5th edition of the IMF Balance of Payments Manual. Moreover, the EMI decided to supplement the requirements agreed in 1996 regarding balance of payment statistics with a harmonized calculation method for the euro-area net international investment position (assets and liabilities vs the rest of the world). This necessitates a great deal of work on the development of statistics, as many of the countries presently lack this type of stock data. The first annual international investment position of the euro area will reflect the situation at end-1999.

In 1997 a project was launched for the purpose of planning a quarterly financial accounting system for the euro area. The project will continue at least to the end of 1998.

The EU Commission continued to draft an ECB statistical regulation. The essential topics included are definition of entities subject to reporting requirements, possible sanctions for failure to report, and particularly the definition of confidentiality of statistical data.

The EU Advisory Committee on Monetary, Financial and Balance of Payments Statistics focused on harmonization of the statistical base for the EMU convergence criteria. On the initiative of EUROSTAT, the Statistical Office of the European Communities, preparations were also begun for division of responsibilities between EUROSTAT and the future ECB in the production of balance of payments statistics at the EU level. During the year EUROSTAT, which is responsible inter alia for EU-area current account statistics, began drafting agreements governing the reporting for such statistics.

Information technology

Work in the field of information technology is an essential part of the EMU preparations, because the common systems of the ESCB are to a large extent based on the use of information technology.

Changes in information technology specifications in connection with Stage Three were for the most part completed, and several implementation projects were launched. The new common teleconference system for EU central banks was introduced. The introduction of data systems required for execution of the single monetary and foreign exchange policy made good progress, and the systems will be tested in early 1998. Buildup of the ESCB telecommunications network is scheduled to conclude with the introduction of the

network within the first four months of 1998. The EMI Council approved the ESCB's IT-security policy, which will also be binding on NCBs.

Other work of the EU

Experts at the Bank of Finland took part in the EU's legislative efforts in working groups under the Commission and the Council. Among the issues dealt with in the EU Council were a proposed directive on settlement finality in payment systems and securities settlement systems, treatment of lending collateralized by real estate in solvency legislation, inclusion of provisions on commodity and stock-related derivative instruments in the annexes of the directive on solvency ratios for credit institutions as well as an amendment to the directive on the capital adequacy of investment firms and credit institutions (CAD II directive). Still awaiting political decisions are a directive on the reorganization and winding up of a credit institution and a directive on establishment of a Securities Committee. Both directives had been nearly ready in 1996.

In the Commission, experts *inter alia* outlined principles of supervision of financial conglomerates, drafted a directive on electronic cash, worked on provisions on accounting and annual accounts *vis-à-vis* derivative contracts and restarted the suspended drafting of revised legislation on mutual funds.

In the Committee for EU Affairs, which is responsible for preparation of EU matters in Finland, the Bank was represented by Mr Esko Ollila, Member of the Board. The Bank was also represented in preparatory sections dealing with the following: economic and monetary policy, international finance issues, taxation, financial services and capital movements, and insurance services. The Bank of Finland was also involved in the work of the Section for Enlargement, which was set up under the Committee in July. This section coordinates the national preparation of matters related to EU enlargement. The Bank also cooperated with EU coordinators of various ministries and participated in Finland's preparations for the Inter-Governmental Conference and the Commission Communication on Agenda 2000.

Within the Commission, principles were established for supervision of financial conglomerates.

Other International Cooperation

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 mainly 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.

Ms Sirkka Hämäläinen, Chairman of the Board of the Bank of Finland, was a member of the Steering Group on Central Bank Governance, which supervises and directs the BIS's support of central banks in respect of governance issues. The Steering group has seven members, who represent top-level management of different central banks. In 1997 the Steering Group focused on comparing central banks' functions, ability to perform and cost-effectiveness as well as supervision of the financial markets.

The BIS maintains a data bank that is used in monitoring assistance provided by central banks to economies in transition. In 1997 the BIS also handled 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 held in April. During the consultations the Fund's economists analyzed the state of the Finnish economy. The consultation report was discussed by the Fund's Executive Board in July. In accord with its new practice, the IMF issued a brief press information notice on the Board's discussions. The IMF Board considered that Finland's economic policy has generally been successful. However, the Board emphasized that Finland should continue its efforts to consolidate public finances and enhance its work on increasing the flexibility of the labour market in order to alleviate the unemployment problem.

The IMF's activities in 1997 centred on surveillance of member countries' economies, maximizing the fluidity of the operating environment for international capital and currency markets, ensuring the sufficiency of financial resources, and helping poor and indebted member countries to better cope with their problems. Increased contagiousness of

disturbances caused by global integration of financial markets and structural changes in economies caused particular strains on the Fund's resources and operating modes.

The IMF worked to restore confidence and economic stability in southeast and east Asia and to keep uncertainty from spreading into the international currency and capital markets. In July the IMF extended and augmented the previously approved Extended Fund Facility to the Philippines to SDR 0.8 billion. In August the Fund approved a stand-by credit for Thailand, authorizing drawings of up to SDR 2.9 billion and in November a stand-by credit for Indonesia, authorizing drawings up to SDR 7.3 billion, both in the context of a broader financing arrangement. In December the IMF approved a stand-by credit equivalent to SDR 15.5 billion for South Korea, also as a part of a broader financing arrangement. Most of the credit extended to South Korea is however committed under the new Supplemental Reserve Facility (SRF), which the IMF adopted in December. Under the SRF, the IMF may approve exceptionally large credits with relatively short repayment periods.

The IMF endeavours to improve the quantity and quality of available economic information in order to ensure that the markets are as well informed as possible on members' economies. This is believed to reduce shock-induced disturbances. This was the aim of continuing efforts to develop a standard for data dissemination, which had already begun in 1996. The essential dissemination of information was enhanced by an IMF decision in April to issue press information notices, subject to approval by the concerned member, on Executive Board assessments in connection with article IV consultations with member countries. Such publication is not however to include market-sensitive information.

The risks arising and increasing with integration of the financial markets increased the pressure to enhance the IMF's financing resources. In connection with the Annual Meeting in Hong Kong in September, it was decided to propose to the Board of Governors an increase of 45 per cent in IMF quotas to approximately SDR 212 billion from the present slightly over SDR 146 billion. Under the proposal three-fourths of the total increase would be distributed among all members in proportion to present quotas. The remaining increase would be distributed so as to better reflect the actual relative economic positions of members. Special increases are to be applied to five member countries whose current quotas are far out of line with calculated quotas and which are in a position to contribute to the IMF's liquidity over the medium term. Under the proposal Finland's quota would increase by almost 47 per cent, from the present SDR 861.8 million to SDR 1263.8 million (by end-1997 exchange rates, to FIM 9.3 billion from FIM 6.3 billion), although its share of the Fund's total quotas would remain virtually unchanged at 0.6 per cent. The final decision on increasing the IMF quotas will be made in 1998.

The IMF is also endeavouring to increase the amounts it can borrow from member countries under the New Arrangements to Borrow (NAB). The NAB supplement the existing General Arrangements to Borrow (GAB), maintained in cooperation with the G-10 countries. The amount of available financing has been doubled to SDR 34 billion. The new arrangements are intended to reduce the systemic risk that can jeopardize the international financial system. Financing is available from 25 IMF member countries or their central banks. Their financial contributions are determined by member countries' pro rata IMF membership quotas. The minimum

IMF worked to restore confidence and economic stability in southeast and east Asia.

financial contribution is 1 per cent of the total amount, ie SDR 340 million (FIM 2.5 billion), which is also Finland's share. The NAB agreement will enter into force after it has been approved by the national authorities and after a minimum of 85 per cent of the total credit arrangements have been secured.

The Annual Meeting decided on a special one-time allocation of SDRs to member countries. Not all member countries have been able to take part in all previous allocations since they have not been members when some of these have taken place. The aim is to correct a situation that is considered unfair and to equalize members' ratios of cumulative allocations to quotas at approximately 29.3 per cent. This allocation will result in a doubling of SDRs already allocated, to a total of almost SDR 43 billion. In order to enter into force, the amendment will require acceptance by three-fifths of the members of the IMF, having 85 per cent of the total voting power.

The IMF is also preparing to amend its Articles to make liberalization of capital flows a purpose of the Fund. In practice the Fund has already been supporting such liberalization; the aim now is to make this practice official. To make the liberalization effective, the Fund will also seek to ensure that the economic activities underlying capital flows are as free as possible. Especially during a transition period, temporary restrictions on capital flows may be allowed. The amendment takes into account the competences and responsibilities of other international organizations in this field. The matter has also been discussed with the EU, focusing mainly on competence.

In spring 1997 practical measures were started in the joint IMF-World Bank initiative for assistance to poor and indebted countries. The first countries were finally accept-

ed under the initiative after an agreement had been reached on detailed rules and eligibility criteria as well as on the scope of debt relief and allocation of the burden among the investors. The aim of this Highly Indebted Poor Countries (HIPC) initiative is that a country that successfully completes an adjustment programme can, with some debt relief, get its debt situation under control over the medium term. The IMF participates in this initiative through its Enhanced Structural Adjustment Facility (ESAF). Since ESAF financing for the years 2000–2004 is still not fully determined, the IMF's financing of the HIPC also remains open.

In 1997 the IMF also discussed matters relating to EMU. In March the Fund organized a seminar on the EMU for a wide range of participants, discussing the impact of the EMU from the viewpoint of the international financial system and the Fund. Actual preparations within the IMF aimed at clarifying all issues in which the launch of EMU will affect IMF activities.

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 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.

Technical assistance

In 1997 experts from the Bank of Finland served in various assignments involving technical assistance to economies in transition under the direction of the IMF. Experts

from the Bank also served in similar assignments through the EU TACIS programme. The Bank participated in the TACIS training programme for the staff of the Russian and Ukrainian central banks. The programme is a joint project of EU member states' central banks, coordinated by the IMF and financed by the EU. The Bank also trained staff of other eastern European central banks, with the support of EU PHARE programme, and provided bilateral technical assistance to several central banks of economies in transition.

Other international activities

The Nordic Financial Commission (NFU), 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. The Nordic-Baltic Constituency Committee held its first meeting in September in connection with the NFU meeting, focusing mainly on issues to be dealt with at the upcoming IMF Annual Meeting. The

Committee decided to hold a meeting prior to each Annual Meeting. 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 participated inter alia in the work of the Economic Policy Committee, the Financial Markets Committee, 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 February 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 worked with a delegation of Finnish officials preparing joint statements for OECD negotiations on a Multilateral Agreement on Investment (MAI).

The Bank provided bilateral technical assistance to several central banks of economies in transition.

Reserve Assets

Finland's foreign reserve assets are invested with the primary objectives of ensuring the safety of the investments and securing their liquidity. Within these constraints, the objective is to obtain the best possible return.

Reserve assets are invested in foreign currency-denominated debt instruments and gold in the international financial markets. Part of the reserves are also held in the form of an ECU claim on the European Monetary Institute, as special drawing rights issued by the International Monetary Fund, and as an IMF reserve tranche.

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 on an integrated basis; 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 on a continuous basis.

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 currency dis-

tribution is updated in periodic evaluations. The most important investment currencies in 1997 were the US dollar, Deutschemark, pound sterling, French franc, Japanese yen and Danish krone.

Interest rate risk is controlled inter alia by means of portfolio diversification and conservative limits placed on interest rate risk. 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 above-mentioned countries and in repurchase agreements based on such securities.

The main items in the convertible reserves at the end of 1997 and changes in the course of the year are shown below:

	Reserve assets 31 Dec 1997	Reserve assets 31 Dec 1996	Change
	mill. FIM		
Gold	1 742	1 742	-
Special drawing rights	1 772	1 344	428
IMF reserve tranche	3 036	1 953	1 083
ECU claim on the EMI	4 078	2 541	1 537
Foreign exchange assets	40 827	28 817	12 010
Total	51 455	36 397	15 058

The Bank of Finland's convertible reserve assets increased in 1997 by FIM 15 058 million to FIM 51 455 million. Growth was strongest in January owing to the Bank of Finland's heavy foreign currency purchases in the spot market, to the value of FIM 38 340 million. The main underlying reason was international investors' expectations of markka appreciation, which triggered a substantial inflow of foreign exchange. After a rapid increase in the early part of the year, the reserve assets contracted in the latter part of the year by FIM 32 095 million on net due to debt service payments on the central government's foreign debt. In order to manage liquidity, which had increased markedly because of capital imports, the Bank of Finland negotiated FIM 18 510 million worth of new forward contracts. The forward position was allowed to completely unwind by the end of the year.

Research, Statistics, Information and Publications

Economic analysis and research

Reports assessing economic performance, which are produced monthly on the basis of cooperative efforts by the Bank of Finland's departments staffed mainly by economists, played a key role in monitoring the economy. Economic analysis focused especially on assessing the inflation outlook and factors affecting inflation. As part of the preparations for Stage Three of EMU, monitoring of economic developments was enhanced, in respect of both EU countries and major non-European countries. This monitoring was closely integrated with the Bank's forecasting. The Bank's forecasting and explanatory tools comprised, besides some smaller models, an upgraded econometric macromodel of the Finnish economy (BOF5) and the NIGEM model of the international economy. Economic indicators used in the monitoring enabled assessment of economic trends over the next few years. Forecasting accuracy was evaluated by continuous comparisons between actual and forecasted economic developments. The Bank's estimates of the future course of the economy, particularly regarding inflation, were summarized quarterly in the Bank of Finland Bulletin and occasionally made public elsewhere.

The Bank's economic research concentrates on macroeconomic issues that are essential to monetary policy and on the operation of the financial markets, including the critical payment system issues. The findings of the research and analytical activities are released in the form of printed research publications and mimeographed discussion papers. Articles on a number of projects are also included from time to time in the Bank's periodicals. In 1997 the Bank's Internet website was used as a forum to better inform the public of the Bank's research activities.

Macroeconomic research concentrated mainly on inflation control and topical issues related to preparations for Economic and Monetary Union. Of individual projects that were or will produce published findings, the most worthwhile were a study of the effects of fiscal policy on households' consumption-savings decisions in selected European countries and a project examining the importance of monetary demand and monetary aggregates in the implementation of monetary policy aimed at low inflation. The sustainability of fiscal balance in the EMU environment was examined inter alia from the perspective of pension financing. A research project concerning problems associated with European monetary integration produced an analysis of

the effects of the exchange rate mechanism (ERM) of the European Monetary System on monetary policies pursued by member countries as well as a review of the role of Europe in the global coordination of monetary policies. Further developmental work and testing was done on the BOF5 macromodel, which is one of the Bank's forecasting tools.

In the area of financial market research, the top priority concerns were the adaptation the financial markets to EMU and stability-related issues. A research project on methods of measuring banking risks was completed, and a project examining the need to develop banking legislation in light of experiences from the Finnish banking crisis was continued for a second year. In addition, the Bank was involved in another legal research project, which focused on an analysis of problems and developmental possibilities for European legislation on reorganization of banks.

A research project on the collection of historical data on the Finnish financial markets focused on collecting on a consistent basis the Bank's monthly balance sheet statistics for the 1860s onward and on balance of payments statistics for the period between the First and Second World Wars.

During the year the Bank made strategic decisions on the development of its research activities on the basis of its judgement that effective and constructive participation in the operation of the European System of Central Banks will require a reorientation and upgrading of scientific content of the Bank's economic analysis. To achieve this goal, the Research Department is launching two long-range research programmes under which the Bank's most distinguished economists and visiting researchers will produce studies meeting international standards in two areas: monetary policy modelling and structural changes in the financial sector.

The Bank's Unit for Eastern European Economies, which was renamed the Institute for Economies in Transition as at the start of 1998, has been responsible for research on economies in transition. The name change reflects the Bank's decision to reorient the unit's research work, particularly that on the economies of Russia and the Baltic states, toward analysis. The Institute will also continue to monitor and disseminate information on its target economies. In 1997 the focus of the Unit's monitoring, analysis and research was on examining economic reform and stabilization policy in Russia, the related social consequences, and economic policy in the Baltic states. Another area of concern was the development of the EU's relations with the eastern economies. A number of visiting researchers from abroad studied eastern economies within the Unit.

Information management

Statistics and information services

The start of 1997 saw the entry into effect of a large-scale revision of the national reporting system for banks that had been prepared within a joint working group (Virati) of the Financial Supervision Authority, the Bank of Finland and Statistics Finland. All the key statistical reports submitted to these authorities are now harmonized in terms of definitions and information technology requirements.

The revision of national statistics in anticipation of Stage Three of EMU progressed in phases in compliance with EMI timetables. The main emphasis was on preparations for bank reporting. The responsibility for compilation of banking statistics required by the ECB was transferred from Statistics Finland to the Bank of Finland, since the Bank will be accountable for the content, quality

and timeliness of data submitted to the ECB. The requirements that the ECB will place on banking statistics concern financial institutions, which, according to a preliminary definition adopted by Finland, comprise deposit banks and branches of foreign credit institutions engaged in deposit-taking. Data collection is done monthly and quarterly on the basis of several different classifications. Reporting of monthly data in accord with ECB definitions begins at the onset of 1998.

Publication of Finland's balance of payments statistics took place monthly, with the lag-time for release about seven weeks on the basis of availability of foreign trade data from the National Board of Customs. Preparations commenced for compilation of balance of payments statistics to be submitted to the EMI/ECB starting in 1998. And negotiations were initiated with Statistics Finland on a possible change in the division of responsibilities between the Bank and Statistics Finland for statistical compilation regarding the structure of foreign trade in services. The possible change is related to the objective of the Statistical Office of the European Communities, EUROSTAT, to increase the amount of detail in services trade statistics.

One of the tasks of the Bank's library is to obtain information services for the Bank's use. In this endeavour, the library relied increasingly on sources accessible via electronic data networks. The library lends the Bank's own and the EMI's publications to customers outside the Bank.

The scope of the Bank's Internet website, opened in 1996, was gradually expanded eg by increasing the available statistical material. The use of the website quadrupled, with monthly information retrievals amounting to about 150 000 at the end of the year. Feedback on the content of the website was generally favourable.

Information technology

Preparation for Stage Three was a top priority in 1997. The necessary system projects advanced to the implementation phase and one of these, the TARGET project, advanced to the testing phase. A teleconference system was put in place, and other IT-based EMU infrastructure was developed.

External information links were developed inter alia by a decision to join an inter-bank information network (Bank Network 2), which will replace the Bank of Finland's current banking connections network. The back office system used by the Market Operations and the Payments and Settlement Departments was upgraded by a new version; the Bank's UNISYS mainframes were updated; and the reliability of the TANDEM hardware was improved via acquisitions of peripheral equipment. Several other equipment and system revisions helped to upgrade operative efficiency. The Bank was also active in enhancing IT cooperation between the Nordic countries and small and medium-sized central banks.

Information and publications

The Bank made continuing efforts to increase the openness and public understanding of central bank policy inter alia by adding further material to its Internet website. The multimedia presentation of the Bank's activities, completed in autumn 1996, was used frequently in conjunction with student visits to the Bank and was distributed widely to visitor groups and educational establishments. French- and German-language versions of the Bank's brochure were completed.

The Bank was active in communicating progress in EMU preparations. In addition to

media interviews and writings by the Bank's top management and experts, several articles were published on preparations for Stage Three in the Bank of Finland Bulletin and in *Markka & talous*. A so-called EMU window was included in the periodical as well as on the Bank's Internet website, including Swedish and English language versions. The EMU section of the website was expanded further in the course of the year. A brochure intended for the public, 'Markasta euroon' (From Markka to Euro), was released in the summer and distributed for more general use mainly via banks. The complete brochure is available on the Bank's Internet website.

The translation of EMI publications required increasing input on the part of the Bank's Language Services office. EMI publications give highly detailed descriptions of different aspects of the operations of the European System of Central Banks, which is still in its formative stage. In providing information on these publications and ensuring their wider distribution, the Bank sought to make this material more readily accessible to concerned parties and authorities as well as experts and other interested persons.

The Bank also started to prepare for increasingly wider EMU communication by

launching a training programme designed to give a selected group of individuals the professional skills that will enable them to communicate clearly organized and highly diversified information on Economic and Monetary Union.

Of the regularly published periodicals, *Markka & talous* appeared four times and the Bank of Finland Bulletin 11 times. The name of the year book was changed to 'annual report', and the structure and layout were revised. Two doctoral theses were published in the Bank's E series.¹ The statistical review, *Financial Markets*, appeared monthly, and standard balance of payments statistics were released in the statistical bulletin series. Twenty papers appeared in the Discussion Papers series, which comprises research and analytical studies conducted in 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 7 times during the year. A long-planned book containing pictures of the Bank's employees was published in the summer.

¹ A list of the Bank of Finland's publications for 1997 is included in the Appendices.

In-house Operations, Organization and Staff

Organization

The Bank of Finland's strategic planning is based on the use of different scenarios for the Bank's possible future operating environment. In spring 1997 the scenarios formulated a year earlier were updated. The aim was to incorporate inter alia the latest information available on progress in connection with the EMU project, the outlook for the Finnish banking sector, and the effects of information technology on the financial markets. Application of the scenarios proved to be useful in revising the Bank's strategic policy principles.

The strategic policy principles are expressed in definitions of the purpose of the Bank's mission, its vision, its overall strategy, and its values. The vision was specified in more precise terms as the Bank's aim to be an influential member of the European System of Central Banks, within which it will work toward monetary stability in Europe. Starting from its vision and mission, the Bank derived its overall strategy for 1998, placing particular emphasis on the exceptional situation prevailing during the year.

Strategic planning and budgeting procedures were revised so as to make the Bank's vision and strategies more readily transform-

able into objectives applicable to all the Bank's employees. For example, strategy meetings were arranged under the leadership of each Board member.

Discussions were arranged for the Bank's Board, supervisors and specialists, along with top outside experts, on the most topical and timely themes concerning the development of management and operative skills. Discussion sessions between the Governor and the staff addressed inter alia the findings of an internal social climate survey, strategic principles and related practical applications, as well as the effects of Stage Three of EMU on the Bank's employees.

A major focus in preparing for the EMU environment continued to be on the changes that joining the European System of Central Banks will require in the Bank of Finland's strategic choices and organizational and resource solutions. Given the fact that the ESCB will operate as a highly decentralized system, almost all present preparatory and operational tasks, except for monetary policy decisionmaking, will be left to national central banks.

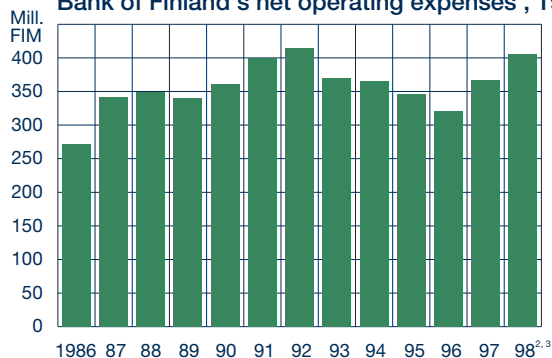
The Bank's organization underwent only minor changes. The Internal Audit Department became the Internal Audit Unit, and responsibility for the management of the BoF-

The Bank of Finland's operating expenses and budget, mill. FIM¹

	Budgeted 1998 ²	Realized 1997	Realized 1996
Expenses			
Salaries and fees	160.1	154.6	149.9
Pensions	67.8	63.0	61.4
Social security	20.3	25.1	26.0
Training	10.3	6.9	5.6
Travel	9.1	6.8	6.2
Information technology	19.8	12.3	13.6
Other purchases of services	31.4	24.7	21.7
Banknote printing	39.8	32.4	18.6
Real estate expenses	27.7	28.3	30.1
Other expenses	22.8	26.1	21.5
Total	409.1	380.1	354.5
Investment			
Equipment and machinery	31.2	50.1	22.7
Real estate	32.7	22.6	14.0
Real estate and shares held as fixed assets	0.0	57.0	38.0
Total	63.9	129.7	74.7
Total expenses	473.0	509.8	429.2
Income			
Banking activity	1.0	1.2	1.1
Currency supply maintenance	18.9	18.7	11.1
Other services	18.1	24.1	22.6
Real estate	28.6	33.9	36.0
Sales of real estate and shares held as fixed assets	0.0	63.2	36.3
Other	0.6	1.5	1.2
Total income	67.2	142.5	108.3
Net	405.9	367.3	320.8
Institute for economies in transition³	7.2		

Chart 36.

Bank of Finland's net operating expenses¹, 1986–1998



¹ Figures do not include the Financial Supervision Authority, which issues its own annual report.

² 'Salaries and fees' takes into account only budgeted increase in personnel.

³ Treated as a separate unit in the Bank's budget as from 1998.

RTGS system was transferred from the Accounting Department to the Payments and Settlement Department. The Bank also decided to develop the Unit for Eastern European Economies into a high-level (by international standards) research institute specializing in economies in transition. In the course of the year the subject matter, targeted level and organization of the Bank's research activities were also revised in response to the need to upgrade the quality and effectiveness of economic policy analysis.

Personnel

At the end of 1997 a total of 776 persons were employed by the Bank of Finland: 670 at the head office and 106 at branches. The total number increased on the previous year by 15, ie by about 2 per cent. The increase was concentrated in areas in which preparatory work under the EMI increased significantly in the course of the year. Recruitments were mostly fixed-term. Of all employees, 90 per cent had permanent positions and 10 per cent were on fixed-term contracts.

The Bank's own Young Professionals training programme for economists, which was completed in February, resulted in the hiring of 6 persons for the Bank's specialist functions.

A total of 22 employees participated in internal job rotation in 1997. On leave of absence were 31 persons, of whom 12 were employed by the EMI.

A personnel strategy adopted in 1996 and related personnel policy principles provided a basis for the Bank's personnel administration in 1997.

A staff audit was conducted for the first time in respect of 1996. In this connection, numerous staff-related indicators were calculated, which are useful guides in operationally crucial areas of personnel administration and in choosing related goals and monitoring gauges. The Bank also participated with more than 60 other organizations in a benchmarking survey examining the indicators used for personnel administration. The survey helped to clarify the Bank's strengths and focal areas of development.

The Bank cooperated with the Bank of Finland Staff Association in preparing for the changeover at the start of 1998 to a collective civil service agreement system as required under the new Act on the Bank of Finland. Basically, all agreements on terms and conditions of employment covering employees other than top management will be converted as such into collective civil service agreements. The new Act also contains clearer provisions on the applicability of the State Civil Servants Act to the civil servant status of the Bank's employees and on the applicability of the Civil Service Collective Agreements Act to labour market peace and industrial disputes.

The Bank participated in a working group headed by EMI officials that prepared

principles for the future ECB's personnel policy. The Bank takes a positive attitude toward employees' efforts to develop themselves by taking assignments with the EMI and later with the ECB. National central banks in fact constitute the key source of recruitment for the EMI/ECB.

Training

Staff training at the Bank of Finland continued to emphasize the interactive and languages skills required by internationalization as well as supervisory skills. Of the Bank's top management and experts, 30–35 persons attended a tailor-made English-language Leadership Training programme. Language studies were fostered via centralized purchasing of training services. Some 240 employees studied languages. In information technology, training resources were channelled not only into email and personal time scheduling systems but also to a large extent into hands-on PC skills.

Specialist training in economics focused on analysing international linkages and effects of economic policy, on financial intermediation and risk management as well as on the acquisition of deeper knowledge and higher skills in respect of payment and settlement systems operations. During the year the Bank organized 12 courses for economists, amounting to some 730 trainee days. In addition, 30 seminars were held on issues related to central banking and the effects of information technology on the financial markets. Each of these included 40 participants on average.

Scientific post-graduate studies have traditionally formed an essential part of the Bank of Finland's specialist training. For this purpose, the Bank's research programmes are partly implemented in projects that combine the research needs of the Bank with in-

dividual aspirations for academic achievement. During the year the Bank's Research Department hosted nine research projects oriented toward higher university degrees in economics and jurisprudence. In this connection, four doctoral/licentiate theses were submitted for evaluation to institutions of higher education.

The third 18-month Young Professionals training programme was launched in Oc-

tober 1997. The objective of the programme is to provide the seven participating young economists with the skills necessary for working in public administration, financial institutions and international organizations.

The Bank of Finland provided training assistance to central banks of eastern economies by arranging a total of 18 courses and training sessions for representatives of these institutions (see p. 73 for more detail).

Financial Statements

Profit and loss account, million FIM

	1 Jan – 31 Dec 1997		1 Jan – 31 Dec 1996	
INTEREST INCOME				
Domestic (1)				
Liquidity credits	0.0		6.7	
Securities with repurchase commitments	342.5		249.8	
Net interest on domestic forward transactions	141.8		–	
Financing of domestic deliveries (KTR)	2.2		6.6	
Bonds	118.8		151.2	
Loans for stabilizing the money market	–		16.0	
Other	11.3	616.6	25.8	456.1
Foreign (2)				
IMF	126.4		107.5	
Securities	1 983.3		1 338.9	
Other	799.0	2 908.8	473.6	1 920.1
Total interest income		3 525.4		2 376.2
INTEREST EXPENSE				
Domestic (3)				
Certificates of deposit	–1 059.5		–857.3	
Reserve deposits	–8.0		–5.9	
Investment deposits	–2.9		–14.9	
Other	0.0	–1 070.4	–0.6	–878.6
Foreign				
IMF	–42.3		–37.8	
Other	–54.4	–96.6	–19.2	–57.0
Total interest expense		–1 167.0		–935.6
INTEREST MARGIN (4)		2 358.4		1 440.6
OTHER CENTRAL BANKING INCOME (5)				
Commissions and fees	25.4		19.4	
Other	122.7	148.1	88.4	107.8
OTHER CENTRAL BANKING EXPENSE (6)				
Salaries	–154.6		–149.9	
Social security costs	–84.2		–83.8	
Purchase of banknotes	–32.4		–18.6	
Depreciation	–129.7		–74.7	
Other	–89.9	–490.8	–85.0	–411.9

	1 Jan – 31 Dec 1997		1 Jan – 31 Dec 1997	
EXPENSE AND INCOME RELATED TO FINANCIAL SUPERVISION (7)				
Salaries	-29.4		-26.8	
Depreciation	-0.4		-1.2	
Other expense	-25.7		-22.3	
Supervision fees charged by the Financial Supervision Authority	55.4	0.0	50.3	0.0
ASSET MANAGEMENT COMPANIES AND INTEREST COMPENSATION (8)		-		1 592.2
PROFIT BEFORE VALUATION ADJUSTMENTS AND PROVISIONS		2 015.7		2 728.7
Valuation gain/loss on foreign securities (9)		-131.2		298.4
Exchange rate gain/loss (10)		4 977.5		1 668.8
Writeoff of capitalized exchange rate adjustments		-		-865.2
Change in pension provision (11)		-76.0		-77.2
Increase (-) / decrease (+) in provisions (section 30 of the Act on the Bank of Finland) (11)		-6 786.0		-3 753.6
PROFIT FOR THE FINANCIAL YEAR (12)		0.0		0.0

Balance sheet, million FIM

ASSETS	31 Dec 1997		31 Dec 1996	
Reserve assets (1)				
Gold	1 742.1		1 742.2	
Special drawing rights	1 771.6		1 344.1	
IMF reserve tranche	3 035.5		1 952.7	
ECU-claim on the European Monetary Institute	4 078.3		2 541.3	
Foreign exchange assets	40 827.2	51 454.7	28 817.3	36 397.5
Other foreign claims (1)				
Markka subscription to Finland's quota in the IMF	3 281.0		3 793.8	
Share in the European Monetary Institute	60.8	3 341.8	59.1	3 852.8
Claims on financial institutions (2)				
Securities with repurchase commitments	–		11 625.6	
Bonds	114.3		195.8	
Other	2 836.5	2 950.8	1 675.5	13 496.9
Claims on the public sector (3)				
Total coinage	2 015.1	2 015.1	1 906.5	1 906.5
Claims on corporations (4)				
Financing of domestic deliveries (KTR)	26.2		69.7	
Other	1 736.0	1 762.2	2 196.7	2 266.5
Other assets (5)				
Accrued items	528.1		489.5	
Other	106.6	634.7	108.5	598.0
Total		62 159.4		58 518.2

LIABILITIES

	31 Dec 1997		31 Dec 1996	
Foreign liabilities (1)				
Allocations of special drawing rights	1 045.8		951.4	
IMF markka accounts	3 281.1		3 793.8	
Other	584.3	4 911.2	934.4	5 679.7
Notes and coin in circulation (6)				
Notes	15 922.8		15 076.2	
Coin	1 894.1	17 816.9	1 814.7	16 890.9
Certificates of deposit (7)		10 500.0		15 530.0
Liabilities to financial institutions (8)				
Reserve deposits	7 911.5		6 828.7	
Other	2 770.0	10 681.5	1 500.3	8 329.0
Liabilities to corporations (9)				
Deposits for investment and ship purchase	32.3	32.3	574.3	574.3
Other liabilities (10)				
Accrued items	23.2		192.9	
Other	32.3	55.5	27.4	220.2
Valuation account (11)		257.5		260.0
Provisions (12)				
Pension provision	1 600.9		1 516.3	
Other	10 539.6	12 140.5	3 753.6	5 269.9
Capital accounts (13)				
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
Total		62 159.4		58 518.2

Appendices to the financial statements

	31 Dec 1997	31 Dec 1996
Note issue, million FIM		
Right of note issue	50 563	35 874
Used right of note issue	16 520	16 024
Unused right of note issue	34 043	19 850
Foreign currency futures contracts, million FIM		
Purchase contracts ¹	22	879
Sales contracts ¹	1 581	429
Shares and other interests, nominal value, million FIM (Bank of Finland's holding in parentheses)		
Scopulus Oy	2 (100 %)	2 (100 %)
Setec Oy	40 (100 %)	40 (100 %)
Rahakontti Oy (1997), Helsinki Money Market Center Ltd (1996)	35 (52 %)	35 (52 %)
Finnish Central Securities Depository Ltd	11 (24.44 %)	11 (24.44 %)
Bank for International Settlements	60 (1.67 %)	55 (1.67 %)
Shares in housing companies	2	1
Real estate shares	0	1
Other shares and interests	..	1
Total	150	146
Bank of Finland's liability share in the FCSD fund, million FIM		
	1	1
Liability arising from pension commitments, million FIM		
The Bank of Finland's pension liability	1 979	1 865
– of which covered by reserves	1 601	1 516
Financial services office, million FIM		
Deposits	94	86
Loans	43	40
¹ Middle rate for the currency as at the last business day of the year.		

The Bank of Finland's real estate

Building	Address	Year of completion	Volume cu.m (approx.)
Helsinki	Rauhankatu 16	1883/1961	49 500
	Unioninkatu 33/Rauhankatu 19	1848/1954	50 500
	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, 3 February 1998

THE BOARD OF THE BANK OF FINLAND

Sirkka Hämäläinen, Chairman

Esko Ollila Matti Vanhala Matti Louekoski Matti Korhonen

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'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 1997. 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 accord with 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 617 million, includes FIM 343 million in interest income on securities with repurchase commitments, FIM 142 million in interest income on domestic forward transactions and FIM 119 million in interest income on bonds.

2. Foreign interest income

Foreign interest income amounted to FIM 2 909 million, which is FIM 989 million more than in the previous year.

3. Domestic interest expense

Domestic interest expense, FIM 1 070 million, consisted mainly of FIM 1 060 million in interest expense on CDs issued by the Bank. Domestic interest expense increased by FIM 191 million from the previous year.

4. Interest margin

The interest margin amounted to FIM 2 358 million.

5. Other central banking income

Other central banking income, FIM 148 million, includes FIM 25 million in commissions and fees, FIM 25 million in dividend income (of which FIM 8 million from Setec Oy), FIM 25 million in rental income and FIM 56 million in gains on the incorporation of residential real estate.

6. Other central banking expense

Salaries amounted to FIM 155 million. Social security costs include FIM 63 million in pension benefits paid.

Purchase of banknotes amounted to FIM 32 million.

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 130 million, includes all acquisitions of fixed assets and other long-term expenses for the financial year. Depreciation includes FIM 23 million in expenses for repair and renovation of buildings, FIM 26 million in depreciation on machinery and equipment and FIM 56 million in shares subscribed in

connection with the incorporation of residential real estate belonging to the Bank.

7. Expense and income related to financial supervision

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's profit and loss account. These costs, which amounted to FIM 55 million, are covered by supervision fees subsequently collected from supervised entities.

8. Asset management companies and compensation for forgone interest

This item is included in the profit and loss account for 1996 under the name 'Expense and income due to safeguarding the stability of the money market'. Losses incurred by the Bank 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 item also includes the selling price of Sponda Oy and compensation for forgone interest paid to the Bank by the State.

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 loss of FIM 131 million was entered in respect of foreign securities in 1997.

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 1997 exchange rate gains, which amounted to FIM 4 978 million, were mainly due to changes in the value of foreign exchange assets. Exchange rate adjustments that had previously been entered in the valuation account were entered as expenses in the financial statements for 1996.

11. Changes in provisions

Employees' employment pension contributions totalling FIM 8 million were collected from salaries during 1997 and transferred to the pension provision. In addition, the pension provision was increased by the interest calculated on such contributions and pension provisions made in prior 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 6 786 million.

12. Profit for the financial year

A profit of zero 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 1997, the market price of gold was FIM 50/g and the Bank's holdings of gold totalled 49 774 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 acquisition 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 liabilities include markka claims of international organizations and foreign

banks on the Bank and inter alia the ECU-denominated claim of the European Union.

2. Claims on financial institutions

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

Bonds issued by financial institutions are generally held for investment purposes and are valued at nominal value. Other claims on financial institutions include temporary credits and corresponding deposits against which the Bank has set-off rights.

3. Claims on the public sector

Total coinage indicates the State's liability to the Bank 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 item 'other' consists mainly of securities classified as investments and valued at nominal value.

5. Other assets

Accrued items are mainly interest receivables. Other assets also include FIM 91 million in employee housing loans. At end-1997 the interest rate on old housing loans was 4 per cent and on loans granted after 16 February 1993, 5 per cent.

6. Notes and coin in circulation

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

7. Certificates of deposit

Certificates of deposit issued by the Bank 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.

8. Liabilities to financial institutions

A bank having a current account with the Bank of Finland can meet its minimum reserve requirement by maintaining the monthly average of its daily current account balances at least as high as the minimum reserve requirement. Banks that do not have a current account at the Bank of Finland or use another bank as their central financial institution deposit their reserves in special minimum reserve accounts with the Bank.

9. 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.

10. Other liabilities

Accrued items consist mainly of accrued interest payable.

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

11. Valuation account

The valuation account balance at 31 December 1997 reflects the difference between the book value and contractual price of gold underlying the ECU swap.

12. Provisions

The Bank of Finland's pension liabilities total FIM 1 979 million; 81 per cent of this amount, FIM 1 601 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 10 540 million.

13. 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 1997 as required by sound auditing practice.

In the course of the accounting year, the Internal Audit Unit of the Bank of Finland carried out an audit of the Bank's accounting and operations. We have examined the reports issued in respect of that audit.

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 accordance with the principles on closing the accounts confirmed by the Parliamentary Supervisory Council and current regulations.

On the basis of the above and because our audit does not give cause for notice, 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 of this audit.

Helsinki, 5 March 1998

AUDITORS OF THE BANK OF FINLAND

Johannes Leppänen

Iivo Polvi
Chartered Public Finance Auditor,
Approved Auditor

Aulis Ranta-Muotio

Matti Saarinen

Martti Tiuri

./ Kalervo Virtanen
Authorized Public Accountant

Appendices

Measures concerning monetary and foreign exchange policy and the financial markets

September

Tender rate

On 15 September, the Bank of Finland raised its tender rate from 3.00 per cent to 3.25 per cent. In addition, the interest rate on banks' excess reserves was raised from 1.00 per cent to 1.25 per cent.

November

Money market tenders

As at 3 November, the Bank of Finland shortened the maturity applied in its money market tenders from one month to two weeks. The normal settlement day for these tenders was changed to the business day following the trade day, having previously been the second business day following the trade day.

Liquidity credit

As at 3 November, the Bank of Finland shortened the maturity applied in its liquidity credit from seven days to one day. The Bank of Finland also abolished the limits on collateralized liquidity credit.

Main opinions issued by the Bank of Finland 1997

Opinions concerning the financial markets

- To the Financial Supervision Authority concerning the contents of a guideline on the application of the Securities Markets Act, 30 January.
- To the Ministry of Finance concerning collateral requirements to be applied to foreign options exchanges by the SOM Ltd, Securities and Derivatives Exchange, Clearing House, 31 January.
- To the Ministry of Finance concerning a memorandum of the working group on the regulation of electronic cash, 6 February.
- To the Ministry of Finance concerning a memorandum of the working group on the Financial Supervision Authority, 10 February.
- To the Ministry of Finance concerning amendments to the legislation on credit institutions and investment firms, 5 March.
- To the Ministry of Finance concerning a proposal for an act on the regulation of real estate investments, 10 March.
- To the Ministry of Finance concerning a memorandum of the working group on investor protection, 17 March.
- To the Ministry of Finance concerning the establishment of a fund in connection with the Finnish Central Securities Depository Ltd, 25 March.
- To the Ministry of Social Affairs and Health concerning reform of TEL-relending, 27 March.
- To the Ministry of Justice concerning a proposal for an act on certain terms and conditions to be applied to trade in securities and foreign exchange, 9 April.
- To the Financial Supervision Authority concerning a draft regulation on changing the limits on credit institutions' foreign currency positions, 17 April.
- To the Ministry of Finance concerning proposed amendments to the Credit Institutions Act, the Investment Firms Act and related legislation, 23 May.
- To the Parliamentary economic affairs committee concerning a Government proposal on an act on the Bank of Finland, 27 May.
- To the Ministry of the Interior concerning a legislative proposal on the prevention and investigation of money laundering, 29 May.
- To the Ministry of Finance concerning amendment of the Act on Restrictions on the Use of Index Clauses, 30 May.
- To the Financial Supervision Authority concerning revision of a regulation on reporting securities trading, 18 July.
- To the Ministry of Justice concerning a report of the working group on amending contingency legislation, 13 August.

- To the Ministry of Trade and Industry concerning the transfer of subsidized credits for shipbuilding to the interest-rate equalization scheme, 10 September.
- To the Ministry of Trade and Industry concerning reform of special financing schemes administered by the government, 12 September.
- To the Ministry of Justice concerning a draft directive of the Commission on cross-border provision of financial services, 12 September.
- To the Ministry of Finance concerning the rules of the Finnish Central Securities Depository Ltd, 22 September.
- To the Ministry of Finance concerning decisions on rules that would supplement the Act on Real Estate Funds, 1 October.
- To the Ministry of Finance concerning an application submitted by Asset Management Company Arsenal Ltd and Asset Management Company Arsenal-SSP Ltd, 20 October.
- To the Ministry of Finance concerning a draft decision of the Council of State on the annual accounts of credit institutions and investment firms, 30 October.
- To the Financial Supervision Authority concerning revision of the regulation on the reporting by mutual funds to the Financial Supervision Authority, 14 November.
- To the Ministry of Finance concerning redenomination in euro by means of the 'bottom up' method, 2 December.
- To the Ministry of Finance concerning HEX Ltd, Helsinki Securities and Derivatives Exchange, Clearing House, 12 December.

Other opinions

- To the Ministry of Finance concerning the issue of a commemorative coin in honour of Paavo Nurmi and athletics, 6 February.
- To the Office of the Data Protection Ombudsman concerning the requirement to report the personal ID in connection with foreign transactions, 18 February.
- To the Ministry of Finance concerning the government auditors' annual report for 1996, 27 February.
- To the Ministry of Finance concerning the decision to issue a 20 penni coin, 13 June.
- To the Ministry of Finance concerning commemorative coins to be issued in connection with the 80th anniversary of Finland's independence, 3 September.
- To the Ministry of Justice concerning amendment of the provisions on impeachment of higher-ranking civil servants, 13 August.
- To the Ministry of Justice concerning the report of the committee on personal data, 27 August.
- To the Ministry of Justice concerning the report of the Constitution 2000 committee, 2 October.
- To the Ministry of Education concerning determination of maximum interest rates and service charges on study loans, 21 November.

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, 1997, million FIM

ASSETS			
	I	II	III
Reserve assets	62 009	62 002	59 700
Gold	1 742	1 742	1 742
Special drawing rights	1 370	1 544	1 514
IMF reserve tranche	1 937	1 983	1 930
ECU-claim on the European Monetary Institute	2 528	2 544	2 532
Foreign exchange assets	54 432	54 189	51 982
Other foreign claims	3 911	3 911	3 946
Markka subscription to Finland's quota in the IMF	3 852	3 852	3 887
Share in the European Monetary Institute	59	59	59
Claims on financial institutions	16 113	13 928	19 978
Securities with repurchase commitments	14 277	12 104	18 158
Bonds	180	176	174
Other	1 656	1 648	1 645
Claims on the public sector	1 907	1 907	1 907
Total coinage	1 907	1 907	1 907
Claims on corporations	2 265	2 259	2 256
Financing of domestic deliveries (KTR)	68	63	59
Other	2 197	2 197	2 197
Other assets	1 103	1 392	1 157
Accrued items	1 000	1 289	1 034
Other	103	102	123
Total	87 308	85 399	88 944

IV	V	VI	VII	VIII	IX	X	XI	XII
58 775	58 468	59 111	64 475	63 470	62 055	64 085	51 238	51 455
1 742	1 742	1 742	1 742	1 742	1 742	1 742	1 742	1 742
1 186	1 121	1 100	1 557	1 711	1 588	1 489	1 234	1 772
1 986	1 998	1 963	2 023	2 031	2 081	2 068	2 271	3 036
4 011	4 000	3 984	3 965	3 978	3 958	4 031	4 071	4 078
49 851	49 607	50 322	55 189	54 008	52 686	54 754	41 920	40 827
3 947	3 946	4 243	4 243	4 242	4 131	4 131	3 951	3 342
3 887	3 886	4 183	4 183	4 182	4 071	4 070	3 890	3 281
60	60	60	60	60	60	60	61	61
18 864	14 351	12 316	13 327	10 977	11 940	17 791	7 103	2 951
17 070	12 568	9 558	10 575	8 225	9 214	15 103	4 411	–
169	169	154	152	152	126	116	116	114
1 625	1 614	2 604	2 600	2 600	2 600	2 572	2 576	2 837
1 904	1 908	1 921	1 921	1 926	1 939	1 947	1 955	2 015
1 904	1 908	1 921	1 921	1 926	1 939	1 947	1 955	2 015
2 047	1 909	1 909	1 908	1 903	1 899	1 893	1 762	1 762
50	42	42	42	37	33	26	26	26
1 997	1 866	1 866	1 866	1 866	1 866	1 866	1 736	1 736
1 108	915	1 110	1 000	1 006	798	837	645	635
1 000	806	996	895	902	696	736	524	528
108	110	114	105	104	102	102	121	107
86 645	81 497	80 610	86 874	83 525	82 762	90 683	66 655	62 159

Table 1. (cont.)

LIABILITIES	I	II	III
Foreign liabilities	5 203	5 281	5 214
Allocations of special drawing rights	973	996	986
IMF markka accounts	3 853	3 852	3 887
Other	378	433	340
Notes and coin in circulation	15 659	15 590	16 131
Notes	13 892	13 826	14 351
Coin	1 767	1 764	1 780
Certificates of deposit	47 370	47 520	41 950
Liabilities to financial institutions	6 583	2 904	12 149
Reserve deposits	5 082	1 404	10 649
Other	1 500	1 500	1 500
Liabilities to corporations	400	341	278
Deposits for investment and ship purchase	400	341	278
Other liabilities	164	138	167
Accrued items	125	110	90
Other	39	28	77
Valuation account	895	2 591	2 021
Provisions	5 270	5 270	5 270
Pension provision	1 516	1 516	1 516
Other	3 754	3 754	3 754
Capital accounts	5 764	5 764	5 764
Primary capital	5 000	5 000	5 000
Reserve fund	764	764	764
Profit for the financial year	–	–	–
Total	87 308	85 399	88 944

IV	V	VI	VII	VIII	IX	X	XI	XII
5 174	5 213	5 640	5 776	5 864	5 881	6 072	6 208	4 911
1 014	1 020	1 023	1 055	1 058	1 028	1 021	1 031	1 046
3 887	3 886	4 184	4 183	4 182	4 071	4 071	3 891	3 281
273	306	433	537	624	782	980	1 286	584
16 064	16 068	16 315	16 359	16 287	16 046	16 144	16 381	17 817
14 288	14 281	14 512	14 536	14 464	14 229	14 332	14 558	15 923
1 776	1 787	1 803	1 823	1 823	1 817	1 812	1 822	1 894
41 700	34 760	29 110	40 170	28 440	36 760	34 900	12 200	10 500
8 217	9 591	12 897	6 151	15 022	6 958	16 483	14 120	10 681
6 717	8 091	10 397	3 651	12 522	4 458	13 983	11 612	7 911
1 500	1 500	2 500	2 500	2 500	2 500	2 500	2 508	2 770
213	197	171	154	118	99	74	52	32
213	197	171	154	118	99	74	52	32
108	91	92	81	69	79	138	68	55
81	62	56	52	38	44	108	32	23
27	28	36	29	30	36	29	36	32
4 135	4 543	5 350	7 150	6 692	5 905	5 838	6 592	258
5 270	5 270	5 270	5 270	5 270	5 270	5 270	5 270	12 140
1 516	1 516	1 516	1 516	1 516	1 516	1 516	1 516	1 601
3 754	3 754	3 754	3 754	3 754	3 754	3 754	3 754	10 540
5 764	5 764	5 764	5 764	5 764	5 764	5 764	5 764	5 764
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
86 645	81 497	80 610	86 874	83 525	82 762	90 683	66 655	62 159

Table 2.

Bank of Finland's reserve assets and forward exchange position¹, million FIM

	Gold	Special drawing rights	IMF reserve tranche	ECU-claim on European Monetary Institute	Foreign exchange assets	Reserve assets	Forward purchase, contracts, net	Reserve assets and forward position
1993	2 180	664	1 747	–	28 882	33 472	–2 885	30 587
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
1997	1 742	1 772	3 036	4 078	40 827	51 455	–	51 455
1997								
January	1 742	1 370	1 937	2 528	54 432	62 009	12 624	74 633
February	1 742	1 544	1 983	2 544	54 189	62 002	13 052	75 054
March	1 742	1 514	1 930	2 532	51 982	59 700	10 439	70 139
April	1 742	1 186	1 986	4 011	49 851	58 775	6 198	64 973
May	1 742	1 121	1 998	4 000	49 607	58 468	6 119	64 587
June	1 742	1 100	1 963	3 984	50 322	59 111	6 174	65 285
July	1 742	1 557	2 023	3 965	55 189	64 475	4 860	69 335
August	1 742	1 711	2 031	3 978	54 008	63 470	4 794	68 264
September	1 742	1 588	2 081	3 958	52 686	62 055	4 718	66 773
October	1 742	1 489	2 068	4 031	54 754	64 085	1 558	65 643
November	1 742	1 234	2 271	4 071	41 920	51 238	–	51 238
December	1 742	1 772	3 036	4 078	40 827	51 455	–	51 455

¹ At middle spot rates.

Table 3.

Markka's exchange rate against the ECU and the trade-weighted currency index¹

	Markka's exchange rate against the ECU	Trade-weighted currency index, 1982 = 100
1993	6.69420	132.4
1994	6.19108	123.2
1995	5.70936	111.6
1996	5.83028	115.3
1997	5.88125	118.4
1997		
January	5.80159	115.8
February	5.80357	116.4
March	5.82954	116.8
April	5.87626	117.8
May	5.90366	118.6
June	5.88180	118.7
July	5.86447	119.0
August	5.90587	120.4
September	5.89038	119.5
October	5.89974	119.4
November	5.94676	119.4
December	5.97130	119.5

¹ 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 system¹

	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 ²	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
1997	2.0	1.5	1.0	6 717	747	7 464
1997						
January	2.0	1.5	1.0	6 560	423	6 983
February	2.0	1.5	1.0	6 590	992	7 582
March	2.0	1.5	1.0	6 582	1 478	8 060
April	2.0	1.5	1.0	6 589	566	7 156
May	2.0	1.5	1.0	6 623	598	7 221
June	2.0	1.5	1.0	6 602	1 165	7 767
July	2.0	1.5	1.0	6 777	378	7 155
August	2.0	1.5	1.0	6 803	626	7 429
September	2.0	1.5	1.0	6 769	521	7 290
October	2.0	1.5	1.0	6 799	1 020	7 818
November	2.0	1.5	1.0	6 911	892	7 803
December	2.0	1.5	1.0	6 999	310	7 309

¹ Daily average as from 2 October 1995.

² As from 1 July.

Table 6.

Bank of Finland's standing facilities¹

	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
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
1997	3.07	1997	2.00	1	.	1.25	1
1997		1997					
January	3.00	January	2.00	7	.	1.00	-
February	3.00	February	2.00	7	.	1.00	-
March	3.00	March	2.00	7	.	1.00	-
April	3.00	April	2.00	7	.	1.00	18
May	3.00	May	2.00	7	.	1.00	-
June	3.00	June	2.00	7	.	1.00	-
July	3.00	July	2.00	7	.	1.00	-
August	3.00	August	2.00	7	.	1.00	-
September	3.14	September	2.00	7	.	1.25	-
October	3.25	October	2.00	7	.	1.25	-
November	3.25	November	2.00	1	.	1.25	-
December	3.25	December	2.00	1	.	1.25	-

¹ 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.

Table 7.

Domestic interest rates¹, 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
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
1997	3.10	3.17	3.23	3.41	3.55	3.69	5.0	5.7	4.86	5.95
1997										
January	3.02	3.04	3.07	3.16	3.25	3.34	4.8	5.7	4.75	6.14
February	3.01	3.04	3.07	3.17	3.25	3.34	4.7	5.5	4.56	5.91
March	3.01	3.04	3.07	3.18	3.30	3.42	4.8	5.6	4.79	6.12
April	3.02	3.04	3.08	3.21	3.34	3.48	5.0	5.8	5.00	6.36
May	3.01	3.04	3.08	3.19	3.29	3.40	4.9	5.7	4.83	6.16
June	3.00	3.03	3.07	3.19	3.31	3.42	4.9	5.7	4.78	6.09
July	3.00	3.04	3.08	3.22	3.36	3.50	4.9	5.6	4.66	5.86
August	3.01	3.07	3.13	3.31	3.49	3.68	5.0	5.7	4.87	5.90
September	3.15	3.23	3.31	3.52	3.70	3.89	5.2	5.8	4.95	5.83
October	3.29	3.45	3.57	3.91	4.10	4.26	5.3	5.9	5.11	5.75
November	3.35	3.54	3.65	4.00	4.16	4.32	5.4	5.9	5.10	5.79
December	3.31	3.47	3.60	3.87	4.04	4.18	5.2	5.8	4.85	5.58

¹ Daily averages.

Table 8.

Bank of Finland's money market operations¹, million FIM

	Purchases of money market instruments	Sales of money market instruments	Matured transactions, net	Money market operations, net
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
1997	128 220	-422 500	294 770	490
1997				
January	17 100	-47 370	2 780	-27 490
February	15 500	-47 520	28 660	-3 360
March	1 450	-41 950	47 030	6 530
April	24 200	-41 700	13 630	-3 870
May	5 700	-34 760	34 700	5 640
June	9 600	-32 760	22 160	-1 000
July	10 420	-36 520	22 950	-3 150
August	8 350	-30 260	26 320	4 410
September	12 300	-34 630	23 120	790
October	12 200	-36 900	28 830	4 130
November	11 400	-15 700	18 480	14 180
December	-	-22 430	26 110	3 680

+ increases liquidity in the money market.
- decreases liquidity in the money market.
¹ According to trade date.

Table 9.

Bank of Finland's spot transactions¹ in the foreign exchange market, million FIM

	Purchases of foreign exchange (+)	Sales of foreign exchange (-)	Spot transactions, net
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
1997	47 620	-1 470	46 150
1997			
January	38 340	-	38 340
February	-	-	-
March	1 460	-720	740
April	-	-690	-690
May	-	-60	-60
June	2 880	-	2 880
July	4 940	-	4 940
August	-	-	-
September	-	-	-
October	-	-	-
November	-	-	-
December	-	-	-

+ increases liquidity in the money market.
- decreases liquidity in the money market.
¹ According to trade date.

Table 10.

Bank of Finland's forward transactions^{1,2} 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
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	-	-	-	-	-
1997	-	-	-18 510	18 100	-410
1997					
January	-	-	-12 260	-	-12 260
February	-	-	-	-	-
March	-	-	-1 530	4 070	2 540
April	-	-	-	3 070	3 070
May	-	-	-	-	-
June	-	-	-	-	-
July	-	-	-4 720	6 300	1 580
August	-	-	-	-	-
September	-	-	-	-	-
October	-	-	-	3 100	3 100
November	-	-	-	1 560	1 560
December	-	-	-	-	-

+ increases liquidity in the money market.
- decreases liquidity in the money market.
¹ According to trade date.
² Incl. outright deals, which do not have an immediate impact on liquidity.

Table 11.

Foreign exchange rates: annual middle spot rates, FIM

Currency	1992			1993			1994		
	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min
1 USD, New York	5.275	4.483	3.840	6.061	5.719	5.294	5.7999	5.2184	4.5345
1 CAD, Montreal	4.171	3.706	3.210	4.865	4.434	4.163	4.412	3.824	3.351
1 GBP, London	9.023	7.875	7.572	8.963	8.582	8.039	8.596	7.982	7.363
1 IEP, Dublin	8.733	7.636	7.201	9.101	8.371	7.996	8.284	7.799	7.238
1 SEK, Stockholm	0.8845	0.7714	0.7369	0.8106	0.7350	0.6826	0.7076	0.6758	0.6339
1 NOK, Oslo	0.8170	0.7222	0.6888	0.8585	0.8059	0.7648	0.7744	0.7393	0.6900
1 DKK, Copenhagen	0.8580	0.7444	0.6968	0.9527	0.8822	0.8296	0.8590	0.8207	0.7705
1 ISK, Reykjavik	0.0873	0.0778	0.0725	0.0924	0.0846	0.0788	0.0797	0.0745	0.0682
1 DEM, Frankfurt	3.3097	2.8769	2.7122	3.6450	3.4584	3.2704	3.3625	3.2169	3.0115
1 NLG, Amsterdam	2.9440	2.5552	2.4079	3.2395	3.0787	2.9102	3.0028	2.8684	2.6862
1 BEF, Brussels	0.1608	0.1397	0.1310	0.1767	0.1655	0.1580	0.1635	0.1561	0.1463
1 CHF, Zurich	3.6828	3.2000	2.9228	4.1700	3.8706	3.6253	4.0067	3.8179	3.5755
1 FRF, Paris	0.9682	0.8486	0.7947	1.0756	1.0096	0.9581	0.9853	0.9406	0.8749
1 ITL, Rome	0.00423	0.00364	0.00332	0.00394	0.00364	0.00337	0.00345	0.00324	0.00290
1 ATS, Vienna	0.4704	0.4088	0.3854	0.5182	0.4916	0.4653	0.4779	0.4573	0.4275
1 PTE, Lisbon	0.0370	0.0332	0.0309	0.0402	0.0356	0.0326	0.0328	0.0314	0.0294
1 ESP, Madrid	0.0498	0.0438	0.0424	0.0512	0.0451	0.0405	0.0408	0.0390	0.0357
1 GRD, Athens	0.0260	0.0235	0.0220	0.0270	0.0250	0.0230	0.0230	0.0215	0.0195
1 EEK, Tallinn	.	.	.	0.4556	0.4323	0.4088	0.4203	0.4021	0.3764
1 JPY, Tokyo	0.04234	0.03546	0.03098	0.05827	0.05168	0.04263	0.05436	0.05106	0.04672
1 AUD, Melbourne	3.632	3.289	2.757	4.306	3.885	3.569	4.102	3.814	3.330
1 KRW, Seoul	.	.	.	.	.	.	.	.	.
1 special drawing right (SDR)	7.25239	6.31546	5.70934	8.33894	7.98671	7.31083	7.93658	7.46629	6.77181
1 XEU (ECU, official)	6.55826	5.80527	5.52941	7.09113	6.69567	6.39406	6.48523	6.19123	5.76407
1 XEU (ECU, commercial)	6.553	5.798	5.526	7.101	6.685	6.380	6.475	6.175	5.729

Currency	1995			1996			1997		
	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min
1 USD, New York	4.8071	4.3658	4.1839	4.8487	4.5905	4.3311	5.6120	5.1944	4.6290
1 CAD, Montreal	3.424	3.181	3.029	3.559	3.367	3.181	4.064	3.753	3.368
1 GBP, London	7.556	6.891	6.515	7.869	7.164	6.711	9.093	8.506	7.795
1 IEP, Dublin	7.476	6.999	6.728	7.788	7.345	6.932	8.105	7.871	7.647
1 SEK, Stockholm	0.6576	0.6123	0.5713	0.7154	0.6847	0.6483	0.7016	0.6799	0.6533
1 NOK, Oslo	0.7148	0.6889	0.6714	0.7377	0.7111	0.6833	0.7611	0.7339	0.7069
1 DKK, Copenhagen	0.7942	0.7790	0.7608	0.8218	0.7921	0.7762	0.7950	0.7859	0.7679
1 ISK, Reykjavik	0.0708	0.0674	0.0648	0.0723	0.0689	0.0664	0.0771	0.0732	0.0692
1 DEM, Frankfurt	3.1595	3.0471	2.9465	3.1685	3.0530	2.9820	3.0295	2.9939	2.9250
1 NLG, Amsterdam	2.8201	2.7202	2.6334	2.8313	2.7247	2.6569	2.6955	2.6603	2.6038
1 BEF, Brussels	0.1533	0.1481	0.1435	0.1542	0.1484	0.1447	0.1468	0.1451	0.1419
1 CHF, Zurich	3.8405	3.6941	3.5426	3.9216	3.7211	3.4382	3.7575	3.5785	3.3543
1 FRF, Paris	0.9044	0.8748	0.8562	0.9383	0.8978	0.8777	0.9053	0.8894	0.8673
1 ITL, Rome	0.00296	0.00268	0.00247	0.00311	0.00298	0.00276	0.00309	0.00305	0.00296
1 ATS, Vienna	0.4490	0.4331	0.4189	0.4506	0.4340	0.4238	0.4307	0.4255	0.4158
1 PTE, Lisbon	0.0303	0.0291	0.0284	0.0310	0.0298	0.0290	0.0301	0.0296	0.0291
1 ESP, Madrid	0.0361	0.0350	0.0336	0.0382	0.0363	0.0353	0.0359	0.0355	0.0348
1 GRD, Athens	0.0201	0.0189	0.0180	0.0199	0.0191	0.0180	0.0193	0.0190	0.0187
1 EEK, Tallinn	0.3949	0.3809	0.3683	0.3961	0.3816	0.3728	0.3787	0.3742	0.3656
1 JPY, Tokyo	0.05222	0.04663	0.04106	0.04635	0.04225	0.03961	0.04797	0.04303	0.03959
1 AUD, Melbourne	3.683	3.238	3.022	3.843	3.593	3.224	4.128	3.859	3.477
1 KRW, Seoul	.	.	.	.	.	.	.	.	.
1 special drawing right (SDR)	6.99188	6.61879	6.27940	7.01119	6.66357	6.41782	7.54512	7.14420	6.66645
1 XEU (ECU, official)	5.94442	5.70826	5.56099	6.05011	5.82852	5.68470	5.99013	5.88129	5.72221
1 XEU (ECU, commercial)	5.919	5.644	5.457	5.961	5.751	5.543	6.003	5.864	5.703

Table 12.

Foreign exchange rates: monthly middle spot rates in 1997, FIM

Currency	January			February			March		
	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min
1 USD, New York	4.9220	4.7765	4.6290	5.0531	4.9757	4.8970	5.1286	5.0716	4.9947
1 CAD, Montreal	3.669	3.541	3.368	3.724	3.672	3.629	3.753	3.702	3.638
1 GBP, London	7.989	7.924	7.795	8.197	8.089	7.859	8.268	8.141	8.041
1 IEP, Dublin	7.834	7.791	7.729	7.964	7.898	7.799	7.995	7.932	7.866
1 SEK, Stockholm	0.6847	0.6764	0.6669	0.6794	0.6720	0.6623	0.6701	0.6622	0.6533
1 NOK, Oslo	0.7567	0.7408	0.7228	0.7611	0.7508	0.7460	0.7538	0.7448	0.7332
1 DKK, Copenhagen	0.7863	0.7803	0.7679	0.7841	0.7794	0.7714	0.7889	0.7834	0.7782
1 ISK, Reykjavik	0.0705	0.0700	0.0692	0.0718	0.0707	0.0699	0.0722	0.0713	0.0704
1 DEM, Frankfurt	3.0010	2.9754	2.9250	2.9915	2.9729	2.9385	3.0115	2.9886	2.9660
1 NLG, Amsterdam	2.6736	2.6498	2.6038	2.6608	2.6468	2.6194	2.6746	2.6558	2.6368
1 BEF, Brussels	0.1456	0.1443	0.1419	0.1449	0.1441	0.1424	0.1459	0.1448	0.1438
1 CHF, Zurich	3.4613	3.4297	3.3543	3.4527	3.4264	3.4051	3.5131	3.4601	3.4189
1 FRF, Paris	0.8883	0.8817	0.8673	0.8860	0.8806	0.8711	0.8923	0.8859	0.8798
1 ITL, Rome	0.00308	0.00305	0.00301	0.00303	0.00301	0.00299	0.00301	0.00299	0.00296
1 ATS, Vienna	0.4266	0.4229	0.4158	0.4251	0.4225	0.4176	0.4279	0.4246	0.4215
1 PTE, Lisbon	0.0300	0.0298	0.0294	0.0298	0.0296	0.0293	0.0299	0.0297	0.0295
1 ESP, Madrid	0.0358	0.0355	0.0350	0.0354	0.0351	0.0348	0.0354	0.0352	0.0349
1 GRD, Athens	0.0191	0.0190	0.0188	0.0191	0.0190	0.0189	0.0191	0.0190	0.0188
1 EEK, Tallinn	0.3751	0.3719	0.3656	0.3739	0.3716	0.3673	0.3764	0.3736	0.3708
1 JPY, Tokyo	0.04102	0.04051	0.03991	0.04177	0.04048	0.03959	0.04223	0.04138	0.04032
1 AUD, Melbourne	3.780	3.712	3.651	3.912	3.818	3.713	4.058	3.998	3.924
1 KRW, Seoul	.	.	.	.	.	.	.	.	.
1 special drawing right (SDR)	6.85097	6.75569	6.66645	6.97899	6.88718	6.81365	7.05049	6.98562	6.90857
1 XEU (ECU, official)	5.84005	5.80159	5.72221	5.83893	5.80357	5.75272	5.85697	5.82954	5.78899
1 XEU (ECU, commercial)	5.816	5.777	5.703	5.799	5.771	5.734	5.829	5.801	5.764

Currency	April			May			June		
	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min
1 USD, New York	5.2128	5.1307	4.9625	5.2089	5.1337	5.0883	5.2123	5.1732	5.1441
1 CAD, Montreal	3.727	3.681	3.585	3.779	3.722	3.659	3.780	3.737	3.687
1 GBP, London	8.491	8.360	8.150	8.468	8.382	8.243	8.629	8.503	8.418
1 IEP, Dublin	8.057	7.965	7.872	7.832	7.780	7.723	7.878	7.797	7.701
1 SEK, Stockholm	0.6763	0.6678	0.6561	0.6781	0.6694	0.6596	0.6719	0.6680	0.6610
1 NOK, Oslo	0.7502	0.7360	0.7296	0.7326	0.7271	0.7228	0.7272	0.7177	0.7093
1 DKK, Copenhagen	0.7950	0.7876	0.7810	0.7935	0.7922	0.7910	0.7911	0.7869	0.7832
1 ISK, Reykjavik	0.0731	0.0721	0.0700	0.0735	0.0729	0.0722	0.0739	0.0735	0.0729
1 DEM, Frankfurt	3.0295	3.0003	2.9755	3.0215	3.0169	3.0125	3.0135	2.9966	2.9825
1 NLG, Amsterdam	2.6955	2.6680	2.6463	2.6881	2.6825	2.6787	2.6788	2.6637	2.6495
1 BEF, Brussels	0.1468	0.1454	0.1442	0.1464	0.1462	0.1460	0.1459	0.1452	0.1445
1 CHF, Zurich	3.5607	3.5109	3.4453	3.6315	3.5903	3.5326	3.6390	3.5881	3.5663
1 FRF, Paris	0.8995	0.8908	0.8831	0.8975	0.8945	0.8918	0.8913	0.8878	0.8841
1 ITL, Rome	0.00307	0.00303	0.00298	0.00307	0.00305	0.00303	0.00307	0.00305	0.00304
1 ATS, Vienna	0.4305	0.4263	0.4228	0.4293	0.4286	0.4280	0.4281	0.4258	0.4238
1 PTE, Lisbon	0.0301	0.0299	0.0296	0.0301	0.0299	0.0298	0.0298	0.0297	0.0295
1 ESP, Madrid	0.0359	0.0356	0.0351	0.0358	0.0357	0.0356	0.0356	0.0355	0.0353
1 GRD, Athens	0.0192	0.0190	0.0187	0.0190	0.0189	0.0188	0.0190	0.0189	0.0188
1 EEK, Tallinn	0.3787	0.3750	0.3719	0.3777	0.3771	0.3766	0.3767	0.3745	0.3728
1 JPY, Tokyo	0.04130	0.04086	0.04019	0.04486	0.04335	0.04101	0.04640	0.04527	0.04449
1 AUD, Melbourne	4.069	3.997	3.900	4.066	3.975	3.902	3.966	3.902	3.861
1 KRW, Seoul	.	.	.	.	.	.	.	.	.
1 special drawing right (SDR)	7.12191	7.03636	6.87698	7.15517	7.12016	7.05976	7.22374	7.19320	7.17176
1 XEU (ECU, official)	5.93955	5.87626	5.80902	5.91914	5.90366	5.89514	5.89901	5.88180	5.86297
1 XEU (ECU, commercial)	5.920	5.853	5.783	5.897	5.880	5.869	5.874	5.855	5.842

Table 12. (cont.)

Currency	July			August			September		
	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min
1 USD, New York	5.4607	5.3051	5.1871	5.6120	5.5097	5.3862	5.4802	5.3561	5.2426
1 CAD, Montreal	3.959	3.854	3.767	4.064	3.967	3.871	3.960	3.862	3.790
1 GBP, London	9.061	8.869	8.627	9.093	8.838	8.675	8.777	8.571	8.407
1 IEP, Dublin	7.991	7.942	7.869	8.073	8.004	7.941	8.105	7.931	7.680
1 SEK, Stockholm	0.6892	0.6793	0.6712	0.6966	0.6891	0.6815	0.7016	0.6954	0.6897
1 NOK, Oslo	0.7181	0.7134	0.7069	0.7279	0.7221	0.7170	0.7452	0.7318	0.7223
1 DKK, Copenhagen	0.7828	0.7783	0.7732	0.7880	0.7850	0.7812	0.7902	0.7862	0.7830
1 ISK, Reykjavik	0.0762	0.0747	0.0737	0.0771	0.0759	0.0743	0.0761	0.0747	0.0731
1 DEM, Frankfurt	2.9800	2.9641	2.9435	3.0005	2.9903	2.9775	3.0090	2.9932	2.9815
1 NLG, Amsterdam	2.6480	2.6325	2.6138	2.6648	2.6550	2.6438	2.6716	2.6579	2.6480
1 BEF, Brussels	0.1444	0.1436	0.1426	0.1454	0.1448	0.1442	0.1457	0.1450	0.1444
1 CHF, Zurich	3.6226	3.5832	3.5512	3.6598	3.6380	3.6195	3.6660	3.6364	3.6084
1 FRF, Paris	0.8846	0.8785	0.8730	0.8914	0.8873	0.8820	0.8951	0.8904	0.8868
1 ITL, Rome	0.00306	0.00304	0.00302	0.00307	0.00306	0.00304	0.00308	0.00307	0.00305
1 ATS, Vienna	0.4235	0.4213	0.4183	0.4265	0.4250	0.4231	0.4276	0.4254	0.4237
1 PTE, Lisbon	0.0295	0.0293	0.0291	0.0296	0.0295	0.0294	0.0297	0.0295	0.0293
1 ESP, Madrid	0.0353	0.0351	0.0350	0.0355	0.0354	0.0352	0.0357	0.0355	0.0353
1 GRD, Athens	0.0191	0.0189	0.0188	0.0192	0.0191	0.0190	0.0192	0.0190	0.0189
1 EEK, Tallinn	0.3725	0.3705	0.3679	0.3751	0.3738	0.3722	0.3761	0.3741	0.3727
1 JPY, Tokyo	0.04669	0.04609	0.04532	0.04797	0.04672	0.04519	0.04561	0.04434	0.04336
1 AUD, Melbourne	4.071	3.939	3.868	4.128	4.085	3.962	3.991	3.876	3.782
1 KRW, Seoul	0.00614	0.00596	0.00585	0.00628	0.00614	0.00597	0.00606	0.00589	0.00573
1 special drawing right (SDR)	7.41902	7.30859	7.21634	7.54512	7.45951	7.34451	7.40614	7.28131	7.17487
1 XEU (ECU, official)	5.89404	5.86447	5.84353	5.92089	5.90587	5.88943	5.93422	5.89038	5.86115
1 XEU (ECU, commercial)	5.872	5.846	5.827	5.902	5.886	5.872	5.914	5.872	5.844

Currency	October			November			December		
	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min
1 USD, New York	5.3619	5.2695	5.1731	5.3399	5.2205	5.1383	5.4268	5.3714	5.3228
1 CAD, Montreal	3.880	3.803	3.671	3.749	3.696	3.658	3.798	3.768	3.735
1 GBP, London	8.735	8.595	8.489	8.945	8.809	8.693	9.045	8.925	8.753
1 IEP, Dublin	7.823	7.730	7.647	7.885	7.844	7.795	7.911	7.830	7.759
1 SEK, Stockholm	0.7016	0.6958	0.6898	0.6934	0.6902	0.6877	0.6928	0.6899	0.6856
1 NOK, Oslo	0.7511	0.7444	0.7356	0.7426	0.7395	0.7351	0.7487	0.7413	0.7363
1 DKK, Copenhagen	0.7895	0.7874	0.7859	0.7939	0.7916	0.7889	0.7949	0.7934	0.7917
1 ISK, Reykjavik	0.0748	0.0737	0.0724	0.0748	0.0735	0.0723	0.0757	0.0749	0.0738
1 DEM, Frankfurt	3.0070	2.9981	2.9925	3.0215	3.0130	3.0015	3.0285	3.0220	3.0155
1 NLG, Amsterdam	2.6692	2.6613	2.6554	2.6815	2.6731	2.6622	2.6876	2.6817	2.6756
1 BEF, Brussels	0.1457	0.1454	0.1450	0.1465	0.1461	0.1455	0.1468	0.1465	0.1462
1 CHF, Zurich	3.6922	3.6278	3.5918	3.7455	3.7093	3.6828	3.7575	3.7327	3.7087
1 FRF, Paris	0.8973	0.8936	0.8909	0.9034	0.9000	0.8962	0.9053	0.9028	0.9008
1 ITL, Rome	0.00307	0.00306	0.00305	0.00309	0.00308	0.00306	0.00309	0.00308	0.00308
1 ATS, Vienna	0.4273	0.4260	0.4251	0.4293	0.4281	0.4265	0.4307	0.4295	0.4285
1 PTE, Lisbon	0.0295	0.0294	0.0294	0.0296	0.0295	0.0294	0.0297	0.0296	0.0295
1 ESP, Madrid	0.0356	0.0355	0.0354	0.0357	0.0357	0.0355	0.0358	0.0357	0.0357
1 GRD, Athens	0.0191	0.0190	0.0189	0.0193	0.0192	0.0191	0.0193	0.0192	0.0191
1 EEK, Tallinn	0.3759	0.3748	0.3741	0.3777	0.3766	0.3752	0.3786	0.3777	0.3769
1 JPY, Tokyo	0.04440	0.04355	0.04302	0.04335	0.04172	0.04101	0.04216	0.04152	0.04076
1 AUD, Melbourne	3.894	3.800	3.607	3.721	3.630	3.584	3.634	3.562	3.477
1 KRW, Seoul	0.00586	0.00569	0.00536	0.00540	0.00507	0.00456	0.00461	0.00368	0.00275
1 special drawing right (SDR)	7.30897	7.21962	7.15859	7.27102	7.17348	7.09990	7.32949	7.27353	7.22097
1 XEU (ECU, official)	5.91582	5.89974	5.88189	5.97434	5.94676	5.91922	5.99013	5.97130	5.94718
1 XEU (ECU, commercial)	5.918	5.891	5.866	5.988	5.961	5.923	6.003	5.980	5.951

Table 13.

Deliveries of notes and coin, million FIM

	1993	1994	1995	1996	1997
Notes delivered by Setec Oy					
1000 markka	2 100.0	–	–	–	–
500 "	2 150.0	–	–	–	–
100 "	5 000.0	6 000.0	5 000.0	2 180.0	1 625.0
50 "	1 000.0	–	–	765.0	–
20 "	400.0	800.0	400.0	5.0	736.0
Total	10 650.0	6 800.0	5 400.0	2 950.0	2 361.0
in millions of notes	96.4	100.0	70.0	37.4	53.1
Notes destroyed , in millions of notes	116.1	93.8	57.7	42.1	79.9
Coins delivered by the Mint of Finland Ltd					
Ordinary coins					
10 markka	300.0	199.8	45.1	9.3	33.0
5 "	234.7	95.0	45.1	5.9	29.0
1 "	92.6	152.0	40.0	15.0	24.1
50 penni	9.9	1.5	0.5	8.5	4.0
10 "	12.0	6.0	8.5	10.5	7.0
Commemorative coins					
2000 markka	–	–	13.8	–	–
1000 "	–	–	–	–	20.0
100 "	–	9.1	8.6	3.3	5.2
25 "	–	–	–	–	2.5
10 "	–	–	0.0	0.0	–
Total	649.2	463.4	161.6	52.5	124.8
Coins destroyed , in millions of coins					
Ordinary coins	221.6	289.4	91.5	27.3	22.8
Commemorative coins	0.1	0.0	0.0	0.0	0.0

Table 14.

Notes and coin in circulation, at yearend, million FIM

	1993	1994	1995	1996	1997
Notes					
1000 markka	4 053.0	3 829.2	4 440.1	5 153.3	5 579.9
500 "	2 593.0	2 286.6	2 505.0	2 562.0	2 596.9
100 "	5 489.7	5 195.7	5 540.6	6 007.8	6 430.2
50 "	721.3	647.1	692.5	654.2	615.7
20 "	283.8	364.2	396.2	413.4	423.1
10 "	272.6	58.7	50.1	45.4	42.9
5 "	20.5	.	.	.	.
1 "	8.2	.	.	.	.
Total	13 442.1	12 381.5	13 624.5	14 836.1	15 688.7
Ceased to be legal tender on 1 January 1994	(9.4) ¹	303.0	252.8	249.5	243.5
Coins					
Ordinary coins					
10 markka	208.2	325.7	365.2	392.4	415.3
5 "	433.9	416.2	428.6	435.5	440.1
1 "	387.0	371.3	390.4	413.6	428.7
50 penni	113.6	79.9	85.9	91.5	97.1
20 "	30.7	.	.	.	.
10 "	96.3	85.6	96.3	105.5	112.7
5 "	19.2	.	.	.	.
1 "	7.5	.	.	.	.
Total	1 296.4	1 278.7	1 366.4	1 438.5	1 493.9
Commemorative coins					
2000 markka	–	–	13.8	13.8	13.8
1000 "	35.0	35.0	35.0	35.0	55.0
100 "	90.4	98.1	104.0	106.0	110.2
50 "	71.8	71.3	70.7	70.4	69.7
25 "	19.8	19.7	19.7	19.6	22.0
10 "	38.2	38.2	38.1	38.1	38.0
Total	255.2	262.3	281.3	282.9	308.7
Total coins	1 551.6	1 541.0	1 647.7	1 721.4	1 802.6
Ceased to be legal tender on 1 January 1994	(15.7) ²	114.2	111.1	109.0	107.2

¹ Notes issued before 1963.² Coins issued before 1963.

Table 15.

Notes sorted at the Bank of Finland, in millions

	1993	1994	1995	1996	1997
1000 markka	5.6	6.0	4.9	4.6	4.7
500 "	11.1	10.9	10.5	9.4	9.5
100 "	296.3	317.5	396.0	454.8	488.8
50 "	64.8	47.9	68.6	67.1	54.8
20 "	0.6	15.8	73.0	48.3	58.7
10 "	116.5	48.8	1.0	–	–
Total	494.9	446.9	554.0	584.2	616.5

Table 16.

Bank of Finland interbank funds transfer system (BoF-RTGS)

	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
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
1997	17	64.8	8 189.0	36.1	824.2	100.9	9 013.2
1997							
January	16	5.3	788.9	3.5	119.3	8.8	908.1
February	16	4.5	584.4	3.0	48.4	7.5	632.7
March	17	4.7	645.6	2.8	81.4	7.5	727.0
April	17	5.1	703.3	3.3	71.8	8.4	775.0
May	18	4.6	605.1	2.8	47.3	7.3	652.4
June	19	5.2	597.7	2.9	65.4	8.1	663.1
July	19	5.7	662.4	3.4	69.8	9.2	732.2
August	19	5.5	690.5	2.8	45.7	8.3	736.2
September	19	6.1	761.4	3.0	68.4	9.2	829.9
October	19	6.6	794.6	3.2	73.0	9.8	867.6
November	19	5.6	678.8	2.8	80.6	8.4	759.4
December	19	5.9	676.5	2.6	53.2	8.5	729.7

Table 17.

Banks' intraday credit limits

End of period	Total limits, mill. FIM	Maximum usage rate of limits ¹ , %	Average usage rate of limits ² , %
1993	13 325	..	8.8
1994	13 961	..	9.6
1995	12 357	..	11.4
1996	11 547	..	10.1
1997	16 604	88.6	9.5
1997			
January	11 542	75.0	13.7
February	11 537	57.7	5.7
March	11 505	54.5	11.0
April	12 275	48.6	10.8
May	14 415	88.6	8.0
June	14 473	74.4	7.0
July	16 917	52.7	8.4
August	16 207	35.2	8.2
September	15 884	49.9	11.2
October	16 378	38.9	8.6
November	16 024	40.6	11.4
December	16 604	34.4	10.4

¹ The maximum usage rate of limits is the periodic maximum ratio of banks' debit balances on current accounts with the Bank of Finland to total limits (calculated since the start of 1997).

² The average usage rate of limits is the periodic ratio of banks average debit balances on current accounts with the Bank of Finland to total limits.

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
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
1997	131.2	735.2	146.2	1 448.2	277.4	2 183.4
1997						
January	10.0	82.8	12.1	145.7	22.2	228.5
February	9.4	61.1	11.6	145.4	21.0	206.5
March	9.3	61.4	11.4	135.4	20.6	196.7
April	11.6	76.8	12.7	158.3	24.3	235.1
May	11.0	68.9	11.9	145.9	22.8	214.8
June	11.8	52.8	11.9	110.4	23.7	163.2
July	12.1	50.6	11.9	96.2	24.0	146.9
August	10.4	87.9	10.8	90.6	21.2	178.6
September	11.1	49.0	12.5	100.4	23.6	149.4
October	11.0	51.9	14.3	108.0	25.2	159.9
November	10.0	42.6	11.8	98.3	21.8	140.9
December	13.5	49.4	13.4	113.7	26.9	163.0

Bank of Finland publications in 1997

Markka & talous	Quarterly bulletin in Finnish.
Bank of Finland Bulletin	11 monthly issues (double issue for June–July).
Bank of Finland Annual Report	Available separately in Finnish, Swedish and English.
Economic Studies	
Series E, doctoral thesis and analytical studies	E:7 VESA VIHRIÄLÄ Banks and the Finnish Credit Cycle, 1986–1995; doctoral thesis E:8 ANNE BRUNILA Fiscal Policy and Private Consumption-Saving Decisions: European Evidence; doctoral thesis
Discussion Papers	20 research reports by various departments of the Bank of Finland appeared in the Bank of Finland Discussion Papers series.
Review of Economies in Transition	7 issues, prepared by the Unit for Eastern European Economies, appeared in the series.
Reporting of information for the balance of payments statistics	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).
Statistical publications	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 annually (trilingual edition in Finnish, Swedish and English). Finnish Bond Issues; published annually (trilingual edition in Finnish, Swedish and English).
Orders and subscriptions	The Bank of Finland's Annual Report and research publications are available at book-shops. 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=publications;p=bofnet;a=mailnet;c=fi Internet: publications@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-1997

Parliamentary Supervisory Council

Executive Committee

Ilkka Kanerva, Chairman

Johannes Koskinen, Vice Chairman

Olavi Ala-Nissilä

Kimmo Sasi

Tuulikki Hämäläinen

Mauri Pekkarinen

Virpa Puisto

Martti Korhonen

Anneli Jätteenmäki

Secretary to the Parliamentary Supervisory Council

Anton Mäkelä

Board

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

Management Secretarial Staff

Financial Supervision Authority, Chairman of the Board

Harri Holkeri, Member of the Board

Payment Instruments Department

Regional Offices and Branches

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

Pentti Koivikko, Director

Reports to Harri Holkeri, Member of the Board

Administration Department

Payment Instruments Department, Regional Offices and Branches

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

Accounting Department

Ossi Leppänen

Accounts Office

Tuula Colliander

Administration Department

Urpo Levo

Administrative Services Office

Anna Posti

Technical Office

Harri Brandt

Vantaa Real Estate Office

Taisto Lehtinen

Information Technology Dept.

Pertti Simola

Banking Services

Seija Lomma

Data Centre

Kari Helander

Monitoring Services

Matti Ahrenberg

Support Team

Kari T. Sipilä**

Workstation and Telecommunications Services

Kari T. Sipilä

Economics Department

Antti Suvanto

Forecasting Office

Ilmo Pyyhtiä ad int.

Information Management

Ilkka Lyytikäinen

Project Office

Anne Brunila

Financial Markets Department

Heikki Koskenkylä

Ralf Pauli*

Market Structures Office

Markku Malkamäki

Payment Systems Office

Harry Leinonen

Information Services Department

Martti Lehtonen

Balance of Payments Office

Jarmo Nurminen

Information Management

Jorma Hilpinen

Library

Merja Alakulppi

Market Operations Department

Markus Fogelholm

Intervention Office

Olli-Pekka Lehmuusaari

Investment Office

Antti Koura, ad int.

Planning Office

Anneli Isopuro

Monetary Policy Department

Pentti Pikkarainen

Kari Puumanen*

Monitoring Office

Laura Vajanne

Planning Office

Jarmo Kontulainen

Payments and Settlement Dept.

Raimo Hyvärinen

Correspondent Banking Office

Jyrki Varstala

Financial Services Office

Mauri Lehtinen

Systems Office

Hannu Wiksten

Payment Instruments Department

Antti Heinonen

Cash Handling Technology

Kyösti Norhomaa

Currency Supply Systems

Seppo Eriksson

Main Vault

Kenneth Sainio

Regional Offices and Branches

Helsinki–Vantaa

Kari Lottanen

Kuopio

Pekka Konttinen

Oulu

Renne Kurth

Tampere

Martti Hagman

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Personnel Department

Aura Laento

Anton Mäkelä*

Personnel Affairs Office

Sirpa Ahrenberg

Publication and Language Services

Antero Arimo

Language Services

Carita Gabrán

Publications Office

Antero Arimo **

Research Department

Juha Tarkka

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Pekka Sutela*

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Communications

Antti Juusela

Internal Audit

Taina Kivelä

International Secretariat

Kjell Peter Söderlund

Peter Nyberg*

Legal Affairs

Arno Lindgren

Management Secretarial Staff

Heikki T. Hämäläinen

Organization and Management Development

Esa Ojanen

Security

Jyrki Ahvonen

*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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- **Tampere**
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- **Turku**
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