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The Governor's Review

Finland enters Stage Three of Economic and Monetary Union (EMU) in a favourable position. Following the crisis at the turn of the decade monetary conditions have stabilized and the economy has become stronger and more diversified during the vigorous upswing.

From the point of view of monetary policy the changeover comes at a propitious time. No conflicts have arisen between the primary objective of price stability, as stipulated in the Statute of the European Central Bank, and the other objectives of economic policy. Easy monetary policy has helped to promote production and employment.

High unemployment is currently the major problem facing the Finnish economy. Unemployment has taken root and become primarily a structural problem. It is a problem that is Europe-wide. Moreover, with forecasts pointing to a slowing of economic growth, at least in 1999, the prospects for a substantial reduction in unemployment in Europe in the years ahead are not very promising.

We have witnessed the dawning of a new era in European economic integration. At the beginning of 1999 eleven EU member states joined together to form an economic and monetary union, adopt a single monetary policy and introduce a single currency – the euro. Finland's presence at the very heart of economic and monetary policy decision-making in Europe is a new and highly significant development as regards our role on the international stage.

Whilst much is expected from EMU in Europe in terms of stronger and more stable economic development, it also entails challenges of various kinds.

The year 1998 saw the culmination of preparations for the advent of Stage Three. At the beginning of May the European Council, meeting in the composition of heads of state or government, decided which countries were to be in the first wave to join the single currency. Soon after, the European Central Bank (ECB) was established as part of the European System of Central Banks (ESCB). During the summer and autumn months, the ECB Governing Council elaborated its price stability objective and took key decisions on monetary policy strategy, instruments and techniques.

The current price stability and slowdown in economic activity in the euro area have enabled the ECB to set the ESCB's key interest rate at a very low initial level. Inflation has slowed largely as a consequence of lower prices for oil and other commodities. The near-term outlook for price stability is also favourable.

From now on there will be very little room for manoeuvre in monetary policy in the euro area. This will be the case even if the

Finland entered monetary union with its economy in very good shape and well prepared.

economic outlook should deteriorate. The level of interest rates in the euro area is now quite low. Underlying inflation in the euro area is higher than indicated by the harmonized index of consumer prices because prices in the service sector are rising faster than prices of goods. Similarly, liquidity growth in the money market as measured by increases in the stock of narrow money or credit is faster than indicated by changes in the broad monetary aggregate. The room for manoeuvre in monetary policy will also be affected significantly by developments in the conduct of fiscal policy.

The spread of the financial crisis that began in southeast Asia in 1997 caused turmoil in the international financial markets in 1998. The outlook for world economic growth weakened and uncertainty increased.

Even though economic developments outside Europe have been unstable, economic performance in the United States and Europe has been positive in many respects. Finland enters monetary union with its economy in very good shape and well prepared. After recovering from the severe recession of the early 1990s, the economy has been growing at a substantially faster pace than the average for the EU area in recent years. At the same time the structure of the economy has become stronger and more diversified. New sectors have become mainstays of export activity and industrial production. A key factor in this success has been an improvement in the competitiveness of industrial companies. Thanks to moderate wage agreements and sharpened competition, companies have remained price competitive. Technological competitiveness has improved substantially as a result of higher spending on R&D. Industrial companies have also benefited from the advantages of globalization. In recent years their financial results have been good and their financial position has improved significantly.

Households have also improved their financial position considerably and consumers are optimistic about the future, largely because of strong growth in real income in recent years, an improving employment situation and falling debt levels. However, despite a marked increase in the level of employment and the number of jobs, the unemployment rate has not come down as far as was hoped. This can be explained partly by increases in labour supply and partly by imperfections in the functioning of the labour market. High unemployment is the major problem facing the Finnish economy.

Although a determined fiscal policy has helped to achieve fiscal balance in the general government sector, public spending will continue to be burdened by a large debt for a long time to come. Robust growth of total output and efforts to consolidate central government finances have led to a significant improvement in the financial position of the general government sector as a whole, which recorded a surplus in 1998, for the first time since 1990. But, despite vigorous economic growth, the central government budget remains in deficit. The structural imbalance in central government finances will therefore be another major economic problem in the years ahead.

One of the most striking achievements of the Finnish economy has been the maintenance of price stability throughout a period of vigorous economic growth that has already lasted several years. Inflationary pressures have been felt mainly in the stock and property markets, but these have not led to a general rise in costs and prices. Sustained price stability has made possible an easy monetary policy stance, and Finnish interest rates have been among the lowest in the EU area. The markka's external value has also remained very stable against the other euro area currencies.

Monetary policy has thus underpinned growth and employment. As far as monetary conditions are concerned, we have been able to enjoy some of the expected benefits of monetary union for a couple years now. Nor have the stabilizing effects of the transition to monetary union been undermined by the recent turbulence in global financial markets.

Finnish banks have performed better in recent years and, in general, they are now in a good financial position. Their financial results have been good, their capital base has increased and their investments in high-risk areas in international banking have remained within reasonable limits. They are also making progress in disposing of their low-yield real estate holdings.

The changeover to the single currency represents a strategic challenge to the whole financial sector, in part because of increasing competition. To meet this challenge, the banking sector, state-owned financial institutions and the stock exchange have been restructured. Internal reorganizations by the banking groups, the reform of the deposit guarantee system and the abrogation of the Parliament's resolution on bank support have also helped to clarify the banks' competitive position.

The advent of monetary union means major changes in European financial markets, which will evolve into a single broad, liquid and efficient market. This will increase the options available to both investors and those in need of financing, and will boost the efficiency of financial intermediation. But it will also lead to tougher competition. The focus of financial intermediation is expected to shift increasingly away from bank lending to the securities markets. In 1998 the total market capitalization of shares listed on the Helsinki stock exchange clearly exceeded nominal GDP. A broad and liquid single capital market will offer companies enhanced access to direct financing on market terms.

Overall, Finland is well placed to make the changeover to Stage Three of EMU. Our inflation rate is in line with the price stability objective set by the Governing Council of the ECB, and deflation is not a danger. Since the prospects as regards growth and inflation attenuated during the autumn in Finland, as elsewhere, the present stance of the single monetary policy suits Finland's current economic situation very well.

While the single monetary policy can make an important contribution to promoting stable economic development, it alone cannot guarantee this. Monetary policy will be formulated according to conditions prevailing throughout the whole euro area; it will not be able to react to the special needs of particular countries or regions. Economic performance in the euro area will depend largely on national fiscal policies. Fiscal policy and the functioning of the labour market in each of the euro area countries will play a crucial role in securing stable monetary conditions and vigorous economic growth.

The EU countries have agreed that fiscal policy in the EMU will be conducted in accordance with the Stability and Growth Pact. The aim is to achieve approximate balance or surplus in the general government finances of each country. This would provide scope for normal fluctuations in national budgets in response to business cycle movements without breaching the deficit ceiling of three per cent of GDP specified in the Pact. Fiscal policy in line with the Pact would complement a stability-oriented monetary policy in promoting stable economic development throughout the euro area.

In some of the euro area countries, the general government deficit ratio is currently only marginally below the three per cent ceiling and the structural deficit is not declining. Any slowdown in economic growth could jeopardize fulfilment of the terms of the Pact. Therefore it is essential that countries where there is a risk of the deficit ceiling being breached continue their efforts to consolidate general government finances. If the conditions of the Stability and Growth Pact are not fulfilled, the credibility of economic policy could be undermined, leading, in time, to tighter monetary policy than would otherwise be necessary.

Despite efforts to eliminate imbalances in recent years, the central government sector in Finland remains in deficit. Over the medium term there will be many pressures to increase expenditures and reduce revenues. Population ageing will be the primary source of increased spending needs. International tax competition, tax harmonization and the need to lighten the tax burden will be the main factors contributing to reduced revenues. Moreover, the sensitivity of the budget to business cycle movements implies a need for a stronger underlying budget balance in Finland than in many other EU countries. Thus the Government's aim of achieving a sizable surplus for the public sector deserves to be supported. The Government that takes office after the parliamentary elections in March will be well advised to continue the efforts of the two preceding governments to strengthen the financial position of the general government sector.

In Finland, as too in other euro area countries, bringing down unemployment and consolidating central government finances will also require structural measures that help to reduce public spending and improve the efficiency and flexibility of the economy. If adopted, such measures would promote balanced growth, price stability and financial stability.

Reforms that increase the efficiency and flexibility of labour market and companies' operations have a vital role to play in ensuring stable economic development. Wage and cost developments must be kept compatible with price stability because, in the context of monetary union, cost pressures will not find an outlet in higher prices but rather in a worsening in the employment situation. It is particularly important to develop a more flexible wage system that takes into account sector- and company-specific factors such as differences in productivity and sensitivity to business cycle movements.

As Stage Three begins, interest rates are low and the prospects for inflation are stable throughout the euro area. Finland enters monetary union with its economy in good shape. Its success in these conditions will depend largely on its ability to take advantage of this stable environment.

Matti Vanhala

Monetary Policy

Conditions remained favourable in 1998 for the conduct of monetary policy. The economy as a whole performed well, and confidence in stable monetary conditions remained strong. Inflation decelerated in the course of the year, partly because of falls in world market prices of oil and other commodities. Upward pressure on inflation came mainly from rises in housing prices and rents and the prices of some services.

The convergence of European economies continued. The twelve-month inflation rate slowed to about 1 per cent in the euro area countries towards the end of 1998, interest rates fell to a record low level and general government deficits continued to decrease. However, cyclical conditions varied across euro area countries and inflation differentials widened slightly. Economic conditions in Europe were favourable for the launch of Stage Three of Economic and Monetary Union (monetary union).

Economic growth in the euro area countries picked up a little in 1998. In the course of the year growth was increasingly driven by domestic demand. The fiscal position of the general government sector improved slightly, largely because of economic growth. Even so, progress towards attainment of the objective laid down in the Stability and Growth Pact stalled as structural deficits in many countries either remained at previous levels or expanded slightly.

The economic crisis that began in southeast Asia in the summer of 1997 worsened in spring 1998 as the severity of Japan's banking crisis became apparent. The reorganization of Russia's debts and devaluation of the rouble further exacerbated the situation in the latter part of the summer. At the same time, investors' confidence weakened as regards the ability of other developing countries to resolve their economic problems. The crisis also began to have adverse effects on export growth in Europe and the United States. However, domestic demand in these areas grew particularly strongly and this helped to sustain the growth of the world economy.

The growth of total output slowed in Finland in the course of 1998. After expanding rapidly in the early part of the year, exports slowed in the latter part of the year and domestic demand increasingly became the main driving force of the economy. Unemployment fell as a consequence of economic growth, and the general government sector's deficit and debt decreased. The deficit in central government finances also continued to shrink, but the structural deficit remained rather large. There was no shortage of liquidity in domestic financial markets, and the central government financed its deficit almost entirely from domestic sources.

Given the buoyancy of the economy, monetary policy remained easy in 1998. True, the Bank of Finland did raise its key interest rate in March, for the second time within six months, when the domestic inflation rate edged above the average for the EU area. The rise in the tender rate on this occasion amounted to 15 basis points and took the rate to 3.40 per cent. Despite the rate increase, the key monetary policy rates remained among the lowest in the EU area throughout the year. In early December, in the context of a coordinated lowering of key interest rates by euro area central banks, the Bank of Finland cut the tender rate to 3.0 per cent. In line with international developments Finnish long-term market interest rates fell to record lows and ranged from 4 to 4½ per cent during the latter half of the year. The differential vis-à-vis corresponding German rates was only 10–20 basis points in the first half of the year and again in the final months of the year, though they widened marginally in the autumn because of uncertainty in the international financial markets.

The position of the Finnish markka within the EU's Exchange Rate Mechanism remained stable throughout the year. During the early part of the year the markka was slightly stronger than its central rate against the Deutschemark, and there were several minor bouts of speculative activity regarding its future fixed conversion rate for the changeover to monetary union. Once decisions on the countries that would join monetary union and the principle for fixing the conversion rates for their currencies had been taken at the EU summit in early May, the markka's exchange rate remained very close to its central rate for the rest of the year. Finland's prospective participation in monetary union had a stabilizing effect on the markka, as witnessed by the fact that neither the exchange rate nor short-term interest rates were notably affected by the turbulence in financial markets in the autumn.

The financial position of companies and households improved further in 1998. The rise in prices of Finnish shares held by nonresidents weakened Finland's international investment position, despite another large current account surplus. Continuing favourable economic conditions and low interest rates led to a marked increase in the demand for housing and corporate loans, and the stock of markka bank lending increased sharply. Bank deposits grew only slightly. Growth of the monetary aggregates remained modest, corresponding closely to overall economic developments and as before funds were shifted into new types of accounts and other investment outlets.

Inflation eased

Finnish consumer prices continued to rise at an annual rate of about 2 per cent during the first half of 1998. This was the rate to which consumer price inflation had accelerated during the previous year. In the spring and summer of 1998 the rise in consumer prices slowed to less than the average rate for the euro area countries. During the second half of the year inflation slowed further in Finland and the other euro area countries as a consequence of a fall in world commodity prices and import prices. On the other hand, a rise in prices of services and housing costs pushed up consumer prices. Price stability was supported by wage developments that

Chart 1.

Consumer prices

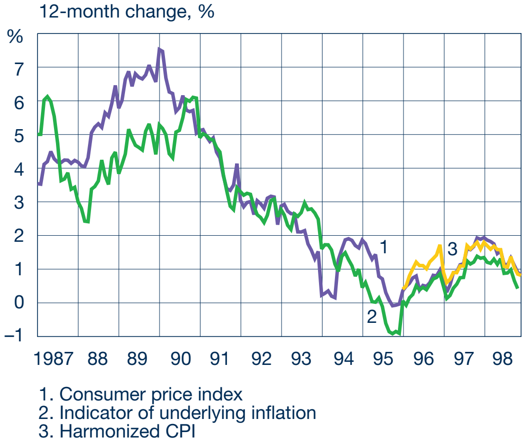
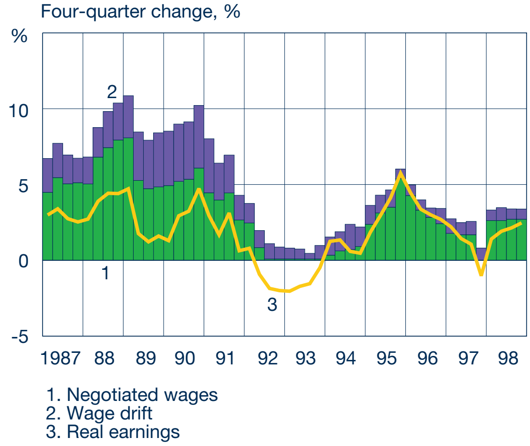


Chart 2.

Level of earnings



were in line with pay agreements as well as by increased competition in the nontradables sector. The indicator of underlying inflation, which excludes the effects of indirect taxes and capital costs of housing, climbed at a slower rate than the CPI (Chart 1).

Inflationary pressures eased particularly as result of lower import prices in the wake of the Asian crisis. The slowing of world economic growth dampened demand and this led to a sharp fall in world market prices of crude oil during the second quarter and again near the end of the year. World market prices of other commodities also fell sharply.

Prices in the core countries of the euro area remained fairly stable throughout the year. Inflation differentials between the euro area countries widened marginally in the course of the year as the rise in prices accelerated slightly in some of the peripheral countries. There was a particularly marked rise in prices of services in those euro area countries where the economic upswing had progressed furthest. On the other hand, the decline in prices of imported goods, especially energy products, slowed the overall rise in goods prices during the year. Finland's twelve-month inflation rate was 0.8 per cent in December 1998, as measured by the harmonized index of consumer prices (Table).

In markka terms, prices of imported goods fell by 7.4 per cent in 1998. The rise in export prices that had begun in mid-1997

Table. Harmonized index of consumer prices (HICP)

	December 1998 12-month change, %
EU 15	1.0
Austria	0.5 p
Belgium	0.7
Denmark	1.1
Finland	0.8
France	0.3
Germany	0.4
Greece	3.7
Ireland	2.2
Italy	1.7
Luxembourg	0.4
Netherlands	1.5 p
Portugal	2.8
Spain	1.4
Sweden	0.0
United Kingdom	1.5

p = prelimary

came to a halt at the beginning of 1998, and prices declined gradually throughout the year, led by export prices of forest products. In December 1998 export prices were 6.8 per cent lower than a year earlier, and so the terms of trade improved. In the manufacturing sector, producer prices fell substantially along with the fall in import prices.

The two-year moderate pay agreements concluded at the end of 1997 and the low level of wage drift curbed the rise in labour costs. The nominal level of earnings in the fourth quarter of 1998 was 3.4 per cent higher than a year earlier (Chart 2). Four-fifths of the rise in the level of earnings was due to an across-the-board wage increase in January 1998. The rest of the rise was due to wage drift, which was affected by changes in the structure of the labour force. Despite sectoral differences in labour productivity, wage drift was very small in all sectors and therefore earnings growth was fairly even across sectors. Unit labour costs, measured as total wages and employers' social security contributions per unit of output, increased by 0.5 per cent.

The strong uptrend in asset prices continued in 1998, albeit at a slower pace than in 1997. In the fourth quarter of 1998 housing prices were on average nearly 10 per cent higher than a year earlier. As demand tapered off and the rise in prices eased, the growth of new housing production also started to slow.

Mimicking international developments, share prices on the Helsinki stock exchange rose sharply in the early part of the year and trading volumes increased substantially. In the late summer and early autumn, share prices turned down sharply as the outlook for world economic growth became more uncertain and financial markets grew more restless. But during the final quarter of the year share prices again rose sharply. Stumpage prices, which had started drifting downward in the summer of 1997, turned up at the beginning of 1998. By December they were more than 5 per cent higher than a year earlier.

Consumers' inflation expectations subsided during the year, reflecting the slowing of consumer price inflation. In December consumers expected prices to rise by 1.2 per cent over the next year. Similarly, firms' inflation expectations were very modest at the end of the year.

Economic growth slowed

Domestic demand became the driving force of growth

Finnish exports grew substantially in the early part of 1998, on the strength of outstanding orders. However, in the summer the deepening and spread of the Asian crisis began to be reflected in a slowdown in monthly figures for export growth. The country-composition of exports changed significantly. Exports to many Asian countries and Russia declined, while exports to Europe, China and the United States grew significantly. The volume of exports of goods and services increased by 7 per cent in 1998. Exports of electrical and electronics goods grew by 24 per cent, as against growth of only 1.5 per cent for exports of manufacturing goods as a whole.

Consumers' confidence about the outlook for their own financial situation remained fairly steady throughout 1998. On the other hand, expectations concerning the general economic situation weakened considerably in the latter part of the year. Consumer confidence, which was underpinned by an improving employment situation and growth in real income, kept consumer demand buoyant. Private consumption was at a

Chart 3.

Structure of demand and supply

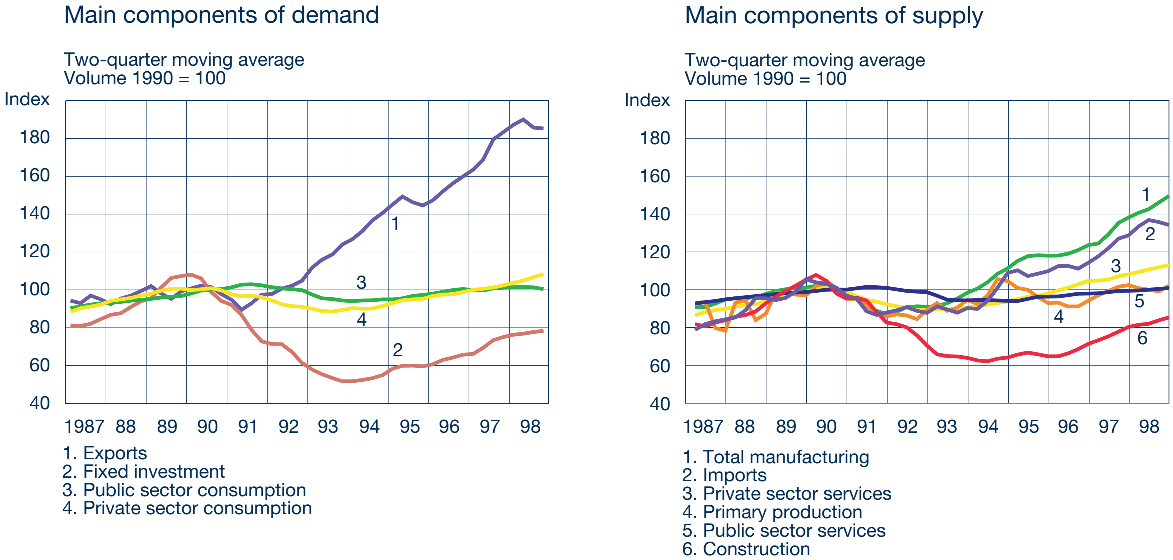
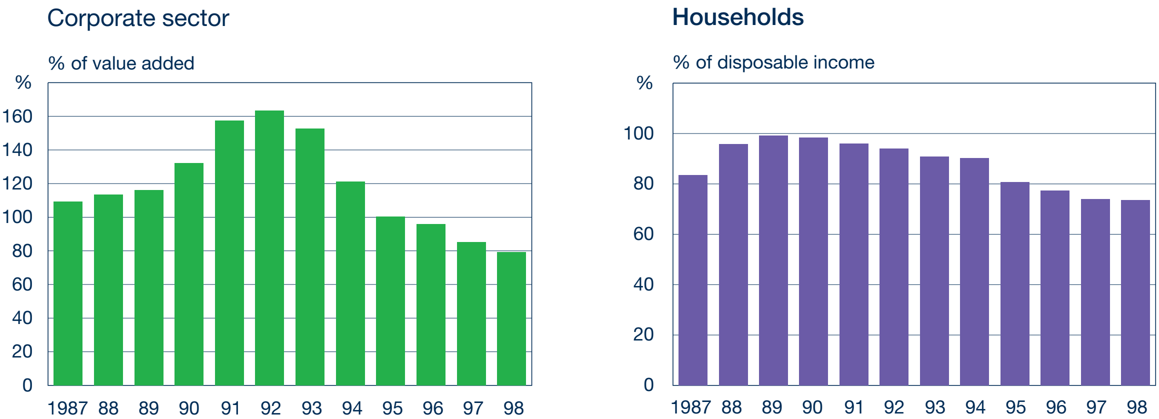


Chart 4.

Private sector debt



notably higher level than before the recession (Chart 3). Real incomes were boosted by contractual wage increases at the start of the year, wage drift and slowing inflation.

Households' strong confidence about the general economic situation, a firmly established downtrend in debt levels (Chart 4) and the continuing low level of interest rates kept house purchases at a high level. The demand for housing was also boosted by heavy migration to growth centres. Nearly half of the financing that went to housing was used for basic repairs of dwellings. Outstanding housing loans also increased substantially, partly because of the abolition of stamp duty on loans in the spring.

Chart 5.

Economic performance in Finland and the EU

Gross domestic product

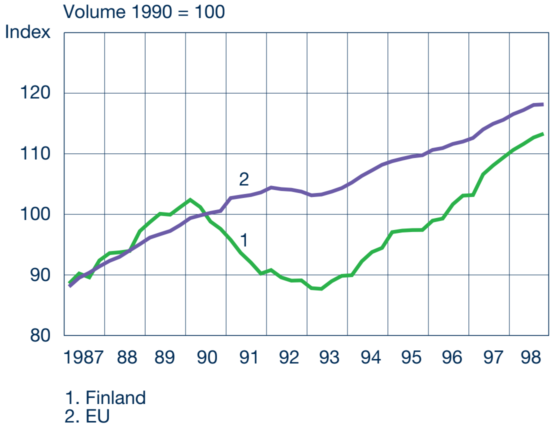
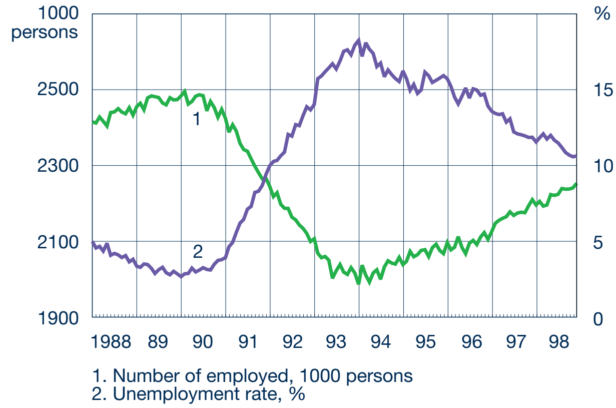


Chart 6.

Number of employed and unemployment rate



Source: Statistics Finland

Robust demand for housing in growth centres, low and stable interest rates and companies' good profitability kept private investment growing at a fast rate. Construction continued to provide the main impetus to investment growth as the rise in property prices had improved sector profitability. The growth of housing investment decelerated from the previous year as a result of a reduction in central government support for housing construction. Fixed investment in the domestic manufacturing sector increased only slightly. Although production in the forest industries was running at almost full capacity until the autumn, there was no investment in new capacity. Instead, efforts focused on increasing the productivity of existing capacity. In the final months of 1998 capacity utilization in manufacturing declined slightly as export growth began to fade.

Rising industrial output and moderate cost developments meant that companies' profitability remained good during the year. The bulk of companies' investment in productive capacity was financed internally. Companies also continued to run down their debt (Chart 4).

Fiscal policy was mildly restrictive in 1998 since central government expenditures rose by clearly less than revenues. Public sector demand grew moderately and investment decreased slightly as a result of spending cuts and a deterioration in the fiscal position of the local government sector. General government expenditure decreased further in relation to GDP.

Growth of total output slowed in Finland in the latter half of 1998 as a result of the slowdown in export activity. Growth was nonetheless clearly faster than the average for the euro area countries (Chart 5). The Finnish economy grew by 4.9 per cent in 1998, as compared with the previous year, whereas the euro area countries grew by only 2.8 per cent. Finland's growth, particularly in the latter part of the year, was sustained by strong output gains in the electronics and electrical industries. Construction activity also contributed to growth. During the summer total output growth began to slow as the peak growth phase for exports and construction activity came to an end. Growth in the domestic services sector remained strong, largely because of a surge in private consumption. The volume of imports increased by slightly more than total output (Chart 3).

Capacity constraints did not affect production in the first half of the year, and in the second half of the year capacity utilization dropped as export demand tapered off. According to a survey by the Confederation of Finnish Industry and Employers, there were few capacity constraints and labour shortages and they were not considered to pose an obstacle to growth in manufacturing and construction. In the construction sector in particular, the capacity utilization rate fell and the outlook weakened considerably towards the end of the year, partly in response to sluggish export demand and expectations of weaker domestic demand.

Further fall in unemployment

The number of employed persons in the economy rose clearly in the course of 1998. Continued vigorous output growth generated new jobs in manufacturing and in the business services sector in particular. There were also job gains in wholesale and retail trade, but employment growth came to a halt in the construction sector. The number of self-employed persons increased in 1998, following a long period of decline. The share of part-time employees in the total labour force increased modestly, whereas the share of employees on fixed-term contracts turned down slightly both with regard to new recruitments and total employment. The number of employed in 1998 was on average 52 750 higher than in 1997.

An increase in the demand for labour and in the number of persons of employment age also boosted the labour supply and slowed the fall in the unemployment rate. The seasonally adjusted unemployment rate was 10.6 per cent in December. The average unemployment rate for the whole year, 11.4 per cent, was 1.2 percentage points lower than in 1997 (Chart 6). The number of unemployed young persons and long-term unemployed both declined substantially. Finland's unemployment rate in 1998 was slightly higher than the average for the euro area countries. Spain recorded the highest unemployment rate among the euro area countries, and the unemployment rates in Italy and France were also higher than in Finland.

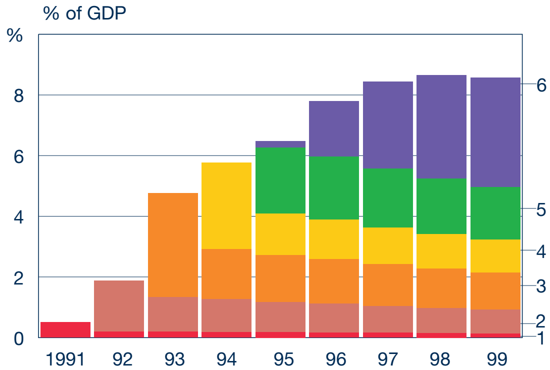
Fiscal position of the general government sector improved

Because of the continued rapid consolidation of central government finances, the fiscal position of the general government sector improved considerably in 1998. The favourable economic situation boosted tax revenues as companies recorded strong financial results, the employment situation improved and private consumption surged. The fall in unemployment and the budget cuts agreed in previous years curbed the increase in expenditure. Despite a prolonged period of rapid economic growth, the central government's budget deficit remained large. The general government sector recorded a surplus of FIM 6.7 billion in 1998 whereas it had still been in deficit to the tune of FIM 7.6 billion in the previous year. Although Finland's general government fiscal position in 1998 was good by international standards, the central government deficit, despite some improvement, still amounted to 2 per cent of GDP.

Fiscal policy will continue to be restrictive in 1999. The fiscal position of the general government sector should improve even though revenue growth will slow down,

Chart 7.

Cuts in central government outlays, 1991–99



1. Implemented 1991
2. Implemented 1992
3. Implemented 1993
4. Implemented 1994
5. Implemented 1995 (one-year cuts, continued in 1996–99)
6. Decided by the present Government for 1995–99

largely because of some easing of taxation and slower economic growth. The ratio of the general government surplus to GDP is estimated to increase to 2 per cent compared with 1 per cent in 1998.

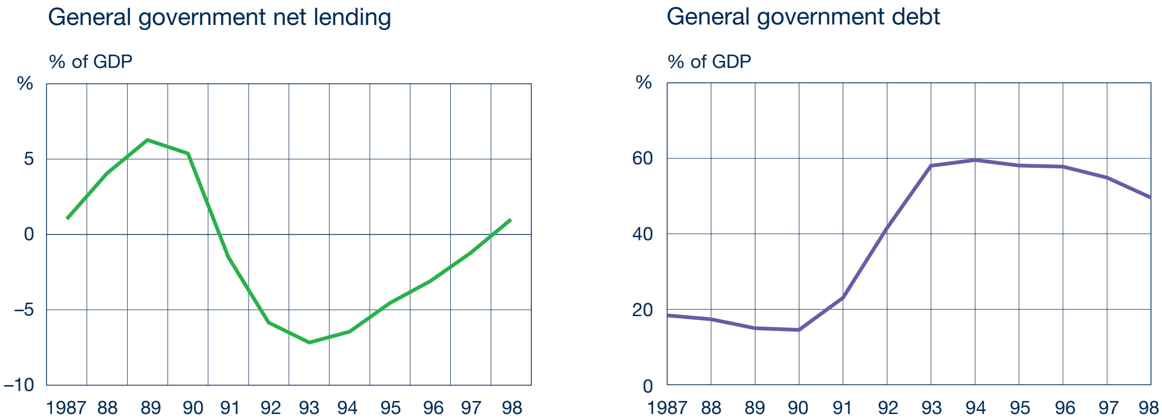
In March 1998 the Government decided on a budgetary framework for the period 1999 – 2002 according to which there will be no increase in spending in real terms over this period. Budgeted expenditure for 1999 is actually lower than foreseen in the framework. All in all, these spending cuts, along with previously agreed cuts, will generate savings of FIM 22 billion over the parliamentary term 1995 – 1999. Starting from 1991, total savings amount to 10 per cent of GDP in 1996 (Chart 7).

In the coming years the general government surplus is likely to grow further. According to the first stability programme submitted by the Government to the Council of the European Union in September, the general government surplus and debt ratio are expected to develop more favourably over the next few years than was estimated previously. The general government deficit disappeared in 1998 (Chart 8). The stability programme projects surpluses of just over 2 per cent of GDP throughout the period 1999–2002 and a fall in the debt ratio to about 40 per cent.

By the end of 1998 the central government debt had increased to FIM 427 billion, which was 63 per cent of GDP. Central government proceeds from privatization were more than expected, and this helped to slow the growth of the debt. As in the preceding years, the central government financed its deficit in 1998 primarily from domestic sources. The most important source were the TEL funds, which have invested large amounts of their surpluses in government bonds. The central government's foreign currency debt fell to about one-quarter of GDP in 1998.

Chart 8.

Public finances



Monetary policy easy despite a small interest rate increase

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

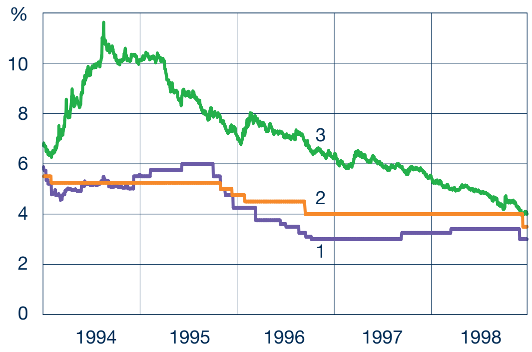
The relatively easy stance of monetary policy in 1997 was continued in 1998. Despite some monetary tightening in September 1997, the tender rate was slightly lower than the Bundesbank's repo rate at the end of 1997 and still among the lowest in the EU. The economy continued to grow at a robust pace in early 1998, and cost and price pressures had built up in the course of 1997. It was expected that these pressures would continue to mount and that the rise in prices would accelerate so that underlying inflation would exceed 2 per cent in 1998. Finland's inflation rate was in fact higher at end-1997 than the average for the countries likely to be in the first wave to join the single currency. This provided the rationale for a slight tightening of monetary policy.

On 19 March 1998 the Bank of Finland raised the tender rate by 15 basis points to 3.40 per cent (Chart 9). This was prompted by the continuing rapid growth of the Finnish economy, with no slowdown expected in the near term in spite of the Asian crisis. Asset prices had continued to climb and the risk of demand inflation remained. It was judged that a clearly higher inflation rate in Finland than in the prospective core EMU countries could be harmful from the point of view of the changeover to monetary union. The interest rate increase had a pronounced effect on the shortest market rates and interest rate expectations. Market rates rose and interest rate expectations strengthened over the following two months or so.

The dampening impact of the Asian crisis on world economic growth and inflation had begun to affect international interest rates already in late 1997. The worldwide downtrend in long-term rates continued during the first half of 1998. In March the yield on ten-year Finnish government bonds (ma-

Chart 9.

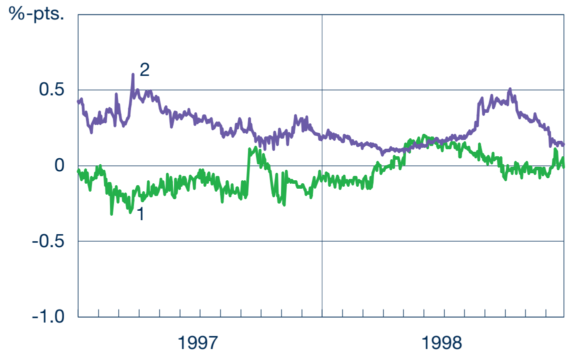
Key interest rates



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 10-year bond yield less German 10-year government bond yield

turing in April 2008) fell to 5 per cent and the differential vis-à-vis the corresponding German rate narrowed to 10 basis points (Chart 10). Short-tem market rates also moved slightly lower in early 1998 but rose again in the spring, in response to the increase in the tender rate. For instance, the three-month market interest rate rose and stayed slightly above the corresponding German rate for a few months.

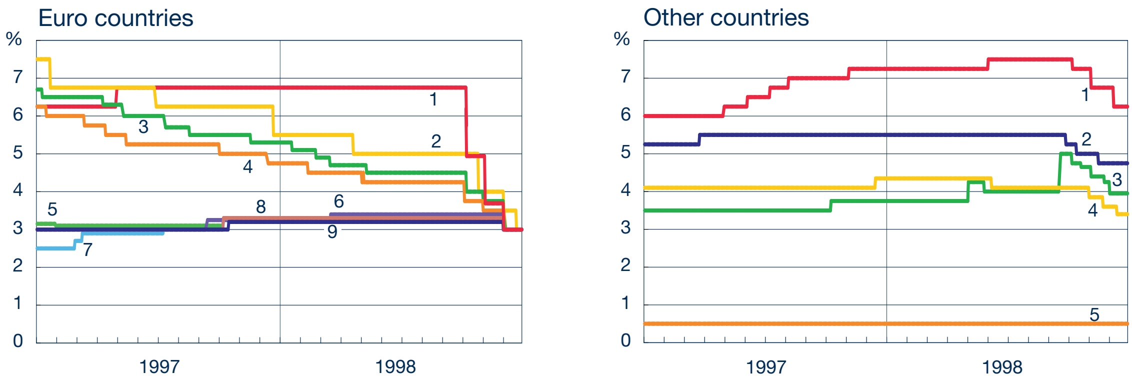
The core countries of the European exchange rate mechanism (incl. Germany, France, Belgium and the Netherlands) were able to continue their easy monetary policies, and central bank rates in these countries remained unchanged until the beginning of December (Chart 11). Key central bank rates in these countries had converged to about 3.30 per cent in 1997. In the southern EU member states, ie Italy, Spain and Portugal, key central bank rates at the beginning of 1998 were still clearly higher than in the prospective core EMU countries, and the aim was to bring the former rates in line with the latter before the launch of monetary union. Central banks in the southern EU states lowered their rates further in the first half of 1998. The decisions to cut rates were also influenced by the stabilization of these countries' exchange rates within the ERM, as well as by the prolonged period of low inflation rates. In Ireland central bank rates were kept higher than core country rates up until the latter half of 1998 owing to robust economic growth and the risk of higher inflation.

The US Federal Reserve kept the key federal funds rate at 5.50 per cent throughout the first half of the year against a background of continuing robust growth and the risk of higher inflation which this entailed (Chart 11). In Japan monetary policy was kept easy and interest rates very low because of protracted economic problems.

As a result of the deepening of the Asian crisis, long-term interest rates moved down during the first half of the year in both the United States and Europe. International investors moved funds out of emerging mar-

Chart 11.

Central bank rates



1. Ireland: short-term facility rate / reporate
2. Italy: discount rate
3. Portugal: repo rate
4. Spain: repo rate
5. France: intervention rate
6. Finland: tender rate
7. Netherlands: special advance rate
8. Germany: repo rate
9. Austria: repo rate

1. UK: base rate
2. USA: fed funds target
3. Denmark: repo rate
4. Sweden: repo rate
5. Japan: discount rate

kets into 'safe havens' such as US and German government debt securities. The downward trend in interest rates was interrupted only briefly in the spring when doubts were raised about the fitness of some countries for monetary union, prior to the selection of the countries to be included in the first wave at the EU summit meeting at the beginning of May. After the summit, long-term interest rates resumed their downtrend, largely because of a general easing of inflation expectations in response to falling commodity prices and the weaker prospects for economic growth.

The markka stabilized within the ERM

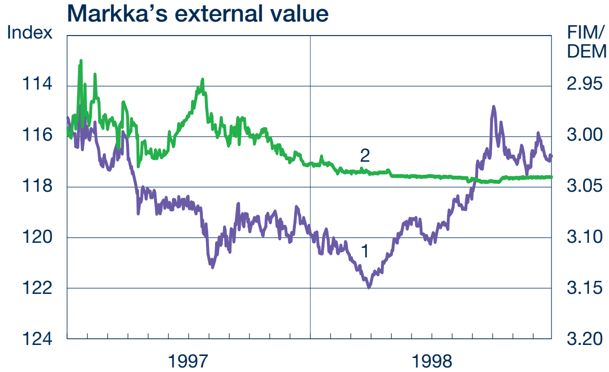
The upward pressure on the markka eased towards the end of 1997. However, in the early months of 1998, before the announcement of the fixed conversion rates at the May summit, doubts emerged as to the appropriateness of the markka's ERM central rates for the changeover to monetary union. For a short time in March and April, the markka was subjected to upward pressure vis-à-vis the Deutschemark. Underlying this pressure was the improved outlook for the Finnish economy relative to the other prospective euro area economies and the market's view that the markka's ERM central rate was too weak to be used as the fixed conversion rate for monetary union. Nonetheless, the markka's exchange rate vis-à-vis the Deutschemark gradually approached the central rate. In terms of its trade-weighted index, the markka depreciated slightly in the early part of the year, mainly because of the appreciation of the US dollar and pound sterling (Chart 12).

As regards the other ERM currencies, the Italian lira also came under some pressure vis-à-vis the Deutschemark in the early part of the year.

The Bank of Finland kept the markka's exchange rate against the Deutschemark stable through foreign exchange purchases totalling some FIM 5 billion per month in

Chart 12.

Markka's external value



1. Trade-weighted currency index, 1982 = 100 (left scale)
2. FIM/DEM (right scale)

Rising curve means markka appreciation.

March and April (Chart 13). The impact of these operations on banks' liquidity was partly offset through simultaneous transactions in the forward exchange market. In May the Bank entered the forward exchange market in connection with the central government's borrowing activities. Forward transactions in June and July were associated with maturing forward agreements. In the latter part of the summer the Bank sold foreign exchange when the markka came under modest downward pressure as a result of the Russian crisis and depreciation of the Scandinavian currencies.

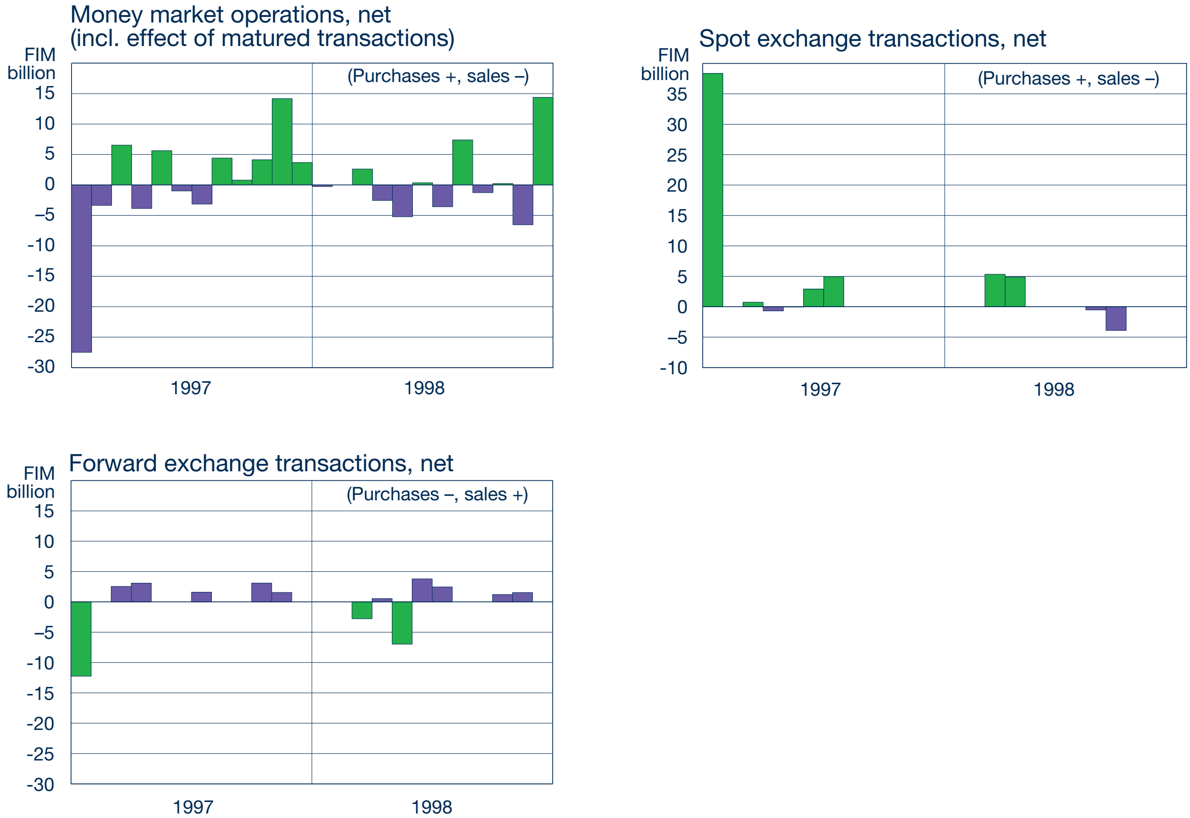
As a result of its foreign exchange operations, the Bank of Finland's foreign reserve assets increased somewhat in the spring (Chart 14). Throughout the latter half of the year the reserve assets remained in the region of FIM 50 billion. At year-end reserve assets amounted to FIM 51.6 billion and the Bank had no outstanding forward exchange contracts.

At the beginning of 1998 the exchange rates of the core ERM currencies were very close to their central rates against the Deutschemark (Chart 15). The exchange rate of the Irish punt against the Deutschemark, which had deviated substantially from its central rate throughout 1997, was still about 4 per cent stronger than its central rate at the beginning of 1998. In mid-March the punt was revalued by 3 per cent relative to the ERM currencies, which brought its central rates close to its market rates. In the same connection, the Greek drachma entered the ERM at a rate clearly weaker than the prevailing market rate. Following its entry, the drachma stabilized at a rate that was about 2.5 per cent stronger than its central rate.

At the EU summit at the beginning of May, the heads of state or government decided on the countries that would be in the first wave to join monetary union. They also issued a pre-announcement concerning the bilateral conversion rates for the euro area currencies that were to be fixed irrevocably on 1 January 1999. The decision on the participating countries and the pre-announcement of the bilateral conversion rates had a stabilizing effect on money and currency markets

Chart 13.

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

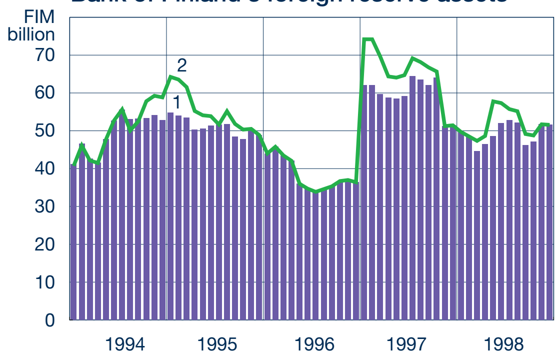


in the prospective euro area countries. Italy lowered its key interest rate in April, before the May summit, and Spain and Portugal followed suit soon after the meeting. The exchange rates of the euro area currencies stabilized at levels close to their ERM central rates.

Money and foreign exchange markets in Finland were also calm during the spring and summer. The fall in international interest rates and slowing inflation led to a marked decline in Finnish long-term interest rates so that they dropped to close to 4½ per cent in August. Short-term market rates began to edge downwards again in May. Market expectations regarding interest rates also eased substantially during the summer (Chart 16). Speculation concerning a possible change (revaluation) in the markka's exchange rate prior to the final fixing of rates came to an end after the decisions taken at the May summit. The markka's spot and forward market rates depreciated to very close to its pre-announced central rate against the Deutschemark. The Irish punt and Italian lira, which had come under pressure for their revaluation before the May meeting, also weakened and moved closer to their central rates (Chart 15).

Chart 14.

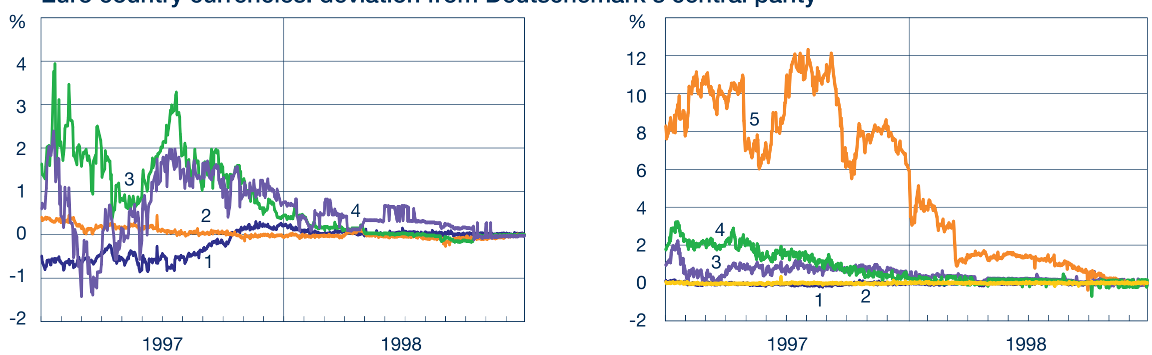
Bank of Finland's foreign reserve assets



1. Reserve assets
2. Reserve assets + forward position

Chart 15.

Euro country currencies: deviation from Deutschemark's central parity



1. French franc
2. Dutch guilder
3. Finnish markka
4. Italian lira

Rising curve means appreciation against Deutschemark.

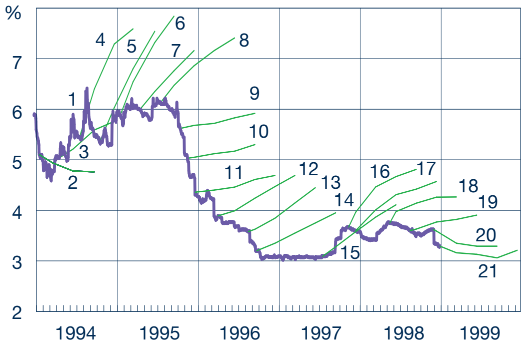
1. Belgian franc
2. Austrian schilling
3. Spanish peseta
4. Portuguese escudo
5. Irish punt

Onset of the Russian crisis caused turbulence in international financial markets

Global economic and financial conditions deteriorated significantly in the summer months as the Asian crisis deepened and spread to Russia and Latin America and Russia encountered a financial crisis. In addition, the problems in the Japanese economy and banking sector worsened. The onset of the Russian crisis in August prompted foreign investors to reevaluate the risks associated with emerging markets. The resultant flight to quality led to capital flows out of crisis areas and into low-risk securities, causing heavy fluctuations in global equity, bond

Chart 16.

Actual and expected 3-month interest rates*



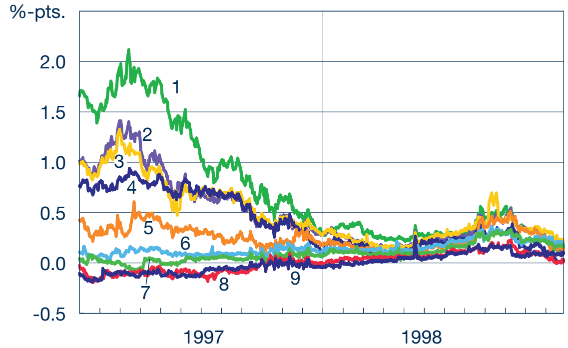
1. 3-month Helibor

2.	Expected rate	15.1.1994	12.	Expected rate	1.4.1996
3.	"	15.4.1994	13.	"	16.8.1996
4.	"	15.7.1994	14.	"	23.9.1996
5.	"	14.10.1994	15.	"	18.7.1997
6.	"	16.1.1995	16.	"	13.11.1997
7.	"	13.4.1995	17.	"	15.12.1997
8.	"	14.7.1995	18.	"	18.5.1998
9.	"	13.10.1995	19.	"	17.8.1998
10.	"	15.11.1995	20.	"	30.11.1998
11.	"	20.12.1995	21.	"	31.12.1998

* Expected rates based on forward rates.

Chart 17.

Differential between 10-year yield in Germany and other Euro countries



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

and currency markets. This flight from risk was reflected in a shift of funds into sovereign debt securities of industrial countries and a fall in long-term interest rates. At the same time, risk premia incorporated in yields on emerging economy debt increased sharply.

The flight to quality, together with expectations of a market correction in the wake of a sharp rise in share prices at the beginning of 1998, led to a widespread steep fall in share prices in July. In addition the currencies of many countries came under pressure and there were notable movements in exchange rates between the major currencies. As the flight from risk increased, the dollar weakened and the yen and Deutschemark strengthened.

The onset of the Russian crisis in August pushed long-term interest rates down further and, at the same time, cross-country interest rate differentials widened (Chart 17). The biggest drop was in the German long-term rate, which was 3.80 per cent in October as against 4.20 per cent for the corresponding Finnish rate. Although the fall in interest rates was mainly due to the flight to quality, it also reflected expectations of a slowdown in economic activity, as evidenced in a sharp fall in share prices. Euro area countries' differentials vis-à-vis the German long-term interest rate widened temporarily to 20–70 basis points, compared with 10–30 basis points just before the onset of the Russian crisis. The differential vis-à-vis the German long-term rate increased to about 100 basis points for the EU states outside the euro area, ie Denmark, Sweden and the United Kingdom, and to about 150 basis points for Norway, for example. Denmark was obliged to raise its key central bank rate by 100 basis points in September to support the krone in the face of downward pressure. The Russian crisis was also reflected to a minor extent in the markka's exchange rate, which for a short time moved marginally to the weak side of its central rate against the Deutschemark.

The gloomier outlook for the world economy as a result of the Russian and Latin American crises and the impact this was expected to have on the US economy induced the US Federal Reserve to ease the stance of its monetary policy. The key federal funds rate was cut three times in September, October and November by 25 basis points on each occasion to 4.75 per cent. The Bank of England also cut its base rate three times in October – December to 6.25 per cent. The US rate cut and the decisions taken in Japan on support for and reform of the banking sector contributed to a marked rise in share prices in October. Key interest rates were also cut in Sweden and Denmark in October–December. The rationale for the cuts was an easing of inflationary pressures as a result of a slowdown in economic growth.

There was also an abrupt change in bond markets in October when long-term yields rose in general by about 50 basis points. The jump was partly a result of a sudden winding down of investments in US and European bonds that had been financed by low-interest yen loans. Returns on these investments were adversely affected when the yen strengthened in response to Japan's announcement of a reform programme. The sudden disposal of these bonds pushed bond prices down and yields up. The cuts in central bank interest rates in the United States and some European countries may also have contributed to the shift of funds from bond markets to equity markets, which put additional upward pressure on bond yields. However, the rise in long-term interest rates was short-lived. Interest rates fell back again towards the end of the year, reaching their lowest level for the year in many countries in December.

Key interest rates in the euro area countries converged in the latter part of the year

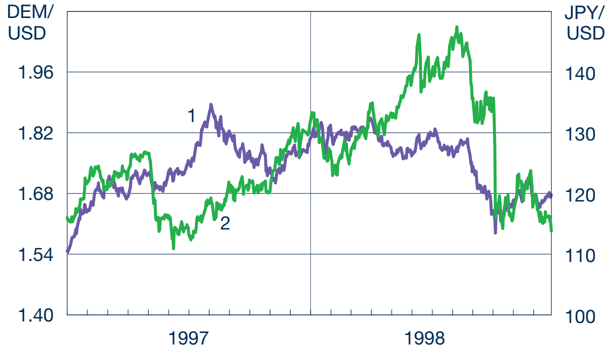
As growth prospects for the euro area weakened slightly in the autumn and inflationary pressures eased further, the view gained ground that the key monetary policy interest rate adopted by the European Central Bank at the beginning of 1999 would be set at a level close to the lowest prevailing central bank rates in the euro area countries. Accordingly, Ireland, Italy, Portugal and Spain continued to lower their key interest rates in October–November, bringing them closer in line with prevailing rates in the core euro area countries, ie the lowest rates in the area.

At its meeting at the beginning of December, the ECB Governing Council agreed on the final details of the ECB's monetary policy strategy by setting a reference value of 4½ per cent for the growth of the broad monetary aggregate, M3. In that connection it was also agreed that the national central banks would jointly lower their key rates to 3.0 per cent. The only exception was the Italian central bank, which for the time being left its key rate 50 basis points higher than the other central banks. The rationale for the rate cut was the continuing favourable outlook for price developments in the euro area and uncertainty regarding developments in global financial markets.

Accordingly, the Bank of Finland lowered the tender rate from 3.4 per cent to 3.0 per cent on 3 December. The Bank also decided at that time to lower the base rate from 4 per cent to 3.5 per cent as from 15 December 1998.

Chart 18.

Deutschemark and yen exchange rates vis-à-vis US dollar



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

Rising curve means dollar appreciation.

Short-term market rates in Finland remained fairly stable and on a par with corresponding German rates for the rest of the year, though they fell by about 20 basis points in December after the cut in the tender rate. After a brief surge in October long-term interest rates resumed their downward trend, and the differential vis-à-vis corresponding German rates narrowed substantially. At the end of 1998 the long-term rate was 4.01 per cent and the differential 14 basis points.

Exchange rate movements between the major currencies were volatile

Exchange rates between the major currencies fluctuated widely in the course of the year (Chart 18). The dollar appreciated in relation to the yen in the early part of the year against a background of continuing robust economic growth in the United States and the expectation that there would be some tightening in US monetary policy. At the same time, the Japanese economy weakened further.

After the onset of the Russian crisis and emergence of problems in some Latin American economies, the dollar began to weaken against other major currencies. These problems were expected to have an adverse impact on the US economy, and efforts by investors to avoid risks caused the dollar to depreciate against the Deutschemark and yen. The fall in US interest rates added to the downward pressure on the dollar. Meanwhile the yen was buoyed by agreements in Japan on banking and economic reforms and by a reversal in investment flows.

In the period from early August to the latter half of October, the dollar depreciated by some 20 per cent against the yen. The volatility of exchange rates is illustrated by the fact that in a three-day period in the first half of October the dollar lost about 15 per cent of its value against the yen. During the autumn the dollar also depreciated against the Deutschemark and Finnish markka.

Conversion rates adopted

In spite of the Russian crisis, the markka remained stable in relation to its central rate against the Deutschemark during the latter part of the year. After the summer until October, the markka appreciated in terms of its trade-weighted index partly because of the depreciation of the dollar, Norwegian krone and Swedish krona. As measured by the index, the markka was on average 0.4 per cent weaker in 1998 than in 1997.

On 31 December 1998 the European Council adopted the irrevocable conversion rates between the euro and each of the euro area currencies. As from 1 January 1999 these conversion rates are the only exchange rates that are applied in all conversions, in either direction, between the euro and national currency units or between national currency units.

Table. Euro conversion rates

Currency	Units of national currency per euro
Belgian franc	40.3399
Deutschemark	1.95583
Spanish peseta	166.386
French franc	6.55957
Irish punt	0.787564
Italian lira	1936.27
Luxembourg franc	40.3399
Dutch guilder	2.20371
Austrian schilling	13.7603
Portuguese escudo	200.482
Finnish markka	5.94573

External balance, bank lending and the money supply

Current account surplus grew slightly

The current account surplus increased slightly in 1998 compared with 1997, despite a slowdown in export growth. The surplus amounted to FIM 37.3 billion, which represented 5.5 per cent of total output (Chart 19). This large surplus was accompanied by a shift from deficit to surplus in the general government sector and a continuing, albeit reduced, surplus in the private sector.

There was a trade surplus of FIM 56.9 billion in 1998. Of the other items in the current account, the balance on the service account improved slightly compared with 1997. The investment income balance weakened despite a decrease in interest-bearing foreign debt, mainly because of an increase in dividend outflows in connection with larger holdings of Finnish shares by nonresidents. There was again a net outflow on the unrequited transfers account, partly because contributions to the EU budget exceeded receipts and partly because of an increase in foreign aid.

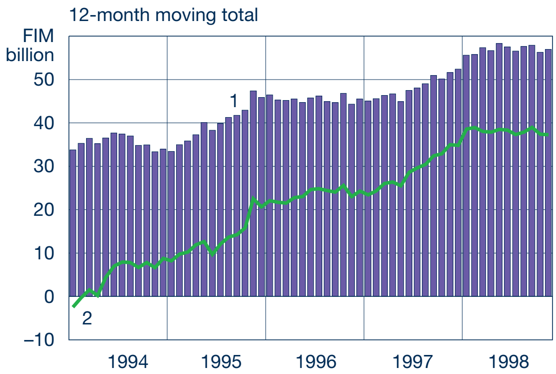
The financial position of the private sector remained clearly in surplus in 1998. Corporate income increased faster than investment, indicating that companies invested a large part of their aggregate financial surplus abroad. Consumers remained confident about the future despite the international economic crisis. Reflecting this, household consumption and housing investment grew at such a pace that the sector's financial surplus, which dates back to the recession, virtually disappeared. The central government deficit narrowed substantially and as a result the general government deficit turned into a surplus.

Rise in share prices weakened the net international investment position

Finland's NIIP showed a negative balance of FIM 473 billion at the end of 1998, which amounted to 70 per cent of GDP (Chart 20). Despite the large current account surplus, the position weakened by FIM 202 billion owing to a rise both in Finnish share prices and

Chart 19.

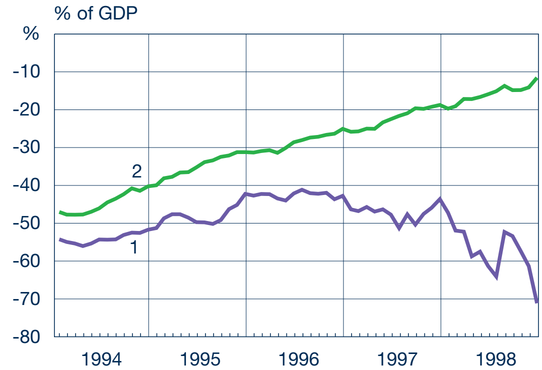
Trade account and current account



1. Trade account
2. Current account

Chart 20.

Net international investment position



1. Net international investment position
2. Net international investment position excl. shares classified as portfolio investment

sales of shares to nonresidents. The price rise boosted the market value of nonresidents' holdings of Finnish shares by FIM 205 billion. These holdings were thus a significant item in the NIIP. The net effect on the NIIP of exchange rate changes and other valuation items was small. When shares and other capital-related items are excluded, the NIIP improved noticeably and stood at negative FIM 138 billion at year-end; at its highest, in 1993, the negative balance had stood at FIM 232 billion.

Finnish companies' outward direct investment in 1998 amounted to more than FIM 100 billion. The exceptionally large figure was largely due to the MeritaNordbanken and Stora Enso mergers. At year-end, the stock of outward direct investment totalled FIM 167 billion and inward direct investment FIM 79 billion.

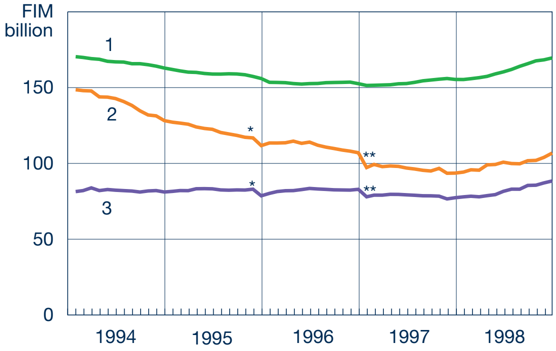
Residents' investments in foreign bonds declined to FIM 9 billion in 1998 and the stock amounted to FIM 51 billion at year-end. Insurance companies, for example, diversified their portfolios by investing in foreign assets. Banks had net foreign liabilities totalling FIM 8 billion at the end of 1998. The net foreign assets of other financial institutions more than doubled to FIM 25 billion at the end of the year.

The central government's repayments of foreign currency debt in 1998 exceeded new borrowing by FIM 8 billion. The appreciation of the markka against the currencies in which the debt was denominated, particularly the dollar, had the additional effect of slightly reducing the markka value of foreign currency debt. Even so, the central government's net foreign currency debt remained at a high level, amounting to FIM 175 billion at end-1998, ie nearly one-quarter of GDP. Debt repayments will remain high in the coming years.

The central government's net borrowing requirement was covered largely from domestic sources, as in 1997. The demand for the debt securities was adequate and interest rates were low. At the end of the year nonres-

Chart 21.

Outstanding bank lending to companies and households



1. Markka lending to households
2. Markka and foreign-currency lending to companies
3. Markka lending to companies

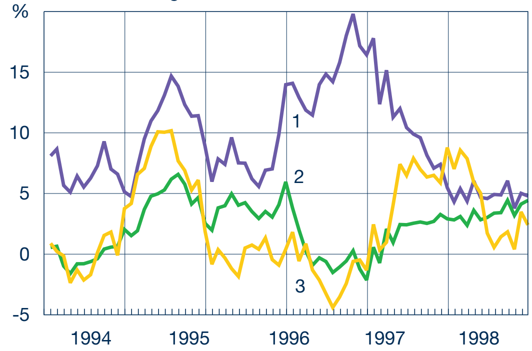
* Bank loans amounting to approx. FIM 5 billion were transferred to asset management companies in December 1995.

** Following items removed from stock in connection with statistical revision
a) bonds and other bearer instruments treated as investment assets;
b) lending by foreign branches of domestic banks

Chart 22.

Monetary aggregates

12-month change, %



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

idents held Finnish government markka bonds in the amount of about FIM 40 billion. Foreign investors showed considerably less interest in these bonds as compared with previous years.

Stock of bank lending grew substantially

The marked improvement in economic conditions made households and companies more willing to borrow and this was reflected in a sharp recovery in demand for bank credit in 1998. The stock of markka lending grew by 12 per cent, amounting to FIM 308 billion at the end of 1998. The amount of new housing loans grew by 47 per cent in 1998 as compared with 1997, and the stock increased by 13 per cent. The stock of banks' consumer loans grew only slightly whilst the stock of consumer loans granted by finance companies grew substantially. New corporate loans were up by about 50 per cent and the stock by 14 per cent on the previous year (Chart 21). Foreign currency loans were raised in roughly the same amount as repayments on such loans. The stock of these loans was only slightly more than 10 per cent of the peak amount recorded at the beginning of the 1990s. The combined stock of markka and foreign currency lending increased by 12 per cent and amounted to FIM 327 billion at end-1998. The peak figure, more than FIM 400 billion, was recorded at the end of 1991.

The demand for credit recovered not only because of the improved economic situation but also because of low lending rates throughout the year. Lending rates tracked movements in the key reference rates. After the rise in the tender rate in March, the three- and twelve-month Helibor rates rose slightly but quickly edged down again. At the end of 1998 both the three- and twelve-month Helibor rates were around 3.3 per cent. This meant that the twelve-month rate was nearly one percentage point lower than at the beginning of the year. The banks' own reference (prime) rates started the year in the range of 3.60 – 4.50 per cent and ended the year in the range of 3.60 – 4.00 per cent.

The average interest rate on new loans, which had been just under 5 per cent at end-1997, stayed in the range of 4½ to 5 per cent during 1998. The average rate on lending to households was slightly more than 6 per cent at the beginning of 1998 but fell by about half a percentage point in the course of the year. The rate on new housing loans also fell slightly during the year to just over 5 per cent. The abolition in the spring of the stamp duty on loans helped to reduce borrowing costs, which boosted the demand for credit.

New loans were again linked for the most part to short-term reference rates or banks' prime rates. The banks offered few other options. Of the total stock of markka lending, about a half was tied to Helibor rates and some 30 per cent to prime rates.

Money growth remained moderate

Bank deposits increased by 5 per cent. The small increase in deposits and only minor changes in the structure of deposits as compared with the preceding years meant that the growth of the money stock tracked fairly closely the overall performance of the economy (Chart 22). The broad money aggregate, M2, increased by 4 per cent in 1998. M3, which includes M2 and bank CDs held by the public and hence can fluctuate fairly widely, grew by 2 per cent.

Taxfree high yield deposits had gradually disappeared by the end of 1997. Fixed-term deposits subject to withholding tax decreased again in 1998.

Funds were placed largely in taxfree fixed-term accounts, on which interest is payable at a maximum of 2 per cent per annum, and in taxable transaction accounts. Deposits in households' liquid cheque and transaction accounts grew by only FIM 2 billion in 1998. The average interest rate on banks' total funding fell again from 1.44 per cent in December 1997 to 1.31 per cent in December 1998.

The interest rate linkage of markka deposits changed so that the share tied to the base rate dropped to just under 3 per cent. Interest rates on transaction accounts were for the most part fixed or tied to the respective bank's prime rate. The amount of fixed-rate deposits and other deposits increased substantially.

Owing to the low level of deposit rates, alternative investment outlets became attractive. Holdings of mutual fund units increased significantly in the first half of the year and amounted to some FIM 29 billion at the end of the year, as against about FIM 18 billion a year earlier. Growth focused on international funds, as well as on fixed-income and balanced funds. Households' investments in voluntary life and pension insurance also increased. In contrast, there was a marked decline in demand for government yield bonds, which are primarily an investment vehicle for households. The amount of these outstanding at end-1998 was FIM 21 billion compared with some FIM 30 billion a year earlier.

The amount of banknotes held by the public stood at about FIM 15 billion at the end of 1998, which was about the same as at the beginning of the year. As the amount of funds held in cheque and transaction accounts increased, the narrow money stock, M1, grew by 5 per cent.

Preparations made for the European Central Bank's monetary policy

Price stability is the primary objective of the single monetary policy.

The ECB, which began operating in June, took a number of decisions in the summer and autumn concerning the principles and operation of its future monetary policy. Much of the preparatory work in this area had already been done by the European Monetary Institute.

In the autumn the Governing Council of the ECB decided on the key elements of its stability-oriented monetary policy strategy. As stated in the Maastricht Treaty '… the primary objective of the ESCB shall be to maintain price stability'. Price stability takes precedence over other economic policies within the European System of Central Banks (ESCB). Though the ESCB does support other economic policies, it does so only in so far as it judges that this does not prejudice the price stability objective. The Governing Council defined price stability as 'a year-on-year increase in the Harmonized Index of Consumer Prices (HICP) for the euro area of below 2 per cent'. The price stability objective so defined is to be maintained over the medium term.

By defining the price stability objective in terms of the HICP for the euro area, the Governing Council has made clear that its monetary policy decisions will be based on an assessment of developments in the euro area as a whole and that its monetary policy instruments must be formulated in a manner that reflects monetary, economic and financial developments across the euro area. In specifying that price stability is to be maintained over the medium term, the Governing Council has acknowledged the need for monetary policy to have a forward-looking, medium-term orientation.

In order to maintain price stability, the Governing Council has adopted a strategy based on two pillars.

First, money will be assigned a prominent role by setting a quantitative reference value for the growth of a specific broad monetary aggregate. In December 1998 the Governing Council announced that the aggregate to be applied would be M3 and set the reference value for M3 growth at 4½ per cent. Setting a reference value for money growth does not imply a commitment to change interest rates mechanistically in order to correct deviations of money growth from the reference value over the short term.

M3 comprises currency in circulation, other liabilities of monetary financial institutions resident in the euro area and certain liabilities in the form of deposits held by some institutions that are part of the central government (eg post offices and treasuries). The liabilities included in M3 are overnight deposits, deposits with an agreed maturity of up to two years, deposits redeemable at notice of up to three months, repos, debt securities issued with an original maturity of up to two years, shares/units of money market funds units and money market paper.

Second, in parallel to the analysis of monetary growth in relation to the reference value, a broadly based assessment of the outlook for price developments and the risks to price stability in the euro area will play a major role in the ESCB's strategy. This assessment will be made using a wide range of economic and financial indicators of future price developments. The strategy underlines the Governing Council's firm commitment to its primary objective and is designed to ensure the achievement of the ECB's overriding goal.

The Governing Council also decided on the monetary policy instruments. The most important of these are open market operations, standing facilities and the minimum reserve system. A detailed description of the ESCB's instruments and procedures is given in *The single monetary policy in Stage Three: general documentation on ESCB monetary policy instruments and procedures*, which was published in the autumn.

The Governing Council also decided on the adoption by the ESCB of a minimum reserve system at the start of Stage Three. Credit institutions located in the euro area will be required to hold reserves in the national central banks. The Governing Council noted that a minimum reserve system would be expected to perform three main functions in Stage Three. First, it should contribute to the stabilization of money market interest rates. Second, it will help to enlarge the demand for central bank funds and thus create a structural liquidity shortage in the market, or enlarge an existing shortage. This will enhance the efficiency of the ESCB's liquidity-providing operations and, in the longer term, enable the ESCB to react to new payment technologies such as the development of electronic money. Third, the minimum reserve system makes it easier to control the expansion of monetary aggregates by increasing the interest rate elasticity of money demand.

A credit institution's reserve base will include three main categories of liabilities: deposits, debt securities and money market paper, as defined in the money and banking statistics. Interbank liabilities and liabilities to the ESCB are excluded from the reserve base. A zero reserve ratio will be applied to repos, deposits with a maturity of more than two years and debt securities with a maturity of more than two years. A reserve ratio of 2 per cent will be applied to other items included in the reserve base. A lump-sum allowance of EUR 100 000 will be deducted from a credit institution's reserve base. This means that credit institutions that are small, as measured by the reserve base, will not be required to hold minimum reserves. The ECB will pay interest on required reserve deposits at the rate applied in its main refinancing operations. This practice will make it harder to fulfil the third function of the minimum reserve system noted above.

Most of the policy instruments to be used by the ECB were already included in the Bank of Finland's arsenal. In the late autumn of 1997 and in 1998 the Bank revised its monetary policy implementation procedures to bring them in line with European practice. For example, the method used for the calculation of interest in central bank operations was changed from the actual/365 day convention to the actual/360 day convention.

With the onset of monetary union, the Bank of Finland will no longer set the base rate or calculate and publish Helibor and long-term reference rates. National reference rates will largely be replaced by euro area-wide reference rates.

Under a new law (996/1998) governing certain reference rates and amending the Interest Rate Act, the base rate will henceforth be confirmed by the Ministry of Finance in June and December of each year, with validity for the following six calendar months. The base rate will be the average of twelve-month market rates published over the three calendar months prior to the confirmation date, expressed, as before, with an accuracy of ¼ percentage point. The law also amends the Interest Rate Act so that the Bank of Finland's former competence in this area is transferred to the Ministry of Finance. As a result the concept of the base rate confirmed by the Bank of Finland is now replaced by the concept of the reference rate confirmed by the Ministry of Finance.

In December 1998 the Ministry of Finance decided that the Helibor rates calculated and published by the Bank of Finland would be replaced at the beginning of 1999 by euro area-wide Euribor rates of corresponding maturities.

The changes in the arrangements governing reference rates affect a large portion of outstanding loan contracts. Banks' funding activities, by contrast, are not affected much by the changes.

The Governing Council also approved the practices and procedures to be applied in the new exchange rate mechanism (ERM II). In the autumn, euro area ministers, the ECB, and Greek and Danish officials agreed that the Greek drachma and Danish krone would participate in ERM II with fluctuation margins against central euro rates of ± 15 per cent and ± 2.25 respectively.

Financial Markets

One of the Bank of Finland's main statutory tasks is to participate in maintaining the reliability and efficiency of the payment system and overall financial system. One aspect of this work is the Bank's involvement in the preparation and drafting of related legislation. As a member of the European System of Central Banks (ESCB), the Bank of Finland is required to promote the smooth operation of payment systems and the stability of the financial system. In carrying out these tasks, the Bank participates actively in the ESCB's Banking Supervision Committee and Payment and Settlement Systems Committee.

The Bank of Finland is responsible for oversight of the financial system. This involves promotion of the overall stability of the system and the related tasks of analysis, monitoring and macroprudential supervision. Oversight focuses on the financial system and financial intermediation as a whole. Through its monitoring and supervisory activities, the Bank endeavours to prevent the occurrence of financial disturbances and systemic risks, at both national and international level. The aim is to maintain confidence in the financial system, without having to intervene in the functioning of the system. As part of its oversight of the financial system, the Bank also oversees payment systems (see page 45 for details).

Stage Three of EMU will, over time, bring about sweeping changes in European financial markets. The introduction of the single currency, euro, and single monetary policy at the beginning of 1999 have set the stage for the development of broad and deep financial markets in Europe. These markets will be more stable than national markets but also more competitive.

In Stage Three competition will intensify particularly in the credit, deposit and securities markets. With the elimination of exchange rate risk between euro area countries, the importance of credit and liquidity risks will be accentuated. Cross-country differences will nevertheless remain as regards eg taxes, regulation and business practices. Although familiarity with local conditions will give national operators a competitive edge, the heightened competition that the euro brings will require cost cutting and generally more efficient operations, also in the Finnish financial markets.

In 1998 preparations were made within the financial sector for operating in the euro environment. The deepening and spread of the Asian crisis increased uncertainty in financial markets, and this was reflected in increased financial market volatility around the world. But towards the end of the year markets calmed somewhat. In addition, preparations began to be made on an increasingly wide scale to address the Year 2000 problem.

Structural change in the financial sector

Banks

In preparing for tighter competition, banks had already undertaken extensive restructuring in 1997, so that there were no further major reorganizations in the banking sector in 1998. The merger of Postipankki and Finnish Export Credit Ltd into the PV Group was completed at the beginning of 1998. In April the name of the group was changed to Leonia plc and in June the name of Postipankki was changed to Leonia Bank plc and that of Finnish Export Credit Ltd to Leonia Yrityspankki plc. At the end of the year, the latter became Leonia Corporate Bank plc.

In January 1998 the investment bank Mandatum Bank Ltd merged with the commercial bank Interbank Ltd to become the commercial bank Mandatum Bank plc. Mandatum Bank plc commenced operations at the beginning of August with assets of some FIM 3 billion (nearly ½ per cent of the total assets of all domestic deposit banks), a share capital of about FIM 80 million and own funds of nearly FIM 250 million. The operations of the merged banks complement each other. In August Mandatum Bank purchased the securities house Protos.

No foreign banks commenced operations in Finland in 1998. Although lending by foreign banks grew rapidly, their market share remained at only some 3 per cent. Swedish banks were particularly active in their marketing efforts. Foreign banks purchased several Finnish securities houses and thus increased their ownership level considerably in this area.

In the course of 1998 all the banks, except Skopbank, repaid the remaining part of the capital injection they had received from the central government during the banking crisis. It was decided at an extraordinary general meeting on 30 December 1998 to wind down Skopbank's operations through a voluntary liquidation starting from the beginning of 1999. Completion of the liquidation procedure will take two or three years. The Bank of Finland, which took over Skopbank during the banking crisis in 1991, absorbed total losses of about FIM 5 billion as a result. The state subsequently took over the bank and its subsidiaries in 1992 and it is estimated that it will absorb another FIM 4–5 billion in losses.

In 1998 most banks substantially increased their involvement in banking on the Internet. There has been widespread customer demand for Internet services in Finland, which is a leading country in use of the Internet.

The state-owned company Valtion erityisrahoitus Oyj was established in July 1998 and its name was changed to Finnvera plc in October. In autumn 1998 the operations of Kera Oyj and Valtiontakuukeskus were combined and merged to form Finnvera plc. Fide Oy became a subsidiary and Finnfund Oy an associate of Finnvera plc. Finnvera commenced operations at the beginning of 1999, with assets of about FIM 8 billion and commitments totalling some FIM 40 billion. The reorganization is aimed at increasing the efficiency of the state's special financing, which is designed to complement the provision of risk financing services to small and medium-sized enterprises, in particular.

With a view to disposing of real estate holdings that were external to their core operations, enterprises in both the private and public sectors established a number of new real estate investment companies. These included Aleksia Ltd, which was set up by MeritaNordbanken in December, and the state-owned company Kapitaali Kiinteistöt Oy. It is intended that Aleksia, which has real estate holdings valued at FIM 8.4 billion, will be listed on the stock exchange in 1999.

Capital markets

A number of reorganizations in preparation for the onset of Stage Three of EMU also occurred in the securities markets. In June the derivatives operations of the Finnish Options Exchange were merged with the corresponding operations of HEX (HEX Ltd, Helsinki Securities and Derivatives Exchange, Clearinghouse).

The planned cooperation between HEX and the Swedish OM Group in the development of a Nordic stock exchange foundered in November. Instead, HEX entered into a cooperation agreement with the German Deutsche Börse and German-Swiss derivatives exchange Eurex. The aim is that by mid-2000 HEX will become an integral part of a trading network that will be a standard setter for Europe. HEX is to adopt the Deutsche Börse's Xetra trading system. According to the agreement, HEX's members will become members of Deutsche Börse and Eurex and vice versa. This cooperative project will strengthen HEX's competitiveness and could help to ensure that stock derivatives trading remains in Helsinki.

The same goal underlies the decision taken in December to combine the central securities depository Suomen Arvopaperikeskus Oy (APK) and HEX in the same group. This group, to be called Helsinki Exchanges Group Ltd Oy, will have as its subsidiaries not only the APK and HEX but also the Helsinki Book-Entry Central Ltd.

The APK plays a key role in the domestic securities markets. It functions as a registration centre for securities issued in book-entry form and as a clearing house for securities trades that are reported to it.

The APK's clearing system for wholesale trading of debt instruments (RM system) has functioned well in technical terms. In contrast, occasional liquidity and delivery problems have arisen in the APK's share trade clearing (OM) system, necessitating the changing of agreed trade dates. The authorities, the APK, HEX and the clearing participants took a number of steps to improve the reliability of the share clearing system, and these provided a basis for the ongoing development of the system.

One of the key medium-term projects for enhancing the efficiency and reliability of the share clearing system is the centralization within the APK of the presently scattered registers for equity instruments. Six participants are due to have their book-entry registers centralized within the APK in the year 2000.

The ESCB's requirement of full collateralization of credits means that securities settlement systems are closely linked to implementation of the single monetary policy and to the TARGET payment system. For this reason, the ECB and EU national central banks, as part of the preparatory work for Stage Three of EMU, have set certain criteria for settlement systems that will be used in ESCB credit operations and have evaluated securities settlement systems that operate in the EU area in terms of these criteria. The APK's debt instrument settlement system fulfils all of these criteria. Though its share settlement system does not handle instruments that are eligible

Full collateralization links settlement systems to implementation of the single monetary policy.

for use as collateral in the ESCB, this system also meets the minimum criteria subject to certain special conditions.

Within the ESCB, central bank credit obtained by credit institutions must be collateralized. The guiding principle is that the list of securities that are eligible for use as collateral should be very broad in scope and that the same securities be eligible as collateral for central bank credit throughout the EU area. With the start of Stage Three of EMU, the cross-border use of collateral within the euro area will be take place using the 'correspondent central banking model', under which ESCB central banks handle both the safekeeping of securities and the transfer of collateral values.

At the beginning of 1998 the Bank of Finland took a preliminary decision concerning the assets that could be used as collateral in ESCB operations. Tier one assets comprise debt instruments that fulfil the ECB's uniform requirements for use throughout the euro area. A national central bank can extend the range of eligible assets by using tier two assets, which comprise securities that are of particular importance for its national financial markets and banking system. Tier two assets must meet the ECB's minimum criteria, but other criteria can be country-specific. The Bank of Finland proposed that Finland's tier two list should comprise domestically issued debt instruments that are denominated in euro, in book-entry form and marketable.

An issuer of debt instruments included in Finland's tier two list must have an acceptable credit rating. Credit rating agencies must meet ECB criteria for credit ratings. Among other things, this requires that ratings be published, have good predictive power and be internationally comparable. A rating agency must also be clearly independent of the company being rated. Besides the international rating agencies, Dun & Bradstreet Finland Oy has been approved for use by the Bank of Finland, inter alia, in producing the new, broader evaluations of credit risk associated with collateral. Two other firms – Finnvera plc and the insurance company Garantia – are planning to provide similar services. If their planned rating operations meet the Bank of Finland's criteria, the Bank is prepared to use their ratings as well in evaluating credit risk.

In November 1998 the APK reached agreement with Deutsche Börse on the construction of an international data connection that will enable book-entry transfers between the two countries. Initially, the main effect of the connection will be to ease the processing of collateral by the ESCB.

The euro and Year 2000 preparations of both the APK and HEX are crucial for the stability and competitiveness of Finnish financial markets. The international connections of these systems will also have important effects on the competitiveness of Finland's infrastructure.

After a delay due to technical problems, the new electronic share trading system of HEX went live in September 1998, and the system has performed as expected. The smooth and effective operation of IT systems will have an important impact on the competitive situation at the onset of Stage Three, both as regards stock exchanges and providers of support services for securities trading.

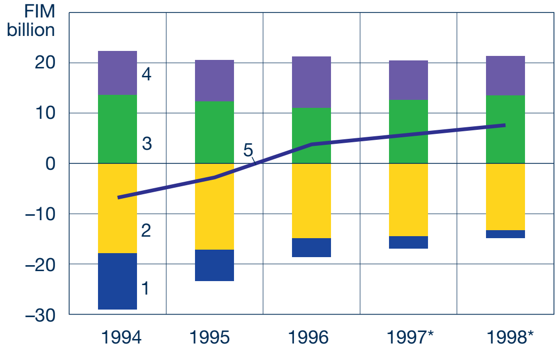
The changeover by HEX to quoting in euro at the start of 1999 went smoothly.

Banks' profitability and efficiency

The financial performance of Finnish banks in 1998 was broadly favourable: results were

Chart 23.

Financial performance of deposit bank groups

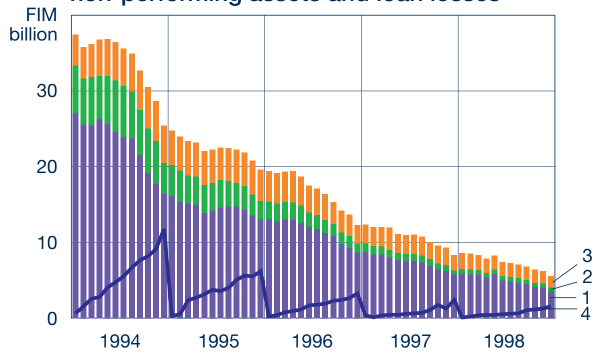


1. Loan and guarantee losses
2. Other expenses
3. Income from financial operations
4. Other income
5. Operating profit

* The data on MeritaNordbanken contained in the figures for 1997 and 1998 cover only Merita Bank and its subsidiaries.

Chart 24.

Deposit bank groups: non-performing assets and loan losses



1. Non-performing assets
2. Guarantee-related non-performing claims
3. Other zero-interest loans
4. Loan losses

good, operating profits continued to grow and especially net income from financial operations improved (Chart 23). Banks' non-performing assets and loan losses remained at the low (normal) level to which they had fallen earlier (Chart 24). This led to a slight improvement in the banks' capital position.

Moreover, following the banking crisis Finnish banks have, within the space of a few years, managed to boost their efficiency to the point where it is now at the average level for Nordic banks, and their financial performance has improved rapidly. In terms of efficiency, they are already approaching Swedish banks. Cost cutting in the Finnish banking sector has been among the most drastic in the OECD area in the 1990s. Staff levels and branch networks, for example, have almost been halved during this period. This has strengthened the competitiveness of Finnish banks. On the other hand, as a legacy of the banking crisis, they are still burdened by large holdings of real estate, the swift disposal of which has apparently proved difficult.

The effects of the Asian and Russian crises were not reflected in Finnish banks to any significant extent in 1998. The banks' direct risk exposure in the crisis areas was relatively small compared with banking sectors in many other European countries.

In 1998 interbank competition in lending intensified and outstanding lending grew by some 12 per cent. The tightening of competition did not lead to any marked reduction in the banks' net interest income because lending grew considerably. Increased competition, which led to narrower interest rate margins in new lending, focused primarily on household lending, where margins are traditionally wide and loan losses small.

The large amount of deposits in low-interest accounts underpinned the good profitability of the domestic banking sector. Unlike other European countries, a relatively large proportion of savings in Finland is held in the form of low-interest bank deposits. Over the last few years, however, funds have increasingly been invested in financial assets other than bank deposits. Tighter competition was evident in a slowing in the improvement of bank profitability towards the end of the year.

The introduction of the euro poses a strategic challenge to banks and is associated with major risks. In operational terms, the domestic banks had prepared well for the launch of the euro, and the changeover to Stage Three of EMU did not give rise to difficulties of any significance.

In the course of the year, the banks started preparing for the year 2000. There is every indication that the banks can achieve adequate Year 2000 compliance before the millennium change.

The stock market, mutual funds and derivatives markets

The stock market developed favourably in early 1998. The rise in share prices on HEX was among the fastest in the industrial countries. This was partly due to Nokia's shares, which dominated stock market activity – Nokia accounted for about half of the total market capitalization of listed shares. Price developments in shares of domestically-oriented companies were muted. Foreign investors showed great interest in Finnish shares, and there was a substantial increase in turnover. Several new enterprises were admitted to official listing. At the end of the year, shares held by foreigners under nominee registration accounted for 53 per cent of total market capitalization.

The stock exchange lists were revised in October. The Official List was renamed the Main List and the OTC and brokers' lists were combined and renamed the I-list (Investors' List). Two new lists were also introduced: NM List (New Market list) and Prelist. The I-list includes medium-sized, well-established companies with a market capitalization of at least FIM 20 million. The NM List comprises innovative, internationally-oriented small and medium-sized enterprises with growth potential and a market capitalization of at least FIM 10 million. Companies planning to apply for admission to the Exchanges' other lists are on the Prelist.

Increased uncertainty in international stock and bond markets in the late summer and early autumn was also reflected in the Finnish securities markets. Share prices turned down sharply and long-term interest rates fell in line with developments in the other EMU countries. There was, however, a clear recovery in the stock market after October. At no time was there any panic withdrawal of investors from the Finnish markets.

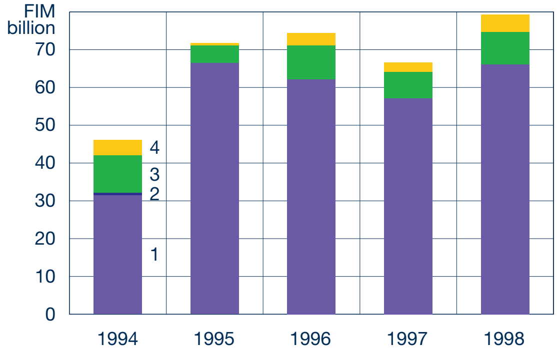
The planned sales of shares in the state-owned companies Sonera and Fortum were implemented in the autumn. The sale of Fortum shares, however, had to be postponed by a few months owing to the volatile market situation.

The Bank of Finland participated in the IMF's Coordinated Portfolio Investment Survey in late 1997. According to the survey, Finnish investment in foreign securities amounted to approximately FIM 63 billion at the end of 1997. According to balance-of-payments figures, the corresponding figure at the end of 1998 was some FIM 84 billion. The survey indicated that more than half of this amount was invested in the UK, Swedish, US and German markets. Investment in Asia totalled just under FIM 3 billion, of which Japan accounted for two-thirds. The value of investment in Russia and the Baltic States was only just over FIM 100 million.

According to the survey, financial institutions accounted for the vast bulk (about

Chart 25.

Markka-denominated bond issues



1. Central government
2. Local government
3. Financial institutions
4. Companies

90 per cent) of international portfolio investment. Investment by banks amounted to about FIM 8 billion and that by other financial institutions (mainly insurance companies and a handful of specialized financial institutions) to FIM 48 billion.

Mutual funds registered in Finland continued to expand steadily in early 1998, with the exception of short-term funds, whose slightly negative net subscriptions may have been due to, inter alia, the deterioration in the financial position of the local government sector. Mutual funds were hardly affected at all by the market turbulence in the late summer; rather, investment in them increased in the autumn, albeit at a slower pace. But in Finland too there was a shift in financial investment away from equity funds towards bond funds. International funds grew rapidly.

Employment pension insurance companies further increased their investment in government bonds. Foreign investment by these companies also increased. By contrast, demand for relending and investment loans remained slack. There was a cautious increase in equity investment by these companies.

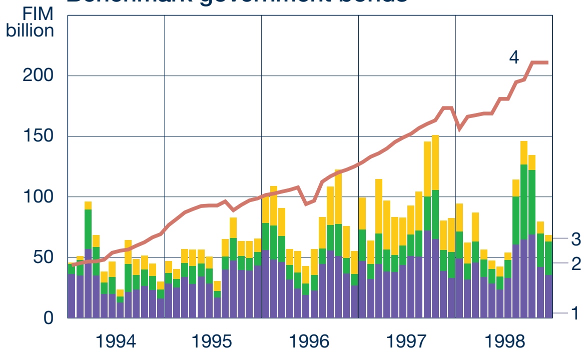
Trading in interest rate derivatives decreased. Clearing and settlement volumes for interest rate derivatives on HEX fell sharply after several market participants switched to foreign markets. Trading in short-term interest rate derivatives may have declined partly in anticipation of the abolition of Helibor rates from the beginning of 1999. The number of cleared and settled benchmark government bond forwards fell to less than half the corresponding figure for 1997, although turnover during the unsettled conditions in the early autumn was notably higher than in the summer.

There was a further increase in bond issues in book-entry form in 1998. The Council of State decided to convert the central government's outstanding markka-denominated debt held in book-entry form into euro-denominated debt from the beginning of 1999.

The decrease in the central government deficit helped to further reduce the government's borrowing requirements in 1998.

Chart 26.

Benchmark government bonds



1. Customer trades
2. Trades between primary dealers
3. Bond forward agreements
4. Outstanding benchmark government bonds

Government bond issues, the bulk of which were benchmark bonds, grew by 15.7 per cent (Chart 25). The structure of issues changed slightly from the previous year. Government 'yield bonds' did not sell well, and their stock diminished by one-third. The amount of Treasury bills also decreased. Benchmark government bonds were the only item of government borrowing for which the outstanding amount continued to grow in 1998 (Chart 26). Repayments of foreign currency loans amounted to just under FIM 8 billion in net terms.

Corporate issues increased as compared with previous years. The stock of bond issues by private sector borrowers remained unchanged in 1998.

Financial supervision and legislation

The Act on the Bank of Finland was passed by Parliament in March (see page 68 for details).

The Bank of Finland discontinued quoting three- and five-year reference rates at the end of 1998. The method of calculating the base rate was also changed so that in future the base rate will be determined on the basis of market rates. From the beginning of 1999 the base rate will be set semi-annually by the Ministry of Finance on the basis of the 12-month Euribor rate. At the end of the year the Bank of Finland discontinued quoting Helibor rates; the Finnish Bankers' Association had already taken over the job of calculating these rates in May, using the same method of calculation. Helibor rates were replaced by Euribor rates with effect from 1 January 1999.

Several amendments to the laws governing credit institutions and investment firms came into effect in the course of the year. The Finnish deposit guarantee scheme was reformed with effect from the beginning of 1998. Under the new legislation, deposits are fully protected up to FIM 150 000 per depositor per bank or banking group. There is no limit on the number of deposits with different banks. Estimated on the basis of deposits held by the public at the end of 1997, 68 per cent of the total amount of such deposits is covered.

Limiting the extent of the deposit guarantee can also be regarded as an important reform in principle because it helped to clarify issues regarding banking sector supervision and accountability. It increases the responsibility of not only owners and market participants but also depositors in monitoring the financial situation of banks.

The abrogation, towards the end of the year, of the parliamentary resolution on bank support that had been issued in 1993 in connection with the banking crisis will have similar effects. The purpose of the parliamentary resolution was to convince the markets that the government would guarantee the banks' obligations under all circumstances. The reform also brings the Finnish deposit guarantee scheme more in line with deposit protection schemes in other EU countries.

Stamp duty on lending was abolished on 29 April, when the Government submitted a proposal to Parliament for a law repealing certain provisions of the Stamp Duty Act. Following parliamentary approval of the amendment, it was ratified by the President of the Republic on 18 June. Stamp duty that had been paid on loans drawn after 29 April was returned to borrowers upon application. The same applied to stamp duty on mortgage applications and certificates of claim.

The timing of the abolition of stamp duty was influenced by the prospect of the launch of Stage Three of EMU at the beginning of 1999. If stamp duty had been retained after the changeover, it would have impaired in relation to other euro area banks. Postponing the reform to a later date than it was actually implemented could have resulted in a temporary fall in the demand for credit, given the expectation that the reform would in any case be effected at the turn of the year at the latest. The abolition of stamp duty led to some renewals of loans.

A law on an investor compensation fund for the protection of small investors entered into force in early September. The fund guarantees small investors' claims on fund members subject to certain restrictions. The assets of the fund are collected in the form of contributions paid by the members, ie investment firms and credit institutions providing investment services. Membership of the fund is compulsory.

Agreements concerning money market trading were revised. Negotiations between the Bank of Finland and the Finnish Bankers' Association led to the conclusion of a new framework agreement on wholesale trading by the contracting parties in the money and possibly other markets as well. The new agreement does not contain any market-making obligations.

The Bank of Finland took part in the activities of a working group on book-entry legislation, headed by the Ministry of Finance. The working group drafted a government bill to amend the Act on the Book-entry System so that it would take account of the establishment of cross-border connections between securities depositories and of the processing in Finland of securities added to the book-entry system via such connections. Provisions were also included in the law on measures necessary for the conversion of markka-denominated bonds and corresponding debt obligations held in the book-entry system into euro-denominated debt. The amendment came into force at the beginning of 1999.

Key pending proposals for directives concerning the financial markets include an amendment to the Council Directive on undertakings for collective investment in transferable securities (UCITS). The aim of the proposal is to revise the largely outdated UCITS directive. An earlier attempt to amend the UCITS directive had come to nothing because of disagreement among the member states about the scope of the amendment. A proposal for a directive on takeover bids was also pending.

The Bank of Finland participated in the discussion in Finland on the proposal for a Council Directive to ensure a minimum of effective taxation of interest income from savings in the EU area by making such income subject to a minimum 20 per cent withholding tax or, alternatively, to a disclosure requirement.

A new insurance supervision authority will start functioning in the spring of 1999. Insurance supervision will continue to fall within the area of responsibility of the Ministry of Social Affairs and Health. The Bank of Finland and the Financial Supervision Authority each have a representative on the board of the new authority. The Financial Supervision Authority will be represented by its Director General. The two supervisory authorities are expected to operate in close cooperation with each other.

Payment Systems

The Bank of Finland bears part of the responsibility for ensuring that payment systems function smoothly, reliably and efficiently. Ongoing development of payment systems aims at improving their safety, smoothness and efficiency. To prevent the occurrence and spread of disruptions in payments systems, the Bank participates in the development of methods for controlling payment systems risks in the financial sector. Through its oversight of payment systems, the Bank endeavours to keep payment systems risks at an acceptable level. The central bank's task is to oversee payment systems in their entirety, whilst the supervision of individual credit institutions and their payment systems risks falls within the purview of the Financial Supervision Authority (FSA).

The Bank of Finland also provides banks and clearing houses with fast and safe payment and settlement services using central bank money.

In 1998 work continued on developing the Bank of Finland's settlement account system (BoF-RTGS) to make it conform to the jointly agreed minimum standards for Stage Three of EMU. Close European cooperation in this area continued in working groups, initially under the auspices of the European Monetary Institute (EMI) and then, from the beginning of June, the European System of Central Banks (ESCB).

Technical development of payment systems and the introduction of new payment methods and instruments mean that the central bank's operating environment is constantly evolving. In the course of the year the Bank monitored progress in the use and regulation of electronic money and participated in the debate on regulation both at home and within the EU. Preparation for the millennium change and the potential problems that attach to it pose a particular challenge to payment systems.

Oversight of payment and settlement systems

The Bank is responsible for the oversight of payment and settlement systems. Difficulties experienced by one segment of the financial markets or by a single market participant may spread quickly via payment systems to the whole system and significantly impair the operation of financial markets. Another danger is that risks and problems may be transmitted from country to country via international payment systems. Risks that have the potential to paralyse entire systems are referred to as systemic risks. To minimize systemic risks, the Bank and the FSA work together to improve the security and smooth operation of payment systems through their supervisory activities and the creation of barriers limiting the spread of risks.

Interbank counterparty risk arises when the recipient bank assumes responsibility for the payment and credits the payee's account before the final transfer of funds. A significant counterparty risk attaches to settlement of foreign exchange transactions. Because of the systemic risk inherent in large counterparty risks, central banks in many countries require banks to reduce the risks attached to settlement of foreign exchange transactions. Risks can be reduced significantly by improving back-office processes, ie the execution and monitoring of agreed transactions. Netting schemes that meet international standards also help to reduce risk. The continuous linked settlement bank (CLS Bank), which is scheduled to commence operations in 2000, will offer a service based on the payment-versus-payment (PVP) principle. In PVP-based settlement, the counterparties' funds transfers take place simultaneously, thus largely eliminating counterparty risk.

The joint project of the Bank and the FSA for the development of payment systems supervision (MAJAVA), which was launched in 1995, was continued in 1998. Development of the underlying philosophy of oversight and supervision led to the publication of a study in the spring (see the list of Bank of Finland Publications in 1998 in the Appendices), the results of which have been used in connection with inspections as well as for information purposes.

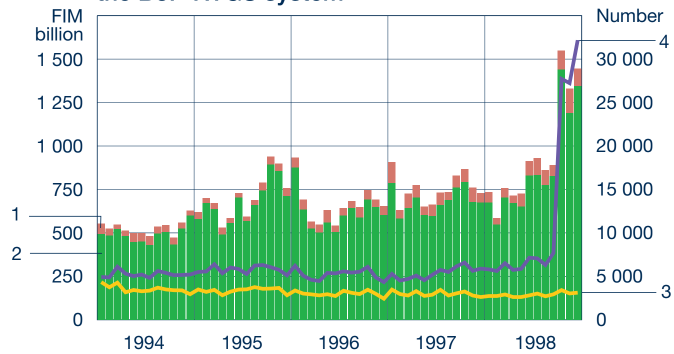
Oversight by the central banks of the EU member states has focused on large-value netting systems. The European System of Central Banks (ESCB) is also developing the content of oversight and the division of responsibilities with national authorities. In 1998 the EU central banks assessed the extent to which national large-value netting schemes meet the minimum standards set for them, the most important of which are the Lamfalussy standards concerning legal basis, open access, risk management, operational reliability and ability to deal with exceptional circumstances. In Finland the evaluation focused on the interbank system for express transfers and large cheques, the POPS system. The conclusions of these evaluations were positive, ie the POPS system and other large-value payment systems in the EU fulfilled the minimum standards.

The changeover to euro on 1 January 1999 entailed many risks in that changes were made to a very large number of systems and with very tight schedules. A special organization was set up together with the banks and clearing houses to monitor the changeover and to cope with any unforeseen problems. The changeover to the euro was completed successfully as far as payment systems in Finland were concerned.

The year 2000 requires software updates in a large number of IT systems. It is essential that changes to payment systems and adequate testing are carried out in good time so as to ensure that the systems can continue to function smoothly in 2000. Since these changes require the cooperation of financial market participants, the Bank and the FSA organized a comprehensive seminar on the subject for all segments of the financial industry in June and another in October during which various scenarios were analyzed. Joint testing of the financial sector's IT systems will be started in early 1999 with the aim of ensuring their smooth operation in 2000.

Chart 27.

Payment transactions in the BoF-RTGS system



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

Provision of payment system services and development of the Bank of Finland's real-time gross settlement system (BoF-RTGS)

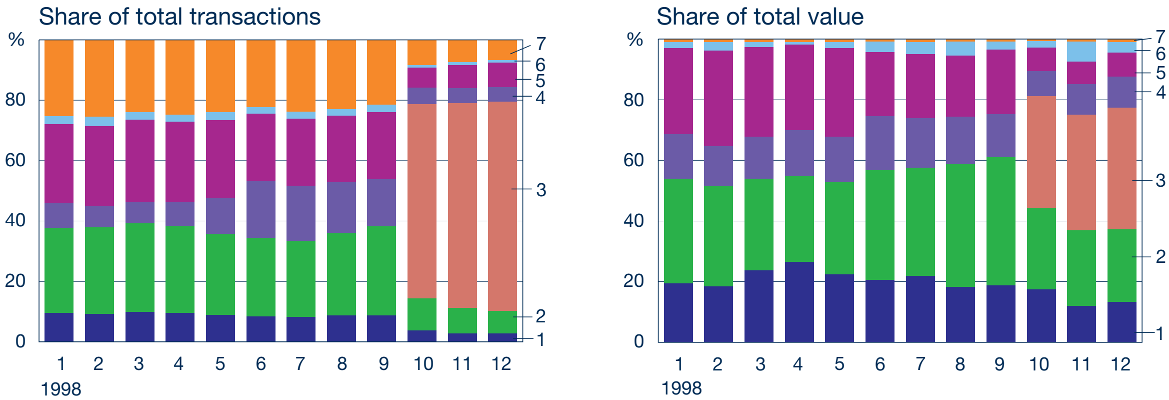
The BoF-RTGS system is a real-time gross settlement system in which payments and settlements are executed continuously on a gross basis, ie transaction by transaction. The BoF-RTGS system was introduced in 1991, and was one of the first RTGS systems in Europe. The Bank promotes the smooth operation of payment systems by, inter alia, granting collateralized interest-free intraday credit to settlement account holders.

The number of payments effected via the BoF-RTGS system increased considerably in 1998. During the last quarter, an average of 1 500 payments a day were executed via the BoF-RTGS system. Daily turnover averaged about FIM 70 billion, equivalent to some 10 per cent of Finland's annual GDP. In the last quarter, the number of payments effected via the BoF-RTGS system almost quadrupled and the aggregate value of payments doubled compared with one year earlier. The increase was due to a procedural change whereby loro payments began to be settled on a gross settlement basis from the beginning of October 1998. A loro payment is a markka-denominated cross-border payment between a resident and a nonresident or between nonresidents. Previously, loro payments had been effected on a bilateral basis between banks and only net covering funds had been transferred via the BoF-RTGS system on a daily basis. In early 1998 the single largest group of payments effected via the BoF-RTGS system was related to securities trading: almost 30 per cent of the total number of payments and almost 40 per cent of the aggregate value of payments. By the end of the year loro payments were the largest single group of payments, accounting for 67 per cent of the total number of payments and 37 per cent of the aggregate value (Charts 27 and 28).

Account holders can access the BoF-RTGS system via the workstation application provided by the Bank of Finland or other applications compatible with the Bank's application. In 1998 a number of major changes

Chart 28.

BoF-RTGS system, transactions by type 1998



1. Money market transactions and foreign exchange trades
2. Net settlements of securities trades
3. Loro payments
4. Net and gross settlements of POPS payments
5. Other payments between account holders
6. Other payments between the Bank of Finland and account holders
7. Maintenance of currency supply

were made to the BoF-RTGS system when new versions of the workstation application and the BoF-RTGS application were introduced. The new versions incorporated features making them compatible with the EMU environment. A SWIFT interface was also included. Initially it was used for the execution of loro payments, but it can be used for other payments as well. As from 1 January 1999 the SWIFT interface is being used for executing TARGET payments. Users can also obtain an account statement that is compatible with SWIFT specifications, thus reducing account holders' manual work in reconciling transactions in accounts in their own systems.

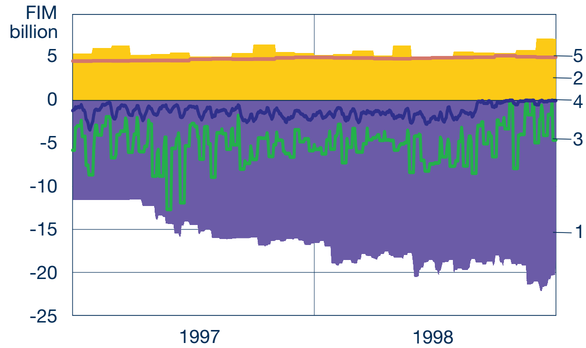
In addition to the Bank of Finland interface, the updated version of the Bank's workstation application also includes a message-based interface that enables the construction of automated interfaces between the workstation application and the account holder's internal systems.

With the introduction of the new settlement account application, the BoF-RTGS system acquired some features of a hybrid payment system, in which the principles of gross and net settlement are combined. The main new feature is a queuing facility, which also enables netting of payments. If the funds in an account holder's settlement account at the central bank are not sufficient to cover a payment, the payment is not returned to the sender but is instead put into a queue until such time as there are sufficient funds in the account. Queued payments are executed in the order of priority indicated by the account holder and on a 'first in, first out basis'. The batch execution of queued payments reduces the need for liquidity in the system and makes it possible to solve possible gridlock in the system. In a situation of gridlock payments transfer is interrupted because of the uneven distribution of liquidity between banks, despite the fact that there is sufficient overall liquidity. The queuing facility was used relatively little, since the banks' liquidity position was good.

Available liquidity is becoming increasingly important for banks as the demand for fast execution of payments and the

Chart 29.

Banks' minimum reserve deposits and intraday credit limits



1. Total limits
2. Monthly average of end-of-day balances
3. Maximum use of limits
4. Average use of limits
5. Minimum reserve deposits, total

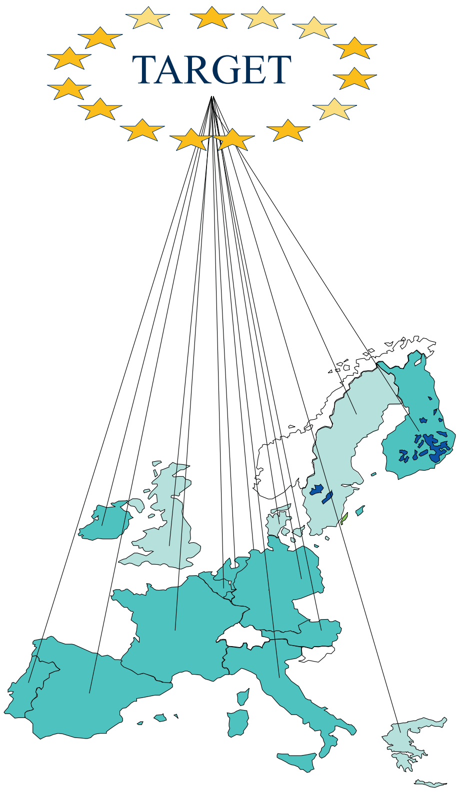
share of very large payments increase. The main liquidity source is the intraday overdraft facility available to settlement account holders. Collateral management of intraday credit became more flexible with the introduction in 1998 of an automated collateral management system in the central securities depository Suomen Arvopaperikeskus Oy (APK). The system was developed as a result of cooperation between the APK, the Bank of Finland and the banks. Collateral is held in accounts in the APK's automated collateral pool, and banks can trade their collateral assets during the course of the day provided the value of a pledged portfolio always exceeds the minimum value, which is automatically monitored by the APK system. By the end of the year all the banks had adopted the new collateral management system.

More securities became eligible as collateral for central bank credit at the start of Stage Three of EMU when foreign assets approved by the ESCB also became eligible. Furthermore, the Bank of Finland has taken a decision in principle to accept assets in currencies other than the euro proposed by the national central banks of non-euro area member states as collateral for intraday credit, subject to certain conditions. To enable the cross-border use of collateral, the EU national central banks have agreed to apply the correspondent central banking model (CCBM), under which central banks act as custodians for each other and securities located in another member state can be used as collateral for credit in the issuing national central bank. This relatively slow and partially manual procedure will eventually be replaced by a network linking central securities depositories in the member states.

At the end of the year the banks' liquidity position was good. Banks increased the aggregate amount of their intraday credit limits slightly in the course of 1998 so that it stood at some FIM 20 billion at the end of the year. The average usage rate remained low (Chart 29). Banks also built up their levels of assets and collateral prior to the turn of the year in order to cope with any fluctuations in liquidity needs in connection with the start of Stage Three of EMU.

Chart 30.

TARGET-Trans-European Automated
Real-time Gross settlement Express Transfer system



- 11 euro area central banks + European Central Bank + 4 other EU central banks
- More than 5 000 account holders in national RTGS systems
- Real-time gross payment system for all credit transfers in euro within the euro area
- System open from 8.00 am to 7.00 pm Finnish time
- Possibility of reaching almost any EU credit institution

TARGET becomes operational

As from 1 January 1999 the BoF-RTGS system has been part of the Europe-wide TARGET (Trans-European Automated Real-time Gross Settlement Express Transfer) payment system. TARGET links the 15 national RTGS payment systems and the ECB payment mechanism (EPM) into an EU-wide, uniform platform for cross-border payments (Chart 30). The Bank's TARGET project was launched in 1996. Implementation of the system and the first testing phase with Finnish banks were started in 1997. Joint testing among central banks commenced in early 1998, and the simulation phase involving all participating central banks started in summer of 1998 and continued almost up till the end of the year.

Except for weekends and Christmas Day and New Year's Day, TARGET is open daily from 8 am to 7 pm Finnish time. With effect from 1 January 1999 the operating hours of the BoF-RTGS system are the same as those for TARGET. As from that date only payments denominated in euro are accepted in BoF-RTGS and TARGET.

With the introduction of TARGET, the criteria for access to the BoF-RTGS system and the rules on intraday credit were revised to conform to the ECB's guidelines concerning the use of TARGET. The new rules entered into force on 1 January 1999. Key changes include the introduction of TARGET and payment finality. Under the new rules on the overdraft facility, investment firms and clearing houses are also eligible for intraday credit, subject to special conditions.

Other domestic systems

Interbank payments are effected several times a day. These payments include credit transfers, recurrent payments, direct debits, bank card payments and ATM transactions. The Bank of Finland settles these payments by transferring net covering funds between the banks in its daily payment clearing. In November 1998 a second clearing (at 8.30 am) was introduced to supplement the afternoon clearing (at 3.45 pm). This was done in order to reduce payment system risks in connection with interbank payments.

In May 1997 most banks operating in Finland adopted the POPS system for interbank online express transfers and cheques in place of the previous system for express transfers. As from June 1998 the settlement method applied to POPS payments depends on the value of the transfer. Payments exceeding the interbank bilateral limit – the RTGS limit – are settled on a gross basis in the BoF-RTGS system. Smaller payments are netted bilaterally so that the banks' net positions vis-à-vis each other are updated constantly during the day by the exchange of payment clearing data. When an interbank bilateral net debit cap nears its limit, the indebted bank is obliged to effect a covering transfer in the BoF-RTGS system to clear the limit. At the end of the day funds transfers are effected to clear bilateral debt positions.

The net settlement of loro payments, ie the interbank loro clearing, was discontinued in October 1998. The decision to change over to RTGS settlement was taken in order to improve risk management. Loro payments are large-value transactions, and so effecting interbank funds transfers via the loro clearing procedure only after the payees' accounts have been credited exposed the banks to substantial intraday counterparty risks. The banks execute smaller payments, with a value of less than FIM 50 000, in the interbank payment system (PMJ), and funds are subsequently transferred via the banks' domestic payment clearing procedure.

Securities trade and related payment transfers are undergoing major changes against a background of ongoing market integration in Stage Three of EMU. The guaranteed net settlement of the APK was discontinued in June 1998 to save liquidity resources. Owing to the netting method applied, banks were required to post considerable amounts of collateral, and therefore bank liquidity was tied up in the APK's account. Discontinuation of this practice released liquidity for use in gross settlement. Money market instruments are now settled on a gross basis; share trades are still settled on a net basis, however.

Developments in legislation

Implementation of EU directives in national legislation has led to major changes in Finnish legislation on payment systems.

In 1998 the Bank of Finland participated in a working group set up by the Ministry

Major changes made to legislation on payments systems.

of Justice to draft legislation on credit transfers. The bill on credit transfers is based on the directive on cross-border credit transfers, and it includes provisions defining, inter alia, time limits for crediting the account of the beneficiary's institution and the parties' responsibilities.

In the summer the European Commission adopted a directive on settlement finality in payment and securities settlement systems. It is particularly important for cross-border credit transfers that harmonized rules on settlement finality be incorporated in national legislation. The Bank participated in a working group set up by the Ministry of Justice to draft the necessary legislation for implementing the settlement finality directive. In the initial phase, the working party drafted a proposal for extending the scope of the law governing certain conditions applicable to trade in securities and foreign exchange (Netting Act) to include payments effected in the payment system of the central bank or other clearing houses. In this context, the Act on the Bank of Finland was also amended by introducing a provision concerning the realization of collateral posted with the Bank in connection with its statutory duties despite the initiation of insolvency proceedings against the central bank's counterparty.

The European Commission is currently drafting a directive on electronic money. The Bank has participated in the preparatory work at international and national level.

Several countries have started to develop legislation on payment systems with the aim of bringing existing procedures within the ambit of the law. Other objectives include development of payment systems risk management and monitoring and reviewing the role and functions of the central bank. In support of these efforts in Finland, the Bank started work on a comprehensive study of payment systems legislation in different countries in the latter part of the year.

Cooperation with banks

The increased need for coordination in connection with preparation for EMU and other development work in 1998 highlighted the importance of effective forms of cooperation.

The fora for cooperation set up in partnership with the banks, the Payment Systems Steering Group and its subgroup, the Payment Systems Cooperation Group, convened regularly in the course of the year to consider EMU-related issues. Various subgroups also worked under the Payment Systems Cooperation Group, each focusing on a specific area. The BoF-RTGS user group comprising account holders also met regularly. Towards the end of 1998 the Bank entered into discussions with the banks aimed at developing a cooperation body to meet the needs imposed by Stage Three of EMU.

Together with the banks, the Bank of Finland investigated the possibilities of developing a joint communications network to enhance communication practices and improve security.

In November 1998 the Bank organized an international seminar for banks and the authorities on trends and future challenges with respect to payment systems as well as the role of the central bank in oversight and development of payment systems.

Development of experimental liquidity models for evaluating the effects of the growing numbers of transactions effected in the BoF-RTGS system was continued. The Bank developed a payment systems simulator to study liquidity needs and payment queuing in different payment systems. The data on payment transfers used in this simulation model were collected in partnership with the banks. The model can be used for simulating liquidity needs and payment queuing in different banking structures and applying different settlement methods. It can also be used to study the effects of incorporating various optimization features in payment systems. Simulation results showed that RTGS systems are more effective than netting schemes as regards liquidity maintenance and queuing. Given the same levels of liquidity and risk, payment transfers are effected substantially faster in RTGS systems than in netting systems. The simulation results were collated and published at the end of 1998 (see the list of Bank of Finland Publications in 1998 in the Appendices).

Maintenance of the Currency Supply

The environment for maintenance of the currency supply was affected by broadly the same factors as in the previous year. On the one hand, continuing strong economic growth further increased the demand for notes and coins, even though the relative importance of cash as a means of payment decreased slightly. On the other hand, despite the increase in currency in circulation, the flow of notes and coins through the Bank of Finland decreased as a result of decisions taken by the banks concerning currency distribution.

As in previous years, the Bank participated closely in preparations for the issue of euro notes and coins (see page 69 for details). The preparations focused on production arrangements and the security features of the banknotes as well as on the national central banks' obligation to exchange the national banknotes of other member states of the euro area at the fixed conversion rate as from 1 January 1999. The Bank has taken this obligation into account in maintenance of the currency supply.

Internal operations in connection with maintenance of the currency supply were rationalized in the summer of 1998 when the Bank's Kuopio, Oulu and Tampere branches were put on the same footing as the Helsinki-Vantaa and Turku branches and placed under the administration of the Payment Instruments Department.

The Bank sold 60 per cent of Setec Oy's shares to Finnish institutional investors in May 1998. The reason for this was that the share of banknote production in Setec's turnover had fallen to less than 20 per cent. Previously, Setec Oy had been wholly owned by the Bank.

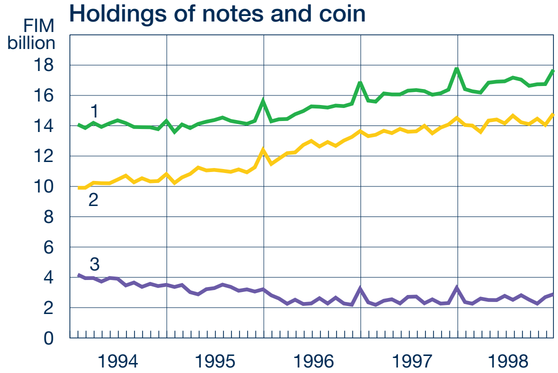
Upward trend in currency in circulation continued

The upward trend in the amount of currency in circulation, which had begun in 1995, continued in 1998, largely because of the growth of private consumption. The value of currency in circulation was on average FIM 16.8 billion in 1998, compared with FIM 16.2 billion in 1997 (Chart 31). Currency in circulation had remained at about FIM 14 billion throughout the first half of the 1990s owing to the economic recession.

The ratio of currency in circulation to GDP was 2.5 per cent in 1998 (Chart 32). This ratio has for long been the lowest of the EU member states, apart from Luxembourg, which forms a monetary union with Bel-

Chart 31.

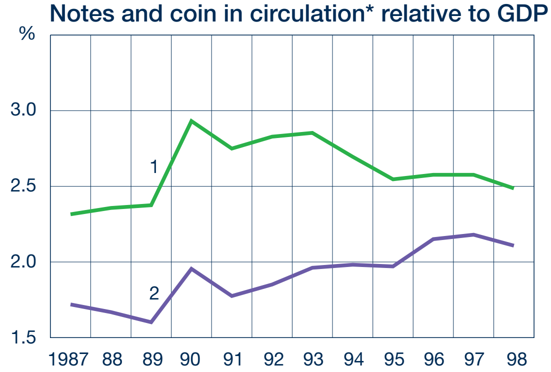
Holdings of notes and coin



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

Chart 32.

Notes and coin in circulation* relative to GDP



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

* The annual average of end-of-month figures.

gium. For the EU as a whole, the ratio has been just under 6 per cent in recent years. The main reasons for Finland's relatively low ratio are the sophistication of the domestic payment systems, the limited use of banknotes for hoarding and the small amount of markka notes circulating abroad.

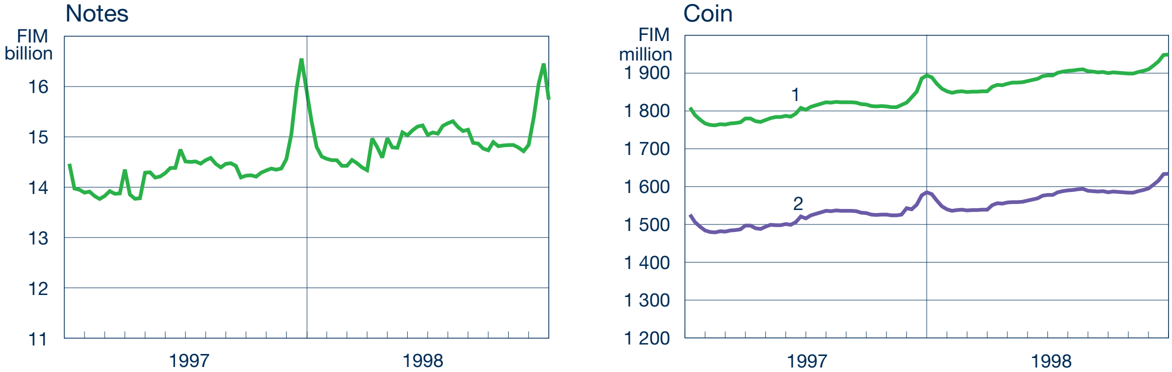
Over the long term, the ratio of currency in circulation to GDP in Finland has clearly decreased as payment systems have developed, and the trend in the 1990s would suggest that the ratio is likely to fall slightly further in the future. In the years ahead, more widespread use of electronic money may to some extent replace notes and coins as a means of payment, though initially this is only likely to affect coins and small-denomination banknotes. Therefore the overall effect of electronic money on the value of currency in circulation will probably remain fairly small in the near future.

At end-1998 currency in circulation amounted to FIM 17 689 million, ie a decrease of 0.7 per cent from the previous year (see Appendices, Table 14). In December the amount of currency in circulation was boosted by normal seasonal factors, the magnitude of which is currently estimated to be about FIM 1 billion. The value of notes in circulation decreased by 1.2 per cent and amounted to FIM 15 740 million at the end of the year (Chart 33). The value of coins in circulation increased by 2.9 per cent and amounted to FIM 1 949 million at the end of the year. This comprised ordinary coins with a total value of FIM 1 634 million (an increase of 3.1 per cent) and commemorative coins with a total value of FIM 315 million (an increase of 2.0 per cent).

At the end of the year notes and coins held by the public had a total face value of FIM 14 803 million, which was 1.9 per cent more than one year earlier. This sum includes cash held in ATMs owned by Automatia Pankkiautomaatit Oy. The value of banks' holdings of notes and coins was FIM 2 886 million, which was as much as 14.3 per cent less than one year earlier. However, average holdings of notes and coins by the public and

Chart 33.

Value of notes and coin in circulation



1. Ordinary and commemorative coins
2. Ordinary coins

banks in 1998 increased by 3.5 per cent and 2.4 per cent respectively.

Banks' holdings of notes and coins averaged 15.2 per cent of total currency in circulation in 1998. This percentage has decreased by more than a half since the beginning of the 1990s mainly as a result of banks' rationalization measures. It is nevertheless still relatively high in long-term perspective and by international standards, and so a further slight contraction can be expected in the coming years.

Banknotes' flow-through rate decreased

Banknotes flowed through the Bank 5.4 times on average in 1998. In the previous year the flow-through rate had been 6.0 following a period of strong growth that peaked at 6.7 in 1996. In the other EU states, the annual rate in recent years has generally ranged from about 1 to 3.

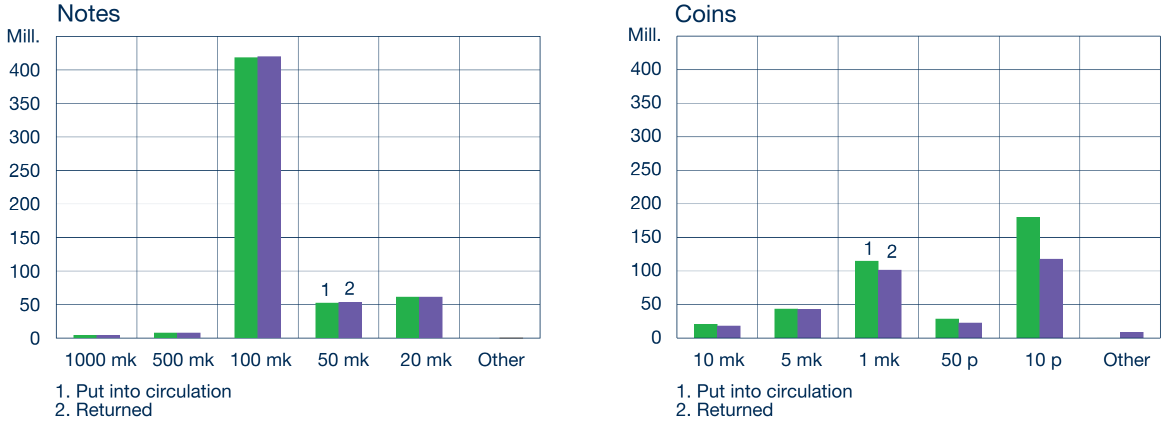
The 100 markka note had the highest flow-through rate of all the banknotes, 7.1. The rates for other banknotes were 0.7 for the 1000 markka note, 1.7 for the 500 markka note, 4.4 for the 50 markka note and 3.0 for the 20 markka note.

The total face value of notes ordered by banks in 1998 fell to FIM 53.7 billion while the number of notes ordered fell by 9.5 per cent to 544 million (Chart 34). The total face value of notes returned was FIM 53.9 billion, 10.5 per cent less than in 1997. The number of notes returned was 546 million. The Bank redeemed annulled notes to a total value of FIM 6 million.

The main reason for the slowdown in the flow-through rate was the note handling fee introduced by the Bank at the beginning of 1997. The fee was applicable to all notes and subject to yearly review. In accordance with the Act on government charges, it was levied at cost price and was applicable only to the extent that the average flow-through rate exceeded 3.0. At the time this rate was

Chart 34.

Flow of notes and coins through the Bank of Finland 1998



considered adequate to ensure the quality and authenticity of banknotes, which is one of the Bank's statutory duties.

At the beginning of 1998 the Bank decided that henceforth the note handling fee would be applied solely to the 100 markka and 50 markka notes since these were the only denominations for which the average flow-through rate was still too high. 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 through the Bank in the preceding six-month period. In connection with the review of the handling fee for the latter half of 1998, the Bank decided that the handling fee would be applicable only to the extent that the rate exceeded 4.0, rather than the previous rate of 3.0, until the introduction of euro banknotes. This makes it more advantageous for the banks to circulate notes through the Bank of Finland, which in turn makes it easier for the Bank to monitor the quality of banknotes during the final period of circulation of national banknotes in the euro area. It will also enable the changeover to euro notes be made in a short period of time.

On the basis of these considerations, the note handling fee was set at FIM 1 markka per 100 banknotes of the same denomination for the first half of 1998 and FIM 0.52 for the second half. Total fee revenue in 1998 was FIM 6.6 million, which was FIM 3.6 million less than in the previous year. The decrease was due to the reduction in the fee and the decline in the number of deliveries.

The Bank collected FIM 4.6 million from the banks for data processing services in connection with currency distribution. This was FIM 0.7 million less than in the previous year. The decrease was due to the concentration of banks' currency distribution functions in regional cash centres, which reduced the amount of currency purchases and returns.

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

The number of counterfeit notes remained low

Ongoing advances in photocopying and image processing techniques pose a continuous challenge to central banks and note printing works. Finnish banknotes are therefore continually upgraded with new security features that make them increasingly secure against attempted forgery.

The Bank of Finland is obliged to redeem annulled coins for a period of ten years.

A total of 323 counterfeit Finnish banknotes were detected in 1998, which was somewhat more than in the previous year. Most of the counterfeit notes were the result of single forgeries, though small series of forgeries were also detected.

The Bank of Finland and the National Bureau of Investigation jointly organized seven training seminars on the detection of counterfeit banknotes. The Bank also provided material on recognition of genuine banknotes for persons who handle money in the course of their work.

Flow of coins continued to decrease

Ordinary coins put into circulation by the Bank of Finland had a total face value of FIM 568 million. This was FIM 207 million less than in the previous year. The face value of returned coins was FIM 510 million, a drop of FIM 212 million from the previous year. There was a particularly sharp fall in flows of 5 markka and 1 markka coins, which fell by one-third. The decrease was due to rationalization in the handling of these coins, which are widely used in vending machines.

The Bank collected FIM 2.5 million in coin handling fees in 1998, which was FIM 1.1 million less than in 1997. The fall in revenue was due to a reduction in the fee and the decline in the number of deliveries.

Two commemorative coins were issued in 1998. The 100th anniversary of the birth of the Finnish architect Alvar Aalto was commemorated by the issue of 48 000 silver coins in the denomination of 100 markkaa. To commemorate the 250th anniversary of the fortress island of Suomenlinna, a silver coin in the denomination of 100 markkaa was issued. The issue was limited to 33 000 coins.

According to a Council Regulation (EC/3606/93), 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 1998 at 9.2 per cent of the amount in circulation and stood at 6.4 per cent at the end of the year.

The Ministry of Finance annulled the validity of some coins on 1 January 1994 and 1 January 1998. 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 2003 and 31 December 2007. On 1 January 1998 the Ministry of Finance annulled coins to a total value of FIM 328 million. Of these, FIM 123 million were old 1 markka coins issued in 1964–1993; FIM 78 million were old 5 markka coins issued in 1972–1993; and FIM 127 million commemorative coins issued in 1967–1985. At year-end the value of annulled coins in circulation was FIM 427 million, of which ordinary coins accounted for FIM 300 million and commemorative coins for FIM 127 million. The Bank redeemed annulled coins to a total value of FIM 9 million in the course of the year.

The effects of the euro already visible

On 1 January 1999 the euro was introduced (initially only as scriptural money, ie in book-entry form) and the euro area national currencies became national denominations of the euro. As from that date the Bank of Finland began to exchange the national legal tender banknotes of other euro area countries for Finnish markkaa at the fixed conversion rate at all its branches, in accordance with the guideline and recommendations issued by the European Central Bank (see page 69 for more details). The Bank also prepared for repatriation of national banknotes to the issuing central banks. Similarly, the Bank prepared to take delivery of markka notes exchanged and returned by other national central banks. With a view to facilitating the repatriation of markka notes, the Bank posted detailed descriptions (including security features) of current legal tender markka notes on its website.

The Bank does not charge members of the public for the exchange of banknotes for quantities of less than 100 notes. Likewise, no charge is levied on banks or bureaux de change, but only packets of 100 notes of the same denomination, or multiples thereof, are accepted.

The Bank made preparations for the issue of euro notes and coins on 1 January 2002, inter alia, by estimating the demand for each denomination. These estimates are reviewed annually. The Mint of Finland began production of euro coins in September 1998 on the basis of these estimates. Setec Oy participated in the pilot production run of euro notes in the autumn of 1998. Actual production of euro notes is due to start in the spring of 1999.

Preparation for EMU and Other Activities Related to the European Union

Preparation for Stage Three of Economic and Monetary Union

Historic decisions in May

Preparation for Stage Three of Economic and Monetary Union (EMU) continued in the first half of 1998. Fresh impetus for the preparatory work was provided by the decision to establish the European Central Bank (ECB) before 1 July 1998, which was the latest possible date stipulated in the Maastricht Treaty. By the end of April committees and working groups comprising representatives of the European Monetary Institute (EMI) and the national central banks (NCBs) had nearly completed their work on the main features of the monetary policy framework, payment systems and legislation related to Stage Three.

With the establishment of the ECB on 1 June 1998, its predecessor, the European Monetary Institute (EMI), which had been in charge of presiding over and coordinating EMU preparations, was liquidated.

On 2–3 May 1998 the Council of the European Union, meeting in the composition of heads of state or government, decided, on the basis of the proposal from the Council of Ministers of Finance (ECOFIN), which countries would be the first to adopt the single currency euro at the beginning of the Third Stage of EMU. At the same time, the heads of state or government announced the names of the persons to be recommended for appointment as members of the Executive Board of the European Central Bank.

The choice of the countries was based on the convergence reports drawn up by the EMI and the European Commission to analyse how the member states had fulfilled the convergence criteria. There were several criteria, four of which concerned the inflation rate, interest rates, the government debt ratio and the budgetary deficit ratio. In addition, a country had to fulfil an exchange rate criterion: the national currency had to have remained within the standard fluctuation band of the Exchange Rate Mechanism ERM for a minimum of two years. National legislation governing the central bank also had to meet certain requirements.

As expected 11 member states (Belgium, Germany, Spain, France, Ireland, Italy, Luxembourg, the Netherlands, Austria, Portugal and Finland) were chosen as the euro area countries.

With a view to guiding markets in the run-up to Stage Three, the ministers of finance and central bank governors of the member states of the future euro area, together with the Commission and the EMI, announced on 3 May 1998 that the current ERM bilateral central rates of the currencies of the participating member states would be used in determining the irrevocable conversion rates for the euro. The communiqué also included a commitment not to change the central rates of the currencies of the participating countries before the onset of Stage Three. The central banks undertook to ensure that on 31 December 1998 the market exchange rates used for calculating the daily exchange rates of the official ECU would be equal to the pre-announced ERM bilateral central rates.

The heads of state or government published the names of the candidates for the ECB Executive Board on 3 May 1998 and confirmed the appointments after hearings convened by the European Parliament on 25 May 1998. The appointments became effective on 1 June 1998. The historic first meeting of the Governing Council of the ECB comprising the governors of the national central banks of the countries participating in Stage Three of EMU and the Executive Board of the ECB was held on 9 June 1998.

Organization of the ECB

The European Central Bank is a key element of the European System of Central Banks (ESCB). The ESCB's highest decision-making bodies are the Governing Council, the General Council and the Executive Board. The President of the ECB chairs the meetings of all these three decision-making bodies.

The Governing Council is the highest and most important decision-making body of the Eurosystem. It is composed of the governors of the 11 national central banks of the countries participating in the euro area and the members of the Executive Board of the ECB. The President of the Council of the European Union and a representative from the European Commission are entitled to attend the Governing Council meetings. The Governing Council's main tasks include taking decisions on the ESCB's infrastructure and operational framework and formulation of the contents of the single monetary policy by, for example, deciding on intermediate monetary objectives, key interest rates and the supply of central bank reserves and issuing operational guidelines for the implementation of the objectives.

The Executive Board of the ECB operates on a full-time basis and is responsible for preparing Governing Council and General Council meetings and drafting proposals for decisions to be made at the meetings. In addition, the Executive Board implements decisions made by the Governing Council and the General Council. The Governing Council may separately delegate decision-making powers on certain issues to the Executive Board. The first President of the ECB is Mr Wim Duisenberg from the Netherlands and the Vice President Mr Christian Noyer from France. The other four members of the Executive Board are: Ms Sirkka Hämäläinen from Finland, Mr Otmar Issing from Germany, Mr Tommaso Padoa-Schioppa from Italy and Mr Eugenio Domingo Solans from Spain.

The General Council includes all the EU central bank governors and the President and Vice President of the ECB. Other ECB Executive Board members may attend General Council meetings. Similarly, the President of the Council of the European Union and a European Commission representative may attend these meetings. Hence the General Council also includes the central bank governors of those EU countries that did not introduce the euro as their single currency at

The ECB's organization is complemented by ESCB committees.

the start of 1999, ie Denmark, Greece, Sweden and the United Kingdom. The General Council deals with issues such as monetary policy coordination between the euro area and other EU countries, collection of statistical information, the ECB's annual reports, accounting and reporting instructions for national central banks, conditions of employment for the ECB's staff and preparatory work to enable participation by new countries in the single currency area.

The organization of the ECB is based on line management in which each member of the Executive Board is assigned responsibility for certain Directorates General and Directorates. In all, there are eight Directorates General and eight Directorates.

The Governing Council adopted its Rules of Procedure in July 1998 and the General Council adopted its Rules of Procedure in September. These Rules lay down provisions on the minimum number of meetings to be held each year, attendance, voting, organization of meetings, members and role of committees, principles of recruitment for the ECB staff etc.

The ESCB is responsible for single monetary policy in the euro area

The ESCB operates on a decentralized basis so that a major part of the operations are carried out by national central banks. The key tasks of the ESCB in Stage Three of EMU are to:

- define and implement the single monetary policy;
- conduct foreign exchange operations;
- hold and manage the official foreign reserves of participating member states;
- promote the smooth operation of payment systems; and
- maintain the currency supply.

The ESCB also supports the work of national authorities charged with the task of supervising the financial markets. Community institutions and national authorities have to consult the ESCB on all legislative work falling within central bank competence. The ESCB may also issue opinions and statements on other matters falling within its competence.

The ESCB is an independent system in that none of its decision-making bodies is allowed to seek or take instructions from external entities. Neither the European Community nor any of its member states may exert pressure on members of the ECB Governing Council, General Council or Executive Board in respect of the performance of their respective tasks. The Maastricht Treaty aims at ensuring the independence of the ESCB by prescribing a non-renewable term of office of eight years for the ECB President, Vice President and other Executive Board members.[1] The possibility of removing the President or other Executive Board members from office is also restricted. Similar provisions apply to the other members of the Governing Council, ie the governors of national central banks.

Committees play a key role in preparatory work

The ECB's own organization is complemented by ESCB committees that assist in operations planning and preparation of decisions. The committees are composed of experts from national central banks and the ECB. A representative from the ECB normally chairs a committee. In the initial stage, there are 13 committees, with areas of activity covering all central banking operations (Table). The Bank of Finland is represented on every

[1] The first term of office is exceptional in that the Maastricht Treaty foresees a system of staggered appointments for members of the Executive Board.

committee. The committees have an initial three-year mandate, after which needs will be reassessed. Countries other than those participating in the euro area may also take part in the committee work whenever issues concerning the General Council are under discussion.

Table. ESCB Committees

- Accounting and Monetary Income Committee
- Banking Supervision Committee
- Banknote Committee
- Budget Committee
- External Communications Committee
- Information Technology Committee
- Internal Auditors Committee
- International Relations Committee
- Legal Committee
- Market Operations Committee
- Monetary Policy Committee
- Payment and Settlement Systems Committee
- Statistics Committee

The Monetary Committee's involvement in EMU preparations

A representative from the Bank of Finland and a representative from the Ministry of Finance took part in the work of the Monetary Committee under the ECOFIN Council. The Committee held its June meeting in Helsinki.

In 1998 the Monetary Committee dealt primarily with issues related to the creation of the euro area. These involved above all preparations for the start of the Third Stage, including the setting up the Euro 11 Group in connection with the ECOFIN and preparations for the decisions taken in May and at the end of the year. In addition, issues related to the external representation of the euro area were discussed extensively, especially towards the end of the year. In addition, the Committee drew up the Council decision on the format and content of stability programmes.

The Monetary Committee comprises two representatives from each member state, the ECB and the Commission. The representatives from the member states represent the ministry of finance and the national central bank. Up to the beginning of June, the Bank of Finland was represented by Mr Matti Vanhala. After his appointment as Governor of the Bank of Finland, Mr Esko Ollila, the Deputy Governor, was appointed as member of the Monetary Committee.

The work of the Monetary Committee came to an end at the close of the Second Stage of EMU when its functions were taken over by the Economic and Financial Committee.

Economic policy cooperation with member states

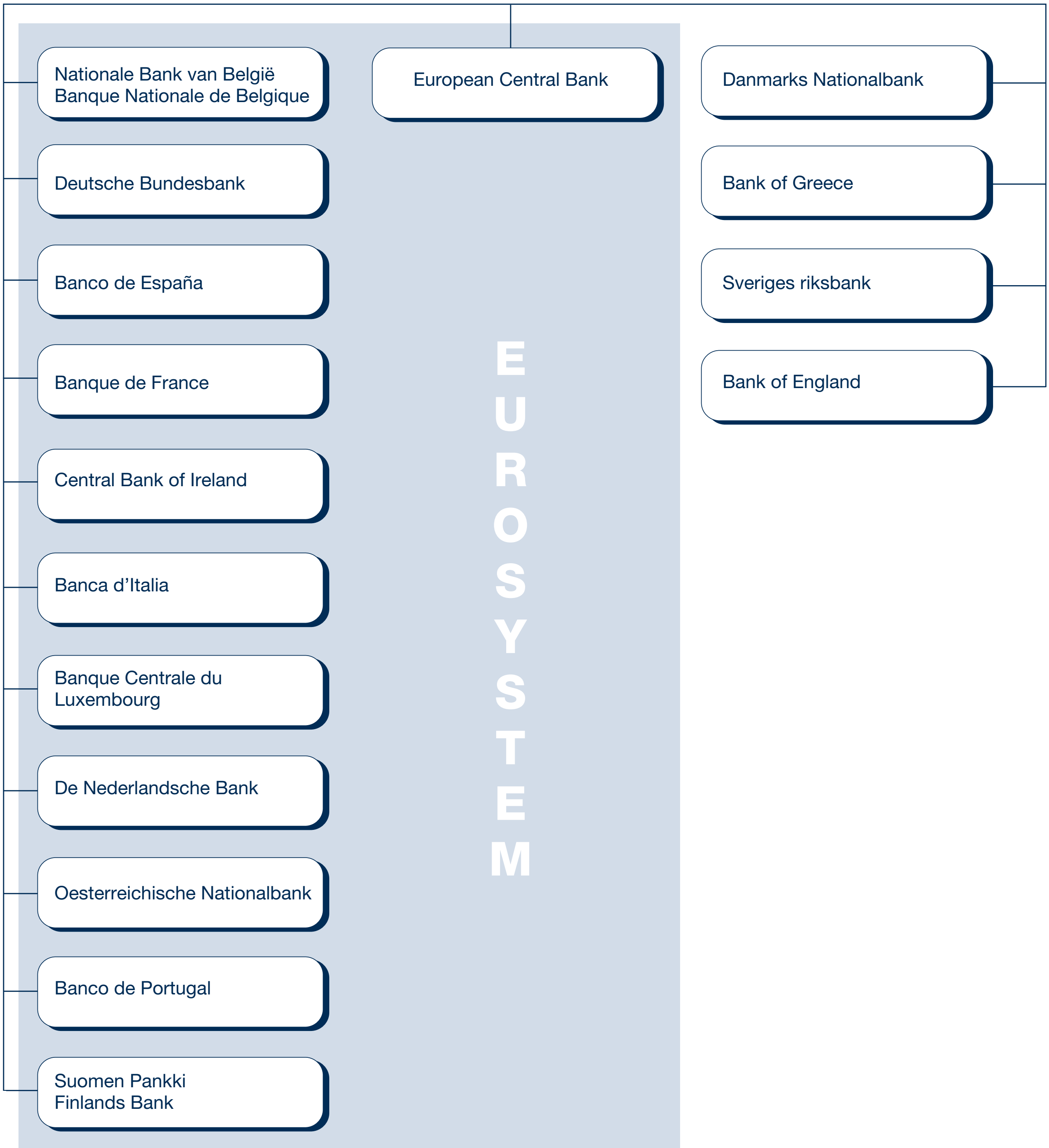
In the context of the May meetings, the ECOFIN Council issued a communiqué confirming the commitment of member states to the Stability and Growth Pact agreed on in June 1997 in Amsterdam. A prerequisite for successful single monetary policy is economic policy coordination, in which the Stability and Growth Pact plays a crucial role.

An important aspect of implementation of the Stability and Growth Pact is the monitoring of national budgetary positions and economic policy cooperation. Each country draws up a stability and growth programme, on the basis of which it endeavours to consolidate its budget balance: the medium-term objective is to achieve government financial positions that are close to balance or in surplus. The May communiqué also stated that member states would try to reach the medium term objective sooner if economic conditions developed better than expected.

Finland's stability programme was the first programme approved by the Council on 12 October 1998.

Chart 35.

European System of Central Banks



External representation of the euro area

The establishment of the ECB and the start of Stage Three of EMU imply changes in the way member states can formulate positions on monetary policy in the euro area. A single monetary policy means that the participating countries adhere to common positions on monetary policy in all international fora. In the course of the year, the discussion widened to embrace not only the representation at the International Monetary Fund but also in other international fora, including relations with third countries and various unofficial bodies, such as the G7 and G10 Groups.

The Vienna European Council in December decided on the external representation of the Community in matters related to economic and monetary union.

As for meetings of the G7 Finance Ministers' and Governors' Group, it was agreed that the President of the ECB would attend meetings of the Group for discussions which relate to EMU. Regarding the representation of the Community at ministerial level on EMU issues, it was agreed that the President of ECOFIN, or if the President came from a non-euro area member state, the President of the Euro 11 Group would attend meetings. If the President came from a non-G7 euro area state, he/she would attend in addition to the euro area ECOFIN members already present.

As regards the International Monetary Fund (IMF), the ECB has been granted observer status on the IMF Executive Board. It was agreed that the views of the European Community would be presented on the IMF Board by the relevant member of the Executive Director's office of the member state holding the Euro 11 Presidency, assisted by a representative from the Commission.

Monetary policy objectives and framework announced

At its meeting in October the Governing Council agreed on the quantitative definition of its monetary policy objectives with regard to the onset of the Third Stage of EMU and the main variables to be monitored. Price stability was to be measured using the Harmonized Index of Consumer Prices (HICP) for the euro area and the money stock was to be assigned a prominent role in monetary policy strategy. It would be given a reference value that was consistent with price stability (see page 32 for details).

The monetary policy framework, which was the result of the work of several committees and working groups set up during the time of the EMI, was completed by September 1998 and published in the form of a report entitled *The single monetary policy in Stage Three: General documentation on ESCB monetary policy instruments and procedures.*

Monetary policy instruments and related information and data transmission systems were carefully tested in the second half of 1998. But testing of new IT applications was only one aspect of comprehensive testing within the ESCB as the main purpose was to ensure the smooth execution of ESCB operations and related procedures and methods. Backup systems were also tested.

Payment and settlement systems fully operational

The TARGET system, which is a network of national real-time gross settlement systems in the euro area, plays an important role in intraday liquidity management. The system enables rapid execution of payments between all EU countries. Implementation and testing of the TARGET system continued until the end of the year.

TARGET – a network of real-time settlement systems.

In July 1998 the ECB decided that non-euro area EU national central banks would be able to offer limited intraday liquidity in euro to their counterparties. This is a completely new arrangement, which is intended to pave the way for the smooth transition of these member states to Stage Three of EMU at some future point in time. The arrangement is an exception to the rule that no central bank shall grant credit in a currency other than its own. The conditions applicable to this credit are set out in detail in the agreements concluded with the central banks concerned.

In mid-November the ECB published its Third progress report on the TARGET project. It set forth the legal framework and operating principles for TARGET and also the access criteria to RTGS and detailed instructions for different user groups.

The ECB and all euro area national central banks tested the TARGET system several times over the year. The simulation tests carried out towards the end of the year involved all credit institutions participating in the system. The final phase of testing, migration to production tests, took place in November and December 1998.

Preparation for the widespread use of electronic money was a key issue related to payment systems discussed by the EMI and subsequently the ECB in the course of 1998. In March the EMI submitted an opinion to the Commission in which it recommended prudential supervision of electronic money issuers. This opinion was based on an earlier EMI statement in which it was proposed that only credit institutions would be allowed to issue electronic money. But as agreement could not be reached on this proposal, it was decided to recommend effective supervision instead.

In the ESCB central bank credit received by credit institutions must always be fully collateralized. A wide range of assets is accepted for this purpose and these eligible assets can also be used on a cross-border basis between EU member states. In Stage Three the use of securities as collateral in other member states will be based on the correspondent central bank model. In this model, national central banks act as custodians for each other and arrange the transfers of collateral.

The long-term objective is for the underlying assets to be settled between national securities settlement systems located in member states. For this reason, in September 1998 the Executive Board agreed on minimum standards for securities settlement systems that can be used for the safe-keeping and settlement of collateral for central bank credit operations.

Transfer of capital and foreign exchange reserves to the ECB

Under the Maastricht Treaty, the ECB's capital at the start of its operations is ECU 5 billion. The share of each EU national central bank in the ECB's capital is based on a key established on the basis of the EU member states' respective shares in the GDP and population of the Community. The weighting assigned to the national central banks will be adjusted every five years as decided by the Governing Council. The subscription of capital can be paid up in the form of money (different currencies) or securities. It was recommended that the ECB's capital should be sufficient to yield a return covering the costs incurred in connection with the commencement of ECB operations.

The first transfer of capital was made in June. Finland's share of the ECU 5 billion was 1.3999 per cent, or ECU 69 955 000, and it was paid by the Bank of Finland on 1 July 1998.

In December the Governing Council adjusted the shares of the national central banks in the key for the capital of the ECB on the basis of revised statistical data. Finland's share was reduced to 1.3970 per cent.

In addition, non-euro area countries paid a small share of 5 per cent of their subscriptions to the capital of the ECB already at the start of Stage Three of EMU.

As a measure to cover potential foreign exchange risks incurred by the ECB, the Governing Council endorsed, in accordance with the Statute of the ESCB, an ECB Recommendation for a Council Regulation authorizing the ECB to increase its capital from the current level of EUR 5 billion euro to up to twice that amount.

At the beginning of January 1999 the national central banks of the eleven member states transferred foreign reserve assets totalling about EUR 40 billion to the ECB. The contribution of the Bank of Finland was about EUR 700 million, 15 per cent of which was in gold and 85 per cent in foreign exchange assets. As a result of the transfer of foreign exchange reserves, the Bank of Finland has an euro-denominated claim on the ECB. The national central banks manage the ECB's foreign exchange reserves as agents for the ECB and within limits set by the ECB.

Transition period for the allocation of monetary income

Under the Maastricht Treaty, the income accruing to the ECB and the national central banks in the performance of the single monetary policy function is summed up and the resulting monetary income is redistributed to the national central banks in proportion to their paid-up shares in the capital of the ECB.

During the transition period 1999–2001 the monetary income will be calculated by employing the so-called indirect method. A liability base defined separately by the Governing Council will be multiplied by a specified reference rate of interest. Monetary income arises mainly from the issuance of banknotes. As there are currently big differences in income deriving from the issuance of banknotes in different countries, the Governing Council decided in November not to include this income in the calculation of monetary income before the introduction of euro banknotes.

These decisions on the allocation of monetary income are temporary and therefore the question of monetary income allocation will be revisited before the introduction of the euro banknotes in 2002.

Harmonization of NCBs' accounting principles

In 1998 the national central banks of the EU countries defined common accounting principles and techniques that all the central banks of participating countries undertook to apply in their reporting to the ESCB. The key areas that were harmonized were the accounting principles related to the timing of revenue recognition, valuation, allocation and reporting.

Harmonization of accounting principles is aimed at promoting common reporting practices, thereby making it possible to forecast and monitor the common liquidity situation in the Eurosystem area. The consolidated financial statement of the Eurosystem published by the ECB each week is the main means used for reporting to the public.

The position of the ESCB in financial supervision

Under the Maastricht Treaty, the supervision of credit institutions falls largely within the competence of national authorities.

Within the ESCB it has been considered important that supervision of credit institutions covers the entire EU area. For this reason, not only the euro area central banks are represented on the Banking Supervision Committee but also the other EU member states as well as supervisory authorities from EU countries where responsibility for financial supervision lies with an authority other than the central bank. The tasks of the Banking Supervision Committee include examining issues related to supervision at the macro level, monitoring the development of the banking and financial sector and promoting smooth exchange of information between different supervisory authorities.

In 1998 one of the key issues for the Banking Supervision Committee was to determine an appropriate division of responsibilities between supervisory authorities, national central banks and the ECB in such a way as to best serve the stability of the banking system.

Other major issues related to financial supervision assessed by the ECB included the impact of the Asian crisis on the credit institutions in Europe, the impact of the introduction of the euro on the European banking sector and the impact of technological progress on banks' profitability and solvency. In addition, the ECB considered how European banks would be affected by changes in their income structure. In order to monitor these trends, it was decided to set up a regular monitoring system covering the entire banking sector in Europe.

EMU legislation completed before the end of the year

As part of the preparations for Stage Three of EMU, legislation governing the Bank of Finland had to be revised twice within a short period of time. The act (719/1997) that entered into force on 1 January 1998 was amended by a new Act on the Bank of Finland (214/1998), which was passed by Parliament on 20 March 1998. At the same time Parliament passed the Act on Repeal of the Currency Act (215/1998) and the Coins Act (216/1998). The provisions of the new Act concerning the Bank's independence entered into force on 1 May 1998 whereas those concerning the Bank's legal integration into the European System of Central Banks (ESCB) and the Currency Act entered into force when Finland joined the euro area on 1 January 1999. The adoption of these laws brought the Finnish legislation in line with the provisions of the Treaty establishing the European Community and the Statute of the ESCB.

The compatibility of the new legislation governing the Bank of Finland with the Treaty was assessed in the convergence reports drawn up by the EMI and the European Commission under Article 109j of the Treaty. In both reports, the Finnish legislation was found to be compatible with the provisions of the Treaty and the Statute.

With the introduction of the euro on 1 January 1999, the national central banks' competence in the monetary area was transferred to Community level. The single currency is governed by provisions contained in the Council Regulation on the introduction of the euro that entered into force on 1 January 1999. For these reasons, the old Finnish Currency Act was repealed. However, the provisions of the Currency Act mentioned in the transitional provisions of the Council Regulation will continue to be applied to the extent allowed by the Regulation for as long as markka-denominated notes and coins remain legal tender. As before, the State has the exclusive right to mint coins. The new Coins Act contains national provisions on coins that supplement the EU provisions on coins.

Production of euro banknotes and coins

In July 1998 the ECB Governing Council approved a decision, based on preparatory work carried out by the EMI, on the denominations of the seven euro banknotes (EUR 5, EUR 10, EUR 20, EUR 50, EUR 100, EUR 200 and EUR 500) and their designs, including security features. The banknotes will be identical throughout the euro area. A pilot production run took place between September and December 1998 and involved several printing works in the euro area countries. Each denomination was printed in at least two different printing works to ensure that identical banknotes can be produced. The mass production of the euro banknotes will begin in spring 1999. According to current estimates made by the ESCB Banknote Committee, a total of about 13 billion banknotes will be needed in the 11 member states of the euro area.

The production of euro coins was started in September 1998. The Council of the European Union and relevant national ministries are responsible for the preparations related to coins. There will be eight denominations of euro coins (1, 2, 5, 10, 20 and 50 cents, and EUR 1 and EUR 2) with one European side and one national side indicating the issuing country. According to current estimates, around 70 billion coins will be needed.

National currencies became denominations of the euro as of 1 January 1999. However, euro banknotes and coins will not be put into circulation until 1 January 2002. National banknotes and coins therefore remain legal tender in the respective countries. In accordance with the provisions of the Treaty, the Governing Council decided on 3 November that each central bank of the euro area should arrange for it to be possible, at one location at least, to exchange legal tender banknotes of other participating member states against national banknotes and coins at the fixed conversion rate as from 1 January 1999, for a period of three years. The national central banks may, however, limit the number and/or the total volume of banknotes they are prepared to accept for any given transaction or on any one day.

In addition, the Governing Council recommended that the national central banks should repatriate banknotes of other euro area countries at their own expense to the issuing central bank. It was also recommended that the central banks exchange such banknotes without any charge. However, if commercial banks and bureaux de change are charged a handling fee for national banknotes, a fee at the same level can also be charged for banknotes presented for repatriation.

The ESCB and the ECB Governing Council agreed on measures to combat counterfeiting. A decision was made to store data on counterfeit euro banknotes in a database to be maintained in Frankfurt in connection with the ECB. The database will also be available to the national central banks and to national authorities responsible for investigating counterfeits. A decision was also made on the establishment of an analysis centre for counterfeits. The location of the centre will be decided in spring 1999.

It is estimated that about 70 billion euro coins will be needed.

Statistics for the EMU era

Harmonization of statistics was continued under the leadership of the EMI and its successor the ECB and involved further conceptual elaboration and preparation of guides on compilation procedures. After the production of statistics had started, technical standards for the reporting were also harmonized, including codes, transmission of data and review procedures.

As a result of extensive development of money and banking statistics under the EMI, harmonized monthly balance sheet statistics for monetary financial institutions were produced for the situation as at the end of June 1998. The ECB further required the national central banks to submit backdated monthly balance sheet information that was adjusted so as to be consistent with the new statistical requirements. Historical data were used by the ECB in the definition of new monetary aggregates for the euro area. The minimum reserve system is also based on data provided by the monthly balance sheets.

With the start of Stage Three, euro area-wide statistics on interest rates are needed in order to monitor the transmission of monetary policy in the economy. As national financial markets still differ from each other, interest rate statistics cannot be harmonized immediately. Therefore, as a temporary solution, it was decided to use existing current national interest rate statistics to construct key credit and deposit rates that were as consistent as possible. Collection of data on interest rates started in autumn 1998. A similar approach is also applied for statistics on securities; namely these statistics are compiled on the basis of available national statistical data.

In the spring the EMI Council adopted three publications related to money and banking statistics. The ECB Governing Council confirmed this decision later in the autumn. The publications in question were the List of Monetary Financial Institutions (MFIs) in the European Union, the Sector Manual, which provided guidance on sector classification, and the Compilation Guide, which was addressed to the NCBs and focused on particular problem areas in the compilation of money and banking statistics. Since October 1998 the List of MFIs has also been available on the ECB's website.

In the autumn the Governing Council agreed on a definition for money market funds that will be used in all EU countries. Funds that meet the requirements laid down in the definition are included in the monetary financial institutions category. In Finland money market funds are mutual funds that have been granted special authorization to operate as money market funds by the Council of State.

Following the decision on the member states that would be participating in Stage Three of EMU in the spring, the ECB started to compile monthly balance of payments statistics for the euro area based on national balance of payments statistics. The publication of these aggregated balance of payments statistics will begin in 1999.

The EMI and its successor ECB published semi-annual reports assessing the progress made by member states in meeting their obligations regarding the development and compilation of statistics. The ECB stressed the importance of receiving the statistics on schedule. Attention was also paid to the quality of the statistics. Problems related to the quality the balance of payments statistics are primarily due to the difficulty of making a regional breakdown.

The Balance of Payments Statistics working group of the EU Committee on Monetary, Financial and Balance of Payments Statistics finalized agreements made between EUROSTAT and member states on the development of statistics on mainly the current account and direct investment and their submission to EUROSTAT. In addition, a group of experts working under the auspices of EUROSTAT started to examine problems related to errors in balance of payments statistics and, in particular, the geographical breakdown of statistical data. Such errors lead to overestimation of the current account surplus in Europe and the euro area.

Major changes in data systems

Preparations for Stage Three of EMU have required extensive development of data systems. It has been necessary to make the systems of the euro area central banks consistent with common principles and to set up new systems to support the implementation of monetary and foreign exchange policy, collection of statistical data and investment of reserve assets. Common data communications systems are used to transmit information between the ECB and the national central banks.

The implementation phase of the information technology specifications, new applications and data communications network required by Stage Three started in 1998. Extensive testing took place to ensure a smooth launch. In addition, national central banks and the ECB agreed on common procedures that will be followed in Stage Three. Principles for IT-security policy were finalized and support organizations were set up for the systems. The year 2000 project was launched to ensure that the millennium change would not impair the functioning of the ESCB's data systems.

Changeover weekend

Careful preparations for the changeover weekend were made both by the Monetary Committee and the ECB. After the meetings in May the Monetary Committee started to draw up a detailed timetable for the fixing of irrevocable exchange rates at the end of 1998.

The determination of the euro conversion rates on 31 December 1998 started with a teleconference held at 11 am (all times are CET; Finnish time is one hour ahead of CET) between the central banks.

The EU national central banks checked and calculated the exchange rates of their national currencies, ensuring that those between the currencies of the participating countries were the same as the pre-announced ERM bilateral central rates. At the end of the teleconference, the European Commission calculated the final official ECU exchange rates for the participating currencies on the basis of the rates calculated by the EU national central banks and transmitted them to the ECB for cross-checking. The Governing Council of the ECB held a teleconference, chaired by the President, Mr Duisenberg, to adopt the ECB's Opinion on the proposed conversion rates.

Finland was the first country to change over to the euro.

After the ESCB's confirmation the Commission proposed the irrevocable conversion rates for the euro for adoption by the EU Council in a televised session at 12.30 pm (Table, page 28). At the same time the Commission made these rates public via financial information providers and on the Internet.

The entire process was completed at 3 pm when the conversion rates were published in the Official Journal of the European Communities. Officially, the euro became effective as from 0.00 hours (local time) on 1 January 1999. As Finland is the easternmost country of the euro area, the euro came into being first in Finland.

During the changeover weekend several new information systems were introduced and changes were made to existing procedures and methods. Implementation of these changes was closely monitored throughout the euro area by the ECB, the national central banks, credit institutions, stock exchanges and securities clearing centres.

ERM II arrangements

In accordance with the resolution adopted by the European Council in June 1997 in Amsterdam, the European Monetary System (EMS) will, from the start of Stage Three of EMU, be replaced by a new exchange rate mechanism (ERM II). On 1 September 1998 the operating procedures for the new exchange rate mechanism were laid down in detail in an agreement between the ECB and the central banks of the countries participating in the mechanism. The finance ministers of the euro area member states, the ECB and the ministers and central bank governors of Denmark and Greece announced on 26 September 1998 that Denmark and Greece would participate in ERM II as of 1 January 1999. In the same communiqué it was announced that the Danish krone would participate in ERM II with a fluctuation band around its central rate against the euro of ±2.25 %, ie smaller than the standard fluctuation band of ±15 %. Towards the end of the year the ECB issued binding instructions that had been agreed between the ECB and the non-euro area central banks concerning application of the ERM II agreement. The euro central rates and intervention rates for the Danish krone and the Greek drachma in ERM II were confirmed on 31 December 1998.

The Nordic agreement on foreign exchange support was revoked

Participation by the Bank of Finland in the European System of Central Banks led to the cancellation of the foreign exchange support arrangement that had been in force between the Nordic central banks since 1984. These kinds of agreement between individual central banks for the support of foreign exchange rates are no longer possible in Stage Three of EMU.

Cooperation in EU matters in Finland

The Bank of Finland played an active part in the preparations for EMU in Finland. Representatives of the Bank participated in several working groups as part of the national EMU project. Negotiations were held with the Ministry of Finance on issues requiring common decisions, such as the length of the period that both national and euro banknotes would be in circulation.

Cooperation with banks took place at several levels through the banks' EMU coordinators. For example, working groups, each focusing on issues in their specific fields, discussed the latest plans and decisions of the EMI/ECB related to monetary policy instruments, statistics and payment systems.

Other International Cooperation

Bank for International Settlements

The Bank for International Settlements (BIS) acts as a bank and cooperative body for central banks. Governors and experts from central banks convene monthly in Basle to discuss issues pertaining to monetary and economic policy and the international financial system. Financial market developments and other questions of current concern to central banks also feature on the agenda for the monthly meetings.

Whenever necessary the BIS grants credit to central banks, mainly for liquidity reasons. In November 1998 the BIS granted a credit facility of up to USD 14.5 billion to Brazil on behalf of the industrial countries within the framework of an extensive international financial support programme. Finland's participation required the issuance of an absolute guarantee by the Finnish government to the Bank of Finland. The guarantee enabled the Bank of Finland to make a commitment in respect of its share of USD 50 million in a collateral arrangement providing security for the BIS's claim on the Brazilian central bank.

International Monetary Fund

In January 1998 the Board of Governors of the International Monetary Fund (IMF) accepted the IMF Executive Board's recommendations to increase members' quotas by 45 per cent from SDR 145 billion to SDR 212 billion. The quota increase will become effective subject to consent by an 85 per cent majority of member countries, measured in terms of their voting power. The deadline for the quota increase is 29 January 1999. Finland's quota will increase from SDR 861.8 million to SDR 1263.8 million (from FIM 6.1 billion to FIM 9.0 billion, calculated on the basis of the SDR's exchange rate at the end of 1998), but Finland's share of the Fund's total quotas will remain virtually unchanged at some 0.6 per cent.

Pursuant to its Articles of Agreement, the IMF can, when required, borrow from its member countries under the General Arrangements to Borrow (GAB) and the New Arrangements to Borrow (NAB). The NAB, which was approved by the IMF Executive Board in January 1997 and became effective in November 1998, are a set of credit arrangements with 25 participating countries or institutions. The potential amount of resources available to the IMF under this arrangement

The IMF commends Finland for its successful economic policies.

is SDR 34 billion. Finland's share amounts to SDR 340 million (FIM 2.4 billion).

The IMF held Article IV consultations with Finland in May–June as part of its ongoing economic surveillance. During the consultations the Fund's team of economists assessed the state of the Finnish economy. The consultations ended in August with a country review by the Fund's Executive Board, the findings of which were summarized in a public information notice published by the IMF. The IMF Executive Board commended the Finnish authorities for their successful economic policies, which were reflected in robust economic growth, modest inflation and an improved public fiscal position. However, umployment was still too high and the Executive Board recommended that this problem be addressed by, inter alia, increasing labour market flexibility and cutting labour taxes.

The year 1998 was one of the most challenging in the Fund's history. Intensive efforts to restore financial stability and confidence continued in Thailand, South Korea and Indonesia. The instability in international financial markets was reflected in other continents as well, leading to devaluation speculation and a decline in asset prices. Difficulties in the Russian economy continued to mount, due in part to a fall in commodity prices. In the summer Russia approached the Fund again with a view to supplementing its existing financing arrangements with the IMF.

In July the IMF approved financial support totalling USD 11.2 billion for Russia as a part of a broader financing arrangement. In spite of this, the provision of new financing and related stabilization measures were not enough to restore market confidence. Implementation of the stabilization programme and disbursement of funds under existing facilities were discontinued in August after Russia defaulted on some of its debts and the government was dismissed.

The events in Russia led to increased market turbulence around the world, including Latin America where Brazil, in particular, fell victim to currency turmoil in August–September. In early December the IMF, the World Bank, the Inter-American Development Bank (IADB) and a number of industrial countries agreed on a USD 41.5 billion financing arrangement for Brazil. The IMF's share of this arrangement amounted to USD 18 billion. Of this, USD 12.7 billion was made available under the Supplemental Reserve Facility via the first activation of the NAB. With the aid of this three-year stand-by credit and a fiscal adjustment programme, Brazil aims to rebuild confidence in its economy and thus prevent a further deepening of its financial crisis.

The Asian financial crisis highlighted the challenges posed by global financial markets. In spring 1998 the IMF Executive Board approved an operational framework for strengthening the architecture of the international financial system. The purpose of this initiative is to strengthen international and national financial systems and enhance surveillance of member countries' economies, for example by promoting both directly and indirectly the availability and quality of economic information on member countries. Another aim is to develop ways of involving the private sector in the prevention and resolution of financial crises.

The requirement for greater transparency also applies to the operations of the IMF. Recognizing this need, the IMF's information policy became far more transparent in the course of the year. The Fund's Internet website provides a vehicle for day-to-day monitoring of the matters discussed by the IMF Executive Board and the decisions taken.

The international financial crisis and issues related to the strengthening of the international financial system were also dealt with in other fora. The reports issued by working groups composed of G22 countries' representatives of the finance ministries and central banks of the G22 countries recommended enhanced transparency with respect to financial activity, stronger financial structures and intensified crisis management and prevention. In October the G7 countries published their own programme of measures for stabilizing the international financial system. In addition to recommendations by the G22 working groups, the measures include a proposal for closer monitoring of capital flows and collection of data on the risk positions of institutional investors. The programme also includes a proposal for setting up a fund alongside the IMF to extend short-term credit to countries adhering to Fund-supported policies that have run into difficulties .

The IMF has made the liberalization of capital flows one of its goals and is seeking to have this goal embodied in its Articles of Agreement. The aim is not to remove restrictions on capital flows as a one-time measure, but in a orderly manner taking due account of the present state of local financial markets and their level of development as well as other factors that act as a constraint on market activity.

The IMF continued its efforts to promote implementation of its standards for data dissemination (SDDS, ie Special Data Dissemination Standards), work on which had started in 1996. The intention is to post standardized key data on as many member countries as possible on the Fund's Internet website. Finland signed up as early as 1996.

Stage Three of Economic and Monetary Union entails major changes in the operating environment of the IMF. The Fund continued discussion of EMU-related issues and called for urgent action to address technical problems associated with the establishment of the euro area. In response to the changed needs as regards its surveillance activities, the IMF intends to conduct an euro area-wide regional consultation twice a year, in addition to its annual bilateral consultations.

Following the departure of Ms Sirkka Hämäläinen, Governor of the Bank of Finland, to take up the post of member of the Executive Board of the European Central Bank, Finland was represented on the Fund's Board of Governors by Mr Matti Vanhala, Governor of the Bank of Finland, from the beginning of June. Mr Esko Ollila, Deputy Governor of the Bank of Finland, served as his deputy.

Mr Kai Aaen Hansen from Denmark represented the constituency of the Nordic and Baltic countries on the Fund's Executive Board. The central bank of Denmark coordinated the preparation of constituency positions.

Technical assistance

In 1998 experts from the Bank of Finland served in various assignments in economies in transition under the direction of the IMF. Experts from the Bank also served in assignments involving technical assistance extended through the EU Tacis programme. The Bank participated in the Tacis training programme for the staff of the Russian and Ukrainian central banks. The Bank continued to train staff of eastern European central banks under the EU's Phare programme, and also provided bilateral training assistance to 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 two meetings during the year under review. These meetings focused on issues dealt with by the IMF Executive Board. The Nordic-Baltic Constituency Committee also convened twice to prepare joint positions for the Fund's Interim Committee meetings and the IMF Annual Meeting.

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

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

Reserve Assets

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

Most of the reserve assets are invested in international financial markets in gold and debt instruments denominated in foreign currency. In addition, part of the reserves are held as special drawing rights issued by the International Monetary Fund and as an IMF reserve tranche. Up till the end of 1998 part of the reserves were also held in the form of an ECU claim on the European Central Bank (see page 66 for details of foreign exchange operations with the ECB).

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 the risk limits imposed on investment is monitored on a continuous basis.

The main uncertainty affecting the reserve assets is exchange rate risk. In order to mitigate changes in the value of reserves, the Bank of Finland spreads it holdings of foreign exchange assets among different currencies. The currency distribution is updated in periodic evaluations. The most important investment currencies in 1998 were the US dollar, Deutschemark, pound sterling, Japanese yen, Danish krone and Swedish krona.

Interest rate risk is managed, inter alia, by portfolio diversification and the setting of conservative limits on interest rate risk. The liquidity of the reserve assets is secured by using a wide range of liquid investment instruments. Credit risk is reduced by investing the bulk of the reserves in securities issued

The main items in the convertible reserves at the end of 1998 and changes in the course of the year are shown below:

	Reserve assets 31 Dec 1998	Reserve assets 31 Dec 1997	Change
		FIM million	
Gold	2 180	1 742	438
Special drawing rights	1 770	1 772	–1
IMF reserve tranche	4 255	3 036	1 220
ECU claim on the ECB	–	4 078	–4 078
Foreign exchange assets	43 358	40 827	2 531
Total	51 564	51 455	109

by the governments of the main investment currency countries and in repurchase agreements based on such securities.

The Bank of Finland's convertible reserve assets totalled FIM 51 564 million at the end of 1998, that is roughly the same as one year earlier. In the course of the year, the size of the reserve assets varied owing to debt service payments on the central government's foreign debt and the Bank of Finland's operations in the spot and forward markets. The biggest increase in the reserve assets occurred in the period March–May when the Bank of Finland purchased foreign currency in the spot market to the value of more than FIM 10 billion. These purchases were made against a background of speculation about the revaluation of the Finnish markka and some other ERM currencies, which intensified after a three per cent revaluation of the Irish punt (14 March 1998). The reduction in the reserve assets due to debt service payments on the central government's foreign debt was notably smaller in 1998 than in the previous year. The Bank of Finland transacted FIM 13.3 billion 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

As in previous years, economic developments were monitored on the basis of monthly reports drawn up by the Bank's economists. In-depth macroeconomic forecasts were prepared twice during the year. In the autumn representatives of the Bank of Finland took active part in the first semi-annual forecasting round organized by the ECB. The ultimate aim of the Bank of Finland's economic forecasting and monitoring was to assess the inflation outlook and factors affecting inflation for the EMU area as a whole and for Finland, in particular. It became increasingly necessary to monitor economic developments in the EU countries. Economic and financial instability in Asia and Russia was another area that required special attention.

As in previous years, the Bank of Finland's official assessment of the economic situation and particularly of the prospects for maintaining price stability were published on a quarterly basis in *Markka & talous* and the *Bank of Finland Bulletin*. In addition to its quarterly macroeconomic reports, the Bank started to publish a regular semiannual assessment of financial market stability.

The key tools used for forecasting and policy analysis were the Bank of Finland's econometric macromodel of the Finnish economy (BOF5) and the NIGEM model of the international economy, which the Bank of Finland uses under license. During the year, the Bank of Finland also contributed to the building of the ECB Multicountry model, specifically the block describing Finland.

Strengthening economic research has been identified as one of the key strategic priorities for development at the Bank of Finland. This is based on the judgement that research that is properly oriented, of high quality and internationally recognized is a prerequisite for the Bank's effective and constructive participation in the activities of the ESCB. The Bank's research is also integrated with post-graduate research by staff members so that some of the Bank's research projects are at the same time academic studies, such as doctoral theses, leading to higher degrees.

Economic research conducted by the Research Department focuses on two main areas: the modelling of monetary policy (research programme 1); and the future of the financial services sector (research programme 2).

Research programme 1 is concerned with developing techniques for analysis of the effects of monetary policy. One of the main aims of the programme is to upgrade macroeconomic models used in policy preparation so that they can be used to analyse credibility, expectations and structural change. Projects carried out in the course of the year included studies of the effects of monetary policy uncertainty on economic activity and on statistical estimation techniques of models describing economic behaviour.

Research programme 2 is concerned with analysing major structural changes in the operating environment of central banks. The aim is to shed light on eg the effects of electronification and national and cross-sectoral competition on the tasks of central banks, particularly from the viewpoint of financial market efficiency and stability. Projects in this research area examined, inter alia, linkages between the development of payment networks and bank competition, economies of scale in securities marketplaces and factors affecting the cost-effectiveness of electronic money. A project implemented in the Financial Markets Department led to the development of a model that enables assessment of the operation of gross settlement-based payment systems and the amount of liquidity required by such systems.

Research in the area of banking supervision included studies on defects in the Finnish supervisory system in the light of the savings bank crisis in the early 1990s, the volume of and returns on insider share trades on the HEX Helsinki Exchanges and problems associated with the principle of 'home country control' within the EU's banking supervision framework.

Research findings are released in the form of printed research publications and mimeographed discussion papers. Summaries of research reports and a list of key ongoing research projects are posted on the Bank's Internet website.

Research on economies in transition

The Bank's Unit for Eastern European Economies was renamed the Institute for Economies in Transition with effect from the beginning of 1998. The change of name reflected the Bank's decision to adopt a more analytical approach in the Institute's research, particularly with regard to the economies of Russia and the Baltic States. Reinforcing the research input is naturally a long-term process, but a good start has been made through recruitment of researchers, development of information and information management services, continuous staff training and better utilization of the expertise of visiting researchers from abroad. The Austrian and Finnish central banks are the only ones within the European System of Central Banks to engage in extensive research on the economies in transition. The former focuses on its own neighbouring countries while the Bank of Finland's Institute for Economies in Transition is concerned with Russia and the Baltic States.

As in previous years, analysis and research in 1998 focused on macroeconomic performance and economic policy in Russia and the Baltic States. Particular attention was paid to problems connected with the development of the financial system and the sustainability of fiscal policy, partly because of the current importance of these issues. The European Union's eastward enlargement was another area that attracted considerable attention, notably with regard to the implications for the Baltic States.

Publications by the Institute increased at the beginning of the year when the weekly review of Russia and the Baltic States, which is already well established, was complemented by a monthly review of the Russian economy. Both reviews have wide domestic and international circulation, and the feedback received has been very positive. Particularly the worsening of Russia's economic and financial crisis in the autumn led to a strong increase in the demand for the Institute's expertise.

Statistics and information services

The greatest amount of work in 1998 as regards statistics was caused by preparations to meet the statistical requirements imposed by Economic and Monetary Union. Among the key tasks were harmonization of statistics and adaptation of compilation processes to tight target timetables.

National central banks were required to start submitting monthly statistics on monetary financial institutions to the ECB from July 1998 on the 15th banking day of the month following the reporting month. The data were collected from monetary financial institutions from the beginning of 1998. In addition, the Bank revised the time series for monthly balance sheets back to 1980 so as to make them consistent with the new statistical requirements.

Preparations were made in national data collection for the introduction of the euro in connection with the transition to Stage Three of Economic and Monetary Union. Virati, the task force for cooperation between the Financial Supervision Authority, the Bank of Finland and Statistics Finland, supplied credit institutions with new data collection forms for 1999. New forms were required both because of the introduction of the euro and changes in the formats of the financial statements used by credit institutions.

The submission of monthly data on Finland's balance of payments to the European Monetary Institute, subsequently the European Central Bank, started with the figures for January 1998. The target timetable of six weeks set by the ESCB was met in the early autumn when the National Board of Customs speeded up the compilation of preliminary foreign trade data. In the area of balance of payments statistics preparations were made for implementation in 1999 of the measures required by harmonization of concepts and changes in surveys and information systems. Banks and enterprises reporting for balance of payments purposes were provided with information on upcoming changes and guidance on reporting. The most important change concerns the regional breakdown of the balance of payments into data on euro area countries and data on all other countries. The collection of data for balance of payments statistics relies increasingly on surveys. The Bank of Finland decided to discontinue the collection of data on foreign payments with effect from 1 January 1999. It was also agreed that Statistics Finland would gradually assume responsibility for collection of data on foreign trade in services. This arrangement is part of an agreement with the EU's statistical authority, Eurostat, on the submission of statistical data.

The Bank of Finland library specializes in subjects in the monetary and financial field and provides information services to the Bank. In this endeavour, the library relied increasingly on, for example, publications in electronic form that were accessible via the Internet. The library lends Bank of Finland and ECB publications to outside users.

The size of the Bank's Internet website, opened in 1996, was expanded by increasing the available statistical material and notices on preparations for EMU. The use of the website continued to expand at a brisk pace, with monthly information retrievals amounting to more than 200 000 in the final months of the year.

Information technology

The top priority in 1998 was implementation of the changes to information systems necessitated by the planned transition to Stage Three of EMU. About 70 man-years were required in the Bank as a whole to carry out the necessary projects. Extensive testing ensured that systems were ready to operate in the euro environment. The work culminated in the introduction of an information network linking the national central banks of EU member states (ESCB-Net). Practically all key systems connected with the Bank's activities were affected. Changes were made to the Bank of Finland's settlement account system (BoF-RTGS) to meet the requirements of the TARGET system. At the same time, the system was enhanced by the addition of a queuing facility and a payments transmission facility accessible via the SWIFT network. The new features enabled processing of markka-denominated cross-border payments in the BoF-RTGS system. The Bank's ledger system was updated to make it consistent with the ESCB's harmonized accounting concepts. Major changes were made to the back office system in preparation for the transition to Stage Three. New software was built to meet the needs of collateral management and transmission of statistical data. New information systems were installed to enable ECB interventions and investment of foreign reserve assets. The back-up organization necessitated by the new opening hours in the EMU environment was planned and started up.

To ensure the operational reliability of information systems and data security, system recovery plans were updated and contingency plans were developed. This called for major investment in hardware and software.

The Bank's Year 2000 preparations (Y2K project) advanced as planned. The purpose of the project is to make the Bank of Finland's information systems and embedded systems Year 2000 compliant. In 1998 priority was given to ensuring the Year 2000 compliance of hardware and implementing the relevant changes to applications. Owing to ongoing projects in connection with the changeover to the euro, actual testing will take place in the first half of 1999.

The Bank switched over to the Microsoft Office 97 system. An Intranet concept called Kirstu was introduced for use in in-house communication.

A comparison between Nordic central banks in the area of information technology costs revealed that the Bank of Finland was cost-competitive.

Information and publications

Preparations for transition to Stage Three of Economic and Monetary Union advanced to their final phase in the course of the year, and this was also reflected in the Bank's communication. Confirmation of Finland's entry into Stage Three and the establishment of the European System of Central Banks and the European Central Bank in the early summer increased the need for information on EMU and led to the introduction of new forms of communication.

As a member of the European System of Central Banks, the Bank of Finland has the important task of informing the Finnish public about the ECB's monetary policy and other activities. Accordingly, in 1998 Mr Matti Vanhala, Governor of the Bank of Finland, adopted the practice of briefing representatives of Finnish media on the meetings of the ECB Governing Council in Frankfurt immediately after the press conference given by the ECB President. Finnish and Swedish translations of the press releases issued at the meetings were also published as soon as possible.

The group of individuals that had been trained for wider EMU communication in the previous year delivered lectures on preparations for Stage Three at various functions, both at the Bank and outside. This enabled the Bank's management and experts to focus on actual preparatory work for Stage Three and also opened up new channels of communication for the Bank in EMU-related affairs.

Provision of information on EMU preparations continued in the Bank's publications and on the Internet. Issues related to the start of Stage Three were given wide coverage in the Bank's publications. Publication of the EMU window was continued in *Markka & talous* and on the Bank's Internet website. In the course of the year the Internet became an increasingly important communication channel for the Bank. A large number of enquiries concerning EMU and other issues were received and answers were sent via the Internet. In May the Bank's Communications unit introduced a telephone service providing advice on euro-related matters and opened an e-mail address for enquiries by members of the public.

The Bank's Communications and Publication and Language Services units were actively involved in preparatory work concerning the future communication policy of the European Central Bank and the European System of Central Banks and the practical implementation of communication and publication activities.

Preparations were made in the course of the year to adapt the Bank's publications to the ESCB environment, both as regards their contents and production. From the beginning of 1999 the Finnish-language quarterly *Markka & talous* will have a new name, *Euro & talous*, and the English-language *Bank of Finland Bulletin* will start to be published on a quarterly rather than a monthly basis.

Translation and language revision work continued to increase, in part because of assignments received from the EMI and the ECB. The Bank's Language Services office also had to meet increasing demand from the Financial Supervision Authority and the Institute for Economies in Transition, as well as from the Bank itself.

As concerns the Bank's regular publications, *Markka & talous* appeared four times and the *Bank of Finland Bulletin* 11 times. The annual report was published in Finnish, Swedish and English. The Bank also started to post complete versions of these publications on the Internet from the beginning of the year. The statistical review *Financial Markets* was published on a monthly basis and balance of payments statistics appeared regularly in the statistical bulletin series. Two studies were published in the Bank's A series and six studies, five of which were doctoral theses, were published in the E series. Thirty-one 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 seven times during the year.[1] In addition, a publication dealing with the history of the Helsinki Money Market Center was edited at the Bank.

[1] A list of the Bank of Finland publications in 1998 is included in the Appendices.

In-house Operations, Organization and Staff

Organization

The number of Board members decreased from five to four following the appointment of Ms Sirkka Hämäläinen, Governor of the Bank of Finland, to the Executive Board of the European Central Bank and the appointment of Mr Matti Vanhala, Board Member, as the new Governor of the Bank of Finland.

At the beginning of the year a systematic description was made of the Bank's core functions within the European System of Central Banks, together with an assessment of the changes that this required in the Bank's tasks and decisionmaking. An in-house working group was set up towards the end of the year to examine the need for change in the Bank's organization in the context of the ESCB. The group submitted its proposal to the Board in December 1998.

The scenarios underlying the Bank of Finland's strategic planning were revised. The previous scenarios were refined by assessing particularly the outlook for the financial markets and financial supervision, the operational mode of the European System of Central Banks, the Bank of Finland's role as both an authority and a service-providing bank and its position as a national and European institution. The basis selected for the scenarios was, on the one hand, the question of the geographical concentration of financial markets in the euro area and, on the other hand, the question of the form that the monetary policy role of national central banks would take within the European System of Central Banks.

The strategic policy serving as a guideline for the Bank of Finland's operations over the next few years was updated to meet the requirements of the first year of Stage Three of Economic and Monetary Union. The principles define the Bank's mission, tasks, vision, overall strategy and values. The Bank's mission is to maintain price stability and support other economic policy objectives. In keeping with its vision, the Bank of Finland seeks to be an effective member of the European System of Central Banks and an active influence in Finland. The overall strategy specifies in more detail the key strategic priorities according to which the Bank of Finland will continue to perform demanding tasks in the areas of the single monetary policy, the financial markets and currency supply. The Bank will participate in the preparation and implementation of monetary policy, ensure that financial markets and payment systems develop in such a way that they are secure, efficient and cost-effective from

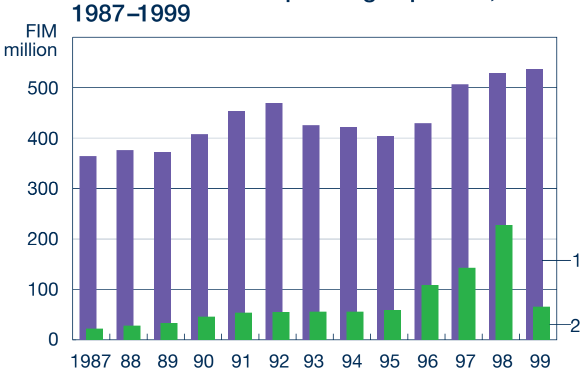
The Bank of Finland's operating expenses and budget, FIM million

	Budgeted 1999[1]	Budgeted 1999	Outturn 1998	Outturn 1997
Expenses				
Salaries and fees	28.7	170.9	163.2	152.0
Pensions	12.2	72.7	66.2	63.0
Social security	2.9	17.2	15.1	25.1
Training	1.5	9.0	6.8	6.7
Travel	1.6	9.5	8.3	6.6
Information technology	4.7	27.8	21.0	14.1
Other purchases of services	4.0	23.6	18.9	22.8
Banknote printing	14.3	84.9	39.8	32.4
Real estate expenses	5.7	33.8	29.7	30.6
Other	4.1	24.3	22.3	23.7
Total	**79.7**	**473.7**	**391.3**	**377.0**
Investment				
Equipment and machinery	5.1	30.5	29.4	50.1
Real estate	5.5	32.9	36.0	22.6
Purchases of real estate and shares held as fixed assets	0.0	0.0	72.0	57.0
Total	**10.6**	**63.3**	**137.4**	**129.7**
Total expenses	**90.3**	**537.1**	**528.7**	**506.6**
Income				
Banking activity	0.5	3.2	0.8	1.2
Maintenance of the currency supply	2.1	12.5	14.1	18.7
Services sold to the Financial Supervision Authority	1.5	9.1	8.5	15.4
Other sales of services	0.2	1.4	1.4	1.7
Real estate	5.5	32.7	29.8	33.9
Sales of real estate and shares held as fixed assets	0.0	0.0	159.6	63.2
Other	1.3	7.5	12.9	8.5
Total income	**11.2**	**66.4**	**227.1**	**142.5**
NET	**79.2**	**470.6**	**301.6**	**364.2**
Institute for Economies in Transition [2]	**1.4**	**8.2**	**5.9**	

[1] In millions of euro; conversion rate: EUR 1 = FIM 5.94573.
[2] Treated as a separate unit in the Bank's budget.

Chart 36.

Bank of Finland's operating expenses, 1987–1999



1. Expenses
2. Income

Finland's point of view and prepare for the secure and cost-effective issuance of euro banknotes and coins.

Personnel

As at the end of 1998 the Bank employed a total of 782.5 staff: 665.5 at the head office; 14 at the Institute for Economies in Transition; and 103 at the branches. This represented an increase of 6.5 in the total number of staff from the previous year. Most of the new staff recruited in the course of the year had fixed-term contracts. Ninety per cent of all employees had permanent positions and 10 per cent were on fixed-term contracts.

Seven people took part in the Bank's Young Professionals training programme for economists, which had started in October 1997. A total of 24 staff participated in in-house job rotation in 1998. A total of 42 staff were on leave of absence and 17 of them were employed by the EMI/ECB.

Special projects

The legal provisions governing the Bank of Finland and its employees (Act on the Bank of Finland) changed with effect from 1 January 1998. The Bank's agreements on terms and conditions of employment covering employees other than top management were renegotiated and converted into collective civil service agreements, and the employer's representatives were redefined to comprise a more limited group of individuals than before, ie Members of the Board, heads of departments and certain other officials engaged in negotiating issues related to collective civil service agreements.

Negotiations launched under collective civil service agreements on changes in the Bank's opening hours necessitated by the transition to the Third Stage of EMU were completed by the end of the year.

A personnel audit, the second of its kind, was conducted in respect of the year 1997. The collection and analysis of data in connection with a personnel audit provide a useful tool for decisionmaking on personnel matters, for personnel development, for anticipating and monitoring effects of decisions and for promoting and maintaining employees' capacity to work. The Bank also participated with almost 60 other organizations in a benchmarking survey examining indicators used for personnel administration. The survey gave a clear indication of the strengths and areas for development in the Bank's personnel policy.

A social climate survey covering the entire staff was carried out, but on a smaller scale than in previous years. The survey focused on staff motivation and ability to withstand job stress under increased work pressures related to preparations for EMU.

The method of conducting performance discussions was revised in early 1998. Individual goal-setting at the start of the year under review was introduced as part of the discussions throughout the Bank's organization.

The Bank's incentive systems were developed through the introduction of a bonus programme on 1 January 1998. During the year, bonuses were awarded under this programme to three projects (involving 16 persons) and 13 individual employees.

The Bank of Finland participated in a recruitment venture for university students, Contact Forum, and a Universum survey of employer images among university students. Both events showed that the Bank of Finland enjoyed a very positive employer image among students.

Training

Staff training at the Bank of Finland focused on the development of professional expertise, language training and interactive skills. Substantial resources were also committed to IT training in connection with the introduction of new office systems. The Bank's training expenditure amounted to FIM 6.8 million (4.2 per cent of payroll). Professional development accounted for 53 per cent, interactive skills (incl. language training) for 21 per cent and IT training for 18 per cent of the total.

A project for improving management was launched with the aim of defining the Bank's core areas of expertise and identifying the need for development in this field.

As in previous years the Bank of Finland continued to support post-graduate studies in the areas of economics and legal science. Some of the Bank's research projects serve both the research needs of the Bank and the individual academic aspirations of staff members. During the year, the preparation of doctoral and licentiate theses at the Bank's Research Department required four man-years, spread over six different projects.

Major topics in economic training included organization of risk management in banks, financial market regulation, theoretical and practical problems associated with monetary policy in EMU and the Bank of Finland's operational functions in the EMU environment. Seminars for economists were also held on domestic and global economic issues of topical interest, euro-related themes and recently completed studies. In addition to in-house training, experts participated actively in external training sessions and seminars both at home and abroad.

The Bank's in-house management training programme continued in 1998, with the focus on heads of office. The programme will continue in 1999, this time with the focus on team leaders.

Seminars on special themes were organized with a view to upgrading interactive and communication skills. Input in language training was also considerable.

In IT training the main emphasis was on adaptation to system changes caused by the transition to the Third Stage of EMU and on learning how to use new office software and Internet techniques. Participants in systems development received backing in the form of system work and support personnel training. IT professionals received support in their studies on distributed systems and the examinations that this involved.

The third Young Professionals training programme for economists, which had started in the previous year, continued in 1998 as planned. The aim of the 18-month programme is to provide the seven participating young economists with the skills necessary for working at the Bank of Finland or in other bodies in the public sector, financial institutions and international organizations. The programme included a training period at foreign central banks.

The Bank provided technical training assistance to central banks of economies in transition both through bilateral cooperation and the EU's Tacis and Phare programmes. In 1998 the Bank arranged a total of nine seminars for visitors from these countries and some of the Bank's experts provided training at the central banks of the countries concerned. Some visits scheduled for autumn 1998 were cancelled owing to the financial crisis in Russia.

Financial Statements

Profit and loss account, FIM million

	1 Jan – 31 Dec 1998		1 Jan – 31 Dec 1997	
INTEREST INCOME				
Domestic (1)				
Liquidity credits	0.0		0.0	
Securities with repurchase commitments	38.3		342.5	
Net interest on domestic forward transactions	50.2		141.8	
Bonds	89.6		118.8	
Other	7.0	185.1	13.4	616.6
Foreign (2)				
IMF	188.3		126.4	
Securities	1 535.2		1 983.3	
Other	806.1	2 529.5	799.0	2 908.8
Total interest income		2 714.6		3 525.4
INTEREST EXPENSE				
Domestic (3)				
Certificates of deposit	–340.9		–1 059.5	
Reserve deposits	–7.7		–8.0	
Investment deposits	–		–2.9	
Other	–	–348.6	–0.0	–1 070.4
Foreign				
IMF	–42.6		–42.3	
Other	–80.1	–122.7	–54.4	–96.6
Total interest expense		–471.4		–1 167.0
INTEREST MARGIN (4)		2 243.3		2 358.4
OTHER CENTRAL BANKING INCOME (5)				
Commissions and fees	15.0		25.4	
Other	201.1	216.0	122.7	148.1
OTHER CENTRAL BANKING EXPENSE (6)				
Salaries	–163.2		–154.6	
Social security costs	–81.3		–84.2	
Purchase of banknotes	–39.8		–32.4	
Depreciation	–137.4		–129.7	
Other	–97.5	–519.1	–89.9	–490.7

	1 Jan – 31 Dec 1998		1 Jan – 31 Dec 1997	
EXPENSE AND INCOME RELATED TO THE FINANCIAL SUPERVISION AUTHORITY (7)				
Salaries	–31.5		–29.4	
Depreciation	–0.1		–0.4	
Other expense	–27.9		–25.7	
Supervision fees charged by the Financial Supervision Authority	59.9	0.0	55.4	0.0
EXPENSE AND INCOME RELATED TO THE INSTITUTE FOR ECONOMIES IN TRANSITION (8)				
Salaries	–3.4		–	
Social security costs	–1.1		–	
Depreciation	–0.1		–	
Other expense	–2.2	–6.8	–	–
PROFIT BEFORE VALUATION ADJUSTMENTS AND PROVISIONS		1 933.8		2 015.7
Valuation gain/loss on foreign securities (9)		256.8		–131.2
Exchange rate gain/loss (10)		–1 575.7		4 977.5
Change in pension provision (11)		–79.9		–76.0
Increase (–) / decrease (+) in provisions (section 30 of the Act on the Bank of Finland) (11)		–535.0		–6 786.0
PROFIT FOR THE FINANCIAL YEAR (12)		0.0		0.0

Balance sheet, FIM million

ASSETS

	31 Dec 1998		31 Dec 1997	
Reserve assets (1)				
Gold	2 180.0		1 742.1	
Special drawing rights	1 770.3		1 771.6	
Other claims on the IMF	4 255.3		3 035.5	
ECU-claim on the European Monetary Institute	–		4 078.3	
Foreign exchange assets	43 358.0	51 563.7	40 827.2	51 454.7
Other foreign claims (1)				
Markka subscription to Finland's quota in the IMF	2 132.5		3 281.0	
Share in the capital of the European Central Bank	415.9	2 548.4	60.8	3 341.8
Claims on financial institutions (2)				
Bonds	62.6		114.3	
Other	19.0	81.6	2 836.5	2 950.8
Claims on the public sector (3)				
Total coinage	2 073.8	2 073.8	2 015.1	2 015.1
Claims on corporations (4)				
Financing of domestic deliveries (KTR)	6.0		26.2	
Other	1 472.8	1 478.8	1 736.0	1 762.2
Other assets (5)				
Accrued items	439.9		528.1	
Other	99.7	539.6	106.6	634.7
Total		58 285.8		62 159.4

LIABILITIES

	31 Dec 1998		31 Dec 1997	
Foreign liabilities (1)				
Allocations of special drawing rights	1 020.5		1 045.8	
IMF markka accounts	2 132.6		3 281.1	
Other	733.2	3 886.3	584.3	4 911.2
Notes and coin in circulation (6)				
Notes	15 740.0		15 922.8	
Coin	1 949.1	17 689.1	1 894.1	17 816.9
Certificates of deposit (7)		4 950.0		10 500.0
Liabilities to financial institutions (8)				
Reserve deposits	12 937.7		7 911.5	
Other	0.0	12 937.7	2 770.0	10 681.5
Liabilities to corporations (9)				
Deposits for investment and ship purchase	5.5	5.5	32.3	32.3
Other liabilities (10)				
Accrued items	251.2		23.2	
Other	37.0	288.1	32.3	55.5
Valuation account (11)		–		257.5
Provisions (12)				
Pension provision	1 690.3		1 600.9	
Other	11 074.6	12 764.9	10 539.6	12 140.5
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		58 285.8		62 159.4

	31 Dec 1998		31 Dec 1997	
Foreign currency futures contracts, FIM million				
Purchase contracts[1]	2 566		22	
Sales contracts[1]	632		1 581	
Shares and other interests, nominal value, FIM million				
(Bank of Finland's holding in parentheses)				
Scopulus Oy	2	(100 %)	2	(100 %)
Setec Oy	16	(40 %)	40	(100 %)
Rahakontti Oy	35	(52 %)[2]	35	(52 %)
HEX Ltd, Helsinki Securities and Derivatives Exchange, Clearing House	9	(7 %)	–	
Finnish Central Securities Depository Ltd (APK)	–		11	(24.44 %)
Bank for International Settlements	58	(1.67 %)	60	(1.67 %)
Shares in housing companies	54		2	
Real estate shares	1		0	
Other shares and interests	4		..	
Total	181		150	
Bank of Finland's liability share in the APK fund, FIM million	1		1	
Liability arising from pension commitments, million FIM				
The Bank of Finland's pension liability	2 060		1 979	
– of which covered by reserves	1 690		1 601	
Financial services office, FIM million				
Deposits	102		94	
Loans	43		43	

[1] Middle rate for the currency on the last business day of the year.
[2] Remaining liquidation dividend FIM 2.5 million.

The Bank of Finland's real estate

Building	Address	Year of completion	Volume m^3 (approx.)
Helsinki	Rauhankatu 16	1883/1961	49 500
	Unioninkatu 33 / Rauhankatu 19	1848/1954	50 500
	Snellmaninkatu 4–6	1857/1892	16 170
	Ramsinniementie 34	1920/1983/1998	4 600
Kuopio	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	1968/1976/1998	6 100

Helsinki, 11 January 1999

THE BOARD OF THE BANK OF FINLAND

Matti Vanhala, Chairman

Esko Ollila   Matti Louekoski   Matti Korhonen

Notes to the financial statements

Accounting principles applied

The Bank of Finland's balance sheet follows a sectoral division that 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 accordance 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 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 1998. All exchange rate differences related to foreign-currency denominated assets or liabilities in balance sheet or off-balance sheet items are entered as profits or losses.

In accordance with the Act on the Bank of Finland, the Parliamentary Supervisory Council confirms the accounting principles applied.

As from 1 January 1999 the Bank of Finland's accounting principles have been harmonized with those of the Eurosystem. This will cause changes, inter alia, in the valuation of balance sheet items and in the layouts for the balance sheet and the profit and loss account.

Notes to the profit and loss account

1. Domestic interest income

Domestic interest income amounted to FIM 185 million. This includes FIM 90 million in interest income on bonds, FIM 50 million in interest income on domestic forward transactions and FIM 38 million in interest income on securities with repurchase commitments.

2. Foreign interest income

Foreign interest income amounted to FIM 2 529 million, which is FIM 380 million less than in 1997.

3. Domestic interest expense

Domestic interest expense amounted to FIM 349 million. It consists mainly of interest expense on CDs issued by the Bank totalling FIM 341 million. Domestic interest expense decreased by FIM 721 million from the previous year.

4. Interest margin

The interest margin amounted to FIM 2 243 million.

5. Other central banking income

Other central banking income amounted to FIM 216 million. It includes FIM 78 million in gains on the sale of shares in Setec Oy, FIM 15 million in commissions and fees, FIM 36 million in dividend income (of which FIM 25 million from Setec Oy), FIM 26 million in rental income and FIM 35 million in liquidation dividend from the dissolution of the Helsinki Money Market Center Ltd. The item also includes FIM 10 million in gains on the sale of branch real estate.

6. Other central banking expense

Salaries amounted to FIM 163 million. Social security costs include FIM 66 million in pension benefits paid.

Purchase of banknotes amounted to FIM 40 million.

In accordance 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 137 million, includes all acquisitions of fixed assets and other long-term expenses for the financial year. Depreciation includes FIM 36 million in the form of expenses for repair and renovation of buildings, FIM 29 million in depreciation on machinery and equipment and FIM 72 million in depreciation in respect of acquisitions of real estate.

7. Expense and income related to the Financial Supervision Authority

The operating costs (salaries, depreciation, other expense) of the Financial Supervision Authority, which operates in connection with the Bank, are shown as separate items in the Bank's profit and loss account. These costs, which amounted to FIM 60 million, are covered by supervision fees subsequently collected from supervised entities.

8. Expense and income related to the Institute for Economies in Transition

The operating costs of the Institute for Economies in Transition are shown as separate items in the Bank's profit and loss account.

9. Valuation gain/loss on foreign securities

Valuation gain/loss on foreign securities includes gains and losses on sales of securities and, for securities holdings, the amortized premium or discount and the difference between the acquisition price (adjusted by the amortized premium/discount) and the market value, if the market value is lower. A net valuation gain of FIM 257 million was entered in respect of foreign securities in 1998.

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 1998 exchange rate losses, which amounted to FIM 1 576 million, were mainly due to changes in the value of foreign exchange assets.

11. Changes in provisions

Employees' employment pension contributions totalling FIM 10 million were collected from salaries during 1998 and transferred to the pension provision. In addition, the pension provision was increased by the interest calculated on employees' pension contributions and pension provisions made in prior years. Up to 14 December interest was calculated at the rate of 5 per cent and, as from 15 December, at 4.5 per cent. The pension provision was increased by a total of FIM 80 million.

The provision in accordance with section 30 of the Act on the Bank of Finland was increased by FIM 535 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 at the value of FIM 35/g. On 31 December 1998 the market price of gold was FIM 47.10/g and the Bank's holdings of gold totalled 62 284 kilos.

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 accordance with IMF practice. Other foreign claims also include Finland's ECU-denominated share in the capital of the European Central Bank.

Foreign exchange assets consist mainly of foreign securities issued or guaranteed by governments and foreign bank deposits. The item also includes foreign sight accounts and 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 accepted as underlying assets in repo transactions in the financial year 1998 comprised markka-denominated Treasury bills, benchmark government bonds, Bank of Finland CDs, debt instruments issued by the asset management company Arsenal and banks' CDs accepted as underlying assets in money market operations.

Bonds issued by financial institutions are generally held for investment purposes and are valued at nominal value.

In the financial year 1997 other claims on financial institutions consisted mainly of temporary credits and corresponding deposits against which the Bank had 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 87 million in employee housing loans. At end-1998 the interest rate on old housing loans was 3.5 per cent while that on loans granted after 16 February 1993 was 5.00 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 were used in money market operations and were valued at nominal value. The difference between nominal value and issue price was entered as an accrued item and allocated to interest expense over the maturity of the instrument.

8. Liabilities to financial institutions

Banks with a settlement account at the Bank of Finland could meet their minimum reserve requirements by maintaining the monthly averages of their daily current account balances at least as high as the minimum reserve requirement. Alternatively, banks could use a separate minimum reserve account.

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 concluded with the European Monetary Institute. The last ECU swap matured on 31 December 1998.

12. Provisions

The Bank of Finland's pension liabilities total FIM 2 060 million; 82 per cent of this amount, FIM 1 690 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 11 075 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 1998 in accordance with 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, 11 February 1999

AUDITORS OF THE BANK OF FINLAND

Johannes Leppänen

Reino Majala
Authorized Public Accountant

Iivo Polvi
Chartered Public Finance Auditor,
Approved Auditor

Matti Saarinen

Martti Tiuri

./. Kalervo Virtanen
Authorized Public Accountant

Appendices

Measures concerning monetary and foreign exchange policy and the financial markets

January	**Finnish deposit guarantee scheme revised** The Finnish deposit guarantee scheme was revised at the beginning of 1998 with the entry into force of amendments to the Credit Institutions Act (1229/97). All deposit banks were henceforth required to belong to a common deposit guarantee fund. Instead of the full protection provided previously, the guarantee was now limited to a maximum of FIM 150 000 per depositor per bank.
March	**Tender rate** On 19 March the Bank of Finland raised its tender rate from 3.25 per cent to 3.40 per cent. In addition, the interest rate on banks' excess reserves was raised from 1.25 per cent to 1.40 per cent.
April	**Abolition of stamp tax on lending** Parliament abolished stamp tax on lending and mortgages with respect to agreements concluded on or after 29 April 1998.
December	**Tender rate and base rate** On 3 December the Bank of Finland lowered the tender rate from 3.4 per cent to 3.0 per cent. In this connection, the Bank lowered the interest rate on excess reserves from 1.4 per cent to 1.0 per cent. It is also decided to lower the base rate from 4.0 per cent to 3.5 per cent with effect from 15 December.

Main opinions issued by the Bank of Finland 1998

Opinions concerning the financial markets

- To the Ministry of Finance concerning organization of banking and insurance supervision in Finland, 9 January.
- To the Financial Supervision Authority concerning guidelines and regulations on the annual accounts and consolidated accounts of credit institutions and investment firms, 15 January.
- To the Financial Supervision Authority concerning revision of its guidelines and regulations, 26 January.
- To the Ministry of Trade and Industry concerning a proposal for an act on state-owned specialized financing companies and related legislation, 11 February.
- To the Ministry of Finance concerning a memorandum of the prime rate working group, 23 February.
- To the Ministry of Finance concerning a memorandum of the Securities 2000 group, 20 March.
- To the Asset Management Company Arsenal Ltd concerning the eligibility of debt instruments, 3 April.
- To the Financial Supervision Authority concerning disclosure by credit institutions of their close links and significant holdings, 7 April.
- To the Ministry of Justice concerning legislation on guarantees and pledges on another party's behalf, 15 April.
- To the Ministry of Justice concerning a proposal for an Act on credit transfers, 25 May.
- To the Financial Supervision Authority concerning a regulation on interim reports of deposit banks, 25 May.
- To the Financial Supervision Authority concerning revision of supervision fees in respect of capital market participants, 1 June.
- To the Ministry of Finance concerning amendment of the Act on the Book Entry System and related legislation, 5 June.
- To the Ministry of Finance concerning amendment of the Securities Markets Act and related legislation, 16 June and 4 September.
- To the Ministry of Finance concerning revision of the rules of HEX Ltd, Helsinki Securities and Derivatives Exchange, Clearing House, 17 August and 22 October.
- To the Ministry of Finance concerning determination of the length of the currency exchange period starting from 1 January 2002, 27 August.
- To the Ministry of Trade and Industry concerning safeguarding the capital structures of employment pension institutions and small and medium-sized enterprises, 27 August.

- To the Ministry of Finance concerning draft rules for the investor compensation fund, 31 August.
- To the Ministry of Social Affairs and Health concerning a proposal for the establishment of an insurance supervision authority, 7 September.
- To the Ministry of Justice concerning a memorandum on a recommendation by the European Commission concerning electronic payments, with special reference to the relationship between issuer and holder, 15 September.
- To the Ministry of Finance concerning revision of the Mutual Funds Act, 18 September.
- To the Ministry of Finance concerning extension of the validity of the Act on Restrictions on the Use of Index Clauses, 14 October.
- To the Ministry of Finance concerning granting an authorization to the central securities depository Suomen Arvopaperikeskus Oy and confirmation of its rules and loss-sharing agreements, 23 November.
- To the Ministry of Finance concerning confirmation of amendments to the rules of the central securities depository Suomen Arvopaperikeskus Oy and the merger of its fund safeguarding registration operations and its fund safeguarding clearing and settlement functions, 2 December.
- To the Ministry of Finance concerning its proposal for a decision on certain interest rates used as reference rates, 15 December.

Other opinions

- To the Ministry of Justice concerning the report of a working group on revision of the provisions on impeachment of higher-ranking civil servants, 19 January.
- To the Ministry of Justice concerning a proposal for amending the Companies Act and related legislation, 19 March.
- To the Finnish Competition Authority concerning the terms and conditions governing the use of bank cards, 27 March.
- To the Ministry of Finance concerning the issue of a commemorative coin in honour of the 250th anniversary of the sea fortress Suomenlinna, 3 April.
- To the Ministry for Foreign Affairs concerning an investment protection agreement between Finland and South Africa, 8 May.
- To the Ministry for Foreign Affairs concerning an investment protection agreement between Finland and Morocco, 9 June.
- To the Ministry of Education concerning determination of maximum interest rates and service charges on study loans, 26 November.
- To the Ministry for Foreign Affairs concerning an investment protection agreement between Finland and Pakistan, 29 December.

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, 1998, FIM million

ASSETS

	I	II	III
Reserve assets	**49 709**	**48 510**	**44 567**
Gold	1 742	1 742	1 742
Special drawing rights	1 323	1 230	1 680
Other claims on the IMF	3 065	3 389	3 399
ECU-claim on the European Monetary Institute	3 310	3 318	3 334
Foreign exchange assets	40 268	38 830	34 412
Other foreign claims	**3 342**	**3 028**	**3 027**
Markka subscription to Finland's quota in the IMF	3 281	2 967	2 966
Share in the capital of the European Central Bank	61	61	61
Claims on financial institutions	**2 085**	**3 803**	**153**
Securities with repurchase commitments	1 929	3 648	–
Bonds	99	99	97
Other	58	56	56
Claims on the public sector	**2 019**	**2 020**	**2 017**
Total coinage	2 019	2 020	2 017
Claims on corporations	**1 762**	**1 757**	**1 754**
Financing of domestic deliveries (KTR)	26	21	18
Other	1 736	1 736	1 736
Other assets	**616**	**523**	**461**
Accrued items	513	422	346
Other	102	101	115
Total	**59 532**	**59 641**	**51 979**

IV	V	VI	VII	VIII	IX	X	XI	XII
46 414	**48 626**	**51 950**	**52 753**	**52 175**	**46 152**	**47 142**	**51 713**	**51 564**
1 742	1 742	1 742	1 742	1 742	1 742	1 742	1 742	2 180
1 558	1 203	1 714	1 664	1 600	1 726	1 357	1 258	1 770
3 351	3 541	3 588	3 521	3 538	3 970	3 999	4 050	4 255
2 727	2 721	2 735	2 917	2 923	2 912	2 610	2 614	–
37 034	39 418	42 171	42 910	42 372	35 802	37 433	42 049	43 358
3 027	**2 786**	**2 792**	**3 147**	**3 155**	**2 601**	**2 599**	**2 618**	**2 548**
2 966	2 725	2 731	2 728	2 735	2 183	2 183	2 201	2 132
61	61	61	419	420	418	416	417	416
132	**2 094**	**5 403**	**2 826**	**115**	**103**	**84**	**84**	**82**
–	1 962	5 286	2 711	–	–	–	–	–
93	93	78	77	77	65	65	65	63
39	39	39	39	39	39	19	19	19
2 019	**2 024**	**2 026**	**2 026**	**2 026**	**2 033**	**2 039**	**2 061**	**2 074**
2 019	2 024	2 026	2 026	2 026	2 033	2 039	2 061	2 074
1 750	**1 620**	**1 620**	**1 620**	**1 615**	**1 612**	**1 612**	**1 481**	**1 479**
14	14	14	14	9	6	6	6	6
1 736	1 606	1 606	1 606	1 606	1 606	1 606	1 475	1 473
542	**497**	**527**	**552**	**563**	**538**	**613**	**537**	**540**
444	397	413	455	467	442	517	428	440
99	100	114	97	96	96	96	109	100
53 883	**57 647**	**64 317**	**62 924**	**59 649**	**53 039**	**54 088**	**58 495**	**58 286**

Table 1. (cont.)

LIABILITIES

	I	II	III
Foreign liabilities	**4 731**	**4 441**	**4 389**
Allocations of special drawing rights	1 056	1 060	1 063
IMF markka accounts	3 281	2 967	2 966
Other	394	414	360
Notes and coin in circulation	**16 416**	**16 274**	**16 190**
Notes	14 564	14 424	14 338
Coin	1 852	1 850	1 852
Certificates of deposit	**13 740**	**9 360**	**3 100**
Liabilities to financial institutions	**5 642**	**10 365**	**8 417**
Reserve deposits	5 642	10 365	8 417
Other	0	0	0
Liabilities to corporations	**23**	**21**	**18**
Deposits for investment and ship purchase	23	21	18
Other liabilities	**45**	**64**	**41**
Accrued items	14	34	10
Other	31	30	31
Valuation account	**1 030**	**1 211**	**1 919**
Provisions	**12 140**	**12 140**	**12 140**
Pension provision	1 601	1 601	1 601
Other	10 540	10 540	10 540
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	**59 532**	**59 641**	**51 979**

IV	V	VI	VII	VIII	IX	X	XI	XII
4 638	**4 200**	**4 264**	**4 196**	**4 306**	**3 759**	**4 003**	**4 240**	**3 886**
1 048	1 032	1 046	1 026	1 033	1 001	1 008	1 025	1 021
2 966	2 725	2 731	2 729	2 736	2 183	2 183	2 201	2 133
624	442	487	441	538	574	812	1 013	733
16 845	**16 909**	**16 932**	**17 178**	**17 047**	**16 634**	**16 735**	**16 749**	**17 689**
14 973	15 030	15 039	15 271	15 142	14 733	14 837	14 839	15 740
1 872	1 879	1 894	1 906	1 905	1 900	1 899	1 910	1 949
6 900	**12 820**	**15 350**	**16 900**	**7 800**	**9 110**	**9 450**	**14 000**	**4 950**
6 255	**5 089**	**8 326**	**6 131**	**11 710**	**5 702**	**5 636**	**4 763**	**12 938**
6 255	5 089	8 326	6 131	11 710	5 701	5 636	4 762	12 938
0	0	0	0	0	0	1	1	0
13	**13**	**12**	**12**	**10**	**9**	**8**	**8**	**5**
13	13	12	12	10	9	8	8	5
135	**143**	**50**	**78**	**102**	**298**	**174**	**60**	**288**
98	110	10	44	55	257	133	7	251
37	33	40	35	46	41	41	53	37
1 192	**570**	**1 479**	**525**	**769**	**–377**	**176**	**769**	**–**
12 140	**12 140**	**12 140**	**12 140**	**12 140**	**12 140**	**12 140**	**12 140**	**12 765**
1 601	1 601	1 601	1 601	1 601	1 601	1 601	1 601	1 690
10 540	10 540	10 540	10 540	10 540	10 540	10 540	10 540	11 075
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
53 883	**57 647**	**64 317**	**62 924**	**59 649**	**53 039**	**54 088**	**58 495**	**58 286**

Table 2.

Bank of Finland's reserve assets and forward exchange position[1], FIM million

	Gold	Special drawing rights	Other claims on the IMF	ECU-claim on the European Monetary Institute	Foreign exchange assets	Reserve assets	Forward purchase contracts, net	Reserve assets and forward position
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
1998	2 180	1 770	4 255	–	43 358	51 564	–	51 564
1998								
January	1 742	1 323	3 065	3 310	40 268	49 709	–	49 709
February	1 742	1 230	3 389	3 318	38 830	48 510	–	48 510
March	1 742	1 680	3 399	3 334	34 412	44 567	2 766	47 333
April	1 742	1 558	3 351	2 727	37 034	46 414	2 211	48 625
May	1 742	1 203	3 541	2 721	39 418	48 626	9 150	57 776
June	1 742	1 714	3 588	2 735	42 171	51 950	5 382	57 332
July	1 742	1 664	3 521	2 917	42 910	52 753	2 981	55 734
August	1 742	1 600	3 538	2 923	42 372	52 175	2 999	55 174
September	1 742	1 726	3 970	2 912	35 802	46 152	2 999	49 151
October	1 742	1 357	3 999	2 610	37 433	47 142	1 620	48 762
November	1 742	1 258	4 050	2 614	42 049	51 713	–	51 713
December	2 180	1 770	4 255	–	43 358	51 564	–	51 564

[1] At middle spot rates.

Table 3.

Markka's exchange rate against the ECU and the trade-weighted currency index[1]

	Markka's exchange rate against the ECU	Trade-weighted currency index, 1982 = 100
1994	6.19108	123.2
1995	5.70936	111.6
1996	5.83028	115.3
1997	5.88125	118.4
1998	5.98215	119.0
1998		
January	5.98008	120.1
February	5.98982	120.4
March	6.00921	121.3
April	6.00867	121.2
May	5.98172	119.9
June	5.99629	119.6
July	5.99793	119.6
August	5.99022	118.6
September	5.97723	117.3
October	5.95189	116.0
November	5.95293	116.9
December	5.94980	116.5

[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
15.12.1998	3.50

Table 5.

Bank of Finland's minimum reserve system[1]

	Reserve requirement, % On deposits payable on demand	On other deposits	On other items	Required reserves, FIM million	Excess reserves, FIM million	Total reserves, FIM million
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
1998	2.0	1.5	1.0	6 994	601	7 595
1998						
January	2.0	1.5	1.0	6 995	321	7 317
February	2.0	1.5	1.0	6 947	147	7 095
March	2.0	1.5	1.0	6 947	895	7 842
April	2.0	1.5	1.0	6 866	198	7 065
May	2.0	1.5	1.0	6 834	1 197	8 031
June	2.0	1.5	1.0	6 918	179	7 098
July	2.0	1.5	1.0	6 985	115	7 100
August	2.0	1.5	1.0	7 015	293	7 308
September	2.0	1.5	1.0	7 053	547	7 600
October	2.0	1.5	1.0	7 231	269	7 501
November	2.0	1.5	1.0	7 115	724	7 839
December	2.0	1.5	1.0	7 019	2 329	9 348

[1] Daily average as from 2 October 1995.

Table 6.

Bank of Finland's standing facilities[1]

	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, FIM million
1994	5.11	1994	2.00	7	–2.00	.	14
1995	5.63	1995 I–IX	2.00	7	–2.00	.	123
		1995 I–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
1998	3.34	1998	2.00	1	.	1.00	0
1998		**1998**					
January	3.25	January	2.00	1	.	1.25	–
February	3.25	February	2.00	1	.	1.25	–
March	3.31	March	2.00	1	.	1.40	0
April	3.40	April	2.00	1	.	1.40	–
May	3.40	May	2.00	1	.	1.40	3
June	3.40	June	2.00	1	.	1.40	–
July	3.40	July	2.00	1	.	1.40	–
August	3.40	August	2.00	1	.	1.40	–
September	3.40	September	2.00	1	.	1.40	0
October	3.40	October	2.00	1	.	1.40	0
November	3.40	November	2.00	1	.	1.40	–
December	3.04	December	2.00	1	.	1.00	0

[1] The values for the tender rate and liquidity credit are arithmetic means of values for calendar days. The values for the interest rate margin (against the tender rate), maturity and excess reserve rate are end-of-period values.

Table 7.

Domestic interest rates[1], 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
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
1998	3.47	3.51	3.57	3.64	3.70	3.75	4.6	5.0	4.30	4.78
1998										
January	3.30	3.39	3.48	3.63	3.76	3.86	5.0	5.5	4.64	5.30
February	3.29	3.35	3.42	3.56	3.64	3.74	4.9	5.4	4.46	5.16
March	3.36	3.40	3.47	3.58	3.66	3.76	4.9	5.4	4.39	5.04
April	3.50	3.57	3.63	3.75	3.84	3.93	4.9	5.4	4.50	5.01
May	3.57	3.64	3.75	3.86	3.95	4.04	4.9	5.5	4.60	5.08
June	3.54	3.62	3.73	3.83	3.91	3.99	4.9	5.4	4.50	4.95
July	3.51	3.57	3.67	3.76	3.85	3.92	4.8	5.2	4.56	4.86
August	3.51	3.55	3.61	3.70	3.77	3.83	4.6	4.9	4.37	4.68
September	3.50	3.52	3.54	3.59	3.63	3.66	4.3	4.6	4.06	4.45
October	3.52	3.53	3.54	3.54	3.53	3.53	4.0	4.3	3.98	4.45
November	3.57	3.59	3.61	3.58	3.55	3.54	4.1	4.4	3.96	4.41
December	3.39	3.38	3.37	3.34	3.33	3.31	3.9	4.2	3.64	4.06

[1] Daily averages.

Table 8.

Bank of Finland's money market operations[1], FIM million

	Purchases of money market instruments	Sales of money market instruments	Matured transactions, net	Money market operations, net
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
1998	26 880	–253 055	231 695	5 520
1998				
January	2 000	–30 040	27 770	–270
February	4 280	–23 540	19 260	–
March	–	–7 000	9 610	2 610
April	–	–10 400	7 850	–2 550
May	2 000	–17 870	10 650	–5 220
June	5 350	–25 365	20 365	350
July	3 750	–37 300	29 970	–3 580
August	–	–21 800	29 180	7 380
September	–	–21 780	20 520	–1 260
October	6 000	–22 160	16 390	230
November	–	–23 550	17 000	–6 550
December	3 500	–12 250	23 130	14 380

+ increases liquidity in the money market.
– reduces liquidity in the money market.
[1] According to trade date.

Table 9.

Bank of Finland's spot transactions[1] in the foreign exchange market, FIM million

	Purchases of foreign exchange (+)	Sales of foreign exchange (–)	Spot transactions, net
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
1998	10 190	–4 420	5 770
1998			
January	–	–	–
February	–	–	–
March	5 330	–	5 330
April	4 860	–	4 860
May	–	–	–
June	–	–	–
July	–	–	–
August	–	–530	–530
September	–	–3 890	–3 890
October	–	–	–
November	–	–	–
December	–	–	–

\+ increases liquidity in the money market.
– reduces 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, FIM million

	Forward sales of foreign exchange (+)	Matured forward sales	Forward purchases of foreign exchange (–)	Matured forward purchases	Forward transactions, net
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
1998	–	–	–13 310	13 100	–210
1998					
January	–	–	–	–	–
February	–	–	–	–	–
March	–	–	–2 780	–	–2 780
April	–	–	–	540	540
May	–	–	–7 520	540	–6 980
June	–	–	–	3 790	3 790
July	–	–	–1 380	3 850	2 470
August	–	–	–1 630	1 630	–
September	–	–	–	–	–
October	–	–	–	1 210	1 210
November	–	–	–	1 540	1 540
December	–	–	–	–	–

\+ increases liquidity in the money market.
– reduces 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, values in FIM

Currency	1993			1994			1995		
	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min
1 USD, New York	6.061	5.719	5.294	5.7999	5.2184	4.5345	4.8071	4.3658	4.1839
1 CAD, Montreal	4.865	4.434	4.163	4.412	3.824	3.351	3.424	3.181	3.029
1 GBP, London	8.963	8.582	8.039	8.596	7.982	7.363	7.556	6.891	6.515
1 IEP, Dublin	9.101	8.371	7.996	8.284	7.799	7.238	7.476	6.999	6.728
1 SEK, Stockholm	0.8106	0.7350	0.6826	0.7076	0.6758	0.6339	0.6576	0.6123	0.5713
1 NOK, Oslo	0.8585	0.8059	0.7648	0.7744	0.7393	0.6900	0.7148	0.6889	0.6714
1 DKK, Copenhagen	0.9527	0.8822	0.8296	0.8590	0.8207	0.7705	0.7942	0.7790	0.7608
1 ISK, Reykjavik	0.0924	0.0846	0.0788	0.0797	0.0745	0.0682	0.0708	0.0674	0.0648
1 DEM, Frankfurt	3.6450	3.4584	3.2704	3.3625	3.2169	3.0115	3.1595	3.0471	2.9465
1 NLG, Amsterdam	3.2395	3.0787	2.9102	3.0028	2.8684	2.6862	2.8201	2.7202	2.6334
1 BEF, Brussels	0.1767	0.1655	0.1580	0.1635	0.1561	0.1463	0.1533	0.1481	0.1435
1 CHF, Zurich	4.1700	3.8706	3.6253	4.0067	3.8179	3.5755	3.8405	3.6941	3.5426
1 FRF, Paris	1.0756	1.0096	0.9581	0.9853	0.9406	0.8749	0.9044	0.8748	0.8562
1 ITL, Rome	0.00394	0.00364	0.00337	0.00345	0.00324	0.00290	0.00296	0.00268	0.00247
1 ATS, Vienna	0.5182	0.4916	0.4653	0.4779	0.4573	0.4275	0.4490	0.4331	0.4189
1 PTE, Lisbon	0.0402	0.0356	0.0326	0.0328	0.0314	0.0294	0.0303	0.0291	0.0284
1 ESP, Madrid	0.0512	0.0451	0.0405	0.0408	0.0390	0.0357	0.0361	0.0350	0.0336
1 GRD, Athens	0.0270	0.0250	0.0230	0.0230	0.0215	0.0195	0.0201	0.0189	0.0180
1 EEK, Tallinn	0.4556	0.4323	0.4088	0.4203	0.4021	0.3764	0.3949	0.3809	0.3683
1 JPY, Tokyo	0.05827	0.05168	0.04263	0.05436	0.05106	0.04672	0.05222	0.04663	0.04106
1 AUD, Melbourne	4.306	3.885	3.569	4.102	3.814	3.330	3.683	3.238	3.022
1 KRW, Seoul	.	.	.	.	.	.	.	.	.
1 special drawing right (SDR)	8.33894	7.98671	7.31083	7.93658	7.46629	6.77181	6.99188	6.61879	6.27940
1 XEU (ECU, official)	7.09113	6.69567	6.39406	6.48523	6.19123	5.76407	5.94442	5.70826	5.56099
1 XEU (ECU, commercial)	7.101	6.685	6.380	6.475	6.175	5.729	5.919	5.644	5.457

Currency	1996 Max	1996 Avg	1996 Min	1997 Max	1997 Avg	1997 Min	1998 Max	1998 Avg	1998 Min
1 USD, New York	4.8487	4.5905	4.3311	5.6120	5.1944	4.6290	5.6275	5.3415	4.8383
1 CAD, Montreal	3.559	3.367	3.181	4.064	3.753	3.368	3.966	3.607	3.185
1 GBP, London	7.869	7.164	6.711	9.093	8.506	7.795	9.401	8.847	8.310
1 IEP, Dublin	7.788	7.345	6.932	8.105	7.871	7.647	7.750	7.609	7.516
1 SEK, Stockholm	0.7154	0.6847	0.6483	0.7016	0.6799	0.6533	0.7096	0.6721	0.6188
1 NOK, Oslo	0.7377	0.7111	0.6833	0.7611	0.7339	0.7069	0.7416	0.7078	0.6462
1 DKK, Copenhagen	0.8218	0.7921	0.7762	0.7950	0.7859	0.7679	0.8011	0.7977	0.7927
1 ISK, Reykjavik	0.0723	0.0689	0.0664	0.0771	0.0732	0.0692	0.0772	0.0751	0.0711
1 DEM, Frankfurt	3.1685	3.0530	2.9820	3.0295	2.9939	2.9250	3.0450	3.0381	3.0195
1 NLG, Amsterdam	2.8313	2.7247	2.6569	2.6955	2.6603	2.6038	2.7011	2.6953	2.6799
1 BEF, Brussels	0.1542	0.1484	0.1447	0.1468	0.1451	0.1419	0.1477	0.1473	0.1464
1 CHF, Zurich	3.9216	3.7211	3.4382	3.7575	3.5785	3.3543	3.7744	3.6880	3.5934
1 FRF, Paris	0.9383	0.8978	0.8777	0.9053	0.8894	0.8673	0.9082	0.9062	0.9014
1 ITL, Rome	0.00311	0.00298	0.00276	0.00309	0.00305	0.00296	0.00309	0.00308	0.00306
1 ATS, Vienna	0.4506	0.4340	0.4238	0.4307	0.4255	0.4158	0.4330	0.4318	0.4293
1 PTE, Lisbon	0.0310	0.0298	0.0290	0.0301	0.0296	0.0291	0.0298	0.0297	0.0295
1 ESP, Madrid	0.0382	0.0363	0.0353	0.0359	0.0355	0.0348	0.0360	0.0358	0.0356
1 GRD, Athens	0.0199	0.0191	0.0180	0.0193	0.0190	0.0187	0.0192	0.0181	0.0172
1 EEK, Tallinn	0.3961	0.3816	0.3728	0.3787	0.3742	0.3656	0.3806	0.3798	0.3774
1 JPY, Tokyo	0.04635	0.04225	0.03961	0.04797	0.04303	0.03959	0.04482	0.04095	0.03681
1 AUD, Melbourne	3.843	3.593	3.224	4.128	3.859	3.477	3.811	3.363	2.916
1 KRW, Seoul	.	.	.	.	.	.	0.00448	0.00385	0.00303
1 special drawing right (SDR)	7.01119	6.66357	6.41782	7.54512	7.14420	6.66645	7.49896	7.24306	6.87908
1 XEU (ECU, official)	6.05011	5.82852	5.68470	5.99013	5.88129	5.72221	6.02931	5.98212	5.94088
1 XEU (ECU, commercial)	5.961	5.751	5.543	6.003	5.864	5.703	6.041	5.994	5.950

Table 12.

Foreign exchange rates: monthly middle spot rates in 1998, values in FIM

Currency	January			February			March		
	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min
1 USD, New York	5.5649	5.4948	5.3651	5.5600	5.5022	5.4358	5.6059	5.5420	5.4736
1 CAD, Montreal	3.877	3.815	3.697	3.888	3.835	3.773	3.948	3.913	3.834
1 GBP, London	9.105	8.988	8.855	9.071	9.018	8.918	9.401	9.203	9.059
1 IEP, Dublin	7.750	7.599	7.524	7.620	7.573	7.516	7.634	7.584	7.531
1 SEK, Stockholm	0.6899	0.6858	0.6803	0.6860	0.6812	0.6754	0.7055	0.6956	0.6881
1 NOK, Oslo	0.7416	0.7333	0.7276	0.7314	0.7282	0.7255	0.7379	0.7311	0.7263
1 DKK, Copenhagen	0.7954	0.7946	0.7927	0.7967	0.7958	0.7944	0.7967	0.7962	0.7952
1 ISK, Reykjavik	0.0762	0.0755	0.0740	0.0769	0.0760	0.0749	0.0772	0.0764	0.0759
1 DEM, Frankfurt	3.0290	3.0268	3.0195	3.0365	3.0328	3.0275	3.0365	3.0348	3.0315
1 NLG, Amsterdam	2.6886	2.6859	2.6799	2.6936	2.6908	2.6861	2.6942	2.6927	2.6899
1 BEF, Brussels	0.1469	0.1467	0.1464	0.1471	0.1470	0.1467	0.1472	0.1471	0.1470
1 CHF, Zurich	3.7533	3.7261	3.6979	3.7744	3.7570	3.7345	3.7537	3.7242	3.6825
1 FRF, Paris	0.9050	0.9038	0.9014	0.9057	0.9048	0.9033	0.9067	0.9053	0.9045
1 ITL, Rome	0.00308	0.00308	0.00306	0.00308	0.00307	0.00307	0.00309	0.00308	0.00307
1 ATS, Vienna	0.4307	0.4303	0.4293	0.4315	0.4311	0.4303	0.4318	0.4314	0.4309
1 PTE, Lisbon	0.0296	0.0296	0.0295	0.0297	0.0296	0.0296	0.0297	0.0297	0.0296
1 ESP, Madrid	0.0358	0.0357	0.0356	0.0359	0.0358	0.0357	0.0358	0.0358	0.0357
1 GRD, Athens	0.0192	0.0192	0.0191	0.0192	0.0192	0.0191	0.0192	0.0182	0.0172
1 EEK, Tallinn	0.3786	0.3784	0.3774	0.3796	0.3791	0.3784	0.3796	0.3794	0.3789
1 JPY, Tokyo	0.04361	0.04253	0.04118	0.04482	0.04377	0.04279	0.04382	0.04298	0.04204
1 AUD, Melbourne	3.717	3.611	3.512	3.811	3.711	3.651	3.761	3.712	3.672
1 KRW, Seoul	0.00363	0.00325	0.00303	0.00357	0.00340	0.00324	0.00407	0.00373	0.00340
1 special drawing right (SDR)	7.45208	7.38238	7.29766	7.47469	7.42807	7.37779	7.48887	7.44954	7.40863
1 XEU (ECU, official)	5.98724	5.98008	5.97213	5.99703	5.98982	5.97985	6.02568	6.00921	5.99718
1 XEU (ECU, ccommercial)	5.994	5.978	5.963	6.003	5.989	5.971	6.031	6.018	6.003

Currency	April Max	April Avg	April Min	May Max	May Avg	May Min	June Max	June Avg	June Min
1 USD, New York	5.6275	5.5063	5.4339	5.4246	5.3917	5.3511	5.5164	5.4430	5.3708
1 CAD, Montreal	3.966	3.854	3.778	3.785	3.732	3.679	3.755	3.717	3.692
1 GBP, London	9.398	9.205	9.053	9.047	8.830	8.727	9.188	8.973	8.794
1 IEP, Dublin	7.663	7.651	7.633	7.668	7.650	7.638	7.669	7.659	7.650
1 SEK, Stockholm	0.7096	0.7039	0.6985	0.7087	0.7009	0.6908	0.6948	0.6891	0.6813
1 NOK, Oslo	0.7345	0.7312	0.7289	0.7318	0.7242	0.7165	0.7236	0.7192	0.7159
1 DKK, Copenhagen	0.7971	0.7960	0.7951	0.7981	0.7975	0.7961	0.7984	0.7979	0.7973
1 ISK, Reykjavik	0.0772	0.0764	0.0758	0.0761	0.0756	0.0751	0.0771	0.0763	0.0755
1 DEM, Frankfurt	3.0370	3.0356	3.0335	3.0395	3.0391	3.0385	3.0400	3.0394	3.0390
1 NLG, Amsterdam	2.6979	2.6957	2.6941	2.6981	2.6970	2.6962	2.6973	2.6966	2.6955
1 BEF, Brussels	0.1474	0.1471	0.1469	0.1473	0.1473	0.1473	0.1474	0.1473	0.1473
1 CHF, Zurich	3.6800	3.6565	3.6378	3.6726	3.6485	3.6290	3.6766	3.6460	3.6048
1 FRF, Paris	0.9064	0.9055	0.9047	0.9072	0.9063	0.9058	0.9074	0.9066	0.9062
1 ITL, Rome	0.00308	0.00307	0.00307	0.00308	0.00308	0.00308	0.00309	0.00309	0.00308
1 ATS, Vienna	0.4318	0.4315	0.4311	0.4321	0.4319	0.4316	0.4321	0.4320	0.4319
1 PTE, Lisbon	0.0297	0.0296	0.0296	0.0297	0.0297	0.0296	0.0297	0.0297	0.0296
1 ESP, Madrid	0.0358	0.0357	0.0357	0.0358	0.0358	0.0358	0.0358	0.0358	0.0357
1 GRD, Athens	0.0176	0.0174	0.0172	0.0177	0.0176	0.0173	0.0180	0.0179	0.0178
1 EEK, Tallinn	0.3796	0.3794	0.3792	0.3799	0.3799	0.3798	0.3800	0.3799	0.3799
1 JPY, Tokyo	0.04251	0.04169	0.04105	0.04072	0.03995	0.03889	0.03965	0.03873	0.03775
1 AUD, Melbourne	3.717	3.592	3.502	3.511	3.396	3.311	3.372	3.283	3.184
1 KRW, Seoul	0.00408	0.00397	0.00380	0.00403	0.00385	0.00375	0.00400	0.00390	0.00382
1 special drawing right (SDR)	7.49896	7.39411	7.32669	7.31399	7.24735	7.18946	7.33080	7.25578	7.19709
1 XEU (ECU, official)	6.02931	6.00867	5.99291	5.99867	5.98172	5.97312	6.01483	5.99629	5.97950
1 XEU (ECU, commercial)	6.041	6.017	5.998	6.004	5.986	5.976	6.024	6.003	5.986

Table 12. (cont.)

Currency	July			August			September		
	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min
1 USD, New York	5.5571	5.4649	5.3799	5.4953	5.4365	5.3680	5.3281	5.1834	5.0794
1 CAD, Montreal	3.783	3.681	3.573	3.606	3.548	3.446	3.458	3.406	3.356
1 GBP, London	9.189	8.984	8.828	9.052	8.879	8.791	8.939	8.707	8.609
1 IEP, Dublin	7.656	7.645	7.609	7.660	7.636	7.621	7.634	7.617	7.602
1 SEK, Stockholm	0.6883	0.6841	0.6793	0.6801	0.6690	0.6557	0.6727	0.6562	0.6465
1 NOK, Oslo	0.7204	0.7168	0.7116	0.7151	0.7053	0.6728	0.6913	0.6843	0.6775
1 DKK, Copenhagen	0.7984	0.7977	0.7974	0.7994	0.7984	0.7977	0.8009	0.7991	0.7983
1 ISK, Reykjavik	0.0772	0.0764	0.0755	0.0764	0.0758	0.0746	0.0751	0.0739	0.0729
1 DEM, Frankfurt	3.0410	3.0396	3.0390	3.0445	3.0411	3.0400	3.0450	3.0437	3.0415
1 NLG, Amsterdam	2.6987	2.6966	2.6952	2.7002	2.6967	2.6956	2.7007	2.6980	2.6934
1 BEF, Brussels	0.1475	0.1474	0.1473	0.1476	0.1475	0.1472	0.1476	0.1475	0.1474
1 CHF, Zurich	3.6296	3.6101	3.5934	3.7009	3.6388	3.6109	3.7214	3.6966	3.6732
1 FRF, Paris	0.9073	0.9067	0.9059	0.9082	0.9071	0.9066	0.9082	0.9077	0.9072
1 ITL, Rome	0.00309	0.00308	0.00308	0.00308	0.00308	0.00308	0.00308	0.00308	0.00308
1 ATS, Vienna	0.4324	0.4321	0.4319	0.4327	0.4322	0.4315	0.4328	0.4325	0.4321
1 PTE, Lisbon	0.0297	0.0297	0.0296	0.0298	0.0297	0.0297	0.0297	0.0297	0.0297
1 ESP, Madrid	0.0359	0.0358	0.0358	0.0359	0.0358	0.0358	0.0359	0.0358	0.0358
1 GRD, Athens	0.0183	0.0182	0.0180	0.0184	0.0181	0.0175	0.0179	0.0177	0.0176
1 EEK, Tallinn	0.3801	0.3799	0.3799	0.3806	0.3802	0.3800	0.3806	0.3805	0.3802
1 JPY, Tokyo	0.03984	0.03887	0.03754	0.03827	0.03759	0.03684	0.03981	0.03855	0.03751
1 AUD, Melbourne	3.444	3.378	3.285	3.289	3.208	3.046	3.125	3.050	2.958
1 KRW, Seoul	0.00448	0.00423	0.00403	0.00437	0.00414	0.00398	0.00398	0.00378	0.00366
1 special drawing right (SDR)	7.35793	7.27034	7.18174	7.28946	7.21242	7.14449	7.17941	7.07388	6.99154
1 XEU (ECU, official)	6.01510	5.99793	5.98339	6.00951	5.99022	5.98108	5.99647	5.97723	5.96899
1 XEU (ECU, commercial)	6.024	6.007	5.990	6.017	5.998	5.987	6.001	5.986	5.978

Currency	October			November			December		
	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min
1 USD, New York	5.0506	4.9828	4.8383	5.1938	5.1106	5.0149	5.1269	5.0707	5.0129
1 CAD, Montreal	3.304	3.232	3.185	3.397	3.318	3.246	3.365	3.289	3.258
1 GBP, London	8.597	8.444	8.310	8.598	8.491	8.359	8.553	8.469	8.374
1 IEP, Dublin	7.608	7.585	7.533	7.570	7.562	7.552	7.560	7.551	7.544
1 SEK, Stockholm	0.6522	0.6353	0.6188	0.6501	0.6396	0.6286	0.6372	0.6295	0.6209
1 NOK, Oslo	0.6859	0.6709	0.6506	0.6937	0.6862	0.6815	0.6878	0.6683	0.6462
1 DKK, Copenhagen	0.8011	0.8002	0.7996	0.8001	0.7997	0.7994	0.7998	0.7992	0.7982
1 ISK, Reykjavik	0.0740	0.0728	0.0711	0.0740	0.0730	0.0723	0.0734	0.0727	0.0720
1 DEM, Frankfurt	3.0450	3.0427	3.0400	3.0415	3.0407	3.0400	3.0405	3.0402	3.0400
1 NLG, Amsterdam	2.7011	2.6981	2.6959	2.6976	2.6968	2.6958	2.6988	2.6977	2.6969
1 BEF, Brussels	0.1477	0.1475	0.1473	0.1475	0.1474	0.1473	0.1474	0.1474	0.1473
1 CHF, Zurich	3.7631	3.7271	3.6836	3.7286	3.6949	3.6806	3.7711	3.7336	3.6981
1 FRF, Paris	0.9081	0.9074	0.9066	0.9072	0.9068	0.9065	0.9068	0.9066	0.9063
1 ITL, Rome	0.00308	0.00308	0.00307	0.00308	0.00307	0.00307	0.00307	0.00307	0.00307
1 ATS, Vienna	0.4330	0.4325	0.4321	0.4323	0.4322	0.4321	0.4324	0.4321	0.4320
1 PTE, Lisbon	0.0297	0.0297	0.0295	0.0297	0.0297	0.0296	0.0297	0.0297	0.0296
1 ESP, Madrid	0.0360	0.0358	0.0357	0.0358	0.0358	0.0357	0.0358	0.0357	0.0357
1 GRD, Athens	0.0179	0.0177	0.0175	0.0181	0.0181	0.0179	0.0182	0.0181	0.0180
1 EEK, Tallinn	0.3806	0.3803	0.3800	0.3802	0.3801	0.3800	0.3801	0.3800	0.3800
1 JPY, Tokyo	0.04309	0.04129	0.03681	0.04354	0.04248	0.04157	0.04477	0.04329	0.04192
1 AUD, Melbourne	3.160	3.080	2.916	3.322	3.242	3.134	3.255	3.143	3.101
1 KRW, Seoul	0.00382	0.00372	0.00356	0.00418	0.00396	0.00380	0.00424	0.00419	0.00412
1 special drawing right (SDR)	7.10473	7.00855	6.87908	7.17768	7.11326	7.05907	7.17532	7.11236	7.05811
1 XEU (ECU, official)	5.96732	5.95189	5.94325	5.96149	5.95293	5.94190	5.95715	5.94980	5.94088
1 XEU (ECU, commercial)	6.032	5.994	5.979	5.984	5.978	5.960	5.976	5.966	5.950

Table 13.

Deliveries of notes and coin, FIM million

	1994	1995	1996	1997	1998
Notes delivered by Setec Oy					
1000 markka	–	–	–	–	–
500 ”	–	–	–	–	–
100 ”	6 000.0	5 000.0	2 180.0	1 625.0	65.0
50 ”	–	–	765.0	–	–
20 ”	800.0	400.0	5.0	736.0	1 191.0
Total	6 800.0	5 400.0	2 950.0	2 361.0	1 256.0
in millions of notes	100.0	70.0	37.4	53.1	60.2
Notes destroyed, in millions of notes	93.8	57.7	42.1	79.9	30.2
Coins delivered by the Mint of Finland Ltd					
Ordinary coins					
10 markka	199.8	45.1	9.3	33.0	8.0
5 ”	95.0	45.1	5.9	29.0	4.0
1 ”	152.0	40.0	15.0	24.1	34.0
50 penni	1.5	0.5	8.5	4.0	6.0
10 ”	6.0	8.5	10.5	7.0	9.5
Commemorative coins					
2000 markka	–	13.8	–	–	–
1000 ”	–	–	–	20.0	–
100 ”	9.1	8.6	3.3	5.2	8.1
25 ”	–	–	–	2.5	–
10 ”	–	0.0	0.0	–	–
Total	463.4	161.6	52.5	124.8	69.6
Coins destroyed, in millions of coins					
Ordinary coins	289.4	91.5	27.3	22.8	16.7
Commemorative coins	0.0	0.0	0.0	0.0	0.0

Table 14.

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

	1994	1995	1996	1997	1998
Notes					
1000 markka	3 829.2	4 440.1	5 153.3	5 579.9	5 635.7
500 "	2 286.6	2 505.0	2 562.0	2 596.9	2 541.8
100 "	5 195.7	5 540.6	6 007.8	6 430.2	6 256.2
50 "	647.1	692.5	654.2	615.7	608.9
20 "	364.2	396.2	413.4	423.1	428.2
10 "	58.7	50.1	45.4	42.9	41.2
Total	12 381.5	13 624.5	14 836.1	15 688.7	15 512.0
Ceased to be legal tender on 1 January 1994	303.0	252.8	249.5	243.5	237.4
Coins					
Ordinary coins					
10 markka	325.7	365.2	392.4	415.3	439.5
5 "	416.2	428.6	435.5	440.1	367.9
1 "	371.3	390.4	413.6	428.7	322.8
50 penni	79.9	85.9	91.5	97.1	100.5
10 "	85.6	96.3	105.5	112.7	119.1
Total	1 278.7	1 366.4	1 438.5	1 493.9	1 349.8
Commemorative coins					
2000 markka	–	13.8	13.8	13.8	13.8
1000 "	35.0	35.0	35.0	55.0	55.0
100 "	98.1	104.0	106.0	110.2	117.0
50 "	71.3	70.7	70.4	69.7	–
25 "	19.7	19.7	19.6	22.0	2.5
10 "	38.2	38.1	38.1	38.0	0.0
Total	262.3	281.3	282.9	308.7	188.3
Total coins	1 541.0	1 647.7	1 721.4	1 802.6	1 538.1
Ceased to be legal tender on 1 January 1994 and 1 January 1998	114.2	111.1	109.0	107.2	426.8

Table 15.

Notes sorted at the Bank of Finland, in millions

	1994	1995	1996	1997	1998
1000 markka	6.0	4.9	4.6	4.7	3.8
500 "	10.9	10.5	9.4	9.5	8.2
100 "	317.5	396.0	454.8	488.8	401.2
50 "	47.9	68.6	67.1	54.8	59.5
20 "	15.8	73.0	48.3	58.7	59.3
10 "	48.8	1.0	–	–	–
Total	446.9	554.0	584.2	616.5	532.0

Table 16.

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

	Account holders, number	Transactions					
		Between banks, number in thousands	Value, FIM billion	Between Bank of Finland and banks, number in thousands	Value, FIM billion	Total, number in thousands	Total value, FIM billion
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	19	64.8	8 189.0	36.1	824.2	100.9	9 013.2
1998	18	146.7	10 576.9	34.6	930.9	181.3	11 507.8
1998							
January	19	5.8	674.7	2.7	58.5	8.5	733.2
February	19	5.6	547.8	2.7	36.5	8.4	584.3
March	19	6.5	704.7	2.9	54.2	9.4	758.9
April	19	5.7	672.5	2.6	41.9	8.4	714.4
May	19	5.8	652.2	2.6	75.1	8.4	727.2
June	18	7.1	831.6	2.8	80.0	9.9	911.6
July	18	7.1	835.0	3.0	96.4	10.1	931.4
August	18	6.7	778.1	2.7	84.0	9.4	862.0
September	18	7.7	826.9	2.9	60.9	10.6	887.8
October	18	27.8	1 446.6	3.4	106.4	31.2	1 553.1
November	18	28.8	1 259.8	3.0	138.7	31.8	1 398.4
December	18	32.2	1 347.2	3.1	98.3	35.3	1 445.5

Table 17.

Banks' intraday credit limits

End of period	Total limits, FIM million	Maximum usage rate of limits[1], %	Average usage rate of limits[2], %	End-of-day balances, FIM million[3]
1994	13 961	..	9.6	..
1995	12 357	..	11.4	..
1996	11 547	..	10.1	..
1997	16 604	88.6	9.5	5 611
1998	19 188	44.4	6.3	5 652
1998				
January	19 128	36.7	9.9	5 248
February	18 955	38.3	7.5	5 362
March	18 456	31.6	9.0	5 788
April	18 259	25.6	7.8	5 194
May	20 568	43.6	9.9	6 361
June	18 764	42.7	10.2	4 973
July	19 981	38.4	9.1	5 167
August	18 909	44.4	8.5	5 670
September	18 827	33.7	1.5	5 529
October	19 188	40.6	1.1	5 505
November	21 622	23.1	0.6	5 851
December	18 538	22.7	0.3	7 170

[1] The maximum usage rate is the ratio of the maximum value of the combined sum of banks' debit balances on settlement accounts with the Bank of Finland to total limits during the relevant period (calculated since the beginning of 1997).
[2] The average usage rate of limits is the ratio of banks' average debit balances on settlement accounts with the Bank of Finland to total limits during the relevant period.
[3] Average value for period.

Table 18.

Banks' clearing operations

	Debit entries		Credit entries		Total entries	
	Number, millions	Value, FIM billion	Number, millions	Value, FIM billion	Number, millions	Value, FIM billion
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
1998	158.2	281.9	163.6	920.5	321.8	1 202.4
1998						
January	10.2	52.2	12.6	103.2	22.8	155.4
February	10.0	42.8	13.4	98.6	23.4	141.4
March	11.7	50.3	13.4	107.7	25.1	158.0
April	11.5	47.4	12.9	107.2	24.3	154.6
May	11.6	31.8	12.7	90.8	24.3	122.5
June	13.2	5.5	13.4	57.9	26.7	63.4
July	13.4	4.0	12.6	56.0	26.0	60.0
August	12.3	3.8	11.7	51.5	24.0	55.3
September	12.0	3.8	13.2	57.8	25.1	61.6
October	18.4	17.2	16.3	61.0	34.7	78.2
November	19.0	18.0	16.3	61.9	35.3	79.9
December	15.0	5.1	15.0	67.0	30.0	72.1

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Anneli Jäätteenmäki

Secretary to the Parliamentary Supervisory Council
Anton Mäkelä

Board

Matti Vanhala, Chairman of the Board
Overall management of the Bank's activities
Monetary Policy
Market Operations
International Secretariat
Communications
Internal Audit
Management Secretarial Staff

Esko Ollila, Deputy Governor
Financial Markets
Payments and Settlement
Security

Matti Louekoski, Member of the Board
Research
Institute for Economies in Transition
Personnel
Information Technology
Legal Affairs
Organization and Management Development
Chairman of the Board of
the Financial Supervision Authority

Matti Korhonen, Member of the Board
Economics
Payment Instruments
Administration
Accounting
Information Services
Publication and Language Services

Secretary to the Board
Heikki T. Hämäläinen

Pentti Koivikko, Director
Administrative matters*
Personnel matters**

* reports to Matti Korhonen, Member of the Board
** reports to Matti Louekoski, Member of the Board

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

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	Support Team Kari T. Sipilä**	**Workstation and Telecommunications Services** Kari T. Sipilä	
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Security
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