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# BANK OF FINLAND

ANNUAL REPORT  
2001

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Photo: Douglas Sivén, 2002.

### **Board of the Bank of Finland**

From the left: Matti Louekoski, Matti Vanhala, Sinikka Salo, and Pentti Hakkarainen, appointed as from 1 February 2002. In the background *Finland awakens*, from the Finlandia fresco series painted by Lennart Segerstråle.

# Governor's review

Europe's changeover to euro banknotes and coins went smoothly and more quickly than anticipated. Years of careful preparation paid off and the feared logistical and technical problems were not realised to any notable extent. Banks, shops and especially the general public coped well with the situation.

As regards monetary policy, the euro cash changeover had no direct effects. Euro area monetary policy has been a single monetary policy for over three years. During those three years Finns have gone about their daily lives, buying, selling, depositing and borrowing – in markkaa – which in fact represented euro.

The euro cash changeover is nonetheless a noteworthy event – more than a symbolic step into the future. It marked the single currency's concretisation and acceptance into the daily lives of Europeans. Replacement of the former banknotes and coins by physical euro highlights the irreversible nature of the single currency, which will help to strengthen the euro's position even in a broader sense.

\*\*\*

Despite signs of a slowdown in economic growth already in 2000,

the year 2001 began with a continuation of the optimistic mood in the world economy. The reversal of the US economy –already predicted for years as being in the offing –was becoming a reality, but it was widely proclaimed that what was coming was a 'soft landing', ie a brief cyclical slowdown that would not have a significant impact on Europe. However, during the spring and summer it became clear that the prognostication had been over-optimistic. The economic slowdown in the United States – as well as the repercussions for Europe –were much more pronounced than expected. Although the impact of the United States on the demand for European exports was accurately estimated, other channels of influence were underestimated. One such channel –of particular importance –was the effect on the confidence of European companies and hence on their propensity to invest.

By the third quarter of 2001, it was already clear that the recession would have a major impact on both the world economy and the European economy. The economic reversal was quickly transmitted around the world via the various links of economic integration, and the economic downturn had such widespread effects that one must

go back to the oil crisis of the mid-1970s to find a comparable event. The terrorist attack of 11 September, and the increased uncertainty that followed, happened to an already-enfeebled world economy and deepened an economic downswing already in progress.

The slowdown was most pronounced in the United States, but the growth forecast for Europe too had to be revised downward substantially. As the economic outlook for Europe weakened, the European Central Bank (ECB) eased its monetary policy to the extent allowed by the price stability target. In the period from May to the end of the year, the ECB cut its policy interest rate by a total of 1.5 percentage points. An already fairly low level of interest rates, as well as the sluggish reaction of euro area price pressures to the growth slowdown limited the possibility and the need for monetary easing. Certainly, inflation as measured by the consumer price index began to subside, but this was almost entirely due to a fall in the price of energy. Inflation in euro area domestic goods and services in fact modestly trended upward until the end of the year. In sharply cutting the interest rate while inflation was still clearly above the price stability criterion, the ECB was acting on forward-looking expectations. The pickup in inflation was estimated to be a temporary phenomenon and the sluggish economic performance to have a dampening effect in future on domestic price pressures. In light of the current evaluation of the economy, it appears that the projected scenario is being realised.

\*\*\*

The economic downturn was quicker and sharper in Finland than in the euro area on average. A key factor here was the high degree of dependence of Finnish exports on ICT products. In the course of the year forecasted GDP growth for 2001 had to be revised downward several times, in toto by several percentage points. Based on a number of other indicators, the economic downturn was less precipitous. The effects of weakening performance of other economies have been reflected mainly in company profits and central government finances. So far, the recession's effects on the vast majority of the populace have been modest. Household income growth has remained good, and unemployment has not increased significantly. Moreover, prospects are still fairly good for keeping general government finances on a steady course.

Despite the abrupt slowing of GDP growth, the economic situation is lacking drama –not a bad thing in this case. Cyclical fluctuations are an integral part of a market economy, and should not be associated with a crisis mentality. In a certain sense, Finland is now going through its first normal economic downturn since the start of the 1980s. Resources accumulated during the years of robust growth create leeway for keeping domestic demand on a stable growth path even in times when external developments are weak. This is however constrained by rising unemployment and the longer-term harm that this does to the economy.

The recession should be seen as a healthy reminder that much remains to be done to solidify the Finnish economy. Not all our problems will be automatically swept away by the tide of economic growth, nor is continuous growth axiomatic. It seems that, in times of robust economic growth, it tends to be forgotten that economic structures and government finances need to be sufficiently solid to withstand even the economic downswings that are part of the market economy. It appears that the slow-but-steady decline in unemployment had a dampening effect on the fervour to make structural reforms to the labour market and pension system. The transition of central government finances to surplus will soon lead to demands to step up public spending. Now that the growth of employment has come to a halt and the central government budget is in danger of slipping back into the red, it is high time to turn the focus of economic discussion back to structural issues.

The first signs of recovery are already apparent. However, the risk of a protracted global recession has not yet disappeared. A pickup in economic growth would again brighten the prospects for improvement as regards employment and central government finances. We should not, however, expect a return to the growth rates seen in the late 1990s.

The challenges of the coming decades will not be met without –sometimes difficult –political choices. The primary risk is widely understood: if we fail to prepare in time for population ageing, the resulting rise in expenditures will

have to be financed with tax hikes that will seriously damage the economy. To avoid this will require determined economic policy and open-minded consideration of all the available policy instruments. Partially conflicting needs will have to be reconciled. Central government indebtedness should be significantly reduced before the ageing problem comes to a head. Maintenance of the tax base, on the other hand, requires revisions to taxation and support systems so as to promote employment and increase Finland's attractiveness as a place to do business. In order that these goals can be combined, governments will need to keep a tight rein on expenditures. Pension reform, spending prioritisation, fees for social security benefits and pricing of public services will become key issues. In many respects Finland's starting position is good, but much remains to be done before challenges already on the horizon can be taken on with confidence.

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With the changeover to euro cash, the transition period, as regards the single currency, comes to an end. The normal daily routine has begun. On the other hand, integration of monetary policy requires integration of the financial markets. This task is still in progress.

The financial markets of the EU area are still quite heterogeneous, even though its euro-foundation has been in place since 1999. Europe is in need of new legislation as well as more homogeneous services and operations in the fi-

ancial markets and in securities trading and payment systems. Recent market developments clearly show that Europe-wide systems will be needed.

Although the need for quick results is obvious, any reforms should be carried out with care: financial stability should be axiomatic. On the whole, the most difficult questions concerning multi-national securities trading often have to do with what happens after a deal is done. There is still a need for national systems. Local securities markets enable small and medium-size companies, in particular, to obtain market-based non-bank financing.

Authorities have concentrated on market supervision and the development of rules of the game. However, consideration needs to be given to whether commercial efforts to unify infrastructure across the euro area are enough or whether public authorities should make an extensive effort to develop the market infrastructure.

Banking operations are gradually being consolidated. Branches of foreign banks comprise a small but growing part of the Finnish financial system. Another current trend is toward cross-sector alliances. Financial conglomerates, which engage in financial and insurance operations, are now a reality also in Finland. In the future more and more financial-service providers will belong to international groups for which banking is only one of several areas of business.

The sphere in which the most substantial consolidation of EU financial systems has taken place is large-value payment systems.

These systems now rank high in terms of speed and reliability. The central banks' TARGET system enables efficient smoothing of liquidity across the Eurosystem and affords a channel for the transfer of large-value payments within the EU area. The private sector also develops and maintains large-value payment systems.

Extensive, and sometimes heated, discussions took place in the autumn concerning the speed and pricing of small-value cross-border payments. A regulation prepared by the EU Commission on euro-denominated payments within the euro area entered into effect in December 2001. This regulation states that, after a specified transition period, fees for cross-border payments must be consistent with fees for intra-national payments. Banks are now obliged to ponder exactly how they are going to meet the requirement in light of the fact that mediation channels and costs to banks associated with domestic vs foreign payments differ widely. Realising the benefits of an internal market will require further integration also in this area.

Payment systems constitute an essential element in the foundation of a modern monetary economy. The events of last autumn in the United States underline the need to ensure that financial markets can operate smoothly even in exceptional circumstances –also in Europe.

Technological progress is profoundly reshaping the financial markets. Financial institutions and many established practices for the most part came into existence in

times when the technology associated with service provision was of a different nature than today's technology. In the long run, technological progress could have an even greater impact on the structure of the financial services sector than is now generally conjectured.

\*\*\*

The introduction of the single currency has in some ways changed the Bank of Finland's institutional status, albeit the areas of responsibility and daily tasks remain for the most part unchanged. As a member of the European System of Central Banks (ESCB), the Bank is still Finland's monetary authority and, along with its national tasks, participates in the joint decision-making of the monetary union. The Bank's operations within the ESCB involve many levels of participation in both planning and implementing monetary policy. At home, the Bank is responsible for maintaining the currency supply, for maintaining certain payment systems within the financial markets, and generally promoting the

smooth operation and progressive development of Finland's monetary system. Moreover, the Bank informs the Finnish public about ESCB decisions and, in participating in economic discussions, supports economic policies that will promote the stable development and adaptability of the Finnish economy.

\*\*\*

In recent years the Bank has been able to gradually strengthen its balance sheet, which had been weakened significantly in connection with monetary policy operations from the late 1980s onwards and in the banking crisis of the early 1990s. Thus in 2001 –after a long pause –it was possible to reinstate the practice of transferring part of its earnings in accord with the needs of the central government. On the basis of a proposal put forward by the Bank's Board, the Parliamentary Council decided the matter, in respect of year-2000 earnings, and more than EUR 128 million was transferred to the central government. Because of a

decline in interest rates, the Bank's financial result was weaker in 2001. The net earnings –EUR 254 million –are still sufficient for preserving the Bank's capital position, so that it will be possible to transfer funds to the central government.

In the future its share of Eurosystem monetary income will notably affect the Bank's financial results. In 2001 this was moderate because income based on banknotes is not yet included in allocable monetary income. Monetary income on banknotes will be taken into account gradually over the transition period 2003–2007, and it is estimated that this will increase the Bank's total earnings. But the impact will depend largely on developments in the total supply of euro banknotes, so that the Bank's income could actually decline at first. If the Bank's income base does not otherwise change significantly and income and allocations develop as expected, it will also be possible in the future to share net earnings with the central government.

# Monetary policy, economic developments and implementation of monetary policy in the euro area

## Rise in consumer prices began to decelerate in June 2001

## GDP growth continued to slow in the early part of the year even as inflation picked up

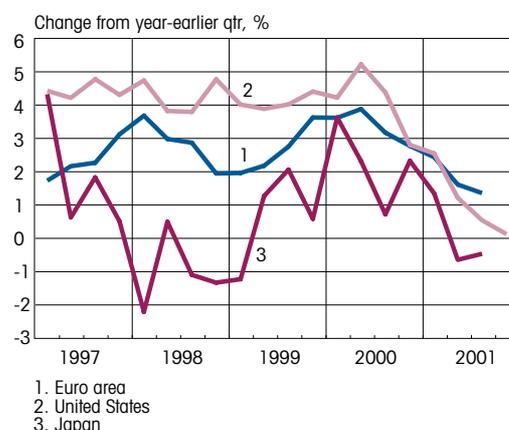
Prospects for the world economy weakened considerably during the early part of 2001. Growth slowed in the United States, the euro area and Japan. Of these three major economic areas of the world the euro area posted the fastest GDP growth of about 1½% (Chart 1).

The US economy, which had long been growing at a robust rate, entered a recession, and the ICT

sectors of many countries faced growing problems. There were signs of a turn in the US economy already in autumn 2000, and conditions worsened as the year wound down. The US Federal Reserve lowered its policy interest rate by 0.5 percentage point at the start of January 2001 and again at the end of the month.

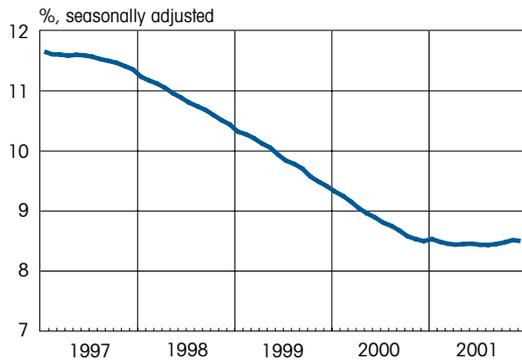
The slowing of the US economy quickly affected a number of emerging Asian economies, which are particularly dependent on US demand for their exports. Prospects for these economies were dampened especially by a decline in demand for ICT products. Economic growth also slowed in Japan.

**Chart 1.**  
**Real GDP**



Sources: Eurostat and OECD.

**Chart 2.**  
Unemployment rate in the euro area



Source: Eurostat.

**Chart 3.**  
Harmonised index of consumer prices for the euro area



1. Total index  
2. Total index excl. energy

Source: Eurostat.

This was a result of both external factors and weak domestic demand, as companies' propensity to invest decreased and households remained cautious. Postponement of essential restructuring reinforced the deflationary tendencies of the Japanese economy.

Economic growth in the euro area began to slow already in the second half of 2000, as the growth of domestic demand decelerated

partly in response to weaker developments in real income related to a temporary pickup in inflation. In early 2001 growth slowed further, as exports to non-euro countries were dampened by a growth slowdown in other parts of the world. Investment declined and inventories were run down. In contrast, private consumption continued to pick up, partly due to a reduction in taxation. Because of the slowing

of growth, the lengthy downward trend in unemployment came to a halt (Chart 2).

As regards major euro area economies, German economic growth slowed significantly in the early part of 2001, whereas the French, Italian and Spanish economies slowed less markedly. Of the smaller countries, the Netherlands and Finland, in particular, experienced pronounced slowing of economic growth.

Euro area consumer prices, as measured by the harmonised index of consumer prices (HICP), rose at a rate of 2.4% pa at the start of 2001 (Chart 3). Inflation accelerated in the early months of 2001, boosted by sharp rises in the prices of foods. Foot and Mouth Disease and BSE put upward pressure on the prices of meat and many other food products. Prices of industrial goods as well as services also accelerated moderately. Overall inflation was nonetheless dampened by a halt in the rise of energy prices (Chart 4).

**Chart 4.**  
Energy prices



1. Crude oil: North Sea Brent (left scale)  
2. Energy price in the euro area (right scale)

Sources: Bloomberg and Eurostat.

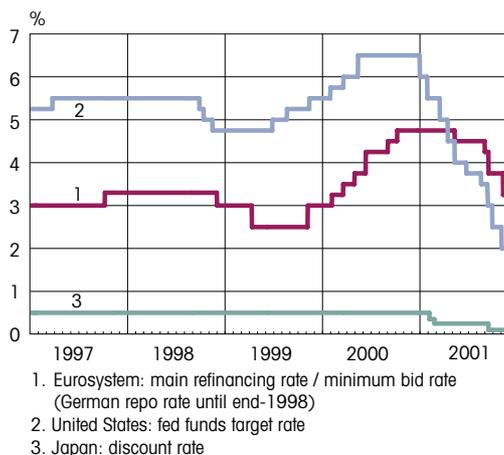
## The euro area policy interest rate started on a downward path in May

For the purpose of euro area monetary policy, price stability is defined as an HICP inflation rate of less than 2% pa. In evaluating the price stability objective, the ECB Governing Council focuses on the medium term.

In May the Governing Council decided to lower the minimum bid rate on the Eurosystem's main refinancing operations (MROs) by 0.25 percentage point to 4.50% (Chart 5). Before this, the policy rate had been raised several times since the end of 1999. The decision to cut the rate was based on analyses of the two 'pillars' of monetary policy strategy.

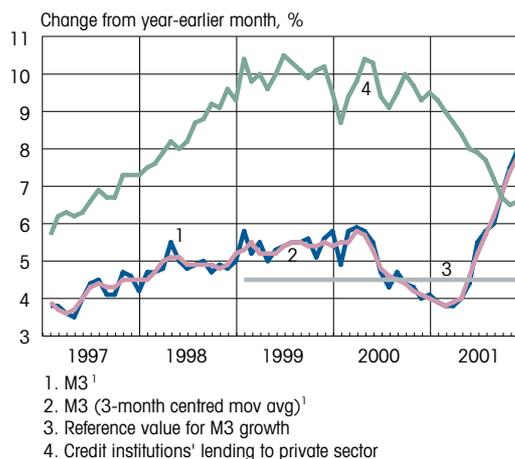
The first consideration was that the growth rate of the broad monetary aggregate (M3) had been decelerating since spring 2000, in connection with an earlier rise in the ECB policy rate (Chart 6). Moreover, data available at the time suggest that measured M3 growth rate was higher than the true growth rate. This was due to the growth of non-euro area resident holdings of negotiable instruments. The lending stock was clearly increasing faster than the money stock. Lending to the private sector was however growing at a particularly rapid pace, albeit increasingly slowly. Some of the factors promoting the high growth rate of private sector lending were the previous autumn's mergers, corporate buyouts and financing arrangements for licensing in respect of 'third generation' mobile telecommunication (UMTS). On

**Chart 5.**  
Policy interest rates



Sources: European Central Bank and Reuters.

**Chart 6.**  
Monetary and credit aggregates, euro area



<sup>1</sup>Seasonally and calendar effect adjusted, excl. holdings of negotiable instruments by central governments and non-euro area residents.

Source: European Central Bank.

the other hand, the slowing of economic growth and weakening of companies' confidence began to reduce the propensity to borrow.

The second consideration was that upward pressure on the medium-term inflation rate for the euro area had eased with the slowing of economic growth and continued wage restraint. The ECB Governing Council however felt

that in the short run the inflation rate could exceed the maximum rate specified in the definition of price stability, due to developments in food prices and other factors.

The inflation outlook for the euro area improved further around the middle of 2001. In June the rate of increase in consumer prices began to decline and the May inflation rate turned out to be the year's

highest. The inflation outlook improved and inflation expectations declined, due partly to a slowing of price rises in energy and unprocessed foods, as well as a modest appreciation of the euro. The slowing of economic growth also helped to dampen inflationary pressures. The ECB Governing Council responded with another cut in its policy rate in August, by 0.25 percentage point.

### Latter part of the year marred by terrorist attack

Economic conditions around the world took a sharp dive in the second half of 2001 when prospects for US economic growth were further dampened by the September terrorist attack. The Japanese economy continued on a weakening path that had begun in the spring. The problems of many of the emerging economies only worsened. The Latin American countries, especially Argentina, encountered serious difficulties.

Euro area economic growth also slowed further in the latter part of 2001, as a result of decelerating growth of exports and especially investment. Private consumption nonetheless continued to increase at a respectable rate, buoyed by easier monetary and fiscal policies, a decline in energy prices and favourable income performance. Consumption possibilities were also strengthened by the fact that euro area consumers were not burdened by heavy indebtedness.

Central banks of the major industrial countries lowered their policy interest rates soon after the

September terrorist attack. The purpose of the cuts was to counter the threat of recession and buoy the confidence of consumers and industry. The cuts also reduced the risk of inflation. The ECB Governing Council lowered its policy rate by 0.50 percentage point. Immediately after the attack, several central banks acted in support of the financial markets. The Eurosystem conducted several liquidity-providing fine-tuning operations. Moreover, the US Federal Reserve and ECB agreed on swap arrangements aimed at ensuring a sufficient supply of dollar-denominated liquidity for euro area credit institutions.

In light of further improvement in the medium-term inflation outlook, as economic growth slowed in the autumn, the ECB Governing Council decided again in November to lower the MRO interest rate by 0.50 percentage point, to 3.25%. In the Eurosystem's evaluation of the overall economy, published in December 2001, the rate of increase in the euro area HICP was projected to decline to 1.1 – 2.1% in 2002. Over the course of 2001, the policy rate was lowered by a total of 1.50 percentage points.

The easing trend in euro area inflation continued through the final months of the year. The annual rate of increase in the HICP was 2.1% in December. The slowing was due to the decline in the price of energy. The price of crude oil (North Sea Brent) fell in the autumn to around USD 20 per barrel compared to about USD 25–30 at the start of the year. Excluding energy, the inflation rate remained in the vicinity of 3%.

### Growth of the money supply accelerated in latter part of the year

Growth of lending to the private sector began to slow down notably in spring 2001. In contrast, the euro area broad monetary aggregate (M3) accelerated, at least partly due to uncertainty in the stock markets and a decline in interest rates, both of which boosted the amount of liquid bank deposits. M3 gained further momentum toward the end of the year, partly due to the highly uncertain state of the financial markets caused by the September terrorist attack. The downward trend in banknotes and coins in circulation continued over the course of the year, gaining momentum in the waning months. This was related to the preparations for the euro cash changeover.

The statistical measurement of M3 and its components was revised as of December 2001. Non-euro area resident holdings of negotiable instruments are now excluded from M3. These instruments comprise money market fund units, money market paper, and two-year or shorter-term debt instruments. The revised M3 aggregate grew at 8.0% pa in December; unrevised, the growth was about a percentage point higher.<sup>1</sup>

In December the ECB Governing Council decided not to change its reference value for the growth rate of broad money aggregate M3. The decision was based on the fact that the assumptions underlying the original choice of a 4½% reference

<sup>1</sup> Non-euro area resident holdings of money market fund units have been excluded from M3 since May 2001.

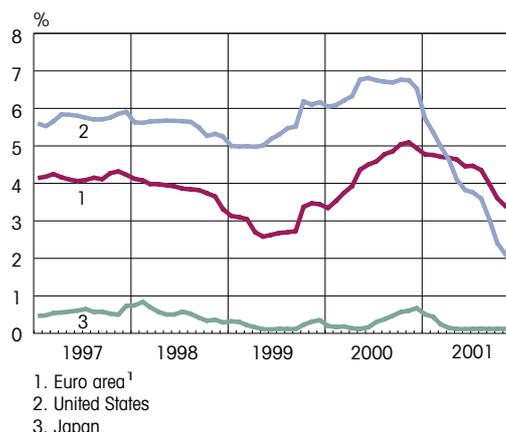
value in 1998 and following years' confirmations are still valid. These assumptions relate to the medium-term growth trend of potential real GDP for the euro area and to developments in M3 velocity. It is estimated that a 4½% growth rate for the money supply over the medium-term is consistent with price stability.

### Spread between short- and long-term interest rates widened

Money market interest rates in the euro area extended the previous year's downward trend in 2001. The three-month EURIBOR fell by 1.5 percentage points during 2001, to end the year at 3.3% (Chart 7). Money market rates fell sharply in the autumn, in connection with the cut in the policy rate and expectations of a further decline in interest rates.

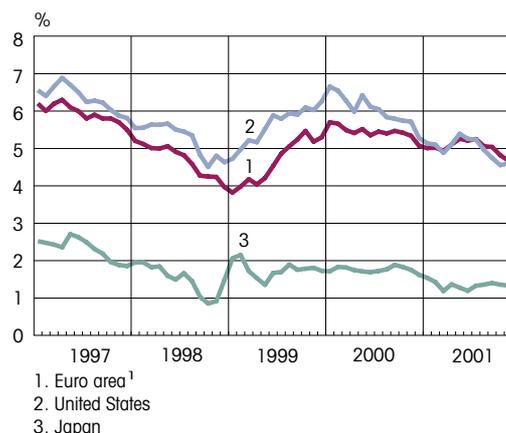
Euro area long-term interest rates remained on a fairly steady downward path for most of the year (Chart 8). This was a reflection of credibility regarding price stability in the euro area over the medium term. The yield on ten-year German government bonds remained during the first months of the year in the vicinity of 5% –close to the corresponding US yield. The long-standing differential between these yields had practically disappeared in 2000. In the second quarter of 2001, long-term yields in the euro area and United States rose slightly, due mainly to an increase in investors' inflation expectations and uncertainty regarding inflation.

**Chart 7.**  
Three-month money market rates



1. Euro area<sup>1</sup>  
2. United States  
3. Japan  
<sup>1</sup>EURIBOR from Jan 1999. To end-Dec 1998 euro area rate is the GDP-weighted average of national rates.  
Sources: European Central Bank and Reuters.

**Chart 8.**  
Ten-year government bond yields



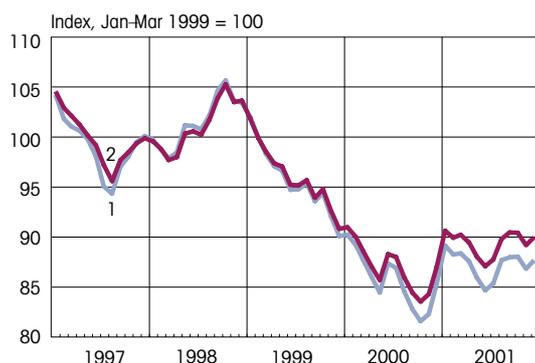
1. Euro area<sup>1</sup>  
2. United States  
3. Japan  
<sup>1</sup>From Jan 1999, weights are nominal stocks of gov bonds. To end-Dec 1998, yields are based on harmonised GDP-weighted national gov bond yields.  
Sources: European Central Bank and Reuters.

Long-term euro area interest rates trended downward from mid-year to mid-November and then began to trail US long-term rates on a pronounced upward path. There was sound rationale for the rise: optimism concerning an impending robust economic expansion accompanied by monetary tightening over the medium-term

horizon and a firming of stock markets. US long-term interest rates had risen as prospects for government finances in connection with expansionary fiscal measures.

At the start of the year the spread between short- and long-term interest rates in the euro area had almost narrowed to zero, with a waning of expectations of a pick-

**Chart 9.**  
External value of the euro and  
Finland's competitiveness indicator



Upward movement indicates euro appreciation and weakening of Finnish competitiveness.

1. Euro's effective exchange rate, narrow country group<sup>1</sup>
2. Finland's narrow competitiveness indicator

<sup>1</sup> Before 1999 trade-weighted index of the euro area currencies.

Sources: European Central Bank and Bank of Finland.

**Chart 10.**  
Euro exchange rates against US dollar  
and Japanese yen



Upward movement represents euro appreciation.  
Ecu exchange rate to end-Dec 1998.

1. USD-value of one euro (left scale)
2. JPY-value of one euro (right scale)

Source: Reuters.

up in inflation and monetary tightening. In the second half of the year the spread widened notably.

### The euro stabilised

The external value of the euro – measured by the trade-weighted index – was little changed at the

end of 2001 compared with its level at the start of the year (Chart 9). In the course of the year, the euro remained quite firm against the Japanese yen (Chart 10) and UK pound while appreciating against the Swedish krona and depreciating against the Swiss franc.

The euro had strengthened, in terms of the trade-weighted index,

in the final months of 2000 in response to increasing signs of a slowing of US economic growth. However, in the first half of 2001 the euro depreciated, as uncertainty increased regarding prospects for euro area growth. The euro's weakness, especially against the US dollar, was reflected in a continuous flow of investment into US markets. In terms of the euro area balance sheet, direct and portfolio investments in fact continued to flow outward during the early months of 2001.

In June the euro's external value stabilised and then began to strengthen marginally in late summer, as a result of prolonged uncertainty regarding the world economy and increased financial instability in several emerging economies. Starting in September, fluctuations in major economies' exchange rates were quite subdued, and the September terrorist attack had only a temporary impact on international currency markets.

The euro exchange rate of the Danish krone, which belongs to the exchange rate mechanism ERM II, moved within a very narrow range below its central rate throughout 2001. The Greek drachma was removed from ERM II when Greece adopted the euro on 1 January 2001.

### General government fiscal position weakened

According to the European Commission's autumn-2001 forecast, the average general government deficit for the euro area amounted to 1.1% of GDP in 2001. This is

almost 0.5 percentage point above the corresponding figure for 2000 (Chart 11). For comparative purposes, these figures exclude one-off revenue from UMTS licence fees, which was significant in 2000 but negligible in 2001.

The Commission estimated that the euro area interest payments-to-GDP ratio would fall by 0.2 percentage point in 2001. As the primary surplus-to-GDP ratio was projected to fall on average by 0.5 percentage point, the euro area general government deficit-to-GDP ratio increased in 2001 for the first time since 1993. Primary surplus/deficit refers to the general government fiscal position excluding interest payments on general government debt.

In 2001 general government fiscal positions were (as in 2000) clearly in surplus in Ireland, Luxembourg, the Netherlands and Finland, whereas Spain and Austria achieved fiscal balance. On the

other hand, in Italy progress toward balance appears to be a slow process, and in Germany, France and Portugal, deficit ratios increased (Appendix Table 13).

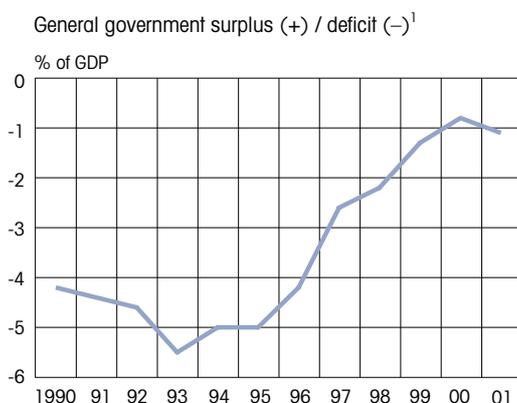
Of the total decrease in the primary-surplus-to-GDP ratio for the euro area, almost a half is estimated to derive from a discretionary easing of fiscal policy and the rest from cyclical factors. Due to the fairly stable employment situation and growth of wages, the slowing of economic growth was not fully reflected in the growth of tax revenues. Collections in 2001 on year-2000 shortfalls in tax withholdings, in connection with exceptionally large profits and capital gains, also boosted revenues from direct taxes. Although unemployment and related expenditures continued to decline, other general government expenditures, especially on health care, increased and the primary expenditures-to-GDP ratio remained at the year-2000 level.

Euro area countries' measures taken in response to the September terrorist attack were financed largely by reallocating expenditures and, in some countries, by raising taxes.

In many euro area countries implemented reductions in taxes and social security contributions have been key elements in discretionary easing of fiscal policy. The commission has estimated euro area countries' reductions in taxes and contributions to amount to about 0.6% of euro area GDP in 2001.

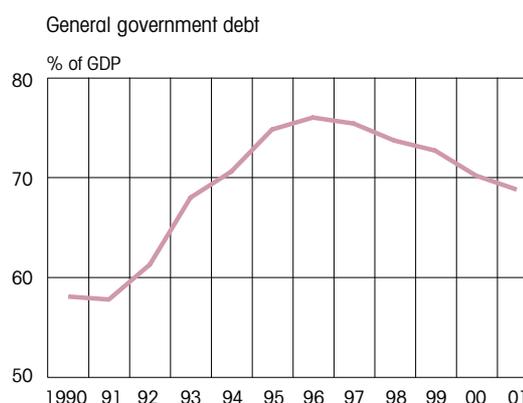
In the 2000/2001 changeover updates of their stability programmes, Germany, France and Portugal set the goal of a balanced general government fiscal position by 2004 (Italy by 2003). These member states were encouraged to meet their goals in the broad economic policy guidelines for 2001 adopted by the finance ministers. In evaluating the appropriateness

**Chart 11.**  
**General government fiscal position in the euro area**



<sup>1</sup> Excl. revenue from sales of UMTS licences, 2000-2001.

Source: European Commission.



and fulfilment of member states' medium-term goals, one important indicator is the ratio of cyclically adjusted general government balance to GDP. This 'cyclically adjusted fiscal position' is the general government fiscal position excluding revenues and expenditures that change automatically according to cyclical conditions. According to the Commission, the cyclically adjusted fiscal position was still far from being in balance in 2001 in Germany, France, Italy and Portugal.

According to the Commission's forecast, the ratio of euro area general government debt to GDP fell in 2001 by about 1.5 percentage points (to about 69%) compared to 2000 (Chart 11). As a result of the decline in the primary surplus, the slowing of GDP growth and fall in one-off revenue items, the debt ratio declined by less in 2001 than in 2000. This was, for example, despite the debt-reducing effects of a significant share of year-2000 income from sales of UMTS licences in Germany not being realised until 2001. As in previous years, the debt ratio declined more on average in countries where it is still high, but also in Ireland and the Netherlands.

## Implementation of monetary policy in the Eurosystem

### Monetary policy instruments

As in the last two years, ECB monetary policy was conducted in 2001 via the operational framework of

Eurosystem monetary policy, the three elements of which are market operations, standing facilities and minimum reserves. Of the market operations, the weekly MRO has maintained its status as the key instrument of monetary policy. In 2001 these two-week-maturity operations were conducted all year as variable-rate tenders. The minimum bid rate on MROs continues to serve as the key signalling device for ECB monetary policy. In 2001 the Eurosystem also conducted two fine-tuning operations and (for the first time) two additional one-week-maturity operations.

The euro area credit institutions' aggregate reserve requirement was the main determinant of liquidity needs in 2001. On average the required reserve was EUR 124 billion, which represented an increase of EUR 12 billion compared to 2000. The increase was due, inter alia, to the growth of nonresidents' deposits at euro area credit institutions. Eurosystem 'autonomous factors'<sup>2</sup>, added EUR 98 billion to credit institutions' liquidity needs, which was EUR 4 billion less than in 2000.

Eurosystem credit institutions obtained on average EUR 5 billion more in central bank financing via open market operations in 2001 compared to 2000. In 2001 EUR 161 billion per day on average was added to Eurosystem liquidity via the MROs. The monthly longer-term operations

<sup>2</sup> Autonomous factors are not related to monetary policy but do affect Eurosystem liquidity: chiefly, banknotes in circulation, central government deposits in the Eurosystem, and central banks' foreign reserve assets.

added EUR 57 billion of liquidity (daily average) while fine-tuning and structural operations added another EUR 3 billion.

As regards the standing facilities, the amount of overnight deposits in the euro area remained at about the same level as in 2000. Marginal lending, on the other hand, more than doubled to EUR 0.8 billion. Peak usage of the marginal lending facility occurred in February, April and October (Chart 12), when credit institutions' underbidding in the MROs caused a tightening of liquidity conditions. In this connection, a new high for Eurosystem daily marginal lending (EUR 33 billion) was posted in February.

### Underbidding led to gyrations in the overnight rate

Declining short-term interest rates at times caused problems in connection with the variable-rate MROs. Credit institutions' aggregate bids amounted to less than a neutral (vis-à-vis reserve requirements) allocation<sup>3</sup>. Credit institutions, speculating on a rate cut by the ECB, bid sparingly in the early part of the maintenance period, hoping to acquire central bank financing toward the end of the period at a (post-cut) lower rate of interest. This 'underbidding problem' first surfaced in February, then again in April, October and November.

<sup>3</sup> A neutral (vis-à-vis reserve requirements) allocation is an amount such that credit institutions, in toto, need not make significant use of standing facilities during the current reserve maintenance period.

The primary manifestation of the underbidding problem was a gyrating overnight interest rate. As liquidity conditions tightened toward the end of a maintenance period because of underbidding, the overnight rate jumped up –in three of the four above-mentioned cases<sup>4</sup> (Chart 13) –in fact almost to the level of the marginal lending rate. Credit institutions were obliged in these cases to resort to the marginal lending facility to a greater extent than usual to meet their reserve requirements; it was no cheaper to obtain liquidity from the money market than from central banks. The impact of underbidding on marginal lending is reflected in that over 65% of the whole year's marginal lending occurred at the ends of the four maintenance periods in which the underbidding problem occurred.

The underbidding also led to a situation in which the difference in size between two simultaneously outstanding MROs became exceptionally large. At its largest, the difference was EUR 167 billion in April compared the year's average of EUR 37 billion. A large difference reduces the ECB's ability to allocate liquidity in MROs in a neutral manner as regards credit institutions' fulfilment of reserve requirements because the smaller the amount of maturing operations, the smaller its ability to tighten liquidity conditions, if necessary. A large difference also causes uncertainty in connection with credit

<sup>4</sup> In the fourth, a smaller-than-forecasted liquidity-absorbing impact of autonomous factors at the end of the maintenance period eased conditions enough to prevent unusual movements in the overnight rate.

institutions' bidding because it reduces their ability to forecast ECB liquidity allocations as well as their own ability to bid.

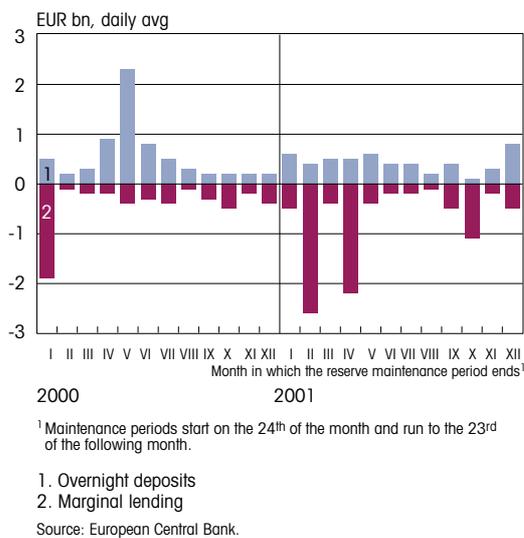
In fact, at the end of April, due to underbidding in the previous maintenance period, a situation arose for the first time in which a decision for a neutral liquidity allocation in an MRO would have implied that the ECB would have been obliged to absorb (rather than provide) market liquidity because the smaller operation was maturing. In order to reduce the large difference, the ECB conducted a one-week-maturity standard tender simultaneously with the last normal two-week-maturity MRO (both liquidity providing) in April. The one-week-maturity tender was also a variable rate tender, and the minimum bid rate was the same as in the MRO. At the end of November the ECB was obliged again to re-

sort to the same kind of operation. In November the ECB Governing Council adopted a rule by which monetary policy decisions would henceforth be made only at the Council's first meeting of each month. This reduced the possibilities for speculation in connection with underbidding.

### Money market uncertainty due to the terrorist attack receded quickly

The terrorist attack on September 11 caused apprehension regarding the smooth flow of payments and securities deliveries as well as adequate liquidity in the international financial system. This was also clearly visible in euro area money markets. Trading was light in the following days, and the overnight interest rate was unusually

**Chart 12.**  
Use of standing facilities in the euro area



volatile. In order to calm the market situation, the ECB, along with other large central banks, increased the amount of market liquidity on 12 and 13 September. The easing was effected via two fine-tuning operations, in which credit institutions received overnight liquidity at a fixed rate of 4.25%. All bids in the two operations were accepted, and a total of some EUR 110 billion of liquidity was allocated. The operations had a stabilising impact on the markets, and with abundant liquidity the overnight rate declined in late September close to the level of the (standing facility) deposit rate.

The terrorist attack also caused disturbances in the distribution of dollar-denominated liquidity. For this reason, the US Federal Reserve and ECB agreed on a swap arrangement for the purpose of ensuring an adequate supply of dollar liquidity for euro area credit insti-

tutions. Under the arrangement, the ECB was entitled (until 13 Oct) to obtain up to USD 50 billion of financing from the Federal Reserve in exchange for a corresponding amount of euro-denominated deposits. This amount of dollars was made available to euro area credit institutions via their national central banks. The swap arrangement was used on three occasions (12–14 Sep) and a total of about USD 23 billion of financing was obtained by euro area credit institutions.

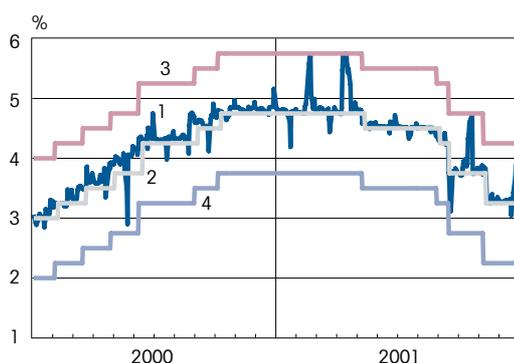
Excluding the powerful market reactions to the underbidding problem and the terrorist attack, the overnight interest rate was less volatile in 2001 than in 2000. Although the overnight rate –due to a weakening euro area economic performance and related expectations of ECB interest rate cuts – trended downward during 2001, there were long periods

(eg mid-May to end-August) when the overnight rate remained quite steady (Chart 13). The generally good liquidity situation of the credit institutions also helped to keep the overnight rate most of the time close to the MRO minimum bid rate.

### Issuance of euro cash did not disturb credit institutions' liquidity conditions

Preparations for the changeover to euro banknotes and coins at the start of 2002 did not disrupt the credit institutions' liquidity situation. In anticipation of the cash changeover, the amounts of national banknotes in circulation declined throughout 2001 –with a notable surge as the year wound down. The shrinking stock of banknotes –via a decline in autonomous factors – eased the credit institutions' liquidity situation. Collateral deposits for credit institutions' frontloaded receipt of euro cash did tighten liquidity conditions somewhat in the final days of the year. However, the ECB acted to ease the situation by providing credit institutions with adequate liquidity in the year's final MROs. Euro frontloading led to a tightening of liquidity conditions in January 2002, when credit institutions had to repay euro in three instalments. Liquidity was squeezed in the early days of 2002, as the amount of banknotes in circulation rose above the forecasted level. The ECB responded by conducting two fine-tuning operations at the start of the year, in which credit institutions obtained a total

**Chart 13.**  
Eurosystem interest rates and overnight rate



1. EONIA
2. Main refinancing rate (minimum bid rate from 28 Jun 2000)
3. Marginal lending rate
4. Deposit rate

Source: European Central Bank.

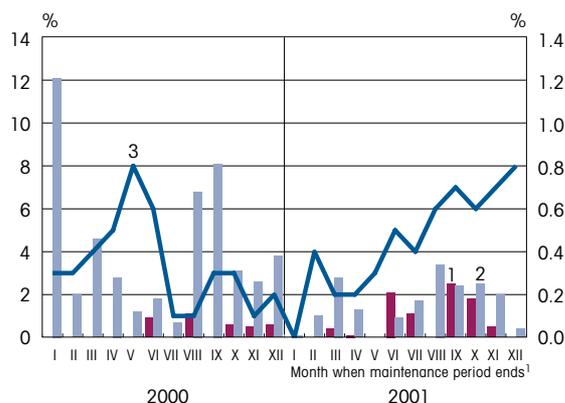
of EUR 65 billion in overnight liquidity.

## Finnish credit institutions' role in Eurosystem monetary policy operations

Finnish credit institutions had relatively abundant liquidity throughout 2001, despite somewhat greater participation in Eurosystem monetary policy operations than in 2000. Their share in variable-rate MRO liquidity allocations was 0.4% in 2001, compared to 0.2% in 2000 (Chart 14). Of the ten eligible counterparties for Bank of Finland money market operations, six participated in MROs in 2001. Three Finnish credit institutions participated in longer-term operations, and these on average accounted for 0.7% of total liquidity allocations to the euro area (0.1% in 2000).

Finnish credit institutions' reserve requirements on average amounted to 1.4% of the total requirement for euro area in 2001 – the same as in 2000. Relative to this figure, Finnish credit institutions had little need to resort to the marginal lending facility in 2001. They accounted on average for 0.5% of euro area marginal lending. In terms of overnight deposits, these institutions accounted for 1.4% of the total for the euro area, ie 2.1 percentage points less than in 2000. That Finnish credit institutions' liquidity was good even in difficult market conditions is further evidenced by the fact that during the problematic underbidding phases they were obliged to resort to the marginal lending facility to a lesser extent than other

**Chart 14.**  
Finnish credit institutions' shares in Eurosystem main refinancing operations and use of standing facilities



<sup>1</sup> Maintenance periods start on the 24<sup>th</sup> of the month and run to the 23<sup>rd</sup> of the following month.

1. Share of marginal lending (left scale)
2. Share of overnight deposits (left scale)
3. Share in main refinancing operations (right scale)

Source: Bank of Finland.

euro area credit institutions. Finnish credit institutions took out less than 50% of their marginal lending at the ends of the four reserve maintenance periods in which underbidding was problematic.

## No changes in Eurosystem collateral arrangements

Collateral usage in the Eurosystem was unchanged in 2001. The structure of the unified collateral management system set up by the ECB remained the same as in 2000.

Securities eligible as collateral are divided into two main classes: tier one and tier two. Tier one securities are negotiable debt instruments that meet the ECB's euro area-wide eligibility requirements. Of the total stock of the Eurosystem's eligible securities, tier one securities still account for 95%. Tier two securities are highly important for national financial mar-

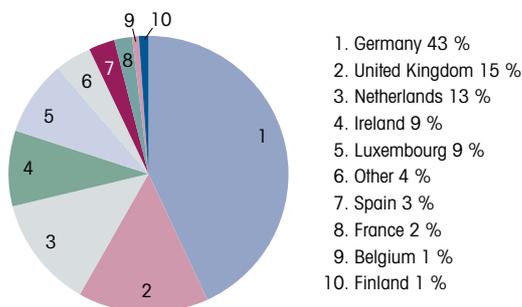
kets and banking systems. These are approved by national central banks, subject to ECB minimum eligibility requirements, and for the most part are negotiable.

The nominal value of securities included in the ECB's eligible assets database increased by 5%, to about EUR 6,600 billion at year-end. Of this amount, Finnish securities held at the Finnish Central Securities Depository (APK) accounted for EUR 52 billion, which was almost 3% less than in 2000. The change took place in the value of tier two securities, which fell from EUR 14 billion to EUR 10 billion.

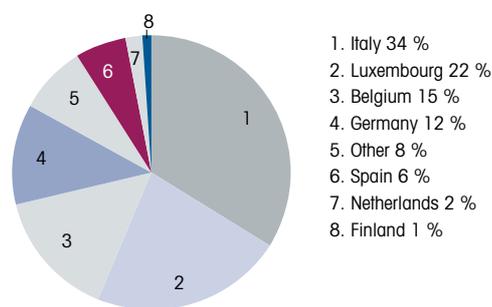
In Finland, the tier one share increased from 75% in 2000 to about 80% in 2001. The Bank of Finland's tier one list comprises mainly government bonds and treasury bills. The combined amount of corporate bonds and commercial paper was EUR 850 million, ie 1.6% of the total. Other

**Chart 15.**  
**Cross-border use of collateral by EU area central banks, end-2001**

Breakdown by user country



Breakdown by issuer country



Source: European Central Bank.

national banks have also included Finnish securities on their tier one lists. At year-end these amounted to EUR 5.5 billion. The Bank of Finland's tier two list is comprised of bank CDs.

In connection with the transfer of eligible securities issued in another EU country, the Eurosystem approves of delivery of collateral for central financing via the correspondent central banking model (CCBM) but also via links between central securities depositories. The number of approved links in the euro area increased to 66 at the end of 2001.

### Effects of euro cash changeover on collateral usage in Finland

The euro has been the official currency of the Eurosystem since the

start of 1999. The adoption of euro banknotes and coins at the onset of 2002 increased the collateral needs of banks that participated in the logistics of the operation. In connection with the frontloading and subfrontloading of cash, the ECB applied the same collateral requirements as for monetary policy operations. Also accepted as collateral were money deposits, remunerated at the same rate as applied for minimum reserves.

In Finland the euro cash changeover caused an increase of more than EUR 2 billion in banks' collateral needs on 28 December – the final banking day of 2001. Monetary financial institutions participating in the distribution had acquired extra (mainly domestic) collateral beforehand, in anticipation of increased needs. The use of cash collateral was modest at EUR 265 million.

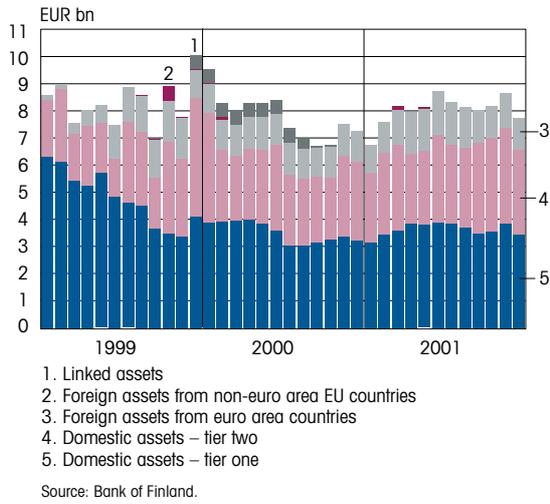
### Collateral usage in the euro area and Finland

Of total collateral usage in the euro area, again nearly 80% comprised domestic tier one securities, even though the share has steadily declined (foreign-share increased) since inception of the Eurosystem. Collateral usage in Finland differs from that in other countries in this respect. At the end of 2001 the domestic-tier-one share of collateral posted with the Bank of Finland for overnight and intraday central bank financing was just under 60%.

For the whole euro area, 34% of foreign collateral transferred via the CCBM was issued in Italy and 22% in Luxembourg (Chart 15). Finnish securities were used to the same extent as in 2000, ie just under 1%.

Banks located in Finland covered about 12% of their collateral

**Chart 16.**  
**Value of pledged collateral assets held at**  
**the Bank of Finland, 1999–2001**



needs with foreign securities arranged via the CCBM. Of the total amount of foreign collateral used in the Eurosystem, banks located in Finland accounted for about 1%, compared eg to 43% for banks located in Germany (Chart 16). Finnish-resident banks made only modest use of ‘outs-collateral’ approved by EU area banks located outside the euro area.

At the end of 2001 a total of EUR 7.8 billion worth of collateral was posted with the Bank of Finland. Securities held in custody by the Bank on behalf of other central banks amounted to just over EUR 600 million.

# Economic developments in Finland

Finland's long economic boom came to a halt in 2001. This was the result of a dampening of export demand in the midst of a global recession and difficulties in ICT sectors around the world. Besides the sluggishness of export demand, actual domestic private investment turned out to be lower than planned. Private consumption, on the other hand, remained fairly strong, due not only to tax cuts and strong earnings but also to continued consumer confidence.

Considering the slowdown of economic growth, inflation remained fairly high in 2001, 2.6% on average (CPI). The rise in prices in the early part of the year based largely on animal-disease-related rises in food prices, boosted inflation; but toward year-end inflation was dampened by a decline in the price of energy. For the whole year, Finland's inflation matched the average for the euro area.

Growth of Finland's general government surplus came to a halt in 2001. Corporate tax revenue declined sharply compared to the previous year. In 2001 the favourable trends in the labour market also came to an end. Unemployment and the general government debt are still disturbingly high, despite reductions that occurred in the

years of robust economic growth in the latter part of the 1990s. Toward the end of the decade companies' financial structures also solidified and households' indebtedness decreased. Companies' profitability actually held up quite well despite the sluggish economic growth in 2001. Even with the slack in export demand, the current account again posted a sizeable surplus in 2001.

## Inflation slowed as the price of oil decreased

As measured by the harmonised index of consumer prices (HICP), the rate of increase in Finnish consumer prices declined in 2001, but it still exceeded the price stability limit set by the ECB Governing Council. The average rate of increase was 2.7%, compared to 3.0% in 2000 (Chart 17).

Inflation was quite high in the first half of 2001, as price rises in foods and non-energy industrial products accelerated. Food prices were boosted by animal diseases in Europe and probably by a reduction in competition in certain commodity groups. In the latter part of the spring, energy prices also moved up temporarily. Inflation, as measured by the national CPI, was

boosted further by higher rents. In the second half of the year the inflation rate slowed considerably, largely due to a fall in the price of oil, albeit processed food prices continued on their upward path. By December the rate of change in the HICP had fallen to 2.3% pa. National-CPI inflation was restrained in the latter part of the year by declines not only in energy prices but also in interest rates and housing prices; the rise in rents had an upward effect on inflation. In December the national CPI rose by 1.6% pa.

The rate of inflation, excluding unprocessed foods and energy, remained fairly steady –just under 3% pa –throughout 2001. Service prices continued to rise at a faster rate at home than in the euro area as a whole, and prices of non-energy industrial products gained momentum during the year.

Import prices fell 7.0% between December 2000 and December 2001, largely because of declining prices of crude oil and basic metals. Thanks to lower prices of crude oil and production inputs, industrial producer prices also tracked downward. Export prices fell in the same period by less than import prices, ie by 5.8%. Prices of electrical and electronic equipment and pulp and paper products declined, partly in response to sluggish world demand.

Despite the slowing of economic growth, the level of aggregate nominal earnings continued to surge in 2001 (Chart 18). The approximate 4.5% rise in nominal earnings was based on a centrally agreed wage hike of over 3%, wage drift, and bonuses paid in

connection with strong profits in 2000. The notable rise in the earnings level in 2001, combined with the halt in productivity growth, boosted unit labour costs substantially relative to the previous year.

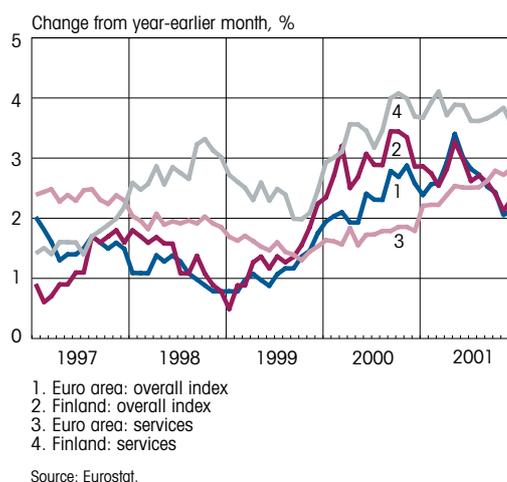
### Lending continued to increase apace

The Finnish contribution to the euro area M3 monetary aggregate increased at a significantly slower rate than euro area M3 over the

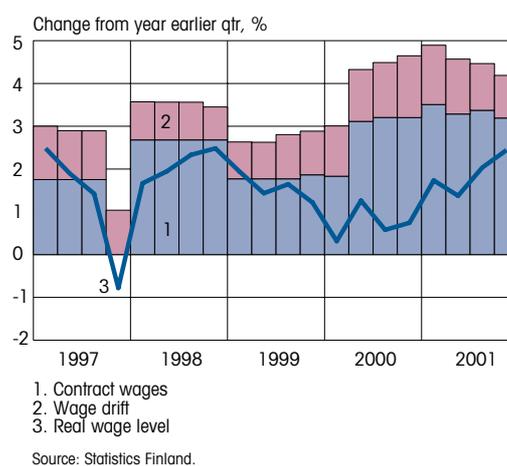
course of 2001, except at the very end of the year. The twelve-month growth rate for the Finnish contribution was 5.8% in December, compared to 7.7% for the euro area. Also as regards the narrower aggregates (M1 and M2), the Finnish contributions increased more slowly than the euro area aggregates in the first half of 2001, but the situation was reversed in the second half of the year.

The items comprising the Finnish contribution to M3 were statistically adjusted in 2001, in the

**Chart 17.**  
Harmonised index of consumer prices



**Chart 18.**  
Wage and salary earnings



same manner as for the euro area money supply. Since the adjustments, non-euro area residents' holdings of money market fund units, money market paper and up-to-two-year maturity debt instruments are excluded from the M3 money supply for the euro area and Finland. Another change was to exclude central government holdings of money market paper from the Finnish money supply. These adjustments had a modest smoothing effect on the growth rate for the Finnish contribution to euro area M3.

Bank lending to the private sector increased more slowly in Finland than in the euro area on average. Indeed, the annual growth rate of lending to both households and companies accelerated slightly toward year-end, in response to a decline in the level of interest rates (Chart 19). Growth of the stock of housing loans speeded up towards the end of the year to a good

11% pa. Interest rates on housing loans tracked market rates downward, and the average rate on new housing loans declined by about 1.7 percentage points in 2001. Heightened competition between banks also put pressure on them to reduce lending rates. In the latter part of the year, many old housing loans were refinanced not only because of lower rates but also to convert prime-rate-tied loans into EURIBOR-tied loans. The banks' interest rate margin was squeezed considerably in the course of the year, as lending rates fell faster than deposit rates.

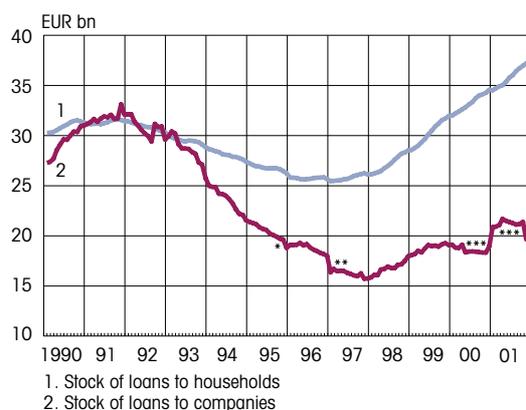
### Decline in exports halted economic growth

Growth of the Finnish economy was stopped in 2001 by a precipitous fall in export demand (Chart 20). The robust growth of the late 1990s was largely driven

by export success, which was in turn based on strong growth of the world economy, excellent price competitiveness of the industrial sector and diversification of the ICT sector. However, in 2001 the slowing of economic growth in the United States and the rest of the world jolted Finnish exports. As a result, according to preliminary data, the economy grew by only 0.7% in 2001 compared to a robust 5.6% in 2000.

The growth slowdown was most acute in the second quarter, when GDP declined by about 1.8% on the previous quarter. In the background were not only sluggish export activity but also weak growth of private consumption. Moreover, because economic prospects for exporters were poor, planned investments in production facilities were put on hold and the growth in housing construction investment came to an abrupt halt. In the second half of the year the

**Chart 19.**  
Stock of bank lending to households and companies, Finland

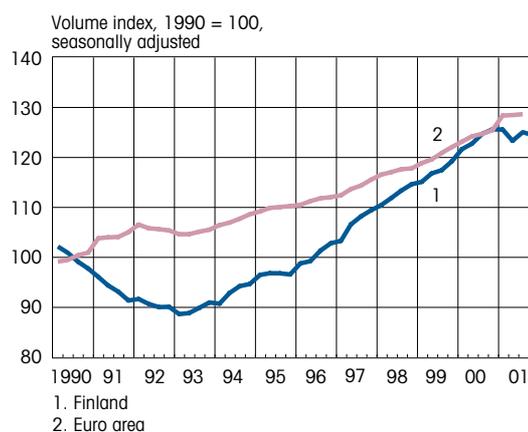


\* Bank loans amounting to approx. FIM 5 bn were transferred to asset management companies in Dec 1995.  
\*\* Following items removed from stock in connection with statistical revision:  
a) bonds and other bearer instruments treated as investment assets  
b) lending by foreign branches of domestic banks.

\*\*\*Restructuring in banking sector.

Source: Bank of Finland.

**Chart 20.**  
GDP in Finland and the euro area



economy began to show signs of recovery. In the last quarter private consumption became brisk and exports revived (Chart 21).

Export volume declined by 1% in 2001, compared to remarkable growth of 18% in the previous year. Import volume, by contrast, remained at a historically high level in 2001, topping the 1999 level by 8%. Due to the euro's low external value, the price competitiveness of the export sector remained good in 2001.

The halt in export growth acutely affected the electronic equipment industry, which now accounts for more than a quarter of Finland's total exports. The value of the industry's exports fell in the first half of 2001 by nearly a fifth compared to the second half of 2000. In the early part of the year, electronic equipment industry exports to the euro area were particularly weak, whereas exports to the United States continued to increase –albeit at a lower rate. The pronounced slowing of US economic growth, however, had a significant indirect effect on the demand for industry exports to other countries. In the final months of 2001, exports of the electronic equipment industry picked up again, but for the year as a whole export volume was down 8% compared to the previous year.

The value of forest industry exports declined in 2001 compared to 2000 due to the slowing of world economic growth. Paper mills arranged production stoppages on numerous occasions, in an effort to halt the slide in prices. The sawmills suffered from cut-backs in construction activity in

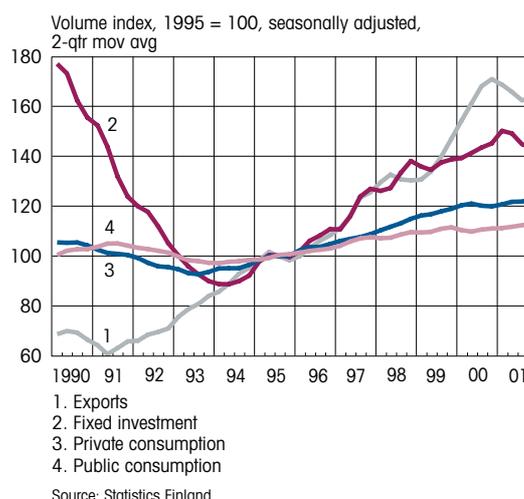
customer countries as well as declining product prices. Exports of the engineering works industry by contrast, increased –reflecting the tendency of sector output to pick up toward the end of a cyclical upswing. For exports of transport equipment, 2001 was a good year, as the building of several expensive large ships was completed. Food product exports to Russia recovered in 2001 because of a pickup in Russian economic growth. Also exports to the Asian countries that were hit by econom-

ic crises in 1997–1998 increased to a higher level than before the crises.

### Industrial output remained buoyant despite the growth slowdown

The weakening of export demand in the early part of 2001 was reflected in a decline in industrial output. Real output fell quarter-on-quarter by 2% in the first quarter and 7% in the second quarter (Chart 22). In the latter part of the

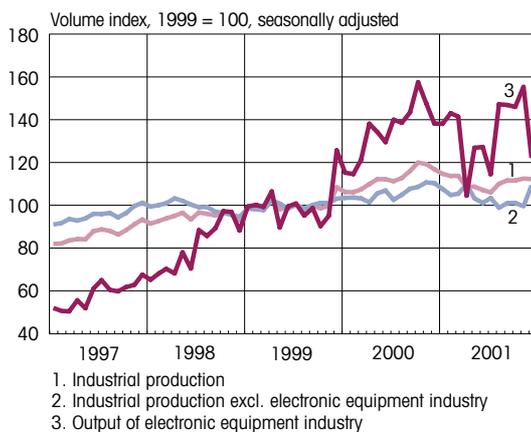
**Chart 21.**  
Structure of demand



**Chart 22.**  
Industrial production



**Chart 23.**  
**Electronic equipment industry and industrial production**



year, industrial output recovered in response to renewed growth in the electronic equipment industry. But for 2001 as a whole, industrial output decreased by 1%, in sharp contrast to the export-driven 11% growth rate posted in 2000.

Output volume of the electronic equipment industry fluctuated notably in the course of 2001 (Chart 23). The volatility was caused by both demand factors and apparently by reorganisations of production. A precipitous drop in output occurred in the spring, but in the second half of the year output rebounded as the manufacturing of new-generation mobile phones commenced. This boosted autumn output to the peak level of the previous year. Thanks to the pickup in the latter part of the year, output of the electronic equipment industry achieved year-on-year growth of 2% in 2001. This was however a modest result compared with the 36% growth posted in 2000.

Output of the other metal and engineering industries increased 1% in 2001. The year was particularly positive for the engineering works industry, which received numerous orders in the early part of the year, foreign and domestic. For the forest industries, 2001 was weaker than the previous year, as the world-wide recession significantly dampened the demand for paper. Output of the paper industries declined 7% year-on-year. Despite production stoppages, export prices declined in 2001. Market conditions for sawmills were difficult all year because of excess supply and high prices of sawlogs. The decline in exports of the forest products and electronic equipment industries was reflected indirectly in the output of chemical manufacturers subcontracting for those industries, which fell by 3% in real terms.

The industrial confidence indicator of the Confederation of Finnish Industry and Employers

showed weakness throughout 2001, staying below its long-term average. According to the October survey of business confidence, companies still saw their prospects as fairly poor. Especially pessimistic about prospects for the remaining part of the year were small and medium-size companies, for which the prime output deterrent was a decrease in the backlog of export orders.

### Investment activity slowed but consumption held its own

The sluggishness of export demand also restrained investment growth in 2001 (Chart 21). Private investment grew 2%, compared to 7% in 2000. Industrial sector planned investment for 2001 was still large in the spring but, because of a decline in exports, many projects were postponed. On the other hand, numerous investment projects that had commenced in 2000 were completed in 2001. Moreover, low interest rates and high profits achieved by many companies in recent years made investment attractive. And, in the forest industries, many investment projects involving basic repairs were carried to completion. Of aggregate industrial investment, about half was directed abroad.

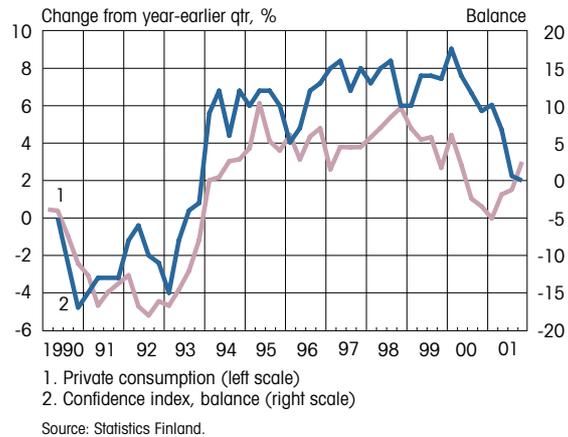
Construction growth also came to a halt in 2001, as the volume of construction was almost unchanged from the previous year. In the first quarter of 2001, construction investment grew. The increase was based on investment in industrial and commercial construction as well as in housing construction.

In the early part of the year, robust growth of household income and migration boosted construction investment in the growth centres, which is focused on the wholesale/retail trade and services sectors. However, in the second half of the year, the growth of industrial construction slowed, partly because sluggish export activity meant less need for industrial facilities.

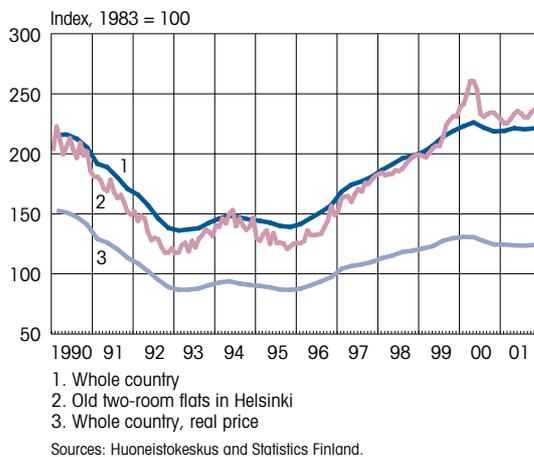
Housing investment fell for the whole year with a decrease of 7%, compared to a 3% increase in 2000. Housing starts were lower in the second half than in the first half, and approvals of housing construction permits decreased notably compared to end-2000. The slowing of economic growth and general uncertainty led to further postponement of construction start-ups. Moreover, housing construction in growth centres was often deterred by land shortages.

Growth of private consumption slowed somewhat in 2001 although, due to low interest rates and favourable income and employment developments, consumption remained robust (Charts 21 and 24). Retail sales, except for cars, increased at the same rate as in 2000. The weakness of car sales was due largely to expectations of a change in taxation. Consumers' confidence in their own finances remained strong almost all year, whereas their outlook for the economy and employment became clearly more pessimistic in the course of the year. Right at the end of the year, consumer's confidence in their own finances faded slightly as a result of the terrorist attack

**Chart 24.**  
Consumption and consumer confidence indicator



**Chart 25.**  
Housing prices in Finland



and poor prospects for the world economy.

Consumers' strong confidence in the future and the low level of interest rates kept the housing market fairly active in 2001

(Chart 25). According to data from Statistics Finland, the price of old flats rose somewhat from the end of 2000. However, compared to the average for 2000, housing prices declined slightly in 2001.

## Increase in employment came to a halt

The positive trend in employment ended in the second half of 2001 (Chart 26). In December 2001 the seasonally adjusted employment rate was 68%, ie just slightly higher than a year earlier. The seasonally adjusted unemployment rate fluctuated somewhat during the year; in December it was nearly the same as a year earlier, ie about 9%.

Thanks to a good start, average employment for 2001 as a whole rose slightly year-on-year. During 2001 employment improved most in the service sector. Within the service sector, companies providing business services and real estate and industrial cleaning services increased their workforces by about 5% in 2001, and employment prospects in these sectors remained good all year. Companies providing business services are in fact the fastest growing part of the

private sector in terms of employment. Employment also developed positively in the general government sector in 2001.

By contrast, in the industrial and construction sectors, the upward trend in employment ended in the second half of the year. Nonetheless, employment in the industrial sector declined only slightly relative to the slowing of the growth of industrial output, one reason being the capital-intensity of the export industry. Moreover, companies' strong financial positions enabled them to 'hoard' capable employees despite diminishing needs in a weak economy. The need to reduce workforces in the industrial sector affected mainly fixed-term employees, whereas the number of permanent employees was almost unchanged. In the construction sector, the number of employees was reduced because of a decline in order backlogs, and the near-term employment outlook

was also poor. In the latter part of the year, unemployment was highest in the construction sector.

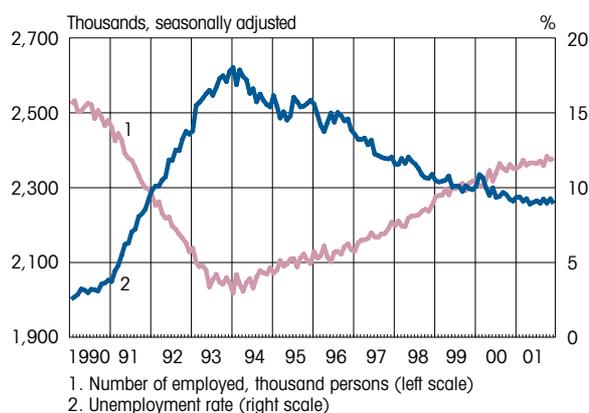
## Tax revenue decreased

The general government surplus stopped growing in 2001, and the surplus-to-GDP ratio fell by just over 2 percentage points, to 4.9% (Chart 27). The central government surplus-to-GDP ratio decreased by about 1.5 percentage points, to 1.9%. Municipalities' finances moved marginally into the red, while the social security funds generated a surplus of close to 3% of GDP.

The recession in the world economy and weakening of export demand were reflected in companies' financial results, as capital gains were also smaller than in 2000 due to the sluggishness of the stock markets. Taxes paid to Finland by companies and financial institutions in 2001 amounted to about a quarter less than in 2000. Revenues from corporate taxes fell sharply only toward the end of 2001.

The growth in household taxable income was not materially affected in 2001 by the recession. Aggregate wages continued to increase rapidly, at about a good 6% per annum. Moreover, households made payments in 2001 on year-2000 tax-withholdings shortfalls related to exceptionally large capital gains and stock option income. Revenue from taxes on earned income nonetheless fell at the start of 2001 because of entry-into-effect of tax cuts amounting to EUR 0.6 billion, ie 1.2% of aggregate

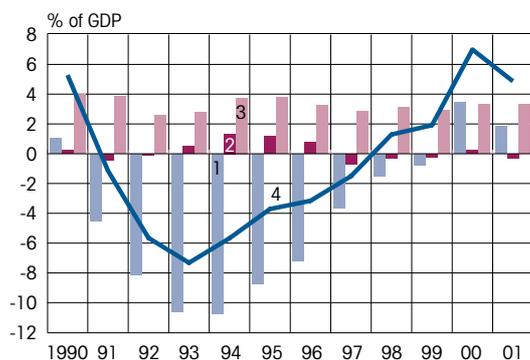
**Chart 26.**  
Number of employed and unemployment rate



Sources: Statistics Finland and Bank of Finland.

**Chart 27.**  
**Public finances**

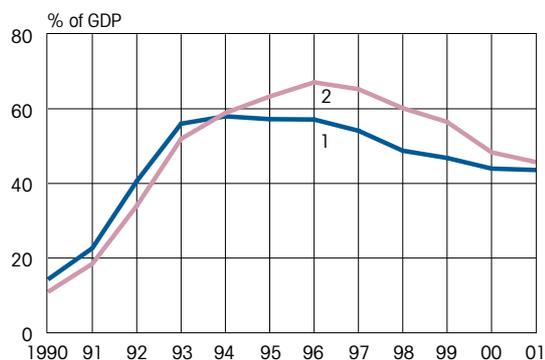
Public sector balances



1. Central government  
2. Local government  
3. Social security funds  
4. General government

Source: Statistics Finland.

Public debt



1. General government  
2. Central government

Sources: Statistics Finland and State Treasury.

gate wages. Households' total tax payments increased 2.6%. However, because of the lower corporate tax revenue, combined income and wealth tax revenue decreased by 5% in 2001.

Tax revenue on production and imports again increased slowly. The bases for VAT and other indirect taxes have narrowed in recent years due to increases in e-commerce and especially in imports of tax-free alcohol. The high price of oil has reduced fuel sales and at times reduced income from fuel taxes. Year 2001 also saw exceptionally sluggish car sales and hence lower car tax revenue. Thus tax revenue from production and imports increased considerably more slowly than private consumption.

Social security contributions increased somewhat more slowly than aggregate wages in 2001 because of a reduction in the base for contributions. Employment pension contributions were reduced by

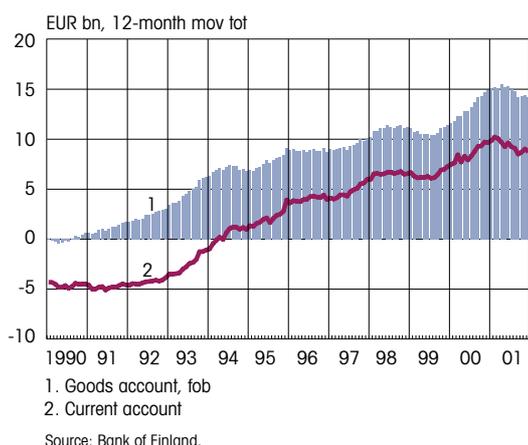
0.4 and unemployment insurance contributions by 0.6 percentage point. Employers' national pension contributions were also reduced. Reductions in taxes and indirect labour costs resulted in a lowering of the tax ratio by about 1.5 percentage points, to 45.6% of GDP.

Due to the sluggish growth of output, the ratio of general government expenditures to GDP started to climb in 2001. Pension payments increased sharply due to a swift rise in pension indices and a general increase in national pensions. Costs related to the management of unemployment were again reduced by a marginal improvement in the employment situation. Other social welfare payments to households increased. General government consumption and investment clearly increased in real terms. The reduction in the central government debt and decline in interest rates reduced general government interest payments.

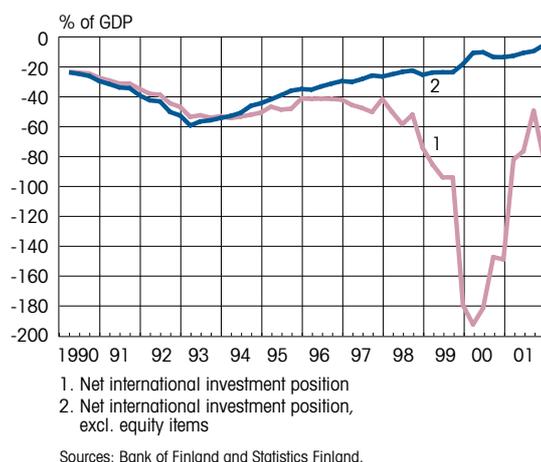
Central government primary expenditures (total excl. interest payments) increased 5% in 2001. Supplementary budgets for 2001 included appropriations for government aid to municipalities and investment in transport and communications. An increase was also made in the appropriation for national payments connected with EU support. In the autumn the central government also participated –in the amount of about EUR 0.5 billion –in the increase in Sonera's share capital.

The growth in municipalities' consumption expenditures accelerated slightly in 2001. A higher level of earnings and staff increases boosted wage payments. Municipalities financed a larger share of their expenditures via government transfers and grants, as the growth in tax revenues slowed because of a reduction in corporate tax revenues. Municipalities' investment activities increased significantly.

**Chart 28.**  
**BOP goods account and current account**



**Chart 29.**  
**Net international investment position**



The central government debt decreased in 2001 by some EUR 1.6 billion. The debt-to-GDP ratio was 46%. For the general government as a whole, the 'EMU' debt increased, as employment pension funds continued to wind down their investments in government securities slightly faster than the government's rate of decrease in the debt. The general government debt-to-GDP ratio (Maastricht definition) was 44% at the end of 2001.

### Current account surplus decreased but remained large

Finland's current account decreased slightly in 2001 compared to 2000, but the surplus-to-GDP ratio (6.4%) was still one of the highest in the euro area (Chart 28). The current account for the whole euro area posted a modest deficit in 2001.

The shrinking of the Finnish current account surplus in 2001 derived partly from a weakening of

the income account compared to 2000. An increase in the income account deficit was due most importantly to a year-on-year increase in dividends paid on shareholdings of nonresidents. These dividend payments totalled about EUR 1.9 billion. Other factors were decreases in residents' receipts of dividends and reinvested earnings in respect of direct investments, as well as a slightly larger decrease in the value of goods exports vs imports.

Because of the current account surplus, Finland's indebtedness declined again in 2001 (Chart 29). By the end of the year, the net interest-bearing external debt – ie the difference between external assets and liabilities, excluding shares and other equity items – was down to about EUR 7.2 billion.

Finland's net international investment position, which is the difference between total external assets and liabilities, improved notably in 2001. This was largely due to a decline in prices of Finnish shares held by nonresidents. But despite the decline, Finland's external liabilities exceeded assets by EUR 110.7 billion at the end of 2001.

# Financial markets

## The Bank of Finland's financial market responsibilities

Almost all the world's central banks are actively involved in financial supervision, regulation and development. There are many reasons for this. In carrying out their function of oversight of payment systems, central banks are well positioned to observe the banks' performance. In time of crises, for instance, the national central bank often holds a key position as a lender of last resort. The banking sector's situation is important to the central Bank, if for no other reason than the significance of the banking system's role as medium for the monetary policy.

The Bank of Finland has statutory duties within the financial markets, although responsibility for the supervision of the banks and securities markets parties belongs to the Financial Supervision Authority, which operates in connection with the Bank. One of the Bank of Finland's main tasks is to contribute to maintaining the reliability and efficiency of payment and other financial systems and to take part in the development of these systems. Ongoing surveillance is a central aspect of the macroprudential supervision of the financial markets (Box 1).

The progressively more international nature of the financial markets' regulation is reflected in the advancing tendency of domestic legislation to be increasingly based on EU Directives or international agreements. Financial supervision is carried out at national level within the European Union. Moreover, the ESCB has its Banking Supervision Committee of the European System of Central Banks (ESCB), which is made up of representatives from the ECB as well as from the member countries' central banks and financial supervisors. The Bank of Finland and the Financial Supervision Authority each have a representative on the committee. The Banking Supervision Committee draws up periodical assessments on the stability and structure of the EU area's banking sector.

Similarly, the Bank of Finland along with the Financial Supervision Authority and the Ministry of Finance each has a representative on the Banking Advisory Committee, which is subordinate to the European Commission. In 2001, the committee's work concentrated on examining the reform recommendations put forward concerning the capital adequacy framework of credit institutions and investment firms.

## Box 1. Macroprudential supervision of the financial markets

Macroprudential supervision refers to certain tasks of the central bank, especially oversight of the banking sector and surveillance of securities markets. Macroprudential supervision by the central bank differs from prudential supervision by financial supervisory authorities in that it focuses primarily on markets and systems rather than on individual enterprises. Macroprudential supervision is concerned particularly with risks that could jeopardise the reliable functioning of the entire financial system. In addition to systemic risk, macroprudential supervision is concerned with the efficiency of financial markets. The financial supervision authorities, for their part, usually concentrate on individual companies' risk positions and monitor that their operations conform to regulations and legislation.

Macroprudential supervision is one of the responsibilities of the European System of Central Banks (ESCB) and a task laid down in the Bank of Finland's regulations. According to the Treaty establishing the European Community, the ESCB is required to contribute to the smooth conduct of the policies pursued by the credit institutions and the overall stability of the financial system. Under Finnish national legislation, the Act on the Bank of Finland lays down the legal basis for the oversight function.

The Bank of Finland's key tasks in respect of macroprudential supervision are ongoing surveillance and analysis of financial markets and participation in the development of related regulation and supervision. Analysis focuses on financial behaviour, financial institutions and development of the markets in terms of stability and efficiency. The Bank is involved in the development of the financial markets via its participation in the preparation of domestic legislation, cooperation with market participants, as well as its research and analytical work and communication of the findings to other authorities and the general public. This includes publishing several progress reports, intended for both internal and public use on the development of the financial markets. The focus of macroprudential supervision is on forecasting and crisis prevention. In situations where the financial markets may be faced with a serious crisis, the Bank participates in crisis management along with the Financial Supervision Authority and the Ministry of Finance.

The Bank cooperates with the IMF, OECD, the Bank for International Settlements (BIS) and the other Nordic central banks in their task of following and analysing the financial system's stability and structure.

In spring 2001, the IMF in association with the World Bank

carried out an assessment of the Finnish financial sector's situation, under their Financial Sector Assessment Programme (FSAP). The assessment required the information input of the Bank of Finland, the Financial Supervision Authority, the Ministry of Finance, the Ministry of Social Affairs and Health and other

authorities and representatives of the private sector. The Bank of Finland was involved, for example, in the calculations required for the assessment project.

According to the IMF assessment, Finland was found to have a sound financial system. The favourable macroeconomic performance of the last few years has served to strengthen the economic position of both households and businesses alike. On top of which, banks have avoided excessive credit risks. Even if there were significant changes in asset prices, they did not jeopardise the financial system. The IMF issued its country report on the assessment (01/214), which can be read on the International Monetary Fund's web page. A similar assessment has been undertaken of several other countries.

## Developments in the international financial market in 2001

In 2001, several serious problems emerged around the world in the financial market. Some of these were caused by factors unrelated to economics or events in the financial market per se. The terrorist attacks on the United States on 11 September rebounded particularly hard on the securities markets. The New York stock exchange was closed for several days and the blow was particularly hard from the perspective of the capital markets, as some key enterprises suffered the loss of up to hundreds of their employees.

Serious problems appeared in many other countries throughout

the year. The difficulties experienced by the Japanese economy and banks deepened further, exacerbated by the sharp downturn in share prices. An increase in bankruptcies and the continuous fall in asset prices only served to add to the banks' increasing volume of non-performing loans. The Japanese financial supervision authorities announced that they would be tightening their control of the banks' loan portfolios.

The economic crisis in Turkey came to a head in February 2001, when currency pegging of the lira was abandoned and the currency depreciated.

In Argentina, the depth of the current account deficit and the degree of government's indebtedness became critical, the central government's credit rating deteriorated significantly over the year and confidence in the banks weakened. A downright run on the banks was imminent and the public's right to make withdrawal from their bank accounts was curtailed at the end of the year. The economic crisis led Argentina into a political crisis and in January 2002 the currency was allowed to depreciate as the currency board arrangement was relinquished.

Despite all this, the Finnish and other EU member countries' financial markets were relatively peaceful in 2001. Although the terrorist attacks on the United States on 11 September rebounded particularly hard on the securities markets. Perhaps the most notable direct influence was seen in the FSA's announcement of the suspension of the redemption of mutual funds whose value could not be

defined while the New York stock exchange was closed. Other problems experienced outside Europe had a relatively small effect on the EU countries' financial markets. The EU member countries' banks have claims on Turkey and Argentina, but the associated risks do not pose a threat to the operation of the financial markets.

## Banks

### Structural changes in banking

The two main trends in banking over the past few years have been the formation of multinational financial groups and the increasing prevalence of financial conglomerates, trends that were also clearly discernible in Finland in 2001.

The merger of Finnish-Swedish MeritaNordbanken, Denmark's Unidanmark group and Norway's Christiania Bank og Kreditkasse continued in 2001, evident in much of the internal arrangements of the group:

- The merger between Merita Real Estate Ltd and Merita Bank Plc was finalised by the end of April 2001.
- In June 2001, the Ministry of Finance granted a banking licence to Nordea Companies Finland (NCF) Plc which had earlier operated as the holding company for Merita Bank, the Swedish Nordbanken and the Norwegian Christiania Bank og Kreditkasse. These Nordic banks remained subsidiaries of NCF.
- At the end of September, Merita Bank merged with the parent company NCF. The name of the

new company became Merita Bank.

- November also saw the transfer of Unibank from the Danish holding company to becoming a subsidiary of Merita Bank. Unibank was renamed Nordea Bank Danmark.
- In December the names within the group changed, becoming Nordea Bank Sverige, Nordea Bank Finland and Nordea Bank Norge.

After many shuffles, the Nordea Group's banking operations are now concentrated under Nordea Bank Finland Plc. Nordea Bank Finland is entered in the Finnish trade register and has been granted its commercial banking licence by the Finnish Ministry of Finance. As successor to Merita Bank, it clearly holds the position of market leader in Finland. On top of which the group has three significant subsidiaries in the Nordic countries' banking sectors. Nordea Bank Finland also visibly holds the position of the largest bank in Finland, measured by consolidated balance sheet total, well beyond the size of the other licensed deposit banks combined. It belongs to the larger Swedish holding company Nordea AB (publ). This holding company, in turn, also owns a number of large insurance companies and investment firms.

Although the financial conglomeration of the credit institution Leonia Bank with Sampo insurance Ltd was, to all extents and purposes, accomplished in 2000, restructuring continued into 2001.

- In February, the majority shareholders of Mandatum Bank accepted the offer of a trade on

- Mandatum shares for Sampo-Leonia shares.
- Leonia Bank's name was then changed in February to Sampo Bank plc.
  - In March, Sampo Bank ceased trading on the Helsinki stock exchange and the group's securities trading was concentrated in Mandatum Private Bank.
  - In April the parent company's name was changed from Sampo-Leonia to the abbreviated form Sampo.
  - In May, Sampo-Leonia announced that it had made a takeover bid for the Norwegian Storebrand insurance company. However during the delay in the acquisition project the situation changed and in September the offer was allowed to expire.
  - In October Sampo Bank was divided into three legal entities: Sampo Bank took most of the main banking business, Sampo Credit Plc took the body of the export and project funding and some of the large customers' business and Sampo Business Properties Ltd took the real estate business.
  - In November, Sampo and If P&C Insurance Company Ltd agreed on a transfer of Sampo's property and casualty insurance business to If. In addition to a shareholding, the transaction involved a cash consideration for Sampo's P&C business. Sampo now holds 38.05% of the ownership of If. Other shareholders are Varma-Sampo Mutual Pension Insurance Company, the Swedish Skandia Insurance Company Ltd (publ)

and Skandia Liv as well as the Norwegian insurance company Storebrand ASA. Together Sampo and Varma-Sampo control 50% of the voting rights. The agreement was implemented in January 2002.

- In December Mandatum Bank Plc was merged with Sampo Bank Plc.

The Amalgamation of Cooperative Banks (The OKO Bank Group) was the only large banking group whose legal structure did not undergo any significant changes during 2001. The Amalgamation of Cooperative Banks, the Fennia Group and the Local Insurance Group signed sales cooperation agreements in December 2001. By virtue of these agreements, members of the Amalgamation will begin selling those Fennia and the Local Insurance Group policies that are covered by the arrangement.

A new domestic commercial bank commenced operation in Finland when the Ministry of Finance granted Evli Securities Plc a licence to operate as a deposit bank, on 30 August. The Bank announced receipt of the licence at the same time as making public its change of name to Evli Bank Plc.

The German-licensed Landesbank Schleswig-Holstein Girozentrale extended its operations to Finland during the reporting year, opening a branch in Helsinki. According to the second EU Directive on banking, a credit institution's licence to operate in one member country entitles the licence-holder to establish branch offices in all the remaining member countries with-

out requiring additional licence applications for those branches.

Skopbank, which had already gone into liquidation, ceased its banking operations when the Ministry of Finance rescinded its banking licence as of 1 January 2001.

Municipal Housing Finance Plc and Municipality Finance Plc entered a combination merger. The Ministry of Finance granted the new company, to be known as Municipality Finance Plc, a credit institution licence on 26 April 2001. Municipality Finance offers financial services to municipalities and public housing corporations. It does not acquire deposits from the public but rather procures funds from the capital markets.

One new mortgage bank, Aktia Hypoteksbank, was issued its licence in November 2001. Mortgage banking is relatively small scale in Finland and only three credit institutions, all belonging to deposit bank groups, operate in the sector. The sum total of their balance sheets was less than EUR 100 million in December 2001.

## Bank profitability

Large-scale restructuring, mergers in the insurance and banking sector and internationalisation of the groups made presentation of precise figures on domestic banking's profitability at the sector level very difficult. Generally speaking the outlook for the banks was still good, although slightly weakened on the previous year. For example, the Amalgamation of Cooperative Banks, Sampo Bank Group and the Bank of Åland Ltd all showed a

weakening in their results. Although few banks were able to show an improvement in profitability on last year, many of the savings banks were at a better level than they had been in the previous year (Table 1).

The profitability of the Nordea Group's banking business has been awkward to follow, as data comparability from 2000 and 2001 has been difficult to present owing to the basic restructuring that the Group has undergone. The entire Nordea Group's operating profit including insurance services was somewhat down on the previous year.

A weakening in the profitability of the banks was, to a great extent, the result of single isolated factors. In 2000 some of the banks had, for example, received exceptionally large, one-off dividend income payments and capital gains that they no longer had access to in 2001. The weakening in profitability, however, was the result of other factors. Many banking groups saw an increase in their operating

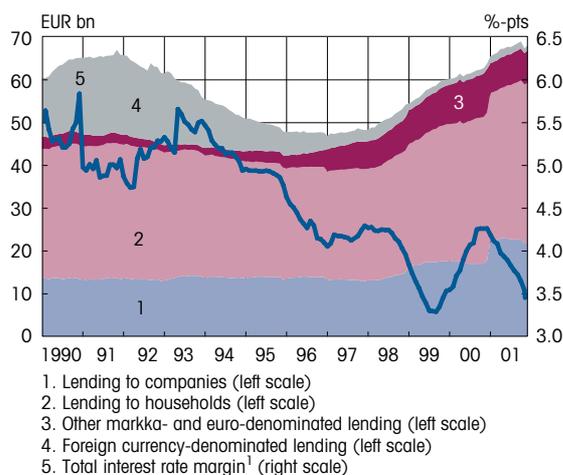
**Table 1.**  
Selected banking groups'  
operating profits 2000 and 2001

	2000 EUR million	2001 EUR million
Nordea Bank Finland -Group	- 2 573,4	-
Merita Bank -Group	936,9	-
Amalgamation of Cooperative Banks	664,5	504,1
Sampo Bank -Group <sup>1</sup>	218,9	263,2
Aktia Group	42,3	32,1
Other savings banks as parent companies	65,0	72,2
Independent Cooperative Banks, as parent companies	39,0	36,1

<sup>1</sup> Sampo Bank's operating results, 2001 are from the consolidated profit and loss account that include the results of the companies operating within the Sampo Group during the year. Operating profit figures for 2000 and 2001 are not entirely comparable due to the group structural reorganisation.

Source: Banks.

**Chart 30.**  
Deposit banks: lending stock and total interest rate margin



1. Lending to companies (left scale)  
2. Lending to households (left scale)  
3. Other markka- and euro-denominated lending (left scale)  
4. Foreign currency-denominated lending (left scale)  
5. Total interest rate margin<sup>1</sup> (right scale)

<sup>1</sup> Difference between average markka lending and deposit rates; since start of 1999, difference between avg interest rates on euro-denominated lending and deposits.

Source: Bank of Finland.

expenses. A reduction in securities trading led to lower fee income.

Several banks' net income was larger than in 2000. Borrowing and lending increased, but the margin between deposit and lending rates narrowed, ending at 4.3 percentage points in December 2000, compared to a margin of 3.5 percentage points a year later (Chart 30). The fall in interest rates was important to the narrowing of the interest rate margins, as a significant amount of lending is tied to various reference rates, while borrowing, on the other hand, is more generally at a fixed rate. Despite a clear cyclical downturn on the previous year, loan and guarantee losses remained relatively low.

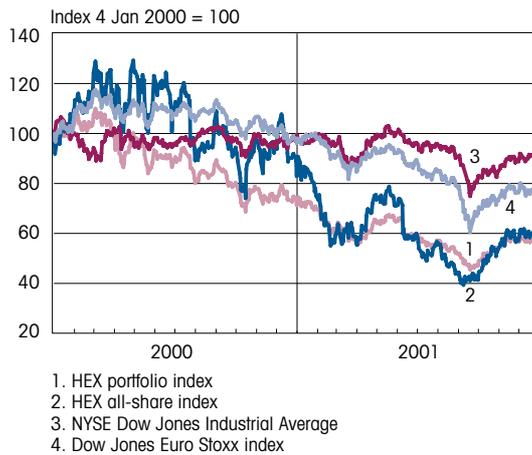
Crises experienced by the financial markets in various parts of the world had a comparatively small effect on Finland's banking operations. Also Finnish banks have claims on Turkey, amongst

others, but a substantial portion of these can be considered low risk claims, due for example to government guarantees. The problems experienced in Japan and Argentina have also had a low, generally indirect impact on Finnish banking.

## Securities markets

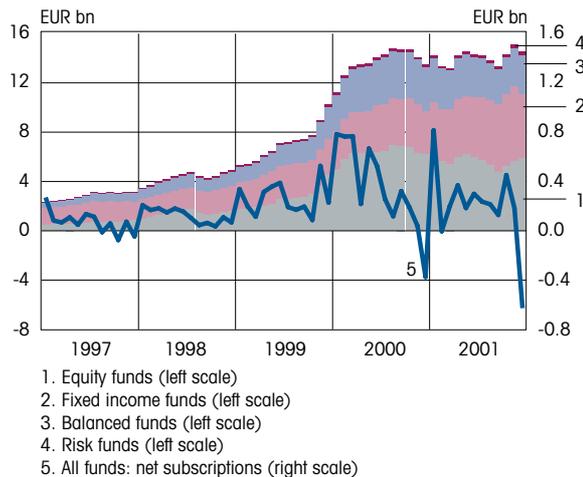
The decline in share prices, experienced in 2000, continued into much of the reporting year. Share prices in the EU and Tokyo stock exchanges hit their lowest in the few days following the September terrorist attacks and in the New York Stock exchange soon after its reopening. For example, the Dow Jones broad Euro Stoxx index touched its lowest point on 21 September, which was 39.7% lower than the trough reached in 2000. By the end of the year price levels were still unable to recover to their

**Chart 31.**  
**Share prices**



Sources: HEX and Bloomberg.

**Chart 32.**  
**Mutual funds registered in Finland**



Source: HEX.

previous year's level. In all, the broad Euro Stoxx index fell 20.2% in 2001 (Chart 31).

Price developments of shares by sector were fairly varied. Traditional sectors maintained their values adequately, while the shares of IT companies suffered a fall in value. The end of the year saw a strong rise in share prices in the data and communication technology sectors.

Share trading continued to be brisk on the Helsinki stock exchange. Trading volumes were valued at a total of EUR 203 billion. This was down slightly on 2000 (EUR 227 billion), but notably more than in 1999 (EUR 105 billion). Nokia shares accounted for 77% of all shares traded. Trading on Nokia shares was approximately 10 percentage points less in 2000. The terrorist attacks of

11 September on the United States served to increase the trading of Nokia shares on the Helsinki exchange, as the closure of the New York Stock Exchange meant purchase and sell orders were re-routed to Helsinki.

It helped however that a substantial number of broking firms working on a remote basis were capable of handling the re-routed Nokia shares traded following the terrorist attack. These remote brokers are financial enterprises that are involved in trading on the Helsinki Stock Exchange electronically, based outside the country. Remote brokers accounted for 31% of share trading on the Helsinki stock exchange in 2001, rising from only 14% in 2000. In December 2001 the remote brokers' share was already as high as 40% of all trading. By the end of the year, 20 of the total 38 stockbrokers trading in the exchange were remote brokers, most of whom were based in either Stockholm or London.

Despite brisk trading, share prices fell in 2001. The HEX all-share index reached its lowest in September, 57% below the end-2000 rate and the HEX portfolio index, in which Nokia's weight has been limited to 10%, was 39% lower than at the end of 2000. Share prices rose towards the end of the year, but were unable to reach the levels of the end of the previous year. In all, the HEX all-shares index was down 32% and the HEX portfolio index was down 22% in 2001. Price developments therefore reflected the international situation fairly closely. Mutual funds registered in Finland grew only slightly in 2001, by about

EUR 14.5 billion. Net subscriptions were clearly down on 2000 levels. On top of which, the drop in share prices reduced mutual fund assets, thereby reducing equity funds and balanced funds. Money market funds specialising in short maturity debt instruments experienced a fairly robust growth with their assets almost doubling to about EUR 3 billion, which in turn already represents close to one fifth of all mutual funds (Chart 32).

The share of foreign ownership of the Finnish book-entry system shrank somewhat in 2001. In December 2000, non-domestic ownership accounted for 74% of shareholder value of the book-entry system whereas it was down to 71% at the end of 2001 (Chart 33).

Because of the surplus in central government finances new issue activity in the bond market remained modest. At the beginning of 2001, the value of bonds outstanding was EUR 51.1 billion, but the stock had shrunk to EUR 50.3 billion by the year-end. At the beginning of the 2000 the stock of bonds was at its largest, valued at EUR 57 billion. The reduction was largely due to the diminishing of general government issuance (Chart 34).

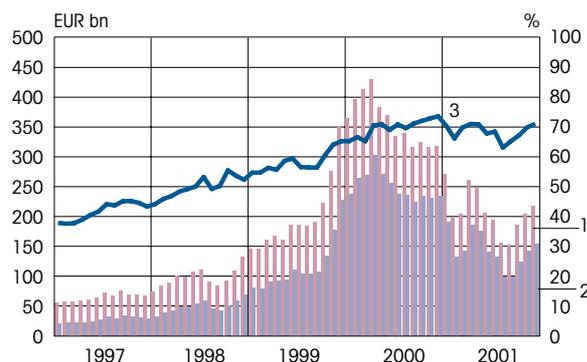
The Finnish government serial bond market, intended for large investors, is based on market making where banks and brokering firms acting as primary dealers present purchase and sell quotations both to each other and to final investors. The bulk of such business is primarily conducted on the telephone. A portion of the serial bonds is traded through the electronic EuroMTS system (Euro

Mobile Telecom Services), which has become an increasingly significant marketplace for Finnish serial bonds. Based in London, EuroMTS is an enterprise owned by a large number of big, internationally active financial institutions, established in 1999 to maintain the electronic wholesale trading of euro-denominated government bonds.

At the end of 2001, the Finnish State Treasury and the market mak-

ers decided that trading in Finnish government serial bonds would be centralised on the MTS Belgium electronic market. It is anticipated that trading will have been transferred to the MTS Belgium system by spring 2002. MTS Belgium is a registered company, established in 2000 to maintain the Belgian government's debt instruments marketplace. It is intended that Finnish regulations and agreements be

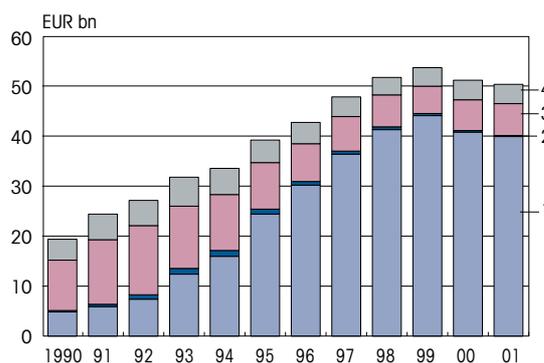
**Chart 33.**  
Market capitalisation of listed shares and holdings of nonresidents



1. Market capitalisation of shares on the HEX (left scale)
2. Market capitalisation of shares held by nonresidents (left scale)
3. Holdings of nonresidents, % of market capitalisation (right scale)

Sources: HEX and Finnish Central Securities Depository.

**Chart 34.**  
Bond issuance in Finland, year-end stock



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

Source: Statistics Finland.

applied to the Finnish government bonds market. MTS Belgium has no group relationship with EuroMTS, however the businesses apply the same trading system. This system is maintained by the Italian MTS SpA, a shareholder in both enterprises.

## Developments in supervision and regulation

### International regulation and supervision

There were several notable international regulatory additions prepared in 2001. Most notable was the reform of the capital adequacy framework for credit institutions and investment firms. The capital adequacy requirements, applied in all the EU member states as well as several other countries, are based on the recommendations put forward by the Basel Committee on Banking Supervision in 1988. In many respects this arrangement is obsolete and its reform has been under way for some time already.

In January 2001, the Basel Committee on Banking Supervision published its second consultation document on reform proposals, intended as guidelines for credit institutions' solvency requirement calculations. The reforms are aimed at making the regulations more precise on capital adequacy calculations, used for comparing own funds to risk. In May, the Bank of Finland, the Ministry of Finance and the Financial Supervision Authority jointly presented a generally favourable response in their statement to the Basel Com-

mittee. The Basel Banking Supervision Committee intends to put forward a third version of their reform proposals, at a later date.

The European Commission has also drawn up its own proposals on reforms for the capital adequacy framework. The Commission's proposals are largely in line with the Basel Committee's own proposals, the main addition being consideration of possible exceptions in such issues that are of particular relevance to the European Union. The Directive on the capital adequacy framework, which also concerns investment firms, is due to be incorporated into member states' regulations by 2005.

In February 2001, the European Commission published proposals for a regulation on the application of international accounting standards (IAS). Under these proposals, from 2005 onwards all listed companies in the EU stock exchanges will prepare their consolidated financial statements in accordance with IAS standards. The regulations also concern those enterprises that have issued bonds, traded in the stock exchange or regulated markets. The intention is to extend the degree of integration in the EU capital markets by facilitating comparison of financial statement data from companies operating in the various member countries.

In April 2001, the European Commission proposed a Directive on financial conglomerates offering both insurance and financial services, the purpose of which is harmonisation of the norms on monitoring financial conglomerates in the member states. The

Directive, for example, defines a financial conglomerate, regulates the coordinating supervisors and presents measures for preventing double counting of own funds in meeting capital adequacy requirements.

### Domestic regulation and supervision

In December 2001, parliament approved three significant reforms of financial market legislation.

Firstly, parliament approved legislation on the supervision of financial and insurance conglomerates based on the proposal made in April by the European Commission for a Directive on this issue. The Act specifies, in terms of balance sheets and capital requirements, when the main supervisory responsibility of a conglomerate offering both financial and insurance services lies with the Financial Supervision Authority and when with the Insurance Supervision Authority. The authority bearing the main supervisory responsibility is obliged to monitor the fitness and propriety of owners and managers as well as the conglomerate's internal control and risk management systems. The Act extended to financial conglomerates the right of enterprises to submit information to each other.

Secondly, parliament approved legislation, whereby Acts concerning banks and credit institutions were amended. Under the new legislation, credit institutions' merger, demerger and reduction of restricted equity capital, inter alia, were stipulated according to the

general provisions of the Companies' Act on measures for the protection of creditors. However, this does not cover normal deposits, which come under the cover of deposit protection. The Financial Supervision Authority was granted extensive powers to prevent the above-mentioned types of arrangements if they jeopardise the capital position of the credit institution. Parliament also approved legislation on the temporary suspension of business related to deposit banks. The Ministry of Finance has the right to temporarily suspend activities involving the receipt of deposits and credit transfers of a deposit bank in financial difficulty.

Before the suspension, the Bank of Finland and the Financial Supervision Authorities are required to be heard and it must be shown that a continuation of business activities would cause material harm to the financial markets, for example by jeopardising the depositors' position. A bank put under such a suspension order is required to draw up a business recovery plan. These amendments became valid from the beginning of 2002.

Thirdly, parliament approved Acts on the amendment of the Securities Market Act and the Act on Trading in Standardised Options and Futures. The obligation to publish a public-offer prospectus in

connection with a public offering was extended to concern private limited companies, in addition to companies subject to public trading. In addition, the objective of the legislation is to increase competition, allowing organisations other than the stock exchange to trade in listed shares and other equity capital securities. It is also intended that the markets' current internal supervision measures will be tightened. For example when involved in public trading, the securities to be listed must conform to the requirements concerning the corporate governance of issuers. These amendments became valid from the beginning of 2002.

# Payment and settlement systems

One of the Bank of Finland's main tasks is to contribute to maintaining the reliability and efficiency of payment systems and to take part in the development of these systems. As a member of the ESCB, the Bank of Finland also endeavours to promote the smooth functioning of euro area payment and settlement systems and financial stability in the whole euro area. To fulfil these tasks the Bank oversees payment and settlement systems and provides payment system services. The Bank also participates in the development of payment and settlement systems and is involved in the preparation and drafting of related legislation.

## Changes in the operating environment in 2001

The September terrorist attacks served to emphasise the importance of the oversight of payment and settlement systems, regardless of the relatively insignificant effect the attacks had on settlement systems in the euro area. An inquiry into increasing the effectiveness of the oversight function and reducing the potential effects of an equivalent attack has already been initiated within ESCB circles.

The European Commission's dissatisfaction with the relative expense of cross-border payments, payment card transactions and Automatic Teller Machine withdrawals within the euro area led to the proposal for a regulation on the matter. The proposals include laying down provisions that charges levied on transactions up to EUR 12,500 shall be the same as the charges levied for corresponding transactions in the payment country of origin. The proposal aroused heated discussion and opposition in the banking sector (see page 50).

The changeover to euro cash caused changes in two of Finland's payment systems. Both the large-value online interbank system for express transfers and cheques (POPS) and the inter-bank retail payment system (PMJ) were converted to euro at the turn of 2001–2002. The banks handled the conversions of both systems, as well as successfully managing the conversion of all markka-denominated accounts, loans, bank statements and other data to euro. Automatic Teller Machines (ATMs) were fully converted to euro within the first four days of the changeover. However, the changeover did not affect the Bank of Finland's real-time gross settlement system for the settlement of cross-border pay-

ments BoF-RTGS nor did it affect the EU-wide TARGET system, as all the systems' transactions have been euro-denominated since the beginning of 1999.

A number of cooperative undertakings and alternative trading systems operating on the international capital markets have made significant progress in developing a degree of consolidation in the market. American equities markets already accomplished a network infrastructure years ago. Integration has not developed as extensively in Europe, despite a large number of projects aimed at reaching such a solution. However, a merger in 2000 gave rise to Euronext, which is fast becoming one of Europe's focal marketplaces. Euronext extended itself again at the end of 2001: This took place when the Portuguese stockmarket signed an agreement to participate in the group and when, through a separate deal, Euronext acquired a majority holding in the London International Financial and Options Exchange (LIFFE) derivatives exchange.

There was also progress in consolidation through trading links and cooperation between settlement systems. In June, the American Nasdaq connected the Belgium-based Easdaq (electronic) stock exchange to its international network. This gave birth to Nasdaq Europe, the common trading platform that subsequently signed a partnership agreement with the Berlin Stock Exchange.

However, 2001 saw a reduction in the number of convergence initiatives within the trading infrastructure, as attention was directed to-

wards post-trading activities. In this respect, progress was mainly achieved within the bounds of the existing pan-European groups' systems integration plans.

Over the reporting year the HEX Group undertook several significant international joint enterprise projects including the acquisition of a majority shareholding in the Tallinn Stock Exchange (TSE), in February. It also entered into preliminary discussions on cooperation with other Baltic countries. In September HEX signed a cross membership agreement with Euronext, facilitating cross access via unified access architecture in the securities markets by both exchanges, by the end of 2002.

Over the course of the year, HEX worked with various partners to look into the application of central counterparty clearing (CCP) in its share trading. However, no actual solutions had been reached by the end of the year.

## Oversight

One of the key tools available for the oversight function is the development of regulation and supervision. The Bank of Finland's oversight includes requiring the operators of the systems to submit reports on any problems within the systems to the Bank, without delay. They are also required to submit regular detailed reports on the functioning of systems.

## Oversight of payment systems

The ECB and the national central banks (NCBs) implement the oversight policy adopted by the Governing Council. The main responsibility for the oversight of international payment systems in the euro area rests with the national central bank of the country whose national legislation is applicable to the system, unless the features of the system give the Governing Council reason to decide otherwise. Notwithstanding this, the ECB is responsible for the oversight of the euro settlement system (EURO1) operated by the Euro Banking Association (EBA). It is the duty of the ECB and the NCBs to ensure that uniform oversight policy is applied to all systems.

Finnish payment systems were also assessed under the Financial Sectors Assessment Programme (FSAP), launched as a joint project of the International Monetary Fund and the World Bank. The purpose of the assessment was to evaluate the risks to the Finnish payment systems and their observance of international standards and codes of practice. The Finnish payment systems cleared the assessment without reproach.

## Oversight of securities settlement systems

Oversight of the securities settlement systems (SSS) is based on the national legislation of the euro area countries. As a user of the securities settlement systems, the ESCB has nevertheless set minimum standards for the systems and the

## Box 2. Oversight

In keeping with their duties, the Bank of Finland and the ESCB seek to ensure that payment and settlement systems function reliably, smoothly and without risk to users. This activity is referred to as oversight. The legal basis for oversight is based on the tasks and objectives set out in the Act on the Bank of Finland (214/1998). The tasks of the central bank include oversight of payment and settlement systems at the macro level. Supervision of individual institutions is the responsibility of Finland's Financial Supervision Authority (FSA).

Payment systems oversight aims at supporting the stability of the function, for example, through the creation of barriers limiting the spread of risks. The primary aim of oversight is the reliability and efficiency of the payment systems. It is important for effective oversight that the conditions for access are open and equal and thus conducive to free competition (the efficiency goal). From the point of view of reliability, it is essential that the systems operate on a sound legal basis (the reliability goal).

Within the EU-area, the European Central Bank (ECB) and the EU member countries' central banks execute payment system oversight. The objectives of the ESCB are both the maintenance of efficient and stable payment systems and also the promotion of a secure payment system for public use. As the payment system is central to the implementation of the monetary policy, oversight is also applied in the securing of the monetary policy transmission mechanism.

The central banks operate in cooperation with the banking supervisory authorities in their oversight activities. This was formalised in 2001, when the ESCB signed a Memorandum of Understanding (MoU) on cooperation in supervisory activities with the banking supervisors of the EU countries. The primary aim of the agreement is to ensure the stability and reliability of the payment systems. The MoU entered into force retroactively on 1 January 2001.

fact handle both the clearing and settlement functions following the trading of securities. While the oversight of securities settlement systems is largely oriented towards the user perspective, the approach of the oversight of clearing systems concentrates on financial stability issues and development of the marketplace.

There has been a notable growth in the significance of the securities markets' role in the international financial markets. With the realisation of this has come an increased interest by the central banks on the influence of clearing and settlement systems on both payment systems and the implementation of monetary policy as well as on financial stability in general but with the accent on systemic risk.

The Bank of Finland is responsible for the reliable functioning of the entire system, a role that can be regarded as covering securities trading and settlement systems.

Behind oversight and supervision functions at the international level are the recommendations on securities settlement systems that were published by a joint committee of the G10 countries' Committee on Payment and Settlement Systems (CPSS) and the technical committee of the International Organisation of Securities Commission (IOSCO), in November 2001. These recommendations form part of the basis for the financial market assessments within the IMF's country reports.

links that exist between them<sup>1</sup>, which are applied in the execution of monetary policy as well as in the

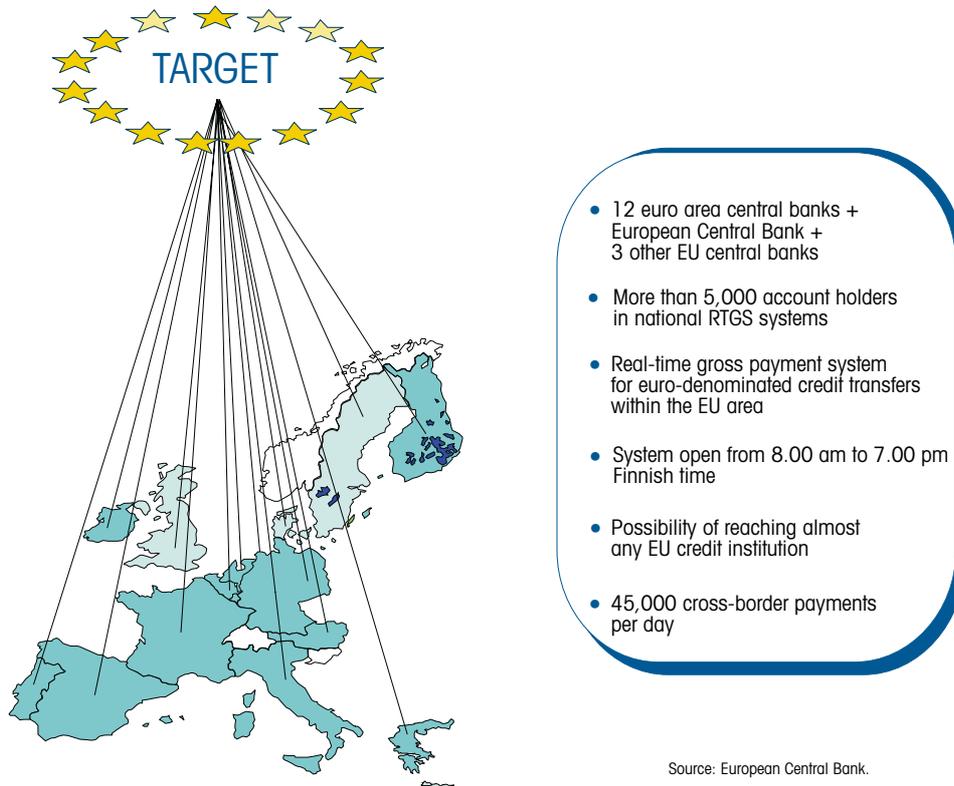
<sup>1</sup> Minimum standards published by the European Monetary Institute (EMI), January 1998.

delivery and custody of collateral for central banks. Compliance with the standards is monitored regularly by the ESCB.

Generally, systems referred to as securities settlement systems in

Chart 35.

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



Source: European Central Bank.

## Payment systems

### The BoF-RTGS system and TARGET

The Bank of Finland provides banks and clearing houses with fast and safe payment and settlement services in central bank money. These fund transfer services are available through the Bank's Real-Time Gross Settlement System (BoF-RTGS), providing a real-time system under which each payment is handled individually. Therefore the Bank's BoF-RTGS system helps to safeguard the stability and efficiency of markets. The settlement system is an integral part of the EU member countries' and the ECB's TARGET system, a uniform

platform allowing secure cross-border payments throughout the entire EU area (Chart 35).

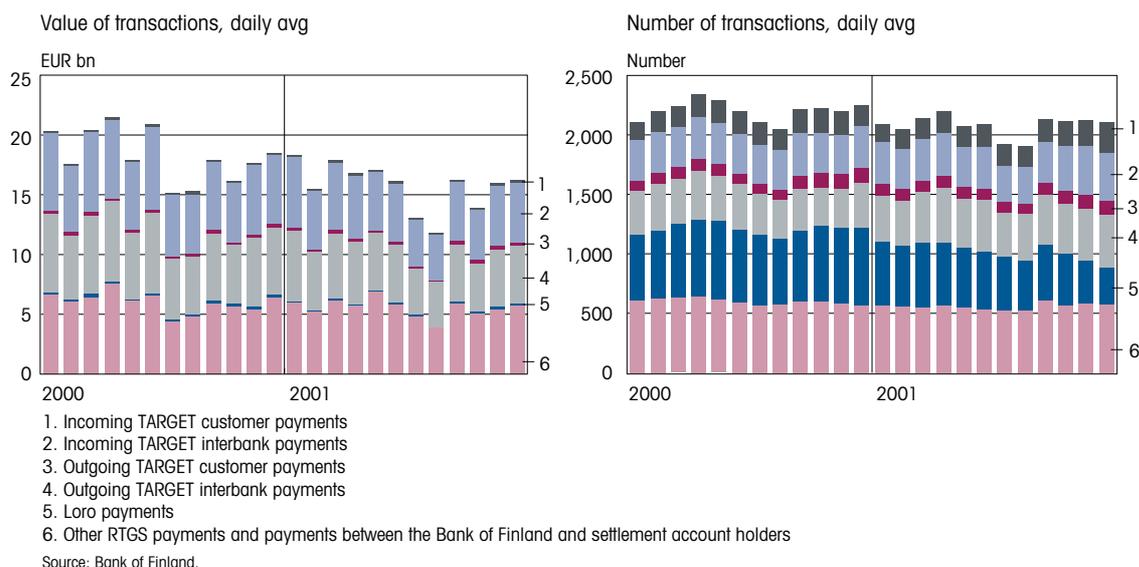
TARGET and the rest of the euro-area RTGS mechanisms were relatively untouched by the effects of the terrorist attacks on the United States in September. In the days following the attacks, the value and volume of transactions being handled by TARGET remained close to the normal average level. However, inevitably the attacks had some influence on intraday distribution of transactions.

Over the year, an average of 1,575 payments a day was processed through the BoF-RTGS system. Daily turnover averaged about EUR 15 billion, with a 3% reduction in transaction volume

and an 18% respective drop in value on the previous year. This was mainly due to a reduction in domestic transfers between settlement account holders. Measured in terms of aggregate value, TARGET payments accounted for almost two thirds of the payments effected via the BoF-RTGS system. On the other hand, in terms of volume, over half of the payments processed by the system were domestic payments (Chart 36).

In 2001 the daily average number of cross-border payments processed in the TARGET system as a whole was 45,000, with an aggregate value of EUR 506 billion. The number of payments increased by about 14% and the value by 17% from the previous year.

**Chart 36.**  
Transactions in BoF-RTGS



The increase in number of transactions through the TARGET system reflects an increase in the share of intrabank payments.

The liquidity positions of banks operating in Finland remained very good, and there was very little mentionable queuing due to liquidity shortages. Because of the ample supply of liquidity, banks were able to access minimum reserve deposits in the provi-

sion of payment services. At the end of the year the aggregate amount of the banks' intraday credit limit stood at around EUR 3.4 billion. The average usage rate of the limits remained low (Chart 37).

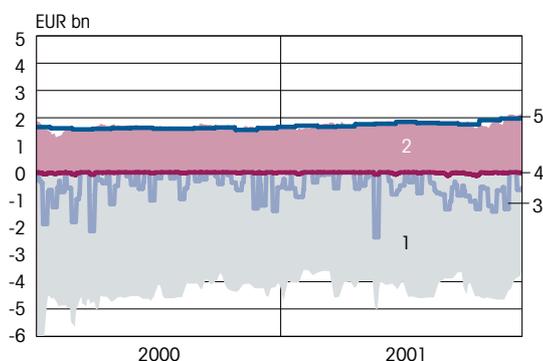
In November, the Bundesbank took a new RTGS system into use, the RTGS+. RTGS+ is a new hybrid system, that includes features of both the traditional netting scheme and RTGS system. The

new settlement system has been brought in to replace the old German netting scheme and gross settlement systems. The latter system will still continue to operate for three years, allowing the smaller German banks to have sufficient time for preparations to join the new system, which already has approximately 50 members.

Denmark also introduced a sophisticated new real-time gross settlement system in November called KRONOS. The new settlement system works on a dual-currency system, replacing the predecessor, and capable of handling transactions in both the Danish krone and the euro.

The development of TARGET continued to be widely discussed within the ESCB during the year. Key issues were the possible centralisation and automation of the system in order to increase efficiency. There were also attempts made at establishing the system's cost equivalence in 2001.

**Chart 37.**  
Finnish banks' minimum reserve deposits and intraday credit limits



1. Total limits<sup>1</sup>
2. Monthly avg of end-of-day balances
3. Maximum use of limits<sup>2</sup>
4. Avg use of limits<sup>1</sup>
5. Minimum reserve deposits, total

<sup>1</sup>Five-day mov avg.

<sup>2</sup>Five-day mov max.

Source: Bank of Finland.

The Bank of Finland has been an active participant in the development of the TARGET payment system. The Bank's focus has largely been on what benefits can be drawn from the new technology in the development of payment system usage.

### Other domestic systems

In 2001 the daily average number of interbank transactions processed in the POPS system was 2,916, with a combined daily average value of EUR 1.6 billion. An average of 2,213 (75% of transaction volume) bank transfers per day were handled through the POPS system, to a value of EUR 0.4 billion. Express transfers accounted for 25% of volume at 735 transactions per day, and value of EUR 1.2 billion (76% of value). Transfer of funds is effected according to payment size, in either gross (large) or netted (small) payments. The aggregate value of the express transfers and bank drafts effected as gross settlements through the POPS system was 50% of the whole. However in terms of actual numbers they accounted for less than 1%. The monetary value of other payments remained within the interbank bilateral limit RTGS.

Under the interbank payment settlement system (PMJ), funds are transferred via the banks' settlement accounts at the Bank of Finland, based on the banks' clearing calculation data. Apart from express transfers and large cheques, all interbank payment transactions are effected through this system. These include payment transfers,

recurrent payments and debit card payments. Settlement runs, with relevant payment information on the transfer of covering funds for these payments, are made twice daily: at night and in the afternoon. In 2001, the average daily value of night settlement was EUR 496 million, more than three times that of the afternoon settlement runs (FIM 144 million).

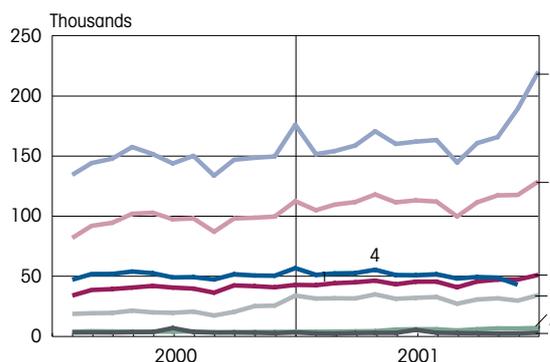
The Avant cash card system is the one electronic money system in general use in Finland, at present. This is in addition to a small number of other electronic money systems with limited application that are available. Likewise, inroads to the retail payment sector have been designed, using mobile telephone applications that allow payments such as parking. All in all, there was relatively little use of electronic money in Finland over the year. In the course of the year the Bank monitored progress in the use and regulation of electronic money and participated in the de-

bate on regulation, particularly concerning security aspects of new payment methods, both at home and within the ESCB.

### Private large-value payment systems in the euro area and settlement of foreign exchange transactions

EURO 1, which is operated by the Euro Banking Association, is an EU-wide netting system for large and medium-value payments in euro. Together with TARGET, this is the other major system for cross-border payments within the EU. With membership including a little more than 70 major banks worldwide, three of which are from Finland, payments transmitted via the EURO1 system averaged 113,000 a day, which means that in volume terms use of the system clearly exceeded that of TARGET (Chart 38). In turn, the daily average value of payment transactions

**Chart 38.**  
Number of payments effected via various systems in the EU, daily avg



1. Domestic RTGS payments
2. TARGET cross-border payments
3. EBA's Euro 1 (Euro Banking Association)
4. EAF (Euro Access Frankfurt)
5. PNS (Paris Net Settlement)
6. SEPI (Servicio Español de Pagos Interbancarios)
7. POPS (interbank express transfers, cheques and bank drafts)

<sup>1</sup> EAF ceased functioning on 5 Nov 2001. The November observation is the avg of 1 and 2 Nov observations.

Sources: European Central Bank and banks.

effected through TARGET were more than twice the value of those handled on daily by EURO1 (EUR 205 billion).

The international CLS Bank (Continuous Linked Settlement) is a service designed to reduce banks' risks in foreign currency trading. The elimination of counterparty risk is based on the payment-versus-payment (PVP) principle, a two-way settlement of currency which transfers the counterparties' funds simultaneously. A number of Finnish banks will probably join this system. According to the original plan, the CLS Bank was scheduled to commence operations in October 2000, but commencement has been delayed several times while development problems with the necessary data applications are solved. It appears that the launch has been postponed until late into 2002.

## Retail payment services in the euro area and the EU

The EU forms a single market area, and execution of cross-border retail payments within the area should be as efficient and reliable as that of domestic payments. The European Commission's dissatisfaction with the banks' inactivity in the area led to a draft regulation being issued by the Commission in July 2001. The draft regulation was concerned with cross-border payments in euro, electronic payment transactions and Automatic Teller Machine withdrawals.

The European Parliament approved the draft regulations in December 2001, which will be valid in relation to payment card trans-

actions and ATMs from 1 July 2002 and relating to cross-border credit transfers from 1 July 2003. Initially the regulations cover payments of less than EUR 12,500. One of the reasons behind high handling fees and the resulting elevated service charges has been the requirements to report payments for the balance-of-payments statistics. Presently, the obligation to report does not concern cross-border payments of less than EUR 12,500. Provision has been made for raising the threshold to EUR 50,000 from the beginning of 2006.

The regulation stipulates that charges levied on cross-border payments in euro shall be treated in the same way as domestic payments made in euro. The Commission takes the stance that the whole euro area forms a single market and that the citizens of the euro area have to have equal opportunity to carry out cross-border payments at an equivalent cost to domestic payments. Thus the benefits of the single currency should be transferred on to the consumer.

The regulation also covers a requirement on the use of an International Bank Account Number (IBAN) and Bank Identifier Code (BIC) that permit automatic processing. Automatic processing in turn allows banks to reduce their payment service costs and alleviate the banks' cost pressures.

The EBA's STEP1 cross-border retail payment service commenced operation at the end of 2000. The EBA is also planning a new payment system, STEP2, due to commence operation at the end of 2002. STEP2 will be marketed as

the first pan-European clearing centre, through which it will be possible to process high volume, euro-denominated credit transfers.

## Oversight of securities settlement systems

### Central securities depositories in the euro area and links between them

Central securities depositories in the euro area both provide securities clearing and settlement services and act as the principal custodians for the collateral posted for access to central bank credits. Their operational reliability is also crucial for the smooth functioning of the financial system. Settlement systems must guarantee that central bank funds cannot be withdrawn until the securities posted as collateral for credit have unconditionally and irrevocably been transferred to the central bank. The standards include requirements such as adequate regulation and oversight supervision and operational reliability.

The same standards apply to the assessment of the links between central securities depositories, ie the direct connections established between central securities depositories for the cross-border transfer of securities. New links between five EU countries' national central securities depositories were accepted in 2001; by the end of the year there were 66 links approved between CSDs, in all. The eligible central securities depositories and their links are listed on the ECB's website ([www.ecb.int](http://www.ecb.int)).

## Finnish securities and derivatives settlement systems

The Finnish Central Securities Depository (APK) maintains settlement and registration systems for equity securities (OM system) and debt instruments (RM system). Money market instruments are settled on a gross basis; by contrast, share trades are still cleared on a net basis. The HEX Helsinki Exchanges also maintain a system for the settlement of standardised derivative contracts. The oversight of these systems is the responsibility of the Bank of Finland.

The growth in the volume of trades settled in the OM system, a batch processing system in which cash payments are netted, grew in 2001 largely because of heavy trading in Nokia and other IT company shares. The value of equities trades settled, however, fell approximately 11% as market values declined. Problems with capacity and participant-related risks have been the main weaknesses in the OM share settlement system in recent years, but the concentration of securities registers in October 2000 enhanced the reliability of the system and created the foundation for wide-ranging reforms. Although various improvements to the system were undertaken in 2001 including the increasing flexibility of share lending, the system was considered obsolete.

None of the difficulties with capacity, which had been experienced in previous years, were discerned in 2001. The system development efforts made a further improvement in the due-date settlement rate (percentages of trades

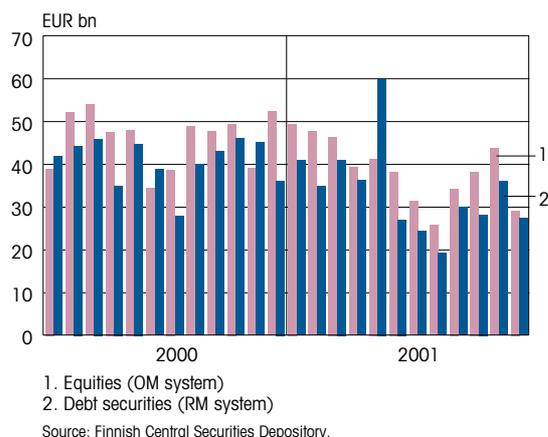
settled, according to the rules, three days after trade date, ie at T+3) possible in such a way that it stabilised at almost 99% towards the end of the year. From spring to the beginning of autumn, trading volume of shares dropped, but autumn levels were robust and total volume for the year almost reached the levels of the previous year (Chart 39). However, trading was still concentrated on a narrow selection of shares. Chaining of transactions and the notable growth in foreign brokers' share of trading volumes complicated the settlement process.

Development of the marketplace and reduction of systemic risk required thorough system reforms. At the end of 2000, HEX began developing a new equities settlement system called the HEX-Clear. The new system allows for real-time gross settlement, but it also accommodates batch procedures based on net payments and gross delivery of securities within the same technical environment. It is intended that the system will be operational before the end of 2002.

The RM system is an RTGS system for debt instruments. The system is used for the safekeeping of Finnish eligible securities pledged as collateral with the Bank of Finland. Two-way links have been constructed between the Finnish APK's debt securities system and the French and German systems and approved for transfers of collateral against credit granted by the ESCB. The RM real-time gross settlement system continued to operate smoothly throughout the year. The volume of trade cleared through the system continued to fall over the year. Turnover of foreign securities posted as collateral to the Bank of Finland using these links was very low during 2001 (see page 25).

The APK has established a link with the German Securities Depository, Clearstream Frankfurt for all financial instruments, as well as a link with the French CSD's Euroclear France (previously known as Sicovam). The link with the Dutch central security depository Nccigef handles equity securities and other shares issued within the OM system. Consequently, a Finnish invest-

**Chart 39.**  
Monthly values of securities transactions settled in systems operated by Finnish Central Securities Depository



tor or a foreign investor holding assets in custody in Finland may also manage the above-mentioned instruments in the Finnish book-entry system. Market participants made fairly active use of these links, particularly the German link, in their investment operations.

The derivatives system of the HEX is used for the clearing of derivative transactions executed on the local marketplace. The system did not undergo any major changes during the year. In keeping with the agreement on cooperation between HEX and Eurex Frankfurt AG concluded in 1999, trading in derivatives with the most liquid underlying instruments was shifted from HEX to Eurex. Nokia's stock option remained one of Eurex's main financial products. Over the reporting year the Hex Group also launched several new derivative instruments onto the domestic trading lists.

## International development

There are ever increasing convergence and consolidation pressures on the securities settlement systems. During the reporting year the ESCB continued regular meetings with the market participants, in order to promote integration in the sector. The most significant step towards a further integration of the (securities clearing and settlement systems') infrastructure was the progress made in the system integration within each of the two internationally focused groups, namely the Euroclear group –working in close connection with Euronext – and the Luxembourg-

German Clearstream group. Other signs of convergence have been, for example, the introduction of new services allowing use of central bank money in the settlement process, in Britain and Belgium and the initiation of development projects for offering central counterparty services (CCP).

Outside Europe, integration took place in America, for example, where three enterprises offering instrument-based clearing and settlement services became subsidiaries of the Depository Trust & Clearing Corporation. Euroclear, London Clearing house and one of the above DTCC subsidiaries established the European Securities Clearing Corporation in order to develop a centralised European clearing and netting system for government bonds. On the other hand, the Nordic marketplaces are considering how the central counterparty services (CCP) can reasonably be carried out in those countries, mainly in relation to the clearing and settlement of share trades.

With the transfer of the Easdaq electronic stock exchange to American ownership, the Depository Trust and Clearing Corporation established EuroCCP in Great Britain, which specialised in the clearing, netting and settlement of shares trading. There is a substantial threat of contagion of the systemic risk incorporated in international central counterparty services. Oversight of CCP services is particularly cumbersome, as the structure and safety net provision of these services providers differ significantly from one to another. It is for this reason the CCP stand-

ards, published by the European Association of Central Counterparty Clearing Houses (EACH), were an important first step in the development of the oversight and supervision of these services.

The world's principal CCPs formed a new trade association at the end of 2001, CCP12, which was dedicated, inter alia, to expanding the European standards to global minimum standards, as the basis for the supervision and oversight of such undertakings. This, in turn, will probably add to the convergence and integration of these systems in the future.

## Cooperation with authorities and market participants

The Bank continued to cooperate with the FSA in the field of oversight of payment and settlement systems. The most active cooperative partnership was in the development of securities settlement systems, as many significant projects are being undertaken in the sector. In September, the FSA called together a Clearing and Settlement System steering committee (SJO) as well as a working group of experts in settlement systems to work for the committee (SJA). Market participants were also invited to participate in the groups. The objective is both to develop securities clearing and settlement operations in Finland in general and coordinate the respective development and risk management, as well as to promote the introduction of international minimum standards in Finland. The Bank of Finland, in

cooperation with the market participants, has been actively involved in both the steering committee and the working group.

Cooperation on payment clearing and settlement systems involving the FSA concentrated mainly on examining the risks associated with the Finnish payment settlement systems and the compilation of their findings for publication. It is intended that this publication of the oversight function of the payment settlement systems and payment system risks will be released in spring 2002. Cooperation has also been undertaken with regard to monitoring banks' risks in foreign currency trading.

The present cooperation with the market participants over the payment settlement systems is a continuation of the cooperative forum (MJO) that was established in 1995 as a steering committee on payment settlement systems. The committee met over the year to discuss issues related to the euro as cash currency and payment settlement systems.

The development of the Bank of Finland's real-time gross settlement system (BoF-RTGS) and related data exchange was continued under the auspices of the BoF-RTGS account holders' user group meetings.

Whenever required to do so, the Bank of Finland also participated in the Finnish Bankers' Association's working groups. In spring 2001, a meeting of representatives from various banks met as a working group to prepare the principles on the determination and measurement of risk related to the payment settlement systems.

The Bank worked closely with ESCB market participants. This work mostly involved joint meetings and consultations, at which there was an exchange of opinion on current issues related to developments in the securities markets.

In Finland, the Bank carried on having the monthly oversight meetings with the Finnish APK. In addition to these monthly oversight meetings, the Bank organised two seminars on securities clearing and settlement, thus contributing to the debate on the proposals for developing the OM system and risks connected with market integration. The Bank also cooperated directly with the APK in operational issues, for instance within the framework of the development of collateral management.

In connection with the planned listing of HEX, moves towards greater flexibility of self-regulation of HEX and central securities depository continued, in cooperation with other authorities. The objective of oversight is to ensure that account operators and their agents comply with various regulations concerning the operation of the central securities depository, and that they operate in compliance with public information requirements. The work led to the drafting of a government bill to amend the Securities Markets Act and a revision of the regulations governing the central securities depository. Legislation on self-regulation by the HEX Group was amended in December 2001.

A working group appointed by the Ministry of Finance was set up in March 2001 to consider allowing a multi-tiered or direct holding

structure for securities in Finland, in parallel with the present direct ownership structure. In practice this means that entities holding depository licenses would be able to maintain records on customers' securities in their internal systems and hold corresponding assets as a pool in an omnibus account with the APK. At present this is only possible for the holdings of foreign investors. Implementing the new ownership structure would bring the Finnish book-entry securities system closer to that of central Europe. It would also increase competition in custody and depository services offered to Finnish investors by making it easier for foreign custodians to offer such services (ie open up foreign custodial service competition to Finnish customers). There are important points of convergence between the group's work and the revision of the APK's settlement system and the CCP services project as well as with publicity of ownership in Finland.

In June 2001, in order to promote integration of the EU countries' payment and settlement systems, the ECB, in collaboration with the ESCB, published the third edition of what has come to be known as the 'Blue Book': the 'Payment and securities settlement systems in the European Union' report. The report is a descriptive guide of the payment systems and securities markets' settlement systems operating in the EU member countries and the key legislation binding them. The Blue Book describes, in a separate chapter, the payment and settlement systems and institutions as well as other relevant

key features within the euro area. The chapter also covers the EU directives and regulations relating to these systems and explains the roles of the ECB and the Eurosystem. The Blue Book is available from the ECB's Internet pages.

## Developments in international recommendations, legislation and EU directives in 2001

The legislation on payment and settlement systems has continued to evolve as EU directives have been transposed into national legislation. The Bank of Finland was actively involved in projects both at home and abroad, for instance through participation in working groups preparing laws.

In December 2001, the European Parliament accepted a binding regulation on cross-border payments in euro within the euro area, (see page 50). In January 2001, the European Parliament and the European Council's Directive on e-money (2000/46/EU) was included in the legislative proposals of the working group on banking services.

The European Parliament and the European Council have also drafted a proposal for a Directive on financial collateral arrangements (2001/168), which looks at enabling the posting of cash and certain financial instruments (principally securities and book-entry securities) as financial collateral against the credit obligation. The Directive would only concern specific authorities, central banks, and

financial institutions under prudential supervision and large business enterprises. The proposal aims at increasing the efficiency of the cross-border transactions that are essential from the point of view of the smooth operation of the Eurosystem. It would harmonise the key EU regulations on financial collateral and contribute to actualising the single market. The proposed Directive should be ready for completion by the end of 2002.

The slow rate of integration of the securities market has been identified as one of the central weaknesses of the European Union. The final report on the regulation of European securities markets commissioned by ECOFIN and released by the Committee of Wise Men headed by Alexandre Lamfalussy, was used as a guideline by the Stockholm European Council in June 2001 and set out a process for the adoption of implementing measures based on two new Committees. These are the European Securities Committee (ESC), composed of experts at Secretary of State-level, and the Committee of European Securities Regulators (CESR). The Committees convened for the first time in September, but are still acting in an advisory capacity as the European Commission and the European Parliament have not reached an agreement on the Committees' final standing. Despite this, the Commission adopted the proposal on consultation practices, in order to speed up the birth of the single market. These practices are being applied for the first time in the updating of the Investment Services Directive (77/7780/EEC).

The Bank of Finland participated actively in the preparation of the project, both directly and through the ESCB.

Thus both supervisors and central banks have acknowledged their interdependence in ensuring a reasonable and efficient infrastructure in present conditions. In November the joint committee of the ESCB and the Committee of European Securities Regulators (CESR) was established to develop regulations concerning the European securities settlement and delivery systems. The working group's mission is based on the 19 recommendations issued by the G10 countries in November (Box 3). Both the Financial Supervision Authority and the Bank of Finland are represented in the working group. The purpose of the group's work is to focus on the global recommendations, making them more binding and to broaden them to more clearly concern central counterparties. It is expected that more concrete results will be seen in late 2002. In addition to which, the ESCB will establish to what extent its standards are needed, once the more general recommendations and guidelines come into use.

The Giovannini Group, a working group supported by the market participants, and working in cooperation with the European Commission, published the first of two reports on EU cross-border securities clearing and settlement arrangements in November. The report revealed the barriers that exist and costliness of cross-border securities transactions within the EU. On the other hand, the group found that, as far as domes-

### Box 3. G10 global recommendations on securities settlement systems

In November 2001, the joint committee of the G10 national central banks' Committee on Payment and Settlement Systems (CPSS) and the technical committee of the IOSCO issued its recommendations for the development of securities settlement systems (CPSS 46).

The report comprises 19 recommendations. The recommendations are defined in order to direct all types of clearing and settlement service providers and market participants in both industrialised and developing countries towards operating safer and more efficient securities settlement systems. The 19 recommendations establish comprehensive minimum standards that should be met by a broad range of SSS providers, without taking any stand on such factors as geographical positioning. The recommendations cover both domestic and cross-border trades.

The recommendations are divided into six groups, defining the objectives according to the following criteria:

- legal risk
- pre-settlement risk
- settlement risk
- operational risk
- custody risk
- other issues, including participation criteria, efficiency and oversight.

Most significant novelty in the report is the functional approach taken in the report, which has been used in an attempt to avoid the problems arising from the vast global diversity in institutional circumstances. Such detailed recommendations therefore are not directed at any particular type of institution, rather at all participating institutions in each country providing a certain operation or service. The recommendations remind the participants that the safety, efficiency and clarity of the operation depends on all the service providers and parties and not solely on market infrastructure.

tic operations were concerned, infrastructural solutions of the EU countries were relatively competitive for example when compared to equivalent systems from America.

# Maintenance of the currency supply and the euro cash changeover

The Bank of Finland is responsible for the statutory duties with regard to the maintenance of the currency supply in Finland.<sup>1</sup> With the approval of the ECB, the Bank issues banknotes and coins in Finland and ensures their quality, authenticity and availability throughout the country. The Bank is also responsible for providing an efficient and secure currency supply system in Finland in cooperation with banks and other parties. In addition, the Bank contributes to the ESCB's preparations and decision-making pertaining to banknote matters and is responsible for the implementation of the ESCB's harmonised decisions in Finland.

2001 was an exceptional year in terms of maintenance of currency supply, for the renewal of the currency supply system and the provisions required for the cash changeover.

## Currency supply system renewed

Finland's currency supply system underwent a complete renewal

<sup>1</sup> The Bank of Finland has five offices that are involved in the maintenance of the currency supply: the regional offices of Helsinki-Vantaa and Turku as well as the Kuopio, Oulu and Tampere branches. They are all part of the Payment Instruments Department.

during 2001. The former arrangements between the Bank of Finland and banks for the ordering and returning of notes and coins have been in existence since October 1988 and were used until the end of September 2001. The participating banks were able to place daily cash orders for each of their branches in any of the Bank's five offices and likewise return cash from each branch to the Bank of Finland. The Bank debited each bank's settlement account with the Bank for the sums ordered and credited each bank's account for any amounts returned. Transportation was mainly the responsibility of Finland Post as well as the cash-in-transit companies SPAC (today Falck Cash Services) and Securitas. Because of the central role of Finland Post, the regional division of responsibilities of the Bank's offices as regards cash transportation corresponded to the postal regions in Finland.

With the termination of cooperation between Finland Post and Leonia, post office banking services were discontinued by the end of 2000. As a result, these post offices could no longer function as part of the currency distribution network in 2001. Consequently, Finland Post's transportation agreement was terminated and the regional

division was established in accordance with the security transport firms' trunk routes.

In addition to this, Automatia's owner banks Merita Bank, the OKOBANK Group Central Cooperative and Sampo Bank centralised the management and development of their currency distribution function in Automatia Pankki-automaatit. Automatia was therefore granted access to a settlement account without an overdraft facility and signed a currency agreement with the Bank of Finland. Under the new arrangement, Automatia subcontracts cash centre services and transportation of notes and coins to and from the branches of its owner banks and their customers to both Falck and Securitas. In all, Falck and Securitas operate 21 cash centres around Finland.

In September 2001 the other parties to the currency supply agreement, namely Paikallisosuuspankkiliitto (Association of Local Cooperative Banks), Säästöpankkiliitto (Savings Banks' Association), Svenska Handelsbanken and Ålandsbanken joined the basic currency distribution system managed by Automatia. At the same time the currency supply agreement for the markka was replaced from the beginning of October 2001 by an information system, established to conform to the Bank of Finland's and Automatia's euro order and distribution system (ETT). The bank branches use the information system between Automatia and the banks in their basic currency distribution system.

The result was a centralisation of functions, so that Automatia became the sole customer for the

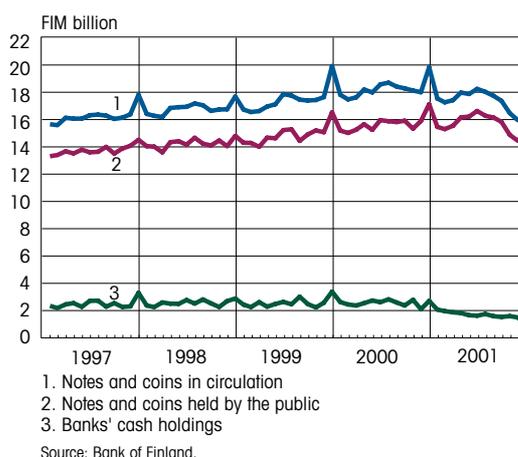
Bank of Finland in the currency distribution system, which then supplies the banks and their customers through its sub-contractors.

### Currency in circulation decreases

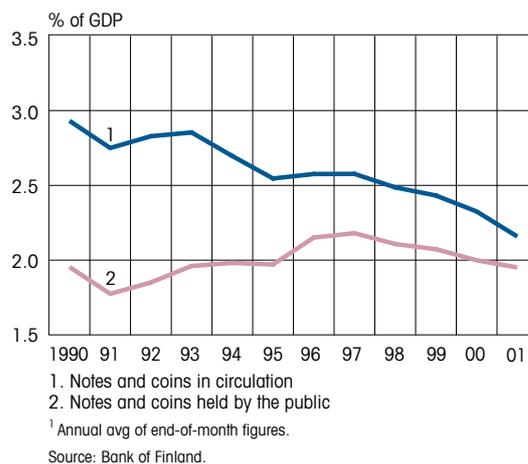
Although substitute means of payment are becoming increasingly widespread, the value of currency in circulation has increased continuously over the last few decades, apart from the recession years in

the first half of the 1990s, when the value remained unchanged. Currency growth came to an end in 2001 when the amount of currency in circulation began to decrease (Chart 40). Household purchasing power, however, continued its robust growth, despite the weakened growth of the economy, and income expectations remained optimistic. The reduction in amounts of notes and coins in circulation can be best explained by cash being transferred to bank deposits and being used in purchases as the changeover to the euro approached.

**Chart 40.**  
Holdings of notes and coins



**Chart 41.**  
Notes and coins in circulation<sup>1</sup>



The value of currency in circulation was on average nearly FIM 17.3 billion in 2001, compared with FIM 18.3 billion in the previous year. The ratio of currency in circulation to GDP was 2.2% in 2001 on average, which was one-tenth of a percentage point less than in 2000 (Chart 41). The relatively low cash level, which is the lowest ratio of any EU country, is considered to be mainly due to the sophistication of Finnish payment systems, the limited use of banknotes for hoarding and the small amount of markka banknotes circulating abroad.

At end-2001 currency in circulation amounted to FIM 15,976 million, down 19.4% on the previous year.<sup>2</sup> At end-2001 banknotes in circulation amounted to FIM 14,117

<sup>2</sup> The sum is for 28 December 2001, the last business day of the year for the banking systems. The Bank of Finland received FIM 1,770 million (1,759 million banknotes and 11 million markka coins) after this last day of business, but these were posted to the accounts only on 2 January 2002. This led to the actual amount in circulation being that much less than the posted amount and cash returns to the Bank being larger than the posted amount.

million, down 20.4% on the previous year. There were FIM 1,859 million in coins in circulation at the end of 2001, down 11.5% on the previous year (Chart 42).<sup>3</sup> In terms of numbers, there were 131 million banknotes in circulation at the end of 2001, 8.1% less than end-2000, and there were 3,173 million coins in circulation, down 10.8% on the previous year.

The amount of currency held by the public (including by Automatia Pankkiautomaatit) at the end of 2001 was 15,064 million markkaa, 12.0% down on end-2000 (Chart 40). The banks' cash holdings amounted to FIM 912 million at the end of 2001, down a significant 66.3% on the previous year. So the currency held by banks, which has remained at approximately the same level since 1996, reduced noticeably in 2001,

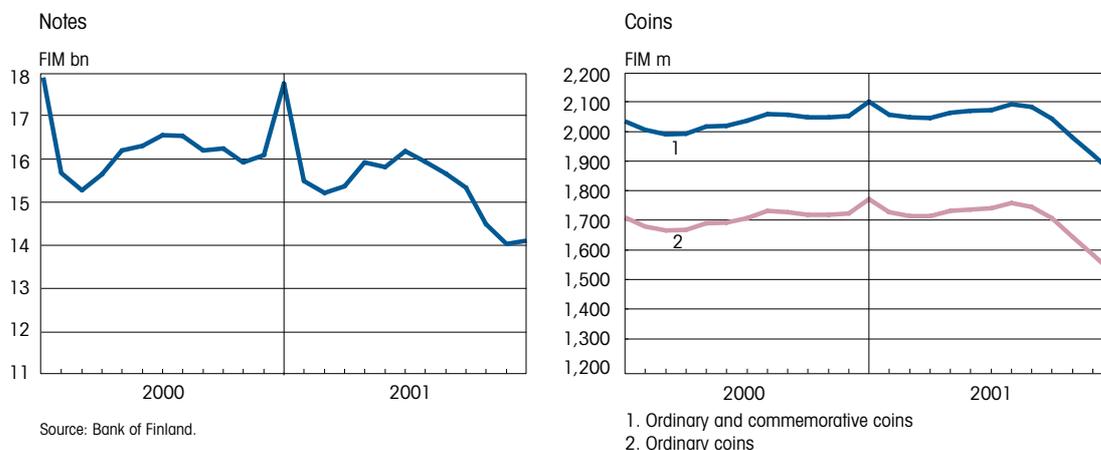
<sup>3</sup> The accounting practices of the Bank of Finland were harmonised with those of the Eurosystem from 1 January 1999. Among other things, this means that the value of coinage in circulation is no longer disclosed in the Bank's balance sheet but is instead netted against total coinage and the difference allocated to other assets.

with the transfer of currency supply functions to Automatia. Similarly, the amount held by Automatia, which earlier only represented the sum held in Automatic Telling Machines (ATMs), and which has held stable for the last years at around FIM 700-800 million, almost doubled by the end of 2001. Banks held no more than 9.6% of the currency in circulation over the year, 4.5 percentage points less than in 2000. The banks last held such relatively small cash holdings before the 1980-1993 till-money credit system.

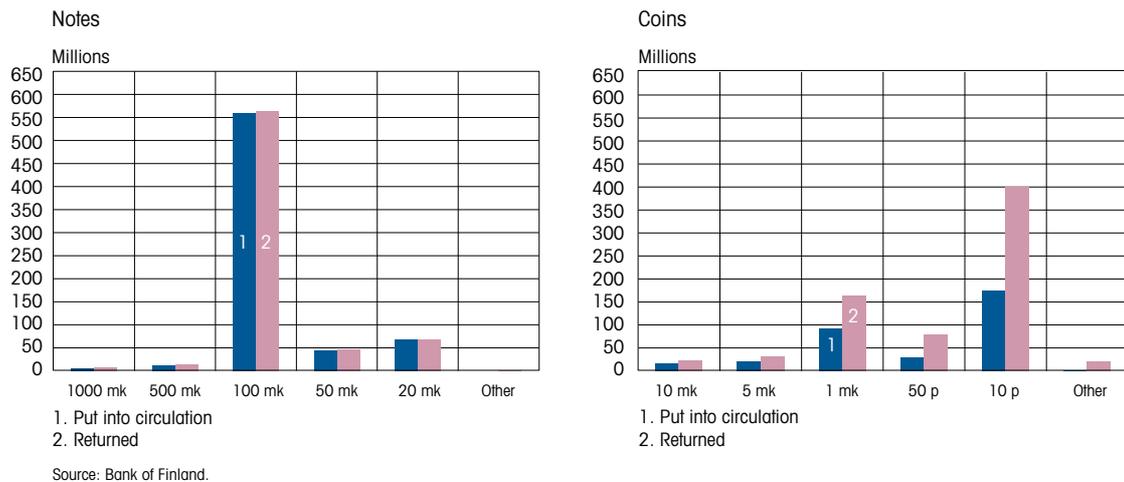
### Banknote flows decrease

The total value of banknotes ordered from the Bank of Finland in 2001 decreased by an estimated 6.0% to FIM 70.5 billion. A total of 689 million banknotes was ordered as compared to 743 million banknotes ordered the previous year (Chart 43). The value of banknotes returned was down an estimated 1.4% at FIM 74.1 billion.

**Chart 42.**  
Value of notes and coins in circulation



**Chart 43.**  
Flow of notes and coins through the Bank of Finland, 2001



There were 700 million banknotes returned, in comparison to 742 million notes returned in 2000.

In the course of 2001 the Bank redeemed banknotes annulled on 1 January 1994 to a total value of approximately FIM 3 million. However, banknotes belonging to these series are still in circulation to a value of FIM 227 million. The redemption period for these notes, as with markka banknotes annulled on 1 March 2002, ends on 29 February 2012.<sup>4</sup>

Banknotes flowed through the Bank 6.5 times on average in 2001. This is down from 6.8 the previous year. Finland's flow-through rate is fairly high compared with other EU countries, where the flow-through rate has ranged between less than one to nearly four on average in recent years. A breakdown of flow-through rates by denomination reveals great differences. The highest flow-through rate, 8.7, was for the 100 markka

note. The rates for the other notes were as follows: 1.3 for the 1,000 markka note, 3.1 for the 500 markka note, 4.0 for the 50 markka note and 3.2 for the 20 markka note.

In recent years the Bank of Finland has charged a fee for handling banknotes. The fee has been levied in accordance with the Act on Government Charges, and at cost price but applicable only to the extent that the annual rate of flow of banknotes through the Bank of Finland exceeds the threshold value of 4. This flow-through rate has been considered to be the necessary and sufficient rate for ensuring the quality and authenticity of the banknotes in accordance with the Bank's statutory duties. The handling fee has been revised every six months according to the flow of banknotes through the Bank in the preceding six-month period. Thus defined, the handling fee remained the same until the end of October 2001 at 70 penni per 100 banknotes. The fee was levied on 100 markka notes, but also applied to 50 markka notes. From the begin-

ning of November, the Bank of Finland ceased charging a handling fee on returned banknotes, in order to encourage the turning of markka banknotes to the Bank before the commencement of the cash changeover period.

As a result of the reduction in banknote flows and the constrained validity period of the handling fee the revenue from the handling fee was FIM 7.3 million in 2001, having been FIM 7.9 million the previous year. In addition, the Bank of Finland also collected FIM 1.0 million for data processing services related to currency distribution, up to 1 October 2001, from the banks then outside the system managed by Automatia. No charge was made for cash orders or returns from Automatia, as they were no longer bank branch-related. For that reason, revenue from the system was FIM 3.9 million less than in the previous year.

A total of 313 counterfeit Finnish banknotes were detected in 2001 compared with 161 in 2000. Despite the significant increase in

<sup>4</sup> All annulled banknotes and coins are specified on the Bank of Finland's website ([www.bof.fi](http://www.bof.fi)).

counterfeit notes detected, cases were still generally the result of single forgeries. As counterfeit banknotes were detected fairly regularly throughout the year, the increase in counterfeits was not seen as being discernibly related to the cash changeover, unlike the situation in some euro area countries. The Bank of Finland and the National Bureau of Investigation jointly organised five training seminars on the detection of counterfeit banknotes in spring 2001. The Bank also provided material on the authentication of banknotes for professional cash handlers.

From the beginning of 1999, the euro area national central banks (NCBs) have been required to exchange the national legal tender banknotes of other euro area countries for national currency at the fixed conversion rates. It has been decided that the requirement be valid until 31 March 2002. In 2001 the Bank of Finland and its branches redeemed national banknotes of euro area countries to a total value of FIM 86 million, which is roughly treble the value redeemed in 2000. Towards the end of the year there was a marked increase in the exchange of other euro area national banknotes, mainly due to the cash changeover. More than 70% of the banknotes were Deutsche Mark, less than 7% were Irish pound and Italian lira, respectively, and very small amounts of other currencies. The national central banks of the other euro area countries redeemed Finnish banknotes to a value of FIM 1,153 million, which is approximately 10% less than in 2000. The Bundesbank accounts for 96% of all redemp-

tions. More than half of the redeemed banknotes were 100 markka notes and nearly a third 1000 markka notes.

### Coin orders decreased, returns increased substantially

During 2001 ordinary coins put into circulation by the Bank of Finland had a total value of FIM 389 million and ordinary coins returned to the Bank of Finland a value of FIM 636 million (Chart 43). The value of coins put into circulation fell and coins returned rose by 23.9% and 41.5%, respectively. Such a sizeable difference in coin flows was largely due to the information campaign, with its appeal to the general public, to either use hoarded coins or deposit them at banks before the turn of the year. The appeal was supported by the Bank of Finland's suspension of handling fees for returned coins, from 1 October 2001. On the other hand, with the logistics of the destruction of markka coins in mind, the Bank also sought to reduce the number of pre-packaged coins in rolls in its possession by removing the handling fees on coin orders from 1 November 2001.

The Bank collected FIM 2.3 million in coin handling fees in 2001, down for the reasons discussed, by FIM 1.8 million on 2000.

Three commemorative coins, of various themes, were issued in 2001. To honour Finland's hosting the FIS World Nordic Championship held in Lahti, a bi-metal commemorative 25 markka coin was issued with a aluminium-bronze

centre and an outer ring of cupro-nickel. The issue was limited to 100,000 coins. In the summer, 45,400 silver FIM 100 coins were struck, commemorating the 125<sup>th</sup> anniversary of the birth of Aino Ackté and the opera. Two commemorative coins were issued at the end of the year to mark the passing of the markka. The issue was of 52,900 gold commemorative coins and 500,000 copper-nickel commemorative coins with a nominal value of one markka.

Of the coins annulled in 1994 and 1998, the Bank redeemed ordinary coins to a value of just over FIM 8.7 million and commemorative coins to a value of FIM 0.3 million. At the end of 2001 the value of annulled but unredeemed ordinary coins and commemorative coins amounted to FIM 281.5 million and FIM 125.5 million respectively. The period of redemption for annulled coins ends 10 years from the annulment, on 31 December 2003 and 31 December 2007 respectively.

### Common framework for the cash changeover was specified

The EU Council's Economic and Financial Committee, meeting in the composition of the Ministers of Finance and Economy (ECOFIN Council) in cooperation with the Governing Council of the ECB, had already specified a common framework for the cash changeover before the beginning of 2001 (see Annual Report 2000). The ECB Governing Council was then left, in 2001, with outlining more specif-

ic details for the framework. The most important specifications were:

- In January the ratified Guideline adopting certain provisions on the 2002 cash changeover (*ECB/2001/1*) was published in the Official Journal, covering the most important decisions of the ECB Governing Council concerning the matter.
- In September, the ratified Guideline adopting certain provisions on the frontloading of banknotes outside the euro area (*ECB/2001/8*) was published in the Official Journal. According to the Guideline frontloading and sub-frontloading was permitted from 1 December 2001, with certain provisions, to non-euro area central banks and credit institutions.
- In November, the ratified decision of the ECB on certain conditions regarding access to the Counterfeit Monitoring System (*ECB/2001/11*) was published in the Official Journal. According to the Guideline, the system is made up of the ECB's Counterfeit Analysis Centre, a database and the National Counterfeit Centres of the ESCB countries. The database is a compilation of technical and statistical information on counterfeiting, both on euro banknotes and coins, to which only the national central banks and other approved national and international authorities have been granted access.

March 2001 was also marked by the Governing Council of the ECB establishing the Eurosystem Cash Changeover Coordination Com-

mittee, with a mandate until the end of February 2002. The committee was composed of chairman and a few representatives from the ECB, in addition to a member from each of the euro area NCBs. It was also decided that a representative of the European Commission would be invited to the meetings. The committee was established to ensure a smooth cash changeover, with particular attention being paid to the regular monitoring and preparation for potential risks and the related publishing of information on the progress of the changeover. At the beginning of 2002, monitoring took place on a daily basis.

In September, the ECOFIN Council, for its part, approved the establishing of a common network for managing changeover information during the period of the introduction of the euro banknotes and coins. The network was given its mandate from early December 2001 until the end of February 2002. The network was constituted, including a small coordinating team of Commission officials, one member from each of the euro area countries, and the ECB. The role of the network was the gathering of information on a daily basis at the beginning of the year, concerning the progress of the preparations for and actualisation of the changeover in each of the member countries. The coordinating team's function was the compilation and dissemination of the gathered information on the overall situation to the network's members, the Economic and Financial Committee and others with responsibility for the cash changeover, and to stand ready to inform the general public, if necessary.

## Finland's changeover plan finalised

The Bank of Finland, the Finnish Bankers' Association and its member banks settled the unresolved questions within the national cash changeover plan by the beginning of the autumn 2001, which led to the publication of the finalised plan *Cash changeover in Finland 2002*, in October.<sup>5</sup> Key unresolved issues had concerned the renewal of the currency supply system together with the frontloading and sub-frontloading of the euro and the returning of markka banknotes and coins.

It was decided in May 2001, that frontloading would initially be carried out to Automatia's cash centres around Finland and sub-frontloaded from there to the banks' branch offices, beginning on 1 September 2001. It was also decided that the banks would sub-frontload euro notes and coins to those business customers that were central to a smooth changeover operation before the actual start of the period itself. In August 2001, the Bank of Finland signed agreements, consistent with the provisions of the ECB guidelines, with the banks and Automatia, on the frontloading of euro banknotes and coins. The banks then signed agreements with their business customers by the end of November that were according to the Bank of Finland's instructions and in line with the ECB provisions.

According to the agreement on frontloading, the banks and Auto-

<sup>5</sup> In April, the Ministry of Finance published its own updated comprehensive national plan entitled 'Plan for adoption of the euro 2001/2002'.

matia were to insure the euro cash orders they received against damage, theft or robbery, and to provide the appropriate collateral to the Bank of Finland by 28 December 2001. According to the terms of the agreement on frontloading, the banks were responsible for the euro banknotes and coins sub-frontloaded to the banks' business customers and, for which they had to provide collateral to the Bank of Finland. The banks also had to ensure that the customers were insured for the sub-frontloaded euros. Likewise, the terms of the agreement specified that frontloaded and sub-frontloaded euro banknotes and coins were not to be disposed of to third parties prematurely and that they remained the property of the Bank of Finland until the commencement of the changeover period.

It was expected that markka banknotes and higher denomination coins would be returned mainly in the normal way via retail outlets and other service providers, either directly or through the banks to Automatia's subcontractors' cash centres. In order to ensure the return of smaller denomination coins in 2001, it was decided to intensify it by using the euro information campaign and by placing special coin collection units in the banks. It was also decided that the cash centres would return the coins to the Bank of Finland, which would take responsibility for their transfer to four different storage sites and their subsequent surrender to the Ministry of Finance. It was agreed that the cash centres would return banknotes to the nearest branch of the Bank of Finland.

The comprehensive cash changeover information campaign (see page 78) was supplemented by a broad series of presentations on the forthcoming euro, arranged by the Bank in September and October 2001. In addition, courses for about 1,100 'euro trainers' were arranged on the recognition of genuine euro banknotes and coins for enterprises and organisations involved in handling cash. The training sessions included the opportunity to examine the actual notes and coins. In October, the Bank of Finland granted banks and those enterprises within the sub-frontloading scheme the right to use samples of the euro banknotes and coins they had already received, in the course of their training exercises. Likewise in the autumn, the Bank, in cooperation with other parties involved in the currency supply system, organised seminars in more than 20 localities around Finland concerned with the security aspects of the cash changeover. About 3,400 representatives of the police force, cash-in-transit companies, banks and other companies attended the functions. At the end of November, the Bank still invited representatives of the key parties involved in the changeover to a seminar on the launch of the euro and on the cash conversion, in which the plans and preparations were examined. The overall situation was seen as being highly satisfactory.

## Production of the euro and frontloading accomplished as planned

The Bank of Finland had ordered almost all the euro banknotes that would be required in Finland at the beginning of 2002 from Setec, while the Ministry of Finance has ordered all the euro coins required from the Mint of Finland. The Bank of Finland estimated that almost 100 million euro banknotes and 1 billion coins would be required for circulation during the changeover period in Finland. Still more notes and coins were ordered as stocks for logistical and unexpected needs.<sup>6</sup> All the coins and notes were delivered on time allowing the frontloading to go ahead according to timetable in September 2001. During the summer, the Bank of Finland was able to transport all of the banknotes and coins needed for the start of frontloading to all of its branches.

Most of the euro coins were frontloaded to banks September-November and banknotes in December 2001. By the end of October, banks and Automatia had placed orders for an estimated half of the banknotes required for circulation purposes, but had placed orders for only a third of the coins required. Most of the sub-front-

<sup>6</sup> In all, approximately 15 billion euro banknotes with a value of about EUR 633 billion were estimated as being required for both circulation and as logistical stocks in the whole euro area. In addition to these the ECB ordered about 10% over required launch volume as reserve stock for the Eurosystem. A total of about 51 billion coins were struck, to a value of close to EUR 16 billion. Altogether, there were 15 printing works and 16 mints participating in the production of the euro banknotes and coins.

loading from the banks was carried out in December and, as result of the fairly restrictive provisions of the agreement, order levels remained modest. For these reasons the Bank of Finland concentrated its efforts particularly on the adequate frontloading needs of coins, to ensure that sufficient amounts of change would be available around the country, from the beginning of 2002. In addition to this, and in divergence from the provisions of the terms of the agreement, the Bank of Finland granted banks the right to sell pre-packaged euro coin kits from 17 December 2001 and 'business kits' of both EUR 5 and EUR 10 notes and euro coins from 29 December 2001 to their business customers. An estimated 60% of coins and 70% of notes required for circulation were frontloaded by the end of 2001.

In September 2001, the Ministry of Finance decided to commission a pre-packaged euro 'business kit' that would meet the change requirements of small businesses, thus facilitating a smoother changeover at the turn of the year. About 26,000 kits, containing EUR 168 (FIM 1,000) were ordered and made up as needed. These kits were available for collection from 17 December 2001 and were distributed by the Post Office. The Ministry of Finance had already decided in May 2001 to issue a kit to the public to allow familiarisation with the coins, in advance of the changeover. The kit contained one each of the Finnish euro coins being issued (total value EUR 3.88). Half a million of the kits were prepared and went on sale on 15 December 2001 for FIM 23,

distributed through the R-Kiosk chain of outlets.

The Bank of Finland issued a limited amount of euro banknotes to Eesti Pank (Bank of Estonia), Nordea distributed some to their branches in Sweden, Norway, Denmark and Lithuania and Handelsbanken to branches in Sweden and Norway. In all, the value of the non-euro area distribution implementation by the Bank of Finland was about 3% of the total value of frontloaded euro banknotes.

### **Euro cash changeover was successful, return of markka according to plans**

The concerted changeover to euro cash on the 1 January 2002, within the 12 member countries of the euro area was, on a global scale, the most extensive currency planning, production and issue project in history. The accomplishment of the project required, inter alia, the realisation of a broad range of legislative actions and technical changes related to cash equipment. The project had been set in motion already about 10 years earlier.

According to both the ECB and the European Commission, the euro cash changeover was very successful throughout the entire euro area. The general public accepted the new currency with enthusiasm and on the whole, the media gave the changeover favourable coverage. Already by the end of the first week of January, over half of all transactions in the euro countries were being carried out in euro and retailers were giving change almost completely in euro.

Similarly, virtually all ATMs had been converted to distribute euro banknotes. However, the conversion of many parking ticket machines, vending machines and other slot machines took a lot longer to accomplish, mainly due to the variety and sheer volume involved.

One month into the changeover period, from the general public's standpoint, the conversion in the euro area to the new banknotes and coins was, in effect, completed. A good 95% of all cash transactions were already taking place in euro and about 90% of all slot machines were converted to euro. The amounts required for the issue of banknotes and coins was estimated rather well as, with a few localised exceptions, nowhere experienced any general shortage of notes or coins. In contrast to expectations, few counterfeit euro banknotes were detected throughout the entire euro area, and those that were discovered were of such poor quality that they were easily identified. A surprisingly small number of faulty notes and coins were found, bearing in mind the colossal production volume.

The cash changeover in Finland went smoothly and the country was one of the first euro countries to achieve full changeover. All of the country's ATMs were fully converted to dispense euro by the fourth of January and within a week three quarters of all cash transactions were being carried out in euro. By this time, retailers were handing back change almost exclusively in euro, too. Despite the information campaign's attempts, in Finland, as well as in many other

euro area countries, the share of card payments declined during the first week. This was due to the public's curiosity concerning the new currency and their desire to get rid of markka banknotes and coins. However, by the following week the situation had already returned to normal.

By the end of January 2002, Finland was practically speaking fully converted to the euro era. By that time, more than 95% of all cash transactions and almost all vending machine sales were by euro. There was also an ample supply of euro banknotes and coins available. As late as the end of

January, four individual cases of counterfeit euro banknotes were discovered in Finland, in addition to a few isolated cases of faulty notes and coins finding their way into circulation. The general public in Finland approached the change-over with enthusiasm and, in general, the Finnish media gave the matter positive and objective coverage.

For logistical reasons, throughout the entire euro area, the return of the national currencies happened distinctly more slowly than the corresponding issue of the new currency. This was particularly true of coins. The Bank of Finland estimated that almost all markka bank-

notes and nearly half the markka coins, amounting to more than two thirds of total value, would eventually be returned to the Bank. The return process already partially began in 2001. By the end of January 2002 approximately 80% of the value of banknotes and a good 40% of the coins had already been received in relation to the total estimated returns of the markka currency.

The dual circulation period in Finland ended officially on 28 February 2002.

# Management of foreign reserves

The Bank of Finland manages two types of foreign reserves: part of the foreign reserves of the ECB and its own foreign reserves. At the end of 2001 the share managed on behalf of the ECB amounted to some EUR 793 million while the Bank's own foreign reserves totalled about EUR 9,380 million.

## The ECB's foreign reserves

The Bank, together with the other national central banks (NCBs) participating in the Eurosystem, has transferred part of its foreign reserves to the ECB. The transferred assets comprise foreign exchange assets and gold. In compensation for the transfer, the NCBs have a euro-denominated claim on the ECB, on which the ECB pays interest.

Since any foreign exchange intervention by the Eurosystem is conducted using the assets of the ECB, security and liquidity are the basic requirements for the investment of the foreign reserves. The aim is to maximise the return on the reserves within the constraints set by these requirements.

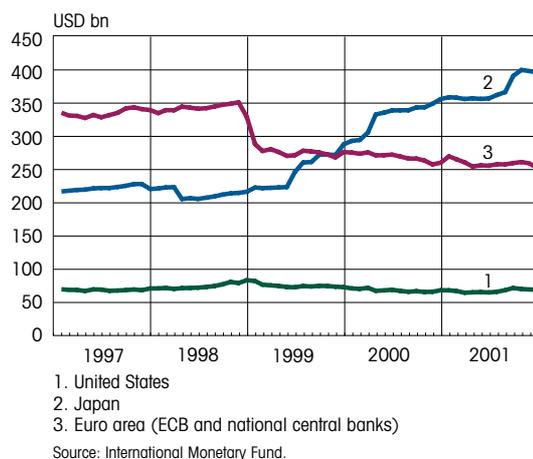
The ECB's foreign reserves are managed by the NCBs, subject to constraints fixed at the ECB. These

reserves are invested in assets denominated in US dollars and Japanese yen as well as gold. The guidelines for the management of the portfolio are very similar to those applied by the Bank in the management of its own foreign reserves. The currency distribution of invested reserves is kept fixed. The ECB has set benchmark portfolios for the currencies in the foreign reserves, and the NCBs aim to obtain a return on invested reserves that is higher than that on the benchmark portfolios. Risks and returns on the foreign reserves are subject to continuous monitoring.

The investment of the ECB's foreign reserves is being constantly developed by, for example, increasing the number of eligible investment instruments. The Bank and the other NCBs are actively involved in this development work through their participation in the activities of the ESCB's Market Operations Committee and a working group operating under it, thereby enabling them to exert influence on the investment policy applied to the ECB's foreign reserves.

At the end of 2001 the ECB's foreign reserves amounted to approximately EUR 46.6 billion (Chart 44).

**Chart 44.**  
Reserve assets of major economies



**Chart 45.**  
The Bank of Finland's reserve assets



## Bank of Finland's foreign reserve assets

The Bank holds reserves in order to meet any needs of additional transfers of foreign reserves to the ECB and the financing requirements of the International Monetary Fund (IMF) as well as to prepare for contingencies. The size of the Bank's foreign reserves under the single currency is stable and

the reserves no longer need to be as liquid as they were prior to the onset of monetary union (Chart 45). Therefore, more attention has been paid than before to improving the return on reserves.

The key objectives of the Bank's investment policy are security, liquidity and return. The security objective refers to the requirement that the market value of assets must not fluctuate exces-

sively as a result of the various risks involved. In addition, part of the reserves must be sufficiently liquid; it must be possible to convert it into cash quickly enough and at low cost whenever needed. The aim is to obtain the best possible return within these constraints.

The main risks associated with the investment of foreign reserves are exchange rate risk, interest rate risk, credit risk and liquidity risk. The expected return on reserves can be improved by raising the risk level. In defining the investment policy for the foreign reserve assets a combination of risks and return expectations is sought that best corresponds to the Bank's long-term objectives. The cornerstone of the investment policy is effective portfolio diversification.

The most important risk affecting the foreign reserves is exchange rate risk, which is caused by variations in the value of the reserve currencies against the euro and each other. The Bank attempts to limit exchange rate risk by spreading its holdings of foreign reserve assets among different currencies. This prevents a large change in the value of an individual currency from significantly affecting the value of reserves. The reserve currencies are the US dollar, the pound sterling, the Japanese yen, the Danish krone and the Swedish krona. The currency distribution is reviewed at 2-3 year intervals. A fixed currency distribution is maintained between the reviews. The Bank does not therefore attempt to take advantage of currency movements in its investment policy.

The second most important risk is interest rate risk. It is measured and managed in terms of duration. Duration describes changes in the value of investment portfolios resulting from a change in market interest rates. The duration of the foreign reserves is determined using the value-at-risk (VAR) method. This method is used to measure the probability distribution of gains and losses in the value of the reserves as a result of movements in currencies, interest rates and interest rate differentials. Particular attention is paid to the probability of large losses.

Interest rate risk is restricted by spreading investments among debt instruments with different maturities in the US, UK, Japanese, Danish and Swedish markets. In addition, market-specific limits have been set on the average duration of investments.

Credit risk refers to variations in the value of fixed income investments caused by changes in the creditworthiness of issuers of debt instruments or deposit-takers. A change in creditworthiness is usually connected with a change in credit rating.

Part of the foreign reserves is invested in debt instruments issued by entities with a high credit standing, eg corporates. In the long run

these investments generate higher returns than corresponding government securities, because credit risk is attached to them and they are less liquid than government securities. The credit risk inherent in the credit portfolio is also measured using the VAR method.

Effective portfolio diversification is crucial in the management of credit risk. Diversification is achieved by setting maximum limits and minimum credit rating criteria for issuers and counterparty banks and maximum limits for the VAR figures derived for the credit risk on the credit portfolio.

Liquidity risk is mitigated by investing the bulk of the reserves in securities issued by governments and in short-term investments for which these securities serve as collateral. Government securities are the most liquid investment instruments.

The portfolio that is assessed to be best suited to the Bank's long-term investment objectives is expressed in terms of neutral currency distribution and currency-specific benchmark portfolios. Benchmark portfolios are fictitious portfolios with a given target duration. Benchmark portfolios comprise government securities, debt instruments with credit risk exposure and short-term money market

investments. The benchmark portfolios have been devised by the Bank and by definition they represent a neutral approach to investment. The currency distribution and the structure of benchmark portfolios largely determine the return on invested reserves. The aim of active investment is to obtain a return on invested reserves that is higher than the return on the benchmark portfolios.

The Bank's foreign reserves, as those of the other NCBs, also comprise gold. The Bank's gold reserves amount to 50,000 kg. About half of the gold reserves are invested. The bulk of the investments are short-term gold deposits while part of the investments makes use of long-term interest rate swaps.

A risk management unit separate from the portfolio management function is responsible for the risk management of the foreign reserves and monitoring compliance with limits. This unit also sets the benchmark portfolios, calculates returns on actual and benchmark portfolios and continuously monitors developments in the returns. The unit reports on risk management issues to a Board member who is not responsible for investment operations.

# International activities

## The Bank of Finland in the European System of Central Banks

As a rule, the Governing Council of the ECB, which is the highest decision-making body of the Eurosystem and consists of the members of the Executive Board of the ECB and the governors of the euro area national central banks (NCBs), convened, as a rule, every second week in 2001, ie a total of 28 times. The General Council, the third decision-making body of the ECB, which is composed of the governors of all EU NCBs and the President and Vice-President of the ECB, met four times during the year under review.

The Governing Council decides on the monetary policy for the euro area and also deals with other such issues related to the functioning of the Eurosystem that fall within its decision-making powers. The ECB Governing Council meetings are preceded by a comprehensive briefing process in which the Bank's experts provide the Governor with relevant background material and proposals for positions to be taken at each meeting. The Bank of Finland's Board holds discussions on the background material and proposals before the Governing Council meeting.

Through various committees, the euro area NCBs participate, together with the ECB, in the preparation of matters for submission to the ECB Governing Council. The committees play an advisory role, and committee proposals are not binding upon the ECB Executive Board when it makes its own proposals to the Governing Council. Nevertheless, the committees' viewpoints are reported to the Governing Council, even in cases where they deviate from the Executive Board's proposed decision.

Altogether, there are 13 committees in the ESCB. In addition to these committees, the Eurosystem Cash Changeover Co-ordination Committee functioned from March 2001, when it was established by the Governing Council to ensure a smooth cash changeover, until February 2002 after which it was wound down. The primary task of the committee was to monitor and prepare for possible problems in relation to the changeover to euro banknotes and coins.

Most committees convened once a month while some held meetings at longer intervals. Like other NCBs, the Bank of Finland has one or two representatives on each committee. The committees have also set up working groups to examine a number of specific is-

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## Governing Council and General Council of the ECB

Matti Vanhala, Member  
Matti Louekoski, Alternate  
Kjell Peter Söderlund, Accompanying person

## Representatives of the Bank of Finland on ESCB committees

### International Relations Committee

Sinikka Salo  
Kjell Peter Söderlund

### Budget Committee

Antti Vuorinen

### Accounting and Monetary Income Committee

Esa Ojanen  
Tuula Colliander

### Legal Committee

Mariitta Nieminen  
Eija Brusila

### Payment and Settlement Systems Committee

Harry Leinonen  
Marianne Palva

### Market Operations Committee

Markus Fogelholm (until 30 April 2001)  
Pentti Pikkarainen (from 1 May 2001)  
Anneli Isopuro

### Banking Supervision Committee

Heikki Koskenkylä

### Eurosystem Cash Changeover Co-ordination Committee

Urpo Levo

### Monetary Policy Committee

Pentti Pikkarainen (until 30 April 2001)  
Antti Suvanto (from 1 May 2001)  
Tuomas Saarenheimo

### Banknote Committee

Urpo Levo  
Paavo Perttu

### Internal Auditors Committee

Taina Kivelä  
Erkki Kurikka

### Information Technology Committee

Armi Westin  
Raimo Parviainen

### Statistics Committee

Martti Lehtonen  
Laura Vajanne

### External Communications Committee

Antti Juusela  
Antero Arimo

sues in more depth. About 70 representatives from various organisational levels at the Bank participated in the work of the committees and working groups. However, hundreds of Bank employees were involved indirectly with ESCB matters one way or another. The number of people involved is even greater if the implementation of the Governing Council's decisions in Finland is also taken into account.

Committee work is an important part of ESCB cooperation, and it had a significant impact on daily work routines at the Bank in 2001. Experts –both those who are members of committees and those who are engaged in preparatory work in Finland –familiarise themselves

with background material and take part in in-house preparatory meetings where they elaborate the positions to be taken by the Bank's representatives at meetings or for written procedures. The proceedings of committee meetings are reported systematically at the Bank.

Matters related to the Eurosystem's external relations are dealt with by the International Relations Committee. The ECB and the NCBs of the participating Member States each have two representatives on the committee; one of the NCB representatives is usually the deputy governor. Sinikka Salo, a Board Member of the Bank of Finland, sits on the Committee.

The ECB is also represented on this committee by a member of its Executive Board. In 2001 the committee handled, inter alia, issues concerning the Eurosystem that were raised at meetings of international organisations, mainly the International Monetary Fund and the EU's Economic and Financial Committee, possibly requiring a common position of the Eurosystem. Where necessary, the Governing Council takes the ultimate decision on such positions.

NCB representatives of non-participating EU countries attended the meetings of the International Relations Committee whenever matters concerning the EU as a whole were discussed. This was

## Representatives of the Bank of Finland on EU committees

### Economic and Financial Committee

Sinikka Salo  
Paavo Peisa, Alternate Member

### Economic Policy Committee

Antti Suvanto (until 30 June 2001)  
Tapio Peura (from 1 July 2001)

### Banking Advisory Committee

Heikki Koskenkylä

also normal practice in other committees.

Important topics discussed by the International Relations Committee in 2001, as in the previous year, included developments in the world economy, the enhancement of international financial systems, EU enlargement and the stability of the financial markets. Common positions for the Eurosystem were prepared, for example, on issues discussed in the International Monetary Fund. In addition to current economic crises, the issues discussed at the committee included private sector involvement in financing economic crises and the change of exchange rate regimes in emerging market economies.

Key topics relating to EU enlargement included convergence of the economies of the EU accession countries with the economies of the EU countries and cooperation between the NCBs of the accession countries and the Eurosystem. As a follow-up to the earlier Seminars on the Accession Process held in Helsinki and in Vienna, the ECB and the Bundesbank jointly arranged a high-level seminar in December, held in Berlin, for representatives from the NCBs of the accession countries and the Euro-

system. At the seminar, special attention was paid to various issues relating to the financial markets of the accession countries. The International Relations Committee played a major role in planning the seminar, at which the Eurosystem was represented by committee members.

In addition, the committee actively monitored developments in the international role of the euro and, together with the Monetary Policy Committee, prepared a report on this subject.

### Other activities related to the European Union

The Economic and Financial Committee (EFC), which works under the Council of European Union meeting in the composition of the Ministers of Finance and Economy (ECOFIN Council), is comprised of two representatives from each member state, the ECB and the Commission. One of a member state's representatives is from the Ministry of Finance and the other from the NCB. The Bank of Finland is represented by Sinikka Salo, Member of the Bank's Board, and her deputy is Paavo Peisa, Adviser.

Since the start of Stage Three of EMU, monitoring of economic developments in the EU countries has been enhanced in the framework of multilateral surveillance. The key instrument used for this monitoring is the Broad economic policy guidelines document published annually. In accordance with customary practice, the Economic and Financial Committee submit-

ted a draft for guidelines for 2001 to the ECOFIN Council based on the Commission's recommendation. According to the common policy recommendations set forth in the guidelines, the member countries should orientate their economic policies towards growth and stability. The budgets for 2002 should be prepared in view of the need to reach or maintain a budgetary position close to balance or in surplus and to avoid pro-cyclical fiscal policies. Where necessary, general government finances should be further strengthened to ensure their long-term sustainability. A key objective of the policy recommendations is to enhance economic structures with special attention being paid to improving the efficiency of labour markets.

As the implementation of the earlier Broad economic policy guidelines for 2000 was assessed, it was maintained that, contrary to the guidelines, fiscal policy in Ireland had been expansionary in an overheating economy. In February, following preparations at the Economic and Financial Committee, the ECOFIN Council submitted a recommendation to Ireland to adjust its fiscal policy. This was the first time that such a recommendation by the Council had been addressed to a member country. In the course of the year, the tension between the guideline recommendations and Irish fiscal policy eased considerably as cyclical conditions changed.

The Economic and Financial Committee drew up new instructions on the preparation and evaluation of the stability and convergence programmes. The Commit-

tee also contributed to the preparations of a joint report of the ECOFIN Council and the Commission concerning the contribution of public finances to growth. The report was discussed at the European Council in Stockholm.

The Economic and Financial Committee strongly supported the recommendations of the committee set up by the Commission to examine ways of improving the efficiency of the regulatory process. Alexandre Lamfalussy, the chairman of the committee, attended several meetings of the Economic and Financial Committee to report on the progress made. The committee also continued to follow closely the progress made in the implementation of the Commission's Financial Services Action Plan. In April, a working group on financial stability and crisis management functioning under the EFC submitted a progress report on the implementation of their earlier recommendations and crisis management.

The committee also took part in the euro cash changeover preparations. In December, a common network for managing changeover information was nominated by the ECOFIN-council in September to monitor the cash changeover, started to operate with one representative from each member country. Juhani Hirvonen, Adviser at the Bank of Finland, was appointed from Finland.

A working group on the statistical requirements for Stage Three of EMU and on the implementation of recommendations completed its assignment and ceased to function in October. The responsibility of monitoring the implementation of

recommendations was then transferred to the European Commission.

The EFC participated in the preparations for EU enlargement by organising, inter alia, high-level meetings between committee members and representatives of the accession countries in Stockholm and Brussels and by preparing for the joint meetings of the finance ministers from member and accession countries. The issues discussed at the meetings included the Pre-Accession Economic Programmes prepared for the first time by the accession countries in the course of 2001. In many respects, these programmes correspond with the stability and convergence programmes drawn up by the Member States.

The committee continued its efforts to find common positions on international economic policy issues. These issues were largely handled by the committee's new working group set up to specifically prepare common positions on issues discussed in the International Monetary Fund. The EU's common positions, prepared by the committee, were expressed through speeches delivered by the president of the EU Council at the spring and autumn meetings of the IMF's International Monetary and Financial Committee (IMFC) and at various G7 and G20 meetings. In the course of the year, progress was made especially in issues concerning private sector involvement in the financing of economic crises.

The EU's Economic Policy Committee was involved in drawing up broad economic policy guidelines as well as other procedures for the coordination of Mem-

ber States' economic policies with regard to structural policy issues. The committee carried out studies on the structural reforms of the commodity and capital markets on the basis of country-specific reports. In order to improve the assessment of the interplay between structural changes and the macro-economic policy mix, the committee examined issues such as measuring structural budget deficits.

In the course of the year, the committee paid particular attention to the various challenges presented by an ageing population. The committee evaluated the long-term impact of population ageing on pensions, expenditure on health care and welfare of the elderly as well as on the public finances in general. In addition, the committee assessed the need for reform in pension systems due to population ageing and discussed the issue of organising EU cooperation relating to pension policies.

In Finland, the Bank of Finland participated in the work of a committee on EU affairs responsible for coordinating cooperation between ministries. The Bank also took part in the preparatory work of the sub-committees of the EU Affairs Committee that addressed issues related to economic policy coordination, international financial issues, taxation, financial services and capital movements, insurance services and EU enlargement.

## International Monetary Fund (IMF)

In recent years, international capital markets have often played a

major role when individual countries have faced financial and/or currency crises. The international community has sought ways to halt crises from deepening and to reduce the risk of contagion. Efforts involving the provision of additional financial resources for the financial programmes of Argentina and Turkey under the leadership of the International Monetary Fund (IMF) exemplify such a policy. In addition to crisis management, the IMF has endeavoured to allocate more resources to crisis prevention. To this end, the IMF has put its effort into improving the efficiency of monitoring the economic development and the operation of financial markets in member countries.

The IMF made significant progress in the surveillance of financial markets in 2001. Following a pilot project, the Financial Sector Assessment Programme, implemented in collaboration with the World Bank, became a permanent arrangement. In the future, the IMF will undertake an annual review of the 24 member nations' financial market structures, their respective development and vulnerability to various shocks. Over the next few years the focus will be on those countries in which the vulnerability of their financial markets could pose serious implications for the stability of the international money and foreign exchange system.

The IMF has also enhanced its understanding of capital markets and signs of crisis transmitted through them. To this end, a new International Capital Markets Department was established. The main tasks of the new department

are to analyse access to the markets and assist member countries to benefit from the financing opportunities provided by the capital markets.

In 2001 the IMF, together with the World Bank, prepared an Anti-Money Laundering Document. It should help authorities responsible for financial market regulation to examine and combat abuse of financial markets. In addition, the IMF helps the Financial Action Task Force (FATF) on money laundering, an international body of cooperation, to develop the FATF 40 Recommendations and to monitor their implementation. The IMF also explores ways to apply these recommendations in its own work.

Member countries are usually required to commit to certain economic policy measures in order to receive financing from the Fund. However, it has been discovered that the commitment by countries to the adjustment targets has started to weaken. In response to this, the IMF has made efforts to limit the conditionality of the adjustment programmes. The fulfilment of the conditions by a country must have a direct and crucial impact on its economic recovery. The IMF shall focus on setting adjustment targets that enhance economic stability in the short and medium term. When conditionality involves elements of structural reform, decisions related to the setting and monitoring of the conditions shall be made by the IMF together with the World Bank.

One of the major current issues relating to the international financial architecture is the scope of private sector responsibility in crisis prevention and management.

In order to determine the financing role of the public and private sectors, the IMF has set up a framework to classify crisis situations that countries could face. Crises are classified according to the country's need for external finance, on the one hand, and to the country's possibilities to raise financing on private financing markets, on the other hand. Further improvements in the system include developing analyses to assess financial market access and debt sustainability in the medium term.

To increase private sector involvement, the Fund's Executive Board has also discussed methods used in various cases to restructure public sector debts and has addressed the issue of equal treatment related to restructuring debt granted by the private sector and the Paris Club. In practice, less progress has been made in increasing private sector involvement than expected. This became particularly obvious, for example, in the context of the adjustment programmes implemented by Turkey and Argentina. In these cases, the financing packages have become exceptionally large while private sector involvement – the share of foreign financial institutions in the financing arrangements in particular – has remained fairly modest.

As part of the joint Poverty Reduction and Growth Facility of the IMF and the World Bank, the Heavily Indebted Poor Countries Initiative (HIPC), two new countries were accepted into the HIPC framework and three countries underwent debt relief, which is the objective of the initiative. In all, 28 countries qualified for debt relief

by the end of 2001, and the debt relief programme has been achieved in four of those countries (Bolivia, Mozambique, Tanzania and Uganda).

The IMF took part in preparations for the International Conference on Development Finance, to be held in Mexico in 2002.

In November, an Article IV consultation was conducted in Finland to assess the nation's economic situation and policy. Special attention was paid this time to the significance of information and communication technology to the Finnish economy. According to the IMF, Finland's economic performance was considered fairly good. Success is largely based on the export of information technology products. The fundamentals of the Finnish economy are favourable and the budgetary position of the general government sector is strong. The IMF expressed the hope that the income policy will remain moderate. According to the Fund, Finland has rather strong possibilities to manage through the current recession without serious setbacks.

According to the IMF's assessment, more attention should be paid to the structural problems of the economy. The Fund's view is that the continuously high unemployment rate could be decreased by easing income taxation and increasing flexibility within the labour market. Pension reforms are also required to reduce early retirement. According to the IMF, Finland's growth prospects in the long term also depend essentially on progress in the use of high technology outside the actual information

and communication technology sector.

In addition, the results of the IMF's financial sector stability assessment (FSSA) were presented during the Fund's Executive Board discussions on Finland. The assessment highlighted the Finnish financial sector's stability and the sector's resilience to shocks. According to the IMF, Finland is something of a pioneer in financial sector reform and the development of financial operations. For this reason, the IMF expressed the hope that Finland would correspondingly seek to improve its financial sector regulation and supervision target levels beyond existing international standards.

The IMF's staff report related to the Article IV consultation and the financial sector stability assessment were posted on the IMF's Internet website in November.

Horst Köhler, Managing Director of the Fund, visited Finland in October. During his visit, he met representatives of the Government, representatives of the Bank and officials involved in the implementation of economic policy.

The September terrorist attack on the United States was reflected in IMF operations in as much as the joint annual meeting of the IMF and the World Bank was not held in October as scheduled.

The IMF's International Monetary and Financial Committee (IMFC) held its biannual meetings in Washington DC in spring and in Ottawa, Canada, in November. The main issues discussed at the November meeting were the global economic situation, in particular in the aftermath of the September

terrorist attack, the implications of globalisation for poor countries, the clarification of the connection between money laundering and terrorism, as well as the stabilisation of the global financial and foreign exchange system and the preparations for the United Nations Financing for Development Conference. Sauli Niinistö, Finland's Minister of Finance, represented the Nordic and Baltic countries in the committee.

Finland was represented on the Fund's Board of Governors by Matti Vanhala, Governor of the Bank of Finland. Matti Louekoski, Deputy Governor of the Bank of Finland, served as his deputy.

The Nordic-Baltic Monetary and Financial Committee (NBMFC), consisting of representatives from the Nordic and Baltic central banks and ministries of finance, convened three times during the year to discuss issues related to the IMF. At these meetings, the NBMFC prepared joint positions and policies eg for the IMFC meeting. Finland was represented at the NBMFC meetings by Johnny Åkerholm, Permanent Under-Secretary of State, from the Ministry of Finance, who chaired the committee, and Mr Louekoski, Deputy Governor of the Bank of Finland. The alternate members of the NBMFC also convened three times in 2001 to prepare the committee meetings.

The Nordic-Baltic constituency was represented on the Fund's Executive Board by Olli-Pekka Lehmuusaari from Finland. His two-year term of office ended at the end of 2001 and coincided with the end of the Bank of Finland's

responsibility for coordinating the preparation of the constituency's positions.

### Other international activities

The Bank for International Settlements (BIS) functions as a bank and cooperative body for central banks, the shareholders of BIS. Central bank governors convened seven times 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 featured on the agenda for the meetings.

Within the Organisation for Economic Cooperation and Development (OECD), representatives of the Bank of Finland participated in the work of several committees. The OECD's Economic Policy Committee deals with general macroeconomic and structural policy issues. The Economic Development and Review Committee is responsible for monitoring and assessment of individual member countries and their economic policies. Representatives of the Bank of Finland participated in both committees. In September,

OECD experts paid their regular visit to Finland to conduct a country review. The review was considered at a meeting in November, and the country report was published in December 2001.

The Bank of Finland also had a representative on the OECD's Financial Markets Committee, which monitors financial market developments and trends, and on the Committee on Capital Movements, which is responsible for supervising member countries' compliance with OECD codes for the liberalisation of capital movements and services.

# Economic analysis and research

The Bank's aim is to produce analysis and research in its chosen areas, meeting top international standards. These specialities are the modelling of monetary policy, the future of the financial services sector, and economies in transition (with emphasis on Russia and the Baltic countries). Research work is centred in the Bank's Research Department and Institute for Economies in Transition.

Within the programme on monetary policy modelling, work continues on the development of new-generation macroeconomic simulation models that include expectations and other key factors in the transmission of monetary policy. In connection with policy analysis, a model of the Finnish economy was constructed, which stresses different kinds of expectational factors and technological advances, as well as the supply effects of taxation and social security. Other aspects of the programme included research on the use of financial markets information in measuring macro-level expectations and in forecasting, as well as participation in a study of the transmission mechanism of the Eurosystem's single monetary policy, ie the Monetary Policy Transmission Network. The Bank's role

in this study was to measure the effects of monetary policy on bank lending and corporate investment in Finland.

Within the programme on the future of the financial services sector, studies focus on the impact of new technologies and increasing competition on the operations of banks and securities markets. One area of study covered by the different projects in 2001 was the impact of electrification on the role of central banks and on the effectiveness of interest rate policy. Another area of focus was the structural effect of the new international capital adequacy requirements for banks. The emphasis here was on the effects of future regulations on risk-taking strategies of different types of banks. Research on the globalisation of markets focused, inter alia, on pressures for change and efficiency improvements in the operations of securities exchanges and the competitiveness and efficiency effects of alliances between exchanges. A project was started in 2001 on cross-country comparison of the effects of technological progress on banking productivity and costs.

The Bank's research findings are primarily reported in discussion papers, which are in paper form as

well as being posted on the Bank's website. Articles written by the Bank's researchers are also published in international professional journals. A collection of studies on the regulation and supervision of banking was published (Mayes, Halme, Liuksila, *Improving Banking Supervision*, Palgrave 2001). Two research newsletters –aimed at the Finnish public –were issued during the year.

The Institute for Economies in Transition is the only research unit in the ESCB that focuses on the Russian and Baltic economies. In addition to its research work, the Institute monitors these economies extensively, provides related information services and cooperates with the authorities. The Institute's research efforts concentrate on macroeconomic policy, especially monetary and fiscal issues. While the Institute has its own discussion papers series, the aim is to publish findings in outside journals and other professional publications. Presentations and opinions are posted on the Institute's website in the BOFIT Online series. The Institute continues to contribute to the World Bank's Transition Newsletter, which is another prominent publicity channel.

The Institute's range of economic and financial reviews includes the well-established *Russian & Baltic Economies –The Week in Review* (in Finnish and English), as well as *Russian Economy –The Month in Review*, and *Baltic Economies –The Quarter in Review*. The Institute's information service, which, at least within the Nordic countries, is without parallel in this field, was developed further, par-

ticularly in respect of electronic information acquisition and management.

The Bank's research units cooperate extensively at international level, in the ESCB and other fora. The primary forms of cooperation are seminars, researcher exchanges and joint projects. In March 2001, the Research Department, in cooperation with the London-based Centre for Economic Policy Research (CEPR), arranged a workshop in Helsinki, titled *Moral Hazard Issues in Banking*. In September the Bank hosted a conference organised by the CEPR and the European Summer Institute on *Old Age, New Economy and Central Banking*. The Institute for Economies in Transition arranged two international seminars during the year: the BOFIT Workshop on Transition Economies in April and, within the ESCB framework, a seminar on Russia in September. Both of the Bank's research units hosted visiting researchers in connection with specific projects.

In January 2001 the Economics Department of Tilburg University published a comparative study on the research activities of European central banks. Evaluations were based on quality and quantity of international professional publications over the last ten years. Of the 13 central banks compared, the Bank of Finland received a fairly high ranking –fourth –based on production quality and quantity. The Bank ranked first in terms of production relative to number of employees in the research and economics departments. These findings were in line with a previous (1999) study of the Bank's research

activities by a group of outside experts. Both studies indicate that, within the Eurosystem, research is clearly one of the Bank's areas of strength.

The Bank's macroeconomic analyses provide background material for the Governor in the work of the ECB Council and for Bank representatives in various committees and working groups of the ESCB and EU, as well as for participation in other international bodies. Moreover, these analyses form bases for the Bank's views on domestic economic performance and challenges for economic policy.

A central part of the Bank's macroeconomic analysis is connected with the biannual macroeconomic projections for the euro area. The projection exercise is a joint effort of the Eurosystem and is a remit of the ESCB's Monetary Policy Committee, which includes representatives from the ECB and national central banks. The Bank of Finland is responsible for Finland's part in the exercise and participates in the projection for the whole euro area. Since December 2000 the ECB has been publishing the key results for the whole euro area in its Monthly Bulletin. For several years already, the Bank of Finland has been publishing its biannual forecasts for the Finnish economy in *Euro & talous* and *Bank of Finland Bulletin*. Because of the rapidly changing economic environment, the Bank also published forecast revisions in September 2001.

Analysis of the financial markets focuses on stability oversight of the banking and payment systems and the securities markets. In

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this context, the Bank cooperates with the Financial Supervision Authority, other central banks, and

various international organisations. Biannual reports are made on financial stability, and the salient

results are published in *Euro & talous* and *Bank of Finland Bulletin*.

# Statistics

During the year, the Bank of Finland's Statistics Department continued its work on the ESCB project on financial and balance of payments statistics, in accordance with the agreed timetable. The project includes the planning of new statistics and complementary additions to currently produced statistics, streamlining the compilation process, and upgrading the quality of the statistics. Widening the coverage and increasing the level of detail of ESCB statistics mean expanded tasks for the Bank. Under the ESCB's decentralised statistics regime, the national central banks are responsible for supplying the ECB with country-specific data.

## Statistical cooperation within the ESCB

The ESCB's Statistics Committee and related working groups monitor the quality of euro area statistics and participate in their development, as set out in annual work programmes. Upgrading of statistics is crucial as information needs are expanding, and improving the quality of current statistics is an ongoing task.

Work on money and banking statistics continued during 2001 via

two major projects: expansion of coverage of MFI balance sheet statistics and development of totally new and harmonised interest rate statistics for the euro area. Both projects are subject to cost-benefit analysis, as required by the ECB Governing Council. When the decision was made on the content of the statistics, the focus was on the need for an ECB regulation on statistics. These statistics will be produced from the beginning of 2003.

Within the ESCB, abundant resources have been allocated to improving the quality of monetary aggregate statistics. In this connection, the broad (M3) aggregate for the euro area was made more precise in 2001 by eliminating the distortion caused by non-euro area residents' holdings of money market fund units and money market paper.

As regards the development of balance of payment statistics, the focal points were extension of geographical distinctions affecting the economic activities of nonresident counterparty and the unification of data collection in respect of foreign securities transactions. Valuation of stock data on direct investment and other related conceptual problems also received much attention in 2001. It was recommended that more detailed data on securities transactions be collected via secu-

rities registers. The practical solutions for data collection, however, remain the remit of member countries, in accordance with the subsidiary principle.

## Other international and domestic cooperation

The Bank of Finland cooperated at international level with the Statistical Office of the European Communities (Eurostat), International Monetary Fund (IMF) and Bank for International Settlements (BIS). Nordic cooperation also continued in all areas of statistics.

Eurostat, via its advisory Committee on Monetary, Finance and Balance of Payments Statistics, has taken an active role in the development of statistical systems for the balance of payments. In autumn 2001 Eurostat made a proposal on an EU regulation on balance of payments statistics within its remit and closely related statistics. The draft regulation deals mainly with statistics on cross-border provision of services, direct investment, and financial transactions between companies with cross-ownership relations. While the Bank of Finland is responsible for production of statistics on direct investment and, in part, on financial transactions between cross-owned companies, the regulation primarily affects Statistics Finland. One reason behind the need for such a regulation is the growing importance of statistical authorities in these specific areas of statistics. Drafting of the regulation will continue in 2002. The Bank prepared a joint statement together with Statistic

Finland, regarding the draft regulation.

Working groups under the Committee on Monetary, Finance and Balance of Payments Statistics, in which the Bank participates, are also working actively on the implementation of more extensive survey-based collection of balance of payments data. Current collection systems, based on payment transactions, are becoming outdated in the context of the single currency. In Finland these changes have been effected earlier than in most other countries. Like the United Kingdom, Ireland and Sweden, Finland has been sharing its experiences with other countries in the working group that is planning surveys. Elimination of inconsistencies within Europe as regards balance of payments statistics has been the task of another working group. One accomplishment of this group will be a reduction in distortions in euro area/EU balance of payments statistics. An experimental programme involving large European companies is being launched, with the aim of unifying international companies' balance of payments reporting among the European countries.

Work continued under the auspices of the IMF on the Special Data Dissemination Standard (SDDS). The IMF was also active in defining quality standards for statistics, and the results will also be implemented in Europe. Active statistical cooperation among the Nordic countries continued in 2001, with emphasis on practical statistical problems. Another matter of concern was the rational division of tasks between central bank and statistical authority.

Strengthening of cooperation between the Bank and Statistics Finland continued. A goal of this cooperation is the fulfilment of Finland's international obligations in respect of financial, balance of payments and other statistics. At the same time it serves to promote cost efficiencies in the production of statistics in a manner that minimises the burden to data reporters and avoids overlapping efforts in compilation and publishing of statistics.

Senior managers of the different authorities jointly examine current issues of cooperation on a regular basis. As part of the ESCB's work on money and banking statistics, the Bank of Finland and Statistics Finland, in discussions on cooperation, examined national data needs and the provision of data at reasonable cost levels. As regards balance of payments statistics, the Bank is providing financing and expertise in the development of a survey on international trade in services. The survey has proven to be a useful and efficient tool for collecting data. Mainly in connection with the new quarterly submissions of financial accounts to the ECB, the technical transfer of basic statistical data from Statistics Finland to the Bank has been streamlined. The system, once fully implemented, will also be useful in connection with other statistics.

## Compilation and publication of statistics

Money and banking as well as balance of payments statistics are compiled monthly and quarterly

according to agreed timetables and quality standards. Close cooperation with data providers continues, with particular focus on information about future changes in compilation. The other credit institutions that were included in the MFI sector at the start of 2001 submit statistical balance sheets to the Bank of Finland. Regular reporting for the extended MFI sector got off to a smooth start. At the end of the year, preparations began for adding money market funds to the group of direct data providers.

Numerous trial-run calculations were made in connection with the quarterly national financial accounts, and regular compilation began with the last quarter of 2001. A considerable amount of effort has been put into compilation planning, resolution of conceptual problems, collection of raw data, quality control, ICT planning and solutions implementation, and submission of statistical data to the ECB. The number of time series involved in financial accounts data doubled compared to the previous year. Euro area financial accounts data and a related article were published for the first time in the May 2001 issue of the ECB Monthly Bulletin.

The planning of securities statistics continued with the examination of the content of currently available databases for Finnish

securities. During the process, it was also determined that ECB data requirements could be met via the Finnish Central Securities Depository (APK). The Bank will nonetheless need to establish its own securities database, and the technical planning began in the latter part of 2001.

Compilation of statistics on other financial institutions commenced in spring 2001, when the Bank began to supply the ECB with quarterly data on mutual funds etc. The Bank does not collect balance sheet data directly from other financial institutions but instead relies on statistics compiled by other entities.

The new balance of payments surveys have proved highly effective and appropriate in terms of coverage. However, changes in markets and company restructurings mean that ongoing revision of the surveys is essential for quality maintenance.

A survey on the structure of import credits was carried out in 2001, five years after the previous one. This survey is useful for studying the amount of Finnish importers' foreign financing. The survey was highly successful, with a good response rate and no notable data deficiencies.

Other projects carried out in 2001 were Finland's contribution to the IMF's survey of the geographi-

cal breakdown of securities holdings and the BIS's triennial survey of foreign exchange and derivatives. Both of these surveys are worldwide in scope, and the results were announced in press releases.

The ECB's euro area statistics are published as separate bulletins in English and *in toto* in the statistics section of the ECB Monthly Bulletin. The continuous growth of the statistics section reflects the development of the ECB's statistics programme. The Monthly Bulletin is also available in Finnish. Euro area statistics are also posted on the ECB website. Country-specific statistics, on the other hand, are published by the national central banks. The Bank of Finland publishes an extensive statistical review, *Financial Markets*, as well as separate statistical bulletins, all of which are posted on its website. Statistics are also submitted to Eurostat, the IMF, BIS and OECD, as well as locally for redistribution to third parties. Inquiries specifically on statistics are handled by the Bank's statistics desk.

# Information and publications

In preparation for the cash changeover from markka to euro, it was of crucial importance to inform the general public of how and when the euro banknotes and coins would be put into circulation, how the changeover would affect cash transactions, and how to both recognise the new banknotes and coins and check their authenticity.

The Bank of Finland participated in the integrated Euro 2002 Information Campaign of the European Central Bank and the euro area central banks, and was responsible for its implementation in Finland. The Euro 2002 Information Campaign included a Partnership Programme aimed at businesses and other organisations involved in cash handling, the website [www.ecb.int](http://www.ecb.int), a press and public relations programme, and an information campaign aimed at the general public launched towards the end of the year. As part of the Euro 2002 Information Campaign, a Euro 2002 Conference was held in Helsinki, one in a euro area-wide series. Speakers included Willem F. Duisenberg, President of the European Central Bank, Pedro Solbes, Member of the European Commission, Sauli Niinistö, the Finnish Minister of Finance, and Matti Vanhala, Governor of the Bank of Finland.

From the autumn through to the end of the year, the Bank of Finland carried out its own euro information campaign, aimed at the Finnish public, to complement the Euro 2002 Information Campaign. In September, once the security features of the euro banknotes were unveiled, the Bank of Finland posted a euro guide to all households. The guide provided information on practical aspects of the cash changeover and detailed descriptions of the new banknotes and coins, including their security features. The Bank's euro information campaign also involved newspaper advertisements, radio and television spots. The campaign was carried out together with the Evia Group, at a total cost of approximately EUR 1.4 million in 2001. To avoid overlapping, the Bank of Finland coordinated the content and timing of its own campaign with other Finnish euro-related information projects as well as the Euro 2002 campaign.

The general public's interest in the euro increased notably in the latter part of the year, and questions on the new currency were answered on the euro service telephone and by email. In autumn 2001 a group of Bank employees specially trained to provide information on the EMU, gave talks on

**Table 2.**  
Print runs for Bank of Finland publications in 2001\*

Annual report	
– in Finnish	3,000
– in Swedish	700
– in English	2,000
Euro & talous	7,500
Bank of Finland Bulletin	5,600
Series A	–
Series E	2,300-2,500
Discussion Papers	
– in Finnish	650
– in English	1,500
Financial Markets statistical review	
– markka-denominated version	400
– euro-denominated version	850
Finnish Bond Issues	400
Institute for Economies in Transition	
– BOFIT Discussion Papers	1,300
– Russian & Baltic Economies – The Week in Review	
– in Finnish	1,000
– in English	1,500
– Russian Economy – The Month in Review	1,300
– Baltic Economies – The Quarter in Review	900

\* The Bank endeavours to set print runs to match demand (subscriptions and orders for single copies) as closely as possible.

numerous occasions to a wide range of audiences. A great deal of campaign material was delivered, for example, to schools and colleges. The Bank sought to ensure that its staff was equipped with adequate information on issues relating to monetary union and the euro through its internal information network.

The Bank of Finland celebrated the launch of the euro banknotes and coins by opening all of its offices for about an hour at midnight on New Year's night. At the Bank's customer cash points, members of the general public were able to exchange FIM 100 and FIM 500 for euro banknotes and coins packaged in the equivalent amounts. The Bank's offices were also open for three hours on New Year's Day.

An additional significant task in 2001 was communication by the Bank of Finland with the objective of making the single monetary policy conceivable to the public and explaining the effects of the monetary policy on the Finnish economy. Governor Matti Vanhala continued to be available for interview by Finnish journalists via a direct video connection immediately after the regular press conferences given by Wim Duisenberg, President of the ECB, following the meetings of the Governing Council of the ECB. As from the beginning of 2002, Governor Vanhala discontinued this practice.

The Bank of Finland's macro-economic forecasts were published in the Bank's quarterly bulletin *Euro & talous*. In connection with the release of each issue, the Governor held a press conference enabling journalists to pose questions and make interviews.

The members of Board of the Bank of Finland appeared actively in public, for example by giving speeches and granting interviews to the media.

As in previous years, the Bank of Finland was responsible for the translation into Finnish of the ECB's key publications. Accordingly, the ECB's Annual Report and the twelve issues of the Monthly Bulletin were translated into English. In addition, the Bank was responsible for the production and publication of the Monthly Bulletin. The book *Monetary Policy of the ECB* was translated in Finnish and Swedish for publication

in 2002. The ECB's press releases were also translated into both languages. The Euro 2002 Information Campaign involved a great deal of 'ad hoc' translation and language revision work.

Both of the Bank of Finland's periodicals *Euro & talous* and the *Bank of Finland Bulletin* appeared four times in 2001. The annual report was published in Finnish, Swedish and English. The Parliamentary Supervisory Council's annual report appeared as customary, and in February the Council published its first progress report. The statistical review *Financial Markets* was published monthly, in both markka- and euro-denominated versions. Balance of payments statistics were published regularly in the statistical bulletin *Finland's Balance of Payments*. Two doctoral theses appeared in the Bank's E series. There were 26 papers that appeared in the *Discussion Papers* series, which comprises research and analytical studies conducted in various departments of the Bank. The Institute for Economies in Transition continued to produce a wide range of publications.<sup>1</sup>

In addition to its regular publications, the Bank published various brochures and guidelines for internal and external use.

<sup>1</sup> A list of Bank of Finland publications in 2001 is included in the Appendices. The publications by the Bank of Finland, the Institute for Economies in Transition and by the European Central Bank are available on the Bank's website ([www.bof.fi](http://www.bof.fi)).

# Organisation and personnel

## Organisation

The Board of the Bank of Finland had three members until the end of 2001. At the end of November 2001 the President of the Republic of Finland appointed Mr Pentti Hakkarainen, LL M, MSc (Econ), to the Board with effect from 1 February 2002. No changes were made to the Bank's organisational structure.

## Strategic and action planning

An extensive scenario analysis addressing three key areas, ie monetary policy, financial markets and payment systems, was conducted at the Bank in spring 2001. Within the operating environment, future alternative scenarios were identified and analysed and appropriate alternatives for action were discussed. Views on the Bank's own activities, together with some related assumptions thereof, were integrated into the analysis. The findings were reviewed at the management strategic seminar in April. The Bank's strategic guidelines over the next few years were only slightly adjusted in response to the scenario analysis. Nevertheless, it was held that, in the long run, the analysis would serve to promote

the monitoring and the anticipating of environmental change.

In autumn 2001, action planning for 2002 focused on concrete elaboration of the strategy and translation of the strategy into action. In 2002 the key priorities will be the improvement of macroeconomic forecasting functions, promotion of stable, reliable and efficient financial and payment systems and performance of the operative tasks related to the cash changeover, as well as communications. Research activities will continue to focus on the modelling of monetary policy and the future of the financial services sector. Extensive improvements of the Bank's own banking system's application portfolio will be set in process. Outsourcing will continue to be an element of long-term personnel planning. More effective measures will be introduced to follow up the strategy. The action planning process was developed into a less bureaucratic, more flexible and discursive process.

## Operating expenses and income

The costs arising from the preparations for the cash changeover and the introduction of euro banknotes

**Table 3.**  
The Bank of Finland's operating expenses and income, EUR million

1. Operating expenses and income	Budget 2002	Outturn 2001	Outturn 2000	Outturn 1999
<b>Expenses</b>				
Salaries and fees	31.5	29.5	28.8	28.4
Social security	3.9	3.8	3.8	4.1
Pensions	14.5	13.6	12.0	11.6
Training	1.7	1.4	1.3	1.2
Travel	1.9	1.8	1.5	1.4
IT services	6.0	4.0	3.8	4.1
Other purchased services	8.7	6.4	3.9	3.5
Real estate expenses	7.3	5.6	5.2	5.2
Other	5.1	4.2	4.3	4.4
<b>Total</b>	<b>80.5</b>	<b>70.1</b>	<b>64.5</b>	<b>63.8</b>
<b>Depreciation</b>				
IT equipment	1.1	2.1	2.8	1.9
Money handling machines	0.9	0.5	0.1	0.0
Buildings	9.6	8.7	8.7	8.6
Other fixed assets	1.5	1.2	1.0	1.3
<b>Total</b>	<b>13.2</b>	<b>12.5</b>	<b>12.5</b>	<b>11.9</b>
<b>TOTAL</b>	<b>93.7</b>	<b>82.6</b>	<b>77.0</b>	<b>75.6</b>
Banknote printing	3.6	25.7	11.5	1.1
<b>Total operating expenses</b>	<b>97.3</b>	<b>108.3</b>	<b>88.5</b>	<b>76.8</b>
<b>Income</b>				
Maintenance of the currency supply	-1.1	-1.7	-2.8	-2.6
Services sold to the Financial Supervision Authority	-1.6	-1.7	-1.6	-1.5
Real estate	-8.0	-6.8	-5.9	-5.6
Other	-1.9	-2.4	-2.4	-2.1
<b>Total income</b>	<b>-12.6</b>	<b>-12.6</b>	<b>-12.6</b>	<b>-11.7</b>
<b>NET</b>	<b>84.7</b>	<b>95.6</b>	<b>75.9</b>	<b>65.1</b>
<b>2. Purchases</b>				
IT equipment and software	5.1	3.8	2.9	2.2
Money handling machines	0.2	2.3	5.5	0.7
Other equipment and machinery	2.0	2.6	1.6	2.3
<b>Total purchases</b>	<b>7.4</b>	<b>8.8</b>	<b>9.9</b>	<b>5.2</b>
<b>3. Real estate projects</b>				
Head office premises	4.7	10.7	10.1	1.9
Vantaa premises	4.1	0.8	0.7	1.2
Other premises	0.4	0.0	0.3	0.3
<b>Total real estate projects</b>	<b>9.3</b>	<b>11.5</b>	<b>11.1</b>	<b>3.4</b>

Source: Bank of Finland.

and coins accounted for a significant portion of the Bank's operating expenses (Table 3 and Chart 46). The Bank's employees participated in the cash changeover preparations both nationally and Eurosystem-wide within the framework of the European System of Central Banks (ESCB). In addition to the contribution made by the Bank's own staff, the cash changeover prepara-

tions involved the costs for the information campaign addressing the 2002 cash changeover and the purchase of euro banknotes, with the latter being the biggest cost item. In the payments instruments sector, the necessary purchases of machinery and equipment were completed, as were the logistic transportation of banknotes in the course of autumn 2001. The euro

conversions of the Bank's IT systems for the internal financial management, control and wage administration were also finalised. The total costs of introducing euro banknotes and coins amounted to approximately EUR 30 million in 2001.

In keeping with the Bank's strategic guidelines, outsourcing has increasingly been applied in

catering for support functions. This has proceeded flexibly and largely in step with retirements at the Bank.

The renovation of the premises at Snellmaninkatu 6 represented the single most significant item under purchases and costs for renovation of premises. The Financial Supervision Authority moved into these renovated facilities in October 2001.

The costs arising from the cash changeover will also be reflected in the Bank's budget for 2002. Furthermore, the development of the banking systems portfolio will involve higher IT services costs and fixed assets in the form of software.

## Personnel

Proactive human resources planning, which extends over a three-year period, took root in 2001. Staff size and staff quality were the priority areas during the year. The aim was to foster staff restructuring and to increase the share of experts in the Bank.

Total staff size will gradually shrink in response to operational changes and the large numbers of retirements that are expected to continue throughout the present decade. The main emphasis will be on the core central bank functions, while the need for support services will increasingly be met through

outsourced services of an acceptable quality and cost.

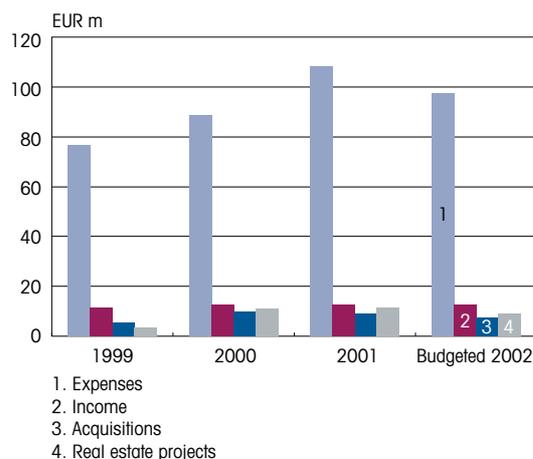
At the end of 2001 the Bank employed a total of 722 staff: 627.5 at the head office and 94.5 at the branches (Table 4). The Bank's leave of absence policy is designed to encourage experts, in particular, to develop international competence and improve other skills. At the end of the year, 42 employees were on leave of absence. Of them, 29 were employed at the ECB or in another international organisation. Expressed in terms of man-years, the combined work contribution of permanent employees and employees on fixed-term contracts totalled 709 man-years in 2001. At the end of the year, 764 persons, including those on leave of absence, had a

contract of employment with the Bank. Of the total staff, 89% had permanent positions and 11% were on fixed-term contracts.

At the beginning of the year, the Board adopted the principles of the Bank's pay policy. In line with these principles, the average target wage level is primarily set according to the median derived from the HAY job evaluation system covering both public and private sector institutions. Individual wages will be broadly spread in relation to this median, according to performance and market level.

In the spring, the Bank of Finland and the Bank's Staff Association concluded a three-year collective civil service agreement on wages, which provided the founda-

**Chart 46.**  
The Bank of Finland's operating expenses and income



Source: Bank of Finland.

**Table 4.**  
Changes in staff size at the Bank of Finland, (operational strength) 1992-2001

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Head office	694	645	641	633	627	633	639.5	642	624	627.5
Branches	150	139	102	115	111	104	101	102.5	100.5	94.5
Total	844	784	743	748	738	737	740.5	744.5	724.5	722

Source: Bank of Finland.

tion for the implementation of the pay policy. In addition to provisions on an overall pay rise and the margin for adjustments, the civil service agreement included revised rules for calculating holiday pay, higher compensations for emergency duties and minor textual adjustments. In the negotiations, working groups were set up to make comparisons to the wages payable to operative staff outside of the Bank and to explore working time practices. It was also agreed that work on merging the two separate pay systems would start in 2002. The framework for cooperation between the Bank's management and staff representatives was clarified.

## Staff development and training

Closer integration of human resources planning with strategic planning constituted one of the basic approaches to staff development in the year under review. The annual personnel audit was revised into a more tangible tool for strategic planning and an instrument to support staff-related decisions and staff development.

The Bank's training expenditure totalled EUR 1.4 million (4.6% of payroll). Training in economics-related subjects amounted to EUR 0.3 million. EUR 0.4 million was spent on development of basic IT skills; interactive skills, communication skills and language training amounted to EUR 0.3 million and management training EUR 0.2 million.

In the course of 2001 a leadership programme designed for the Bank's departmental and division

heads was launched. The programme includes three modules: *Strategic thinking*, *Human resources management* and *Self-management*, with the third module scheduled to take place at the beginning of 2002.

Seven of the Bank's supervisors attended common management training programmes of the ESCB, which primarily focus on human resources management.

51 courses were organised with a view to upgrading interactive, communication and language skills. There were altogether 373 participants, representing 1,026 trainee days. Language training focused on English language instruction to promote contacts with in the ESCB. The Bank's employees also participated in out-of-house courses in these fields, eg a course in international negotiating skills offered by the German central bank.

With the transition to a new operating system and the introduction of new applications, IT skills upgrading was called for. Training designed for basic IT users included office systems courses, with special emphasis on revised document models, and courses leading up to the computer 'driving licence'.

A considerable number of staff received training in modernised administrative applications, including the archiving and invoicing systems.

In the year under review, the Bank's economic training concentrated on topics such as financial markets, macroeconomics and payment systems. Themes addressed at the macroeconomic courses included the labour mar-

ket, fiscal policy, problems of monetary policy and the consequences of electronic money for central bank operations. A total of 16 training sessions in various issues were arranged, representing 905 trainee days. The lecturers were increasingly chosen from amongst the Bank's own experts. As the participants included an exceptionally high number of non-economists, some of the courses were designed as introductory courses.

The Bank of Finland continued to cooperate with the other European central banks and invited their representatives to take part in two top quality courses. The courses were attended by a total of 27 employees, most of them representing the Estonian Central Bank. Some of the Bank's courses also attracted Finnish participants from outside the Bank.

Courses for experts arranged by training units of other central banks and by the International Monetary Fund were attended by a total of 11 Bank employees.

As in previous years, part of the Bank's research projects took the form of academic research studies. The preparation of licentiate and doctoral theses required 4.6 man-years, spread over seven different projects.

The Bank of Finland continued to cooperate with the central banks of transition economies in the field of training. This mainly took the form of seminars and visits to Finland. Altogether 7 seminars and visits attracting 35 foreign participants were arranged. Training cooperation focused on the Russian central bank.

# Information technology

**A**s a user of IT services, the Bank of Finland is an expert organisation active in several sectors, including monetary policy, banking, research, statistics and administration. Each sector needs to be allocated a significant amount of data processing capacity as well as efforts into development, support and maintenance.

The cash changeover to the euro left its imprint on the activities of all operating sectors in 2001. In the payments instruments sector, a new arrangement for ordering and returning notes and coins and a new cashier and vault system were implemented and introduced. The sector was also involved in the introduction of the Counterfeit Monitoring System (CMS) database within the European System of Central Banks (ESCB). At the initiative of the ESCB, the implementation of Finland's contribution to the statistical framework on euro banknotes and coins was also set in process. The entire Bank's IT systems, including statistical and economist applications, were converted from markka into euro.

The modernisation of the banking systems portfolio progressed with the purchase of a new S.W.I.F.T. application, the exchange of the market data system

for a Reuters' Triarch application and the introduction of a general ledger based on a standard software package (SAP). The Bank's own interface software (Yhte) was converted for the Microsoft platform and the transfer of the BoF-RTGS system to this platform was initiated. The completion of this project in spring 2002 will mark the end of the more than 20-year-long lifespan of the Unisys mainframe at the Bank of Finland.

Preparations were made for the major reform of the IT systems employed for foreign reserves management by analysing the software packages available, studying alternative system architectures and tools and scheduling the phasing in of implementation.

At the same time as considerable resources were allocated to development, a satisfactory degree of availability in computer hall service was secured. The mainframe equipment will be removed in step with the introduction of new applications based on new technology.

The Bank's local area network (LAN) was upgraded with new generation equipment. About 500 workstations were replaced as planned.

The upgrading of time series systems was geared towards

achieving better compatibility with the corresponding ECB systems. Both the database and the operating application software for the time series were revised. In monitoring and statistical applications, combined databases and user interfaces were re-engineered. Collection of data on monetary and financial institutions was expanded, a quarterly gathering of statistics for financial accounts was initiated and the corporate data register was adjusted to accommodate new needs. An Internet-based solution for the joint collection of statistics by the authorities was initiated.

A search engine, designed to facilitate information retrieval from the Bank's Intranet, was introduced. The individual departments have been responsible for widening the information content of the

Intranet and increasing its usage. Some more 'direct access' Internet workstations not connected to the Bank's LAN were introduced, as many Internet websites were not accessible from LAN workstations for IT security reasons. Personal online banking services were made available to the Bank's employees.

A new Documentum-based journal application was introduced at the beginning of the year under review. New uses were found for the Documentum archives and more users were trained in the system. Whilst the filing of procurement documents, contracts and purchase invoices completed, work on filing and managing ESCB documents in the Documentum archives commenced.

The year 2001 was more challenging than ever in terms of virus

attacks and other IT security risks. However, no damage was incurred thanks to careful contingency plans and other IT security measures. A certificate policy and project plan for the implementation of smart card-based identification services was designed within the framework of a project for improving workstation and telecommunications security. Methods for risk management and pre-assessment were also developed further.

Cooperation was active within the ESCB's Information Technology Committee and related working groups. Of particular importance was the design of the ESCB's new secure telecommunications solution, with its related strong identification and encryption processes.



# Financial statements

## Balance sheet, EUR million

	31 Dec 2001	31 Dec 2000
<b>Assets</b>		
<b>Gold and gold receivables (1)</b>	<b>497</b>	<b>462</b>
<b>Claims on non-euro area residents denominated in foreign currency (2)</b>	<b>8,871</b>	<b>8,447</b>
Receivables from the IMF	899	692
Balances with banks and security investments, external loans and other external assets	7,972	7,755
<b>Claims on euro area residents denominated in foreign currency (3)</b>	<b>794</b>	<b>859</b>
<b>Claims on non-euro area residents denominated in euro (4)</b>	<b>0</b>	<b>0</b>
Balances with banks, security investments and loans	0	0
<b>Lending to euro area credit institutions related to monetary policy operations denominated in euro (5)</b>	<b>1,294</b>	<b>454</b>
Main refinancing operations	988	394
Longer-term refinancing operations	306	61
<b>Other claims on euro area credit institutions denominated in euro (6)</b>	<b>2</b>	<b>4</b>
<b>Intra-Eurosystem claims (7)</b>	<b>769</b>	<b>769</b>
Share in ECB capital	70	70
Claims equivalent to the transfer of foreign currency reserves	699	699
<b>Other assets (8)</b>	<b>1,093</b>	<b>615</b>
Euro area coins	63	16
Tangible and intangible fixed assets	257	248
Other current assets	106	170
Other	666	181
<b>Total assets</b>	<b>13,319</b>	<b>11,610</b>

Totals/sub-totals may not add up because of rounding.

	31 Dec 2001	31 Dec 2000
<b>Liabilities</b>		
Banknotes in circulation (1)	2,374	2,982
Liabilities to euro area credit institutions related to monetary policy operations denominated in euro (2)	3,840	2,475
Current accounts (covering the minimum reserve system)	3,840	2,475
Other liabilities to euro area credit institutions denominated in euro (3)	271	
Liabilities to other euro area residents denominated in euro (4)	1	1
Liabilities to non-euro area residents denominated in euro (5)	2	194
Liabilities to non-euro area residents denominated in foreign currency (6)	108	299
Deposits, balances and other liabilities	108	299
Counterpart of special drawing rights allocated by the IMF (7)	203	200
Intra-Eurosystem liabilities (8)	891	167
Other liabilities (9)	32	18
Revaluation account (10)	1,053	1,070
Provisions (11)	3,140	2,927
Capital and reserves (12)	1,149	969
Primary capital	841	841
Reserve fund	309	128
Profit for the financial year (13)	254	309
<b>Total liabilities</b>	<b>13,319</b>	<b>11,610</b>

## Profit and loss account, EUR million

	1 Jan –31 Dec 2001	1 Jan –31 Dec 2000
<b>INTEREST INCOME (1)</b>	<b>509</b>	<b>583</b>
<b>INTEREST EXPENSE (2)</b>	<b>-187</b>	<b>-204</b>
<b>NET INTEREST INCOME (3)</b>	<b>322</b>	<b>379</b>
REALISED GAINS RELATED TO FOREIGN EXCHANGE RATE MOVEMENTS (4)	105	375
REALISED SECURITIES PRICE DIFFERENCES (5)	97	36
<b>CENTRAL BANKING PROFIT BEFORE MONETARY INCOME AND OTHER INCOME</b>	<b>523</b>	<b>790</b>
NET SHARE OF MONETARY INCOME (6)	0	1
OTHER CENTRAL BANKING INCOME (7)	61	27
<b>CENTRAL BANKING PROFIT</b>	<b>584</b>	<b>818</b>
OTHER EXPENSES		
Staff cost (8)	-63	-51
Administrative expenses (9)	-19	-16
Depreciation of fixed assets (10)	-1	0
Banknote production services (11)	-26	-11
Other expenses (12)	-11	-10
<b>CHANGES IN PROVISIONS (13)</b>	<b>-211</b>	<b>-420</b>
<b>PROFIT FOR THE FINANCIAL YEAR (14)</b>	<b>254</b>	<b>309</b>

## Appendices to the financial statements

	31 Dec 2001		31 Dec 2000	
<b>Foreign currency futures contracts, EUR m</b>				
Purchase contracts <sup>1</sup>	24.9		2,653.9	
Sales contracts <sup>1</sup>	168.9		1,707.0	
<b>Shares and other interests, nominal value, EUR m</b> (Bank of Finland's holding in parentheses)				
Setec	2.7	(40%)	2.7	(40%)
Rahakontti <sup>2</sup>	0	(52%)	0	(52%)
HEX, Helsinki Securities and Derivatives Exchange, Clearing House	1.9	(7%)	1.9	(7%)
Bank for International Settlements	11.5	(1.67%)	11.5	(1.67%)
Shares in housing companies	6.3		8.9	
Real estate shares	–		–	
Other shares and interests	0.1		0.1	
Total	22.5		25.1	
<b>Bank of Finland's liability share in the APK fund, EUR m</b>	0.2		0.1	
<b>Liability arising from pension commitments, EUR m</b>				
The Bank of Finland's pension liability	396.1		377.6	
– of which covered by reserves	315.8		305.0	
<b>Staff banking office, EUR m</b>				
– Deposits	18.6		17.1	
– Loans	7.7		7.4	

<sup>1</sup> Middle rate for the currency on the last business day of the year.

<sup>2</sup> Remaining liquidation dividend of EUR 35,495 as at 31 Dec 2001.

### The Bank of Finland's real estate

Building	Address	Year of completion	Volume m <sup>3</sup> (approx.)
Helsinki	Rauhankatu 16	1883/1961	49,500
	Unioninkatu 33 / Rauhankatu 19	1848/1954	50,500
	Snellmaninkatu 6	1857/1892/2001	26,930
	Snellmaninkatu 2	1901	3,200
	Ramsinniementie 34	1920/1983/1998	4,600
Kuopio	Puutarhakatu 4	1993	11,900
Oulu	Kajaaninkatu 8	1973	17,700
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

The Board proposes to the Parliamentary Supervisory Council that EUR 55,931,519.83 of the profit of EUR 253,931,519.83 be transferred to the reserve fund for safeguarding the real value of the Bank's funds, according to section 20 of the Act on the Bank of Finland. Additionally, that half of the remaining profit, ie EUR 99 million, be used to augment the reserve fund according to section 21 of the Act, and that the other half, ie EUR 99 million, be transferred to the state.

Helsinki, 5 March 2002

THE BOARD OF THE BANK OF FINLAND

Matti Vanhala, Chairman

Matti Louekoski

Sinikka Salo

Pentti Hakkarainen

## Notes to the financial statements

### Accounting conventions

The Bank of Finland observes the accounting principles and techniques adopted by the Governing Council of the ECB, and the Bank's annual accounts for 1999-2001 have been drawn up in accordance with these harmonised principles.

In accordance with section 11 of the Act on the Bank of Finland, the Parliamentary Supervisory Council confirms, on the proposal of the Board, the principles applied in drawing up the annual accounts.

In 2001 it was decided to create a pension fund in the Bank of Finland's balance sheet for the management of the Bank's pension liability. The purpose of the measure that came in force from the beginning of 2002 was to clarify the coverage of the pension liability through lucrative investment.

### Gold and items denominated in foreign currency

In the annual accounts, foreign currency-denominated items and gold have been converted into euro at market rates and prices. Items denominated in foreign currency have been revalued on a currency-by-currency basis. Securities have been valued on an item-by-item basis.

Revaluation differences related to foreign exchange rate movements and securities price movements are treated separately. In the case of gold, however, no distinc-

tion is made between price and exchange rate differences; rather, a single revaluation is made. Gold has been valued at the market price as at 28 December 2001 (US dollar price of gold converted into euro).

### Repurchase agreements and reverse repurchase agreements

Reverse repurchase agreements are recorded as collateralised deposits on the assets side of the balance sheet. Repurchase agreements, or repos, are recorded as collateralised loans on the liabilities side of the balance sheet. Securities sold under repurchase agreements remain on the Bank's balance sheet.

### Claims and liabilities between national central banks of EU countries

Claims and liabilities between the national central banks of EU countries have been netted so that each bank has a claim on or a liability to the ECB.

### Fixed assets

As from the beginning of the financial year 1999, fixed assets have been valued at acquisition price less depreciation. Depreciation is calculated on a straight-line basis over the expected economic lifetime of an asset, starting from the second calendar month following acquisition.

The counter item of buildings and land capitalised in the 1999 balance sheet at market prices is

the revaluation account. Depreciation in respect of buildings and land has been entered by adjusting the revaluation account downwards so that depreciation does not affect the Bank's income or expense.

The economic lifetimes of assets are calculated as follows:

- computers, related hardware and software, and motor vehicles: 4 years
- equipment and furniture: 10 years
- buildings: 25 years.

Fixed assets with a value of less than EUR 10,000 are written off during the financial year.

### Off-balance-sheet items

Forward foreign exchange transactions are taken into account when the net average cost of a currency position is calculated. Gains and losses arising from off-balance-sheet items are treated in the same manner as gains and losses arising from on-balance-sheet items.

### Accounting principles applied to the profit and loss account

Income and expenses are entered on an accruals basis.

Realised income and expenses are entered in the profit and loss account. Realised exchange rate gains and losses have been calculated using the daily net average rate method. Gains and losses related to securities price movements have been calculated using the average cost method.

Unrealised gains are entered in the revaluation account.

Unrealised losses are entered in the profit and loss account, if they exceed previous revaluation gains registered in the revaluation account in the balance sheet. Unrealised losses taken to the profit and loss account are not reversed against any future unrealised gains in subsequent years. If unrealised losses are entered in the profit and loss account in respect of a security or a currency, the net average price of the security or the net average rate of the currency shall be adjusted correspondingly before the beginning of the next financial year.

Unrealised losses are not netted against unrealised gains. Unrealised gains and losses in respect of securities and foreign currency-denominated are entered on an item-by-item basis and currency-by-currency basis. Unrealised gains and losses in respect of gold are entered separately.

The difference between the acquisition price and nominal value of securities is entered as income or expense over the maturity of the security.

## Notes to the balance sheet

### Assets

#### 1. Gold and gold receivables

The Bank's holdings of gold total 1,577,418 troy ounces. In the annual accounts, gold has been valued at market price. At the beginning of the 1999 financial year the Bank (and the other central banks participating in the Eurosystem) transferred about 20% of its gold holdings to the ECB.

#### 2. Claims on non-euro area residents denominated in foreign currency

This item includes holdings of special drawing rights allocated by the International Monetary Fund (IMF), Finland's reserve tranche in the IMF, balances with banks, investments in securities and other items denominated in foreign currency. At the beginning of the financial year 1999 the Bank had transferred to the ECB part of its claims denominated in US dollars and Japanese yen. These claims and the holdings of gold referred to above together form the Bank's share in the funds of the ECB.

#### 3. Claims on euro area residents denominated in foreign currency

This item consists of balances with banks and investments in securities.

#### 4. Claims on non-euro area residents denominated in euro

This item consists mainly of balances with central banks of nonparticipating EU countries.

#### 5. Lending to euro area credit institutions related to monetary policy operations denominated in euro

This item consists of the balances of monetary policy instruments at year-end.

#### 6. Other claims on euro area credit institutions denominated in euro

This item consists of balances with credit institutions in the euro area.

#### 7. Intra-Eurosystem claims

This item includes the Bank's share in the ECB's capital, its claim on the ECB equivalent to the foreign reserves and gold transferred to the ECB and other net claims of the central banks of the EU countries.

#### 8. Other assets

This item consists of markka-denominated coins in circulation, securities classified as securities held as financial fixed assets, fixed assets (buildings, machinery and equipment) and valuation results of off-balance-sheet items, accruals and other assets.

### Liabilities

#### 1. Banknotes in circulation

This item consists of markka-denominated notes in circulation held by the public and banking institutions.

#### 2. Liabilities to euro area credit institutions related to monetary policy operations denominated in euro

Banks with an RTGS account at the Bank of Finland meet their reserve requirement by maintaining the

average of their daily RTGS account balances at least as high as the reserve requirement during the maintenance period.

### **3. Other liabilities to euro area credit institutions denominated in euro**

This item includes the cash collateral from credit institutions received by the Bank, related to the euro cash changeover.

### **4. Liabilities to other euro area residents denominated in euro**

This item consists of euro-denominated liabilities to credit institutions other than those subject to the reserve requirement.

### **5. Liabilities to non-euro area residents denominated in euro**

This item consists of balances with international organizations and foreign banks holding loro accounts at the Bank of Finland.

### **6. Liabilities to non-euro area residents denominated in foreign currency**

This item includes repurchase agreements entered into for the purpose of managing foreign reserve assets.

### **7. Counterpart of special drawing rights allocated by the IMF**

This balance sheet item was originally denominated in SDRs and pertains to the International Monetary Fund.

### **8. Intra-Eurosystem liabilities**

The mutual assets and liabilities with the national central banks are

netted, and the Bank of Finland has one balance with the ECB.

### **9. Other liabilities**

This item consists of accruals and other liabilities.

### **10. Revaluation account**

This item includes revaluations of land and buildings and other valuation differences arising from the change in accounting practice. In addition, the item includes unrealised valuation gains arising from the market valuation of foreign currency-denominated items and securities.

### **11. Provisions**

All provisions are included in this item. The Bank of Finland's pensions liabilities total EUR 396 million; 80% of this amount is covered by the pension provision, ie EUR 316 million.

Under section 20 of the Act on the Bank of Finland, provisions can also be made in the annual accounts, if they are necessary for safeguarding the real value of the Bank's funds or for smoothing out variations in profit and loss arising from changes in exchange rates or market values of securities. The provisions made under this section amounted to EUR 2,824 million.

### **12. Capital and reserves**

This item consists of the Bank's primary capital and reserve fund.

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

The profit for the financial year 2001 totalled EUR 254 million.

## **Notes to the profit and loss account**

### **1. Interest income**

Most of the interest income consists of interest income on foreign reserve assets and on intra-Eurosystem claims.

### **2. Interest expense**

Interest totalling EUR 79 million was paid on reserve deposits. Interest expense also includes interest on intra-Eurosystem liabilities and interest paid on TARGET balances with non-participating EU central banks.

### **3. Net interest income**

Net interest income amounted to EUR 322 million.

### **4. Realised gains related to foreign exchange rate movements**

Currency denominated claims and liabilities are examined on a currency-by-currency basis on each business day. The sale of a currency position results in the realisation of a gain or loss. In 2001, realised gains related to foreign exchange movements amounted to EUR 105 million.

### **5. Realised securities price differences**

In the accounts, securities are treated on an item-by-item basis. When securities are sold a gain or loss is realised. In 2001, the realised gains related to securities price movements amounted to EUR 97 million.

### **6. Net share of monetary income**

This item shows the net sum of monetary income paid to the

Eurosystem and monetary income redistributed from the Eurosystem.

#### **7. Other central banking income**

This item includes dividend income, commissions and fees and other income. This item in the 2001 profit and loss account shows the Bank of Finland's share of the funds distributed as profit by the ECB in 2000, amounting to EUR 28 million.

#### **8. Staff costs**

Salaries amounted to EUR 45 million, including EUR 9 million entered for the first time as accrued holiday pay liabilities. Social security costs, EUR 18 million, include EUR 13 million in pensions paid during the financial year 2001.

#### **9. Administrative expenses**

This item includes rents, meetings and interest group-related costs, expense arising from the purchase

of services, cost of equipment and expenses involved in training, travel and recruitment of staff.

#### **10. Depreciation of fixed assets**

Depreciation of fixed assets amounted to EUR 1 million.

#### **11. Banknote production services**

Purchase of banknotes amounted to EUR 26 million.

#### **12. Other expenses**

The bulk of other expenses are related to the use and maintenance of property.

#### **13. Changes in provisions**

Employees' employment pension contributions totalling EUR 1.6 million were collected from salaries during 2001 and transferred to the pension provision. In addition, the pension provision was augmented by the interest calculated on employees' pension contribu-

tions and pension provisions made in prior years. Interest was calculated at the rate of 3%. The pension provision was increased by a total of EUR 11 million.

The provision in accordance with section 20 of the Act on the Bank of Finland was increased by EUR 202 million.

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

The profit for the financial year totalled EUR 254 million. On 15 March 2002, the Parliamentary Supervisory Council decided to transfer EUR 56 million to the reserve fund for safeguarding the real value of the Bank's funds, according to section 20 of the Act on the Bank of Finland. Of the remaining EUR 198 million, half (EUR 99 million) will be used to augment the reserve fund and the other half will be made available for the needs of the State, according to the provisions of section 21 of the Act on the Bank of Finland.

## Auditors' report

In our capacity as the auditors elected by Parliament, we have audited the accounting records, financial statements and administration of the Bank of Finland for the financial year 2001 in accordance with generally accepted auditing standards.

During the financial year the Bank's Internal Audit unit audited the Bank's accounting records and activities. We have examined the internal audit reports.

We have read the Bank's annual report and received explanations from the Board concerning the Bank's activities.

The Authorised Public Accounting Firm Arthur Andersen Oy has audited the accounting records and the financial statements in accordance with Article 27 of the Statute of the European System of Central Banks and of the European Central Bank. We have studied the audit report dated 8 March 2002.

The financial statements have been drawn up in accordance with the principles on financial statements approved by the Parliamentary Supervisory Council and current rules and regulations. The financial statements give a true and fair view of the Bank's financial position and results.

We propose that the profit and loss account and balance sheet for the financial year audited by us be approved. We recommend that the profit for the financial year be disposed of as proposed by the Board.

Helsinki, 14 March 2002

Johannes Leppänen

Juha Karpio

Reino Majala  
Authorised Public Accountant

Iivo Polvi  
Chartered Public Finance Auditor,  
Approved Auditor

Matti Saarinen

./ Kalervo Virtanen  
Authorised Public Accountant

## Statement

### regarding the audit as defined in Article 27 of the European System of Central Banks Statute

In our capacity as independent auditors as defined in Article 27 of the European System of Central Banks Statute, recommended by the Governing Council of the European Central Bank and appointed by the Council of the European Union, we have audited the accounting records and the financial statements of the Bank of Finland for the period 1 January –31 December 2001. The financial statements, which comprise the profit and loss account, balance sheet and notes to the financial statements, have been prepared by the Board.

The financial statements have been audited to the extent necessary to obtain reasonable assurance that the financial statements are free of material misstatement.

In our opinion, the financial statements have been prepared in accordance with the Accounting Principles and Methods approved by the Governing Council of the European Central Bank on 1 December 1998. The financial statements present a true and fair view of the profitability and financial position of the Bank of Finland.

Helsinki, 8 March 2002

ARTHUR ANDERSEN OY  
Authorised Public Accounting Firm

Teppo Rantanen  
Authorised Public Accountant

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# Appendices

# Monetary policy measures of the Eurosystem in 2001

## January

On 1 January 2001 the euro was introduced in Greece. Greece thus became the twelfth EU Member State to adopt the single currency. At the same time, the Bank of Greece became a full member of the Eurosystem.

On 4 January 2001 the Governing Council of the ECB decided on an allotment amount of EUR 20 billion per operation for the longer-term refinancing operations to be conducted in 2001. It also decided that the allotment amount might be adjusted in the course of the year in the event of unexpected developments in liquidity needs.

## May

On 10 May 2001 the Governing Council of the ECB decided to lower the minimum bid rate on the main refinancing operations by 0.25 percentage point to 4.50%, starting with the next main refinancing operation. In addition, it decided to lower the interest rates on both the marginal lending facility and the deposit facility by 0.25 percentage point, to 5.50% and 3.50% respectively, both with effect from 11 May 2001.

## August

On 30 August 2001 the Governing Council of the ECB decided to lower the minimum bid rate on the main refinancing operations by 0.25 percentage point to 4.25%, starting with the next main refinancing operation. In addition, it decided to lower the interest rates on both the marginal lending facility and the deposit facility by 0.25 percentage point, to 5.25% and 3.25% respectively, both with effect from 31 August 2001.

## September

On 17 September 2001 the Governing Council of the ECB decided to lower the minimum bid rate on the main refinancing operations by 0.50 percentage point to 3.75%, starting with the next main refinancing operation. In addition, it decided to lower the interest rates on both the marginal lending facility and the deposit facility by 0.50 percentage point, to 4.75% and 2.75% respectively, both with effect from 18 September 2001.

## November

On 8 November 2001 the Governing Council of the ECB decided to lower the minimum bid rate on the main refinancing operations by 0.50 percentage point to 3.25%, starting with the next main refinancing operation. In addition, it decided to lower the interest rates on both the marginal lending facility and the deposit facility by 0.50 percentage point, to 4.25% and 2.25% respectively, both with effect from 9 November 2001.

## December

On 6 December 2001 the Governing Council of the ECB decided to confirm the reference value for monetary growth, namely an annual growth rate of 4½% for the broad aggregate M3. The Governing Council will undertake the next review of the reference value in December 2002.

# Key measures affecting the financial markets in 2001<sup>1</sup>

## Measures by the European System of Central Banks (ESCB) and the Bank of Finland<sup>1</sup>

### January

The Bank of Finland issued new rules, which became valid on 1 January 2001, for counterparties and account holders concerning monetary policy instruments and procedures, collateral management and the BoF-RTGS system. The new rules include descriptions of the use of foreign collateral. In addition, some revisions were made to the BoF-RTGS system. The major change relates to the TARGET reimbursement scheme that defines common bases for compensation in the case of a TARGET malfunction. Under the scheme, compensation may be paid to the account holder if the same-day processing of payment orders within TARGET cannot be completed and the account holder has therefore had recourse to the standing facilities of the Eurosystem.

### February

In February the Governing Council of the ECB updated the operational

conditions for the use of eligible securities settlement systems (SSSs) in the settlement of collateral for Eurosystem credit operations. The Finnish Central Securities Depository's system was considered to be one of the seven SSSs that can be used without preconditions.

### March

On 15 March the Governing Council of the ECB reviewed a report on securities markets regulation published by the Committee of Wise Men headed by Alexandre Lamfalussy. The Council welcomed the report and declared that it should provide the basis for increased uniformity and flexibility of securities markets regulation. The Council announced that the ECB, for its own part, was prepared to support the new regulation process and back up other relevant recommendations.

On 22 March 2001 the Governing Council of the ECB announced that central banks ought to play a key part in the monitoring of financial system stability.

### April

On 2 April the ECB, the NCBs and banking supervisory authorities of the Member States of the European Union agreed on a Memorandum of Understanding (MoU) on coop-

eration between payment systems overseers and banking supervisors in Stage Three of Economic and Monetary Union. The MoU is aimed primarily at promoting cooperation in relation to the supervision of large-value payment systems.

### June

On 29 June the ECB published a third edition of the Blue Book: *Payment and Securities Settlement Systems in the European Union*.

### September

On 27 September the Governing Council of the ECB published a policy line with regard to consolidation in central counterparty clearing.

### October

The ECB published a provisional list of monetary financial institutions (MFIs) of the accession countries. The list is required for statistical purposes.

The Governing Council of the ECB and the Committee of European Securities Regulators (CESR) agreed to conduct joint work on issues of common interest in the field of securities clearing and settlement systems. A working group composed of representatives of the ECB, the NCBs of the EU

<sup>1</sup> The Maintenance of the currency supply and the euro cash changeover section deals with legal statutes and guidelines issued in 2001 in preparation for the euro cash changeover.

member states and the CESR, was set up to establish standards and recommendations on procedures and regulations.

## November

The Governing Council of the ECB adopted a new Regulation concerning the consolidated balance sheet of the monetary financial institutions (MFI) sector. The new regulation aims to ensure that the MFIs, for statistical purposes, provide more detailed sectoral data on deposits and lending.

## December

The Governing Council of the ECB adopted a new ECB Regulation on MFI interest rate statistics. The new regulation aims to ensure that the MFIs provide data, for statistical purposes, on the interest rates applied by MFIs to deposits and loans vis-à-vis households and non-financial corporations.

## EU directives and their implementation in Finland

### February

On 5 February the European Commission published a revised consultative document on the review of regulatory capital for credit institutions and investment firms. The consultative paper was drafted in close relationship with the Basel Committee on Banking Supervision, and financial market institutions and national authorities were requested to file their responses to it by 31 May 2001.

In February 2001 the European Commission adopted a proposal for a regulation of the European Parliament and of the Council on the application of international accounting standards (IAS). According to the proposal all companies listed in the EU should be required to prepare their consolidated accounts according to the IAS standards from 2005, at the latest.

### February and June

On 15 February the Committee of Wise Men headed by Alexandre Lamfalussy published a report. It included many recommendations for the regulation of securities markets and development of securities settlement systems. The report included the recommendation to set up two committees: the Committee of European Securities Regulators (CESR) and the European Securities Committee (ESC).

In compliance with the recommendation of the Lamfalussy Committee, the European Commission decided to set up the CESR and the ESC. The tasks of the CESR involve coordination of the activities of supervisors, issuance of advice and recommendations to the European Commission on issues related to the securities markets and promotion of uniform and prompt implementation of Community legislation in the member countries. The tasks of the Forum of European Securities Commissions FESCO were transferred to the CESR. Each EU member country has a representative on the committee. In addition, Norway and Iceland have a member each on the committee. Like the CESR, the ESC is an advisory forum, but

the intention is that the ESC be granted regulatory powers as well. Each EU country is represented by a member on this committee, too.

### March

The European Commission put forward a proposal for a directive on financial collateral arrangements. The EU countries apply different legal provisions to the provision and realisation of collateral, and hence legal uncertainty prevails on the cross-border use of collateral. The aim of the directive is to facilitate the provision and use of collateral and the realisation of collateral when the provider of the collateral becomes insolvent. According to the proposal, the directive would apply to arrangements where both the provider and the taker of the collateral are a central bank, a financial institution or a large company. The directive is intended to concern both to pledges and transactions involving repurchase agreements.

### April, October and December

On 25 April the European Commission put forward a proposal concerning financial conglomerates, ie groups providing both financial and insurance services. The proposal defines a financial conglomerate and sets forth that financial conglomerates be one of the coordinating supervisors. In addition, the directive is designed to prevent twofold calculation of own funds in fulfilling capital adequacy requirements.

On 5 October the Finnish Government submitted a proposal to Parliament for an act on the super-

vision of financial conglomerates. The proposal includes provisions defining when, on the basis of balance sheets and capital requirements, the main supervisory responsibility in respect of a financial conglomerate should be borne by the Financial Supervision Authority and when by the Insurance Supervision Authority. Parliament passed the act in December.

### June

The European Commission announced that the implementation of a directive amending the capital requirements of credit institutions and investment firms would be deferred until the beginning of 2005.

### July

On 18 July the European Commission put forward a proposal for a directive on taxation of interest income on savings. The aim of the directive is to ensure taxation of interest income of private individuals when the income is received from another member country.

### July and December

In July the European Commission put forward a proposal for a regulation of the European Parliament and of the Council on cross-border payments in euro. The aim was to lower the price of retail payments. The Council and the Parliament adopted the regulation in December. It will enter into force in respect of payments and withdrawals by card in July 2002 and in respect of credit transfers in July 2003. Charges levied in respect of a cross-border payment may not be higher than charges levied on the

corresponding payment within the member country.

### December

In December the European Commission adopted the amendment of the UCITS directive which had been pending for a long time. The aim of the amendment was to increase the range of permissible investment outlets and facilitate the provision of services by undertakings for investments in transferable securities (UCITS) within other member countries.

The European Commission gave a presentation on the implementation of the fifth progress report on the financial services action plan to the Council of the European Union meeting in the composition of the Ministers of Finance and Economy (ECOFIN Council).

## Other key regulatory projects and measures

### January

The banking services task force set up by the Ministry of Finance submitted its report. The task force proposed that organisations other than deposit banks should be entitled to take repayable deposits from the public for keeping in customer accounts. However, the banks should maintain the sole right to use the word 'deposit' and customer funds should not be subject to deposit guarantee. Moreover, the task force proposed that effecting fund transfers and issuance of electronic money should require au-

thorisation and that credit institutions should be entitled to provide services through intermediaries.

The Ministry of Finance set up a working group to examine the possibility of introducing a hierarchic book-entry ownership structure, where the book-entry account of an individual investor would normally be kept in a register maintained by a party to the Finnish Central Securities Depository (APK), and not in the APK register itself. Under this structure, the APK parties would keep their respective book-entries in a joint account with the APK. The working group was to submit its report in spring 2002.

On 16 January, the Basel Committee on Banking Supervision published a revised consultative document on the review of regulatory capital for credit institutions. Comments were asked to be submitted by end of May 2001.

### April and July

The Economic and Financial Committee working under the auspices of the ECOFIN Council completed a report on financial crisis management (second Brouwer report) in April. The finance ministers and central bank governors of the EU countries discussed the report during the meeting of ministers of finance and the economy held in Malmö on 21 April, and it was published in July.

### May

The Bank of Finland, the Financial Supervision Authority and the Ministry of Finance submitted joint reports on review of regulatory capital both to the Basel Commit-

tee on Banking Supervision and to the European Commission. Both reports welcomed the reform in principle, but they included many comments.

## June

A committee, which had examined limitation of claims, submitted a proposal to the Ministry of Justice, recommending that provisions on the limitation of claims should be incorporated in law. The committee proposed that the limitation period for claims should be shortened to three years from the maturity of a debt or the demand for payment. In addition, the committee recommended that a general limitation period of 15 years should be set. The proposal was circulated for comment until the end of September.

The International Monetary Fund (IMF) published its concluding remarks on the Article IV consultations with Finland. The review included a passage on an assessment program, which the IMF implemented in close relationship with private and public entities in Finland in spring 2001. According to the results, the Finnish banking and insurance systems proved to be sound and profitable.

The Basel Committee on Banking Supervision published a press release concerning measures to be taken with respect to comments received on the New Basel Capital Accord. The implementa-

tion of the new Accord was deferred to 2005.

A working group under the auspices of the Ministry of Finance, which had assessed financial market activity under exceptional conditions, completed its memorandum. The memorandum included a proposal for the amendment of readiness legislation in respect of financial markets. The amendment was due, in part, to Finland's accession to the euro area. The working group proposed that the Government should be granted powers to regulate the financial markets under exceptional conditions. It was also proposed that undertakings of crucial importance for the financial markets should be obliged to prepare for the maintenance of the most essential activities under exceptional conditions.

## October and December

On 17 October, the Government submitted a proposal to Parliament for the amendment of both the Securities Markets Act and the Act on Trading in Standardised Options and Futures. According to the proposal, the word 'security' should be redefined so that the obligation to publish a public offer prospectus in connection with a public offering would be extended to apply to private limited companies. In addition, it was proposed that organisers of public trade other than securities exchanges to be able to or-

ganise trade in shares and other equity instruments. The proposal also included other recommendations with a view to enhancing the supervision that the securities and derivatives markets carry out themselves. Parliament passed the act in December for entry into force on 1 January 2002.

On 17 October, the Government submitted a proposal to Parliament for the amendment of the banking acts. The proposed changes included provisions to the effect that a deposit bank's activities could be temporarily suspended by decision of the Ministry of Finance. Parliament passed the proposed amendment in December for entry into force on 1 January 2002.

## November

The Committee on Payment and Settlement Systems (CPSS) of the central banks of the G10 countries and the International Organization of Securities Commissions (IOSCO) released a report on recommendations for securities settlement systems. The recommendations comprise 19 minimum standards for securities settlement systems that cover both domestic and cross-border trades on a worldwide basis.

The Government submitted a proposal to Parliament for the amendment of the Execution Act. The proposal included a recommendation on a general limitation of claims.

# Main opinions issued by the Bank of Finland 2001

## Opinions concerning legislation on and development of the financial markets

- To the Ministry of Justice concerning revision of provisions on economic crime in the Penal Code, 15 January
- To the Helsinki Exchanges Group Ltd concerning the Finnish Central Securities Depository Fund (APK Fund) and centralisation of the book-entry system, 5 March
- To the Ministry of Finance concerning amendment of the rules of HEX, Helsinki Securities and Derivatives Exchange, Clearing House, 14 March and 17 May
- To the Ministry of Finance concerning a memorandum drawn up by the banking services task force on credit institutions legislation, 16 March
- To the Ministry of Finance concerning confirmation of amendments to the rules of the Finnish Central Securities Depository (APK), 2 April
- To the Finnish Central Securities Depository (APK) concerning proposed changes in the monitoring of the APK's self-regulation, 9 April
- To the Ministry of Finance concerning cancellation of the loss distribution commitments issued in connection with the setting up of the Finnish Central Securities Depository (APK), 24 April
- To the Ministry of Finance concerning amendments to the rules of the Investment Compensation Fund, 6 June
- To the Ministry of Justice concerning amendment of penalty interest legislation, 11 June
- To the Ministry of Finance concerning amendment of securities markets legislation, 18 June
- To the Ministry of Finance concerning the total amount of contributions to be accrued in the Investor Compensation Fund in 2001, 21 June
- To the Ministry of Finance concerning amendment of legislation on monitoring of self-regulation and disciplinary procedures, 4 July
- To the Ministry of Finance concerning amendment of readiness legislation in respect of financial markets, 16 August
- To the Ministry of Finance on a memorandum drawn up by the task force on supervision of financial and insurance conglomerates, 17 August
- To the Financial Supervision Authority (FSA) concerning FSA statements on provisions contained in the Securities Markets Act, 24 August
- To the Ministry of Finance concerning a memorandum drawn up by a working group which assessed financial market activity under exceptional conditions, 3 September
- To the Ministry of Finance concerning confirmation of amendments to the rules of the Finnish Central Securities Depository (APK), 5 September
- To HEX, Helsinki Securities and Derivatives Exchange, Clearing House concerning fulfilment of the minimum assets of the Finnish Central Securities Depository Fund (APK Fund) required under the rules of the APK Fund, 14 September

- To the Ministry of Finance concerning cancellation of the confirmation of the Finnish Central Securities Depository Fund's (APK Fund) loss distribution commitments, 6 November

## Other opinions

- To the Ministry of Finance concerning the commemorative coin to be issued in connection with the World Ski Championships in Lahti, 17 January
- To the Ministry for Foreign Affairs concerning a report on the challenges facing the administration of foreign affairs in the early 2000s, 10 April

- To the Ministry of Finance concerning the commemorative coin to be issued in the honour of Aino Ackté and the opera, 28 April

- To the Ministry of Finance concerning the commemorative one markka coins, 6 September

- To the Ministry for Foreign Affairs concerning the International Convention for the Suppression of the Financing of Terrorism, 23 October

- To the research ethics committee concerning guidelines on research ethics, 31 October

- To the Ministry of Justice concerning amendment of administrative legislation, 9 November

- To the Ministry of Education concerning amendment of a Government Decree on the Study Grants Act, 28 November

# Tables

Totals/sub-totals may not add up because of 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, EUR m

Assets		Jan	Feb	Mar
<b>1</b>	<b>Gold and gold receivables</b>	<b>462</b>	<b>462</b>	<b>463</b>
<b>2</b>	<b>Claims on non-euro area residents denominated in foreign currency</b>	<b>8,450</b>	<b>8,484</b>	<b>8,497</b>
2.1	Receivables from the IMF	655	700	711
2.2	Balances with banks and security investments, external loans and other external assets	7,794	7,783	7,785
<b>3</b>	<b>Claims on euro area residents denominated in foreign currency</b>	<b>802</b>	<b>729</b>	<b>814</b>
<b>4</b>	<b>Claims on non-euro area residents denominated in euro</b>	<b>0</b>	<b>0</b>	<b>0</b>
4.1	Balances with banks, security investments and loans	0	0	0
4.2	Claims arising from the credit facility under the ERM II	-	-	-
<b>5</b>	<b>Lending to euro area credit institutions related to monetary policy operations denominated in euro</b>	<b>517</b>	<b>2,050</b>	<b>1,288</b>
5.1	Main refinancing operations	117	1,650	888
5.2	Longer-term refinancing operations	400	400	400
5.3	Fine-tuning reverse operations	-	-	-
5.4	Structural reverse operations	-	-	-
5.5	Marginal lending facility	-	-	-
5.6	Credits related to margin calls	-	-	-
<b>6</b>	<b>Other claims on euro area credit institutions denominated in euro</b>	<b>4</b>	<b>4</b>	<b>4</b>
<b>7</b>	<b>Securities of euro area residents denominated in euro</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>8</b>	<b>General government debt denominated in euro</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>9</b>	<b>Intra-Eurosystem claims</b>	<b>769</b>	<b>768</b>	<b>768</b>
9.1	Share in ECB capital	70	70	70
9.2	Claims equivalent to the transfer of foreign currency reserves	699	699	699
9.3	Claims related to the issuance of ECB debt certificates	-	-	-
9.4	Claims related to TARGET and correspondent accounts (net)	-	-	-
9.5	Claims related to other operational requirements within the Eurosystem	1	-	-
<b>10</b>	<b>Other assets</b>	<b>586</b>	<b>593</b>	<b>632</b>
<b>Total assets</b>		<b>11,590</b>	<b>13,090</b>	<b>12,465</b>

Source: Bank of Finland.

Totals/sub-totals may not add up because of rounding.

Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
463	463	502	502	502	502	502	502	497
8,585 696	8,638 780	9,108 841	8,834 840	9,136 837	8,759 764	8,697 745	8,735 717	8,871 899
7,889	7,858	8,266	7,995	8,300	7,996	7,953	8,019	7,972
769	856	885	897	786	743	819	798	794
0 0 -	0 0 -	0 0 -	0 0 -	0 0 -	0 0 -	0 0 -	0 0 -	0 0 -
300 100 200 - - - -	501 301 200 - - - -	2,183 1,489 694 - - - -	1,192 595 597 - - - -	1,971 1,250 697 - - 24 -	936 585 351 - - - -	1,430 1,083 348 - - - -	1,147 899 248 - - - -	1,294 988 306 - - - -
4	4	4	4	4	4	4	4	2
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
768 70 699 - - -	768 70 699 - - -	768 70 699 - - -	768 70 699 - - -	768 70 699 - - -	768 70 699 - - -	768 70 699 - - -	768 70 699 - - -	769 70 699 - - 0
616	560	593	571	572	680	678	639	1,093
11,505	11,789	14,043	12,768	13,739	12,392	12,900	12,594	13,319

Table 1. (cont.)

Liabilities		Jan	Feb	Mar
1	Banknotes in circulation	2,636	2,598	2,585
2	Liabilities to euro area credit institutions related to monetary policy operations denominated in euro	1,552	1,643	3,022
2.1	Current accounts (covering the minimum reserve system)	1,552	1,520	3,022
2.2	Deposit facility	–	122	–
2.3	Fixed-term deposits	–	–	–
2.4	Fine-tuning reverse operations	–	–	–
2.5	Deposits related to margin calls	–	–	–
3	Other liabilities to euro area credit institutions denominated in euro	–	–	–
4	Liabilities to other euro area residents denominated in euro	1	1	1
4.1	General government	–	–	–
4.2	Other liabilities	1	1	1
5	Liabilities to non-euro area residents denominated in euro	83	24	92
6	Liabilities to euro area residents denominated in foreign currency	–	–	–
7	Liabilities to non-euro residents denominated in foreign currency	199	122	87
7.1	Deposits, balances and other liabilities	199	122	87
7.2	Liabilities arising from the credit facility under the ERM II	–	–	–
8	Counterpart of special drawing rights allocated by the IMF	200	201	204
9	Intra-Eurosystem liabilities	1,608	3,137	1,065
9.1	Liabilities related to promissory notes backing the issuance of ECB debt certificates	–	–	–
9.2	Liabilities related to TARGET and correspondent accounts (net)	1,608	3,137	1,065
9.3	Liabilities related to other operational requirements within the Eurosystem	–	–	–
10	Other liabilities	36	89	204
11	Revaluation account	1,070	1,070	1,129
12	Capital and reserves	4,205	4,205	4,076
Total liabilities		11,590	13,090	12,465

Source: Bank of Finland.

Totals/sub-totals may not add up because of rounding.

Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2,663	2,688	2,721	2,717	2,632	2,578	2,467	2,361	2,374
1,703	1,953	1,822	2,021	2,017	2,342	2,542	2,745	3,840
1,703	1,953	1,822	2,021	2,017	2,342	2,542	2,745	3,840
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	271
1	1	1	0	1	1	0	1	1
-	-	-	-	-	-	-	-	-
1	1	1	0	1	1	0	1	1
131	153	189	255	1	0	0	1	2
-	-	-	-	-	-	-	-2	-
110	137	395	105	267	115	117	85	108
110	137	395	105	267	115	117	85	108
-	-	-	-	-	-	-	-	-
204	206	210	210	210	201	201	201	203
1,274	1,183	2,996	1,755	2,888	1,605	2,024	1,623	891
-	-	-	-	-	-	-	-	-
1,274	1,183	2,996	1,755	2,888	1,605	2,024	1,623	891
-	-	-	-	-	-	-	-	-
213	264	307	302	321	404	400	433	32
1,129	1,129	1,326	1,326	1,326	1,070	1,070	1,070	1,053
4,076	4,076	4,076	4,076	4,076	4,076	4,076	4,076	4,543
11,505	11,789	14,043	12,768	13,739	12,392	12,900	12,594	13,319

**Table 2.**  
Main refinancing operations of the Eurosystem

Date of settlement	Bids, EUR m	Allotment, EUR m	Allotment to Finnish credit institutions, EUR m	Participating credit institutions, number
	1	2	3	4
<b>2001</b>				
3 Jan	136,434	101,000	40	488
10	95,841	95,000	0	457
17	137,641	101,000	40	591
24	118,546	104,000	77	527
31	137,610	84,000	311	544
7 Feb	104,384	100,000	0	471
14	65,307	65,307	150	401
21	200,526	155,000	1,500	658
26	109,632	27,000	0	496
7 Mar	189,927	143,000	191	582
14	130,260	51,000	48	537
21	182,057	135,000	574	576
28	57,526	50,000	314	351
4 Apr	129,101	118,000	312	422
11	24,949	24,949	0	240
19	257,706	172,000	100	607
25	83,303	5,000	0	429
30	147,324	80,000	200	466
7 May	164,985	79,000	577	463
15	160,715	72,000	301	475
23	157,987	90,000	0	520
30	159,877	77,000	393	492
6 Jun	120,631	88,000	0	435
13	135,442	67,000	182	411
20	148,877	91,000	997	476
27	155,894	85,000	491	452
4 Jul	104,399	81,000	300	414
11	141,842	73,000	372	391
18	136,104	79,000	79	439
25	126,040	94,000	516	401
1 Aug	100,746	71,000	200	374
8	132,809	91,000	638	347
15	111,157	70,000	509	345
22	142,012	83,000	575	355
29	72,907	70,000	675	295
5 Sep	132,696	82,000	284	341
12	118,708	61,000	918	337
19	110,778	71,000	0	329
26	111,927	81,000	585	347
3 Oct	76,444	56,000	116	266
10	60,510	60,510	750	248
17	143,828	82,000	324	372
24	73,932	61,000	759	333
31	99,611	66,000	394	254
7 Nov	38,368	38,368	400	201
14	174,732	116,000	100	401
21	63,173	17,000	499	286
28	95,578	71,000	400	318
5 Dec	106,643	68,000	774	308
12	109,662	66,000	449	292
19	140,810	57,000	600	451
28	105,649	85,000	388	331

Sources: European Central Bank and Bank of Finland.

Date of settlement	Variable rate tenders			Running for (...) days
	Minimum bid rate, %	Marginal rate, %	Weighted average rate, %	
2001	5	6	7	8
3 Jan	4,75	4,76	4,78	14
10	4,75	4,75	4,75	14
17	4,75	4,75	4,77	14
24	4,75	4,75	4,76	14
31	4,75	4,76	4,77	14
7 Feb	4,75	4,75	4,75	14
14	4,75	4,75	4,75	12
21	4,75	4,78	4,83	14
26	4,75	4,78	4,79	16
7 Mar	4,75	4,76	4,77	14
14	4,75	4,77	4,78	14
21	4,75	4,77	4,78	14
28	4,75	4,75	4,75	14
4 Apr	4,75	4,75	4,75	15
11	4,75	4,75	4,75	14
19	4,75	4,86	4,91	11
25	4,75	4,78	4,80	12
30	4,75	4,77	4,78	15
7 May	4,75	4,78	4,78	16
15	4,50	4,54	4,56	15
23	4,50	4,53	4,54	14
30	4,50	4,55	4,55	14
6 Jun	4,50	4,51	4,53	14
13	4,50	4,51	4,52	14
20	4,50	4,51	4,52	14
27	4,50	4,54	4,55	14
4 Jul	4,50	4,50	4,51	14
11	4,50	4,51	4,52	14
18	4,50	4,51	4,52	14
25	4,50	4,51	4,52	14
1 Aug	4,50	4,50	4,51	14
8	4,50	4,50	4,51	14
15	4,50	4,50	4,51	14
22	4,50	4,50	4,51	14
29	4,50	4,50	4,50	14
5 Sep	4,25	4,27	4,28	14
12	4,25	4,26	4,27	14
19	3,75	3,76	3,77	14
26	3,75	3,76	3,77	14
3 Oct	3,75	3,75	3,76	14
10	3,75	3,75	3,75	14
17	3,75	3,78	3,79	14
24	3,75	3,75	3,76	14
31	3,75	3,75	3,76	14
7 Nov	3,75	3,75	3,75	14
14	3,25	3,37	3,40	14
21	3,25	3,26	3,27	14
28	3,25	3,27	3,29	14
5 Dec	3,25	3,27	3,27	14
12	3,25	3,27	3,27	16
19	3,25	3,43	3,46	14
28	3,25	3,45	3,52	12

**Table 3.**  
Longer-term refinancing operations of the Eurosystem

Date of settlement	Bids, EUR m	Allotment, EUR m	Allotment to Finnish credit institutions, EUR m	Number of participants	Marginal rate, %	Weighted average rate, %	Running for (...) days
	1	2	3	4	5	6	7
<b>2001</b>							
25 Jan	31,905	20,000	400	199	4.66	4.69	90
1 Mar	45,755	20,000	0	254	4.69	4.72	91
29 Mar	39,068	20,000	0	234	4.47	4.50	91
25 Apr	43,416	20,000	200	228	4.67	4.70	92
31 May	46,448	20,000	0	268	4.49	4.51	91
28 Jun	44,243	20,000	494	250	4.36	4.39	91
26 Jul	39,369	20,000	103	224	4.39	4.42	91
30 Aug	37,855	20,000	100	214	4.20	4.23	91
27 Sep	28,269	20,000	148	195	3.55	3.58	85
25 Oct	42,308	20,000	100	200	3.50	3.52	98
29 Nov	49,135	20,000	0	221	3.32	3.34	91
21 Dec	38,178	20,000	206	215	3.29	3.31	97

Source: European Central Bank.

**Table 4.**  
Other tender operations

Date of settlement	Type of operation	Bids, EUR m	Allotment, EUR m	Fixed rate tenders Fixed rate, %	Variable rate tenders		
					Marginal rate, %	Weighted average rate, %	Running for (...) days
	1	2	3	4	5	6	7
<b>2001</b>							
30 Apr	Reverse transaction	105,377	73,000	–	4.77	4.79	7
12 Sep	Reverse transaction	69,281	69,281	4.25	–	–	1
13 Sep	Reverse transaction	40,495	40,495	4.25	–	–	1
28 Nov	Reverse transaction	73,096	53,000	–	3.28	3.29	7

Source: European Central Bank.

**Table 5.**  
Key interest rates of the Eurosystem

Fixed rate tenders			Variable rate tenders		
Interest rate on main refinancing operations			Minimum bid rate		
Decision date	Effective	%	Decision date	Effective	%
12 Dec 1998	1 Jan 1999	3.00	8 Jun 2000	28 Jun 2000	4.25
8 Apr 1999	14 Apr 1999	2.50	31 Aug 2000	6 Sep 2000	4.50
4 Nov 1999	10 Nov 1999	3.00	5 Oct 2000	11 Oct 2000	4.75
3 Feb 2000	9 Feb 2000	3.25	10 May 2001	15 May 2001	4.50
16 Mar 2000	22 Mar 2000	3.50	30 Aug 2001	5 Sep 2001	4.25
27 Apr 2000	4 May 2000	3.75	17 Sep 2001	19 Sep 2001	3.75
8 Jun 2000	15 Jun 2000	4.25	8 Nov 2001	14 Nov 2001	3.25
Standing facilities					
Interest rate on deposit facility			Interest rate on marginal lending facility		
Decision date	Effective	%	Decision date	Effective	%
22 Dec 1998	1 Jan 1999	2.00	22 Dec 1998	1 Jan 1999	4.50
22 Dec 1998	4 Jan 1999	2.75	22 Dec 1998	4 Jan 1999	3.25
21 Jan 1999	22 Jan 1999	2.00	21 Jan 1999	22 Jan 1999	4.50
8 Apr 1999	9 Apr 1999	1.50	8 Apr 1999	9 Apr 1999	3.50
4 Nov 1999	5 Nov 1999	2.00	4 Nov 1999	5 Nov 1999	4.00
3 Feb 2000	4 Feb 2000	2.25	3 Feb 2000	4 Feb 2000	4.25
16 Mar 2000	17 Mar 2000	2.50	16 Mar 2000	17 Mar 2000	4.50
27 Apr 2000	28 Apr 2000	2.75	27 Apr 2000	28 Apr 2000	4.75
8 Jun 2000	9 Jun 2000	3.25	8 Jun 2000	9 Jun 2000	5.25
31 Aug 2000	1 Sep 2000	3.50	31 Aug 2000	1 Sep 2000	5.50
5 Oct 2000	6 Oct 2000	3.75	5 Oct 2000	6 Oct 2000	5.75
10 May 2001	11 May 2001	3.50	10 May 2001	11 May 2001	5.50
30 Aug 2001	31 Aug 2001	3.25	30 Aug 2001	31 Aug 2001	5.25
17 Sep 2001	18 Sep 2001	2.75	17 Sep 2001	18 Sep 2001	4.75
8 Nov 2001	9 Nov 2001	2.25	8 Nov 2001	9 Nov 2001	4.25

Source: European Central Bank.

**Table 6.**  
Euro area banking system's liquidity position, averages of daily positions, EUR bn

Maintenance period ending in <sup>1</sup>	Liquidity-providing factors							Liquidity-absorbing factors			Credit institutions' current accounts	Base money	
	Euro-system's net assets in gold and foreign currency	Monetary policy operations of the Eurosystem					Deposit facility	Other liquidity-absorbing operations	Banknotes in circulation	Central government deposits with the Euro-system			Other factors, net
		Main re-financing operations	Longer-term re-financing operations	Marginal lending facility	Other liquidity-providing operations								
	1	2	3	4	5	6	7	8	9	10	11	12	
<b>2000</b>													
Dec	394.4	210.4	45.0	0.4	0.0	0.2	0.0	360.4	61.1	111.1	117.4	478.0	
<b>2001</b>													
Jan	383.7	205.3	45.0	0.5	0.0	0.6	0.0	368.3	52.2	94.2	119.1	488.0	
Feb	377.9	188.9	49.8	2.6	0.0	0.4	0.0	354.8	57.0	86.3	120.7	476.0	
Mar	375.6	185.2	54.1	0.4	0.0	0.5	0.0	353.0	53.0	87.7	121.0	474.5	
Apr	382.1	172.4	58.4	2.2	0.0	0.5	0.0	354.6	49.5	89.1	121.4	476.4	
May	384.4	144.0	59.1	0.4	17.0	0.6	0.0	352.7	39.4	87.5	124.8	478.1	
Jun	385.0	161.7	59.1	0.2	0.0	0.4	0.0	351.1	41.3	87.5	125.7	477.3	
Jul	397.6	161.9	59.9	0.2	0.0	0.4	0.0	350.8	42.5	98.8	127.1	478.3	
Aug	402.1	164.0	60.0	0.1	0.0	0.2	0.0	347.6	48.8	101.8	127.8	475.6	
Sep	401.3	147.1	60.0	0.5	3.5	0.4	0.0	335.4	45.2	105.4	126.1	461.9	
Oct	389.9	136.7	60.0	1.1	0.0	0.1	0.0	325.2	43.6	93.6	125.1	450.4	
Nov	385.0	132.3	60.0	0.2	0.0	0.3	0.0	311.3	46.1	93.1	126.7	438.3	
Dec	383.7	122.5	60.0	0.5	12.4	0.8	0.0	298.0	43.5	109.3	127.4	426.2	
<b>2002</b>													
Jan	385.2	118.5	60.0	0.4	3.7	0.6	0.0	344.3	38.3	54.2	130.4	475.2	

Source: European Central Bank.

<sup>1</sup> Maintenance periods start on the 24<sup>th</sup> of the month and run to the 23<sup>rd</sup> of the following month.

Liquidity position of the Finnish banking system, averages of daily positions, EUR m

Maintenance period ending in <sup>1</sup>	Liquidity-providing factors							Liquidity-absorbing factors			Credit institutions' current accounts 1 + 2 + 3 + 4 + 5 - 6 - 7 - 8 - 9 - 10	Base money, 6 + 8 + 11	
	Euro-system's net assets in gold and foreign currency	Monetary policy operations of the Eurosystem					Deposit facility	Other liquidity-absorbing operations	Banknotes in circulation <sup>2</sup>	Central government deposits with the Euro-system			Other factors, net
		Main re-financing operations	Longer-term re-financing operations	Marginal lending facility	Other liquidity-providing operations								
	1	2	3	4	5	6	7	8	9	10	11	12	
<b>2000</b>													
Dec	9,879.5	367.4	60.6	2.1	0.0	7.1	0.0	2,845.1	0.0	5,828.7	1,628.8	4,481.0	
<b>2001</b>													
Jan	9,560.7	154.2	60.6	0.0	0.0	7.6	0.0	2,809.8	0.0	5,290.9	1,667.1	4,484.5	
Feb	9,529.8	377.9	389.1	0.0	0.0	4.0	0.0	2,604.8	0.0	5,976.2	1,711.8	4,320.6	
Mar	9,584.6	774.2	400.0	1.4	0.0	12.2	0.0	2,581.6	0.0	6,490.1	1,676.4	4,270.2	
Apr	9,691.2	518.5	400.0	2.8	0.0	0.0	0.0	2,611.8	0.0	6,308.0	1,692.8	4,304.5	
May	9,741.7	518.0	206.7	7.6	0.0	1.5	0.0	2,635.1	0.0	6,070.1	1,767.3	4,403.8	
Jun	9,855.7	428.7	200.0	4.5	0.0	4.5	0.0	2,692.3	0.0	5,994.1	1,798.1	4,494.8	
Jul	10,077.7	897.0	628.4	2.3	0.0	0.0	0.0	2,721.1	0.0	7,004.4	1,880.0	4,601.0	
Aug	10,139.1	828.5	603.4	0.0	0.0	6.9	0.0	2,677.2	0.0	7,062.5	1,824.4	4,508.5	
Sep	10,164.3	1,093.0	677.8	12.5	29.0	10.1	0.0	2,603.8	0.0	7,515.6	1,847.0	4,460.9	
Oct	9,938.1	814.2	385.2	19.0	0.0	3.0	0.0	2,525.4	0.0	6,858.7	1,769.5	4,297.9	
Nov	9,917.7	854.9	347.8	1.1	0.0	5.8	0.0	2,411.2	0.0	6,779.4	1,925.0	4,342.1	
Dec	9,981.3	1,023.6	270.2	0.0	0.0	2.8	0.0	2,443.8	0.0	6,820.7	2,007.7	4,454.3	
<b>2002</b>													
Jan	10,057.1	658.4	306.1	0.1	13.4	27.5	0.0	3,136.9	0.0	5,853.5	2,017.2	5,181.6	

Source: Bank of Finland.

<sup>1</sup> Maintenance periods start on the 24<sup>th</sup> of the month and run to the 23<sup>rd</sup> of the following month.

<sup>2</sup> Banknotes in circulation at Jan 2002 augmented by frontloaded euro banknotes from 2 Jan 2002.

**Table 7.**  
Reserve base of euro area credit institutions subject to reserve requirements, EUR bn

Reserve base as at:	Total	Liabilities to which a 2% reserve coefficient is applied			Liabilities to which a 0% reserve coefficient is applied		
		Deposits (overnight, up to 2 years' agreed maturity and notice period)	Debt securities up to 2 years' agreed maturity	Money market paper	Deposits (over 2 years' agreed maturity and notice period)	Repos	Debt securities over 2 years' agreed maturity
	1	2	3	4	5	6	7
<b>2000</b>							
Dec	10,071.5	5,711.3	136.7	187.2	1,273.6	528.3	2,234.3
<b>2001</b>							
Jan	10,164.2	5,712.6	139.2	196.7	1,275.6	574.6	2,265.6
Feb	10,247.4	5,724.4	145.3	201.2	1,284.7	597.8	2,294.0
Mar	10,503.6	5,883.5	151.1	203.4	1,292.6	654.7	2,318.3
Apr	10,554.6	5,924.3	154.5	202.8	1,292.1	657.7	2,323.2
May	10,687.3	5,984.7	166.6	198.9	1,307.5	693.2	2,336.4
Jun	10,705.3	6,015.6	175.7	198.7	1,314.2	656.6	2,344.5
Jul	10,590.4	5,912.2	183.4	199.1	1,312.5	636.2	2,346.9
Aug	10,551.6	5,872.7	187.8	190.2	1,309.3	654.1	2,337.6
Sep	10,627.3	5,956.0	188.2	191.3	1,315.7	631.6	2,344.6
Oct	10,687.8	5,962.3	190.8	196.5	1,313.7	672.4	2,352.2
Nov	10,798.1	6,073.4	199.0	191.3	1,300.9	656.5	2,376.9
Dec	10,895.8	6,225.5	204.2	184.1	1,316.6	602.5	2,362.9

Source: European Central Bank.

**Table 8.**  
Reserve maintenance of euro area credit institutions subject to reserve requirements, EUR bn

Maintenance period ending in <sup>1</sup>	Required reserves	Actual reserves	Excess reserves	Deficiencies	Interest rate on minimum reserves, %
	1	2	3	4	5
<b>2000</b>					
Dec	116.6	117.2	0.6	0.0	4.78
<b>2001</b>					
Jan	118.5	119.0	0.5	0.0	4.77
Feb	120.1	120.6	0.5	0.0	4.76
Mar	120.4	120.9	0.5	0.0	4.77
Apr	120.8	121.3	0.5	0.0	4.77
May	124.2	124.8	0.7	0.0	4.71
Jun	125.0	125.6	0.6	0.0	4.52
Jul	126.4	127.0	0.6	0.0	4.51
Aug	127.2	127.7	0.5	0.0	4.50
Sep	125.3	126.0	0.7	0.0	4.27
Oct	124.4	125.0	0.6	0.0	3.76
Nov	126.1	126.6	0.5	0.0	3.62
Dec	126.4	127.3	0.9	0.0	3.30
<b>2002</b>					
Jan	128.7	130.1	1.4	0.0	3.34

Source: European Central Bank.

<sup>1</sup> Maintenance periods start on the 24<sup>th</sup> of the month and run to the 23<sup>rd</sup> of the following month.

## Reserve base of Finnish credit institutions subject to reserve requirements, EUR m

Reserve base as at:	Total	Liabilities to which a 2% reserve coefficient is applied			Liabilities to which a 0% reserve coefficient is applied		
		Deposits (overnight, up to 2 years' agreed maturity and notice period)	Debt securities up to 2 years' agreed maturity	Money market paper	Deposits (over 2 years' agreed maturity and notice period)	Repos	Debt securities over 2 years' agreed maturity
	1	2	3	4	5	6	7
<b>2000</b>							
Dec	101,278	76,915	1,409	9,110	4,210	920	8,716
<b>2001</b>							
Jan	102,185	73,078	1,759	10,654	4,505	996	11,193
Feb	102,656	73,758	1,928	10,525	4,509	991	10,946
Mar	106,469	77,358	1,891	10,803	4,318	1,086	11,015
Apr	108,658	79,731	2,082	9,919	4,906	946	11,075
May	111,017	81,263	2,489	11,279	5,023	642	10,322
Jun	108,978	80,886	2,278	9,770	4,868	534	10,643
Jul	107,469	80,106	2,171	9,769	4,880	442	10,101
Aug	105,098	78,001	2,057	10,069	4,801	179	9,991
Sep	112,099	85,886	2,319	9,770	4,191	247	9,686
Oct	115,130	88,984	2,275	9,730	4,449	135	9,557
Nov	116,284	90,250	2,626	9,255	4,436	131	9,587
Dec	117,932	92,686	2,276	8,963	4,500	86	9,421

Source: Bank of Finland.

## Reserve maintenance of Finnish credit institutions subject to reserve requirements, EUR m

Maintenance period ending in <sup>1</sup>	Required reserves	Actual reserves	Excess reserves	Deficiencies	Interest rate on minimum reserves, %
	1	2	3	4	5
<b>2000</b>					
Dec	1,623	1,628	5.1	0.0	4.78
<b>2001</b>					
Jan	1,667	1,667	0.0	0.0	4.77
Feb	1,711	1,711	0.0	0.0	4.76
Mar	1,676	1,676	0.0	0.0	4.77
Apr	1,690	1,691	0.9	0.0	4.77
May	1,767	1,767	0.3	0.0	4.71
Jun	1,799	1,804	4.8	0.0	4.52
Jul	1,865	1,873	7.5	0.0	4.51
Aug	1,823	1,824	0.7	0.0	4.50
Sep	1,806	1,846	40.7	0.0	4.27
Oct	1,767	1,769	2.1	0.0	3.76
Nov	1,924	1,925	0.7	0.0	3.62
Dec	1,984	2,005	20.1	0.0	3.30
<b>2002</b>					
Jan	2,007	2,009	2.0	0.0	3.34

Source: Bank of Finland.

<sup>1</sup> Maintenance periods start on the 24<sup>th</sup> of the month and run to the 23<sup>rd</sup> of the following month.

**Table 9.**  
Euro area monetary aggregate M3 and corresponding items of Finnish monetary financial institutions<sup>1</sup>

	Euro area monetary aggregate M3			Deposits of Finnish monetary financial institutions included in M3		
	Stock, EUR bn	12-month change <sup>2,3</sup> , %	3-month mov avg of 12-month change <sup>2,3</sup> , %	Stock, EUR bn	12-month change <sup>2</sup> , %	3-month mov avg of 12-month change <sup>2</sup> , %
	1	2	3	4	5	6
1997	4,265.6	4.2	..	69.5	7.0	..
1998	4,463.9	5.0	..	66.5	2.6	..
1999	4,701.2	5.8	5.4	70.9	7.0	5.9
2000	4,898.9	4.1	4.0	68.5	-3.5	-3.1
2001	5,424.6	8.0	8.0	71.4	6.1	8.0
<b>2001</b>						
Jan	5,010.0	3.9	3.9	69.0	-3.1	-4.2
Feb	5,033.8	3.8	3.8	68.6	-6.0	-3.9
Mar	5,077.2	3.8	3.9	69.6	-2.7	-3.9
Apr	5,122.8	4.0	4.0	69.6	-3.1	-1.5
May	5,159.3	4.4	4.6	71.5	1.4	-0.3
Jun	5,201.8	5.5	5.2	71.8	0.7	0.9
Jul	5,196.0	5.8	5.7	71.2	0.5	-0.2
Aug	5,196.2	6.0	6.2	70.7	-1.9	1.4
Sep	5,246.9	6.8	6.8	72.3	5.7	3.3
Oct	5,274.2	7.5	7.4	71.4	6.2	7.0
Nov	5,327.7	8.0	7.8	72.1	9.1	7.1
Dec	5,424.6	8.0	8.0	71.4	6.1	8.0

Sources: European Central Bank and Bank of Finland.

<sup>1</sup> Excl negotiable instruments held by central governments and nonresidents of the euro area.

<sup>2</sup> Calculated from monthly differences in levels adjusted for reclassifications, other revaluations, exchange rate variations and any other changes which do not arise from transactions.

<sup>3</sup> Seasonally and calendar effect adjusted.

**Table 10.**  
Key market interest rates

	Eonia rate	Euribor rates (actual/360)						Yields on Finnish government bonds	
		1-month	2-month	3-month	6-month	9-month	12-month	5-year	10-year
	1	2	3	4	5	6	7	8	9
2001	4.39	4.335	4.297	4.267	4.159	4.101	4.086	4.54	5.04
<b>2001</b>									
Jan	4.76	4.805	4.788	4.771	4.675	4.603	4.574	4.70	5.02
Feb	4.99	4.800	4.775	4.756	4.667	4.607	4.591	4.71	5.02
Mar	4.78	4.776	4.738	4.709	4.577	4.489	4.471	4.60	4.94
Apr	5.06	4.780	4.715	4.682	4.566	4.504	4.481	4.73	5.10
May	4.64	4.663	4.652	4.637	4.558	4.534	4.520	4.88	5.29
Jun	4.54	4.530	4.486	4.454	4.353	4.325	4.312	4.76	5.26
Jul	4.51	4.525	4.495	4.467	4.387	4.334	4.311	4.76	5.27
Aug	4.49	4.465	4.405	4.354	4.225	4.142	4.108	4.55	5.06
Sep	3.99	4.051	4.012	3.983	3.876	3.800	3.770	4.38	5.06
Oct	3.97	3.719	3.637	3.600	3.459	3.390	3.369	4.12	4.83
Nov	3.51	3.427	3.428	3.386	3.262	3.201	3.198	4.02	4.69
Dec	3.34	3.418	3.378	3.345	3.256	3.245	3.298	4.34	4.98

Sources: European Central Bank, Reuters and Bloomberg.

**Table 11.**  
Nominal competitiveness indicators for Finland and the effective exchange rate of the euro calculated by the ECB

	Narrow indicator <sup>1</sup>	Narrow plus euro area indicator <sup>1</sup>	Broad indicator <sup>1</sup>	Effective exchange rate of the euro, narrow group of countries <sup>1</sup>	Bank of Finland's old currency index <sup>2,3</sup>
	Jan – Mar 1999 = 100				1982 = 100
	1	2	3	4	5
1997	99.8	100.4	94.0	99.1	118.5
1998	101.1	100.6	96.5	101.5	118.9
1999	96.0	97.8	97.9	95.7	121.2
2000	87.0	92.8	92.8	85.7	126.6
2001	89.4	94.4	94.1	87.3	124.7
<b>2001</b>					
Jan	90.6	95.0	94.9	89.2	124.1
Feb	89.9	94.6	94.3	88.3	124.4
Mar	90.2	94.8	94.5	88.4	124.3
Apr	89.5	94.4	93.9	87.6	124.8
May	88.0	93.6	93.0	85.9	125.8
Jun	87.1	93.1	92.4	84.7	126.2
Jul	87.8	93.5	92.9	85.4	125.6
Aug	89.8	94.6	94.3	87.7	124.2
Sep	90.5	95.1	94.8	88.0	123.6
Oct	90.4	95.0	95.0	88.0	123.8
Nov	89.2	94.3	94.4	86.8	124.7
Dec	90.0	94.8	94.8	87.7	124.3

Sources: European Central Bank and Bank of Finland.

<sup>1</sup> An upward movement of the index represents an appreciation of the euro. The narrow indicator comprises 12 countries, 2001, the narrow plus euro area indicator 23 countries, and the broad indicator 32 countries.

<sup>2</sup> Formerly the Bank of Finland currency index.

<sup>3</sup> The index falls when the euro (before 1999 the markka) appreciates.

**Table 12.**  
Harmonised index of consumer prices for euro area and Finland, annual change, %

	Euro area	Finland
	1	2
1997	1.6	1.2
1998	1.1	1.4
1999	1.1	1.3
2000	2.3	3.0
2001	2.6	2.7
<b>2001</b>		
Jan	2.3	2.9
Feb	2.3	2.7
Mar	2.5	2.5
Apr	2.9	2.8
May	3.4	3.3
Jun	3.0	3.0
Jul	2.6	2.6
Aug	2.4	2.7
Sep	2.3	2.6
Oct	2.4	2.4
Nov	2.1	2.1
Dec	2.0	2.3

Sources: Eurostat and Statistics Finland.

**Table 13.**  
General government fiscal position and debt, % of GDP

Country	Gen gov surplus (+) / deficit (-)				Gen gov debt, year-end	
	2000	2000 <sup>1</sup>	2001	2001 <sup>1</sup>	2000	2001
	1	2	3	4	5	6
Belgium	0.1	.	-0.2	0.0	110.3	107.0
Germany	-1.3	1.2	-2.5	.	60.3	60.0
Greece	-1.1	.	-0.4	0.0	102.7	99.8
Spain	-0.4	-0.3	0.1	.	60.7	58.0
France	-1.4	.	-1.6	-1.5	57.6	57.1
Ireland	4.5	.	2.4	.	38.6	34.3
Italy	-1.5	-0.3	-1.2	.	110.5	108.2
Luxembourg	6.1	.	4.4	.	5.3	5.3
Netherlands	1.5	2.2	1.3	.	56.1	51.8
Austria	-1.5	-1.1	-0.2	.	63.1	62.3
Portugal	-1.8	-1.5	-2	.	53.7	53.5
Finland	6.9	.	4.8	.	44.0	42.7
Euro area	-0.8	0.3	-1.1	-1.1	70.2	68.8

Source: European Commission.

<sup>1</sup> Incl. proceeds from sale of UMTS licences.

**Table 14.**  
Irrevocable euro conversion rates as from 1 Jan 1999

Country	Currency	Units of currency per euro	Markkaa per units of currency
Austria	schilling	13.7603	0.432093
Belgium	franc	40.3399	0.147391
Germany	mark	1.95583	3.04000
Spain	peseta	166.386	0.0357346
Finland	markka	5.94573	
France	franc	6.55957	0.906421
Ireland	pound	0.787564	7.54952
Italy	lira	1936.27	0.00307071
Luxembourg	franc	40.3399	0.147391
Netherlands	guilder	2.20371	2.69805
Portugal	escudo	200.482	0.0296572
Greece	drachma	340.750	0.0174490

Source: European Union.

**Table 15a.**  
Key euro exchange rates, currency-value of one euro

	US dollar			Japanese yen		
	Low	Average	High	Low	Average	High
	1	2	3	4	5	6
1999	1.0015	1.0658	1.1790	102.48	121.32	134.40
2000	0.8252	0.9236	1.0388	89.30	99.47	111.88
2001	0.8384	0.8956	0.9545	100.62	108.68	115.90
<b>2001</b>						
Jan	0.9146	0.9383	0.9545	107.15	109.57	112.35
Feb	0.9056	0.9217	0.9425	104.86	107.08	109.22
Mar	0.8832	0.9095	0.9363	107.81	110.33	111.71
Apr	0.8772	0.8920	0.9032	107.49	110.36	113.52
May	0.8480	0.8742	0.8939	101.00	106.50	109.26
Jun	0.8465	0.8532	0.8662	100.62	104.30	107.05
Jul	0.8384	0.8607	0.8793	105.16	107.21	109.45
Aug	0.8763	0.9005	0.9216	107.94	109.34	110.39
Sep	0.8855	0.9111	0.9269	106.93	108.20	109.75
Oct	0.8887	0.9059	0.9214	109.03	109.86	111.54
Nov	0.8778	0.8883	0.9097	107.14	108.68	110.72
Dec	0.8798	0.8924	0.9049	110.21	113.38	115.90

Source: European Central Bank.

**Table 15b.**  
Key markka exchange rates, FIM

	US dollar			Japanese yen		
	Low	Average	High	Low	Average	High
	1	2	3	4	5	6
1990	3.5320	3.8233	4.0890	0.0247	0.0265	0.0287
1991	3.5390	4.0457	4.5550	0.0268	0.0301	0.0351
1992	3.8400	4.4835	5.2750	0.0310	0.0355	0.0423
1993	5.2940	5.7189	6.0614	0.0426	0.0517	0.0583
1994	4.5345	5.2184	5.7999	0.0467	0.0511	0.0544
1995	4.1839	4.3658	4.8071	0.0411	0.0466	0.0522
1996	4.3311	4.5905	4.8487	0.0396	0.0423	0.0464
1997	4.6290	5.1944	5.6120	0.0396	0.0430	0.0480
1998	4.8383	5.3415	5.6275	0.0368	0.0409	0.0448
1999	5.0430	5.5787	5.9368	0.0442	0.0490	0.0580
2000	5.7237	6.4376	7.2052	0.0531	0.0598	0.0666
2001	6.2292	6.6388	7.0918	0.0513	0.0547	0.0591

Source: Bank of Finland.

	Pound sterling			Swedish krona		
	Low	Average	High	Low	Average	High
	7	8	9	10	11	12
1999	0.62150	0.65874	0.71220	8.5500	8.8075	9.4696
2000	0.57110	0.60948	0.64020	8.0550	8.4452	8.8600
2001	0.59730	0.62187	0.64080	8.8395	9.2551	9.9631
<b>2001</b>						
Jan	0.62980	0.63480	0.64080	8.8395	8.9055	8.9590
Feb	0.62650	0.63400	0.63980	8.8795	8.9770	9.0818
Mar	0.61480	0.62915	0.63920	9.0347	9.1264	9.2393
Apr	0.61310	0.62168	0.62890	9.0010	9.1120	9.2270
May	0.59730	0.61328	0.62260	8.9695	9.0576	9.1478
Jun	0.59780	0.60890	0.62030	9.0719	9.2106	9.3229
Jul	0.59800	0.60857	0.61570	9.2032	9.2637	9.3472
Aug	0.61450	0.62672	0.63440	9.1509	9.3107	9.5345
Sep	0.61090	0.62291	0.63230	9.4520	9.6744	9.9631
Oct	0.61740	0.62393	0.62860	9.4315	9.5780	9.7785
Nov	0.61250	0.61838	0.62380	9.3340	9.4166	9.5850
Dec	0.60850	0.62012	0.62750	9.3012	9.4359	9.5736

	Pound sterling			Swedish krona		
	Low	Average	High	Low	Average	High
	7	8	9	10	11	12
1990	6.4310	6.8083	7.2000	0.6369	0.6459	0.6545
1991	6.8630	7.1308	8.0730	0.6430	0.6684	0.7623
1992	7.5720	7.8748	9.0230	0.7369	0.7714	0.8845
1993	8.0390	8.5819	8.9630	0.6826	0.7350	0.8106
1994	7.3630	7.9821	8.5960	0.6339	0.6758	0.7076
1995	6.5150	6.8907	7.5560	0.5713	0.6123	0.6576
1996	6.7110	7.1642	7.8690	0.6483	0.6847	0.7154
1997	7.7950	8.5058	9.0930	0.6533	0.6799	0.7016
1998	8.3100	8.8470	9.4010	0.6188	0.6721	0.7096
1999	8.3484	9.0259	9.5667	0.6279	0.6751	0.6954
2000	9.2873	9.7554	10.4110	0.6711	0.7040	0.7381
2001	9.2786	9.5610	9.9543	0.5968	0.6424	0.6726

**Table 16a.**  
Other euro exchange rates, currency-value of one euro, avg

	Greek drachma	Danish krone	Swiss franc	Icelandic krona	Norwegian krone	Bulgarian lev	Cyprus pound
	1	2	3	4	5	6	7
1999	325.7625	7.4355	1.6003	77.177	8.3104	..	0.57884
2000	336.63	7.4538	1.5579	72.585	8.1129	..	0.57392
2001	..	7.4521	1.5105	87.42	8.0484	1.9482	0.57589
<b>2001</b>							
Jan	..	7.4642	1.5291	79.86	8.2355	1.9553	0.57754
Feb	..	7.4630	1.5358	79.27	8.2125	1.9516	0.57935
Mar	..	7.4643	1.5355	79.72	8.1600	1.9496	0.57892
Apr	..	7.4633	1.5287	83.29	8.1146	1.9474	0.57859
May	..	7.4612	1.5334	88.12	7.9927	1.9468	0.57771
Jun	..	7.4539	1.5225	89.36	7.9360	1.9470	0.57516
Jul	..	7.4447	1.5135	87.89	7.9714	1.9465	0.57403
Aug	..	7.4450	1.5144	88.70	8.0552	1.9472	0.57364
Sep	..	7.4413	1.4913	91.16	7.9985	1.9467	0.57326
Oct	..	7.4367	1.4793	92.84	7.9970	1.9469	0.57429
Nov	..	7.4452	1.4663	95.32	7.9224	1.9466	0.57376
Dec	..	7.4431	1.4749	93.37	7.9911	1.9465	0.57486
	Polish zloty	Romanian leu	Slovenian tolar	Slovakian koruna	Turkish lira	Australian dollar	Canadian dollar
	14	15	16	17	18	19	20
1999	4.2274	..	194.4737	..	..	1.6523	1.5840
2000	4.0082	..	206.6127	..	..	1.5889	1.3706
2001	3.6721	26004	217.9797	43.300	1102425	1.7319	1.3864
<b>2001</b>							
Jan	3.8591	24591	214.4049	43.701	630116	1.6891	1.4098
Feb	3.7671	24703	215.5474	43.710	719242	1.7236	1.4027
Mar	3.6945	24825	216.0526	43.707	884732	1.8072	1.4167
Apr	3.5904	24870	216.3876	43.457	1088386	1.7847	1.3903
May	3.4842	24918	217.3480	43.156	996257	1.6813	1.3473
Jun	3.3876	24705	217.9232	42.778	1038115	1.6469	1.3016
Jul	3.6171	25273	218.8028	42.625	1142682	1.6890	1.3153
Aug	3.8243	26846	219.5067	43.119	1265762	1.7169	1.3857
Sep	3.8468	27556	219.8310	43.545	1351150	1.8036	1.4260
Oct	3.7465	27889	220.2144	43.594	1459174	1.7955	1.4224
Nov	3.6348	27797	220.1049	43.134	1350364	1.7172	1.4153
Dec	3.5881	28150	219.4587	43.090	1297972	1.7348	1.4075

Sources: European Central Bank and Bank of Finland.

	Czech koruna	Estonian kroon	Hungarian forint	Lithuanian litas	Latvian lats	Malta lira
	8	9	10	11	12	13
1999	36.8862	15.6466	252.7672	..	..	..
2000	35.599	15.6466	260.04	..	..	..
2001	34.068	15.6466	256.59	3.5823	0.5601	0.4030
<b>2001</b>						
Jan	35.128	15.6466	265.00	3.7540	0.5791	0.4098
Feb	34.640	15.6466	265.69	3.6871	0.5709	0.4078
Mar	34.590	15.6466	266.47	3.6383	0.5678	0.4057
Apr	34.555	15.6466	266.99	3.5676	0.5615	0.4027
May	34.375	15.6466	258.29	3.4970	0.5515	0.3992
Jun	33.954	15.6466	247.25	3.4125	0.5415	0.3961
Jul	33.868	15.6466	248.94	3.4429	0.5462	0.3969
Aug	34.050	15.6466	251.02	3.6017	0.5625	0.4043
Sep	34.157	15.6466	255.94	3.6436	0.5646	0.4050
Oct	33.549	15.6466	255.23	3.6223	0.5616	0.4046
Nov	33.291	15.6466	251.36	3.5520	0.5549	0.4017
Dec	32.532	15.6466	247.31	3.5687	0.5592	0.4025

	Hong Kong dollar	New Zealand dollar	Singapore dollar	South Korean won	South African rand	IMF SDRs
	21	22	23	24	25	26
1999	..	2.0145	..	1267.24	..	0.779666
2000	..	2.0288	..	1043.41	..	0.699799
2001	6.9855	2.1300	1.6039	1154.83	7.6873	0.703237
<b>2001</b>						
Jan	7.3182	2.1103	1.6302	1194.92	7.2985	0.720594
Feb	7.1889	2.1184	1.6067	1153.81	7.2018	0.712515
Mar	7.0939	2.1753	1.6114	1173.40	7.1709	0.710521
Apr	6.9568	2.1975	1.6165	1183.45	7.2107	0.703513
May	6.8182	2.0723	1.5855	1133.74	6.9660	0.692713
Jun	6.6542	2.0589	1.5497	1104.12	6.8718	0.682374
Jul	6.7130	2.1074	1.5691	1120.28	7.0580	0.687799
Aug	7.0236	2.0895	1.5855	1153.99	7.4823	0.706221
Sep	7.1063	2.1781	1.5929	1178.27	7.8878	0.708465
Oct	7.0655	2.1863	1.6397	1178.62	8.4130	0.708330
Nov	6.9284	2.1322	1.6254	1137.48	8.6467	0.700396
Dec	6.9595	2.1456	1.6389	1146.99	10.3783	0.705937

**Table 16b.**  
Other markka exchange rates, avg

	Swiss franc	Danish krone	Norwegian krone	Greek drachma	Australian dollar	New Zealand dollar	Canadian dollar	Cyprus pound
	1	2	3	4	5	6	7	8
1990	2.7576	0.6181	0.6110	..	2.9881	..	3.2773	..
1991	2.8208	0.6322	0.6236	..	3.1520	..	3.5335	..
1992	3.2000	0.7444	0.7222	0.0235	3.2891	..	3.7057	..
1993	3.8706	0.8822	0.8059	0.0250	3.8854	..	4.4340	..
1994	3.8179	0.8207	0.7393	0.0215	3.8142	..	3.8235	..
1995	3.6941	0.7790	0.6889	0.0189	3.2379	2.8742	3.1809	..
1996	3.7211	0.7921	0.7111	0.0191	3.5930	3.1659	3.3666	..
1997	3.5785	0.7859	0.7339	0.0190	3.8590	3.4366	3.7528	..
1998	3.6880	0.7977	0.7078	0.0181	3.3629	2.8659	3.6075	..
1999	3.7154	0.7996	0.7155	0.0183	3.5985	2.9515	3.7536	10.2718
2000	3.8165	0.7977	0.7329	0.0177	3.7420	2.9307	4.3380	10.3599
2001	3.9363	0.7979	0.7387	..	3.4331	2.7914	4.2886	10.3244

Source: Bank of Finland.

	Czech koruna	Estonian kroon	Hungarian forint	Polish zloty	Slovenian tolar	Icelandic krona	South Korean won	IMF SDRs
	9	10	11	12	13	14	15	16
1990	..	..	..	..	..	0.0656	..	5.18322
1991	..	..	..	..	..	0.0684	..	5.52733
1992	..	..	..	..	..	0.0778	..	6.31546
1993	..	0.4323	..	..	..	0.0846	..	7.98671
1994	..	0.4021	..	..	..	0.0745	..	7.46629
1995	..	0.3809	..	..	..	0.0674	..	6.61879
1996	..	0.3816	..	..	..	0.0689	..	6.66357
1997	..	0.3742	..	1.5845	..	0.0732	..	7.14420
1998	..	0.3798	..	1.5307	..	0.0751	0.00385	7.24306
1999	0.1612	0.3800	0.0235	1.4065	0.0306	0.0770	0.00469	7.62600
2000	0.1670	0.3800	0.0229	1.4834	0.0288	0.0819	0.00570	8.49634
2001	0.1745	0.3800	0.0232	1.6192	0.0273	0.0680	0.00515	8.45480

**Table 17.**  
Notes and coin in circulation, year-end, FIM m

	1997	1998	1999	2000	2001
<b>Notes</b>					
1000 markka	5,579.9	5,635.7	6,544.9	6,363.4	4,094.5
500 "	2,596.9	2,541.8	2,937.8	2,761.0	2,020.9
100 "	6,430.2	6,256.2	7,194.3	7,321.9	6,931.1
50 "	615.7	608.9	626.3	611.1	544.2
20 "	423.1	428.2	449.0	463.0	431.0
10 "	42.9	41.2	40.4	39.6	38.2
Redeemed <sup>1</sup>			-132.3	-48.6	-160.0
Total	15,688.7	15,512.0	17,660.4	17,511.4	13,899.9
Ceased to be legal tender on 1 Jan 1994 <sup>2</sup>	234.1	228.0	223.2	220.5	217.2
<b>Coins</b>					
Ordinary coins					
10 markka	415.3	439.5	475.5	508.8	439.0
5 "	440.1	367.9	377.5	384.4	326.5
1 "	428.7	322.8	343.9	359.6	293.6
50 penni	97.1	100.5	107.0	110.7	86.7
10 "	112.7	119.1	127.4	133.1	111.0
Total	1,493.9	1,349.8	1,431.3	1,496.6	1,256.8
Commemorative coins					
2000 markka	13.8	13.8	13.8	13.8	13.8
1000 "	55.0	55.0	63.0	62.9	62.9
100 "	110.2	117.0	119.7	124.6	129.0
50 "	69.7	-	-	-	-
25 "	22.0	2.5	2.5	2.5	5.0
10 "	38.0	0.0	0.0	0.0	0.0
1 "	-	-	-	-	0.6
Total	308.7	188.3	199.0	203.8	211.3
Total coins	1,802.6	1,538.1	1,630.3	1,700.4	1,468.1
Ceased to be legal tender on 1 Jan 1994 and 1 Jan 1998 <sup>2</sup>	91.5	411.1	405.0	400.3	391.3

Source: Bank of Finland.

<sup>1</sup> Markka value of the banknotes that have been credited by the Bank of Finland and remain in the possession of other euro area central banks. The euro area central banks have agreed that the redeeming central bank will be credited by the issuing central bank for the notes redeemed upon notification of the total amount of notes redeemed, without a breakdown by denomination. The breakdown by denomination is forwarded to the issuing central bank only when the notes are delivered.

<sup>2</sup> Excl. banknotes (FIM 9.4 m) and coins (FIM 15.7 m) issued prior to the monetary reform of 1 Jan 1963.

**Table 18.**  
Deliveries of notes and coin, FIM m

	1997	1998	1999	2000	2001
<b>Notes delivered by Setec</b>					
1000 markka	–	–	–	–	–
500 "	–	–	–	–	–
100 "	1,625.0	65.0	–	–	–
50 "	–	–	510.0	–	–
20 "	736.0	1,191.0	69.0	–	–
Total	2,361.0	1,256.0	579.0	–	–
in millions of notes	53.1	60.2	13.7	–	–
<b>Notes destroyed, in millions of notes</b>	79.9	30.2	35.4	31.4	49.2
<b>Coins delivered by the Mint</b>					
<b>Ordinary coins</b>					
10 markka	33.0	8.0	41.0	30.0	18.0
5 "	29.0	4.0	2.5	2.5	1.0
1 "	24.1	34.0	6.0	15.0	9.9
50 penni	4.0	6.0	2.5	5.0	7.5
10 "	7.0	9.5	4.0	7.5	5.1
<b>Commemorative coins</b>					
2000 markka	–	–	–	–	–
1000 "	20.0	–	8.0	–	–
100 "	5.2	8.1	3.3	5.4	4.5
25 "	2.5	–	–	–	2.5
10 "	–	–	0.0	–	–
1 "	–	–	–	–	0.6
Total	124.8	69.6	67.3	65.4	49.1
<b>Coins destroyed, millions</b>					
Ordinary coins	22.8	16.7	12.2	10.6	63.9
Commemorative coins	0.0	0.0	0.0	0.0	0.0

Source: Bank of Finland.

**Table 19.**  
Notes sorted at the Bank of Finland, millions

	1997	1998	1999	2000	2001
1000 markka	4.7	3.8	3.8	5.1	7.3
500 "	9.5	8.2	10.6	10.5	14.9
100 "	488.8	401.2	545.6	531.6	548.4
50 "	54.8	59.5	50.7	52.7	51.3
20 "	58.7	59.3	57.5	59.1	80.7
10 "	–	–	–	–	–
Total	616.5	532.0	668.2	659.0	702.6

Source: Bank of Finland.

**Table 20.**  
Bank of Finland interbank funds transfer system (BoF-RTGS)

	Account holders, number	Domestic payments, number in thousands	Value, EUR bn	Outgoing TARGET payments, number in thousands	Transactions						
					Value, EUR bn	Incoming TARGET payments, number in thousands	Value, EUR bn	TARGET payments, total number in thousands	TARGET payments, total value, EUR bn	Transactions, total number in thousands	Transactions, total value, EUR bn
	1	2	3	4	5	6	7	8	9	10	11
1997	19	100.9	1,515.9							100.9	1,515.9
1998	18	181.3	1,935.5							181.3	1,935.5
1999	14	223.4	1,308.7	87.3	1,502.9	105.8	1,504.0	193.0	3,006.9	416.4	4,315.6
2000	14	215.6	1,552.4	93.2	1,561.5	105.3	1,559.6	198.4	3,121.2	414.1	4,673.6
2001	15	186.6	1,289.2	104.4	1,270.3	109.1	1,269.6	213.5	2,540.0	400.1	3,829.2
2001											
Jan	14	17.7	128.0	8.5	134.9	8.7	133.2	17.3	268.1	35.0	396.1
Feb	14	15.5	101.4	7.6	102.2	8.1	100.5	15.7	202.7	31.2	304.1
Mar	14	17.6	125.2	9.2	125.5	9.2	128.1	18.4	253.7	36.0	378.9
Apr	14	15.1	103.7	8.7	104.3	8.2	104.2	16.8	208.5	32.0	312.2
May	14	16.9	129.1	9.0	110.0	8.9	109.8	17.8	219.7	34.7	348.8
Jun	14	15.5	107.6	8.9	107.6	9.0	106.0	17.9	213.5	33.4	321.1
Jul	14	15.5	99.5	8.0	88.8	8.6	89.5	16.5	178.3	32.0	277.8
Aug	14	15.6	81.5	8.8	90.1	8.8	89.6	17.6	179.8	33.2	261.2
Sep	15	15.2	110.5	8.3	101.0	8.5	102.2	16.8	203.2	32.0	313.7
Oct	15	16.5	100.9	9.8	100.4	10.7	98.5	20.5	199.0	36.9	299.9
Nov	15	14.6	108.4	9.6	112.9	11.1	114.8	20.7	227.6	35.3	336.0
Dec	15	10.9	93.5	8.1	92.6	9.4	93.4	17.5	186.0	28.5	279.4

Source: Bank of Finland.

**Table 21.**  
Banks' intraday credit limits

End of period	Total limits, EUR m	Maximum usage rate of limits <sup>1</sup> , %	Average usage rate of limits <sup>2</sup> , %	End-of-day balances <sup>3</sup> , EUR m
	1	2	3	4
1997	2,793	89	10	944
1998	3,227	44	6	951
1999	6,500	52	4	1,588
2000	4,700	39	0	1,614
2001	3,385	40	0	1,811
<b>2001</b>				
Jan	3,577	22	0	1,631
Feb	3,611	10	0	1,713
Mar	4,021	13	0	1,775
Apr	3,978	15	0	1,653
May	4,041	40	0	1,802
Jun	3,959	20	1	1,783
Jul	4,602	17	0	1,856
Aug	3,880	21	0	1,885
Sep	5,020	35	1	1,831
Oct	4,605	30	1	1,766
Nov	4,445	31	0	1,959
Dec	3,435	17	0	2,083

Source: Bank of Finland.

<sup>1</sup> 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).

<sup>2</sup> 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.

<sup>3</sup> Average value for period.

**Table 22.**  
Domestic clearing operations

	Debit entries		Credit entries		Total entries	
	Number, millions	Value, EUR bn	Number, millions	Value, EUR bn	Number, millions	Value, EUR bn
	1	2	3	4	5	6
1997	131.2	123.7	146.2	243.6	277.4	367.2
1998	158.2	47.4	163.6	154.8	321.8	202.2
1999	164.9	8.1	167.8	124.5	332.0	132.6
2000	181.3	8.8	174.2	138.5	355.1	147.3
2001	210.6	9.6	188.9	159.9	399.4	169.5
<b>2001</b>						
Jan	15.9	0.5	16.0	12.4	31.9	12.9
Feb	15.4	0.7	16.1	12.6	31.4	13.3
Mar	15.9	0.7	16.1	13.1	32.0	13.8
Apr	16.6	0.9	15.1	12.8	31.7	13.7
May	17.8	0.8	16.4	14.3	34.2	15.1
Jun	17.5	0.8	15.7	13.9	33.1	14.7
Jul	20.0	0.9	15.1	13.1	35.2	14.0
Aug	18.1	0.8	14.9	12.5	33.1	13.3
Sep	15.9	0.7	14.9	13.0	30.8	13.7
Oct	19.5	1.0	16.8	13.9	36.3	14.9
Nov	18.2	1.0	16.1	14.1	34.3	15.1
Dec	19.8	0.9	15.5	14.2	35.3	15.1

Source: Bank of Finland.

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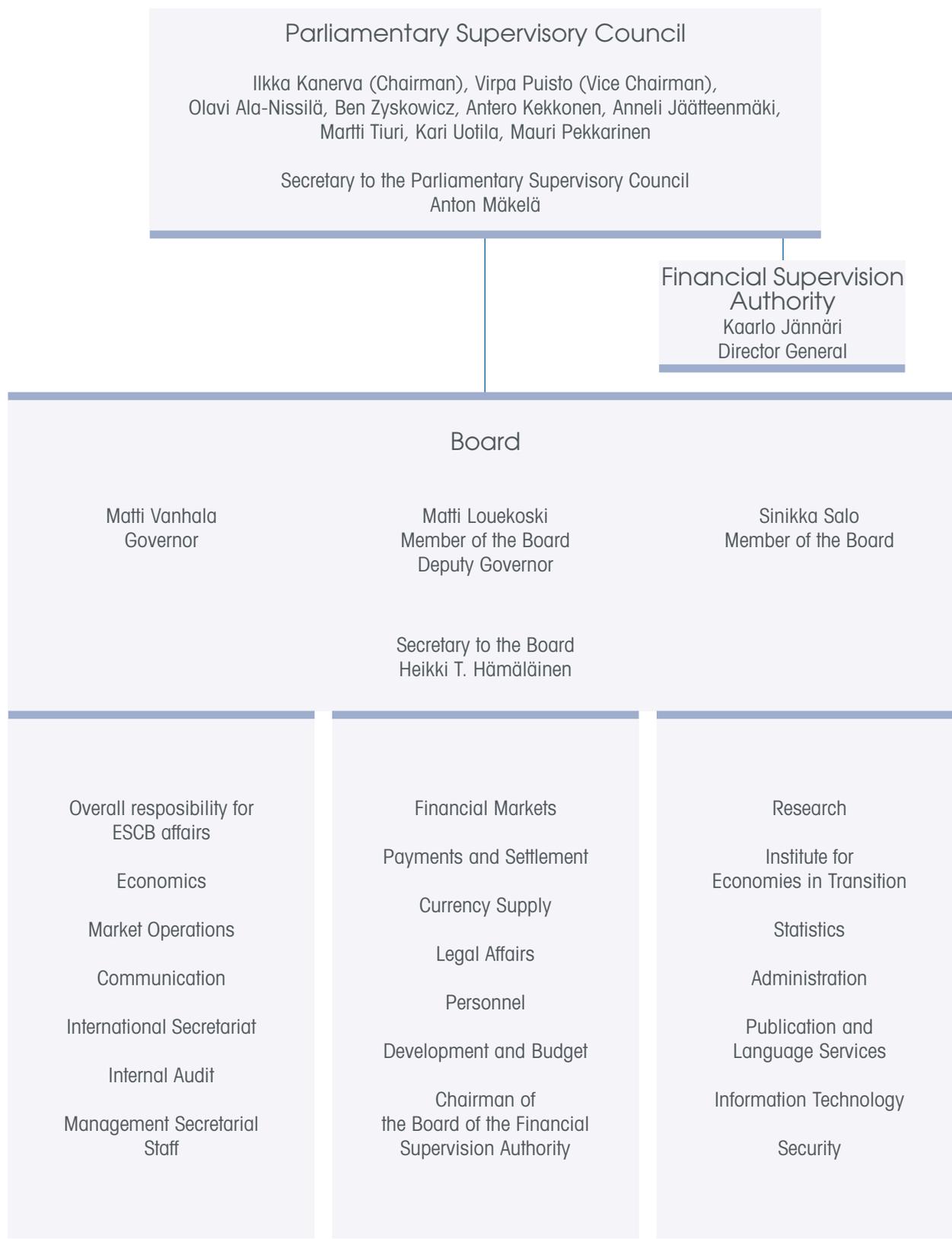
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