



# BULLETIN

BANK OF FINLAND

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Inflation, monetary policy and  
economic performance

Toward electronic money

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## BANK OF FINLAND BULLETIN

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# **Inflation, monetary policy and economic performance**

**E**conomic growth is forecast to accelerate in 1997 compared to the previous year. Growth will be supported particularly by consumers', but also companies', positive outlook for the future. The pickup in domestic demand and increase in asset prices have not been reflected in higher inflation or inflation expectations. It is estimated that cost and price developments will remain subdued and that inflation in 1997 will stay clearly within range of the approximate 2 per cent target defined in February 1993.

The Finnish markka has been one of the strongest currencies in the exchange rate mechanism (ERM) of the European Monetary System. For a short period in mid-January, the markka encountered strong upward pressure. Growing speculation concerning participants and timing of economic and monetary union (EMU) caused some tension within the ERM.

Finnish interest rates are now low by historical standards. Key central bank rates are at the same level as those in the major ERM countries and short-term market rates are among the lowest in Europe. The differential against German long-term market rates is now quite small. Interest rates on banks' markka lending and deposits are also at record lows. Despite the low lending rates, the demand for loans has not picked up as much as expected.

Finland already last year met the convergence criteria for Stage Three of EMU, ie those concerning public sector debt and deficit, inflation and long-term interest rates. With further consolidation of public finances and continued monetary stability, the convergence criteria will be fulfilled again in 1997.

As regards public finances, the convergence criteria figures disguise the fact that the central government deficit is still unsustainably large. In times of vigorous economic growth, fiscal policy and labour markets assume a greater role in ensuring balanced economic performance.

## **Finnish markka subject to upward pressure in January**

After the ERM linkup in October, the value of the Finnish markka remained nearly unchanged for an extended time against the Deutschemark. Against

the US dollar, the markka weakened to some extent, along with a number of other currencies.

The calm and balanced conditions that had prevailed in the foreign exchange market were temporarily interrupted in the third week of January when foreign investors purchased markkaa in large amounts during the week. The Norwegian krone had recently faced similar upward pressure.

In order to prevent excessive fluctuations in the value of the markka, the Bank of Finland purchased foreign currency worth about FIM 35 billion during the week of heavy speculation. The resulting increase in foreign reserve assets was largely considered a positive development because the servicing costs of the central government's foreign currency debt will be exceptionally high in 1997. During the week of heavy speculation, the market also expected a cut in the tender rate as a means of curbing the upward pressure on the markka. These expectations were reflected in a distinct decline in short-term spot and forward rates. However, short-term rates returned to their December level when the Bank of Finland signalled the markets that a cut in the tender rate would be out of the question.

At the start of the fourth week of January, the Bank of Finland again gave a freer rein to market forces to set the external value of the markka. The markka then appreciated quickly by about 2 per cent against the Deutschemark. However, as investors began to repatriate profits, the markka fell within a few days back to its pre-appreciation level.

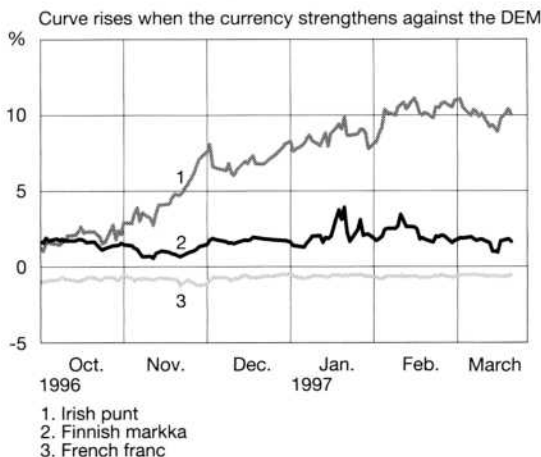
## **Tensions in the ERM increased somewhat**

The Irish punt has long been clearly the strongest currency in the ERM in terms of its DEM central rate. The strength of the punt has been based on Ireland's good economic performance as well as the appreciation of the pound sterling and US dollar. The punt has used as much as some 12 per cent, or almost three-fourths, of the fluctuation margin allowed by the ERM.

The weakening of the Deutschemark against the dollar has led to a narrowing of deviations between other ERM currencies. With the exception of the punt, deviations of currencies from the weakest currency have narrowed. Generally, the weakest

**Chart 1.**

**Deviation of selected ERM currencies from their DEM central rates**



ERM currency has been the French franc, but during March the Italian lira has occasionally assumed that position. Excluding the punt, the deviation between weakest and strongest currencies has recently ranged from 3 to 4 per cent (Chart 1).

Speculation concerning the timing and participating countries in Stage Three of EMU have been to some extent reflected in exchange rate and long-term interest rate developments in the ERM. The speculation has not affected Finland to any notable extent owing to the country's favourable economic prospects and resolute economic policy. Consequently, the Finnish markka has been one of the strongest ERM currencies vis-à-vis its central rates. At its peak reached during the week of heavy speculation in January, the Finnish markka deviated from its DEM central rate by about 5 per cent. Recently, the markka has moved toward its DEM central rate. Against the weakest ERM currency, the markka has deviated from its central rate by 2-4 per cent.

The Finnish markka has been depreciating against the dollar throughout the early months of 1997. On 25 March 1997, a dollar was worth FIM 5.04, as compared to about 4.65 at end-1996. Measured by the trade-weighted currency index, the markka has been on average slightly weaker than in 1996.

**Stance of interest rate policy nearly unchanged in EU countries**

The sluggishness of the German economy has to some extent fomented market expectations of a

lowering of interest rates. On the other hand, the weakening of the Deutschmark and rapid money supply growth compared to target have not argued for lower interest rates. Moreover, some early signs of a pickup in growth have been recently detected in the German economy.

The Bundesbank has set new monetary targets exceptionally for two years, because short-term fluctuations in the money supply have been considerable in the last few years and because the planned starting date for Stage Three of EMU is approaching. The aim is to keep annual growth of M3 at 5 per cent on average in 1997 and 1998. A fluctuation range of 3 percentage points around the target has been set for 1997.

Banque de France lowered its intervention rate slightly in December-January. Both the German and French authorities have issued statements supporting a strengthening of the dollar, which is viewed as a potential locomotive for the sluggish European economies. The strengthening of the dollar has alleviated downward pressure on the French franc and, at the same time, pressures to ease German monetary policy have abated. At a meeting of the G-7 countries in February it was noted that the dollar's exchange rate had returned to the target level set a couple years ago.

The Netherlands central bank raised its special advance rate at the end of February and again in March, by a total of 0.40 percentage point to 2.90 per cent. Dutch short-term market rates had risen already earlier in anticipation of the rate hike. One reason for the tightening of monetary policy was the acceleration of economic growth, which may also indicate a pickup in growth in the major ERM countries. Of the key central bank rates of the ERM countries, the Dutch rate is nonetheless the only one that is lower than the German repo rate (3 per cent). In 1996 the Netherlands central bank lowered its key interest rates more rapidly than the Bundesbank, mainly to curb upward pressure on the Dutch guilder. Dutch and Finnish short-term market rates are still below corresponding German rates.

Of the currencies outside the ERM, the Swedish krona also became subject to some upward pressure vis-à-vis the Deutschmark. This year the Swedish central bank has discontinued its monetary policy easing, even though the country continued to experience deflation in January and February. One reason for the restraint in Swedish interest rate policy has been the weakening of the krona against the dollar.

In the United Kingdom favourable economic developments have led to expectations of rising interest rates. At the moment, the pound sterling is stronger than in September 1992, when it was forced out of the ERM. Owing to the approaching elections and fairly moderate inflation, a possible interest rate hike is expected to be delayed until after the elections.

In the United States inflation has remained low despite rapid economic growth and low unemployment. Expectations of a rise in interest rates have nonetheless persisted, and they were realized at the end of March when the Federal Reserve raised its key federal funds rate by 0.25 percentage point to 5.50 per cent.

The recovery of the Japanese economy has been slow. The low level of interest rates is an impediment to further monetary easing; the Bank of Japan's discount rate has been 0.50 per cent for a long period. The markets have been expecting the Bank of Japan and possibly other central banks to intervene in support of the yen, but no such action has yet been taken.

### **Finnish long-term rates have followed German rates**

From the viewpoint of the EMU process, the slow recovery of the German economy has been problematic, especially as regards the public finance convergence criteria. Uncertainty about the EMU timetable and first-wave countries has increased, and this has increased market anxiety to some extent. In addition, speculation about the interpretation of convergence criteria has caused some confusion.

Long-term interest rates have been especially sensitive in Italy, Spain and Portugal. For example, speculation regarding the possibility that Italy might not be among the first countries to participate in monetary union widened the differential between Italian and German long-term rates. At the same time, the interest rate differentials for Spanish and Portuguese long-term rates against corresponding German rates widened as the markets construed Italy's membership as an extra EMU criterion for Spain and Portugal.

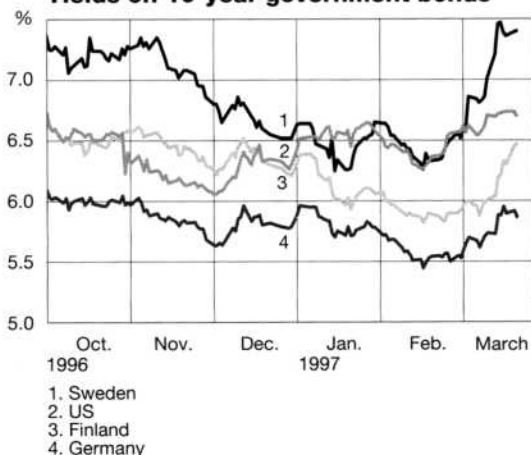
Of the non-ERM countries, Sweden's markets have also often reflected the uncertainty related to implementation of monetary union. At the end of February Swedish long-term rates rose as the Prime Minister's statements caused market concern over a possible relaxation of Sweden's budget discipline. In mid-March long-term interest rates again rose by about 0.5 percentage point to 7.5 per cent, as foreign investors sold krona-denominated bonds.

In the United States long-term interest rates have gyrated this year. Whereas warnings from the chairman of the Federal Reserve about excessive increases in asset prices have temporarily pushed up long-term rates, bouts of upward pressure on the dollar have pushed them down again.

In Finland long-term rates have followed movements in corresponding German rates (Chart 2). The yield on the government bond maturing in 2006 fell substantially below 6 per cent in February but rose again to well over 6 per cent in March, owing mainly to doubts about EMU progress. Upward pressure on the markka in January nar-

**Chart 2.**

### **Yields on 10-year government bonds**



rowed the interest rate differential against German rates slightly; the differential has fluctuated this year in the range of 0.2–0.6 percentage point. The Finnish markets have also displayed a degree of unease in connection with the run-up to monetary union.

In mid-December the rating agency Standard & Poor's raised the rating of the Finnish government's foreign currency loans by one grade, to AA. And in January Moody's rating agency followed suit, raising Finland's rating to its second highest level, AA1, on a par for instance with Belgium, Norway and Denmark.

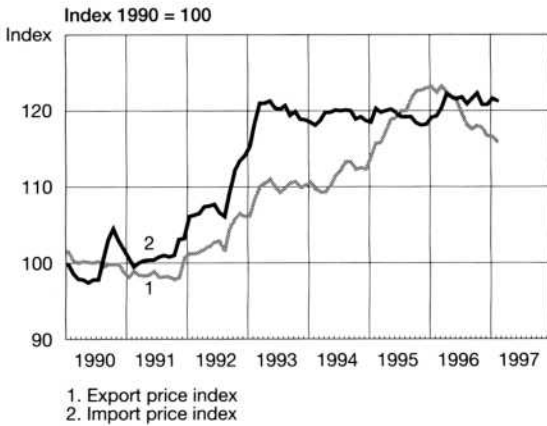
Low market rates have kept lending rates at a historically low level. In the last few months the average interest rate on new markka lending has been about 4.6 per cent and on outstanding markka lending about 5.8 per cent. The demand for housing loans picked up in the autumn but declined toward yearend. At the moment, the average interest rate on deposits is also at a record low, about 1.7 per cent. The last 36-month tax-exempt fixed-term deposits matured at the end of 1996, and the last 24-month deposits will mature by the end of 1997.

### **Subdued price trend continues**

Developments in world commodity prices continued their dichotomous behaviour in the early months of 1997. In February the dollar-denominated prices of energy raw materials were 16 per cent higher than a year ago, but the prices of other raw materials had decreased by 8 per cent. Inter-

**Chart 3.**

**Finland's foreign trade prices in markkaa**



**Chart 4.**

**Consumer prices**



national producer prices have continued on a fairly stable course. In the United States inflation expectations have however increased slightly while, on the other hand, the recent strengthening of the dollar is curbing external inflationary pressures. Developments in consumer prices have remained calm in almost all industrial countries.

Import prices in Finland were almost 2 per cent higher in February compared to their year-earlier level. Export prices of pulp and paper industry products were about 12 per cent lower than a year ago. Export prices as a whole were more than 5 per cent lower in February than a year earlier (Chart 3). In Finland producer prices in manufacturing have remained almost unchanged since October. In February producer prices were about 2 per cent lower than a year earlier. This was mostly due to a decrease in prices of export goods, whereas prices of goods sold in the domestic market have risen by almost 1 per cent during the last six months. Wage drift remained moderate in the fourth quarter of 1996. Wage and salary earnings were on average 3.3 per cent higher than a year ago, with wage drift accounting for 0.8 percentage point of the increase.

The trend in consumer prices has continued very moderate during the last few months (Chart 4). The consumer price index rose by 0.1 per cent from January to February. This deviated clearly from prevailing market expectations. In February the rise in prices was muted by a decrease in prices of transportation fuels and a decline in interest rates. In February the twelve-month change in consumer prices was 0.4 per cent. The principal factors boosting the annual inflation rate were price increases in housing and transportation fuels. The indicator of underlying inflation decreased by 0.4 per cent from December to January; the twelve-month change amounted to 0.2 per cent.

New harmonized consumer price indices have been developed for all EU countries for the purpose of monitoring the inflation convergence criterion. Harmonized consumer price indices are formed by removing from national consumer price indices those subgroups of private consumption whose treatment differs considerably from one member state to another. Imputed prices, such as imputed capital costs of housing, are eliminated from the indices, as are fees for public services (eg school fees) and certain other items such as membership fees and church taxes. Consequently, the new indices measure mainly market-based price formation. The new harmonized consumer price index for Finland covers 83 per cent of the items included in the national consumer price index. The new indices will not replace national indices. In Finland the twelve-month change in the new harmonized consumer price index was 0.7 per cent in January, which was the lowest in the EU. In January eight EU states recorded inflation rates below 2 per cent.

Asset prices continued to increase in late 1996 and early 1997. In the last quarter of 1996 housing

prices throughout the country were 13 per cent higher than a year earlier. There has recently been notable upward pressure on housing prices in Greater Helsinki and some of the other rapidly growing areas. In February prices of existing two-room flats in Greater Helsinki were almost a third higher than a year earlier. Nominal housing prices throughout the country are currently at the same level as at the beginning of 1988. Real housing prices are close to their mid-1980s level.

Households' inflation expectations have remained moderate. This is suggested for instance by the February survey of consumer confidence carried out by Statistics Finland. According to the survey, prices are expected to rise by 1.5 per cent during the next twelve months. Thus far nothing has indicated that the rise in asset prices has strengthened expectations of a general acceleration of inflation. Conditions for continued subdued inflation are therefore still favourable. Price stability will be supported by modest wage drift and by currently valid agreements that will keep wage hikes fairly moderate until end-January 1998. Subsequent inflation will depend heavily on pay settlements to be concluded toward the end of 1997 and on whether the present stance of fiscal policy continues.

### **Robust growth in production**

Consumer confidence again reached a record high in February. Consumers were satisfied especially with the overall development of the Finnish economy, but confidence in personal finances had also improved accordingly since last summer. Finnish consumers have long been the most optimistic in the EU countries. Every second Finn estimated that the Finnish economy had improved in 1996 and equally many believed that it would continue to improve. Only one in a ten foresaw a worsening in the economy.

Although households' aggregate wages increased in 1996 by 4.5 per cent in real terms, households' real disposable income grew by only 1.7 per cent. The small increase resulted from a considerable rise in households' direct taxes, mainly as a result of a low comparison basis due to the payment of two tax refunds in 1995. Private consumption increased by 3.4 per cent in real terms. The savings ratio declined by about two percentage points, reflecting abating income uncertainty and a fall in the level of interest rates. According to preliminary data for 1996, the consumption of durable goods grew most rapidly of all consumption items. The consumption of semi-durable goods and services grew only slightly while nondurables consumption declined to some extent.

According to preliminary data for 1996, manufacturing production increased by 3.4 per cent last year, which indicates clearly slower growth than in 1993-1995. This is due to a poor performance in the first half of 1996, when the growth rate slowed to less than two per cent, mainly as a result of a fall

in paper industry output. When the stoppage-related downtrend in production came to a halt toward the end of 1996, overall manufacturing production started to accelerate. In the last quarter of 1996 manufacturing output already increased by nearly 7 per cent compared to the year-earlier level. In the early months of 1997, annual growth figures still remained high as a result of the temporary slowdown that had occurred in early 1996. Consequently, workday-adjusted manufacturing output grew by 7.6 per cent in January 1997 compared with January 1996.

On the basis of annual national accounts data, real GDP growth in 1996 amounted to 3.3 per cent. GDP growth in the third quarter of 1996 was 4.1 per cent on the year-earlier period. Comparable figures for the first half and fourth quarter of last year were 1.6 per cent and 5.8 per cent respectively. The twelve-month growth rate for total output based on monthly data increased to 6.2 per cent in December from 4 per cent in November. Construction activity recorded particularly rapid growth.

The Ministry of Labour's seasonally adjusted unemployment rate decreased to 17.6 per cent in January and again to 17.1 per cent in February, following an exceptionally large increase in December. With the increasing size of the workforce, the rate of unemployment continues to decrease slowly, although the number of employed persons is on the increase.

In March, Statistics Finland revised its workforce survey to correspond better to international concepts and definitions. Calculated by the new method, the seasonally adjusted rate of unemployment was 15.4 per cent in January, and the corresponding figure for December was 15.1 per cent.

### **Current account surplus narrowed slightly**

The current account surplus for 1996 totalled FIM 20 billion, which reflected a decrease of FIM 3.3 billion compared to 1995. The surplus on the balance of trade amounted to almost FIM 45 billion in 1996. The services account posted a small surplus, and net interest expense on the external debt reduced the current account surplus by nearly FIM 19 billion.

The volume of exports grew by 4.6 per cent in 1996. The growth was dichotomous: exports of forest industry products decreased while other exports increased. Although the number of vessel deliveries was exceptionally high in 1996, they accounted for only two per cent of the growth of non-forest industry exports.

Driven by domestic demand, goods imports increased clearly faster than expected toward the end of 1996. The volume of imports in 1996 was 8.4 per cent higher than in 1995. The rapid growth was largely attributable to an increase in the volume of imports of consumer and investment goods. Imports were also boosted by an increase in oil de-

liveries. By contrast, imports of other raw materials and production equipment declined.

The surplus on the current account is estimated to decrease in 1997 to some extent, mainly because of growth in domestic demand. On the other hand, interest payments on the external debt will decrease as the external debt declines. All in all, there should be a slight decrease in the current account surplus. The financial surplus of households and companies will diminish further and the narrowing of the public sector deficit will continue as tax revenue increases.

**Problems remain with central government finances despite fulfilment of the convergence criteria**

Based on the Maastricht Treaty criteria for public finances, Finland's general government deficit for 1996 amounted to nearly FIM 15 billion, and the deficit/GDP ratio was 2.6 per cent. The corresponding debt remained at nearly 59 per cent of GDP, in line with preliminary estimates. Investments of Finnish pension insurance institutions in government bonds amounted to FIM 81 billion. Without these investments, the debt/GDP ratio would have been about 72 per cent. The general government fiscal position will continue to improve in 1997.

In 1996 the central government deficit amounted to about FIM 40 billion, or 7.0 per cent of GDP. Despite the fact that Finland is meeting the convergence criteria, the large central government deficit continues to be a serious problem. In order to bring the deficit down to a sustainable level, the government decided in February on an expenditure framework for the 1998–2000 budgets: total expenditures are to be maintained at the present level, FIM 190–192 billion, in the draft budgets for those years. The aim is to reduce the growth rate for central government debt in 1998 to less than the growth rate of the economy, which would bring about a balanced budget for the central government around 2003.

25 March 1997

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- Keywords: inflation, monetary policy, economic performance



# Toward electronic money

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**T**he intensive development of microprocessor technology over the past twenty years has enabled profound changes with respect to means of payment. In Finland as in many other countries, electronic means for making cash payments are being developed or are already on stream. As issuers of traditional cash instruments, notes and coin, central banks have closely monitored developments and over the past few years have examined the new trends and their effects. These new technical applications are still in the formative stage, and central banks have not yet articulated comprehensive views on them.

## **What is electronic money?**

While there is no formal (eg legally-based) definition of electronic money, it can be defined as electronically stored purchasing power. Electronic cash can be defined as multipurpose electronic money. Thus electronic money can be compared to bearer instruments in that payments are immediately final, as with traditional cash payments, as soon as the electronic payment units have passed from payer to payee. Conventional notes and coins, being traditionally issued by central banks, are also bearer instruments, the main differences between conventional cash and electronic money are in their appearance, acceptability as legal tender and governing legislation.

To the user, card- and software-based money that can be stored and transferred differs from debit cards and credit cards mainly with regard to the timing of the funds transfer. With a debit card, the funds are transferred immediately; with a credit card, a term of payment or credit is granted to the user. If card- or software-based money is used, the payment has actually been made in advance at the time when the user purchased electronic money for himself.

Electronic money can be broadly divided into card-based and network-based money depending on whether the purchasing power is stored in a card or in a digital wallet in a computer and whether the purchasing power is used via a card reader supplied by a service provider (as is the case for debit and credit cards) or via a computer network such as Internet. However, it is worth noting that we are talking about two different storage and usage

environments for the same type of money. Before long, it will be possible to transfer electronic money stored on a card via a card reader to a digital wallet in a personal computer and use it to make payments over a computer network. The necessary technology already exists.

## **The operating principle of electronic money**

We provide here a simplified description of how an electronic money system works. The user acquires a device for storing electronic money (a card or computer software), paying the issuer in conventional money the amount that he wants to convert to electronic money. The issuer converts the funds received into electronic money and transmits it to the user's card or digital wallet in his computer. The consumer uses his card or computer to pay a service provider, who in turn returns the electronic money to the issuer for conversion into a conventional bank deposit or cash (Chart).

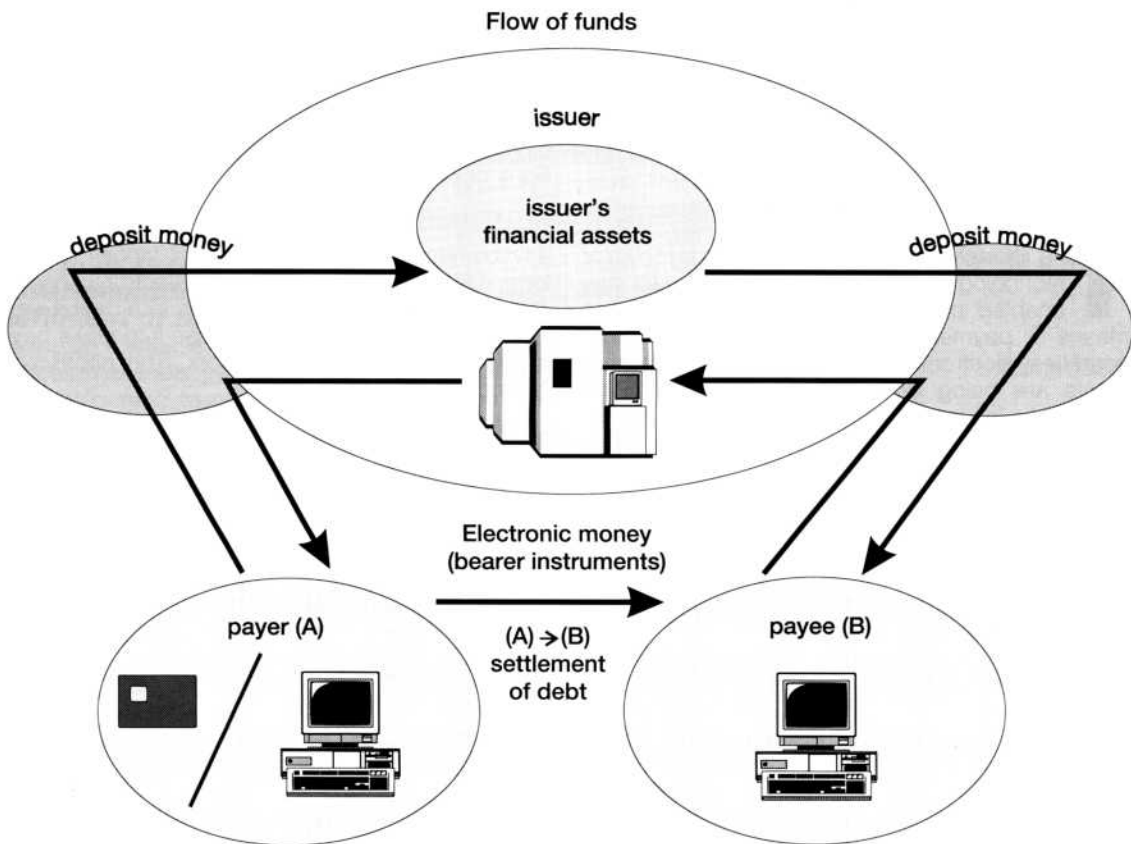
Systems in which electronic money units can be used only once for making a payment are called closed circulation systems. This is generally the type of system used in Finland and abroad. Technically, it is possible to create a so-called open circulation system in which the recipient of payment units can reuse those units for making his own purchases just as the recipient of notes and coins can reuse them to pay for his own purchases. Largely because an open circulation electronic money system involves a security risk, almost all electronic money systems operate according to the closed circulation principle.

## **Electronic money: the Bank of Finland's viewpoint**

Already in the late 1980s, the Bank of Finland began to consider the possibility of issuing money in electronic form. At that time, a pilot system based on prepaid cards had been launched on the campus of the Helsinki University of Technology. At about the same time, the Bank of Finland set up a project to develop the system further at a newly established electronic card unit at the Bank of Finland's Security Printing House (from 1991, Setec Oy). In autumn 1992 a company called Toimiraha Oy was set up as a subsidiary of Setec for the purpose of 'developing a nationwide open electronic money system'.

**Chart.**

**Electronic money system**



When it became evident that the large-scale operation of a prepaid card system would require participation by the banks, the Bank of Finland sold Toimiraha's entire share capital to the company Automatia Rahakortit Oy, which had been established jointly by Merita Bank, the cooperative banks and Postipankki. In this context, the Bank of Finland stressed the importance of the system being implemented in such a way as to ensure an adequate level of competition for the provision of payment services.

The Bank of Finland has approached the issue of electronic money from several angles: from the

viewpoint of the central bank's currency monopoly, its income and its monetary policy as well as the soundness and efficiency of payment systems.

**Currency monopoly**

One of the primary tasks – and a monopoly – of a central bank is to issue legal tender, ie cash. Hence, the first question raised here was whether electronic money should fall within the domain of the currency monopoly. Does the matter concern merely a change in the outward appearance of money? If so, the transformation ought not affect the substance of the matter itself and thus the cen-

tral bank should have the sole right to issue electronic money. It was not however possible to approach the new payment medium in such a straightforward manner. Nor did the Currency Act allow the incorporation of electronic money in the currency monopoly. In fact, the question of electronic money gave rise to numerous questions whose resolution would have required new interpretations and legal definitions of money.

The currency monopoly is associated with the idea of a national currency, i.e. that a country should have a single type of legal tender, which the public can rely on as a means of payment in all conditions. This is ensured by the provision in the law that one is obliged to accept legal tender as payment. It does not appear possible to extend that obligation to cover a means of payment that requires a special electronic reading device in order to take possession. Strict legal protection of legal tender that sets high standards for its identifiability would require a completely new set of solutions for immaterial money.

It is quite possible that some day it will be necessary to reassess the legal tender concept on a worldwide basis and hence also in Finland. But for the time being, conventional cash fulfils the role as the country's legal tender.

### **Revenues**

When a central bank issues banknotes, it incurs a non-interest-bearing liability. The contra-item in the central bank's balance sheet is an interest-bearing asset such as foreign reserve assets or claims on banks. As a rule, the resulting interest rate margin is a major source of income to the central bank, which is used to finance its various activities.

In many countries, it is estimated that electronic money will to a considerable extent replace conventional notes and coins. Since funds transfer systems are otherwise highly developed in Finland, it was estimated that the replacement rate would be fairly modest here. The rapid spread of payments based on the bank giro system in previous decades has already to a significant extent reduced the use of banknotes. In Finland the ratio of notes and coins in circulation to consumption expenditures or to GDP is among the lowest in the world.

### **Monetary policy**

From the viewpoint of monetary policy, electronic money in principle poses a challenge to the Bank of Finland in two respects. First, a weakening of the revenue base could, if substantial, prevent the effective conduct of monetary policy. Taking the measures that are required in order to achieve monetary policy objectives can cause heavy financial losses to a central bank, for which reason the bank needs revenue sources and a strong balance sheet. Secondly, it could be a problem if electronic money would further affect the central bank's ability to regulate liquidity in the economy and in turn

jeopardize its traditional task of safeguarding the value of money.

As with many quarters abroad, the Bank of Finland estimated that the transformation of traditional cash into electronic money issued outside the central bank would not to any notable extent weaken the Bank's ability to fulfil its duties as monetary authority. First, the Bank of Finland even now does not directly regulate the amount of notes and coin in circulation. It affects only indirectly the demand for notes and coin via its interest rate policy. Secondly, liquid funds held by the public in bank accounts far exceed those held in the form of cash.

### **Stability**

Another primary task of a central bank is to ensure the stability of the domestic financial markets, of which payment systems constitute a segment. Fluid financial mediation and payment transfers are crucial in a monetary economy. A serious problem in a widely used electronic money system, even one used for small-value payments, may shake the public's confidence in other payment systems.

The solvency and liquidity of the money issuer are the cornerstone for the stability of an electronic money system, because the issuer incurs a debt that is equal to the amount of money in circulation. Issuers must be able to redeem the full amount of money outstanding at any given time.

In addition, electronic money makes high demands on the technical security of the system. Initially, the Bank of Finland decided to take part in the development of the Avant system so as to ensure its security. Likewise for security purposes, the Bank takes the view that it is necessary to subject widespread electronic money systems to regulation.

### **Efficiency**

Pursuant to the 1925 Act on the Bank of Finland, one task of the Bank is to promote and facilitate the transmission of payments in the country. Apart from preventing disturbances, the Bank is also thus obliged to promote the efficiency of the country's payment systems. Over the long run, an electronic money system can achieve savings for the economy as compared to the considerable handling costs associated with notes and coins.

Since the development of an electronic money system involves heavy costs in the initial stage inter alia in connection with planning and basic investments, it is best for a small country to aim at a single nationwide system that is open to all service providers and users. This was one of the reasons why the Bank of Finland initially got involved in the development of the system.

### **Electronic money systems in Finland**

There are several electronic money systems operating in Finland: the multipurpose stored-value card system Avant I, developed by Toimiraha Oy,

several public transport card systems, of which Matkahuolto's system operates nationwide, and several locally operating municipal card systems. In addition, there is a network money system, EUNET Ecash, operated by EUNET Finland.

It should be noted that the public transport stored-value card system of Matkahuolto has also been used as a basis for some municipal card systems. These systems are locally operating multipurpose card systems.

Besides these systems that are already in operation, Automatia Rahakortit Oy has developed a new multipurpose stored-value card, Avant II, which was launched in March of this year. The system is intended to become a nationwide multipurpose card system and is to include both disposable and reloadable cards. The disposable cards are aimed mainly at tourists and other temporary users. The reloadable cards will be either cash dispenser or debit/credit cards, to which the electronic money function has been added. In the case of a reloadable card, money from a customer's bank account is loaded via an ATM. Automatia's goal is to have three million reloadable Avant II cards in use by 1999 and to sell a million disposable cards a year.

### ***Usage is spreading and becoming more versatile***

Both in Finland and abroad, the future will bring more widespread use of electronic money, an amalgamation of card-based and software-based products and a fusion of single-purpose into multipurpose products. Another development will be the launching of multiple application cards, ie cards used not only for payment transactions but also for authentication, electronic signature, access control etc. The increased use of electronic money will be closely linked to the development of electronic commerce as a whole: disseminating product information, transacting business and delivering goods.

In the future, we are likely to see electronic money systems in operation in many European countries. This is evidenced by the fact that the transnational credit card operators Visa and Mastercard are actively developing their own electronic money systems.

Electronic money systems in general, and particularly network systems, are posing new challenges for both legislators and supervisory authorities, one reason being the ease with which network money can be used in cross-border payments. Moreover, because of the global nature of information networks, it is very difficult to regulate and supervise banks operating via such networks.

Exactly what roles legislators and authorities should play in electronic money systems is still an open question in Finland and elsewhere. Only a few European countries have set up a specific regulatory framework for electronic money. Nonetheless, regulation and the need for it is the subject of extensive study around the world.

The Bank of Finland considers it important that all open electronic money systems intended for widespread use in Finland should be governed by the Credit Institutions Act or subject to equivalent regulation in order to ensure adequate technical and financial soundness. If moreover extensive cooperation in infrastructure development can be combined with free competition in the supply of services, we will acquire a means of payment that will best serve our needs.

24 March 1997

- Key words: electronic money, electronic cash, regulation of electronic money, means of payment, money

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

1996

## FEBRUARY

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

## MARCH

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

## MAY

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

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

## JUNE

**Currency Act amended.** On 10 June, the amendments to the Currency Act enter into force. The amendments enable the joining of the markka to the EU Exchange Rate Mechanism (ERM).

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

## JULY

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

## AUGUST

**Bank of Finland's guidelines for credit institutions.** On 1 August, the Bank of Finland issues its monetary policy-related guidelines for credit institutions as a complete set. The contents remain essentially unchanged.

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

## SEPTEMBER

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

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

## OCTOBER

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

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

# Monetary policy instruments - March 1997

The Bank of Finland's monetary policy objective is to stabilize the inflation rate at about 2 per cent. This corresponds to the price stability objectives of the major ERM countries. Finland joined the Exchange Rate Mechanism (ERM) of the European Monetary System (EMS) on 14 October 1996. In this regard, Finland's monetary policy remains unchanged, although membership underlines the importance of exchange rate stability. The central rate for the markka is FIM 5.85424 per ECU and the corresponding central rate against the Deutschmark is FIM 3.04. The Bank of Finland is responsible for ensuring that the markka remains within the  $\pm 15$  per cent fluctuation margin vis-à-vis the other ERM currencies.

The Bank of Finland's instruments of monetary policy comprise market operations, minimum reserve requirements imposed on the banks and the Bank of Finland's liquidity credit facility.

Through its market operations, the Bank of Finland can on its own initiative have an immediate impact on banks' liquidity, short-term market rates and the exchange rate. Money market operations are usually conducted via tenders. Changes in the tender rate have immediate effects on money market rates and through them on banks' lending and deposit rates. The Bank of Finland can also affect the exchange rate when this is deemed appropriate.

The minimum reserve requirement is used to affect both the demand for central bank financing and banks' lending possibilities. Because required reserves held at the central bank do not bear interest, the system also supports the central bank's profitability. Fulfilment of the reserve requirements on the basis of averaging facilitates banks' management of payment transactions.

The liquidity credit facility consists of liquidity credit granted by the Bank of Finland when needed and deposits of excess reserves at the Bank. The main function of this facility in respect of an individual bank is to safeguard its liquidity in the event of an unexpected change in liquidity conditions. The rates of interest on liquidity credit and excess reserves, which are decided by the central bank, usually form the upper and lower limits for the shortest market rates.

Banks wishing to participate in the Bank of Finland's money market operations and to gain access to the liquidity credit facility are required to have a current account at the Bank of Finland. By means of a current account, a bank is able to effect payment transactions with the Bank of Finland and other current account holders in a safe, efficient manner.

The base rate, which is set by the Bank of Finland and was formerly an important reference rate. It is however gradually being superseded by market rates and has hardly any practical importance in the determination of new lending and borrowing rates.

## Minimum reserve system

By virtue of the Act on the Bank of Finland, a deposit bank or branch of a foreign credit institution which carries on deposit banking activities in Finland must hold non-interest-bearing reserves at the Bank of Finland. The maximum reserve requirement is 5 per cent of the mandatory

reserve holder's debt. The reserve requirement is calculated against the reserve base as at the last day of each calendar month. The reserve requirement based on the reserve base effective at the end of a given month must be met during the second calendar month following such effective date. Thus the lag between the effective date of the reserve base and the end of the corresponding reserve maintenance period is about 60 days.

The reserve requirement is graded according to the composition of a bank's funding so that the more liquid an item, the larger the reserve requirement. The reserve requirement on deposits payable on demand (ie liquid deposits) is 2 per cent, on other deposits 1.5 per cent and on other balance sheet items 1 per cent. At the end of December 1996, the sum total of required reserves was FIM 6.6 billion and the weighted average reserve requirement 1.7 per cent.

A bank with a current account at the Bank of Finland can meet its reserve requirements by maintaining the monthly average of its daily balances at least as high as the minimum reserve requirement. Thus banks may use funds in their current accounts for effecting payments so long as the average monthly balances meet their respective reserve requirements on the last banking day of each month. Banks that do not have a current account at the Bank of Finland or use another bank as their central bank deposit their reserves in special minimum reserve accounts at the Bank of Finland.

The minimum reserve requirement applies to the following banks:

Aktia Savings Bank Ltd  
Bank of Åland Ltd  
Banque Indosuez Helsinki Branch  
Citibank International plc Finland Branch  
Den Danske Bank Helsinki Branch  
Interbank Ltd  
Merita Bank Ltd  
OP-Homebank Ltd  
Okobank  
Okopankki Oy, an Okobank subsidiary  
Postipankki Ltd  
Skandinaviska Enskilda Banken Helsinki Branch  
Skopbank  
Svenska Handelsbanken AB,  
Branch Operation in Finland  
Other cooperative banks and savings banks

## Market operations

The Bank of Finland affects interest rates and exchange rates by means of market operations, ie by dealing in securities or foreign exchange assets with its selected counterparties.

Money market operations can be carried out in the form of either bilateral money market transactions or tenders. Tenders, in which the Bank of Finland lends money to the banks, are carried out via repurchase (repo) transactions. In order to drain liquidity from the banking system, ie collect deposits from banks, the Bank of Finland generally sells its own CDs via tenders.

In a volume tender, the Bank of Finland announces the tender rate in advance, and the banks submit bids for the volumes they wish to transact. In an interest rate tender, banks bid by both rate and volume, and the Bank of Finland's tender rate becomes the weighted average of accepted bids. The tender rate applies to one-month maturity and is expressed as an annual rate. Short-term market rates move in line with the tender rate. On 28 February the tender rate was 3.00 per cent.

The Bank of Finland may accept as money market counterparties credit institutions that are subject to minimum reserve requirements and which the Bank of Finland considers to be otherwise qualified to operate as counterparties. A counterparty is required to have a current account at the Bank of Finland and adequate technical facilities and to be an active and important money market participant. Counterparties in outright bilateral trades are also required to act as market makers<sup>1</sup> for money market instruments and to observe the money market rules and code of conduct. At its discretion, the Bank of Finland may also accept as counterparties market participants that are not subject to minimum reserve requirements.

The following banks have been accepted as counterparties for money market operations:

Aktia Savings Bank Ltd  
Bank of Åland Ltd  
Merita Bank Ltd  
Okobank  
Postipankki Ltd  
Skandinaviska Enskilda Banken Helsinki Branch  
Svenska Handelsbanken AB,  
Branch Operation in Finland

Normally, the instruments accepted for the Bank of Finland's outright money market transactions are Treasury bills and Bank of Finland certificates of deposit. In special cases, other money market instruments can be approved for use in outright transactions.

Acceptable underlying assets for repo transactions comprise Bank of Finland CDs, benchmark government bonds, Treasury bills, notes issued by Asset Management Company Arsenal, and CDs issued by banks that operate as money market counterparties.

In repo transactions, haircuts are set according to issuer and maturity as follows:

Issuer		Short-term 12 months or less	Long-term over 12 months
Bank of Finland	CDs	0 %	
Government	Treasury bills	0 %	
	Benchmark government bonds	0 %	5 %
Arsenal	Notes	5 %	
Banks	CDs	5 %	

The Bank of Finland conducts foreign exchange operations with the banks primarily when it wants to influence the exchange rate. The Bank attempts to even out wide fluctuations in the exchange rate and, in the context of the ERM, it is responsible for keeping the markka's exchange

<sup>1</sup> Functioning as a market maker means that the counterparty is able to give binding buy/sell quotes on the securities or foreign currencies in question.

value against other ERM currencies within the allowed  $\pm 15$  per cent fluctuation margins. In addition, the Bank of Finland may convert currencies that the central government has borrowed from abroad into markkaa and sell foreign exchange to the central government as needed to service loans.

The Bank of Finland requires that its counterparties in foreign exchange operations act as market makers for the Finnish markka. The following banks have been accepted as counterparties for foreign exchange operations:

Merita Bank Ltd  
Okobank  
Postipankki Ltd  
Skandinaviska Enskilda Banken Helsinki Branch  
Svenska Handelsbanken AB,  
Branch Operation in Finland

### Liquidity credit facility

Upon application, the Bank of Finland may grant access to the liquidity credit facility to any credit institution which is subject to the minimum reserve requirement and has a current account at the Bank of Finland. The facility enables the credit institution to obtain liquidity credit or accrue interest on its excess reserve deposits at the Bank of Finland.

Liquidity credit must be fully collateralized and the applicable interest rate is tied to the Bank of Finland's tender rate. On 28 February the rate on liquidity credit was 5.00 per cent, ie the margin versus the tender rate was 2 percentage points. The maturity for liquidity credit may be 1, 7, 14, 21 or 28 days. The maturity and other terms and conditions are decided by the Bank of Finland. Since October 1992 the maturity has been 7 days.

If the monthly average of a bank's daily current account balances exceeds the bank's reserve requirement, the bank is considered to have excess reserves. The Bank of Finland may separately decide to pay interest on excess reserves; on 28 February the rate was 1.0 per cent.

The following banks have been granted access to the Bank of Finland's liquidity credit facility:

Aktia Savings Bank Ltd  
Bank of Åland Ltd  
Banque Indosuez Helsinki Branch  
Citibank International plc Finland Branch  
Den Danske Bank Helsinki Branch  
Interbank Ltd  
Merita Bank Ltd  
Okobank  
Postipankki Ltd  
Skandinaviska Enskilda Banken Helsinki Branch  
Svenska Handelsbanken AB,  
Branch Operation in Finland  
Skopbank

### Current account system

The Bank of Finland's current account system is an essential part of the payment and clearing system in Finland. Payments effected in the system can be divided into three main types: (1) business transactions between the Bank of Finland and the banks, ie payments related to monetary policy and maintenance of the money supply, (2) interbank payments and (3) payments related to clearing and settlement systems, including cover for interbank settlement of trades effected via the Finnish Central Securities Depository.

Upon application, the Bank of Finland may open a current account for any Finnish or foreign credit institution

operating in Finland which is subject to minimum reserve requirements and which fulfils certain other requirements. The credit institution must be subject to supervision by the Financial Supervision Authority or to other comparable public supervision. It must meet the capital adequacy requirements laid down in the Credit Institutions Act and its own funds must amount to at least FIM 30 million. For special reasons, the Bank of Finland may at its discretion open current accounts for other institutions participating in the financial markets.

Upon application, the Bank of Finland may also grant an intraday credit limit on the current account of a credit institution subject to minimum reserve requirements if such account holder provides the Bank of Finland full collateral for the credit limit in accordance with the Bank's guidelines.

Current account holders have workstations linked to the Bank of Finland's current account data base via a data communications network. Current account holders themselves effect payments to other current account holders via their workstations.

The following entities have a current account at the Bank of Finland:

Aktia Savings Bank Ltd  
Asset Management Company Arsenal Ltd  
Bank of Åland Ltd

Banque Indosuez Helsinki Branch  
Citibank International plc Finland Branch  
Den Danske Bank Helsinki Branch  
Finnish Central Securities Depository Ltd  
Finnish Export Credit Ltd  
Interbank Ltd  
Merita Bank Ltd  
Okobank  
Postipankki Ltd  
Skandinaviska Enskilda Banken Helsinki Branch  
Skopbank  
SOM Ltd, Securities and Derivatives Exchange,  
Clearing House  
State Treasury  
Svenska Handelsbanken AB,  
Branch Operation in Finland

### **Base rate**

The Parliamentary Supervisory Board decides on the Bank of Finland's base rate upon a proposal of the Board of the Bank of Finland. The base rate is used as a market reference rate. About 17 per cent of outstanding deposits and 17 per cent of lending is tied to the base rate, but only 2.0 per cent of new lending is tied to it (December 1996). As from 16 September 1996, the base rate has been 4.0 per cent.



# Finland in brief

## Land, climate and population

Finland covers an area of more than 338 000 square kilometres. The total area is slowly increasing because of the steady uplift of the land since the last glacial era. The country shares frontiers with Sweden in the west, Norway in the north and Russia in the east and has a coastline bordered by the Baltic Sea in the south and west. Agricultural land accounts for 8 % of the total area, forest and other wooded land for 68 % and inland waters for 10 %. Located between latitudes 60° and 70° north, Finland has warm summers and cold winters. Helsinki on the south coast has an average maximum temperature of 21° C (70° F) in July and -3° C (25° F) in February.

Finland has a population of 5 132 320 (31 December 1996) and an average population density of 17 per square kilometre. The largest towns are Helsinki (Helsingfors), the capital, with 532 053 inhabitants, Espoo (Esbo) 196 260, Tampere (Tammerfors) 186 026, Vantaa (Vanda) 168 778 and Turku (Åbo) 166 929.

There are two official languages: 93 % of the population speaks Finnish as its mother tongue and 5.7 % Swedish. There is a small Lapp population in the north. Finnish is a member of the small Finno-Ugrian group of languages, which also includes Estonian and Hungarian.

## Form of government

Finland is a parliamentary democracy with a republican constitution. From the twelfth century to 1809 Finland was part of the Kingdom of Sweden. In 1809, Finland was annexed to Russia as an autonomous Grand Duchy with the Tsar as Grand Duke. On 6 December 1917 Finland declared her independence. The republican constitution adopted in 1919 remains essentially unchanged today.

The legislative power of the country is exercised by Parliament and the President of the Republic. The supreme executive power is vested in the President, who is elected for a period of six years. The President for the current term, 1 March 1994 to 1 March 2000, is Mr Martti Ahtisaari.

Parliament, comprising 200 members, is elected by universal suffrage for a period of four years. Following the parliamentary elections of 1995, the seats of the various parties in Parliament are distributed as follows:

Social Democratic Party 63; Centre Party 44; National Coalition Party 39; Left Wing Alliance 22; Swedish People's Party 12; Green League 9; Christian League 7; Progressive Finnish Party 2; Rural Party 1; and Ecological Party 1.

Of the 18 ministerial posts in the present Government appointed in April 1995, 7 are held by the Social Democratic Party, 5 by the National Coalition Party, 2 by the Left Wing Alliance, 2 by the Swedish People's Party, 1 by the Green League and 1 by an expert with no party affiliation. The Prime Minister is Mr Paavo Lipponen of the Social Democratic Party.

Finland is divided into 455 self-governing municipalities. Members of the municipal council are elected by universal suffrage for a period of four years.

## International relations

Finland became a member of the BIS in 1930, the IMF in 1948, the IBRD in 1948, GATT in 1950, the UN in 1955, the Nordic Council in 1955, the IFC in 1956, IDA in 1960, EFTA in 1961, the ADB in 1966, the OECD in 1969, the IDB in 1977, the AfDB in 1982, the MIGA in 1988, the Council of Europe in 1989, the EBRD in 1991 and the EU in 1995.

Having abolished most quantitative restrictions on foreign trade in 1957, Finland first took part in European free trade arrangements under the auspices of EFTA in 1961. Imports from the USSR were also progressively freed from customs duties. Finland's free trade agreement with the EEC entered into force in 1974 and agreements for the removal of trade barriers were concluded with several eastern European countries as well. The agreement on the European Economic Area (EEA) between the member countries of EFTA and the European Union came into effect at the beginning of 1994. Finland's negotiations to join the European Union were concluded in spring 1994. The accession treaty was signed in Corfu in June. In autumn 1994, a consultative referendum was held in which the majority of the voters (56.9 %) were in favour of membership. The Finnish Parliament ratified the accession treaty in November. The accession treaty having been ratified by each Member State, Finland became a member of the European Union on 1 January 1995. Citizens of the five Nordic countries, Denmark, Finland, Iceland, Norway and Sweden, have enjoyed a common labour market, a passport union and reciprocal social security benefits since the mid-1950s.

Finland's development cooperation programmes channel assistance via international organizations and, bilaterally, to a number of African, Asian and Latin American countries.

## The economy

**Output and employment.** Of the gross domestic product of FIM 478 billion in basic values in 1995, 2 % was generated in agriculture and fishing, 3 % in forestry, 29 % in industry, 5 % in construction, 11 % in trade, restaurants and hotels, 8 % in transport and communications, 3 % in finance and insurance, 20 % in other private services and 19 % by producers of government services. Of total employment of 2.1 million persons in 1995, 7.6 % were engaged in primary production, 27.8 % in industry and construction and 64.6 % in services.

In 1995, expenditure on the gross domestic product in purchasers' values amounted to FIM 546 billion and was distributed as follows: net exports 9 % (exports 38 %, imports -29 %), gross fixed capital formation 15 %, private consumption 54 % and government consumption 22 %. Finland's tax ratio (gross taxes including compulsory employment pension contributions relative to GDP) was 46.5 per cent, which is somewhat below the average for the Nordic countries.

Average annual (compounded) growth of real GDP was 4.7 % in the period 1950-59, 5.0 % in 1960-69,

3.7 % in 1970–79, 3.7 % in 1980–89 and 3.6 % in 1990–95. Finland's GDP per capita in 1995 was USD 24 500.

**Foreign trade.** EU countries absorb the bulk of Finnish merchandise exports. In 1992–1996 their average share was 51.7 %. Over the same period, Finland's exports to other European countries (including Russia) accounted for 23.4 % and to the rest of the world for 24.9 %. The regional distribution of Finland's merchandise imports in the same period has been quite similar to that of exports: EU countries accounted for 51.4 %, other European countries for 24.7 % and the rest of the world for 23.9 %.

In 1996, the share of forest industry products in total merchandise exports was 30 %, the share of metal and engineering products 40 % and the share of other goods 30 %. Raw materials and intermediate goods (incl. crude oil) accounted for 59 % of merchandise imports, fuels for 5 %, investment goods for 15 % and consumption goods for 21 %.

**Forest resources.** Finland has fairly abundant forest resources, but only limited amounts of other raw materials. The growing stock comprises 1 887 million cubic metres, of which 46 % is pine, 36 % spruce and 15 % broad-leaved species, chiefly birch.

The annual growth increment totals 77 million cubic metres and the total drain was about 62 million cubic metres in 1995.

## Finance and banking

**Currency.** Finland has had its own monetary system since 1865. The currency unit is the markka (plural: markkaa), abbreviation FIM, which is divided into 100 penniä (singular: penni). From 1 November 1977 to 7 June 1991 the external value of the markka was officially expressed in terms of a trade-weighted currency index, which was permitted to fluctuate within a prescribed range (from 30 November 1988 the range was 6 percentage points). From 7 June 1991 to 7 September 1992, the markka was pegged to the European Currency Unit, the ECU. The fluctuation margins and the midpoint were set so as to correspond to the fluctuation margins and midpoint of the old currency index. The midpoint was first 4.87580 (FIM/ECU). Owing to the devaluation of the markka on 15 November 1991, the midpoint was increased to 5.55841 and the fluctuation limits to 5.39166 and 5.72516. On 8 September 1992, the fluctuation limits of the markka were abandoned and the markka was allowed to float. On 14 October 1996, the markka was joined to the Exchange Rate Mechanism (ERM) of the European Monetary System (EMS) at the central rate of 5.80661 per ECU. As from 25 November 1996 the ECU central rate is FIM 5.85424.

**The Central Bank.** The Bank of Finland (Suomen Pankki – Finlands Bank), founded in 1811, operates under the supervision of the Parliamentary Supervisory Board, the nine members of which are entrusted with overall supervision of the Bank and certain specific decisions such as fixing the Bank's base rate and the limits for other rates. The Governor and a maximum of five other Members of the Board are appointed by the President of the Republic. The Board manages all affairs not expressly entrusted to the Parliamentary Supervisory Board, including the terms of banks' central bank finance and open market operations in the money and foreign exchange market. The powers vested in the Bank and its independence of the Government make the Bank of Finland one of the world's stronger central banks. In practice, the Bank liaises closely with the Government, so as to coordinate economic policy. The Bank of Finland has a head office in Helsinki and 4 branch offices in other towns.

**Other banks** (31 December 1995). Finland has three major groups of deposit banks with a total of 1 953 offices. There are two big commercial banks with national branch networks and five smaller ones. The commercial banks have a total of 19 foreign branches, subsidiaries and associate banks and 21 representative offices abroad. There are 40 savings banks and 301 cooperative banks with their own extensive branch networks. In addition, foreign banks have four branches and nine representative offices in Finland.

**Financial market.** Of the total stock of FIM 679 billion in outstanding domestic credit at the end of September 1995, 50 % was provided by deposit banks, 26 % by insurance companies, 5 % by other private credit institutions, 6 % by public financial institutions and 12 % by the state, local authorities and social security funds. There are no quantitative restrictions or interest rate limitations on lending. Regulation of bank lending rates was progressively relaxed earlier in the 1980s and finally abolished in 1986.

In the money market, 67 % of the instruments, which totalled approximately FIM 135 billion at end-1996, were bank certificates of deposit (including central bank paper). Other negotiable money market instruments consist of Treasury bills, commercial paper and local authority paper.

There are 71 listed companies on the Helsinki Stock Exchange, with a market capitalization value of FIM 285 billion (at end-1996). Domestic bonds and debentures in circulation at end-1996 totalled FIM 254 billion; government bonds made up 71 % of the total. Turnover on the Stock Exchange in 1996 amounted to FIM 102 billion; the share of shares and subscription rights in the total was approximately 99 %.

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# 1. The balance sheet of the Bank of Finland

## 1.1 The balance sheet of the Bank of Finland, mill. FIM

	1996		1997		
	31 Dec.	7 March	14 March	21 March	27 March
<b>ASSETS</b>					
<b>Reserve assets</b>	36 397	62 174	61 180	60 873	59 700
Gold	1 742	1 742	1 742	1 742	1 742
Special drawing rights	1 344	1 560	1 543	1 526	1 514
IMF reserve tranche	1 953	2 004	1 946	1 945	1 930
ECU-claim on the European Monetary Institute	2 541	2 550	2 546	2 544	2 532
Foreign exchange assets	28 817	54 318	53 403	53 115	51 982
<b>Other foreign claims</b>	3 853	3 912	3 946	3 946	3 946
Markka subscription to Finland's quota in the IMF	3 794	3 852	3 887	3 887	3 887
Share in the European Monetary Institute	59	59	59	59	59
<b>Claims on financial institutions</b>	13 497	19 039	19 981	19 978	19 978
Liquidity credits	-	-	-	-	-
Securities with repurchase commitments	11 626	17 216	18 158	18 158	18 158
Term credits	-	-	-	-	-
Bonds	196	174	174	174	174
Other claims on financial institutions	1 676	1 648	1 648	1 645	1 645
<b>Claims on the public sector</b>	1 906	1 907	1 907	1 907	1 907
Treasury bills	-	-	-	-	-
Bonds	-	-	-	-	-
Total coinage	1 906	1 907	1 907	1 907	1 907
Other claims on the public sector	-	-	-	-	-
<b>Claims on corporations</b>	2 266	2 256	2 256	2 256	2 256
Financing of domestic deliveries (KTR)	70	60	60	60	59
Other claims on corporations	2 197	2 197	2 197	2 197	2 197
<b>Other assets</b>	598	1 482	1 335	1 288	1 157
Accrued items	490	1 383	1 231	1 176	1 034
Other assets	108	99	104	112	123
<b>Valuation account</b>	-	-	-	-	-
<b>Total</b>	58 518	90 769	90 606	90 248	88 944
<b>LIABILITIES</b>					
<b>Foreign liabilities</b>	5 680	5 153	5 152	5 226	5 214
Allocations of special drawing rights	951	1 006	995	994	986
IMF markka accounts	3 794	3 852	3 887	3 887	3 887
Other foreign liabilities	934	294	270	345	340
<b>Notes and coin in circulation</b>	16 891	15 688	15 637	15 647	16 131
Notes	15 076	13 922	13 869	13 877	14 351
Coin	1 815	1 767	1 768	1 770	1 780
<b>Certificates of deposit</b>	15 530	47 520	45 920	45 790	41 950
<b>Liabilities to financial institutions</b>	8 329	7 809	9 704	9 611	12 149
Reserve deposits	6 829	6 309	8 204	8 111	10 649
Term deposits	-	-	-	-	-
Other liabilities to financial institutions	1 500	1 500	1 500	1 500	1 500
<b>Liabilities to the public sector</b>	-	-	-	-	-
Current accounts	-	-	-	-	-
Other liabilities to the public sector	-	-	-	-	-
<b>Liabilities to corporations</b>	574	330	298	281	278
Deposits for investment and ship purchase	574	330	298	281	278
Other liabilities to corporations	-	-	-	-	-
<b>Other liabilities</b>	220	146	139	138	167
Accrued items	193	110	110	110	90
Other liabilities	27	35	29	28	77
<b>Valuation account</b>	260	3 089	2 723	2 521	2 021
<b>Provisions</b>	5 270	5 270	5 270	5 270	5 270
Pension provision	1 516	1 516	1 516	1 516	1 516
Other provisions	3 754	3 754	3 754	3 754	3 754
<b>Capital accounts</b>	5 764	5 764	5 764	5 764	5 764
Primary capital	5 000	5 000	5 000	5 000	5 000
Reserve fund	764	764	764	764	764
Net earnings	-	-	-	-	-
<b>Total</b>	58 518	90 769	90 606	90 248	88 944

## 1.2 Time series for the balance sheet items of the Bank of Finland, mill. FIM

End of period	Foreign sector								Public sector		
	Gold	Special drawing rights	IMF reserve tranche	ECU-claim on the European Monetary Institute	Foreign exchange assets	Reserve assets (1+2+3+4+5)	Other claims, net	Net claims (6+7)	Claims	Liabilities	Net claims (9-10)
	1	2	3	4	5	6	7	8	9	10	11
1992	2 180	564	1 732	.	25 041	29 517	-2 998	26 519	2 446	90	2 356
1993	2 180	664	1 747	.	28 882	33 473	-1 324	32 148	1 788	784	1 004
1994	2 180	1 537	1 354	.	47 672	52 743	-1 114	51 629	1 806	93	1 713
1995	1 742	1 569	1 685	3 363	40 506	48 865	-2 082	46 783	1 882	75	1 807
1996	1 742	1 344	1 953	2 541	28 817	36 397	-1 826	34 571	1 906	-	1 906
1996											
March	1 742	1 165	1 802	3 435	35 330	43 475	-1 364	42 111	1 874	40	1 834
April	1 742	1 401	1 864	3 070	33 986	42 063	-1 481	40 582	1 873	342	1 531
May	1 742	1 474	1 953	3 002	27 814	35 985	-1 725	34 260	6 670	0	6 670
June	1 742	1 243	1 908	2 964	26 851	34 707	-2 015	32 692	6 460	0	6 460
July	1 742	1 187	1 880	2 642	26 402	33 854	-2 066	31 788	6 460	-	6 460
Aug.	1 742	1 186	1 909	2 613	27 139	34 590	-2 588	32 002	6 297	-	6 297
Sept.	1 742	1 412	1 928	2 614	27 619	35 315	-1 774	33 541	5 998	-	5 998
Oct.	1 742	1 017	1 915	2 519	29 510	36 703	-1 863	34 840	5 982	-	5 982
Nov.	1 742	1 044	1 945	2 541	29 713	36 985	-2 088	34 897	5 987	-	5 987
Dec.	1 742	1 344	1 953	2 541	28 817	36 397	-1 826	34 571	1 906	-	1 906
1997											
Jan.	1 742	1 370	1 937	2 528	54 432	62 009	-1 292	60 717	1 907	-	1 907
Feb.	1 742	1 544	1 983	2 544	54 189	62 002	-1 370	60 632	1 907	-	1 907
March	1 742	1 514	1 930	2 532	51 982	59 700	-1 268	58 432	1 907	-	1 907

End of period	Domestic financial sector				Corporate sector					
	Term claims on deposit banks, net	Reserve deposits of deposit banks <sup>1</sup>	Other claims on financial institutions, net	Net claims (12+13+14)	Claims in the form of special financing	Special deposits and other items, net	Net claims (16+17)	Notes and coin in circulation	Out-standing CDs issued by the Bank of Finland	
	12	13	14	15	16	17	18	19	20	
1992	3 738	-13 165	4 022	-5 405	747	-2 651	-1 904	14 508	4 880	
1993	7 337	-6 398	-463	476	496	720	1 216	14 994	14 837	
1994	1 480	-6 526	-347	-5 392	316	1 285	1 601	14 315	35 236	
1995	7 076	-15 676	655	-7 945	185	1 706	1 891	15 611	27 090	
1996	11 626	-6 829	372	5 169	70	1 623	1 692	16 891	15 530	
1996										
March	2 244	-6 564	598	-3 722	153	1 825	1 978	14 448	25 426	
April	3 430	-8 831	304	-5 097	138	1 628	1 767	14 759	20 350	
May	10 237	-8 790	527	1 974	129	1 541	1 670	14 967	20 700	
June	7 887	-4 191	498	4 194	124	1 560	1 685	15 275	21 420	
July	6 540	-7 203	487	-176	117	1 581	1 698	15 251	16 445	
Aug.	9 988	-5 400	472	5 060	108	1 592	1 700	15 201	21 920	
Sept.	10 147	-3 676	443	6 914	102	1 630	1 732	15 331	24 650	
Oct.	10 683	-5 131	394	5 946	92	1 662	1 754	15 296	24 920	
Nov.	7 041	-4 145	1 100	3 996	74	1 591	1 665	15 449	22 160	
Dec.	11 626	-6 829	372	5 169	70	1 623	1 692	16 891	15 530	
1997										
Jan.	14 277	-5 082	336	9 531	68	1 797	1 865	15 659	47 370	
Feb.	12 104	-1 404	324	11 024	63	1 856	1 918	15 590	47 520	
March	18 158	-10 649	319	7 828	59	1 919	1 978	16 131	41 950	

## 2. The Bank of Finland's operations in the money and foreign exchange markets and the banks' forward exchange position

### 2.1 The Bank of Finland's minimum reserve system and standing facilities

	Reserve requirement			Required reserves <sup>1</sup> , mill. FIM	Excess reserves, mill. FIM	Total reserves, mill. FIM (4+5)	Liquidity credits, mill. FIM
	On deposits payable on demand, %	On other deposits, %	On other items, %				
	1	2	3	4	5	6	7
1993	2.0	1.5	1.0	6 398	.	.	440
1994	2.0	1.5	1.0	6 526	.	.	14
1995	2.0	1.5	1.0	6 557	.	.	123
1996	I-IX	2.0	1.5	6 530	616	7 146	37
	X-XII	2.0	1.5	6 652	440	7 092	121
1996							
March	2.0	1.5	1.0	6 699	240	6 939	278
April	2.0	1.5	1.0	6 672	148	6 821	153
May	2.0	1.5	1.0	6 624	105	6 730	-
June	2.0	1.5	1.0	6 689	481	7 171	-
July	2.0	1.5	1.0	6 728	139	6 868	-
Aug.	2.0	1.5	1.0	6 672	308	6 981	544
Sept.	2.0	1.5	1.0	6 636	1 634	8 270	-
Oct.	2.0	1.5	1.0	6 703	631	7 334	-
Nov.	2.0	1.5	1.0	6 596	136	6 732	233
Dec.	2.0	1.5	1.0	6 578	992	7 570	186
1997							
Jan.	2.0	1.5	1.0	6 560	423	6 983	-
Feb.	2.0	1.5	1.0	6 590	992	7 582	-
March	2.0	1.5	1.0	6 582	1 478	8 060	-

<sup>1</sup> As of 2 October 1995, the minimum reserve requirement is fulfilled on an averaging basis; until 2 October 1995, end of month figures.

### 2.2 The Bank of Finland's money market transactions, mill. FIM

During period	Purchases of money market instruments	Sales of money market instruments	Matured money market instruments, net	Money market transactions, net (1-2-3)
	1	2	3	4
1992	76 230	137 940	-60 417	-1 293
1993	86 521	146 899	-50 486	-9 892
1994	35 540	351 820	-295 165	-21 115
1995	50 435	434 810	-393 930	9 555
1996	94 080	250 980	-190 562	33 662
1996				
March	2 280	24 350	-21 300	-770
April	3 500	16 320	-26 040	13 220
May	10 500	20 060	-12 880	3 320
June	7 900	14 020	-2 390	-3 730
July	6 700	16 450	-13 510	3 760
Aug.	14 800	21 920	-9 892	2 772
Sept.	11 900	24 650	-15 530	2 780
Oct.	10 600	24 920	-12 030	-2 290
Nov.	7 900	19 340	-23 630	12 190
Dec.	12 650	15 530	-6 430	3 550
1997				
Jan.	17 100	47 370	-2 780	-27 490
Feb.	15 500	47 520	-28 660	-3 360
March	1 450	41 950	-47 030	6 530

### 2.3 The Bank of Finland's transactions in convertible currencies, mill. FIM

During period	Intervention in the foreign exchange market			Spot transactions related to forward contracts, net	Central government's foreign exchange transactions, net
	Spot purchases	Spot sales	Forward exchange intervention = change in forward exchange position		
	1	2	3	4	5
1992	20 050	-70 640	-1 650	390	45 060
1993	25 120	-45 080	7 460	-6 910	33 240
1994	20 930	-12 900	9 060	-8 930	24 660
1995	4 910	-5 470	-6 170	9 170	-10 135
1996	7 360	-7 320	-	-	-13 868
1996					
Feb.	-	-1 330	-	-	2 440
March	-	-440	-	-	-1 970
April	-	-1 100	-	-	-1 710
May	1 200	-	-	-	-6 230
June	240	-	-	-	-720
July	60	-	-	-	-50
Aug.	1 350	-	-	-	-658
Sept.	2 310	-	-	-	-2 210
Oct.	2 200	-	-	-	-690
Nov.	-	-480	-	-	30
Dec.	-	-	-	-	-950
1997					
Jan.	38 340	-	12 620	-12 260	-250
Feb.	-	-	430	-	-1 660

### 2.4 Forward exchange contracts between Finnish markka and other currencies, mill. FIM

Stock at end of period	Finnish banks' forward contracts						Non-residents' forward contracts with Finnish customers (excl. Finnish banks)			The Bank of Finland's forward contracts	
	With Finnish customers (excl. Finnish banks)			With foreign customers			Total				
	Currency purchases from Finnish customers	Currency sales to Finnish customers	Net	Currency purchases from foreign customers	Currency sales to foreign customers	Net	Net	Currency purchases from Finnish customers	Currency sales to Finnish customers	Net	Net currency sales
1	2	3	4	5	6	7	8	9	10	11	
1992	39 195	32 939	6 256	21 142	32 339	-11 197	-4 941	1 614	1 929	-315	7 133
1993	38 373	23 721	14 652	14 346	21 895	-7 548	7 104	11 632	2 173	9 459	1 939
1994	51 096	22 093	29 003	19 236	32 791	-13 555	15 448	18 372	4 780	13 592	-6 080
1995	60 280	19 095	41 185	31 837	48 906	-17 069	24 116	12 829	6 871	5 957	-
1996	53 520	21 793	31 726	44 068	72 021	-27 953	3 773	15 871	6 908	8 963	-
1996											
Feb.	69 329	29 225	40 105	44 599	67 131	-22 532	17 573	16 168	9 036	7 132	-
March	69 288	29 810	39 478	47 057	66 398	-19 341	20 137	15 413	8 400	7 013	-
April	65 120	29 781	35 340	42 328	63 860	-21 532	13 808	15 326	8 836	6 490	-
May	63 924	29 718	34 206	43 553	66 290	-22 737	11 469	17 851	8 327	9 525	-
June	60 709	27 714	32 995	43 406	61 302	-17 896	15 099	16 731	8 494	8 237	-
July	57 388	27 873	29 514	42 949	62 681	-19 733	9 781	16 977	8 127	8 849	-
Aug.	56 042	26 638	29 404	43 992	68 884	-24 891	4 513	17 407	7 513	9 894	-
Sept.	54 160	23 422	30 738	46 476	69 507	-23 031	7 707	18 761	7 536	11 225	-
Oct.	54 587	24 466	30 120	50 823	73 163	-22 341	7 779	18 988	6 902	12 085	-
Nov.	53 072	22 459	30 614	51 554	76 001	-24 446	6 168	18 476	7 649	10 827	-
Dec.	53 520	21 793	31 726	44 068	72 021	-27 953	3 773	15 871	6 908	8 963	-
1997											
Jan.	61 066	21 103	39 964	61 130	72 501	-11 371	28 593	18 219	5 597	12 622	-12 185
Feb.	60 646	20 139	40 507	58 008	66 207	-8 199	32 308	18 779	5 040	13 740	-12 185

### 3. Rates of interest

#### 3.1 Money market rates and rates applied by the Bank of Finland, per cent

Average of daily observations	Interbank overnight rate	HELIBOR				Bank of Finland rates			
		1 month	3 months	6 months	12 months	Liquidity credit rate <sup>1</sup>	Excess-reserve rate <sup>2</sup>	Base rate	
		1	2	3	4	5	6	7	8
1992	13.32	13.49	13.27	13.08	12.96	14.90	7.41	9.17	
1993	7.71	7.85	7.73	7.59	7.47	8.95	4.95	6.85	
1994	4.38	5.11	5.35	5.78	6.33	7.11	3.11	5.27	
1995	5.26	5.63	5.76	5.97	6.34	7.63	3.63	5.20	
1996	3.66	3.58	3.63	3.74	3.99	5.57	1.57	4.38	
1996									
March	3.83	3.95	4.01	4.12	4.36	5.94	1.94	4.50	
April	3.91	3.77	3.82	3.95	4.21	5.75	1.75	4.50	
May	4.01	3.75	3.76	3.86	4.16	5.75	1.75	4.50	
June	3.38	3.67	3.72	3.84	4.11	5.67	1.67	4.50	
July	3.48	3.54	3.63	3.78	4.07	5.52	1.52	4.50	
Aug.	3.94	3.45	3.54	3.70	4.00	5.43	1.43	4.50	
Sept.	3.16	3.19	3.28	3.43	3.67	5.19	1.19	4.25	
Oct.	3.11	3.04	3.10	3.20	3.40	5.03	1.03	4.00	
Nov.	3.29	3.02	3.08	3.21	3.46	5.00	1.00	4.00	
Dec.	3.11	3.02	3.08	3.20	3.40	5.00	1.00	4.00	
1997									
Jan.	2.68	3.02	3.07	3.16	3.34	5.00	1.00	4.00	
Feb.	2.85	3.01	3.07	3.17	3.34	5.00	1.00	4.00	
March	2.51	3.01	3.07	3.18	3.42	5.00	1.00	4.00	

<sup>1</sup> Call money credit rate until 2 July 1992.

<sup>2</sup> Call money deposit rate until 2 October 1995.

#### 3.2 The Bank of Finland's liquidity facility

	The Bank of Finland's tender rate, %	Liquidity credit: interest rate margin, %-points	Liquidity credit: maturity, days	Call money deposits: interest rate margin, %-points	Excess-reserve rate
	1	2	3	4	5
1992 <sup>1</sup>	13.85	1992 +1.00	7	-3.00	.
1993	7.87	1993 +2.00	7	-2.00	.
1994	5.11	1994 +2.00	7	-2.00	.
1995	5.63	1995 +2.00	7	.	2.25
1996	3.57	1996 +2.00	7	.	1.00
1996		1996			
March	3.94	March +2.00	7	.	1.75
April	3.75	April +2.00	7	.	1.75
May	3.75	May +2.00	7	.	1.75
June	3.67	June +2.00	7	.	1.60
July	3.52	July +2.00	7	.	1.50
Aug.	3.43	Aug. +2.00	7	.	1.25
Sept.	3.19	Sept. +2.00	7	.	1.10
Oct.	3.03	Oct. +2.00	7	.	1.00
Nov.	3.00	Nov. +2.00	7	.	1.00
Dec.	3.00	Dec. +2.00	7	.	1.00
1997		1997			
Jan.	3.00	Jan. +2.00	7	.	1.00
Feb.	3.00	Feb. +2.00	7	.	1.00
March	3.00	March +2.00	7	.	1.00
13.3.1996	3.75	13.3.1996			1.75
14.6.1996	3.60	14.6.1996			1.60
5.7.1996	3.50	5.7.1996			1.50
23.8.1996	3.25	23.8.1996			1.25
18.9.1996	3.10	18.9.1996			1.10
9.10.1996	3.00	9.10.1996			1.00

<sup>1</sup> July-December.

#### 3.3 Weighted Eurorates and commercial ECU interest rate, per cent

Average of daily observations	ECU	3 currencies	Commercial ECU
	3 months		
	1	2	3
1992	10.4	7.8	10.6
1993	8.0	5.9	8.1
1994	5.9	5.2	6.1
1995	5.9	5.2	6.0
1996	4.4	4.3	4.4
1996			
March	4.6	4.3	4.7
April	4.4	4.2	4.5
May	4.3	4.3	4.4
June	4.4	4.3	4.5
July	4.3	4.3	4.5
Aug.	4.3	4.2	4.4
Sept.	4.2	4.1	4.3
Oct.	4.1	4.1	4.2
Nov.	4.1	4.2	4.2
Dec.	4.1	4.3	4.2
1997			
Jan.	4.1	4.2	4.1
Feb.	4.1	4.2	4.1
March	4.2	4.3	4.3



### 3.4 Rates of interest applied by banks, per cent

Average for period	Lending						Markka deposits and other markka funding					
	New credits				Average lending rate	Of which: Commercial banks	24-month tax-exempt deposits <sup>1</sup>	36-month tax-exempt deposits <sup>1</sup>	Other tax-exempt deposits, max. rate of interest <sup>1</sup>	Average rate of interest on deposits	Average rate of interest on other funding	Average rate of interest on markka funding
	Cheque account and postal giro credits	Bills of exchange	Loans	New lending, total								
	1	2	3	4	5	6	7	8	9	10	11	12
1992	14.04	15.86	13.32	13.75	12.46	12.13	7.50	8.50	4.50	7.41	12.84	9.14
1993	9.69	13.55	9.40	9.75	10.20	9.92	3.50	4.50	2.00	4.78	8.86	6.15
1994	7.32	11.55	7.13	7.35	8.18	7.91	3.25	4.25	2.00	2.99	5.96	4.01
1995	7.85	11.33	7.30	7.46	8.04	7.75	2.75	3.75	2.00	3.13	6.29	4.08
1996	5.61	9.61	5.31	5.43	6.49	6.15	2.00	3.00	2.00	2.15	4.31	2.78
1996												
Feb.	5.79	9.32	6.04	6.08	6.99	6.70	2.50	3.50	2.00	2.44	4.98	3.15
March	5.13	10.78	5.93	5.99	6.88	6.57	2.50	3.50	2.00	2.37	4.63	3.00
April	4.83	8.19	5.71	5.75	6.77	6.43	2.50	3.50	2.00	2.32	4.71	2.99
May	5.96	9.19	5.59	5.73	6.64	6.30	2.50	3.50	2.00	2.27	4.59	2.97
June	5.31	10.66	5.35	5.44	6.55	6.20	2.50	3.50	2.00	2.23	4.10	2.79
July	6.26	9.78	5.48	5.63	6.48	6.12	2.50	3.50	2.00	2.21	4.29	2.81
Aug.	6.19	9.74	5.51	5.66	6.42	6.04	2.50	3.50	2.00	2.07	4.09	2.71
Sept.	6.24	9.95	4.92	5.06	6.23	5.87	2.00	3.00	2.00	1.93	3.92	2.52
Oct.	5.63	9.73	4.90	5.04	5.99	5.67	2.00	3.00	2.00	1.84	3.72	2.39
Nov.	5.12	9.58	4.87	4.98	5.94	5.62	2.00	3.00	2.00	1.80	3.77	2.38
Dec.	5.21	9.04	4.38	4.48	5.83	5.48	2.00	3.00	2.00	1.73	3.92	2.35
1997*												
Jan.	..	..	..	4.68	5.76	5.39	2.00	3.00	2.00	1.70	..	..
Feb.	..	..	..	4.84	5.70	5.35	2.00	3.00	2.00	1.61	..	..

<sup>1</sup> End of period.

### 3.5 Yields on bonds and shares, per cent

Period	Bonds				Shares
	Reference rates calculated by the Bank of Finland		Taxable government bonds		Share yield
	3 years	5 years	5 years	10 years	
	1	2	3	4	5
1992	13.1	13.0	12.0	11.5 <sup>1</sup>	2.5
1993	8.5	8.9	8.2	8.8	1.2
1994	8.5	9.3	8.4	9.1	1.0
1995	8.2	8.9	7.9	8.8	2.4
1996	5.8	6.8	6.0	7.1	2.1
1996					
Feb.	6.4	7.3	6.9	7.7	1.8
March	6.4	7.5	6.8	7.7	2.7
April	6.1	7.2	6.5	7.5	2.7
May	6.1	7.4	6.5	7.4	1.9
June	6.0	7.2	6.3	7.2	1.9
July	5.9	6.9	6.2	7.1	1.9
Aug.	5.8	6.9	6.1	7.2	1.8
Sept.	5.4	6.5	5.6	6.9	2.4
Oct.	5.0	5.9	5.1	6.5	2.4
Nov.	5.0	5.9	5.1	6.5	2.3
Dec.	5.0	5.9	5.0	6.3	2.2
1997					
Jan.	4.8	5.7	4.8	6.1	2.2
Feb.	4.7	5.5	4.6	5.9	1.8

<sup>1</sup> November and December only.

## 4. Rates of exchange

### 4.1 Middle rates, FIM

Average of daily quotations	New York 1 USD	Montreal 1 CAD	London 1 GBP	Dublin 1 IEP	Stockholm 1 SEK	Oslo 1 NOK	Copenhagen 1 DKK	Reykjavik 1 ISK	Frankfurt am Main 1 DEM	Amsterdam 1 NLG	Brussels 1 BEF	Zurich 1 CHF
	1	2	3	4	5	6	7	8	9	10	11	12
1992	4.4835	3.706	7.875	7.636	0.7714	0.7222	0.7444	0.0778	2.8769	2.5552	0.1397	3.2000
1993	5.7189	4.434	8.582	8.371	0.7350	0.8059	0.8822	0.0846	3.4584	3.0787	0.1655	3.8706
1994	5.2184	3.824	7.982	7.799	0.6758	0.7393	0.8207	0.0745	3.2169	2.8684	0.1561	3.8179
1995	4.3658	3.181	6.891	6.999	0.6123	0.6889	0.7790	0.0674	3.0471	2.7202	0.1481	3.6941
1996	4.5905	3.367	7.164	7.345	0.6847	0.7111	0.7921	0.0689	3.0530	2.7247	0.1484	3.7211
1996												
March	4.6019	3.370	7.026	7.234	0.6836	0.7158	0.8062	0.0694	3.1140	2.7818	0.1515	3.8459
April	4.7313	3.482	7.169	7.402	0.7040	0.7285	0.8147	0.0709	3.1434	2.8109	0.1530	3.8805
May	4.7568	3.475	7.207	7.437	0.6996	0.7233	0.8038	0.0706	3.1028	2.7755	0.1509	3.7924
June	4.6713	3.420	7.204	7.398	0.6991	0.7153	0.7933	0.0695	3.0590	2.7310	0.1487	3.7172
July	4.5888	3.352	7.128	7.354	0.6909	0.7113	0.7910	0.0687	3.0495	2.7171	0.1480	3.7178
Aug.	4.4777	3.263	6.941	7.215	0.6765	0.6986	0.7816	0.0676	3.0210	2.6932	0.1466	3.7227
Sept.	4.5383	3.313	7.075	7.309	0.6834	0.7029	0.7826	0.0680	3.0145	2.6889	0.1464	3.6860
Oct.	4.5714	3.383	7.245	7.352	0.6925	0.7049	0.7803	0.0681	2.9918	2.6669	0.1452	3.6337
Nov.	4.5500	3.400	7.571	7.576	0.6869	0.7162	0.7839	0.0687	3.0106	2.6843	0.1461	3.5703
Dec.	4.6398	3.409	7.726	7.709	0.6799	0.7173	0.7809	0.0692	2.9883	2.6635	0.1450	3.4927
1997												
Jan.	4.7765	3.541	7.924	7.791	0.6764	0.7408	0.7803	0.0700	2.9754	2.6498	0.1443	3.4297
Feb.	4.9757	3.672	8.089	7.898	0.6720	0.7508	0.7794	0.0707	2.9729	2.6468	0.1441	3.4264
March	5.0716	3.702	8.141	7.932	0.6622	0.7448	0.7834	0.0713	2.9886	2.6558	0.1448	3.4601

Average of daily quotations	Paris 1 FRF	Rome 1 ITL	Vienna 1 ATS	Lisbon 1 PTE	Madrid 1 ESP	Athens 1 GRD	Tallinn 1 EEK	Tokyo 1 JPY	Melbourne 1 AUD	ECU Commercial 1 XEU	SDR 1 XDR
	13	14	15	16	17	18	19	20	21	22	23
1992	0.8486	0.00364	0.4088	0.0332	0.0438	0.024	0.4060	0.03546	3.289	5.798	6.31546
1993	1.0096	0.00364	0.4916	0.0356	0.0451	0.025	0.4323	0.05168	3.885	6.685	7.98671
1994	0.9406	0.00324	0.4573	0.0314	0.0390	0.0215	0.4021	0.05106	3.814	6.175	7.46629
1995	0.8748	0.00268	0.4331	0.0291	0.0350	0.0189	0.3809	0.04663	3.238	5.644	6.61879
1996	0.8978	0.00298	0.4340	0.0298	0.0363	0.0191	0.3816	0.04225	3.593	5.751	6.66357
1996											
March	0.9095	0.00294	0.4427	0.0301	0.0370	0.0190	0.3892	0.04346	3.549	5.772	6.72716
April	0.9262	0.00302	0.4470	0.0306	0.0377	0.0195	0.3929	0.04411	3.719	5.882	6.86087
May	0.9170	0.00306	0.4412	0.0302	0.0372	0.0196	0.3878	0.04474	3.790	5.844	6.87179
June	0.9026	0.00303	0.4348	0.0297	0.0363	0.0193	0.3824	0.04292	3.698	5.787	6.74035
July	0.9006	0.00301	0.4334	0.0297	0.0361	0.0193	0.3812	0.04200	3.622	5.762	6.65070
Aug.	0.8848	0.00295	0.4293	0.0294	0.0356	0.0189	0.3776	0.04153	3.506	5.683	6.52988
Sept.	0.8854	0.00299	0.4284	0.0295	0.0358	0.0190	0.3768	0.04132	3.598	5.714	6.57191
Oct.	0.8846	0.00300	0.4253	0.0296	0.0355	0.0191	0.3740	0.04071	3.620	5.731	6.58126
Nov.	0.8898	0.00301	0.4279	0.0298	0.0358	0.0191	0.3763	0.04052	3.625	5.782	6.60942
Dec.	0.8845	0.00304	0.4247	0.0296	0.0355	0.0189	0.3735	0.04075	3.702	5.767	6.67218
1997											
Jan.	0.8817	0.00305	0.4229	0.0298	0.0355	0.0190	0.3719	0.04051	3.712	5.777	6.75569
Feb.	0.8806	0.00301	0.4225	0.0296	0.0351	0.0190	0.3716	0.04048	3.818	5.771	6.88718
March	0.8859	0.00299	0.4246	0.0297	0.0352	0.0190	0.3736	0.04138	3.998	5.801	6.98562

## 4.2 Markka value of the ECU and currency indices

Average of daily observations	Markka value of the ECU FIM/ECU	Currency indices, 1982=100	
		Trade-weighted currency index	Payments currency index
	1	2	3
1992	5.80140	116.4	115.7
1993	6.69420	132.4	136.0
1994	6.19108	123.2	125.5
1995	5.70936	111.6	111.6
1996	5.83028	115.3	115.6
1996			
March	5.89568	116.2	116.4
April	5.98143	118.3	118.8
May	5.93160	117.8	118.5
June	5.85380	116.3	116.8
July	5.82763	115.3	115.6
Aug.	5.74674	113.5	113.5
Sept.	5.76093	114.0	114.3
Oct.	5.75237	114.3	114.6
Nov.	5.81220	115.1	114.9
Dec.	5.79898	115.2	115.5
1997			
Jan.	5.80159	115.8	116.8
Feb.	5.80357	116.4	118.6
March	5.82954	116.8	119.6

## 4.3 Deviations of ERM currencies' markka rates from central rates, per cent

Average of daily observations	ECU	DEM	FRF	NLG	DKK	BEF	ESP	ATS	PTE	IEP	ITL
Central rate as of 25 Nov. 1996	1	2	3	4	5	6	7	8	9	10	11
1995	-1.69	0.23	-3.48	0.82	-2.25	0.49	-2.02	0.24	-1.84	-4.52	..
1996	0.30	0.43	-0.95	0.99	-0.61	0.65	1.49	0.44	0.40	0.21	-3.07
1996											
March	1.53	2.43	0.34	3.10	1.15	2.79	3.50	2.46	1.46	-1.30	-4.13
April	3.01	3.40	2.19	4.18	2.23	3.81	5.44	3.45	3.20	0.98	-1.57
May	2.15	2.07	1.16	2.87	0.85	2.41	4.03	2.10	1.83	1.46	-0.50
June	0.81	0.62	-0.42	1.22	-0.47	0.90	1.46	0.62	0.16	0.94	-1.31
July	0.36	0.31	-0.64	0.71	-0.76	0.42	1.05	0.31	0.01	0.34	-2.08
Aug.	-1.03	-0.63	-2.38	-0.18	-1.93	-0.53	-0.34	-0.64	-0.79	-1.56	-3.83
Sept.	-0.79	-0.84	-2.32	-0.34	-1.80	-0.66	0.10	-0.85	-0.48	-0.28	-2.75
Oct.	-0.93	-1.58	-2.40	-1.16	-2.09	-1.46	-0.56	-1.58	-0.18	0.31	-2.35
Nov.	-0.10	-0.97	-1.84	-0.51	-1.64	-0.87	0.10	-0.98	0.43	3.36	-2.10
Dec.	-0.94	-1.70	-2.42	-1.28	-2.02	-1.63	-0.70	-1.71	-0.14	5.17	-1.16
1997											
Jan.	-0.90	-2.13	-2.73	-1.79	-2.10	-2.07	-0.78	-2.12	0.39	6.29	-0.74
Feb.	-0.87	-2.21	-2.85	-1.90	-2.20	-2.26	-1.79	-2.23	-0.21	7.76	-2.04
March	-0.42	-1.69	-2.27	-1.57	-1.70	-1.73	-1.45	-1.73	0.29	8.22	-2.53

## 5. Other domestic financing

### 5.1 Bank funding from the public, mill. FIM

End of period	Cheque and giro deposits	Trans-action deposits	Time deposits	Other deposits	Markka deposits, total (1+2+3+4)	Foreign currency deposits	Total deposits (5+6)	Other funding	Total funding (7+8)
	1	2	3	4	5	6	7	8	9
1991	33 619	86 442	122 126	19 615	261 802	13 151	274 953	52 760	327 713
1992	34 832	88 526	114 771	21 218	259 347	14 626	273 973	65 557	339 530
1993	36 379	92 357	112 413	21 766	262 915	14 883	277 798	63 173	340 971
1994	41 200	99 691	108 922	19 838	269 650	12 774	282 424	44 228	326 651
1995	52 496	110 455	103 573	22 166	288 689	13 679	302 369	37 851	340 220
1995									
Nov.	48 730	107 047	104 174	21 797	281 748	13 250	294 998	50 785	345 784
Dec.	52 496	110 455	103 573	22 166	288 689	13 679	302 369	37 851	340 220
1996									
Jan.	50 193	112 802	95 502	24 819	283 316	13 011	296 327	50 008	346 335
Feb.	51 099	114 843	92 250	23 683	281 875	14 184	296 059	38 431	334 490
March	47 991	117 400	88 821	24 714	278 925	13 951	292 876	41 906	334 782
April	49 678	118 933	85 792	24 883	279 285	14 896	294 181	43 472	337 653
May	50 828	120 374	82 945	25 001	279 148	15 399	294 547	46 802	341 349
June	51 768	123 948	77 415	27 669	280 800	13 816	294 617	43 867	338 483
July	52 124	123 834	74 292	28 971	279 221	13 735	292 955	42 524	335 479
Aug.	51 620	124 989	71 620	30 631	278 859	12 857	291 717	47 258	338 975
Sept.	53 393	124 484	67 629	31 956	277 462	13 706	291 168	53 697	344 865
Oct.	54 801	127 091	63 471	33 517	278 880	12 938	291 818	48 272	340 090
Nov.	53 207	128 847	59 569	35 481	277 104	12 050	289 154	47 988	337 142

### 5.2 Bank lending to the public, mill. FIM

End of period	Cheque account and postal giro credits	Bills of exchange	Loans	Markka lending, total (1+2+3)	Foreign currency credits	Total lending (4+5)
	1	2	3	4	5	6
1991	18 037	4 712	262 859	285 609	107 714	393 323
1992	16 045	3 335	252 163	271 544	95 168	366 712
1993	14 217	2 223	248 406	264 846	66 931	331 777
1994	13 241	1 301	242 417	256 958	45 138	302 096
1995	12 348	901	235 074	248 323	32 252	280 575
1995						
Nov.	12 283	943	240 332	253 558	32 926	286 484
Dec.	12 348	901	235 074	248 323	32 252	280 575
1996						
Jan.	12 013	792	234 240	247 046	32 406	279 452
Feb.	12 114	853	235 279	248 246	31 240	279 486
March	12 189	835	235 696	248 720	30 734	279 453
April	12 042	834	235 129	248 005	31 704	279 709
May	12 053	763	235 370	248 187	29 035	277 221
June	11 720	747	237 582	250 049	29 206	279 255
July	11 626	698	237 063	249 387	27 516	276 903
Aug.	11 784	685	238 001	250 471	26 540	277 011
Sept.	11 676	659	238 127	250 461	26 131	276 593
Oct.	11 429	640	238 905	250 974	25 311	276 285
Nov.	11 657	616	239 242	251 515	24 736	276 252

### 5.3 Money supply, mill. FIM

End of period	Foreign assets, net	Domestic credit			Other items, net	Monetary aggregates		
		Claims on the central government	Claims on the public	Total (2+3)		M <sub>1</sub>	M <sub>2</sub> (1+4+5)	M <sub>3</sub>
	1	2	3	4	5	6	7	8
1992	-68 099	81	439 937	440 018	-97 909	134 829	274 011	310 733
1993	-25 989	1 848	403 742	405 589	-100 006	141 759	279 595	322 408
1994	12 844	6 092	365 712	371 804	-97 953	154 357	286 696	328 509
1995	25 481	19 837	353 340	373 177	-94 870	175 921	303 788	329 820
1996 *	40 638	12 821	350 230	363 052	-106 399	204 834	297 291	325 473
1996 *								
Feb.	29 249	11 358	350 755	362 114	-96 312	178 534	295 050	326 921
March	29 809	12 658	350 873	363 531	-100 364	178 909	292 976	335 117
April	25 644	18 817	351 511	370 329	-103 109	181 799	292 864	327 546
May	24 810	19 008	349 775	368 783	-100 462	184 749	293 131	325 511
June	28 625	23 209	351 923	375 131	-108 995	189 332	294 761	328 990
July	36 492	24 318	349 162	373 481	-118 138	188 023	291 834	327 935
Aug.	34 402	25 936	349 733	375 669	-117 975	189 292	292 096	325 470
Sept.	33 218	15 243	349 521	364 764	-106 967	190 781	291 016	329 848
Oct.	31 312	17 873	349 742	367 615	-105 768	195 621	293 160	332 372
Nov.	36 768	16 834	350 532	367 366	-111 862	196 631	292 273	326 535
Dec.	40 638	12 821	350 230	363 052	-106 399	204 834	297 291	325 473
1997								
Jan.	..	..	..	..	..	205 203	297 811	329 273
Feb.	..	..	..	..	..	200 237	293 024	324 486

### 5.4 Liabilities and assets of the central government, mill. FIM

End of period	Foreign currency-denominated debt			Markka-denominated debt					Total central government debt (3+8)	Out-standing lending	Cash funds
	Bonds	Other debt	Total (1+2)	Public bonds	Other long-term liabilities	Treasury notes and bills	Miscellaneous items	Total (4+5+6+7)			
	1	2	3	4	5	6	7	8	9	10	11
1992	100 244	6 143	106 387	40 578	13 555	14 762	..	68 895	175 282	61 671	19 781
1993	142 824	12 753	155 577	71 082	16 060	22 824	..	109 966	265 543	66 439	36 487
1994	160 587	15 975	176 562	93 008	17 100	33 153	-5 945	137 316	313 878	67 658	43 012
1995	158 545	13 756	172 301	143 948	17 492	37 864	-5 609	193 695	365 996	66 855	41 878
1996	158 847	16 161	175 008	177 700	17 187	37 620	-5 354	227 425	402 433	..	38 369
1996											
March	168 150	14 304	182 454	150 650	17 909	44 939	-5 697	207 998	390 452	67 471	45 117
April	172 009	15 082	187 091	158 510	17 369	43 946	-5 298	214 724	401 815	67 576	48 628
May	162 738	14 670	177 408	163 861	17 369	46 049	-5 294	222 182	399 590	67 077	48 909
June	159 874	15 192	175 066	166 921	17 359	46 102	-5 324	225 176	400 242	66 754	48 626
July	158 676	15 699	174 375	171 787	17 220	44 668	-5 367	228 426	402 801	66 824	50 441
Aug.	156 801	15 491	172 292	177 586	17 220	45 698	-5 405	235 236	407 528	67 027	55 516
Sept.	156 467	15 694	172 161	167 234	17 219	46 627	-5 408	225 851	398 012	64 300	44 278
Oct.	157 132	15 908	173 040	172 555	17 219	40 147	-5 454	224 666	397 706	64 438	38 903
Nov.	159 449	16 292	175 741	174 696	17 198	36 909	-5 459	223 597	399 338	63 764	42 220
Dec.	158 847	16 161	175 008	177 700	17 187	37 620	-5 354	227 425	402 433	..	38 369
1997											
Jan.	159 222	20 920	180 142	180 261	17 187	40 506	-5 405	232 821	412 963	..	..
Feb.	162 085	21 502	183 587	183 752	17 187	43 932	-5 417	239 652	423 239	..	..
March	158 001	21 195	179 196	187 972	17 149	43 821	-5 440	243 739	422 935	..	..

## 5.5 Markka bond market

### A) Issues, mill. FIM

During period	Corporations	Financial institutions	Central government	Local government	Others	Total (1+2+3+4+5)
	1	2	3	4	5	6
1992	6 984	15 043	12 965	2 674	4	37 671
1993	11 691	10 481	36 512	2 235	63	60 981
1994	4 053	9 899	31 553	593	-	46 099
1995	643	4 487	66 557	26	-	71 713
1996*	2 140	8 988	62 139	20	-	73 287
1996*						
Feb.	-	339	1 899	-	-	2 238
March	-	467	2 661	-	-	3 128
April	850	212	7 887	-	-	8 949
May	540	3 090	6 351	-	-	9 980
June	-	522	3 847	20	-	4 390
July	-	-	4 876	-	-	4 876
Aug.	-	311	9 671	-	-	9 981
Sept.	-	560	5 373	-	-	5 933
Oct.	500	600	6 976	-	-	8 076
Nov.	250	1 458	2 656	-	-	4 364
Dec.	-	1 429	3 538	-	-	4 968
1997*						
Jan.	-	272	4 608	-	-	4 690
Feb.	417	183	4 836	-	-	5 436

### B) Stock, mill. FIM

End of period	By sector					By type of loan			Total (1+2+3+4+5) = (6+7+8)
	Corporations	Financial institutions	Central government	Local government	Others	Public issues		Private placings	
						Taxable	Taxfree		
	1	2	3	4	5	6	7	8	9
1992	26 624	82 153	44 005	5 238	3 358	89 382	13 918	58 078	161 378
1993	32 459	73 893	73 682	6 884	2 009	119 552	10 391	58 984	188 927
1994	30 179	66 467	94 865	6 981	953	141 935	7 581	49 929	199 445
1995	26 480	55 223	145 177	5 814	357	186 799	5 034	41 218	233 051
1996*	25 245	44 656	179 419	4 362	140	219 863	2 956	31 003	253 822
1996*									
Feb.	25 942	52 026	151 541	5 679	357	191 421	4 290	39 834	235 545
March	25 636	51 138	152 376	5 619	355	191 338	3 910	39 876	235 124
April	26 394	50 739	159 728	5 612	355	199 907	3 899	39 022	242 828
May	25 973	52 413	165 080	5 558	150	207 499	3 636	38 039	249 174
June	25 534	50 254	168 139	4 647	149	209 581	3 622	35 520	248 723
July	25 016	49 375	173 505	4 646	148	213 605	3 617	35 468	252 690
Aug.	24 756	49 075	179 304	4 638	148	219 241	3 360	35 320	257 921
Sept.	24 649	48 067	168 951	4 652	148	208 317	3 113	35 037	246 467
Oct.	25 184	46 793	174 273	4 642	145	213 851	2 974	34 212	251 037
Nov.	25 641	47 288	176 414	4 641	142	217 494	2 962	33 670	254 126
Dec.	25 245	44 656	179 419	4 362	140	219 863	2 956	31 003	253 822
1997*									
Jan.	25 091	43 814	181 980	4 357	140	222 769	2 614	29 999	255 382
Feb.	24 727	41 827	185 472	4 302	140	226 058	2 393	28 017	256 468

C) *Turnover, mill. FIM*

During period	Interbank transactions	Transactions between banks and customers	Primary dealers' transactions in benchmark government bonds		
			Purchases from other primary dealers	Purchases from others	Sales to others
			1	2	3
1992	18 383	58 757	10 744	12 156	13 354
1993	47 803	246 104	42 945	95 647	117 489
1994	184 599	359 697	173 096	150 908	176 647
1995	147 037	436 052	133 357	190 069	215 879
1996	207 230	496 383	201 528	222 584	242 310
1996					
March	21 686	47 221	21 298	22 895	23 603
April	12 424	35 405	12 336	15 989	15 769
May	13 809	27 849	13 505	12 223	11 995
June	10 679	23 361	9 499	8 982	10 037
July	13 411	26 745	12 763	10 069	12 616
Aug.	13 452	50 597	12 908	22 320	22 356
Sept.	20 933	58 941	20 680	26 345	29 739
Oct.	26 602	52 158	26 298	25 293	26 064
Nov.	13 084	37 331	12 545	16 312	20 612
Dec.	9 524	27 581	9 510	12 084	14 868
1997					
Jan.	26 179	47 138	25 954	23 993	23 081
Feb.	12 722	32 173	12 586	13 762	18 477
March	25 187	44 696	24 965	20 852	24 048

5.6 *Helsinki Stock Exchange*

Average of daily observations	Share prices										Turnover <sup>1</sup> , mill. FIM		
	HEX index (28 Dec 1990=1000)										Shares and subscription rights	Bonds and debentures	Total
	All-share index	Banks and finance	Insurance	Trade	Construction	Forest industries	Metal and engineering	Telecommunications and electronics	Chemicals	Conglomerates			
1	2	3	4	5	6	7	8	9	10	11	12	13	
1992	772	425	467	-	-	1 123	1 206	-	-	890	10 277	15 377	25 654
1993	1 240	608	644	-	-	1 695	1 749	-	-	1 751	46 337	59 977	106 314
1994	1 847	719	802	-	-	2 284	2 675	-	-	3 068	68 671	2 147	70 818
1995	1 918	500	638	-	-	2 062	2 255	-	-	4 251	83 019	1 075	84 094
1996	2 032	460	820	-	-	2 040	2 564	-	-	5 681	101 265	541	101 806
1996													
March	1 851	458	776	-	-	1 951	2 330	-	-	5 051	7 758	54	7 812
April	1 867	412	747	-	-	2 040	2 399	-	-	5 188	7 940	32	7 972
May	1 995	418	754	-	-	2 095	2 622	-	-	5 532	10 860	42	10 902
June	2 019	408	787	-	-	2 079	2 616	-	-	5 627	7 681	36	7 717
July	2 002	400	779	-	-	2 174	2 588	-	-	5 815	5 885	17	5 902
Aug.	2 082	407	805	-	-	2 240	2 732	-	-	6 175	6 995	44	7 039
Sept.	2 131	401	862	-	-	2 188	2 778	-	-	6 125	7 204	49	7 253
Oct.	2 217	520	967	-	-	2 087	2 764	-	-	6 367	10 410	53	10 463
Nov.	2 317	573	977	-	-	2 017	2 744	-	-	6 442	10 676	39	10 715
Dec.	2 446	588	1 006	-	-	2 131	2 850	-	-	6 692	10 379	60	10 438
1997													
Jan.	2 674	633	1 183	1 995	1 001	2 241	2 984	1 107	834	6 605	16 271	95	16 366
Feb.	2 850	714	1 384	2 180	1 021	2 349	3 232	1 151	894	6 862	15 554	43	15 597
March	2 907	723	1 365	2 215	1 041	2 521	3 336	1 140	891	7 228	10 786	..	..

<sup>1</sup> During period.

## 6. Balance of payments, foreign liabilities and assets

### 6.1 Current account, mill. FIM

During period	Exports of goods, fob	Transport receipts	Travel receipts	Other services receipts	Services receipts, total (2+3+4)	Exports of goods and services (1+5)	Investment income	Transfers and other income	Current account receipts (6+7+8)	Imports of goods, cif	Transport expenditure	Travel expenditure	Other services expenditure
	1	2	3	4	5	6	7	8	9	10	11	12	13
1992	105 809	8 643	6 089	7 730	22 462	128 272	6 423	5 920	140 614	93 187	4 360	10 962	13 369
1993	132 550	10 430	7 079	9 379	26 888	159 438	6 137	6 506	172 080	101 559	5 646	9 237	17 008
1994	152 022	11 385	7 314	11 808	30 508	182 530	9 617	4 919	197 067	118 684	5 862	8 697	16 800
1995*	172 820	11 900	7 536	14 986	34 422	207 242	13 729	8 596	229 567	125 450	6 029	10 450	19 150
1996*	181 766	12 291	7 338	15 830	35 460	217 226	14 129	7 325	238 680	138 138	6 300	10 559	17 520
1994													
III	37 322	3 092	2 230	2 960	8 282	45 604	2 027	1 180	48 811	28 743	1 549	2 256	3 899
IV	41 832	2 728	1 700	3 360	7 788	49 620	3 025	1 260	53 905	35 716	1 563	2 291	4 721
1995*													
I	41 131	2 971	1 499	3 827	8 297	49 428	3 285	1 543	54 256	29 895	1 479	2 326	5 039
II	45 919	2 977	1 891	3 571	8 439	54 358	3 446	1 549	59 353	31 773	1 572	2 639	4 825
III	39 617	2 976	2 243	3 718	8 937	48 554	2 907	2 143	53 604	29 856	1 498	2 707	4 349
IV	46 154	2 976	1 903	3 870	8 749	54 903	4 092	3 360	62 355	33 926	1 481	2 779	4 937
1996*													
I	42 415	3 056	1 677	3 601	8 334	50 749	4 163	1 353	56 265	33 061	1 535	2 615	4 449
II	47 836	3 123	1 873	3 858	8 854	56 690	4 217	1 983	62 889	34 392	1 627	2 678	4 238
III	41 624	3 024	2 065	4 286	9 374	50 998	2 983	1 245	55 226	31 542	1 545	2 571	4 144
IV	49 891	3 089	1 724	4 085	8 897	58 788	2 766	2 744	64 299	39 145	1 593	2 696	4 689

During period	Services expenditure, total (11+12+13)	Imports of goods and services (10+14)	Investment expenditure	Transfers and other expenditure	Current account expenditure (15+16+17)	Trade account (1-10)	Transport (2-11)	Travel (3-12)	Other services (4-13)	Services account (20+21+22)	Goods and services account (19+23)	Investment income, net (7-16)	Transfers and others, net (8-17)	Current account (24+25+26)= (9-18)
	14	15	16	17	18	19	20	21	22	23	24	25	26	27
1992	28 690	121 878	30 424	10 347	162 649	12 622	4 283	-4 873	-5 639	-6 228	6 394	-24 001	-4 428	-22 035
1993	31 891	133 450	34 580	10 390	178 421	30 991	4 784	-2 159	-7 629	-5 004	25 988	-28 443	-3 885	-6 340
1994	31 359	150 043	31 801	8 596	190 440	33 339	5 523	-1 382	-4 992	-851	32 487	-22 184	-3 676	6 627
1995*	35 629	161 080	32 529	12 627	206 236	47 370	5 870	-2 914	-4 164	-1 207	46 162	-18 800	-4 032	23 331
1996*	34 380	172 518	32 783	14 144	219 445	43 628	5 991	-3 221	-1 690	1 080	44 708	-18 654	-6 819	19 234
1994														
III	7 704	36 447	6 246	1 971	44 664	8 580	1 542	-26	-939	578	9 157	-4 220	-791	4 147
IV	8 575	44 291	7 399	1 984	53 673	6 117	1 166	-591	-1 361	-787	5 330	-4 375	-724	231
1995*														
I	8 844	38 739	9 295	2 825	50 858	11 235	1 492	-827	-1 212	-546	10 689	-6 009	-1 282	3 398
II	9 036	40 809	10 067	3 191	54 067	14 145	1 406	-748	-1 254	-597	13 549	-6 622	-1 641	5 286
III	8 554	38 410	6 630	3 205	48 244	9 761	1 478	-464	-631	383	10 144	-3 723	-1 061	5 360
IV	9 196	43 122	6 538	3 407	53 067	12 228	1 494	-875	-1 066	-447	11 781	-2 446	-47	9 287
1996*														
I	8 599	41 660	8 580	3 916	54 155	9 355	1 521	-938	-848	-265	9 089	-4 417	-2 563	2 110
II	8 543	42 934	10 775	3 768	57 476	13 445	1 496	-805	-380	311	13 756	-6 558	-1 785	5 413
III	8 260	39 801	6 671	2 961	49 433	10 083	1 478	-506	143	1 115	11 197	-3 689	-1 716	5 793
IV	8 979	48 123	6 757	3 500	58 380	10 747	1 496	-972	-605	-81	10 665	-3 991	-756	5 919



## 6.2 Capital and financial account, mill. FIM

During period	Capital account, imports of capital	Financial account											Total (2+8+12)
		Direct investment in Finland	Portfolio investment in Finland					Other investment in Finland					
			Shares	Bonds	Of which: markka-denominated bonds	Money market instruments	Financial derivatives	Total (3+4+6+7)	Trade credits	Loans	Other capital	Total (9+10+11)	
1	2	3	4	5	6	7	8	9	10	11	12	13	
1992	0	1 822	397	39 309	-5 312	-1 791	..	37 915	3 639	2	-15 725	-12 084	27 653
1993	0	4 945	12 748	30 353	3 616	-4 382	..	38 719	4 467	5 457	-29 801	-19 877	23 787
1994	0	8 240	13 400	21 977	-5 783	-2 134	59	33 302	3 107	647	-1 392	2 361	43 903
1995*	487	4 642	8 734	-17 868	-3 634	1 421	2 588	-5 126	-1 216	-6 985	8 376	176	-307
1996*	574	5 596	8 937	-4 582	6 288	808	1 501	6 664	-3 329	12 775	-1 346	8 100	20 360
1994													
III	0	2 372	5 181	16 528	783	-2 119	-474	19 116	204	-1 363	-4 571	-5 729	15 759
IV	0	-1 005	1 426	-4 562	-3 283	-1 614	20	-4 729	4 366	4 678	545	9 589	3 855
1995*													
I	0	2 625	392	150	-1 423	-1 889	146	-1 200	-2 601	-333	8 549	5 615	7 040
II	0	-1 243	3 482	-9 335	-3 501	-974	523	-6 303	865	-3 206	-2 136	-4 477	-12 023
III	0	151	2 940	-2 503	933	1 618	1 079	3 134	-1 089	-3 192	-744	-5 025	-1 740
IV	487	3 109	1 920	-6 181	358	2 666	839	-756	1 609	-254	2 707	4 063	6 416
1996*													
I	0	1 743	1 216	2 635	1 155	502	1 119	5 472	-3 502	4 632	-552	578	7 793
II	0	709	6 143	-5 152	2 554	363	754	2 108	-702	4 717	-3 119	896	3 712
III	0	2 652	374	-4 841	277	-254	-180	-4 902	-86	2 516	4 371	6 800	4 550
IV	574	492	1 204	2 777	2 303	198	-192	3 987	961	911	-2 047	-174	4 304

During period	Capital account, exports of capital	Financial account											Errors and omissions	Change in central bank's reserve assets (increase -)
		Direct investment abroad	Portfolio investment abroad					Other investment abroad				Total (15+20+24)		
			Shares	Bonds	Money market instruments	Financial derivatives	Total (16+17+18+19)	Trade credits	Loans	Other capital	Total (21+22+23)			
14	15	16	17	18	19	20	21	22	23	24	25	26	27	
1992	0	-3 372	46	321	2 748	..	3 115	3 634	3 409	7 720	14 763	14 506	-293	9 180
1993	0	8 050	873	767	1 932	..	3 571	1 923	-839	9 576	10 660	22 282	6 055	-1 219
1994	0	22 447	434	-4 294	-855	-279	-4 994	1 213	-7 460	9 762	3 516	20 968	-4 058	-25 504
1995*	206	7 339	892	3 685	-5 492	-168	-1 084	3 839	-2 712	11 750	12 877	19 132	-5 652	1 480
1996*	340	16 309	3 278	15 424	364	-172	18 895	389	4 281	15 707	20 378	55 581	1 676	14 077
1994														
III	0	4 897	-41	-1 166	422	-53	-839	-153	-251	9 532	9 127	13 186	-2 799	-3 921
IV	0	7 341	19	768	2 956	2	3 745	1 724	-2 734	-3 522	-4 532	6 555	3 600	-1 132
1995*														
I	0	2 212	-128	1 757	-2 249	-48	-668	660	-1 234	9 695	9 121	10 665	1 918	-1 691
II	104	1 490	375	104	-2 798	31	-2 288	2 379	-150	-7 809	-5 580	-6 377	-824	1 288
III	0	1 027	461	28	521	-37	973	-132	1 044	3 431	4 343	6 343	1 131	1 592
IV	102	2 610	184	1 797	-967	-115	899	933	-2 373	6 433	4 993	8 502	-7 878	291
1996*														
I	61	5 391	577	4 019	2 424	-26	6 993	-605	2 416	6 458	8 269	20 654	3 558	7 254
II	0	6 670	1 041	3 041	162	71	4 315	716	-2 064	4 830	3 483	14 468	-3 115	8 457
III	0	3 751	729	4 169	-2 457	-51	2 389	-818	1 565	1 927	2 673	8 813	-400	-1 129
IV	279	497	932	4 195	235	-165	5 197	1 097	2 364	2 491	5 952	11 646	1 633	-505

### 6.3 Finland's international investment position, mill. FIM

Position at end of period	Liabilities												Total liabilities (1+7+12)
	Direct investment in Finland	Portfolio investment					Other investment						
		Shares	Bonds	Of which: markka-denominated bonds	Money market instruments	Financial derivatives	Total (2+3+5+6)	Trade credits	Loans	Currency and deposits	Other	Total (8+9+10+11)	
1	2	3	4	5	6	7	8	9	10	11	12	13	
1992	19 348	5 138	211 361	14 366	19 391	..	235 889	13 305	78 330	11 881	78 804	182 320	437 557
1993	24 391	30 375	266 269	27 402	14 995	-6 103	305 536	18 206	90 825	4 025	54 188	167 243	497 170
1994	31 846	60 558	258 823	22 285	10 309	-5 179	324 511	19 852	82 649	3 430	46 566	152 498	508 855
1995*	36 894	63 746	228 676	19 638	10 099	1 545	304 066	18 540	69 249	2 568	53 557	143 914	484 874
1996*	42 536	108 932	230 147	26 497	10 689	3 634	353 401	15 100	83 373	1 733	53 745	153 952	549 889
1994													
III	33 010	56 036	272 306	26 009	11 864	-5 704	334 501	15 539	79 730	3 752	47 152	146 174	513 685
IV	31 846	60 558	258 823	22 285	10 309	-5 179	324 511	19 852	82 649	3 430	46 566	152 498	508 855
1995*													
I	34 509	53 488	254 534	21 434	7 065	-5 996	309 092	17 218	79 143	3 369	53 433	153 163	496 764
II	33 386	79 430	243 399	18 054	5 577	-6 768	321 638	18 049	75 411	2 580	51 169	147 208	502 233
III	33 665	93 020	233 054	20 230	7 262	-520	332 815	16 930	68 882	2 364	50 032	138 208	504 688
IV	36 894	63 746	228 676	19 638	10 099	1 545	304 066	18 540	69 249	2 568	53 557	143 914	484 874
1996*													
I	38 701	68 674	241 179	20 771	11 192	2 424	323 468	14 975	77 934	1 518	55 412	149 838	512 007
II	39 414	80 962	234 442	23 965	11 126	3 099	329 629	14 344	81 836	1 939	51 588	149 707	518 750
III	42 030	91 198	225 433	23 766	11 286	2 948	330 865	14 024	82 365	1 742	55 621	153 752	526 647
IV	42 536	108 932	230 147	26 497	10 689	3 634	353 401	15 100	83 373	1 733	53 745	153 952	549 889

Position at end of period	Assets											Total assets (14+19+24)
	Direct investment abroad	Portfolio investment					Other investment					
		Shares	Bonds	Money market instruments	Financial derivatives	Total (15+16+17+18)	Trade credits	Loans	Currency and deposits	Other	Total (20+21+22+23)	
14	15	16	17	18	19	20	21	22	23	24	25	
1992	44 921	469	8 697	7 917	..	17 083	21 389	35 251	12 665	78 257	147 562	209 565
1993	53 090	1 783	10 709	11 030	447	23 968	26 256	35 981	5 799	91 127	159 162	236 221
1994	59 451	1 984	5 109	9 115	488	16 696	25 500	24 847	8 257	109 847	168 451	244 598
1995*	66 150	3 216	9 619	2 736	177	15 748	28 358	20 381	7 290	115 543	171 571	253 469
1996*	82 802	7 147	25 041	3 478	-21	35 645	29 482	25 826	5 908	124 017	185 233	303 680
1994												
III	58 314	1 991	4 319	6 087	561	12 959	24 158	28 350	7 493	115 752	175 753	247 025
IV	59 451	1 984	5 109	9 115	488	16 696	25 500	24 847	8 257	109 847	168 451	244 598
1995*												
I	60 274	1 751	6 557	5 835	157	14 300	25 254	22 668	6 352	118 897	173 172	247 746
II	61 007	2 158	6 930	2 977	115	12 180	27 440	22 142	5 915	108 686	164 183	237 370
III	61 479	2 661	6 870	3 503	200	13 233	27 092	22 978	6 397	108 057	164 524	239 236
IV	66 150	3 216	9 619	2 736	177	15 748	28 358	20 381	7 290	115 543	171 571	253 469
1996*												
I	74 293	3 994	14 063	5 670	169	23 896	28 205	23 594	5 435	121 308	178 542	276 731
II	79 836	5 009	16 834	5 842	93	27 778	29 053	21 499	5 523	118 075	174 150	281 765
III	82 040	5 845	20 610	3 176	48	29 679	28 034	22 902	6 488	119 331	176 754	288 474
IV	82 802	7 147	25 041	3 478	-21	35 645	29 482	25 826	5 908	124 017	185 233	303 680

6.4 Finland's net international investment position (liabilities less assets), by sector, mill. FIM

Position at end of period	Corporate sector	Households and nonprofit institutions	Banks	Bank of Finland	Other financial institutions	Central government	Local government	Net (1+2+3+4+5+6+7)	Net interest and dividend expenditure	Net interest and dividend expenditure in relation to current account receipts, %
	1	2	3	4	5	6	7	8	9	10
1992	33 761	-3 260	82 343	-27 546	28 283	112 064	2 347	227 992	19 011	13.5
1993	54 315	-3 436	45 658	-33 279	29 737	164 892	3 062	260 949	21 897	12.7
1994	82 428	-3 503	33 800	-52 606	21 931	179 113	3 093	264 257	20 296	10.3
1995*	71 574	-2 293	18 970	-47 708	13 297	174 481	3 085	231 405	17 490	7.6
1996*	109 492	-1 142	-13 719	-35 521	912	183 737	2 451	246 209	16 654	7.0
1994										
III	77 901	-3 564	34 039	-52 998	24 992	183 115	3 175	266 659	3 748	7.7
IV	82 428	-3 503	33 800	-52 606	21 931	179 113	3 093	264 257	3 903	7.2
1995*										
I	73 872	-3 359	23 396	-53 298	19 524	185 724	3 159	249 018	5 681	10.5
II	94 745	-3 495	27 092	-50 742	18 024	175 932	3 305	264 861	6 295	10.6
III	103 212	-3 599	20 558	-47 488	17 173	172 368	3 227	265 451	3 396	6.3
IV	71 574	-2 293	18 970	-47 708	13 297	174 481	3 085	231 405	2 118	3.4
1996*										
I	74 977	-2 512	4 719	-42 679	9 483	188 118	3 169	235 276	3 922	6.9
II	83 898	-2 605	-4 356	-33 647	5 394	185 184	3 118	236 986	6 063	9.6
III	93 174	-1 114	-5 707	-34 482	1 421	182 336	2 545	238 173	3 194	5.8
IV	109 492	-1 142	-13 719	-35 521	912	183 737	2 451	246 209	3 476	5.4

## 7. Foreign trade

### 7.1 Exports, imports and the trade balance, mill. FIM

During period	Exports, fob	Imports, cif	Balance (1-2)
	1	2	3
1992	107 463	94 947	12 516
1993	134 114	103 165	30 949
1994	154 164	120 612	33 552
1995	176 021	128 556	47 465
1996*	185 798	140 996	44 802
1996*			
Jan.	13 325	10 526	2 799
Feb.	15 201	11 641	3 560
March	15 075	12 105	2 970
April	15 710	11 913	3 797
May	16 175	11 931	4 244
June	17 060	11 589	5 471
July	13 292	10 058	3 234
Aug.	14 338	10 685	3 653
Sept.	15 103	11 959	3 144
Oct.	16 990	13 289	3 701
Nov.	18 910	12 536	6 374
Dec.	14 619	12 764	1 855
1997*			
Jan.	15 000	11 000	4 000

### 7.2 Foreign trade: indices of volume, prices and terms of trade, 1990=100

Period	Volume (seasonally adjusted)		Prices		Terms of trade
	Exports	Imports	Exports	Imports	
	1	2	3	4	5
1992	102.7	84.7	103.1	108.6	95.0
1993	120.6	83.6	109.7	119.6	91.7
1994	136.5	98.0	111.4	119.3	93.3
1995*	145.7	104.6	119.2	119.2	100.0
1996*	152.7	112.9	120.2	121.1	99.3
1996*					
Jan.	134.2	110.0	123.2	119.1	103.4
Feb.	151.9	117.2	122.4	119.3	102.6
March	141.9	111.9	123.2	120.4	102.3
April	148.9	110.2	122.5	122.2	100.2
May	153.4	110.8	121.8	121.8	100.0
June	165.3	113.2	121.3	121.6	99.8
July	140.1	105.7	119.6	121.8	98.2
Aug.	155.0	107.4	118.2	120.9	97.8
Sept.	152.0	115.8	117.6	121.6	96.7
Oct.	162.6	119.6	118.0	122.3	96.5
Nov.	177.8	115.0	117.8	120.8	97.5
Dec.	148.9	118.2	116.7	120.8	96.6
1997*					
Jan.	158.7	113.2	116.6	121.6	95.9

### 7.3 Foreign trade by main groups, mill. FIM

During period	Exports by industries, fob					Imports by use of goods, cif				
	Wood industry products	Paper industry products	Chemical industry products	Metal and engineering industry products	Other goods	Raw materials (excl. crude oil)	Crude oil, fuels and lubricants	Finished goods		Other goods
								Investment goods	Consumer goods	
	1	2	3	4	5	6	7	8	9	10
1992	7 892	32 587	12 172	35 741	19 071	49 514	9 745	13 348	20 826	1 514
1993	10 910	37 430	14 205	48 158	23 411	54 792	10 904	15 396	21 066	1 007
1994	14 198	41 249	15 725	55 895	27 097	66 156	11 687	17 227	24 684	858
1995*	13 451	48 754	15 877	69 336	28 603	71 397	9 685	19 660	25 514	2 300
1996*	12 256	43 385	18 005	74 884	37 268	70 783	12 570	21 058	29 886	6 699
1995*										
Dec.	918	3 666	1 245	7 256	2 246	5 660	1 011	2 118	2 012	279
1996*										
Jan.	960	3 564	1 283	4 767	2 751	5 672	694	1 462	2 219	479
Feb.	940	3 619	1 238	6 636	2 768	5 734	876	2 008	2 623	400
March	1 012	4 137	1 469	5 432	3 025	6 270	700	1 863	2 782	490
April	1 127	3 777	1 515	6 104	3 187	5 955	1 059	1 780	2 603	516
May	1 192	3 765	1 866	5 761	3 591	6 315	1 058	1 675	2 415	468
June	1 073	3 538	1 473	8 060	2 916	6 136	816	1 910	2 224	503
July	820	3 524	1 418	4 877	2 653	4 805	1 199	1 126	2 260	668
Aug.	870	3 599	1 598	5 132	3 139	5 474	900	1 397	2 296	618
Sept.	1 032	3 440	1 449	6 108	3 074	5 923	1 219	1 636	2 554	627
Oct.	1 119	3 253	1 658	6 443	4 517	6 383	1 303	1 966	2 800	837
Nov.	1 139	3 743	1 642	9 034	3 352	6 184	1 340	1 924	2 583	505
Dec.	972	3 426	1 396	6 530	2 295	5 932	1 406	2 311	2 527	588

## 7.4 Foreign trade by regions and countries

Region and country	Exports, fob				Imports, cif			
	1995*		January–December 1996*		1995*		January–December 1996*	
	Mill. FIM	Percentage share	Mill. FIM	12-month change calculated from 12-month moving total	Mill. FIM	Percentage share	Mill. FIM	12-month change calculated from 12-month moving total
	1	2	3	4	5	6	7	8
<b>European Union <sup>1</sup></b>	101 538	57.7	101 339	-0.2	76 435	59.5	84 999	11.2
Austria	1 524	0.9	1 610	5.6	1 629	1.3	1 556	-4.5
Belgium and Luxembourg	5 196	3.0	4 692	-9.7	3 754	2.9	4 136	10.2
Denmark	5 609	3.2	5 679	1.3	4 126	3.2	4 950	20.0
France	7 989	4.5	7 856	-1.7	5 198	4.0	6 349	22.1
Germany	23 639	13.4	22 451	-5.0	19 967	15.5	21 269	6.5
Greece	950	0.5	959	1.0	342	0.3	366	7.1
Ireland	894	0.5	1 096	22.5	1 081	0.8	1 154	6.8
Italy	5 219	3.0	4 768	-8.6	5 111	4.0	5 732	12.2
Netherlands	7 423	4.2	7 372	-0.7	4 916	3.8	4 999	1.7
Portugal	879	0.5	913	3.9	1 053	0.8	1 026	-2.5
Spain	4 398	2.5	3 978	-9.6	1 669	1.3	1 958	17.3
Sweden	17 985	10.2	19 799	10.1	14 874	11.6	16 749	12.6
United Kingdom	18 276	10.4	18 980	3.9	10 608	8.3	12 437	17.2
<b>Rest of Europe</b>	27 829	15.8	33 238	19.4	21 879	17.0	23 728	8.5
Of which:								
Estonia	4 125	2.3	5 073	23.0	1 561	1.2	1 658	6.2
Norway	5 279	3.0	5 283	0.1	5 357	4.2	5 889	9.9
Poland	2 256	1.3	2 703	19.8	1 374	1.1	1 301	-5.4
Russia	8 450	4.8	11 307	33.8	9 314	7.2	10 232	9.8
Switzerland	2 291	1.3	2 089	-8.9	2 176	1.7	2 428	11.6
<b>Non-European industrialized countries <sup>2</sup></b>	20 020	11.4	22 935	14.6	19 253	15.0	19 661	2.1
Of which:								
Australia	2 330	1.3	2 043	-12.3	931	0.7	1 219	31.0
Japan	4 509	2.6	4 826	7.0	8 170	6.4	7 255	-11.2
U.S.A.	11 683	6.6	14 696	25.8	9 268	7.2	10 294	11.1
<b>Dynamic Asian economies <sup>3</sup></b>	12 296	7.0	13 749	11.8	6 491	5.0	6 489	0.0
Of which:								
China	2 605	1.5	2 670	2.5	1 722	1.3	2 072	20.3
Hong Kong	2 438	1.4	3 027	24.1	714	0.6	693	-3.0
South Korea	2 272	1.3	2 704	19.0	991	0.8	791	-20.2
<b>Other countries</b>	14 337	8.1	14 537	1.4	4 498	3.5	6 118	36.0
<b>TOTAL</b>	176 021	100.0	185 798	5.6	128 556	100.0	140 996	9.7
Of which:								
Africa	2 778	1.6	2 550	-8.2	625	0.5	881	40.9
Asia	23 884	13.6	27 362	14.6	16 062	12.5	16 106	0.3
Central and South America	4 468	2.5	3 070	-64.7	2 406	1.9	2 714	18.3
North America	12 910	7.3	15 751	22.0	10 103	7.9	11 132	10.2
Europe	129 367	73.5	134 577	4.0	98 315	76.5	108 728	10.6
Oceania	2 615	1.5	2 488	-4.9	1 044	0.8	1 435	37.4

<sup>1</sup> Including exports / imports to EU unspecified by country.

<sup>2</sup> Australia, Canada, Japan, New Zealand, United States.

<sup>3</sup> China, Hong Kong, Malaysia, Singapore, South Korea, Taiwan, Thailand.

## 8. Domestic economic developments

### 8.1 Supply and use of resources, mill. FIM, 1990 prices (seasonally adjusted figures)

Period	Consumption expenditure		Fixed investment		Change in stocks, incl. statistical discrepancy	Domestic demand (1+2+3+4+5)	Exports	Imports	GDP (6+7-8)
	Private	Public	Private	Public					
	1	2	3	4	5	6	7	8	9
1992	247 363	108 799	75 338	16 899	4 534	452 933	122 059	112 989	462 003
1993	240 177	103 028	60 638	13 890	10 221	427 954	142 459	113 842	456 571
1994	244 761	102 728	60 543	14 107	22 236	444 375	161 376	128 411	477 340
1995*	253 935	104 456	67 261	13 717	22 051	461 420	174 580	137 327	498 673
1996*	262 377	107 478	71 741	13 726	22 058	477 380	181 221	143 445	515 156
1994*									
III	61 315	25 614	15 395	3 492	6 463	112 279	41 642	32 983	120 938
IV	62 125	25 945	15 970	3 554	8 110	115 704	41 954	35 896	121 762
1995*									
I	62 707	25 546	16 875	3 510	5 299	113 937	44 000	33 725	124 212
II	63 761	26 140	16 677	3 448	4 492	114 518	44 585	34 168	124 935
III	63 552	26 243	17 463	3 351	6 461	117 070	42 553	34 723	124 900
IV	63 915	26 527	16 246	3 408	5 799	115 895	43 442	34 711	124 626
1996*									
I	65 048	26 478	17 081	3 376	7 190	119 173	42 841	35 918	126 096
II	65 015	26 827	17 343	3 481	4 532	117 198	45 058	35 214	127 042
III	65 704	26 979	18 628	3 488	5 341	120 140	45 254	35 263	130 131
IV	66 610	27 194	18 689	3 381	4 995	120 869	48 068	37 050	131 887

### 8.2 Volume of industrial production, 1990=100 (seasonally adjusted figures)

Period	Total industry	Mining and quarrying	Manu- facturing	Wood and paper industries	Metal and engineering industries	Other manu- facturing	Energy and water supply
	(100.0)	(1.3)	(89.6)	(16.8)	(31.3)	(41.5)	(9.1)
	1	2	3	4	5	6	7
1992	92.4	88.4	91.4	94.6	91.1	90.2	103.0
1993	97.4	86.1	96.4	104.5	99.7	90.8	107.9
1994	108.5	96.2	108.1	117.0	119.5	95.8	114.3
1995*	116.6	95.7	117.5	118.0	143.8	97.4	111.1
1996*	120.9	88.1	121.3	115.3	153.1	99.8	121.8
1996*							
Jan.	116.4	90.4	116.8	109.4	148.4	97.2	116.1
Feb.	115.9	80.8	115.8	109.3	146.7	97.1	124.2
March	118.4	83.9	118.8	110.5	148.7	98.4	119.1
April	117.9	92.6	118.2	112.0	148.6	98.8	118.5
May	119.9	81.2	120.3	111.4	151.3	99.2	124.7
June	121.6	83.6	122.2	112.3	153.5	100.7	120.4
July	120.2	56.7	121.0	116.1	150.8	100.9	121.7
Aug.	120.0	158.7	120.0	117.4	151.6	100.0	121.3
Sept.	123.8	82.8	123.9	120.1	155.6	100.9	125.5
Oct.	124.1	84.7	124.1	120.8	157.2	100.8	127.2
Nov.	125.7	83.4	126.5	124.0	160.0	101.0	119.7
Dec.	127.1	78.1	127.8	120.8	161.5	102.3	124.4
1997*							
Jan.	125.4	85.3	125.6	126.2	159.6	102.0	130.0

### 8.3 Indicators of domestic supply and demand, 1990=100 (seasonally adjusted figures)

Period	Volume of wholesale trade	Volume of retail trade	Volume of construction of buildings	Of which:		Imports of investment goods	Monthly GDP indicator
				Residential buildings	Industrial buildings		
	1	2	3	4	5	6	7
1992	72.7	83.0	59.9	57.3	44.8	78.1	91.1
1993	68.5	78.1	46.9	47.2	35.6	72.9	89.9
1994	73.0	79.7	42.2	45.1	35.2	84.4	93.7
1995*	76.2	82.6	42.0	41.1	49.9	88.5	97.7
1996*	77.8	86.0	43.9	38.5	55.6	102.8	100.6
1996*							
Jan.	85.9	79.6	39.4	37.7	53.6	96.0	98.5
Feb.	84.8	79.5	40.8	39.7	54.8	107.4	98.3
March	82.7	73.8	41.9	41.2	54.1	105.0	97.5
April	85.1	79.9	42.5	40.7	55.2	100.1	98.6
May	85.9	77.5	42.4	38.6	55.6	100.8	99.9
June	82.7	72.9	42.7	36.5	53.5	100.0	99.7
July	87.3	79.4	43.8	34.9	55.3	98.6	100.9
Aug.	86.8	75.3	43.4	32.6	55.4	95.2	100.9
Sept.	85.1	76.9	45.4	34.6	56.7	103.9	102.3
Oct.	89.3	81.3	46.0	37.4	56.8	110.6	103.5
Nov.	88.3	77.7	46.8	41.4	57.1	105.6	103.0
Dec.	88.2	79.7	48.6	46.5	59.5	110.0	103.9
1997*							
Jan.	89.6	81.8	46.7	48.1	59.2	..	103.9

## 8.4 Wages and prices, 1990=100

Period	Index of wage and salary earnings	By sectors			Consumer price index	Indicator of underlying inflation	Basic price index for domestic supply	By origin		Producer price index for manufacturing	By marketing area		Building cost index
		Private	Of which: Manufacturing (SIC 3)	Public				Domestic goods	Imported goods		Exported goods	Home market goods	
	1	2	3	4	5	6	7	8	9	10	11	12	13
1992	108.4	108.1	108.3	109.0	107.4	107.1	101.4	99.5	108.5	101.6	102.7	101.1	100.4
1993	109.2	108.8	110.0	110.1	109.7	109.9	104.8	100.8	119.3	105.5	109.2	103.9	100.7
1994	111.4	111.6	115.0	111.1	110.9	111.4	106.2	102.8	118.7	107.1	110.2	105.8	102.2
1995	116.6	117.4	123.1	114.7	112.0	111.3	106.9	103.8	118.5	110.8	118.0	107.7	103.5
1996 <sup>1</sup>	121.1	121.8	127.5	119.2	112.6	111.4	105.9	102.0	120.1	110.9	118.5	107.6	102.7
1995 IV	119.1	119.9	125.4	117.3	112.0	111.2	105.8	102.6	117.5	112.0	121.4	108.0	103.3
1996													
Feb.	..	..	..	..	112.4	111.4	106.1	102.7	118.6	112.3	120.7	108.7	101.9
March	..	..	..	..	112.5	111.6	106.0	102.2	119.7	112.0	121.3	108.0	102.0
April	..	..	..	..	112.7	111.6	106.1	102.0	121.5	111.7	120.6	107.9	102.1
May	..	..	..	..	112.9	111.7	105.9	101.7	121.0	111.4	120.0	107.7	102.4
June	..	..	..	..	112.9	111.7	105.5	101.4	120.9	110.8	119.5	107.1	102.7
July	..	..	..	..	112.8	111.5	105.5	101.2	121.0	110.2	117.8	106.9	102.8
Aug.	..	..	..	..	112.6	111.1	105.4	101.3	120.2	109.7	116.4	106.8	103.1
Sept.	..	..	..	..	112.8	111.5	105.9	101.9	120.8	109.8	115.8	107.2	103.0
Oct.	..	..	..	..	113.0	111.7	106.4	102.5	120.8	110.2	116.2	107.6	103.1
Nov.	..	..	..	..	112.7	111.5	105.9	102.3	119.3	110.0	116.0	107.4	103.3
Dec.	..	..	..	..	112.7	111.5	106.3	102.7	119.3	110.1	115.5	107.8	103.4
1996 <sup>1</sup>													
I	120.3	121.1	126.7	118.3	112.3	111.3	106.1	102.3	118.9	112.2	121.2	108.4	102.0
II	120.5	121.3	127.0	118.5	112.8	111.6	105.8	101.7	121.1	111.3	120.0	107.6	102.4
III	120.6	121.3	126.8	118.7	112.7	111.3	105.6	101.5	120.7	109.9	116.7	107.0	103.0
IV	123.0	123.7	129.4	121.3	112.8	111.6	106.2	102.5	119.8	110.1	115.9	107.6	103.3
1997													
Jan.	..	..	..	..	112.6	111.1	106.5	102.6	120.1	110.1	115.3	107.7	103.7
Feb.	..	..	..	..	112.8	..	106.7	103.2	119.8	110.2	115.0	108.1	103.7

<sup>1</sup> Preliminary figures for columns 1-4.



## 8.5 Labour, employment and unemployment (seasonally adjusted figures)

Period	Labour force participation rate among 15-74 year olds	Labour force	Total employment (4+5) = (6+7+8)	By industrial status			By industry			Unemployed	Unemployment rate
				Self-employed	Wage and salary earners	Agriculture, forestry and fishing	Mining, manufacturing and energy supply	Other industries			
1000 persons											
%											
	1	2	3	4	5	6	7	8	9	10	
1992	66.1	2 502	2 174	325	1 849	187	453	1 534	328	13.1	
1993	65.3	2 484	2 041	312	1 729	173	424	1 444	444	17.9	
1994	64.8	2 480	2 024	312	1 712	167	426	1 430	456	18.4	
1995	65.1	2 497	2 068	304	1 764	158	456	1 454	430	17.2	
1996*	65.0	2 503	2 096	302	1 794	148	459	1 489	408	16.3	
1996*											
Feb.	64.9	2 537	2 128	350	1 778	151	454	1 523	409	16.2	
March	65.1	2 543	2 132	348	1 784	150	461	1 521	411	16.2	
April	65.4	2 557	2 157	359	1 798	153	469	1 534	401	15.6	
May	65.1	2 542	2 137	351	1 786	150	452	1 535	404	16.1	
June	64.7	2 518	2 123	344	1 779	142	454	1 527	395	16.2	
July	64.7	2 537	2 142	354	1 789	148	465	1 529	395	15.5	
Aug.	65.5	2 557	2 153	356	1 797	146	457	1 550	404	15.9	
Sept.	64.4	2 528	2 138	344	1 794	143	442	1 552	391	14.7	
Oct.	64.9	2 541	2 151	342	1 809	149	467	1 535	390	15.2	
Nov.	65.5	2 560	2 165	350	1 815	149	469	1 547	395	15.5	
Dec.	64.8	2 541	2 156	348	1 807	145	454	1 557	386	15.1	
1997*											
Jan.	65.2	2 537	2 150	333	1 817	147	460	1 542	388	15.4	
Feb.	65.7	2 555	2 168	344	1 824	149	470	1 549	387	15.1	

## 8.6 Central government finances: revenue, expenditure and financial balance,

mill FIM, cash flow basis

During period	Revenue						Expenditure				
	Direct taxes	Indirect taxes	Other taxes and similar revenue	Other revenue	Revenue before financial transactions (1+2+3+4)	Redemptions of loans granted by the state	Revenue before borrowing (5+6)	Consumption	Transfers and subsidies	Of which:	
										Local government	Other domestic sectors
	1	2	3	4	5	6	7	8	9	10	11
1991	41 054	73 251	1 136	19 182	134 624	4 442	139 069	45 085	101 220	42 297	55 160
1992	34 312	69 541	1 512	21 251	126 616	5 054	131 669	49 291	105 184	42 990	59 180
1993	31 667	67 291	1 443	28 823	129 224	7 366	136 593	46 880	108 608	42 720	63 535
1994	34 588	68 124	1 792	24 095	128 599	7 308	135 900	48 750	108 155	40 388	65 519
1995	40 092	66 902	1 720	35 837	144 550	7 923	152 473	51 446	113 644	39 481	67 514
1995											
Nov.	4 994	5 973	74	2 838	13 879	2 165	16 044	4 514	9 696	2 768	6 481
Dec.	5 347	5 549	60	5 700	16 657	598	17 254	5 846	10 189	3 292	6 954
1996											
Jan.	3 735	7 182	110	3 792	14 818	165	14 983	3 930	12 283	2 974	7 880
Feb.	3 693	7 341	1 089	3 784	15 907	233	16 141	4 064	7 922	2 839	4 692
March	5 458	5 992	150	1 841	13 441	137	13 578	4 486	9 261	3 475	5 194
April	3 590	5 237	58	4 006	12 891	3 469	16 360	4 154	9 517	2 945	5 752
May	3 016	5 805	75	2 979	11 876	843	12 719	4 095	8 753	2 996	5 189
June	3 435	5 863	72	5 222	14 592	850	15 443	5 032	8 952	2 863	5 459
July	3 817	6 187	59	2 003	12 067	323	12 390	5 036	8 707	2 891	5 151
Aug.	3 766	6 125	59	2 483	12 433	219	12 652	3 913	6 090	1 476	4 505
Sept.	3 481	6 391	57	2 526	12 455	3 261	15 716	4 579	8 030	2 747	4 913
Oct.	3 590	6 542	58	3 602	13 792	329	14 121	4 205	10 912	2 995	7 040
Nov.	4 260	6 049	91	3 216	13 616	1 113	14 729	4 068	7 922	2 301	5 158

During period	Expenditure					Financial balance			
	Fixed investment	Other expenditure	Expenditure before financial transactions (8+9+12+13)	Lending and other financial investment	Expenditure before redemptions of state debt (14+15)	Revenue surplus (5-14)	Net borrowing requirement (7-16)	Net borrowing	Cash surplus (18+19)
1991	5 370	6 368	158 044	13 328	171 372	-23 420	-32 304	25 659	-6 645
1992	5 042	8 499	168 016	35 501	203 516	-41 400	-71 847	70 691	-1 155
1993	4 306	18 076	177 870	19 753	197 623	-48 646	-61 030	84 036	23 009
1994	3 737	22 281	182 923	17 886	200 760	-54 324	-64 860	73 193	8 336
1995	3 208	26 336	194 635	16 765	211 399	-50 085	-58 926	54 071	-4 854
1995									
Nov.	315	1 113	15 638	590	16 228	-1 759	-184	8 689	8 505
Dec.	603	2 089	18 726	-159	18 567	-2 070	-1 313	1 905	593
1996									
Jan.	151	5 235	21 599	623	22 221	-6 781	-7 238	6 755	-484
Feb.	260	1 544	13 790	454	14 243	2 118	1 897	10 359	12 256
March	185	4 560	18 491	393	18 884	-5 050	-5 306	760	-4 546
April	175	2 759	16 605	3 605	20 210	-3 714	-3 850	6 544	2 694
May	207	1 291	14 346	770	15 117	-2 470	-2 398	2 496	98
June	219	3 060	17 262	2 075	19 338	-2 670	-3 895	3 503	-392
July	316	1 154	15 214	437	15 651	-3 147	-3 261	3 900	639
Aug.	334	1 090	11 427	457	11 884	1 006	768	6 829	7 597
Sept.	290	4 787	17 686	586	18 272	-5 231	-2 556	-10 228	-12 784
Oct.	369	1 832	17 318	489	17 807	-3 526	-3 686	-258	-3 943
Nov.	260	963	13 213	479	13 693	403	1 036	-138	898

# Notes and explanations to the statistical section

## General

### Source

Unless otherwise stated, the source or compiler of figures is the Bank of Finland.

### Symbols used

*	Preliminary
r	Revised
0	Less than half the final digit shown
.	Logically impossible
..	Data not available
—	Nil
S	Affected by strike
-	Break in series

Owing to rounding of figures, the sum of the individual items in the tables may differ from the total shown.

## Notes and explanations to tables

### 1 The balance sheet of the Bank of Finland

**Table 1.2** Domestic financial sector. Term claims on deposit banks, net (Column 12) = bank certificates of deposit held by the Bank of Finland + securities with repurchase commitments + term credits - term deposits. Other claims on financial institutions, net (Column 14) = till-money credits to deposit banks (until May 1993) + bonds + other claims on financial institutions + liquidity credits - call money deposits (until September 1995) - other liabilities to financial institutions.

### 2 The Bank of Finland's operations in the money and foreign exchange markets and the banks' forward exchange position

**Table 2.1** From 2 October 1995, banks fulfil their minimum reserve requirement as a monthly average of deposits. From October 1995, the requirement and deposits are shown for the month during which the requirement is to be fulfilled. Before deposits were shown for the previous month, because deposits were matched with the requirement on the last banking day of that month. The requirement is determined on the basis of the reserve base two months earlier (up to September 1995 one month earlier). The reserve base was changed on 31 March 1995 to comply with the new balance sheet format. Liquidity credits (Column 7): see explanations, Table 3.2.

**Table 2.2** Money market instruments are the instruments used by the Bank of Finland in its money market operations. Matured money market instruments, net, comprise both instruments purchased and sold. Money market transactions are recorded according to trade dates.

**Table 2.3** Foreign exchange transactions are recorded according to trade dates. In addition to spot transactions (Columns 1, 2, 4 and 5) the Bank of Finland's foreign exchange reserves are affected by interest payment and by changes in both the prices of securities and exchange rates. Spot transactions related to forward contracts (Column 4) refer to the combined effects on the foreign

exchange reserves of forward transactions in the form of swaps and maturing forward transactions. The central government's foreign exchange transactions (Column 5) comprise transactions related to drawings and redemptions of government loans and associated interest payments.

**Table 2.4** The markka value of forward contracts is given.

## 3 Rates of interest

**Table 3.1** The interbank overnight rate (Column 1) is weighted using amounts of interbank deposits as weights. Since 1 June 1995, HELIBOR rates (Helsinki Interbank Offered Rate) (Columns 2-5) have been calculated on the basis of the bid rates (offered rates for funds) quoted for their own certificates of deposit by all the banks that have been accepted by the Bank of Finland as counterparties in money market operations. An additional condition is that a bank gives regular quotations. The highest and lowest rates quoted for each maturity are omitted and an arithmetic average calculated for the remaining rates. The quotations are taken daily at 1 p.m.

**Table 3.2** The Bank of Finland's tender rate (Column 1) is determined in tenders held by the Bank of Finland, in which the banks are asked to make bids or offers for money market instruments with a maturity of one month. The tender rate is the weighted average of accepted bids or offers, expressed as a simple annual interest rate. If, when requesting bids or offers, the Bank of Finland announces an acceptable interest rate (fixed-rate tender), the tender rate is the same as the rate announced by the Bank. The monthly and annual values for the tender rate are the arithmetic means of calendar day figures.

Credit institutions which are subject to the minimum reserve requirement and maintain a current account with the Bank of Finland may obtain liquidity credit to cover overdrafts and to fulfil their minimum reserve requirement. They can obtain liquidity credit with a maturity of 1 day, 7 days, 14 days, 21 days or 28 days. The maturity of liquidity credit is determined by the Bank of Finland. The rate of interest on liquidity credit is obtained by adding together the Bank of Finland's tender rate and the interest rate margin for liquidity credit. The call money deposit rate in use prior to October 1995 was obtained by subtracting the interest rate margin for call money deposits from the Bank of Finland's tender rate. Since 2 October 1995, the monthly average of a bank's call money deposits exceeding the minimum reserve requirement has been treated as excess reserve. The interest rate paid on excess reserves is determined separately by the Bank of Finland. The values for maturity and interest rate margins are the last values recorded in each period.

**Table 3.3** The rates shown are based on the lending rates quoted for the respective currencies in the Euro-market. ECU (Column 1): the weights of the ECU basket. 3 currencies (Column 2): DEM 60, USD 30 and GBP 10 per cent.

**Table 3.4** Lending. New credits (Columns 1-4): rates of interest on new credits drawn during the month are average monthly rates weighted by loan amounts. Annual rates are arithmetic average of monthly observations until 1987 after which they are weighted by loan amounts. Average lending rates (Columns 5 and 6) are all weighted by

loan amounts. As from January 1989, the loans of Postipankki Ltd have been included in the commercial banks' outstanding stock of loans. **Deposits.** 24-month and 36-month tax-exempt deposits (Columns 7 and 8): from May (September) 1992, 24-month (36-month) deposits are tax-exempt if they carry a rate of interest which is at most the Bank of Finland's base rate less two percentage points (one percentage point). In the period from January 1989 to April 1992, 24-month deposits (Column 7) were tax-exempt if they carried a rate of interest which was at most the Bank of Finland's base rate less one percentage point. Other tax-exempt deposits (Column 9): in the period from January 1989 to April 1992, deposits other than 24-month deposits were tax-exempt if they carried a rate of interest which was at most the Bank of Finland's base rate less 4 percentage points. From May 1992, deposits other than 24-month or 36-month deposits are tax-exempt if they carry a maximum rate of interest as prescribed by law. The maximum rate was first set at 4.5 per cent. From 6 May 1993 it has been 2.5 per cent. All markka deposits (Column 10): the stock of deposits comprises all markka deposits by the public. The monthly and annual average rates of interest are weighted by deposit amounts. Other funding (Column 11): CDs outstanding + promissory notes + bonds. The average rate of interest is weighted by amounts. Total markka funding (Column 12); markka deposits by the public + banks' other markka funding. The rate of interest is weighted by amounts.

**Table 3.5** Reference rates (Columns 1 and 2) are calculated by the Bank of Finland as the monthly averages of the offered rates for taxable, fixed-rate bonds quoted daily by the five largest banks. The yields on five-year and ten-year government bonds (Columns 3 and 4) are calculated by the Bank of Finland as averages of the bid rates quoted daily by the primary dealers. The five-year yield is based on quotations for a fixed-rate bullet serial bond (1/94, 15 September 1994 – 15 September 2001). As from 9 August 1996 the ten-year yield is based on quotations for a fixed-rate bullet serial bond (1/96, 18 Apr 1996–2006). The share yield (Column 5) is the weighted effective yield on shares quoted on the Helsinki Stock Exchange. Source: Statistics Finland.

#### 4 Rates of exchange

**Table 4.2** FIM/ECU (Column 1): The markka value of the ECU is calculated as the sum of the dollar amounts of the currencies in the ECU valued at current market rates quoted daily at noon Finnish time. The markka was floated on 8 September 1992, continuing until 14 October 1996, when it was joined to the EU's Exchange Rate Mechanism (ERM) at the central rate of 5.80661 per ECU. As from 25 November 1996 the ECU central rate is FIM 5.85424. Trade-weighted currency index (Column 2): The weights are moving averages of the shares of (currently) 14 countries in Finland's foreign merchandise trade (only convertible currencies are included). The payments currency index (Column 3): The weights are moving averages of shares of payments currencies (14 convertible currencies) in Finland's foreign trade.

**Table 4.3** The table shows the deviations of the markka's market exchange rate (markka value of the foreign currency) as a percentage of the ERM central rate for each currency. A plus (+) indicates that the markka is weaker than its central rate value against the other currency; the intervention limit is (central rate) +16.121 per cent. A minus (-) indicates that the markka is stronger than its central rate value against the other currency; the intervention limit is (central rate) -13.881 per cent.

#### 5 Other domestic financing

**Table 5.1** Source: Statistics Finland. The public comprises households and non-profit institutions, enterprises

(excl. financial institutions) and the local government sector. The table is based on new classifications of Statistics Finland applied since March 1991. Series before March 1991 have been reclassified by the Bank of Finland to conform with the present table, except for columns 3 and 4 where disaggregation was not possible and combined figures are shown. Time deposits (Column 3) consist of all fixed-term deposits. Other deposits (Column 4) include mainly investment accounts with no specific time-period. Other funding (Column 8) comprises CDs, promissory notes and bonds. The figures for banks' holdings of CDs issued by other banks, as well as the CD holdings of the Bank of Finland and the central government have been netted out; netting out is done by the Bank of Finland. Hence, this column includes some liabilities held by entities not covered by the above definition of the public.

**Table 5.2** Source: Statistics Finland. The public comprises households and non-profit institutions, enterprises (excl. financial institutions) and local government. Foreign currency credits (Column 5) are mainly granted by commercial banks and Postipankki.

**Table 5.3** Foreign assets, net (Column 1) = the Bank of Finland's foreign claims + banks' foreign claims (incl. foreign claims of banks' foreign branches) - the Bank of Finland's foreign liabilities - banks' foreign liabilities (incl. foreign liabilities of banks' foreign branches). *Domestic credit.* Claims on the central government, net (Column 2) = the Bank of Finland's claims on the central government + banks' claims on the central government - the central government's deposits with the Bank of Finland and Postipankki - loans granted from state funds through banks. Claims on the public (incl. local government), (Column 3) = the Bank of Finland's claims on the private sector + banks' claims on the private sector (loans to the public, bonds and debentures (excl. government bonds and bank debentures), claims on other financial institutions, shares held by banks). Other items, net (Column 5) = capital accounts and other items of the Bank of Finland (incl. private sector time deposits with the Bank of Finland) + capital accounts of deposit banks + unclassified assets and liabilities of deposit banks, net (bank debentures, bank CDs held by the public, other market funding and foreign currency deposits by the public).  $M_1$  (Column 6) = currency in circulation - banks' till money + markka cheque and postal giro account deposits and transactions account deposits held by the public.  $M_2$  (Column 7) =  $M_1$  + quasi-money (markka time deposits held by the public, excl. deposits with the Bank of Finland).  $M_3$  (Column 8) =  $M_2$  + bank CDs held by the public.

**Table 5.4** Source: State Treasury Office. Other foreign currency-denominated debt (Column 2) consists of other bonds and debentures and long-term promissory notes. Other bonds and debentures are so-called private placements; long-term promissory notes are bank loans. Miscellaneous items (Column 7) include, inter alia, the liability for coinage (total coinage), promissory notes given to international financial organizations and, as a minus item, the liability to the State Pension Fund. Outstanding lending (Column 10) comprises the stock of loans granted from the central government budget and from extra-budgetary funds. Cash funds (Column 11) comprise the cash funds held in central government accounting offices, funds held in cheque and postal giro accounts, as well as placements of central government cash funds. The main part of the latter is reserved for covering transferable allocations budgeted in previous years.

**Table 5.5** Source: Table A: Financial Supervision from the beginning of 1994. Table B: Statistics Finland from the beginning of 1991. Tables A and B include markka-denominated bonds issued by Finnish issuers in Finland and abroad as well as those issued by foreign issuers in Finland. Table C includes transactions in markka-denominat-

ed bonds outside the Helsinki Stock Exchange. Interbank transactions (Column 1) and transactions (purchases and sales) between banks and customers (Column 2) are transactions by primary dealers and banks entitled to central bank financing. As from 14 July 1995 the following act as primary dealers: Alfred Berg Pankkiiriliike Oy, Evli Fixed Income Securities, Goldman Sachs International, Merita Bank, Okobank, Postipankki, Skandinaviska Enskilda Banken, Svenska Handelsbanken AB (publ), Branch Operation in Finland and Unibank A/S. Purchases from and sales to others (Columns 4 and 5) consist of transactions in benchmark government bonds between primary dealers and other parties. Other parties refer to all parties that are not primary dealers. Bank of Finland releases data daily (page SPFI on Reuters and page 20981 on Telerate) on the trading in benchmark government bonds among primary dealers and between primary dealers and their customers.

**Table 5.6** Source: The Helsinki Stock Exchange. The table has been expanded to take into account the change in the Helsinki Stock Exchange classification of listed companies as from the start of 1997. Column 3 now includes only insurance.

## 6 Balance of payments, foreign liabilities and assets

**Table 6.1** The figures for the trade and goods and services accounts are compiled in accordance with the System of National Accounts. The trade figures for 1995 have been estimated on the basis of a survey of firms carried out by the Bank of Finland. The official foreign trade statistics published by the Board of Customs are delayed owing to changes in statistical systems caused by Finland's entry into the EU. The figures for investment income and expenditure (Columns 7 and 16) include reinvested earnings on direct investment. Preliminary data on reinvested earnings in the previous year have been included in the current account figures. (The annual figure is divided evenly between quarterly figures.)

**Tables 6.2–6.4** Since the beginning of 1994, the former capital account of Finland's balance of payments has been compiled according to the IMF's new recommendations (IMF Balance of Payments Manual, Fifth Edition, 1993).

**Table 6.2** The capital account (Columns 1 and 14) reflects unrequited capital transfers such as forgiven debts and aid from EU funds. Financial derivatives include payments arising from currency and interest rate swaps related to loans, i.e. outstanding loans are recorded according to the original loan contract. Medium-term notes (MTNs) are included under bonds (Columns 4 and 17). The category other investment (Columns 9–12 and 21–24) covers transactions related to trade credits, loans, currency and deposits and other assets and liabilities. Transactions in assets and liabilities related to short- and long-term supplier credits and advance payments related to imports and exports are recorded under trade credits (Columns 9 and 21). The item 'Other capital' (Columns 11 and 23) includes transactions in currency and deposits and short- and long-term assets and liabilities of different sectors not covered by any of the items above. In addition, this cate-

gory includes changes in the central government's subscriptions to and quotas in international organizations as well as transactions in the Bank of Finland's short- and long-term assets and liabilities (excl. reserve items). The most important sub-item under the item 'other capital' comprises banks' other short-term assets and liabilities (in practice interbank deposits). The central bank's reserve assets (Column 27) comprise gold, special drawing rights (SDRs), the reserve position in the IMF and convertible currency claims. A negative figure implies an increase in reserves.

**Table 6.3** The data are classified as in Table 6.2. The items have been translated into markkaa using the spot rates for each date; thus the figures include the impact of changes in exchange rates.

**Table 6.4** This contains data on Finland's net international investment position (liabilities less assets) classified by sector.

## 7 Foreign trade

Source: The National Board of Customs (except for table 7.2). All tables refer to foreign trade in goods.

**Table 7.2** The volume indices (Columns 1 and 2) are calculated from the export and the import values, deflated by the price indices (Columns 3 and 4). Deflation and seasonal adjustments are carried out by the Bank of Finland. The export and the import price indices are provided by Statistics Finland. The terms of trade (Column 5) is the ratio of the export price index to the import price index, multiplied by 100.

**Table 7.4** In addition to all EU countries, those countries are listed whose shares of Finland's exports are at least 1 per cent.

## 8 Domestic economic developments

**Tables 8.1–8.5** Source: Statistics Finland. Seasonal adjustment is done by the Bank of Finland.

**Table 8.2** The indices of industrial production are adjusted for the number of working days in each month. This causes in small differences the annual averages from the corresponding unadjusted figures. For this reason the indices for 1990 also differ marginally from conventional base-year figures, i.e. 100.0.

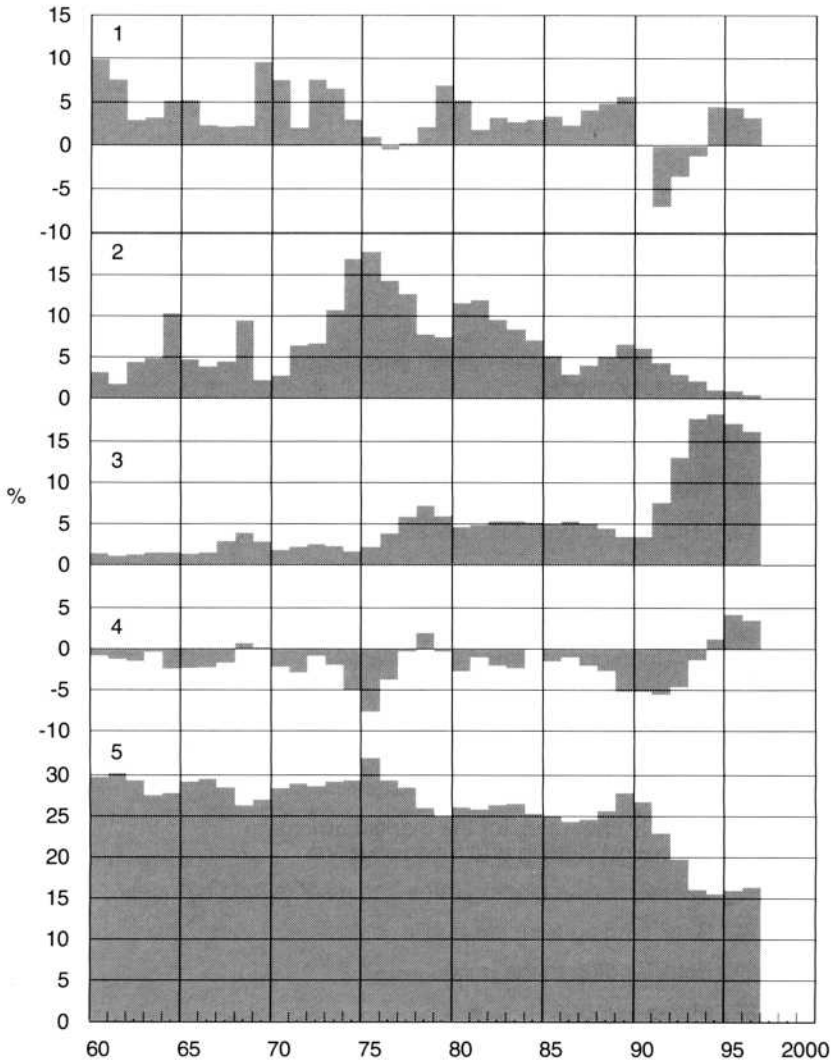
**Table 8.3** The indices of wholesale and retail trade (Columns 1 and 2) are seasonally adjusted by Statistics Finland. The monthly GDP indicator (Column 7) is a weighted index of 11 readily available output indicators for various industries.

**Table 8.4** The indicator of underlying inflation (Column 6) is the consumer price index from which the effect of indirect taxes, subsidies and housing-related capital costs (house prices and mortgage interest payments) has been removed (see the article by Pentti Pikkarainen and Timo Tyrväinen in the June – July 1993 issue of the Bulletin). Statistics Finland calculates the indicator and publishes it together with the consumer price index on the 15th of every month (or the next business day). It is lagged by one month in comparison with the consumer price index.

**Table 8.6** Source: Ministry of Finance.

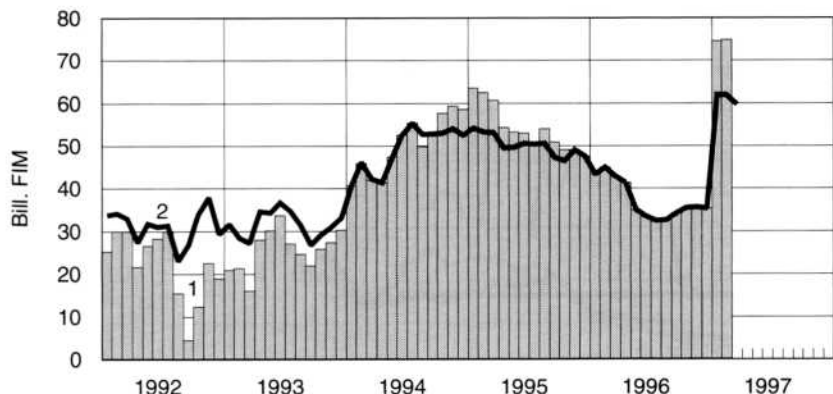
1. Long-term indicators	S30
2. The Bank of Finland's foreign exchange reserves and forward position	S31
3. Forward market	S31
4. Rates of interest set by the Bank of Finland	S31
5. Banks' liquidity position at the Bank of Finland	S32
6. Liquidity management interest rates	S32
7. HELIBOR rates of interest, daily	S32
8. HELIBOR interest rates, monthly	S33
9. Bond yields	S33
10. Differential between Finnish and German interest rates	S33
11. Differential between German and selected EU-countries' 10-year interest rates	S34
12. ERM exchange rates: deviation from DEM central parity	S34
13. ERM exchange rates: deviation from DEM central parity	S34
14. Bank of Finland currency index and markka value of the ECU	S35
15. Daily spot rates for the markka against the Deutschemark and US dollar	S35
16. Daily spot rates for the markka against the pound sterling and Swedish krona	S35
17. Monthly spot rates for the markka against the Deutschemark and US dollar	S36
18. Monthly spot rates for the markka against the pound sterling and Swedish krona	S36
19. Banks' markka lending rates and markka funding rates	S36
20. Bank funding from the public	S37
21. Bank lending to the public	S37
22. Money supply	S37
23. Current account	S38
24. Net interest and dividend expenditure	S38
25. Balance of payments	S39
26. Finland's net international investment position	S39
27. Foreign trade	S40
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30. Production	S41
31. Fixed investment	S41
32. Employment and the unemployment rate	S42
33. Prices and wages	S42
34. Central government finances	S43
35. Central government debt	S43

## 1. Long-term indicators



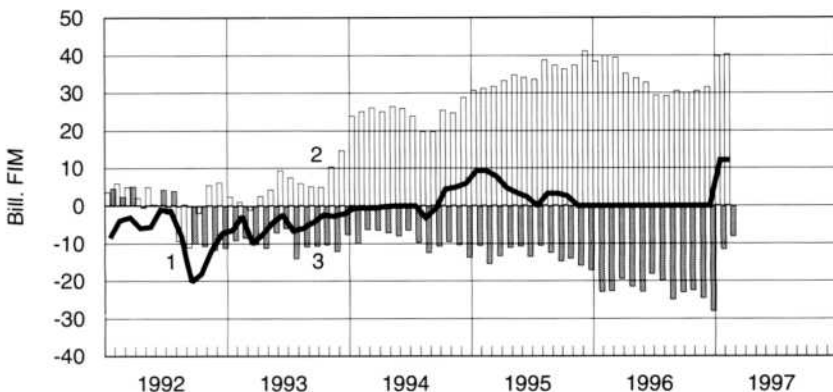
1. GDP, change in volume from the previous year, per cent
2. Consumer prices, change from the previous year, per cent
3. Unemployment rate, per cent
4. Current account, as a percentage of GDP
5. Fixed investment, as a percentage of GDP

## 2. The Bank of Finland's foreign exchange reserves and forward position



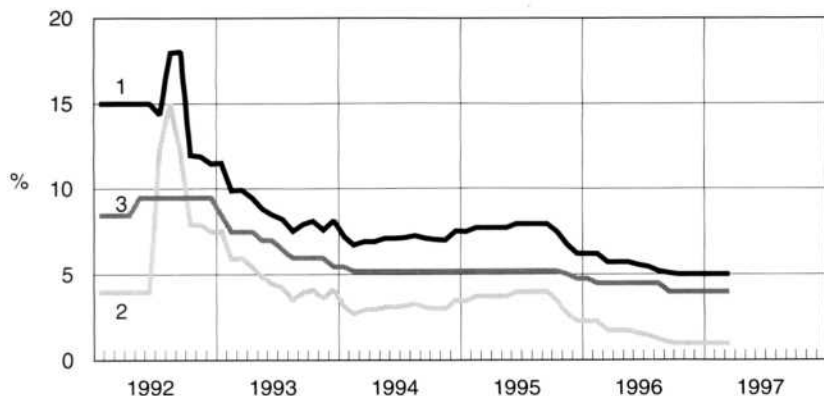
1. Foreign exchange reserves plus forward position
2. Foreign exchange reserves

## 3. Forward market



1. Forward exchange purchased by the Bank of Finland
2. Forward exchange sold to banks by domestic customers
3. Forward exchange sold to banks by foreign customers

## 4. Rates of interest set by the Bank of Finland

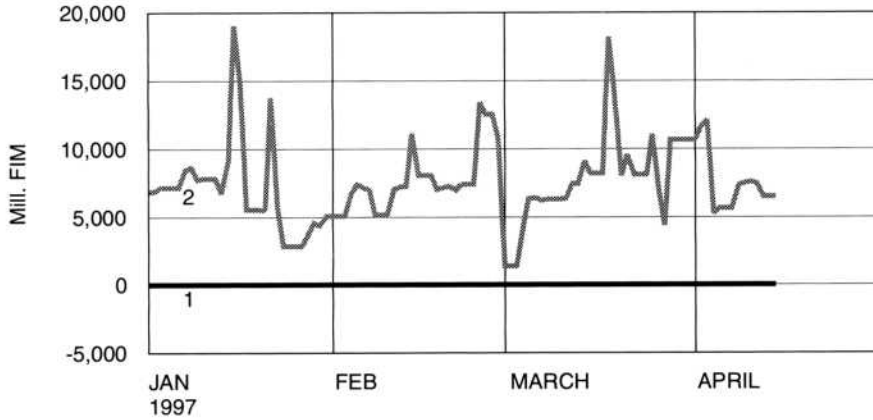


1. Liquidity credit rate (up to 2 July 1992 call money credit rate)
2. Excess-reserve rate (call money deposit rate until 2 October 1995)
3. Base rate

End-of-month observations

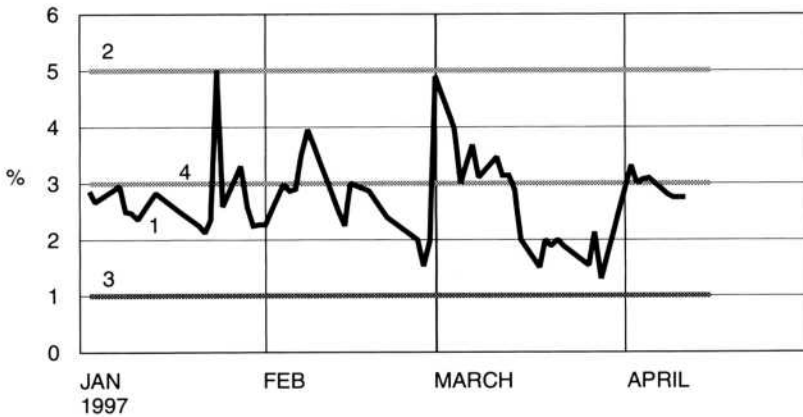


## 5. Banks' liquidity position at the Bank of Finland



1. Liquidity credits (-)
2. Reserve deposits

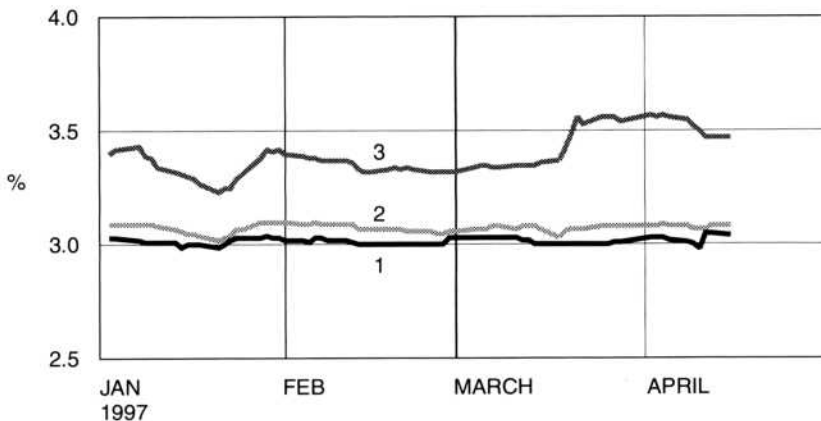
## 6. Liquidity management interest rates



1. Inter-bank overnight rate
2. Liquidity credit rate
3. Excess-reserve rate (call money deposit rate until 2 October 1995)
4. Tender rate

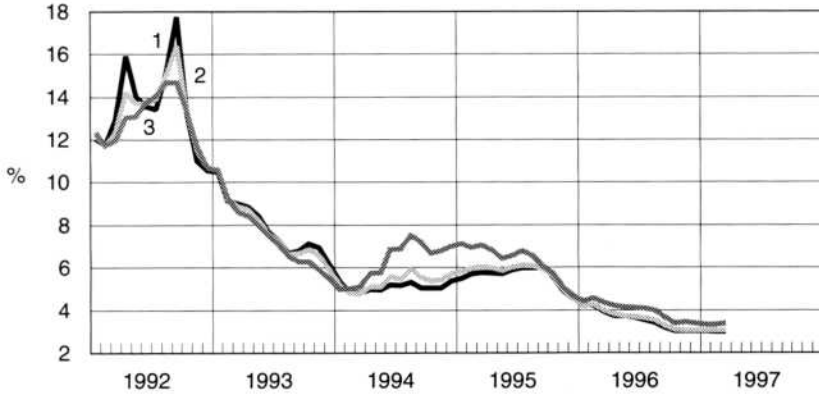
Daily observations

## 7. HELIBOR rates of interest, daily



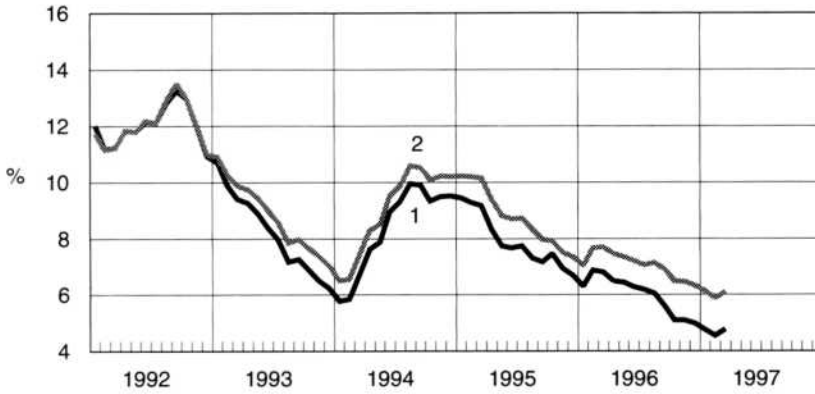
1. 1-month HELIBOR
2. 3-month HELIBOR
3. 12-month HELIBOR

## 8. HELIBOR interest rates, monthly



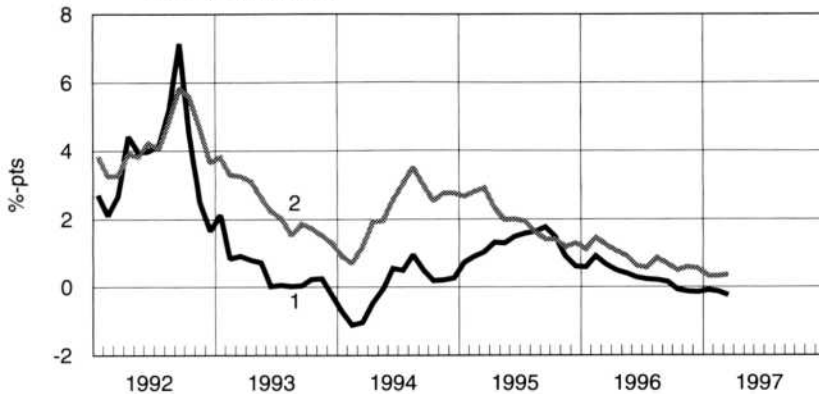
1. 1-month HELIBOR
2. 3-month HELIBOR
3. 12-month HELIBOR

## 9. Bond yields



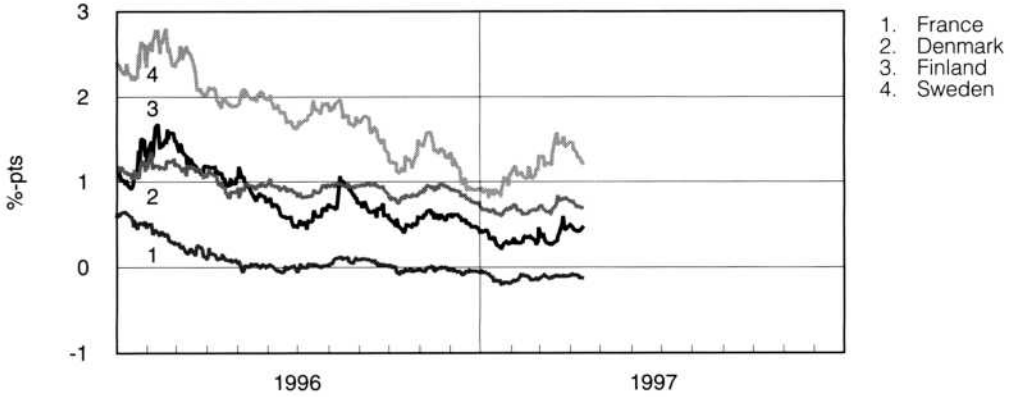
1. Yield on 5-year government bonds
2. Yield on 10-year government bonds

## 10. Differential between Finnish and German interest rates

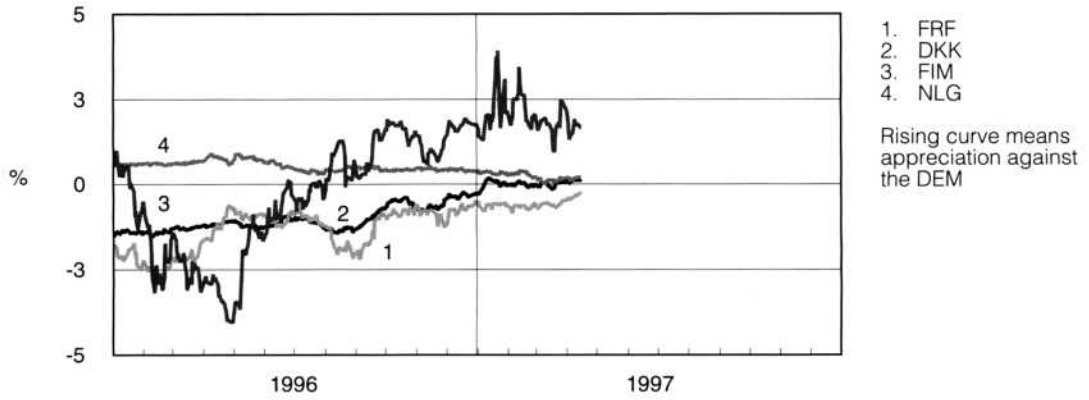


1. 3-month HELIBOR minus 3-month DEM eurorate
2. 10-year Finnish government bond yield minus 10-year German government bond yield

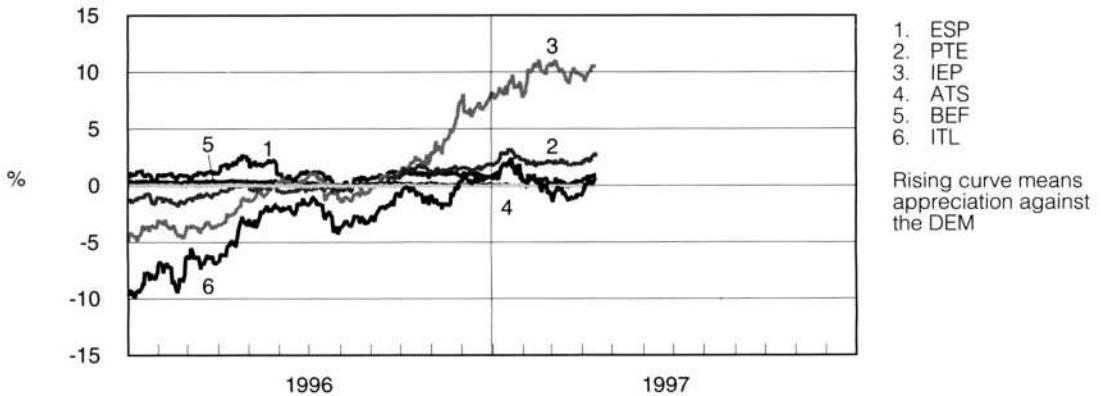
**11. Differential between German and selected EU-countries' 10-year interest rates**



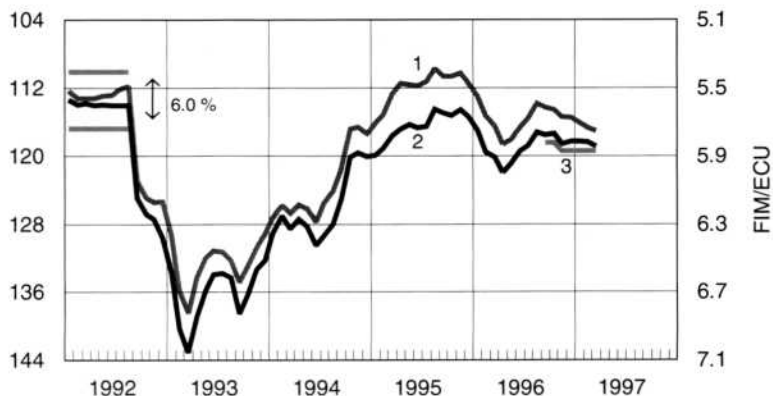
**12. ERM exchange rates: deviation from DEM central parity**



**13. ERM exchange rates: deviation from DEM central parity**

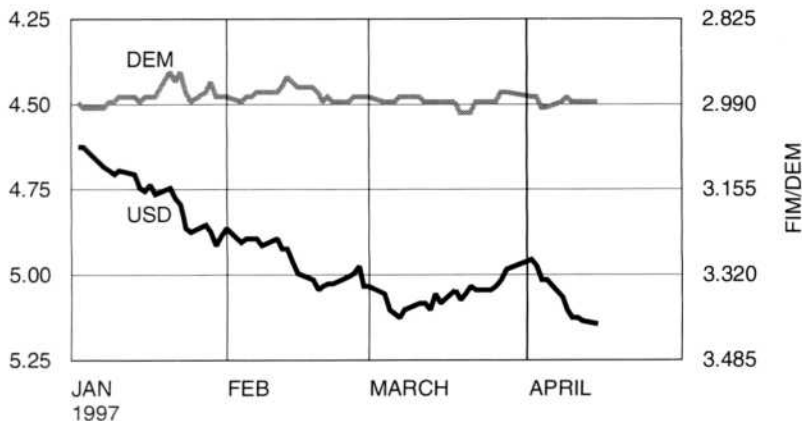


### 14. Bank of Finland currency index and markka value of the ECU



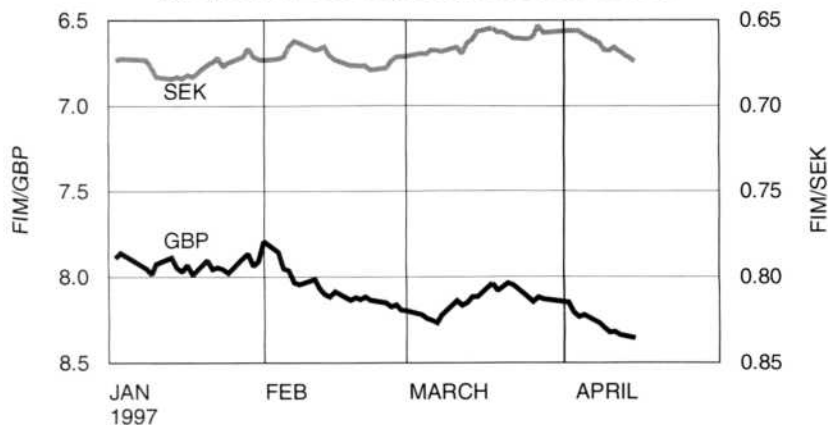
1. Bank of Finland currency index, 1982 = 100 (left scale)
2. Markka value of the ECU from 7 June 1991 (right scale)
3. ECU central rate from 14 October 1996 (right scale)

### 15. Daily spot rates for the markka against the Deutschmark and US dollar



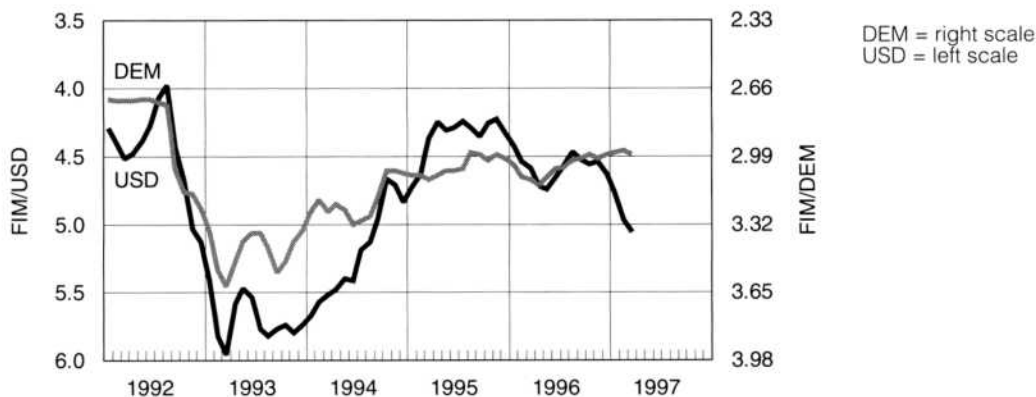
- Middle rates  
DEM = right scale  
USD = left scale

### 16. Daily spot rates for the markka against the pound sterling and Swedish krona

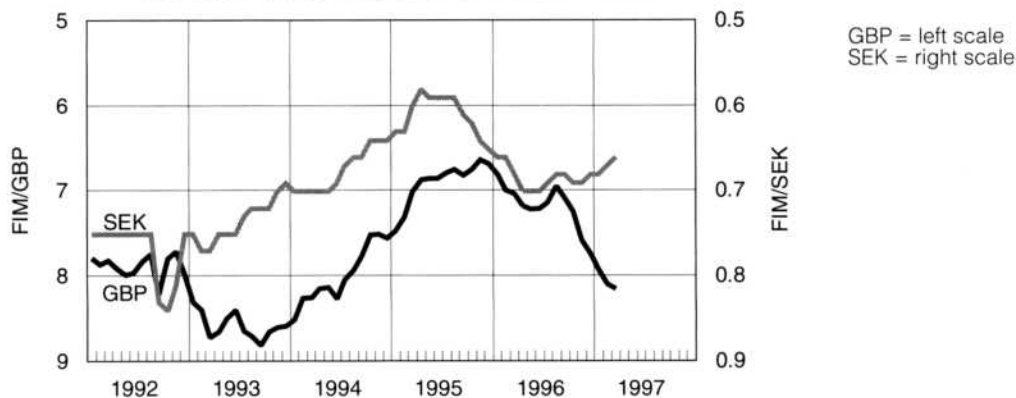


- Middle rates  
GBP = left scale  
SEK = right scale

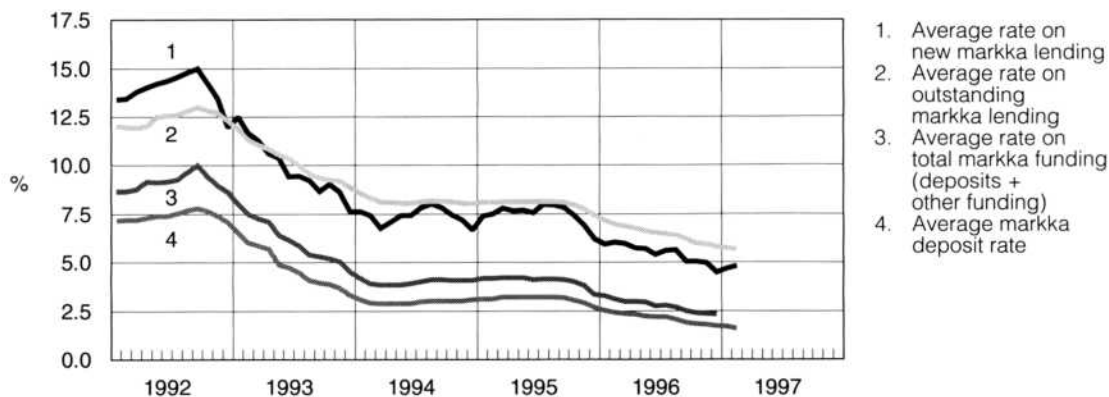
### 17. Monthly spot rates for the markka against the Deutschemark and US dollar



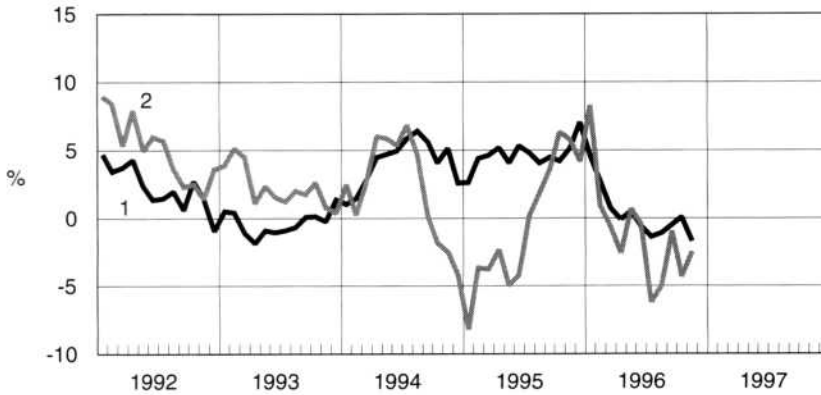
### 18. Monthly spot rates for the markka against the pound sterling and Swedish krona



### 19. Banks' markka lending rates and markka funding rates



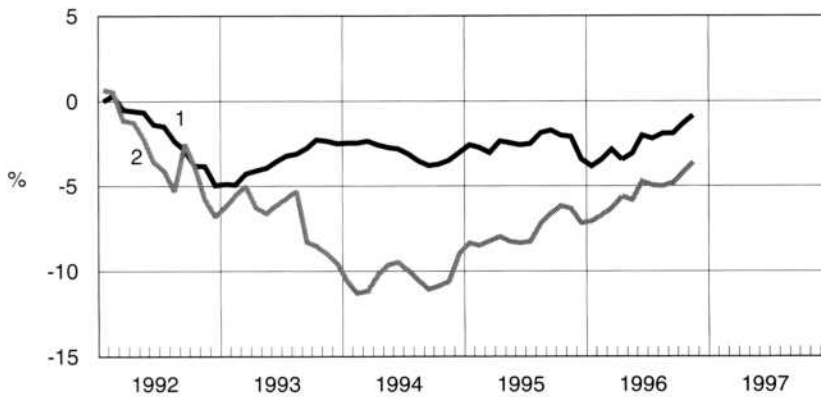
## 20. Bank funding from the public



1. Markka deposits
2. Total funding

Change from the corresponding month of the previous year, per cent

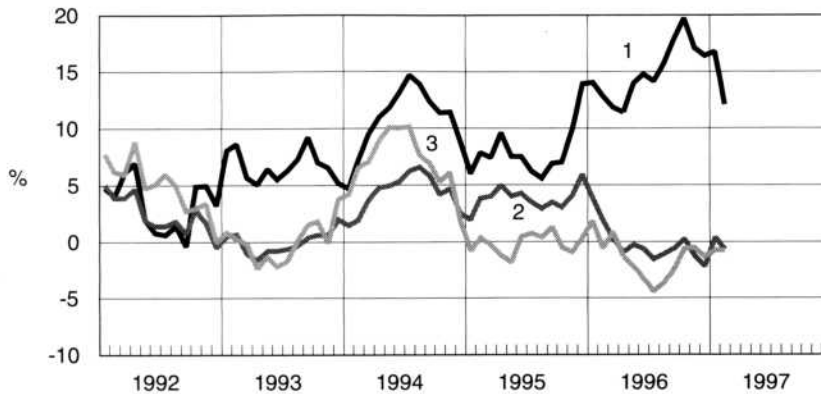
## 21. Bank lending to the public



1. Markka lending
2. Total lending

Change from the corresponding month of the previous year, per cent

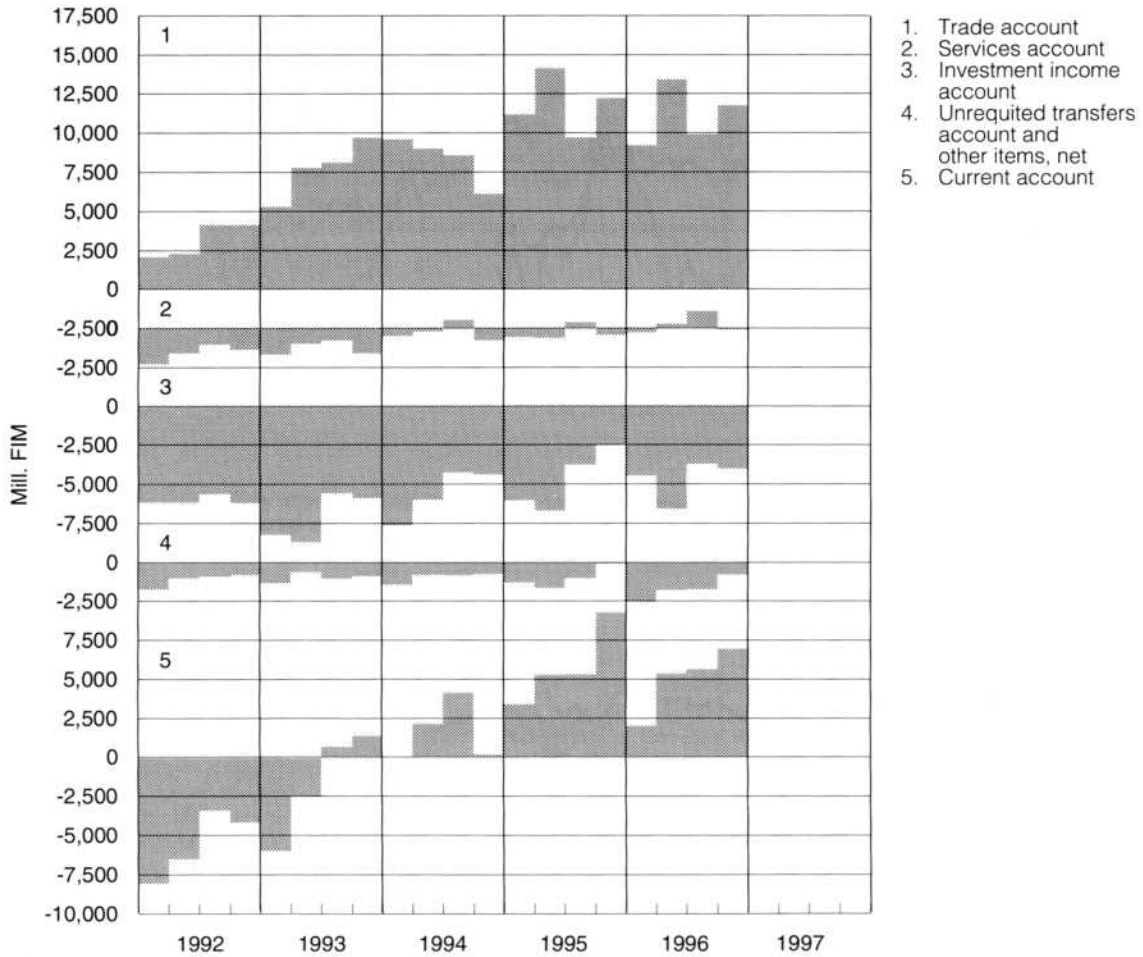
## 22. Money supply



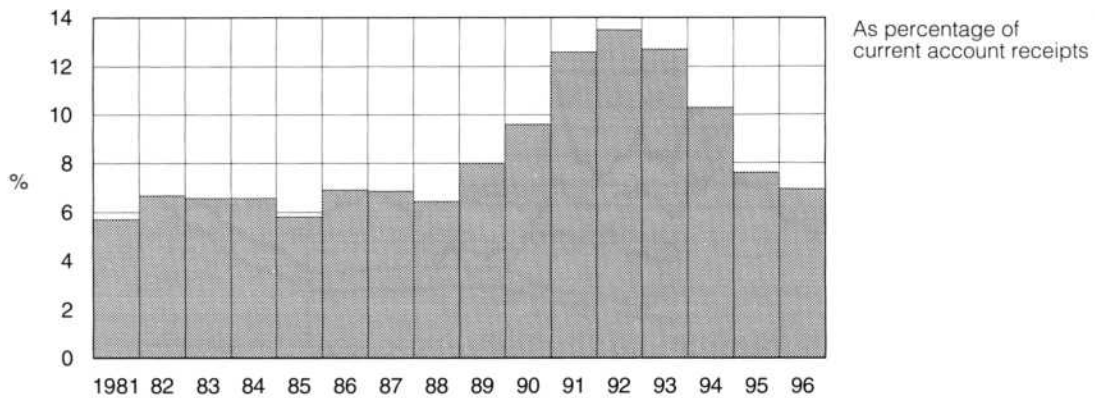
1. Narrow money (M1)
2. Broad money (M2)
3. M2 + bank CDs held by the public (M3)

Change from the corresponding month of the previous year, per cent

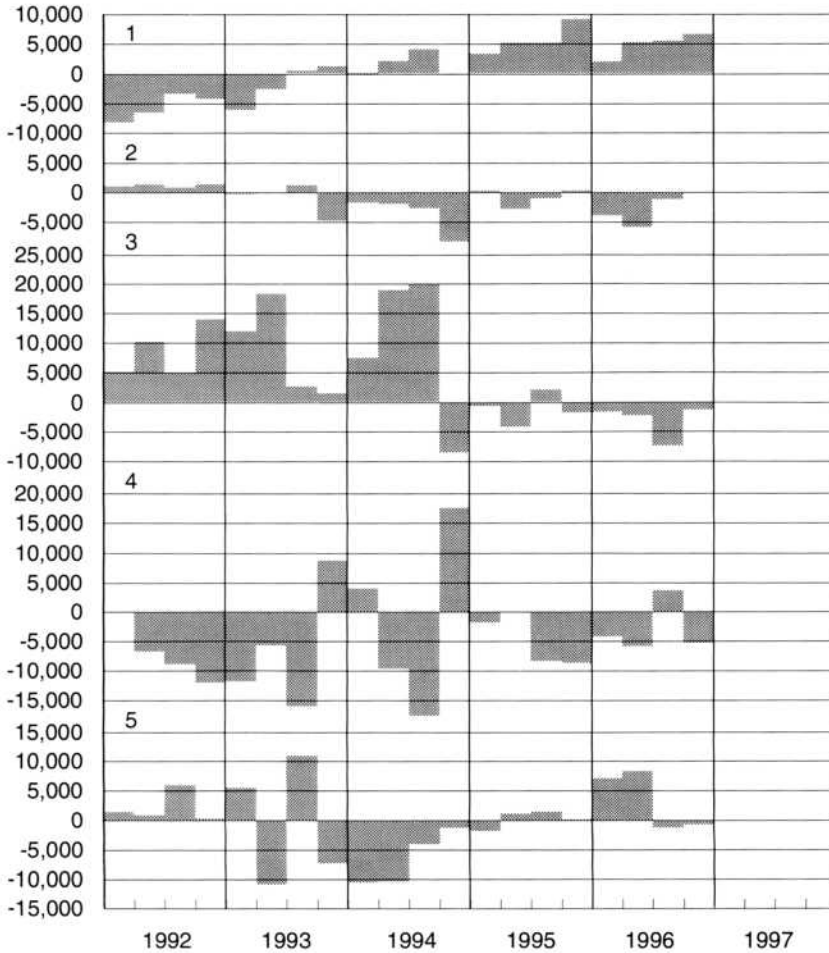
### 23. Current account



### 24. Net interest and dividend expenditure

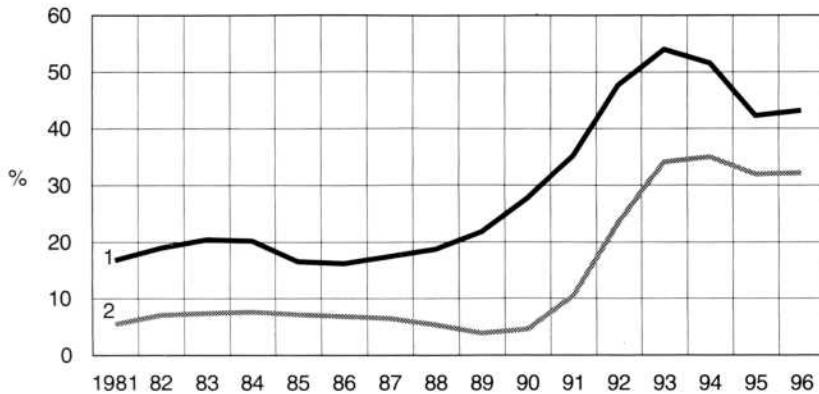


## 25. Balance of payments



1. Current account
2. Direct investment
3. Portfolio investment
4. Other investment
5. Change in central bank's reserve assets (increase = -)

## 26. Finland's net international investment position

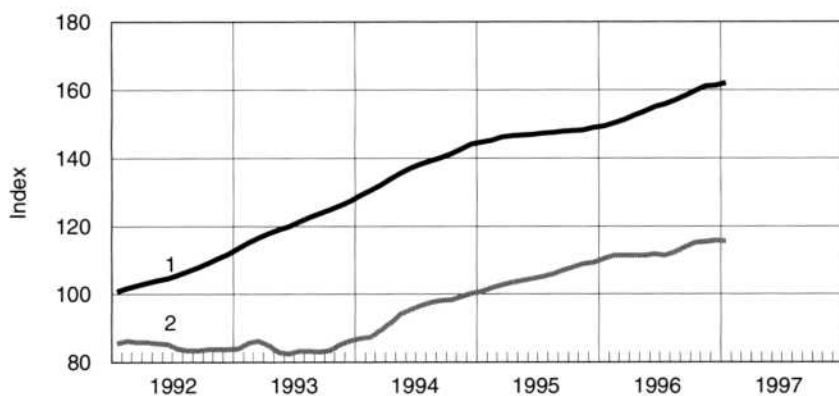


1. Total
2. Of which: central government

The stock of external liabilities minus the stock of external assets, as a percentage of GDP



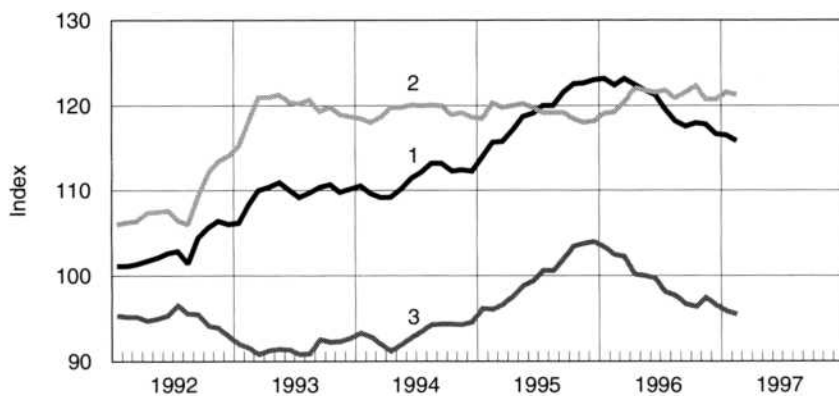
## 27. Foreign trade



1. Exports of goods
2. Imports of goods

Volume index, 1990 = 100, trend

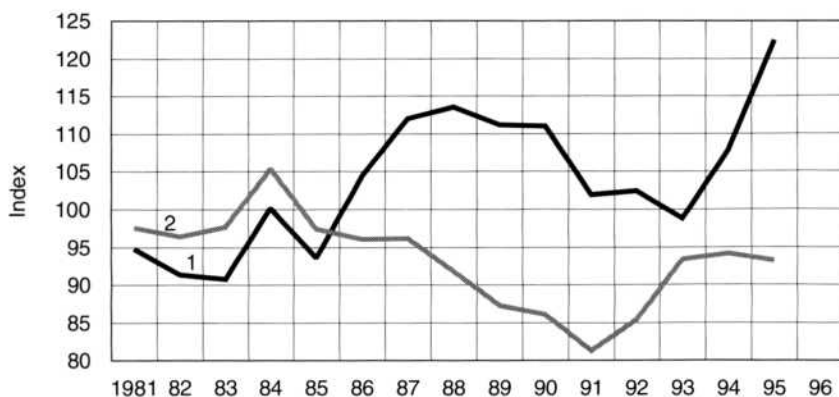
## 28. Foreign trade: prices and terms of trade



1. Export prices
2. Import prices
3. Terms of trade

Index 1990 = 100

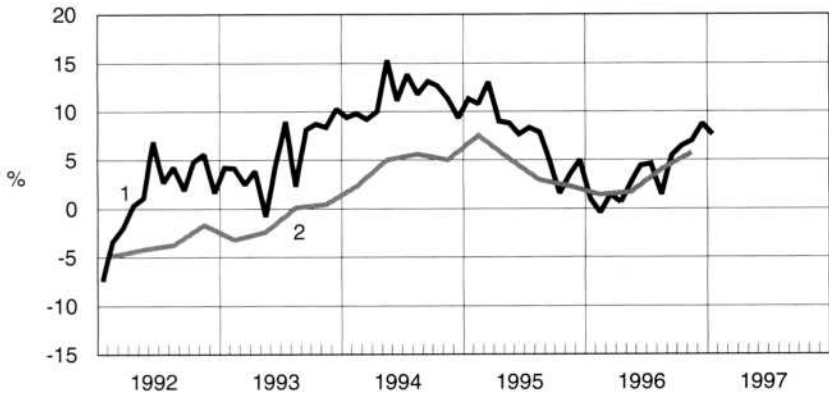
## 29. Finland's export performance



1. Value of exports to OECD countries in relation to imports of OECD countries
2. Volume of exports to OECD countries in relation to imports of OECD countries

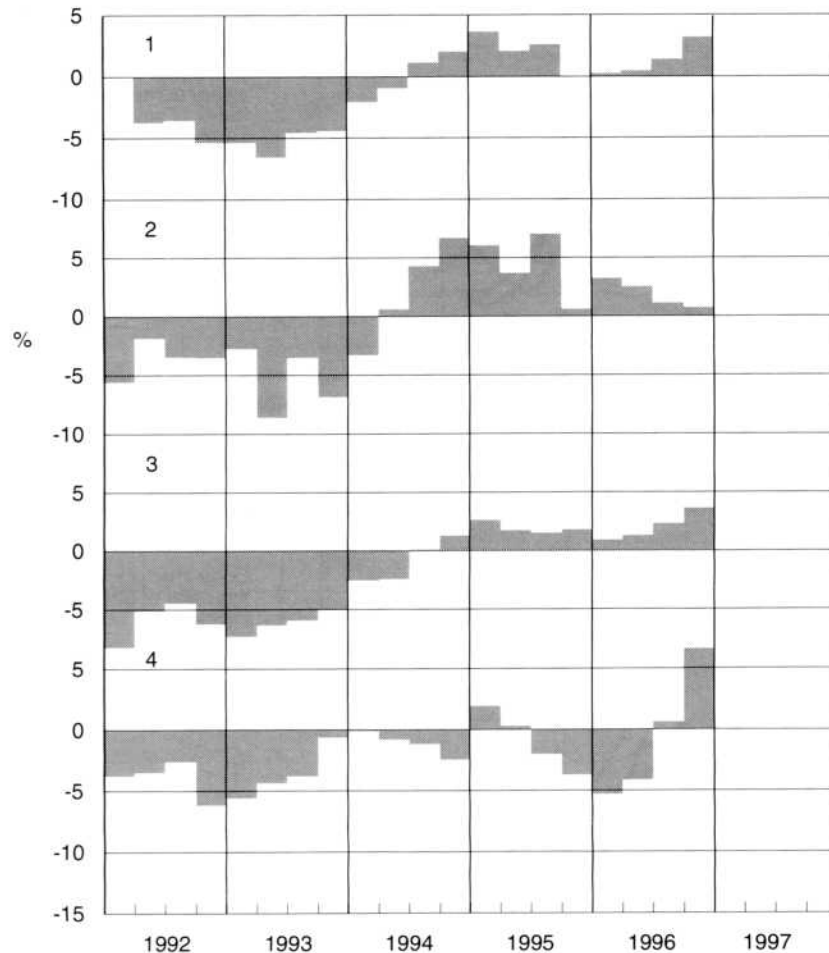
1980 = 100

### 30. Production



1. Industrial production, change in volume from the corresponding month of the previous year, per cent
2. GDP, change in volume from the corresponding quarter of the previous year, per cent

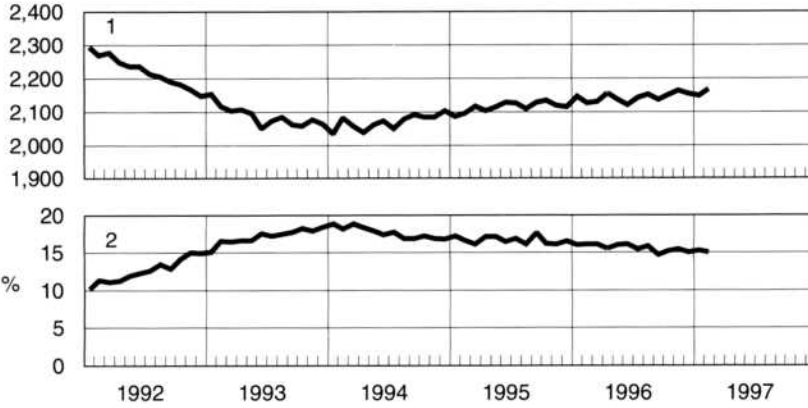
### 31. Fixed investment



1. Total fixed investment
2. Investment in machinery and equipment
3. Building investment, excl. residential buildings
4. Residential buildings

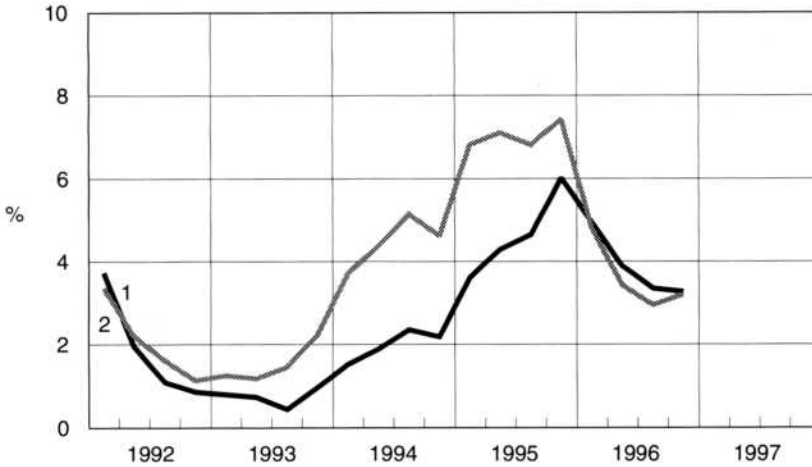
Volume changes calculated from four-quarter moving totals and plotted at the last quarter, per cent

### 32. Employment and the unemployment rate



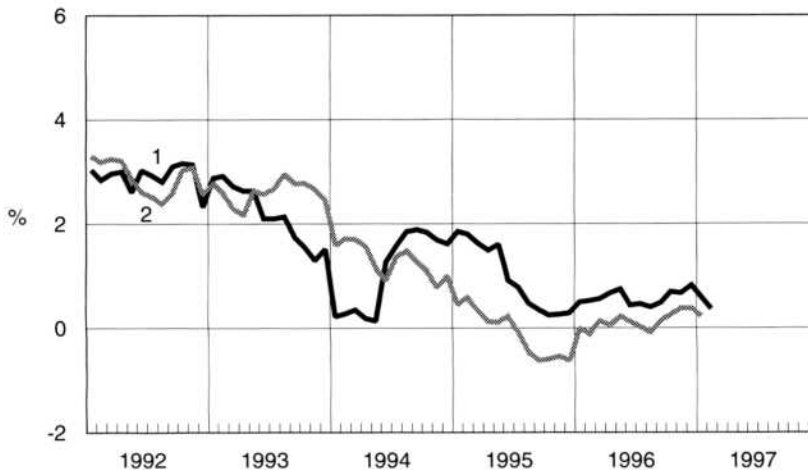
1. Employment, 1000 persons
2. Unemployment rate, per cent

### 33. Prices and wages



1. Index of wage and salary earnings, all wage and salary earners
2. Index of wage and salary earnings, manufacturing workers

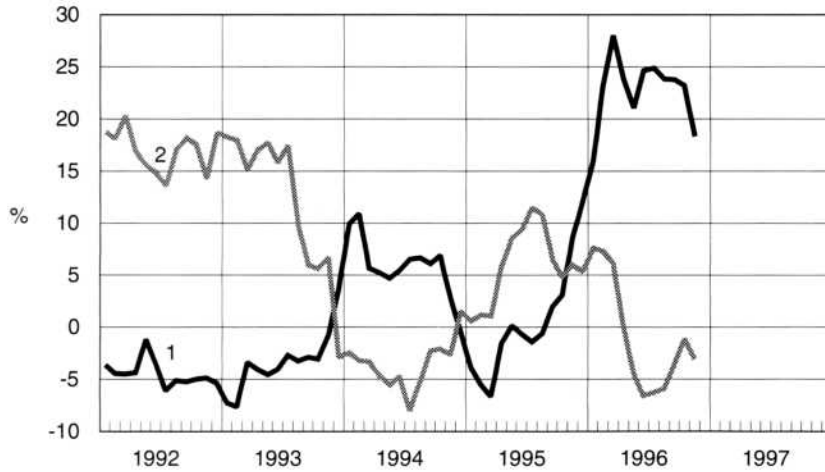
Change from the corresponding quarter of the previous year, per cent



1. Consumer price index
2. Indicator of underlying inflation

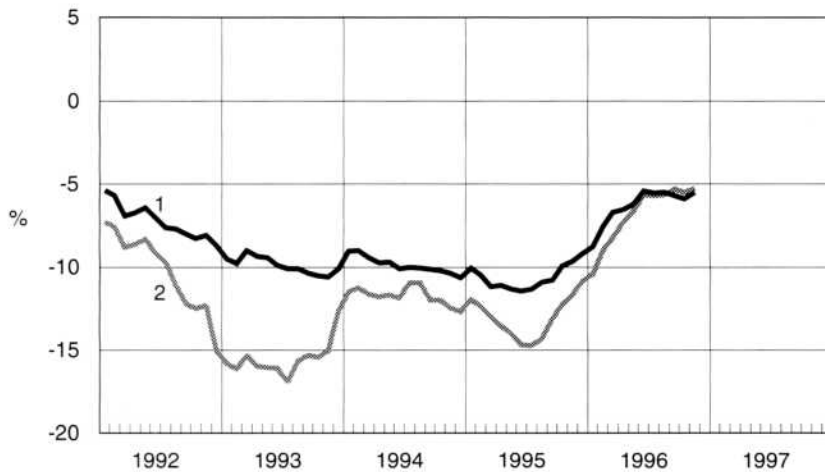
Change from the corresponding month of the previous year, per cent

### 34. Central government finances



1. Revenue excl. borrowing
2. Expenditure excl. redemptions of central government debt

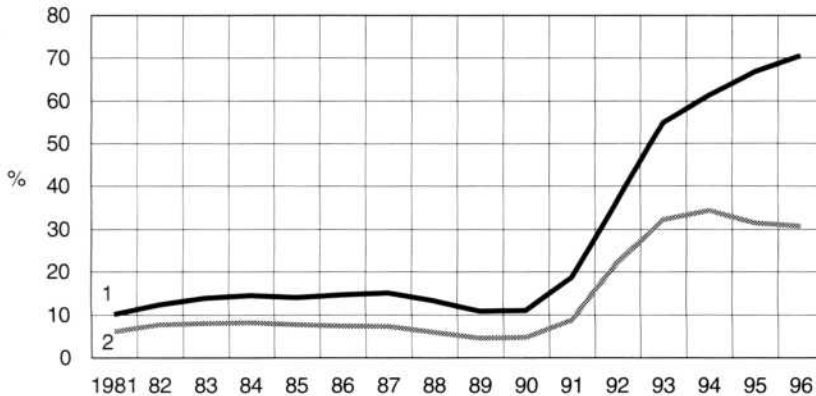
12-month changes calculated from 12-month moving totals and plotted at the last month, per cent



1. Revenue surplus (revenue less expenditure excl. financial transactions) (surplus = +)
2. Net borrowing requirement (net borrowing = -)

12-month moving total as a percentage of GDP, plotted at the last month

### 35. Central government debt



1. Total debt
2. Of which: foreign currency-denominated debt

As a percentage of GDP