

# BULLETIN

BANK OF FINLAND

December 1994 Vol. 68 No. 12

Economic Development, Inflation  
and Monetary Policy

Electronic Cash

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**H**aving started in the export sector, Finland's economic recovery is now spreading to the domestic sector. Private demand grew throughout the first three quarters of this year. The upturn in GDP started in the latter half of 1993, accelerated in the second quarter of 1994 and continued at only a marginally slower pace in the third quarter. GDP in the third quarter was an estimated 4 per cent higher than a year earlier. Rapidly expanding international trade has contributed to the strengthening of the Finnish economy; this year an increasing share of exports has again gone to Finland's traditional export markets. The volume of merchandise exports in the first ten months of this year was 11 per cent higher than in the same period a year ago. The forest and metal and engineering industries again recorded the fastest growth. Activity in the public sector is still declining, but the private service sector started to recover during the first half of the year. However, the rise in the level of employment has so far been almost entirely attributable to the manufacturing industries. The seasonally adjusted unemployment rate fell slightly in October to 17.8 per cent.

Survey data point to increased optimism. According to the September survey of business confidence conducted by the Confederation of Finnish Industry and Employers, problems connected with slack demand in industries serving the domestic market are diminishing and the export industries are increasingly facing capacity constraints. Other surveys indicate that, by and large, investment is not being held back by

financing problems, although small firms in the manufacturing and service sectors are experiencing some difficulty in obtaining financing owing to a lack of collateral.

Private investment in productive capacity turned up in the first months of the year and was 12 per cent higher in the first six months of the year than in the same period in 1993. However, the volume of investment is still at a low level. Real private consumption in the first half of the year was up 1.5 per cent compared with the first half of 1993 and 2 per cent compared with the second half of 1993, and consumption has continued to grow in the subsequent months. The increase in households' earnings has been more subdued than the growth of private consumption. So, the savings ratio, which had reached an exceptionally high level during the recession, has gradually started to decline. At present, few finance consumption or investment by incurring new debt: the amount of outstanding markka bank lending, especially to households, has decreased further. Up till now, the optimism of households indicated in surveys has been reflected in increased purchases of durable goods but not in increased housing investment.

The current account posted a surplus of FIM 8.4 billion for the first ten months of the year. The trade surplus amounted to FIM 30.5 billion, even though the volume of merchandise imports grew by more than one-fifth in the August-October period compared with the same period in 1993. The deficit on the services account has narrowed considerably. The net outflow of investment income amounted to

FIM 17.7 billion in the first ten months of the year, some FIM 6 billion less than in the same period a year ago. The decrease was mainly due to improved earnings on direct investment and the appreciation of the markka. Interest payments tend to be concentrated in the first half of the year, and the current account surplus is being underpinned by a continuing improvement in the terms of trade.

There have been further changes in the structure of foreign debt. The private sector has been paying back its loans whereas the central government has accumulated more foreign debt. Of the central government's net financing requirement of FIM 48 billion for the first three quarters of the year, almost two-thirds was financed by foreign borrowing. As yet, there has not been a clear shift towards better balance in central government finances. Both interest expenditure and transfers to households have grown further this year. Tax receipts have increased only slowly. The growth of interest expenditure has been curbed by the appreciation of the markka; in October, the central government accounted for about 70 per cent of Finland's total net foreign debt of more than FIM 260 billion.

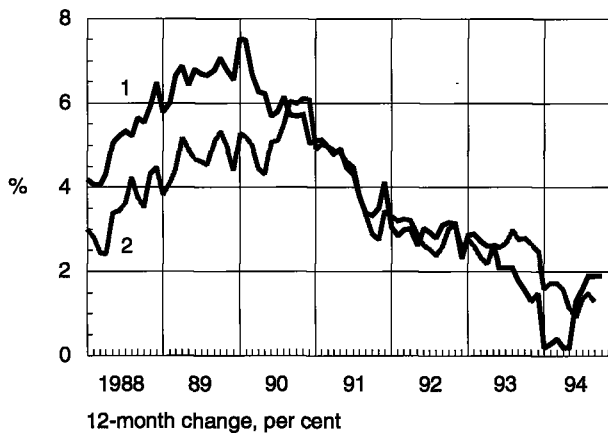
### **INFLATION HAS REMAINED SUBDUED**

Despite the recovery in economic activity, the rise in prices has remained subdued. Consumer prices rose by 1.9 per cent in the twelve months to October. The rate of increase has remained unchanged over the last three months.

The impact of the VAT reform implemented at the beginning 3

CHART 1.

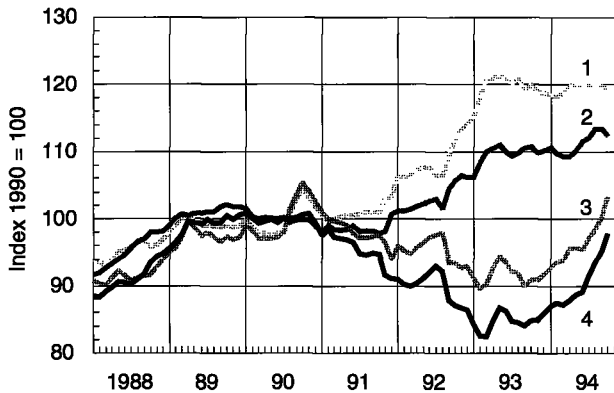
INFLATION



1. Consumer price index
2. Indicator of underlying inflation

CHART 2.

FOREIGN TRADE PRICES



1. Import price index
2. Export price index
3. Import prices, payments currency-weighted
4. Export prices, payments currency-weighted

of June 1994 is not reflected in the indicator of underlying inflation, which showed a rise of 1.3 per cent in the twelve months to September. However, the annual rate of increase in underlying inflation in the three months from July to September was 2.7 per cent. The temporary acceleration of underlying inflation does not point to any change of trend in inflation, but rather is mainly

explained by adjustments in the tax rate index in connection with the VAT reform.<sup>1</sup>

<sup>1</sup> The rate of underlying inflation is calculated by subtracting the share of the tax rate index, house prices and interest on housing loans from the consumer price index. A temporary distortion appears in the indicator of underlying inflation if the timing of the estimated changes in the tax rate index differs from that of the actual effects of changes in indirect taxes and subsidies on retail prices.

Movements in producer prices in manufacturing have also been moderate this autumn, although prices did rise substantially in the summer. In October, the twelve-month change in producer prices was 2.2 per cent and the annualized three-month change only 2.6 per cent. Producer prices did not rise at all between September and October. The temporary acceleration of the rate of increase in producer prices in the summer was due to the rise in the prices of raw materials and producer goods, which, in turn, was largely caused by the sharp rise in world market prices of pulp, paper and basic metals.

World market prices, particularly those of raw materials and products based on them that are important for Finnish exports, are a potentially important source of inflationary pressures. Owing to the strengthening of the markka – especially against the US dollar – these pressures have, however, remained subdued so far. In October, the twelve-month rise in the HWWA index, which measures world market prices of raw materials in dollar terms, was 10.2 per cent and the rise in Finnish import prices (payments currency-weighted) was 13.7 per cent in foreign currency terms. However, over the same period, import prices fell by 0.8 per cent in markka terms, and the annualized three-month rate of decline in October was 3.6 per cent. For export prices too, the rise has been considerably slower in markka terms than in foreign currency terms: the twelve-month rise in export prices was 15.2 per cent in foreign currency terms, whereas the corresponding rise in markka terms was only 1.4 per cent. Over the last three months, the annualized rate of change was 3.6 per cent. In October, both import and export prices decreased by about 1 per cent in markka terms from September.

Wage developments have been moderate. In the third quarter of this year, the index of wage and salary earnings was



2.0 per cent higher than in the corresponding period a year ago and only slightly higher than in the second quarter of this year. There are, however, substantial differences between sectors. In manufacturing, the level of earnings in the third quarter was 4.8 per cent higher than a year ago; in the private sector as a whole the rise was 2.6 per cent and in the public sector 0.9 per cent. As labour productivity has continued to increase rapidly, unit labour costs have decreased, despite the continued rise in indirect labour costs.

Asset prices have risen compared with 1993, but in the last few months the rise in prices has levelled off. For the country as a whole, house prices in the third quarter of the year were, on average, 6.5 per cent higher than one year earlier but 1 per cent below their second-quarter level, apparently because of higher interest rates. In the metropolitan area of Helsinki, the prices of old two-room flats fell in October to their level a year ago. Recently, developments in share prices have been fairly stable: the slow rise in the HEX all-share index continued in the July-October period, and in November the index was almost as high, on average, as in February. Throughout the summer, stumpage prices (the price of standing timber) remained stable at the level prescribed by the stumpage price agreement. In the autumn, strong demand for timber has pushed prices somewhat above the price level stipulated in the agreement. In October, stumpage prices were 23 per cent higher than one year earlier and their annualized rise from July was 11 per cent.

The rate of increase in consumer prices is likely to remain at about 2 per cent for the rest of the year. The rate of underlying inflation should remain below that level. A further marked decline in unit labour costs is likely and, owing to the appreciation of the markka, there should not be any upward pressures on import prices in the last months of

the year. Furthermore, the growth of demand and higher capacity utilization will help to improve the profitability of the domestic sector and thus alleviate inflationary pressures. The difference between consumer price changes and underlying inflation is largely due to the VAT reform, which has raised consumer prices by about 0.6 per cent compared with a year ago. On the other hand, interest rates on lending to households, having remained stable in the autumn at a lower level than last year, will exert slight downward pressure on the consumer price index compared with a year ago.

### **MARKKA HAS APPRECIATED**

Reflecting the favourable performance of the real economy and increased support for Finland's EU membership in the run up to the referendum, the external value of the markka appreciated from mid-August onwards. Initially, the markka was strengthened by the current account surplus and, in particular, by investments in markka securities by foreign investors. Subsequently, Finnish companies have also begun selling foreign currencies along with the gradual repatriation of their export earnings.

During the autumn, capital imports by the central government have been at a notably lower level than in the summer. Nevertheless, in the September-October period, the central government raised foreign currency loans to the net value of FIM 11 billion. However, the central government's foreign exchange transactions do not affect exchange rates as its foreign currency loans are not repatriated through the exchange market. Rather, the Bank of Finland purchases foreign currencies directly from the government, thereby adding to its reserves. By the end of October, the Bank of Finland's foreign exchange reserves, including its forward exchange position, had increased to FIM 58 billion.

The Bank of Finland has intervened in the foreign exchange market from time to time in order to check the markka's rapid appreciation, but it has not attempted to prevent the strengthening as such. The scope for curbing market-induced pressures for the strengthening of the markka through currency purchases is limited. Large-scale currency purchases would increase liquidity in the economy and jeopardize future price stability.

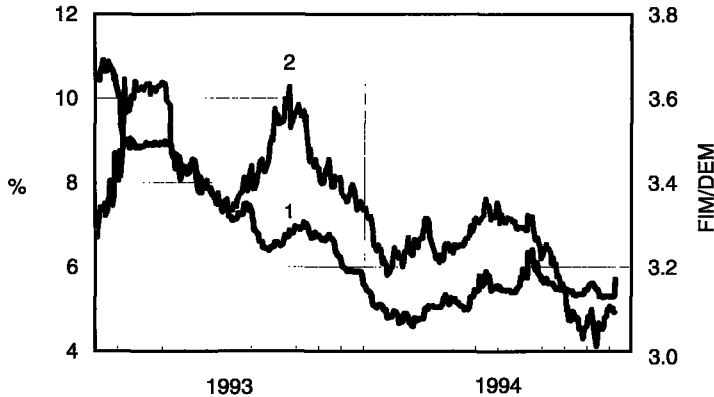
Particularly after the EU referendum, the markka appreciated very rapidly, with the exception of the period preceding the Swedish referendum in early November, when Finland's protracted parliamentary debate over EU membership also increased uncertainty in the financial markets. The markka softened slightly again at the end of November because of market concern over demands for high wage increases. Movements in exchange rates and interest rates in Sweden seem to have had an impact on the Finnish money market in the short term, despite the fact that the problems relating to inflation expectations and central government finances in Finland are less serious.

From mid-August to the end of November, the markka appreciated by a total of 6.5 per cent against the ECU basket. Over the same period, the dollar and the deutschmark weakened by 6 and 7 per cent, respectively, in relation to the markka. At the end of November, the markka's value in relation to the ECU – and also in terms of the trade-weighted index – was about 6 per cent lower than in September 1992, prior to the floating of the markka. Compared with summer 1991, the markka's value had fallen by 21 per cent against the ECU and by 17 per cent in terms of the trade-weighted index.

Finland will join the European Monetary System (EMS) of the central banks of the EU member states with effect from the beginning of 1995. The markka will not, however, be in-

CHART 3.

EXTERNAL VALUE OF THE MARKKA AND  
THE SHORT-TERM INTEREST RATE



1. 3-month HELIBOR (left scale)  
2. Markka's exchange rate against the deutschmark (right scale)

cluded in the Exchange Rate Mechanism (ERM) and it will continue to float. Nor will the markka be included in the ECU basket.

**LONG-TERM INTEREST RATES HIGH, SHORT-TERM RATES IN LINE WITH INTERNATIONAL INTEREST RATES**

Despite the fact that the strengthening of the markka's exchange rate tends to curb inflationary pressures in the export sector, long-term interest rates have fallen only slightly. Although there are several reasons for the high level of interest rates, this development implies that inflation expectations are adjusting only slowly to the appreciation of the markka. The high wage demands put forward by unions in the course of the autumn have accentuated this tendency. Uncertainty has also been increased by the fact that next year's budget is still not finalized. Interest rates have also been pushed up by movements in international interest rates and by the sensitivity caused by the thinness of domestic markets.

Consequently, the yield curve has remained steep and interest rate differentials vis-à-vis long-term international rates have remained wide. The yield on ten-year government bonds was 10.3 per cent at the end of November. In the September-November period, the yield was still 2.5-3 percentage points higher than the corresponding yield in Germany. The level of long-term real interest rates is therefore still high compared with developments in prices.

The Bank of Finland did not consider it possible to lower short-term interest rates to any significant extent. The tender rate, which is the key interest rate from the point of view of monetary policy, was about 5.1 per cent in the September-November period, ie at a somewhat lower level than in the preceding months. When signs of an acceleration in the rise in costs strengthened, the Bank of Finland raised the tender rate to 5.5 per cent on 9 December. The one-month HELIBOR, which is the rate which is most effected by the Bank of Finland's operations, remained almost unchanged at about 5 per cent from September onwards

before rising to 5.5 per cent along with the rise in the tender rate. The three-month and twelve-month rates declined somewhat in the September-November period, especially the twelve-month rate, which fell by 0.7 percentage point. At the end of November, the three-month HELIBOR stood at 5.3 per cent and the twelve-month HELIBOR at 6.8 per cent.

Since the interest rate disturbances in August, expectations of rises in the HELIBOR rates have eased, but forward rate agreements imply that expectations are still rising. Implied forward rates indicate that, at the end of November, three-month interest rates were expected to be about 2 percentage points higher in six months' time. However, this estimate differs from data obtained from various surveys. For instance, a survey of companies carried out for the Bank of Finland, the Confederation of Finnish Industry and Employers and the Ministry of Trade and Industry indicates that the three-month HELIBOR was expected to be at around 6 per cent in October 1995, ie lower than implied forward rates.

**LIQUIDITY ABUNDANT, OUTSTANDING LENDING HAS DECLINED**

Liquidity in the money market has remained abundant, albeit somewhat less so than it was last summer. The Bank of Finland has, for the most part, only sterilized the liquidity deriving from the government's foreign borrowing. Liquidity has also been good in the economy more widely, and especially companies' liquidity has grown along with the improvement in their financial position. The amount of narrow money (M1), which comprises currency held by the public plus deposits in cheque and transaction accounts, was 12 per cent higher in September-October than in the same period in 1993. The broader monetary aggregates, M2 and M3, registered growth of 5 per cent and 6 per cent, respectively.

The outstanding amount of bank lending has continued to decrease, even when allowance is made for loan loss write-offs and the fall in markka values of foreign currency loans due to the markka's appreciation. Outstanding lending in the form of the lending back of funds from the TEL occupational pension scheme stopped declining in the third quarter, but the total amount of lending to the corporate sector by occupational pension institutions has declined further. Weak demand for loans may also have contributed to a fall in the average interest rate on new bank loans to both companies and households in the September-October period. In October, the average interest rate on new housing loans was 8.6 per cent, on consumer loans 9.7 per cent and on corporate loans 6.9 per cent.

### INFLATION PROSPECTS AND MONETARY POLICY

The target set by the Bank of Finland in February 1993 is to stabilize the rate of underlying inflation permanently at 2 per cent beginning in 1995. Even if the target level is maintained, changes in prices will fluctuate on either side of this level because of temporary disturbances of various kinds. From the standpoint of monetary policy implementation, it is essential that the trend of prices does not diverge from the target.

It seems likely that price developments will remain subdued in the next few months. It is estimated that, as a result of Finland's membership of the European Union, inflation will slow by more than one percentage point next year from what it would otherwise be. The effects of EU membership on different price indices are dealt with in more detail in the box at the end of this article. EU membership will mean lower food prices but as indirect taxes will increase at the same time the annual change in consumer prices is likely to remain at about 2 per cent. By

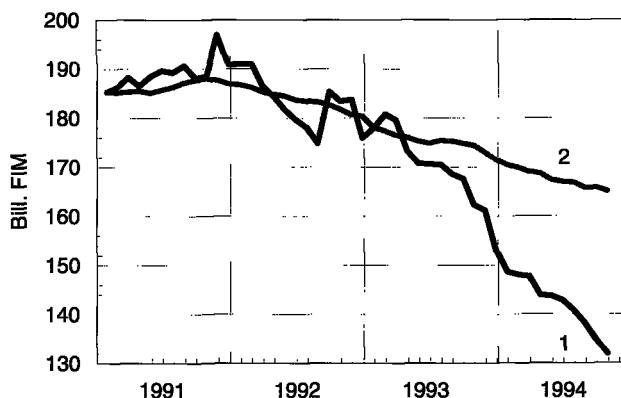
contrast, underlying inflation, which will not be affected by the increase in indirect taxes, will fall significantly at the turn of the year. This, however, will be a one-off fall that will not affect the rate of change in prices, ie the inflation trend, after the turn of the year, unless it has a curbing effect on wage demands and wage increases and thus causes a permanent lowering of the rate of increase in costs.

Although the immediate inflationary pressures are subdued, the prospects are not devoid of problems. According to surveys, the inflation expectations of households are low, but companies seem to expect inflation to accelerate somewhat. The surveys do not provide an accurate measure of the expected inflation rate, however. Moreover, the surveys that are currently available were conducted before the marked strengthening of the markka and before the current round of wage negotiations got under way. According to the survey of companies carried out for the Bank of Finland, the Confederation of Finnish Industry and Employers and the Ministry of Trade and Industry in Septem-

ber-October, consumer price inflation is expected to accelerate to some extent within the next twelve months, but to remain at about 2¾ per cent. In some sectors of manufacturing and in the construction sector, producer prices are expected to rise at a more rapid rate. In the export industries, expectations are based, among other things, on high capacity utilization rates. According to the figures released by Statistics Finland, the capacity utilization rate for the whole manufacturing sector was exceptionally high (88 per cent) in September and that of the forest industries as high as 95 per cent. Capacity utilization rates are particularly high in the paper and basic metals industries. Other sectors also have strong expectations concerning future increases in export prices; the paper industry, for instance, has released details of the price increases it hopes to push through next year. Rapidly improving profitability, together with capacity constraints, will increase the risk of rising costs. This is already evident in the recent developments in stumpage prices and in this autumn's high wage demands.

CHART 4.

### OUTSTANDING BANK LENDING TO THE CORPORATE AND HOUSEHOLD SECTORS



1. Lending to the corporate sector
2. Lending to the household sector

Although unions in the domestic sector have demanded, and to some extent obtained, large pay increases, the worst potential sources of inflation are to be found in the export sector, even after the appreciation of the markka. A stronger markka will certainly have a restraining effect on inflation, but there is now a clearly greater risk that costs could rise in a way that would fuel inflation and reverse the favourable trends in prices in the latter part of 1995. It was for this reason that the Bank of Finland raised the tender rate

from 5.0 per cent to 5.5 per cent on 9 December. The Board of the Bank also proposed an increase in the base rate, but the Parliamentary Supervisory Board did not accept the proposal. Though the base rate has retained some of its value as a signal, the tender rate is nowadays far more important from the point of view of monetary policy.

Companies must prepare to maintain their competitiveness over the long term. Under a floating exchange rate regime, the appreciation of the markka reduces companies' ability to

pay factor incomes in an economic upswing. A stronger markka also contributes to the recovery of the domestic sector by, for instance, lowering import prices and increasing purchasing power. The more effective the appreciation of the markka is in keeping inflationary pressures in check, the less upward pressure there will be on interest rates.

9 December 1994

#### **IMPACT OF EU MEMBERSHIP ON CONSUMER PRICES AND THE INDICATOR OF UNDERLYING INFLATION**

When Finland becomes a member of the European Union, agricultural producer prices in Finland will be lowered to the same level as producer prices in the European Union. The reduction in producer prices and increasing import competition are also likely to have a rapid effect on consumer food prices. As any losses arising from 1994 output that remains in stock after the end of the year will be compensated against a receipt, it may be assumed that the price reductions will pass through the processing chain to consumer prices very quickly. On the other hand, prices of food imports from countries outside the EU will become more expensive on account of the EU's customs duties.

With Finland's membership of the EU, indirect taxes and subsidies on agricultural products and food will be changed; producers will to an increasing extent receive income subsidies instead of price supports. Liability for VAT will be extended to cover agricultural producers. As a result of these changes, costs in the food processing industry will fall, but tax reliefs – the most important being the primary product allowance – will be abolished. The removal of the primary product allowance for foodstuffs will lessen the magnitude of the fall in consumer prices. On the other hand, the VAT rate on food will be lowered from 22 per cent to 17 per cent at the beginning of 1995.

The Consumer Research Centre has estimated that the overall net effect of the reduction in producer prices and changes in taxation is that the decrease in consumer food prices will amount to 9.5 per cent on average in the initial months of 1995. This estimate ignores the effects on food prices of all factors other than EU membership. This alone implies that the level of the consumer price index will fall by more than 1 per cent. However, the beginning of 1995 will also see an increase in tobacco and fuel taxes and some services that have been tax-exempt will become subject to VAT. These factors are estimated to raise the consumer price index by just under 1 per cent at the beginning of the year. Overall, there will be only a slight fall in the consumer price index in the early months of 1995 compared with its level at the end of 1994.

The increases in indirect taxes and decreases in subsidies are not, however, included in the indicator of underlying inflation, where the fall in consumer prices of food will be evident as a discrete downward step. The indicator of underlying inflation is calculated by removing the effects of taxes, subsidies and housing-related capital costs from the consumer price index. Consequently, the gap between the rates of inflation measured by the consumer price index and the indicator of underlying inflation widens when developments in 1995 are compared with those in 1994.

# ELECTRONIC CASH

by **Tom Kokkola**, MSc Pol  
and **Ralf Pauli**, Adviser to the Board  
Financial Markets Department  
Bank of Finland

**T**raditional payment instruments used by the general public comprise cash, cheques and various debit and other payment cards. The latest payment instrument to emerge is the multi-purpose prepaid card, which outwardly resembles a debit card or some other payment card. The multi-purpose prepaid card has purchasing power, electronic cash, embedded in it. This feature distinguishes it from debit and other payment cards, which are instruments which the cardholder can use to identify himself and to authorize an instruction to debit his account for a certain amount and to credit this amount to the beneficiary of the payment. Consequently, electronic cash is comparable to conventional cash, notes and coin, in many respects. Because the money embedded in the card is in electronic form, the multi-purpose prepaid card is often referred to as an electronic purse.

Though the development and use of electronic cash are still in their infancy, it is clear that electronic cash is here to stay. It will supplement the use of notes and coin for low-value payments. Because electronic cash possesses the characteristics of conventional money, the monetary authority, ie the central bank, needs to formulate its views on the new payment instrument.

## DEVELOPMENT OF PAYMENT TECHNOLOGY

Payment instruments are the result of a long development process the driving forces of which are technical and economic efficiency. Up till now, payment technology has not

been able to offer a cost-effective alternative for payments of very small value. The bulk of payments by households are low-value transactions made in cash and consequently cash has continued to play a prominent role in the payment system (Chart 1). Because the handling costs associated with low-value payments are considerable, it has been endeavoured to develop alternative methods of payment for such transactions.

The drawback of traditional payment instruments linked to bank deposits, such as cheques and debit cards, is the data transmission, checking and other handling costs associated with their use. The shift from paper vouchers to electronic data processing has low-

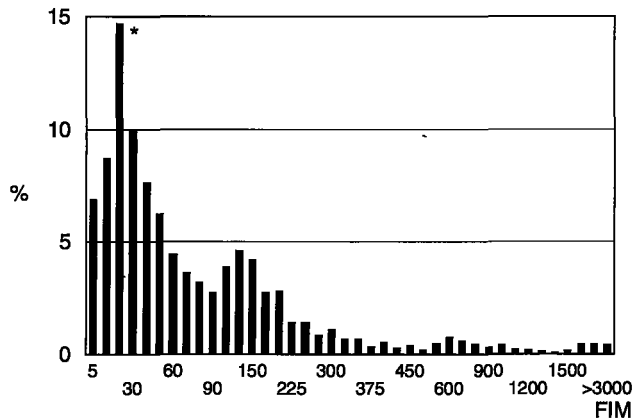
ered these costs but it seems unlikely that transaction costs could be further reduced to the extent that the processing of low-value transactions would become cost-effective. For this reason, the minimum limit for eg debit card payments has been set at FIM 30 in Finland.

## From single payments to disposable prepaid cards

A simple way of reducing the costs involved in processing low-value payments is to 'collect and bundle up' a large number of individual transactions, whereupon the bundle can be processed as one transaction. The disposable prepaid card was the first payment instru- 9

CHART 1.

FREQUENCY DISTRIBUTION OF ALL PAYMENTS MADE BY HOUSEHOLDS USING DIFFERENT PAYMENT INSTRUMENTS BY VALUE OF TRANSACTION, PER CENT



\* Payments with a value of less than FIM 30 represent just over 40 per cent of the total number of all payments. Over 98 per cent of these are made in cash.

Source: survey made by the Bank of Finland; see Bank of Finland Bulletin No. 2/1994.

ment based on data technology to apply this principle. In fact, it has radically reduced data transmission and proven to be competitive, particularly for low-value payments.

Disposable prepaid cards function as follows: the customer purchases a card, at nominal value, which has been loaded in advance with given purchasing value of, say, FIM 50 consisting of 50 'payment units' of FIM 1 each. When the customer uses the card, these 'payment units' are drawn down one at a time. At best, the card issuer only collects information on the value to which customers have used prepaid services on the basis of payment transactions. This data does not need any further processing as the card issuer has received the related payment in advance. In other words, even though the customer could use the card for as many as 50 individual transactions, only one actual payment transaction is involved.

It is fairly easy to identify the applications where prepaid cards offer the greatest potential for savings. Typically, the party issuing the card is a telephone company, public transport authority etc. which receives a large amount of low-value payments, often in coins. A payment method based on payment in advance is no novel thing as such, as various prepaid multi-journey and season tickets have been used for a long time on buses, for instance. But these transactions involve payments (tickets) of equal value. In this article we focus on a payment instrument that is particularly suitable for making individual payments of different values.

### **From single-purpose to multipurpose prepaid cards**

Disposable prepaid cards have for the most part been used in 'closed' systems, where the card issuer and recipient of payments are one and the same party (eg a telephone

company). Thus their importance from the point of view of the payment system as a whole has been rather limited. Their range of uses has been restricted because magnetic stripe technology, which largely for cost reasons is widely used in prepaid cards, involves security risks. Thanks to recent technological advances and lower component prices, the necessary conditions now exist for the widespread introduction of cards based on microprocessor technology (chip cards).

Cards based on the new technology can be divided into two main groups according to their technical properties: memory cards and chip cards. A memory card only has a memory component and is mainly used in the same way as 'traditional' disposable prepaid cards. A smart card is far more advanced since, in addition to a memory component, it is capable of logical data processing, which is the feature on which its security and versatility are based.

Because of their security, chip cards can also be used in an 'open' system, ie in a system in which the same card can be used to pay for goods or services provided by **several different enterprises**, eg public telephones, parking and public transport. These cards are called **multipurpose prepaid cards** and the purchasing power embedded in them **electronic cash**.

### **From payment units to electronic cash**

Regardless of what technology the disposable prepaid card is based on, it suffers from the drawback that it is useless, ie valueless, once all the payment units it contains have been used up. Thus there are good grounds for introducing a card which can be 'recharged' with new purchasing power, ie a **reloadable prepaid card**, also known as the **electronic purse**. It differs from the prepaid card in two respects: new purchasing power of a freely selected

amount can be loaded in the card, and, the amount of purchasing power is expressed as an exact (markka and penni) balance instead of a certain number of payment units. In connection with a payment transaction, the balance on the payer's card is reduced and that of the payee increases by the corresponding amount.

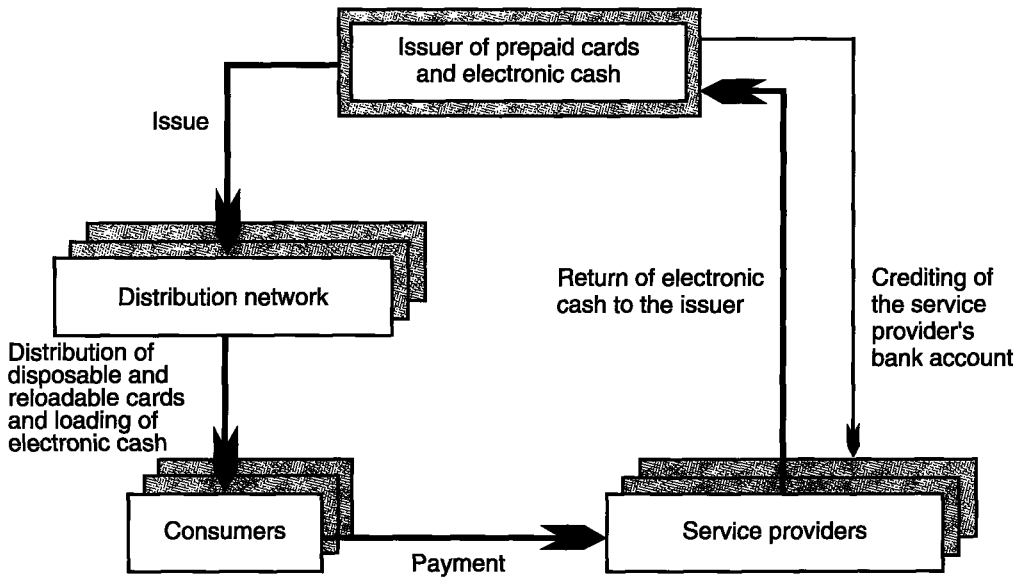
Thus there is a fundamental difference between the purchasing power embedded in a card used in a closed system and that embedded in a card used in an open system: the single-purpose prepaid card does not contain money as such but rather functions as a data transmission medium; the multipurpose prepaid card contains purchasing power – electronic cash – which can with certain reservations be compared to money, in particular as it can be used for paying for several different services and goods. In an extensive open system, electronic cash is – to the cardholder – like conventional cash in electronic form. This feature is further underlined by the fact that the card can be reloaded with new purchasing power (cf withdrawing cash from a bank account and keeping it in a wallet).

Thus, with the widespread introduction of electronic cash, traditional cash will gain a serious rival, particularly as far as low-value payments are concerned. In an open system, the handling of electronic cash can be viewed as the 'electronic handling' of notes and coin. An additional advantage is that the recipient of payments does not need to make up his day's cash, sort it and transport all the notes and coin to the bank. Instead, electronic money accumulates automatically as a cumulative total for the day (one item), which can be transmitted by data communications links for crediting to the recipient's bank account.

In addition to a vast range of self-service applications, electronic cash has potential applications in the service and public

CHART 2.

PARTICIPANTS IN AN OPEN SYSTEM AND CIRCULATION OF ELECTRONIC CASH



sectors and in retail trade. Electronic cash will replace mainly conventional cash, and coins in particular. As holding money is generally considered to involve certain risks, eg of being lost or stolen, electronic cash is unlikely to replace bank and credit card payments to any major extent. Nor is it likely to replace funds transfers between bank accounts.

**Structure of the electronic cash system**

The parties in an open system are the issuer and distributors of prepaid cards and electronic cash, consumers and the corporate entities accepting electronic cash, ie service providers (Chart 2). Electronic cash passes from the issuer through the distribution network to consumers, who use the cards to make payments to service providers. The service provider then returns the electronic cash it has received to the issuer, who credits the bank account of the former. A precondition for the

operation of such a system is a cooperation agreement between the issuer of electronic cash and distributors and service providers, as well as a secure and reliable data transmission and processing system for the distribution, use and return of electronic cash.

**Finland in the vanguard of development**

In autumn 1992, a company called Toimiraha Oy was established as a subsidiary of Setec Oy (previously the Bank of Finland's Security Printing House). The aim was to institute a Finnish system of electronic cash based on prepaid cards and intended for low-value payments. The company's task is to implement and administer a secure, open electronic cash system based on prepaid cards. The system maintained by Toimiraha Oy is called Avant.

Toimiraha Oy is in charge of the maintenance of the Avant system and the issue of electronic cash. In addition to effi-

ciency, special attention has been paid to the security and reliability of the system. The system is based on 'security modules' incorporated in loading points, cards and card readers. Electronic cash can only be transferred between two security modules which recognize and accept each other and only from the issuer to loading devices, from loading devices to cards, from cards to service providers and from service providers back to the issuer.

Thus the Avant system applies the principle that electronic cash used to pay for services is always returned to the issuer, ie it has a 'closed circulation' (Chart 2). This makes it far easier to monitor the correctness of the amount of electronic cash in circulation than in a system based on open circulation, in which electronic cash can be freely transferred from one party to another without being returned to the issuer in between. In addition, the same principles are applied in the manufacture 11

and destruction of electronic cash as for notes, ie these functions are centralized at one very closely supervised centre.

At present, the Avant system functions on the basis of memory cards, ie disposable prepaid cards, for use mainly in public telephones of different telephone companies. Reloadable prepaid cards were introduced in February 1994 in connection with the inauguration of a new parking system based on electronic cash. The city of Helsinki was the first municipality to start using this system. The system is currently being upgraded in order to allow reloadable cards to be used in all outlets connected to the system. In addition to public telephones and parking, the system is currently used for certain public transport and postal service payments.

By the end of November 1994, some 436 000 disposable Avant cards had been sold. In addition, an estimated 7 500 loadable cards will be sold in the course of 1994. At the end of November, there were 70 loading points for electronic cash and the average value of a loading transaction was FIM 233. Prepaid cards are accepted in more than 10 000 outlets, an estimated 6 000 of which are parking meters. The number of payments effected through the system is growing rapidly. In October, there were some 240 000 transactions. For the operations to be profitable, the system requires an annual volume of FIM 1 billion, a level which it should be possible to attain within a few years, given the scale of business covered by cooperation agreements already concluded by Toimira Oy.

### **Developments in other countries**

Internationally, the technical and psychological readiness for the introduction of electronic cash systems seems to be growing rapidly. New projects are regularly being reported all 12 over the world. However, the

technical implementation and operating principles of these systems differ from country to country. It is clear that the electronic purse is only at the beginning of its life cycle and thus convergence towards some kind of 'global standard system' has not yet occurred.

Only a few countries aim at setting up one open national electronic purse system. In addition to Finland, these countries include Portugal, Spain, Denmark and Belgium. Besides Finland's Avant system, the most advanced systems are the Danmøt system in Denmark and the MEP system in Portugal. These three systems are the only ones where widespread introduction has already started. Pilot projects are under way in eg Belgium, Spain, Singapore, Taiwan, the USA and South Africa.

### **ELECTRONIC CASH AND THE CENTRAL BANK**

Electronic cash resembles traditional cash in many ways. It is non-interest-bearing in the same way as banknotes and coin, the debt relation between the buyer and the seller is settled at the time of payment and the payer does not need to reveal his identity. Thus the method is anonymous in the same way as traditional cash payments. In addition, the risks attached to the use of electronic cash are the same as those of traditional money. If the card is lost or stolen, its holder loses the remaining amount of money.

But from the point of view of the service provider, ie the receiver of electronic cash, the analogy with traditional cash is not quite so close. Even though the buyer finally discharges his debt when he transfers purchasing power to the seller, the seller is unable to use the electronic cash he receives directly to pay for his own purchases. Rather, the seller must first present his claim to the issuer of electronic cash, who then credits the seller's account. One of

the key characteristics of traditional money is the fact that the seller can immediately reuse the money he receives in connection with a payment. Although electronic cash could be assigned this characteristic, it is not desirable at this stage for security reasons. Monitoring the correctness of the amount of money in circulation is easier when money is always returned to the operator of the electronic cash scheme after use.

There is another important difference in comparison with traditional money. Accepting payments made using electronic cash requires a special reading device. It is therefore difficult to imagine that electronic cash would entail a statutory obligation to accept it in settlement of a debt. The statutory obligation to accept is a key feature of legal tender in all countries. In addition to universal usability, the statutory obligation to accept imposes especially heavy demands on the legal safeguards of the individual. The recipient must be able to rely on the authenticity of money. It must be possible to define unambiguous characteristics for money and apply unambiguous verification methods. This is difficult when we are talking about money in an immaterial, electronic form.

Even though the new payment instrument offers an opportunity for profound reflection on the ultimate essence of money, electronic cash does not comply with legal tender as defined in Finland's Currency Act. Still, as the authority in charge of currency supply and payment systems, the Bank cannot simply be indifferent to electronic cash and its development. Rather, the Bank considers that there are good grounds for it to actively participate in the development of the new payment instrument. By so doing, it wishes to ensure that electronic cash develops into a reliable and efficient payment instrument.

The authorities' responsibility for the reliability of the system



is particularly great where payment instruments suited for widespread use by the general public are concerned. Since, moreover, the development of a totally new system which transfers abstract purchasing power is involved, the central bank considers it necessary that the introduction of this payment instrument should be supervised. An additional feature of the electronic cash system is that costs arising from malfunctions are largely borne by system users and not by the card issuer. A purely commercial approach does not necessarily take adequate account of such costs that may be incurred by other participants. Consequently, supervision by the authority overseeing the public interest is needed one way or another.

Like a banknote, electronic cash is an obligation of the issuer. The amount of debt is equivalent to the amount of electronic cash in circulation. The issuer must be able to meet his obligations under any circumstances. The issuer's inability to honour electronic cash which has been used for payments could undermine the public's confidence not only in electronic purse schemes but also in other card-based systems. Sufficient capital adequacy and liquidity requirements must therefore be imposed upon the issuer. In the same way, a major malfunction could have far-reaching consequences. By taking an active part in the development of the system, the Bank of Finland wanted to ensure the reliability of the system from the very outset. It is frequently the case that it is difficult and expensive to raise the level of security at a later stage, especially where complex data systems are concerned.

The main goal set by the Bank of Finland is that the system should be as comprehensive and universal as possible so as to maximize the potential efficiency gains. In the same vein, the consumer's interests are best served if he can use

one card as widely as possible. The Bank of Finland wishes to avoid the unnecessary emergence of several parallel or overlapping card systems in Finland. Thus the Bank of Finland's participation in the development of electronic cash can be regarded as its contribution to establishing the infrastructure required for the new payment instrument.

An important characteristic of electronic cash is that it is, like traditional cash, non-interest-bearing, and thus the debt that arises when it is issued is non-interest-bearing. The funds accruing from the issue can be invested in income-generating assets. Where traditional money is concerned, this income is known as seigniorage. It derives from the fact that a central bank can finance its interest-bearing assets with non-interest-bearing liabilities. This income constitutes one of the main sources of financing for central banks. The central bank's seigniorage is reduced if electronic cash is issued by some party other than the central bank.

Initially, the reduction in seigniorage gave cause for concern; however, it is now estimated that it will replace cash only to a minor extent even when electronic cash has become an established payment instrument. In addition, the high velocity of electronic cash and the fact that it permits exact payments without the need for change reduces the amount of money tied up in electronic purses. In this sense, electronic cash is a more efficient payment instrument than traditional cash, and it is clear that its widespread and coordinated introduction will generate savings at the macroeconomic level.

Similarly, the Bank of Finland takes the view that electronic cash is of no major significance for monetary policy – at least in the present conditions – although it may, in the course of time, lead to changes in the system used for the monitoring and design of monetary policy as

part of the overall development of the payment system. As far as liquidity management is concerned, electronic cash can be compared to traditional cash, the amount of which is fully determined by demand. Normal changes in it are not taken into account in liquidity control, which is implemented by influencing the amount of banks' reserves. Of course, the Bank of Finland has to monitor the amount of electronic cash held by the public as part of monitoring the most liquid monetary aggregate (M1) although it does not have any monetary aggregate target as such.

### **ELECTRONIC CASH AND THE EUROPEAN UNION**

It has been evident in many countries that closed systems could easily develop into open systems based on reloadable electronic purses. Microprocessor technology has paved the way for this development and the private sector is interested in exploiting the potential that it offers. Central banks began to be concerned about this development because it touches on issues that are closely related to central banking operations and at the same time involves a completely new type of payment instrument on which they had not previously formulated their views and on which most countries lacked legislation.

In 1993, the central banks of the EU member states decided to conduct a study among themselves on what attitude they should take towards the electronic purse as a new payment instrument and on the implications of this new payment instrument for integration. The aim was to formulate a common position that would serve as a basis for the activities of central banks and authorities. The Council of the European Monetary Institute (EMI) approved a report on prepaid cards prepared by representatives of member states' central banks in spring 1994. The report was published in May so as to inform 13

all those participating or planning to participate in the development process of the EU central banks' views on these issues at an early stage. The report was also intended as a contribution to the discussion on electronic cash.

The report approaches electronic cash more from the point of view of deposit-taking than issuing money. Therefore it is hardly a coincidence that the report is entitled 'Prepaid Cards' and that this term is used throughout the report. In an open system, the monetary value loaded in a prepaid card represents a source of financing to the issuer, the financial implications of which are comparable to deposit-taking; for the cardholder, it represents a claim, 'a deposit in a transaction account', which can be used for payments to undefined third parties.

Bank deposits need special protection by society. Only banks subject to special legislation and supervision are allowed to take deposits. Thus it follows that the same criteria should be applied to issuers of electronic cash as were applied when the right to take deposits was restricted to banks. According to the report, only credit institutions as defined in the Second Banking Coordination Directive should be allowed to issue electronic cash in an open system. An open system here refers to a system in which the same card can be used for paying for the goods or services of a minimum of two corporate entities.

Exceptions to the above principle would be allowed only if for instance the scheme had started to operate before these policy conclusions were reached. In such cases, the conditions would be that the national central bank agrees on a case-by-case basis that the issuer of electronic cash does not need to be a credit institution and, further, that the scheme provides only domestic payment services, that appropriate requirements, in particular with respect

to liquidity, are imposed on the issuer and that the issuer is subject to supervision by the authority which supervises credit institutions.

The report emphasizes the importance of the reliability of the prepaid card system. As those accepting electronic cash are unable to detect forgeries by merely looking at the card because of the immaterial form of the purchasing power it contains, the authorities must ensure the security and reliability of the system. Consequently, the report proposes that central banks, as the authority with the overall responsibility for payment systems, should carefully monitor the schemes being developed in their respective countries and demand adequate information on them to ensure that they are reliable.

The report further notes that the views of central banks on electronic cash vary widely. Some central banks would prefer to leave the matter entirely to market forces, while others wish to be involved in the creation of a common technical infrastructure for prepaid cards in their respective countries. Thus the report does not consider electronic cash to be covered by the monetary monopoly of the central bank. Because the reloadable prepaid card is only at an embryonic stage and not all the consequences of its introduction can yet be foreseen, central banks may have to reassess their views on electronic cash in the future, including the sole right to issue it.

#### **CONCLUDING REMARKS**

Payment instruments currently in use are the result of a long development process. There is no reason to believe that this process has now come to an end. The importance of electronic cash may turn out to be much greater than envisaged. Ultimately, it is economic efficiency that will determine what course development takes. It was the same considerations that led first to squirrel skins and

other commodity money being replaced by coins made of precious metals and later to metallic money being replaced by paper money.

The introduction of paper money was an event of major monetary significance, because paper money, unlike metallic money, had no intrinsic value. In addition, the introduction of paper money led to large cost savings in respect of the transaction costs attached to exchanging goods, as paper money was much easier to handle than metallic money. In principle, the introduction of electronic cash constitutes a far less dramatic change than the introduction of paper money since it really only involves a change in the form of the 'instrument' representing purchasing power. What paper money and electronic cash share in common then is that the monetary status of both is based on the holder's confidence that the issuer will meet his obligations under all circumstances. Thus it is the authorities' responsibility to make sure that the system operates within a reliable framework. With the widespread introduction of electronic cash there is a need for legislation in order to ensure the reliability of issuers of electronic cash. In this respect, Finland is likely to follow developments in the European Union.

On the basis of the above considerations and from the point of view of promoting technical and economic efficiency, the operating principles of electronic cash can be considered to be on a logically sustainable basis. Thus the basic requirements for the widespread introduction of electronic cash already exist.

7 December 1994

**THE BANK OF FINLAND TO SIGN THE EMS AGREEMENT WITHOUT ENTRY INTO THE ERM**

On 23 November, the Bank of Finland decided to sign the agreements between the central banks of the EU member states on the European Monetary System (EMS) and Short-Term Monetary Support (STMS). The Parliamentary Supervisory Board has granted the Board of the Bank of Finland the borrowing and lending powers required by the agreements.

The agreements will enter into force as of the date Finland's membership of the EU becomes effective.

Joining the EMS is a step that follows from EU membership. The EMS agreement and the related agreement on STMS, which in principle can be used to support the currencies of member countries, have been signed by the central banks of all the EU member states. The purpose of cooperation within the EMS framework is to promote stable developments in monetary and foreign exchange markets. Closer cooperation in monetary policy is also one of the main objectives of Finland's EU membership.

EMS membership carries with it the obligation to exchange information and to consult on monetary and exchange rate policy decisions. In practice, this means that in its own decisions and operations the Bank of Finland will take into account the conditions prevailing in monetary and foreign exchange markets in EU member states and consult with the central banks of these countries.

Joining the EMS will not entail any change in Finland's ex-

change rate system. The Finnish markka will continue to float for the time being. Hence neither a central rate nor fluctuation margins will be set for the markka. Finland will not participate at this stage in the Exchange Rate Mechanism (ERM) of the EMS or in the related credit facility. Several EU member states do not belong to the EMS and their currencies float in the same way as the markka.

The Bank of Finland also decided to propose to the central banks of the EU member states that the existing bilateral swap agreements with EU central banks be terminated with effect from the date of entry into force of the EMS and STMS agreements.

**MONETARY POLICY SEMINAR**

On the 25 November, the Bank of Finland held a seminar on the theme 'Monetary Policy in a New Environment' to mark the fiftieth anniversary of the Bretton Woods Institutions. Mr Michel Camdessus, Managing Director of the International Monetary Fund, and Mr Alexandre Lamfalussy, President of the European Monetary Institute, delivered keynote speeches on monetary policy in a global and regional perspective, respectively. Professor Richard Portes from the Centre for Economic Policy Research and professor Alberto Giovannini from Columbia University acted as discussants. The seminar was attended by leading figures in Finnish politics, banking and industry, as well as by representatives of the academic world and government and Bank of Finland officials.

**SUPPLEMENTARY BUDGET**

The third supplementary budget for 1994 was approved by Parliament in December. It provides for a FIM 3.4 billion increase in budgeted central government expenditure. There are major increases in outlays on non-discretionary items such as unemployment benefits and agricultural export subsidies as well as in outlays on defence equipment. An additional FIM 0.9 billion is needed for unemployment benefits, mainly because of a higher-than-expected number of long-term unemployed. A sum of FIM 0.6 billion has been earmarked for discretionary programmes supporting employment. In addition, budgeted outlays on certain non-discretionary items, eg agricultural income support, sickness and national pension insurance benefits, have been revised downwards by a total of FIM 1.1 billion. A special capital investment fund with an initial capital of FIM 0.3 billion is to be set up to increase the availability of capital to small and medium-sized companies. A sum of FIM 0.5 billion has been appropriated for the purchase of defence equipment.

The supplementary budget provides for a net increase of FIM 0.2 billion in tax revenue. Miscellaneous revenue and capital gains are budgeted to increase by a total of FIM 2.6 billion. The rest of the supplementary budget, FIM 0.5 billion, will be financed by additional borrowing. Budgeted expenditure for 1994 is now set at FIM 199.9 billion. When extrabudgetary funds are included, expenditure for the entire central government sector in 1994 is estimated 15

at FIM 201.8 billion and the net financing requirement at FIM 67 billion.

**PUBLICATION OF  
THE BANK OF FINLAND**

The publication 'The Baltic Economies in Transition', pre-

pared by the Bank of Finland's Unit for Eastern European Economies, has appeared in the Bank of Finland Publication Series A (A:91), Helsinki 1994, 138 pp., ISBN 951-686-420-1, ISSN 0355-6034.

The publication offers a survey of the economic conditions in the Baltic states and the current phase of their transition to a market economy. Besides the

economic situation, other key issues include the development of monetary and financial systems and fiscal policy in the Baltic states, since stabilization of monetary conditions is a basic requisite for a successful economic transition. The structural changes necessary for the transition to a market economy are explored from the point of view of the private sector.

# MEASURES CONCERNING MONETARY AND FOREIGN EXCHANGE POLICY AND THE FINANCIAL MARKETS

1993

## DECEMBER

**Base rate.** The Parliamentary Supervisory Board lowers the Bank of Finland's base rate from 6.0 per cent to 5.5 per cent with effect from 1 December.

**Collateral requirements for banks' intra-day and liquidity credit.** The Bank of Finland specifies the collateral requirements for banks' liquidity credit and intra-day credit with effect from 1 December. The intra-day overdraft limits introduced on banks' current accounts on 1 March 1993 become permanent and liquidity credit must always be fully collateralized. Banks which fulfil the criteria for access to central bank liquidity credit are required to deposit collateral equivalent to 25 per cent of their overdraft limits whereas other banks are required to deposit collateral for the full amount of their limits.

**Support to Skopbank.** On 22 December, the Government grants capital support to Skopbank by purchasing preferred capital certificates issued by Skopbank to the total value of FIM 350 million.

1994

## JANUARY

**Commencement of trade in bond forwards.** In accordance with an agreement concluded between the Bank of Finland and the primary dealers, the latter begin trading in markka-denominated bond forward contracts on 24 January.

## FEBRUARY

**Base rate.** The Parliamentary Supervisory Board lowers the Bank of Finland's base rate from 5.5 per cent to 5.25 per cent with effect from 1 February.

## SEPTEMBER

**Increase in the capital of the asset management company Arsenal Ltd.** On 8 September, the Government decides to raise the share capital of the asset management company Arsenal Ltd by FIM 6 billion. The capital injection is necessary to cover losses incurred during the year.

## NOVEMBER

**Banks' access to the Bank of Finland's current account and liquidity credit facilities.** At the beginning of November, the Bank of Finland modifies the conditions governing access by banks and other credit institutions to current account and liquidity credit facilities at the central bank. In addition, the partial collateralization requirement previously imposed on intra-day overdraft limits is replaced by the requirement of full collateralization.

**Tax-exempt deposits.** On 18 November, Parliament approves an amendment of the law on the tax relief of deposits and bonds whereby the tax-exempt status of 24-month deposits is extended to apply to deposits made up to the end of 1995.

**The Bank of Finland decides to sign the EMS agreement without entry into the ERM.** On 23 November, the Bank of Finland decides to sign the agreements between the central

banks of the EU member states on the European Monetary System (EMS) and Short-Term Monetary Support (STMS). The agreements will enter into force as of the date Finland's membership of the EU becomes effective. The Board of the Bank of Finland also decides to propose to the central banks of the EU member states that the existing bilateral swap agreements with EU central banks be terminated with effect from the date of entry into force of the EMS and STMS agreements.

## DECEMBER

**Tender rate.** The Bank of Finland raises its tender rate on 9 December from 5.0 per cent to 5.5 per cent. The tender rate serves as a benchmark for short-term money market rates.

## 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 69 % 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 22° C (72° F) in July and -4° C (25° F) in February.

Finland has a population of 5 080 100 (31 December 1993) and an average population density of 16.6 per square kilometre. The largest towns are Helsinki (Helsingfors), the capital, with 509 500 inhabitants, Espoo (Esbo) 182 500, Tampere (Tammerfors) 176 600, Vantaa (Vanda) 161 400 and Turku (Åbo) 160 500.

There are two official languages: 93.4 % of the population speaks Finnish as its mother tongue and 5.9 % 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 1991, the seats of the various parties in Parliament are distributed as follows:

Centre Party 55; Social Democratic Party 48; National Coalition Party 40; Left-Wing Alliance 19; Swedish People's Party 12; The Greens 10; Christian

League 8; Rural Party 7; and Liberal Party of Finland 1.

Of the 16 ministerial posts in the present Government appointed in April 1991, 8 are held by the Centre Party, 6 by the National Coalition Party and 2 by the Swedish People's Party. The Prime Minister is Mr Esko Aho of the Centre Party.

Finland is divided into 461 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 and the EBRD in 1991.

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 will still have to be ratified by each Member State for Finland to become 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 418 billion in basic values in 1993, 3 % was generated in agriculture and fishing, 2 % in forestry, 26.5 % in industry, 4.5 % in construction, 11 % in trade, restaurants and hotels, 8.5 % in transport and communications, 4 % in finance and insurance, 20.5 % in other private services and 20 % by producers of government services. Of total employment of 2.0 million persons in 1993, 8 % were engaged in primary production, 27 % in industry and construction and 65 % in services.

In 1993, expenditure on the gross domestic product in purchasers' values amounted to FIM 479 billion and was distributed as follows: net exports 5.5 % (exports 33.3 %, imports -27.8 %), gross fixed capital formation 15 %, private consumption 56.5 % and government consumption 23.5 %. Finland's tax ratio (gross taxes including compulsory employment pension contributions relative to GDP) was 47 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 1990-93. Finland's GDP per capita in 1993 was USD 16 500.

**Foreign trade.** OECD countries absorb the bulk of Finnish merchandise exports. In 1989-93, their share was, on average, 78.5 per cent, of which the share of EC countries was 48.4 percentage points and that of EFTA countries 19.5 percentage points. Over the same period, Finland's exports to East European countries (including the Soviet Union) accounted for 12.6 per cent and the rest of the world for 10.7 per cent. The regional distribution of Finland's merchandise imports has been quite similar to that of exports.

In 1993, the share of forest industry products in total merchandise exports was 36 %, the share of metal and engineering products 45 % and the share of other goods 19 %. 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 20 %.

**Forest resources.** Finland has fairly abundant forest resources, but only limited amounts of other raw materials. The growing stock comprises 1880 million cubic metres, of which 45 % is pine, 37 % spruce and 18 % broad-leaved species, chiefly birch.

The annual growth increment totals 79 million cubic metres and the total drain calculated on the basis of

commercial fellings was 38 million cubic metres in 1993.

**Energy.** In 1993, gross consumption of primary energy amounted to 30 Mtoe, of which industry accounted for 45 %, heating for 22 %, transportation for 13 % and other purposes for 20 %. The sources of primary energy in 1993 were as follows: oil 28 %, coal 11 %, nuclear power 15 %, hydro-electric power, peat and other indigenous sources 32 %, others 14 %. Compared internationally (1992), Finland's consumption of 5.6 toe (OECD definition) per capita was 1.7 times higher than the average in European OECD countries. The self-sufficiency rate (including nuclear power) in Finland was 42 %, as compared with 61 % in western Europe on average.

## 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 fluctua-

tion limits to 5.39166 and 5.72516. On 8 September 1992, the Bank of Finland decided to temporarily abandon the limits of the fluctuation range and allow the markka to float. On 13 November 1992, the Government, on the basis of the amended Currency Act, authorized the Bank of Finland to float the markka for an indefinite period.

**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 1993). Finland has three major groups of deposit banks with a total of about 2 640 offices. There are three big commercial banks with national branch networks and ten smaller ones, one of which is foreign-owned. The commercial banks have a total of 32 foreign branches, subsidiaries and associate banks and 31 representative offices abroad. There are

40 savings banks and 304 cooperative banks with their own extensive branch networks. In addition, foreign banks have three branches and eight representative offices in Finland.

**Financial market.** Of the total stock of FIM 716 billion in outstanding domestic credit at the end of 1993, 54 % was provided by deposit banks 21 % by insurance companies, 5 % by other private credit institutions, 8 % by public financial institutions and 11 % 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, 80 % of the instruments, which totalled approximately FIM 189 billion at end-1993, were negotiable instruments such as bank certificates of deposit, commercial paper, Treasury notes and local authority paper. Funds raised through bank trust departments and non-negotiable bank debt instruments make up the bulk of non-negotiable instruments. In its open market operations, the Bank of Finland deals in bank certificates of deposit and also issues its own certificates of deposit.

There are 58 listed companies on the Helsinki Stock Exchange, with a market capitalization value of FIM 136 billion (at end-1993). Domestic bonds and debentures in circulation at end-1993 totalled FIM 190 billion; government bonds made up 39 % of the total. Turnover on the Stock Exchange in 1993 amounted to FIM 106 billion; the share of shares and subscription rights in the total was approximately 44 %.





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**NOTES AND EXPLANATIONS TO THE STATISTICAL SECTION**

S25 S1

# 1. THE BALANCE SHEET OF THE BANK OF FINLAND

## 1.1 THE BALANCE SHEET OF THE BANK OF FINLAND,

MILL. FIM

	1993		1994		
	31 Dec.	8 Nov.	15 Nov.	23 Nov.	30 Nov.
<b>ASSETS</b>					
<b>Gold and foreign currency claims</b>	33 472	54 141	53 290	53 092	54 184
Gold	2 180	2 180	2 180	2 180	2 180
Special drawing rights	664	1 276	1 260	1 316	1 461
IMF reserve tranche	1 747	1 366	1 339	1 361	1 388
Convertible currencies	28 882	49 319	48 510	48 234	49 154
<b>Other foreign claims</b>	5 058	5 114	5 114	5 114	5 114
Markka subscription to Finland's IMF quota	5 058	5 114	5 114	5 114	5 114
Term credit	—	—	—	—	—
<b>Claims on financial institutions</b>	8 677	3 069	2 617	1 801	1 586
Liquidity credits	↑	—	—	—	—
Certificates of deposit	1 844	1 497	1 017	459	441
Securities with repurchase commitments	5 493	472	498	241	51
Term credits	—	—	—	—	—
Bonds	1 101	863	864	864	856
Other claims on financial institutions	238	238	238	238	238
<b>Claims on the public sector</b>	1 788	1 853	1 858	1 861	1 872
Treasury bills	—	—	—	—	—
Loans to the Government Guarantee Fund	—	—	—	—	—
Total coinage	1 788	1 853	1 858	1 861	1 872
<b>Claims on corporations</b>	3 303	3 172	3 166	3 162	3 160
Financing of domestic deliveries (KTR)	496	343	338	333	331
Other claims on corporations	2 807	2 829	2 829	2 829	2 829
<b>Other Assets</b>	6 826	4 688	4 687	4 687	4 692
Loans for stabilizing the money market	5 752	4 532	4 532	4 532	4 532
Accrued items	907	—	—	—	—
Other assets	166	156	155	155	160
<b>Valuation account</b>	—	—	233	—	—
<b>Capitalized expenditures and losses due to safeguarding the stability of the money market</b>	1 400	1 400	1 400	1 400	1 400
<b>Total</b>	60 524	73 437	72 364	71 118	72 008
<b>LIABILITIES</b>					
<b>Foreign currency liabilities</b>	193	132	95	110	111
Convertible currencies	193	132	95	110	111
<b>Other foreign liabilities</b>	6 189	6 107	6 088	6 104	6 124
IMF markka accounts	5 058	5 114	5 114	5 114	5 114
Allocations of special drawing rights	1 131	994	975	990	1 010
Other foreign liabilities	—	—	—	—	—
<b>Notes and coin in circulation</b>	14 994	13 732	13 730	13 706	13 776
Notes	13 442	12 136	12 134	12 108	12 172
Coin	1 552	1 596	1 597	1 598	1 604
<b>Certificates of deposit</b>	14 837	36 948	34 500	35 006	34 406
<b>Liabilities to financial institutions</b>	8 201	8 369	10 427	8 359	8 699
Call money deposits	1 803	1 340	3 397	1 329	2 026
Term deposits	—	—	—	—	—
Minimum reserve deposits	6 398	7 029	7 029	7 029	6 674
Other liabilities to financial institutions	—	0	0	0	0
<b>Liabilities to the public sector</b>	784	129	113	51	51
Cheque accounts	8	1	1	0	0
Deposits of the Government Guarantee Fund	776	128	112	51	51
Other liabilities to the public sector	—	—	—	—	—
<b>Liabilities to corporations</b>	2 087	1 640	1 618	1 611	1 607
Deposits for investment and ship purchase	2 087	1 640	1 618	1 611	1 607
<b>Other liabilities</b>	627	104	30	28	29
Accrued items	536	—	—	—	—
Other liabilities	92	104	30	28	29
<b>Valuation account and reserves</b>	6 847	511	—	380	1 440
<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
Profit/loss for the accounting year	—	—	—	—	—
<b>Total</b>	60 524	73 437	72 364	71 118	72 008

## 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	Convertible currencies	Foreign exchange reserves (1+2+3+4)	Other claims, net	Net claims (5+6)	Claims	Liabilities	Net claims (8-9)
	1	2	3	4	5	6	7	8	9	10
<b>1989</b>	2 179	966	950	18 822	22 917	- 166	22 752	1 137	5 325	- 4 188
<b>1990</b>	2 180	791	783	33 478	37 232	- 1 273	35 960	1 314	1 321	- 7
<b>1991</b>	2 180	932	1 136	29 381	33 629	- 424	33 204	1 375	3	1 372
<b>1992</b>	2 180	564	1 732	25 041	29 517	- 2 998	26 519	2 446	90	2 356
<b>1993</b>	2 180	664	1 747	28 882	33 473	- 1 324	32 148	1 788	784	1 004
<b>1993</b>										
<b>Nov.</b>	2 180	678	1 854	26 375	31 087	- 905	30 182	1 801	649	1 152
<b>Dec.</b>	2 180	664	1 747	28 882	33 473	- 1 324	32 148	1 788	784	1 004
<b>1994</b>										
<b>Jan.</b>	2 180	645	1 697	36 652	41 174	- 1 347	39 827	1 739	904	835
<b>Feb.</b>	2 180	657	1 676	42 067	46 580	- 1 298	45 282	1 768	300	1 468
<b>March</b>	2 180	661	1 688	38 117	42 646	- 1 257	41 389	1 793	251	1 542
<b>April</b>	2 180	650	1 597	37 197	41 623	- 1 229	40 394	1 828	39	1 789
<b>May</b>	2 180	654	1 591	43 303	47 728	- 1 207	46 521	1 827	61	1 766
<b>June</b>	2 180	650	1 514	48 364	52 708	- 1 176	51 532	1 819	526	1 293
<b>July</b>	2 180	645	1 480	51 329	55 634	- 1 261	54 373	1 823	84	1 739
<b>Aug.</b>	2 180	636	1 447	48 794	53 058	- 1 249	51 809	1 817	71	1 746
<b>Sept.</b>	2 180	618	1 407	48 947	53 153	- 1 178	51 975	1 847	60	1 787
<b>Oct.</b>	2 180	1 249	1 338	48 610	53 377	- 1 139	52 238	1 864	115	1 749
<b>Nov.</b>	2 180	1 461	1 388	49 154	54 184	- 1 121	53 063	1 872	51	1 821

End of period	Domestic financial sector					Corporate sector				
	Term claims on deposit banks, net	Liquidity position of deposit banks <sup>1</sup>	Minimum reserve deposits of deposit banks <sup>2</sup>	Other claims on financial institutions, net	Net claims (11+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	Outstanding CDs issued by the Bank of Finland
	11	12	13	14	15	16	17	18	19	20
<b>1989</b>	33 230	- 531	- 25 506	5 558	12 751	2 000	- 10 604	- 8 604	13 129	-
<b>1990</b>	9 411	- 418	- 17 401	5 744	- 2 665	1 477	- 9 724	- 8 247	14 555	-
<b>1991</b>	11 882	- 2 206	- 10 361	5 531	4 846	1 086	- 6 854	- 5 768	14 528	8 880
<b>1992</b>	3 738	- 550	- 13 165	4 572	- 5 405	747	- 2 651	- 1 904	14 508	4 880
<b>1993</b>	7 337	- 1 802	- 6 398	1 339	476	496	720	1 216	14 994	14 837
<b>1993</b>										
<b>Nov.</b>	6 951	- 1 373	- 6 476	1 405	507	517	642	1 159	15 836	12 259
<b>Dec.</b>	7 337	- 1 802	- 6 398	1 339	476	496	720	1 216	14 994	14 837
<b>1994</b>										
<b>Jan.</b>	4 198	- 889	- 6 393	1 283	- 1 801	482	860	1 342	14 084	22 440
<b>Feb.</b>	1 802	- 426	- 6 346	1 250	- 3 720	466	950	1 416	13 855	26 290
<b>March</b>	3 842	- 1 083	- 6 276	1 241	- 2 276	449	1 003	1 452	14 194	23 435
<b>April</b>	2 093	- 483	- 6 411	1 220	- 3 581	431	1 014	1 445	13 927	21 695
<b>May</b>	3 208	- 485	- 6 360	1 197	- 2 441	413	1 034	1 447	14 164	28 412
<b>June</b>	2 684	- 536	- 6 446	1 162	- 3 137	397	1 066	1 463	14 355	32 108
<b>July</b>	2 488	- 796	- 6 467	1 126	- 3 649	386	1 081	1 467	14 176	35 985
<b>Aug.</b>	4 557	- 2 252	- 6 602	1 120	- 3 177	374	1 104	1 478	13 922	35 040
<b>Sept.</b>	3 485	- 1 421	- 6 550	1 173	- 3 313	360	1 124	1 484	13 906	36 856
<b>Oct.</b>	1 829	- 945	- 7 029	1 111	- 5 034	345	1 186	1 531	13 900	36 948
<b>Nov.</b>	492	- 2 026	- 6 674	1 094	- 7 113	331	1 222	1 553	13 776	34 406

<sup>1</sup> Call money claims on deposit banks, net, until 2 July 1992.

<sup>2</sup> Cash reserve deposits prior to 1 July 1993.

## 2. THE BANK OF FINLAND'S OPERATIONS IN THE MONEY AND FOREIGN EXCHANGE MARKETS AND THE BANKS' FORWARD EXCHANGE POSITION

### 2.1 BANKS' LIQUIDITY POSITION AT THE BANK OF FINLAND,

MILL. FIM

Average of daily observations	Call money deposits	Liquidity credits <sup>1</sup>	Liquidity position, net <sup>1</sup> (1-2)
	1	2	3
<b>1989</b>	416	369	47
<b>1990</b>	806	132	674
<b>1991</b>	881	985	- 103
<b>1992</b>	2 103	437	1 666
<b>1993</b>	831	425	407
<b>1993</b>			
<b>Nov.</b>	714	336	378
<b>Dec.</b>	955	103	852
<b>1994</b>			
<b>Jan.</b>	933	105	828
<b>Feb.</b>	767	0	767
<b>March</b>	715	0	715
<b>April</b>	1 275	0	1 275
<b>May</b>	891	16	875
<b>June</b>	1 821	0	1 821
<b>July</b>	1 014	0	1 014
<b>Aug.</b>	2 575	0	2 575
<b>Sept.</b>	2 089	0	2 089
<b>Oct.</b>	1 442	0	1 442
<b>Nov.</b>	2 038	0	2 038

<sup>1</sup> Call money credits and call money position until 2 July 1992.

### 2.2 THE BANK OF FINLAND'S MINIMUM RESERVE SYSTEM<sup>2</sup>

End of period	Reserve requirement			Cash reserve requirement, %	Deposits, mill. FIM
	On liquid deposits, %	On other deposits, %	On domestic debt capital, %		
	1	2	3	4	5
<b>1989</b>	.	.	.	9.1	25 506
<b>1990</b>	.	.	.	7.0	17 401
<b>1991</b>	.	.	.	4.0	10 361
<b>1992</b>	.	.	.	5.0	13 165
<b>1993</b>	2.0	1.5	1.0	.	6 398
<b>1993</b>					
<b>Nov.</b>	2.0	1.5	1.0	.	6 476
<b>Dec.</b>	2.0	1.5	1.0	.	6 398
<b>1994</b>					
<b>Jan.</b>	2.0	1.5	1.0	.	6 393
<b>Feb.</b>	2.0	1.5	1.0	.	6 346
<b>March</b>	2.0	1.5	1.0	.	6 276
<b>April</b>	2.0	1.5	1.0	.	6 411
<b>May</b>	2.0	1.5	1.0	.	6 360
<b>June</b>	2.0	1.5	1.0	.	6 446
<b>July</b>	2.0	1.5	1.0	.	6 467
<b>Aug.</b>	2.0	1.5	1.0	.	6 602
<b>Sept.</b>	2.0	1.5	1.0	.	6 550
<b>Oct.</b>	2.0	1.5	1.0	.	7 029
<b>Nov.</b>	2.0	1.5	1.0	.	6 674

<sup>2</sup> Cash reserve system prior to 1 July 1993

### 2.3 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
<b>1989</b>	131 110	3 855	99 245	28 010
<b>1990</b>	163 326	26 379	160 797	- 23 850
<b>1991</b>	109 568	30 380	81 969	- 2 781
<b>1992</b>	76 230	137 940	- 60 417	- 1 293
<b>1993</b>	86 521	146 899	- 50 486	- 9 892
<b>1993</b>				
<b>Nov.</b>	8 310	9 200	- 2 090	1 200
<b>Dec.</b>	9 250	9 690	1 250	- 1 690
<b>1994</b>				
<b>Jan.</b>	5 720	17 000	- 3 130	- 8 150
<b>Feb.</b>	3 940	19 430	- 10 230	- 5 260
<b>March</b>	5 770	22 180	- 21 540	5 130
<b>April</b>	4 080	17 730	- 13 435	- 215
<b>May</b>	2 000	27 940	- 20 790	- 5 150
<b>June</b>	2 870	32 690	- 24 980	- 4 840
<b>July</b>	2 000	34 770	- 29 180	- 3 590
<b>Aug.</b>	5 140	35 040	- 32 970	3 070
<b>Sept.</b>	590	36 860	- 33 510	- 2 760
<b>Oct.</b>	330	38 290	- 36 210	- 1 750
<b>Nov.</b>	1 630	35 210	- 34 400	820

## 2.4 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
<b>1991</b>	35 120	- 69 940	- 14 820	12 820	12 260
<b>1992</b>	20 050	- 70 640	- 1 650	390	45 060
<b>1993</b>	25 120	- 45 080	7 460	- 6 910	33 240
<b>1993</b>					
<b>Oct.</b>	2 790	- 100	1 540	- 1 510	2 980
<b>Nov.</b>	2 270	- 70	- 40	-	- 1 170
<b>Dec.</b>	3 720	-	370	- 340	1 430
<b>1994</b>					
<b>Jan.</b>	12 550	-	2 720	- 2 680	- 1 490
<b>Feb.</b>	1 310	- 750	- 270	280	4 670
<b>March</b>	-	- 2 200	-	-	- 1 800
<b>April</b>	-	-	330	- 330	- 700
<b>May</b>	-	- 920	110	- 110	6 810
<b>June</b>	-	- 1 350	-	-	6 360
<b>July</b>	-	- 930	-	-	4 610
<b>Aug.</b>	-	- 4 270	- 2 960	2 990	- 530
<b>Sept.</b>	-	- 1 440	2 420	- 2 340	5 350
<b>Oct.</b>	5 110	- 220	5 070	- 5 090	2 280

## 2.5 FORWARD EXCHANGE CONTRACTS, MILL. FIM

Stock at end of period	Finnish banks' forward contracts							Non-residents' forward contracts with Finnish customers (excl. Finnish banks)			
	With Finnish customers (excl. Finnish banks)			With foreign customers			With the Bank of Finland	Total			
	Currency purchases from Finnish customers	Currency sales to Finnish customers	Net	Currency purchases from foreign customers	Currency sales to foreign customers	Net	Net forward purchases from the Bank of Finland	Net	Currency purchases from Finnish customers	Currency sales to Finnish customers	Net
1	2	3	4	5	6	7	8	9	10	11	
<b>1989</b>	10 531	3 563	6 967	44 885	36 854	8 031	205	15 204	..	..	..
<b>1990</b>	11 609	4 979	6 631	21 179	11 079	10 100	- 6 098	10 633	237	55	183
<b>1991</b>	33 004	36 352	- 3 348	40 056	37 505	2 550	8 953	8 155	1 404	645	759
<b>1992</b>	39 195	32 939	6 256	21 142	32 339	- 11 197	7 133	2 192	1 614	1 929	- 315
<b>1993</b>	38 373	23 721	14 652	14 346	21 895	- 7 548	1 939	9 043	11 632	2 173	9 459
<b>1993</b>											
<b>Oct.</b>	36 251	31 071	5 179	14 928	25 313	- 10 384	2 293	- 2 912	9 942	2 313	7 629
<b>Nov.</b>	36 988	26 544	10 444	14 010	26 027	- 12 018	2 527	953	8 755	1 840	6 915
<b>Dec.</b>	38 373	23 721	14 652	14 346	21 895	- 7 548	1 939	9 043	11 632	2 173	9 459
<b>1994</b>											
<b>Jan.</b>	43 162	19 298	23 864	13 803	23 618	- 9 815	439	14 488	13 494	2 622	10 872
<b>Feb.</b>	41 288	16 030	25 258	17 043	23 240	- 6 197	489	19 550	14 542	2 903	11 639
<b>March</b>	42 814	16 519	26 295	18 003	24 476	- 6 473	489	20 311	14 280	2 599	11 682
<b>April</b>	40 494	15 128	25 366	15 807	22 872	- 7 065	135	18 436	16 236	4 104	12 133
<b>May</b>	40 529	13 887	26 643	17 151	25 046	- 7 894	0	18 749	15 321	3 859	11 462
<b>June</b>	41 191	15 124	26 067	18 939	25 421	- 6 481	0	19 586	15 155	4 417	10 739
<b>July</b>	40 536	16 619	23 917	17 436	27 166	- 9 730	0	14 187	14 746	4 000	10 746
<b>Aug.</b>	39 846	19 930	19 916	19 572	32 036	- 12 464	3 002	10 454	14 542	3 735	10 807
<b>Sept.</b>	40 197	20 368	19 829	18 637	29 261	- 10 624	671	9 876	14 177	3 389	10 788
<b>Oct.</b>	44 821	19 418	25 403	20 662	30 252	- 9 589	- 4 436	11 378	14 945	2 659	12 286

### 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>	Call money deposit rate	Base rate
	1	2	3	4	5	6	7	8
<b>1989</b>	10.21	12.32	12.53	12.61	12.72	13.40	4.00	7.67
<b>1990</b>	10.57	13.63	13.99	14.16	14.39	15.00	4.00	8.50
<b>1991</b>	14.89	13.64	13.07	12.69	12.53	15.48	4.00	8.50
<b>1992</b>	13.32	13.49	13.27	13.08	12.96	14.90	7.41	9.17
<b>1993</b>	7.71	7.85	7.73	7.59	7.47	8.95	4.95	6.85
<b>1993</b>								
<b>Nov.</b>	6.76	6.95	6.58	6.23	5.93	7.97	3.97	6.00
<b>Dec.</b>	6.22	6.16	5.90	5.68	5.52	8.21	4.21	5.50
<b>1994</b>								
<b>Jan.</b>	5.63	5.38	5.19	5.05	5.01	7.44	3.44	5.50
<b>Feb.</b>	4.52	4.82	4.82	4.88	5.05	6.84	2.84	5.25
<b>March</b>	4.39	4.82	4.80	4.88	5.12	6.76	2.76	5.25
<b>April</b>	4.31	5.01	5.13	5.43	5.75	6.99	2.99	5.25
<b>May</b>	4.29	4.97	5.14	5.46	5.78	6.97	2.97	5.25
<b>June</b>	3.93	5.20	5.61	6.24	6.86	7.18	3.18	5.25
<b>July</b>	4.61	5.17	5.46	6.13	6.91	7.17	3.17	5.25
<b>Aug.</b>	3.91	5.35	5.96	6.77	7.54	7.32	3.32	5.25
<b>Sept.</b>	4.07	5.07	5.57	6.36	7.25	7.13	3.13	5.25
<b>Oct.</b>	4.10	5.07	5.39	5.82	6.69	7.08	3.08	5.25
<b>Nov.</b>	4.30	5.07	5.43	6.05	6.79	7.06	3.06	5.25

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

#### 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	Average of daily observations	3 months		
					1	2	3
<b>1992<sup>1</sup></b>	<b>1992</b>	<b>1992</b>	<b>1992</b>	<b>1992</b>			
<b>1993</b>	<b>1993</b>	<b>1993</b>	<b>1993</b>	<b>1993</b>			
<b>1993</b>	<b>1993</b>	<b>1993</b>	<b>1993</b>	<b>1993</b>			
<b>Nov.</b>	<b>Nov.</b>	<b>Nov.</b>	<b>Nov.</b>	<b>Nov.</b>			
<b>Dec.</b>	<b>Dec.</b>	<b>Dec.</b>	<b>Dec.</b>	<b>Dec.</b>			
<b>1994</b>	<b>1994</b>	<b>1994</b>	<b>1994</b>	<b>1994</b>			
<b>Jan.</b>	<b>Jan.</b>	<b>Jan.</b>	<b>Jan.</b>	<b>Jan.</b>			
<b>Feb.</b>	<b>Feb.</b>	<b>Feb.</b>	<b>Feb.</b>	<b>Feb.</b>			
<b>March</b>	<b>March</b>	<b>March</b>	<b>March</b>	<b>March</b>			
<b>April</b>	<b>April</b>	<b>April</b>	<b>April</b>	<b>April</b>			
<b>May</b>	<b>May</b>	<b>May</b>	<b>May</b>	<b>May</b>			
<b>June</b>	<b>June</b>	<b>June</b>	<b>June</b>	<b>June</b>			
<b>July</b>	<b>July</b>	<b>July</b>	<b>July</b>	<b>July</b>			
<b>Aug.</b>	<b>Aug.</b>	<b>Aug.</b>	<b>Aug.</b>	<b>Aug.</b>			
<b>Sept.</b>	<b>Sept.</b>	<b>Sept.</b>	<b>Sept.</b>	<b>Sept.</b>			
<b>Oct.</b>	<b>Oct.</b>	<b>Oct.</b>	<b>Oct.</b>	<b>Oct.</b>			
<b>Nov.</b>	<b>Nov.</b>	<b>Nov.</b>	<b>Nov.</b>	<b>Nov.</b>			
01.11.1994	5.05						
08.11.1994	5.15						
15.11.1994	5.10						
17.11.1994	5.02						
24.11.1994	5.01						
28.11.1994	5.02						

S6 <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
<b>1989</b>	9.3	8.4	9.3
<b>1990</b>	10.5	9.1	10.4
<b>1991</b>	10.1	8.5	9.9
<b>1992</b>	10.4	7.8	10.6
<b>1993</b>	8.0	6.0	8.1
<b>1993</b>			
<b>Nov.</b>	6.8	5.4	7.0
<b>Dec.</b>	6.5	5.2	6.5
<b>1994</b>			
<b>Jan.</b>	6.3	5.1	6.4
<b>Feb.</b>	6.3	5.1	6.4
<b>March</b>	6.2	5.2	6.3
<b>April</b>	6.0	5.1	6.2
<b>May</b>	5.7	5.0	5.9
<b>June</b>	5.6	4.9	6.0
<b>July</b>	5.6	5.0	6.0
<b>Aug.</b>	5.7	5.0	6.0
<b>Sept.</b>	5.8	5.2	5.9
<b>Oct.</b>	5.8	5.4	6.0
<b>Nov.</b>	5.8	5.5	5.9

### 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 post-off giro credits	Bills of exchange	Loans	New lending, total								
	1	2	3	4	5	6	7	8	9	10	11	12
<b>1989</b>	12.97	13.47	11.58	12.07	10.56	10.40	7.50	.	4.50	5.67	11.92	7.37
<b>1990</b>	13.24	15.62	13.33	13.85	11.84	11.61	7.50	.	4.50	6.43	13.55	8.41
<b>1991</b>	13.63	15.88	13.40	13.84	12.08	11.80	7.50	.	4.50	7.10	13.22	8.97
<b>1992</b>	14.04	15.86	13.32	13.75	12.46	12.13	7.50	8.50	4.50	7.41	12.84	9.14
<b>1993</b>	9.69	13.55	9.40	9.75	10.20	9.92	3.50	4.50	2.00	4.78	8.86	6.15
<b>1993</b>												
<b>Oct.</b>	9.92	12.39	8.66	9.04	9.28	8.97	4.00	5.00	2.50	3.89	7.77	5.24
<b>Nov.</b>	9.51	12.77	8.29	8.64	9.21	8.90	4.00	5.00	2.00	3.71	7.44	5.04
<b>Dec.</b>	8.83	11.55	7.32	7.62	8.85	8.48	3.50	4.50	2.00	3.33	6.94	4.55
<b>1994</b>												
<b>Jan.</b>	8.09	11.25	7.35	7.62	8.58	8.22	3.50	4.50	2.00	3.11	6.41	4.19
<b>Feb.</b>	8.25	11.92	7.14	7.46	8.34	7.97	3.25	4.25	2.00	2.93	5.95	3.92
<b>March</b>	4.99	11.73	6.73	6.78	8.17	7.79	3.25	4.25	2.00	2.88	5.77	3.85
<b>April</b>	7.29	11.68	6.87	7.10	8.12	7.91	3.25	4.25	2.00	2.88	5.79	3.85
<b>May</b>	7.63	11.66	7.18	7.43	8.08	7.87	3.25	4.25	2.00	2.88	5.67	3.86
<b>June</b>	7.19	11.70	7.25	7.44	8.09	7.88	3.25	4.25	2.00	2.89	5.77	3.92
<b>July</b>	8.25	11.76	7.58	7.86	8.14	7.90	3.25	4.25	2.00	3.01	5.85	4.03
<b>Aug.</b>	8.37	11.80	7.81	8.04	8.20	7.97	3.25	4.25	2.00	3.05	5.98	4.11
<b>Sept.</b>	7.61	11.75	7.66	7.86	8.19	7.96	3.25	4.25	2.00	3.04	5.99	4.11
<b>Oct.</b>	8.26	11.61	7.28	7.49	8.15	7.91	3.25	4.25	2.00	3.05	6.10	4.10

<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		Taxable public issues	Taxfree public issues	Share yield
	3 years	5 years	5 years	10 years			
	1	2	3	4	5	6	7
<b>1989</b>	12.2	12.0	12.1	.	11.9	8.1	2.7
<b>1990</b>	13.7	13.5	13.2	.	13.3	9.2	4.0
<b>1991</b>	12.3	12.2	11.7	.	12.6	10.0	3.9
<b>1992</b>	13.1	13.0	12.0	11.5 <sup>1</sup>	13.8	9.9	3.1
<b>1993</b>	8.5	8.9	8.2	8.8	10.3	6.6	1.8
<b>1993</b>							
<b>Oct.</b>	7.1	7.6	6.9	7.7	9.8	5.5	1.5
<b>Nov.</b>	6.8	7.2	6.5	7.4	9.0	5.3	1.5
<b>Dec.</b>	6.5	7.0	6.2	7.0	9.2	4.9	1.4
<b>1994</b>							
<b>Jan.</b>	6.1	6.6	5.8	6.5	7.8	4.7	1.1
<b>Feb.</b>	6.1	6.6	5.9	6.6	7.8	4.8	1.1
<b>March</b>	6.6	7.5	6.7	7.5	7.7	4.8	1.2
<b>April</b>	7.7	8.6	7.6	8.3	7.2	4.8	1.4
<b>May</b>	7.9	8.9	7.9	8.5	7.4	4.8	1.4
<b>June</b>	9.1	10.0	9.0	9.5	8.6	4.6	1.5
<b>July</b>	9.7	10.4	9.3	9.9	10.4	6.1	1.5
<b>Aug.</b>	10.3	11.0	10.0	10.6	8.8	5.2	1.4
<b>Sept.</b>	10.2	11.0	9.9	10.5	10.3	5.3	1.4
<b>Oct.</b>	9.5	10.5	9.4	10.1	10.5	6.5	1.5

<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	Frankfurt aM 1 DEM	Amsterdam 1 NLG	Brussels 1 BEF	Zurich 1 CHF	Paris 1 FRF
	1	2	3	4	5	6	7	8	9	10	11	12
<b>1989</b>	4.2897	3.624	7.032	6.082	0.6654	0.6213	0.5869	2.2818	2.0226	0.1089	2.6243	0.6725
<b>1990</b>	3.8233	3.277	6.808	6.325	0.6459	0.6110	0.6181	2.3664	2.1002	0.1145	2.7576	0.7024
<b>1991</b>	4.0457	3.533	7.131	6.511	0.6684	0.6236	0.6322	2.4380	2.1634	0.1184	2.8208	0.7169
<b>1992</b>	4.4835	3.706	7.875	7.636	0.7714	0.7222	0.7444	2.8769	2.5552	0.1397	3.2000	0.8486
<b>1993</b>	5.7189	4.434	8.582	8.371	0.7350	0.8059	0.8822	3.4584	3.0787	0.1655	3.8706	1.0096
<b>1993</b>												
<b>Nov.</b>	5.8053	4.411	8.598	8.147	0.7026	0.7856	0.8578	3.4148	3.0428	0.1602	3.8777	0.9825
<b>Dec.</b>	5.7548	4.320	8.578	8.159	0.6887	0.7753	0.8585	3.3645	3.0038	0.1611	3.9282	0.9840
<b>1994</b>												
<b>Jan.</b>	5.6920	4.324	8.496	8.138	0.7001	0.7580	0.8407	3.2662	2.9173	0.1571	3.8683	0.9612
<b>Feb.</b>	5.5838	4.165	8.257	7.930	0.6992	0.7451	0.8245	3.2147	2.8669	0.1560	3.8297	0.9462
<b>March</b>	5.5326	4.057	8.248	7.932	0.6992	0.7530	0.8343	3.2688	2.9089	0.1586	3.8681	0.9591
<b>April</b>	5.4911	3.974	8.139	7.885	0.6965	0.7455	0.8246	3.2336	2.8795	0.1571	3.8174	0.9438
<b>May</b>	5.4072	3.918	8.134	7.956	0.7008	0.7529	0.8335	3.2629	2.9075	0.1585	3.8275	0.9531
<b>June</b>	5.4276	3.925	8.267	8.102	0.6945	0.7660	0.8486	3.3262	2.9676	0.1615	3.9399	0.9737
<b>July</b>	5.2014	3.762	8.036	7.939	0.6695	0.7573	0.8430	3.3120	2.9526	0.1607	3.9249	0.9666
<b>Aug.</b>	5.1384	3.728	7.927	7.826	0.6640	0.7490	0.8310	3.2852	2.9259	0.1594	3.8980	0.9589
<b>Sept.</b>	4.9691	3.669	7.767	7.667	0.6591	0.7303	0.8128	3.2038	2.8578	0.1557	3.8447	0.9367
<b>Oct.</b>	4.6761	3.464	7.506	7.416	0.6440	0.7061	0.7855	3.0745	2.7443	0.1494	3.6959	0.8983
<b>Nov.</b>	4.7172	3.458	7.500	7.385	0.6418	0.7015	0.7833	3.0659	2.7353	0.1490	3.6448	0.8930

Average of daily quotations	Rome 1 ITL	Vienna 1 ATS	Lisbon 1 PTE	Reykjavik 1 ISK	Madrid 1 ESP	Athens 1 GRD	Tallinn 1 EEK	Tokyo 1 JPY	Mel-bourne 1 AUD	ECU Commercial 1 XEU	SDR 1 XDR
	13	14	15	16	17	18	19	20	21	22	23
<b>1989</b>	0.00313	0.3242	0.0273	0.0758	0.0362	..	..	0.03116	3.398	4.719	5.49536
<b>1990</b>	0.00319	0.3363	0.0268	0.0656	0.0375	..	..	0.02647	2.988	4.864	5.18322
<b>1991</b>	0.00326	0.3464	0.0280	0.0684	0.0389	0.022	..	0.03008	3.152	5.003	5.52771
<b>1992</b>	0.00364	0.4088	0.0332	0.0778	0.0438	0.024	0.4060	0.03546	3.289	5.798	6.31546
<b>1993</b>	0.00364	0.4916	0.0356	0.0846	0.0451	0.025	0.4323	0.05168	3.885	6.685	7.98728
<b>1993</b>											
<b>Nov.</b>	0.00348	0.4856	0.0334	0.0811	0.0423	0.024	0.4268	0.05383	3.861	6.550	8.06368
<b>Dec.</b>	0.00341	0.4785	0.0330	0.0800	0.0410	0.023	0.4206	0.05237	3.874	6.494	7.95965
<b>1994</b>											
<b>Jan.</b>	0.00335	0.4647	0.0323	0.0779	0.0398	0.023	0.4083	0.05109	3.962	6.339	7.81835
<b>Feb.</b>	0.00331	0.4573	0.0318	0.0764	0.0395	0.022	0.4018	0.05251	4.000	6.236	7.74733
<b>March</b>	0.00332	0.4647	0.0318	0.0767	0.0398	0.022	0.4086	0.05264	3.937	6.309	7.75651
<b>April</b>	0.00338	0.4597	0.0317	0.0761	0.0398	0.022	0.4042	0.05310	3.934	6.251	7.71250
<b>May</b>	0.00339	0.4639	0.0316	0.0762	0.0396	0.022	0.4079	0.05215	3.916	6.288	7.65245
<b>June</b>	0.00340	0.4729	0.0321	0.0772	0.0404	0.0221	0.4158	0.05281	3.981	6.398	7.74158
<b>July</b>	0.00332	0.4708	0.0322	0.0759	0.0401	0.0219	0.4140	0.05276	3.821	6.329	7.57829
<b>Aug.</b>	0.00325	0.4669	0.0322	0.0749	0.0396	0.0217	0.4107	0.05147	3.805	6.261	7.47292
<b>Sept.</b>	0.00317	0.4552	0.0314	0.0731	0.0386	0.0211	0.4005	0.05029	3.684	6.113	7.27337
<b>Oct.</b>	0.00302	0.4369	0.0301	0.0697	0.0370	0.0201	0.3843	0.04747	3.452	5.865	6.90651
<b>Nov.</b>	0.00298	0.4355	0.0300	0.0699	0.0368	0.0199	0.3832	0.04813	3.559	5.838	6.93950



## 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	MERM index
	1	2	3	4
<b>1989</b>	4.73670	98.4	99.1	102.8
<b>1990</b>	4.85697	97.3	96.8	97.3
<b>1991</b>	5.00580	101.4	101.4	102.8
<b>1992</b>	5.80140	116.4	115.7	117.3
<b>1993</b>	6.69420	132.4	136.1	141.8
<b>1993</b>				
<b>Nov.</b>	6.55386	130.4	135.3	141.7
<b>Dec.</b>	6.49606	128.9	133.9	139.8
<b>1994</b>				
<b>Jan.</b>	6.34072	126.9	131.8	137.7
<b>Feb.</b>	6.23914	125.6	129.8	136.4
<b>March</b>	6.31275	126.5	130.2	136.6
<b>April</b>	6.25477	125.5	129.2	135.8
<b>May</b>	6.29981	125.9	129.0	135.3
<b>June</b>	6.41394	127.4	130.3	136.6
<b>July</b>	6.35263	125.2	127.2	133.6
<b>Aug.</b>	6.28705	123.8	125.8	131.9
<b>Sept.</b>	6.13918	121.3	122.7	128.7
<b>Oct.</b>	5.89314	116.5	117.2	122.6
<b>Nov.</b>	5.86886	116.3	117.3	122.9

## 5. OTHER DOMESTIC FINANCING

### 5.1 BANK FUNDING FROM THE PUBLIC, MILL. FIM

End of period	Cheque and giro deposits	Transaction 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
<b>1989</b>	28 942	85 396	125 748		240 085	7 358	247 444	35 298	282 742
<b>1990</b>	30 953	96 176	124 930		252 058	6 818	258 876	38 835	297 711
<b>1991</b>	33 619	86 442	122 126	19 615	261 802	13 151	274 953	52 760	327 713
<b>1992</b>	34 832	88 526	114 771	21 218	259 347	14 626	273 973	65 557	339 530
<b>1993</b>	36 379	92 357	112 413	21 766	262 915	14 883	277 798	63 173	340 971
<b>1993</b>									
<b>Sept.</b>	35 312	88 067	105 958	23 259	252 596	16 642	269 239	66 050	335 289
<b>Oct.</b>	35 746	89 439	109 350	22 387	256 922	16 192	273 114	67 314	340 428
<b>Nov.</b>	36 098	87 692	109 769	21 451	255 010	15 799	270 809	64 128	334 937
<b>Dec.</b>	36 379	92 357	112 413	21 766	262 915	14 883	277 798	63 173	340 971
<b>1994</b>									
<b>Jan.</b>	38 657	94 042	108 694	22 740	264 133	14 050	278 183	70 115	348 298
<b>Feb.</b>	37 462	96 507	106 185	22 548	262 702	12 324	275 027	68 874	343 901
<b>March</b>	38 058	97 847	105 867	22 734	264 506	13 201	277 708	72 348	350 056
<b>April</b>	38 242	98 146	106 551	22 748	265 687	13 574	279 261	75 636	354 897
<b>May</b>	41 132	97 145	106 163	22 337	266 778	14 281	281 059	75 753	356 811
<b>June</b>	42 094	98 377	105 973	21 679	268 123	14 353	282 476	72 209	354 685
<b>July</b>	43 391	98 775	106 511	21 391	270 067	16 517	286 584	70 634	357 218
<b>Aug.</b>	44 503	97 970	107 529	20 969	270 970	14 957	285 927	64 382	350 309
<b>Sept.</b>	40 588	97 976	107 427	20 722	266 712	12 839	279 551	69 158	348 709

### 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
<b>1989</b>	15 270	5 650	257 768	278 688	73 176	351 864
<b>1990</b>	19 152	5 777	260 790	285 720	103 134	388 853
<b>1991</b>	18 037	4 712	262 859	285 609	107 714	393 323
<b>1992</b>	16 045	3 335	252 163	271 544	95 168	366 712
<b>1993</b>	14 217	2 223	248 406	264 846	66 931	331 777
<b>1993</b>						
<b>Sept.</b>	15 425	2 656	251 667	269 748	79 676	349 424
<b>Oct.</b>	15 094	2 780	251 342	269 216	75 184	344 401
<b>Nov.</b>	14 872	2 664	250 554	268 090	73 810	341 899
<b>Dec.</b>	14 217	2 223	248 406	264 846	66 931	331 777
<b>1994</b>						
<b>Jan.</b>	14 081	2 248	247 259	263 587	64 220	327 807
<b>Feb.</b>	14 120	2 008	247 884	264 012	63 158	327 170
<b>March</b>	14 125	1 942	247 795	263 862	61 114	324 976
<b>April</b>	13 971	1 759	247 095	262 825	59 077	321 902
<b>May</b>	14 079	1 736	246 531	262 345	58 233	320 578
<b>June</b>	14 139	1 763	245 939	261 841	57 756	319 597
<b>July</b>	14 061	1 733	245 591	261 386	56 128	317 513
<b>Aug.</b>	13 859	1 680	244 474	260 013	53 977	313 990
<b>Sept.</b>	14 068	1 642	243 874	259 584	51 258	310 842

### 5.3 MONEY SUPPLY AND MONETARY AGGREGATES, MILL.FIM

End of period	Foreign assets, net	Domestic credit			Other items, net	M <sub>1</sub>	M <sub>2</sub> (1+4+5)	M <sub>3</sub>
		Claims on the central government	Claims on the public	Total (2+3)				
	1	2	3	4	5	6	7	8
<b>1989</b>	- 59 049	- 18 691	408 344	389 653	- 79 084	124 295	251 519	272 603
<b>1990</b>	- 82 881	- 19 072	453 720	434 648	- 85 385	141 524	266 383	291 045
<b>1991</b>	- 86 555	- 6 516	470 852	464 336	- 102 540	130 644	275 241	310 924
<b>1992</b>	- 68 099	81	439 937	440 018	- 97 909	134 829	274 011	310 733
<b>1993*</b>	- 25 989	1 848	403 742	405 589	- 100 006	141 759	279 595	322 408
<b>1993*</b>								
<b>Oct.</b>	- 20 713	3 530	419 951	423 482	- 130 352	136 989	272 417	319 050
<b>Nov.</b>	- 23 710	3 430	417 372	420 803	- 125 479	137 095	271 614	312 034
<b>Dec.</b>	- 25 989	1 848	403 742	405 589	- 100 006	141 759	279 595	322 408
<b>1994*</b>								
<b>Jan.</b>	- 23 257	57	399 953	400 011	- 96 519	145 301	280 234	328 482
<b>Feb.</b>	- 18 440	475	397 966	398 440	- 101 379	146 600	278 621	327 591
<b>March</b>	- 19 743	1 101	397 404	398 505	- 97 766	148 907	280 996	333 304
<b>April</b>	- 23 247	3 534	392 075	395 609	- 90 780	148 783	281 582	335 879
<b>May</b>	- 14 545	5 988	390 173	396 160	- 98 989	150 750	282 626	338 847
<b>June</b>	- 6 902	2 034	390 056	392 090	- 100 708	153 365	284 480	338 345
<b>July</b>	- 7 521	- 1 109	387 040	385 931	- 92 150	155 001	286 260	340 445
<b>Aug.</b>	4 260	426	383 805	384 230	- 101 687	154 836	286 804	336 027
<b>Sept.</b>	12 224	- 1 993	374 064	372 071	- 101 574	151 193	282 721	333 572
<b>Oct.</b>	..	..	..	..	..	152 548	283 691	335 921

### 5.4 LIABILITIES AND ASSETS OF THE CENTRAL GOVERNMENT, MILL. FIM

End of period	Foreign currency-denominated debt			Markku-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
<b>1989</b>	18 505	4 281	22 786	24 126	5 750	250	.	30 126	52 912	43 499	21 248
<b>1990</b>	20 917	3 876	24 793	23 982	8 263	-	.	32 245	57 038	48 121	23 114
<b>1991</b>	38 703	4 943	43 646	31 018	12 208	5 180	.	48 406	92 052	55 165	15 956
<b>1992</b>	100 244	6 143	106 387	40 578	13 555	14 762	.	68 895	175 282	61 671	19 781
<b>1993</b>	142 824	12 753	155 577	71 082	16 060	22 824	.	109 966	265 543	64 233	36 487
<b>1993</b>											
<b>Oct.</b>	143 854	13 139	156 993	69 251	15 354	23 754	.	108 359	265 352	66 435	42 816
<b>Nov.</b>	144 122	13 020	157 142	71 833	15 313	22 647	.	109 793	266 935	64 381	47 493
<b>Dec.</b>	142 824	12 753	155 577	71 082	16 060	22 824	.	109 966	265 543	64 233	36 487
<b>1994</b>											
<b>Jan.</b>	140 312	10 565	150 877	72 215	18 260	19 629	.	110 104	260 981	64 706	24 095
<b>Feb.</b>	148 138	9 990	158 128	74 481	18 260	19 391	- 5 524	106 608	264 736	65 008	31 679
<b>April</b>	146 940	10 891	157 831	76 001	17 541	18 625	- 5 384	106 943	264 774	65 808	18 547
<b>May</b>	156 684	11 106	167 790	76 282	17 442	19 704	- 5 379	108 049	275 839	66 001	22 405
<b>June</b>	163 930	11 658	175 588	77 129	16 901	24 915	- 5 410	113 535	289 123	65 007	30 119
<b>July</b>	169 523	11 952	181 475	78 286	16 891	30 159	- 5 440	119 896	301 371	64 437	41 465
<b>Aug.</b>	165 170	11 698	176 868	79 587	16 870	28 551	- 5 485	119 523	296 391	64 698	37 525
<b>Sept.</b>	167 196	12 111	179 307	82 349	16 865	31 514	- 5 455	125 273	304 580	65 079	41 848
<b>Oct.</b>	160 626	15 042	175 668	84 786	16 865	31 666	- 5 487	127 830	303 498	..	39 910

## 5.5 MARKKA BOND MARKET

### A) ISSUES, MILL. FIM

During 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 placements	
						Taxable	Taxfree		
	1	2	3	4	5	6	7	8	9
<b>1989</b>	4 204	11 022	5 717	233	13	11 146	2 997	7 046	21 189
<b>1990</b>	4 640	17 891	4 420	490	1 007	17 234	607	10 607	28 447
<b>1991</b>	7 277	25 737	11 073	1 320	-	30 160	-	15 247	45 407
<b>1992</b>	6 984	15 043	12 965	2 674	4	23 858	-	13 812	37 671
<b>1993*</b>	11 691	12 134	36 512	2 235	63	51 179	-	11 456	62 634
<b>1993*</b>									
<b>Oct.</b>	410	697	4 859	222	-	5 956	-	232	6 188
<b>Nov.</b>	989	4 160	2 793	18	50	7 828	-	182	8 010
<b>Dec.</b>	477	1 753	600	205	-	2 769	-	266	3 034
<b>1994*</b>									
<b>Jan.</b>	-	2 000	2 216	45	-	4 261	-	-	4 261
<b>Feb.</b>	560	7	2 359	280	-	3 206	-	-	3 206
<b>March</b>	2 311	713	2 555	190	-	5 769	-	-	5 769
<b>April</b>	100	1 480	942	-	-	2 522	-	-	2 522
<b>May</b>	373	2 226	1 348	30	-	3 977	-	-	3 977
<b>June</b>	500	160	2 673	62	-	3 394	-	-	3 394
<b>July</b>	-	-	1 171	-	-	1 171	-	-	1 171
<b>Aug.</b>	-	2 130	2 410	-	-	4 540	-	-	4 540
<b>Sept.</b>	-	310	4 173	-	-	4 483	-	-	4 483
<b>Oct.</b>	-	940	3 044	-	-	3 984	-	-	3 984

### 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 placements	
						Taxable	Taxfree		
	1	2	3	4	5	6	7	8	9
<b>1989</b>	21 463	50 216	29 381	1 555	290	41 162	27 742	34 001	102 906
<b>1990</b>	23 522	59 756	28 812	1 756	1 298	52 273	22 970	39 902	115 145
<b>1991</b>	26 632	76 701	35 195	2 766	3 726	76 346	18 096	50 578	145 020
<b>1992</b>	26 617	82 319	44 005	5 237	3 358	89 534	13 917	58 085	161 536
<b>1993*</b>	32 996	74 372	73 682	6 894	2 009	120 571	10 391	58 991	189 953
<b>1993*</b>									
<b>III</b>	33 334	77 791	67 504	6 517	2 018	113 846	10 727	62 591	187 164
<b>IV</b>	32 996	74 372	73 682	6 894	2 009	120 571	10 391	58 991	189 953
<b>1994*</b>									
<b>I</b>	34 235	72 084	77 676	7 255	1 007	126 390	8 898	56 969	192 258
<b>II</b>	33 236	71 920	78 990	7 297	964	130 760	8 584	53 063	192 407
<b>III</b>	31 117	70 899	84 211	7 134	963	135 008	7 848	51 468	194 324

## C) TURNOVER, MILL. FIM

During period	Interbank	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	4	5
<b>1989</b>	6 500	9 660	.	.	.
<b>1990</b>	5 401	6 058	.	.	.
<b>1991</b>	3 343	29 134	.	.	.
<b>1992</b>	18 221	58 594	10 744	12 156	13 354
<b>1993</b>	45 966	241 273	42 945	95 647	117 489
<b>1993</b>					
<b>Nov.</b>	4 454	28 725	4 069	12 703	12 069
<b>Dec.</b>	6 012	26 948	5 414	10 765	12 500
<b>1994</b>					
<b>Jan.</b>	8 899	41 502	8 437	17 411	19 133
<b>Feb.</b>	14 265	40 081	12 427	16 883	18 485
<b>March</b>	34 926	56 958	32 256	28 635	28 693
<b>April</b>	24 666	37 825	23 300	17 241	17 960
<b>May</b>	10 588	20 896	9 731	8 753	10 958
<b>June</b>	14 560	20 091	14 132	8 225	11 496
<b>July</b>	5 171	12 950	5 081	4 961	7 745
<b>Aug.</b>	22 933	21 706	22 791	10 728	10 987
<b>Sept.</b>	12 357	23 278	12 307	9 424	13 922
<b>Oct.</b>	13 493	26 807	13 361	12 045	14 624
<b>Nov.</b>	12 220	22 667	11 742	9 818	13 363

## 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	By ownership		By industry								
		Re-restricted	Non-restricted	Banks and finance	Insurance and investment	Manufacturing	Of which:					
	1	2	3	4	5	6	7	8	9	10	11	12
<b>1989</b>	1 827	1 850	1 689	1 958	1 528	1 818	1 728	1 748	2 061	33 160	7 375	40 536
<b>1990</b>	1 332	1 324	1 393	1 263	1 185	1 376	1 436	1 282	1 474	15 521	4 550	20 071
<b>1991</b>	962	949	1 062	901	898	1 003	1 075	1 076	1 021	6 339	1 315	7 655
<b>1992</b>	772	759	868	425	467	943	1 123	1 206	890	10 277	15 377	25 654
<b>1993</b>	1 240	.	.	608	644	1 601	1 695	1 749	1 751	46 337	59 977	106 314
<b>1993</b>												
<b>Nov.</b>	1 542	.	.	810	771	2 003	2 092	2 155	2 253	4 842	7 153	11 995
<b>Dec.</b>	1 549	.	.	773	801	2 003	2 114	2 240	2 209	4 810	6 375	11 185
<b>1994</b>												
<b>Jan.</b>	1 797	.	.	870	952	2 315	2 357	2 733	2 537	8 781	276	9 057
<b>Feb.</b>	1 917	.	.	942	1 011	2 462	2 410	2 982	2 704	6 395	558	6 953
<b>March</b>	1 861	.	.	824	948	2 422	2 250	2 841	2 792	7 060	334	7 394
<b>April</b>	1 815	.	.	771	914	2 377	2 189	2 689	2 818	4 849	107	4 956
<b>May</b>	1 839	.	.	749	862	2 427	2 207	2 723	2 891	4 035	71	4 105
<b>June</b>	1 709	.	.	676	726	2 271	2 113	2 526	2 732	3 719	49	3 768
<b>July</b>	1 776	.	.	688	727	2 377	2 253	2 503	2 987	3 891	99	3 990
<b>Aug.</b>	1 877	.	.	647	759	2 536	2 405	2 742	3 185	6 594	134	6 728
<b>Sept.</b>	1 908	.	.	652	697	2 601	2 513	2 738	3 336	4 856	132	4 988
<b>Oct.</b>	1 917	.	.	645	714	2 612	2 351	2 657	3 512	7 761	216	7 977
<b>Nov.</b>	1 907	.	.	604	694	2 617	2 207	2 567	3 672	5 629	102	5 731

<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
<b>1989</b>	98 265	7 662	4 497	6 277	18 436	116 701	10 212	3 652	130 565	104 400	3 869	8 969	8 759
<b>1990</b>	99 750	8 347	4 650	6 081	19 077	118 827	12 739	4 461	136 027	101 967	4 363	10 766	9 503
<b>1991</b>	91 100	7 508	5 044	5 636	18 189	109 289	10 003	5 336	124 628	86 348	3 974	11 089	11 011
<b>1992</b>	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
<b>1993*</b>	132 550	10 430	7 079	9 379	26 888	159 438	7 624	6 506	173 567	101 559	5 537	9 237	17 008
<b>1992</b>													
<b>I</b>	24 783	2 002	1 159	1 702	4 863	29 645	2 301	1 367	33 313	22 698	1 001	2 725	3 422
<b>II</b>	26 452	2 152	1 493	1 681	5 326	31 778	1 269	1 374	34 421	24 180	1 064	2 813	3 039
<b>III</b>	24 820	2 323	1 958	1 923	6 203	31 023	1 204	1 480	33 707	20 677	1 119	2 853	3 242
<b>IV</b>	29 754	2 167	1 480	2 424	6 071	35 825	1 649	1 699	39 173	25 632	1 176	2 572	3 666
<b>1993*</b>													
<b>I</b>	31 016	2 366	1 351	2 778	6 495	37 511	2 233	1 470	41 215	25 715	1 279	2 401	4 445
<b>II</b>	32 625	2 646	1 763	2 281	6 690	39 315	2 125	1 756	43 196	24 818	1 325	2 276	4 015
<b>III</b>	32 116	2 832	2 203	2 102	7 138	39 253	1 622	1 584	42 460	23 992	1 444	2 242	4 206
<b>IV</b>	36 793	2 586	1 761	2 218	6 565	43 358	1 643	1 695	46 696	27 034	1 489	2 319	4 341
<b>1994*</b>													
<b>I</b>	34 536	2 602	1 425	2 444	6 471	41 006	1 974	1 597	44 577	24 852	1 314	1 899	4 233
<b>II</b>	38 519	2 923	1 740	2 172	6 835	45 354	3 673	1 496	50 523	29 488	1 483	2 036	3 974
<b>III</b>	37 405	3 127	2 063	2 523	7 713	45 118	2 618	1 498	49 234	28 866	1 425	2 097	3 836

During period	Services expenditure, total (11+12+13)	Imports of goods and services (10+14)	Investment expenditure (15+16+17)	Transfers and other expenditure (17)	Current account expenditure (15+16+17)	Trade account (1-10)	Transport (2-11)	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
<b>1989</b>	21 596	125 996	21 882	7 561	155 439	-6 134	3 793	-4 471	-2 482	-3 160	-9 294	-11 670	-3 910	-24 874
<b>1990</b>	24 632	126 599	26 973	8 967	162 540	-2 218	3 984	-6 117	-3 422	-5 555	-7 772	-14 234	-4 506	-26 513
<b>1991</b>	26 074	112 421	28 674	10 229	151 325	4 752	3 534	-6 044	-5 374	-7 885	-3 132	-18 671	-4 893	-26 696
<b>1992</b>	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
<b>1993*</b>	31 782	133 341	34 580	10 390	178 311	30 991	4 893	-2 159	-7 629	-4 894	26 097	-26 956	-3 885	-4 744
<b>1992</b>														
<b>I</b>	7 148	29 845	8 435	3 124	41 405	2 085	1 001	-1 566	-1 720	-2 285	-200	-6 134	-1 758	-8 092
<b>II</b>	6 916	31 096	7 400	2 381	40 877	2 272	1 087	-1 320	-1 358	-1 590	682	-6 131	-1 007	-6 456
<b>III</b>	7 214	27 891	6 765	2 402	37 058	4 143	1 204	-895	-1 319	-1 011	3 132	-5 561	-922	-3 351
<b>IV</b>	7 413	33 045	7 824	2 440	43 309	4 122	991	-1 092	-1 241	-1 342	2 780	-6 174	-741	-4 136
<b>1993*</b>														
<b>I</b>	8 125	33 840	10 137	2 808	46 785	5 301	1 087	-1 049	-1 667	-1 630	3 672	-7 904	-1 338	-5 570
<b>II</b>	7 616	32 434	10 493	2 393	45 321	7 806	1 322	-512	-1 735	-926	6 881	-8 368	-637	-2 124
<b>III</b>	7 892	31 884	6 805	2 640	41 330	8 124	1 388	-39	-2 104	-755	7 369	-5 183	-1 055	1 131
<b>IV</b>	8 149	35 183	7 145	2 549	44 876	9 760	1 097	-558	-2 123	-1 584	8 175	-5 502	-854	1 820
<b>1994*</b>														
<b>I</b>	7 446	32 298	9 181	2 948	44 427	9 684	1 288	-474	-1 789	-976	8 708	-7 207	-1 351	150
<b>II</b>	7 494	36 982	8 523	2 223	47 728	9 031	1 439	-296	-1 802	-659	8 372	-4 850	-727	2 795
<b>III</b>	7 359	36 225	6 173	2 247	44 646	8 539	1 702	-34	-1 314	354	8 893	-3 555	-750	4 588

## 6.2 CAPITAL AND FINANCIAL ACCOUNT, MILL. FIM

During period	Imports of capital												Total (1+7+12)
	Direct investment in Finland	Portfolio investment					Other investment					Total (5+9+10+11)	
		Shares	Bonds	Of which: market-denominated bonds	Money market instruments	Financial derivatives	Total (2+3+5+6)	Trade credits	Loans	Currency and deposits	Other		
1	2	3	4	5	6	7	8	9	10	11	12	13	
<b>1989</b>	2 095	1 309	13 447	- 214	1 329	..	16 085	1 445	10 807	406	4 696	17 355	35 535
<b>1990</b>	3 010	376	22 280	1 440	- 923	..	21 733	1 156	16 635	- 725	17 307	34 372	59 115
<b>1991</b>	- 997	47	38 751	11 786	- 4 511	..	34 287	- 3 987	7 496	131	- 9 737	- 6 098	27 192
<b>1992*</b>	1 822	397	39 309	- 5 312	- 1 791	..	37 915	3 639	2	1 690	- 17 415	- 12 084	27 653
<b>1993*</b>	4 945	12 748	30 353	3 616	- 4 382	..	38 719	4 467	5 357	- 5 347	- 24 454	- 19 977	23 687
<b>1992*</b>													
<b>I</b>	563	199	4 102	- 1 545	1 244	..	5 545	385	111	- 1 050	952	398	6 506
<b>II</b>	74	145	13 023	114	- 3 179	..	9 990	- 678	- 395	801	- 5 471	- 5 743	4 321
<b>III</b>	340	6	5 474	- 2 712	- 485	..	4 995	2 755	16	828	648	4 248	9 583
<b>IV</b>	845	47	16 710	- 1 169	629	..	17 386	1 178	270	1 110	- 13 544	- 10 986	7 244
<b>1993*</b>													
<b>I</b>	439	1 405	15 542	320	- 2 314	..	14 632	1 900	7 326	901	- 8 593	1 533	16 604
<b>II</b>	927	1 515	16 269	3 420	- 1 348	..	16 435	- 196	815	- 1 268	- 6 612	- 7 261	10 101
<b>III</b>	631	6 529	2 267	2 523	- 2 755	..	6 041	- 836	- 1 495	1 671	- 8 143	- 8 803	- 2 131
<b>IV</b>	2 948	3 300	- 3 725	- 2 646	2 036	..	1 611	3 599	- 1 289	- 6 650	- 1 106	- 5 446	- 887
<b>1994*</b>													
<b>I</b>	3 664	4 389	3 196	- 944	- 2 101	31	5 515	- 879	- 3 980	772	6 665	2 578	11 757
<b>II</b>	3 010	2 292	6 906	- 2 244	3 074	272	12 544	- 852	1 258	- 1 748	- 3 077	- 4 420	11 134
<b>III</b>	2 242	5 181	16 297	552	- 2 036	- 499	18 943	364	- 1 257	964	- 5 536	- 5 465	15 720

During period	Exports of capital												Errors and omissions	Change in central bank's reserve assets (In-crase-)
	Direct investment abroad	Portfolio investment					Other investment					Total (14+19+24)		
		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	26	27	
<b>1989</b>	12 715	264	- 84	87	..	267	567	5 155	116	1 831	7 669	20 650	5 457	4 532
<b>1990</b>	10 353	2	575	1 171	..	1 748	- 1 565	2 953	935	- 3 480	- 1 157	10 944	- 6 240	- 15 417
<b>1991</b>	- 501	- 369	- 3	1 499	..	1 128	- 726	2 341	1 054	6 587	9 256	9 883	2 012	7 375
<b>1992*</b>	- 3 372	46	321	2 748	..	3 115	3 634	3 409	3 745	3 259	14 048	13 790	- 1 008	9 180
<b>1993*</b>	9 537	873	767	1 932	..	3 571	1 923	- 839	- 6 063	14 698	9 720	22 828	5 104	- 1 219
<b>1992*</b>														
<b>I</b>	- 581	27	155	91	..	273	835	1 229	2 528	- 4 078	515	206	170	1 623
<b>II</b>	- 1 544	- 19	1 161	- 1 490	..	- 348	- 314	- 807	522	- 439	- 1 038	- 2 931	- 1 810	1 015
<b>III</b>	- 552	13	- 895	786	..	- 96	1 313	553	2 619	3 501	7 986	7 338	- 4 944	6 051
<b>IV</b>	- 695	25	- 100	3 361	..	3 286	1 799	2 435	- 1 924	4 276	6 586	9 177	5 577	492
<b>1993*</b>														
<b>I</b>	985	158	2 823	- 577	..	2 404	1 623	- 726	- 1 516	15 515	14 896	18 285	1 665	5 586
<b>II</b>	1 081	2	- 1 095	- 972	..	- 2 065	518	- 185	247	- 3 766	- 3 186	- 4 171	- 1 464	- 10 684
<b>III</b>	- 473	77	- 841	3 975	..	3 211	- 190	- 1 008	1 514	9 514	9 829	12 567	2 549	11 019
<b>IV</b>	7 944	636	- 120	- 494	..	21	- 28	1 081	- 6 308	- 6 564	- 11 819	- 3 854	2 354	- 7 141
<b>1994*</b>														
<b>I</b>	5 333	43	- 662	211	- 201	- 609	- 1 329	- 1 279	2 612	- 5 779	- 5 774	- 1 050	- 2 679	- 10 279
<b>II</b>	4 788	- 68	- 3 273	- 4 446	- 27	- 7 814	1 737	- 1 349	- 460	6 181	6 110	3 084	- 672	- 10 172
<b>III</b>	4 385	- 18	- 1 231	420	- 52	- 881	- 437	- 110	- 268	9 875	9 060	12 563	- 3 824	- 3 921

### 6.3 FINLAND'S INTERNATIONAL INVESTMENT POSITION, MILL. FIM

Position at end of period	Liabilities												
	Direct investment in Finland	Portfolio investment					Other investment					Total liabilities (1+7+12)	
		Shares	Bonds	Of which: marketable 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	
<b>1989</b>	16 093	8 146	74 167	3 906	4 050	..	86 363	14 064	40 210	870	92 620	147 764	250 220
<b>1990</b>	18 651	5 052	95 530	6 385	23 856	..	124 438	13 915	51 937	7 969	89 662	163 483	306 572
<b>1991</b>	17 443	4 149	141 055	19 036	22 079	..	167 283	9 532	68 892	8 555	85 281	172 260	356 986
<b>1992*</b>	19 348	5 138	211 361	14 366	19 391	..	235 889	13 305	78 330	11 880	78 804	182 320	437 557
<b>1993*</b>	24 391	30 375	265 571	27 149	15 034	- 6 103	304 877	18 206	91 380	4 025	55 478	169 089	498 356
<b>1992</b>													
<b>I</b>	18 027	4 279	150 644	17 366	15 612	..	170 535	9 868	69 353	7 607	96 351	183 178	371 740
<b>II</b>	18 122	4 083	160 415	17 851	18 160	..	182 658	9 219	66 741	8 275	81 099	165 333	366 113
<b>III</b>	18 483	3 367	184 851	15 547	18 023	..	206 242	12 019	72 530	9 942	89 639	184 130	408 855
<b>IV</b>	19 348	5 138	211 361	14 366	19 391	..	235 889	13 305	78 330	11 880	78 804	182 320	437 557
<b>1993*</b>													
<b>I</b>	19 812	8 121	253 159	16 281	17 007	..	278 287	15 193	97 042	13 135	76 093	201 462	499 561
<b>II</b>	20 763	11 901	254 886	21 118	15 573	..	282 360	14 897	93 680	11 461	67 494	187 532	490 654
<b>III</b>	21 418	22 725	265 540	23 460	13 090	..	301 355	14 091	95 614	13 276	61 106	184 087	506 860
<b>IV</b>	24 391	30 375	265 571	27 149	15 034	- 6 103	304 877	18 206	91 380	4 025	55 478	169 089	498 356
<b>1994*</b>													
<b>I</b>	27 562	39 079	266 694	28 087	12 244	- 8 855	309 162	17 145	85 626	4 724	60 047	167 543	504 267
<b>II</b>	30 584	42 719	272 980	24 622	15 286	- 7 931	323 054	16 275	86 792	2 964	56 729	162 759	516 398
<b>III</b>	32 731	56 036	272 703	26 697	11 851	- 6 893	333 697	16 532	80 213	3 752	48 448	148 946	515 373

Position at end of period	Assets											
	Direct investment abroad	Portfolio investment					Other investment					Total assets (14+19+24)
		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	
<b>1989</b>	32 221	388	7 292	1 576	..	9 256	22 320	20 060	748	59 372	102 500	143 977
<b>1990</b>	40 800	762	6 447	2 173	..	9 383	16 549	24 825	5 726	65 754	112 854	163 037
<b>1991</b>	44 823	426	7 004	4 154	..	11 584	16 388	28 504	7 647	72 498	125 037	181 444
<b>1992*</b>	44 921	469	8 697	7 917	..	17 083	21 389	35 251	12 665	76 647	145 952	207 955
<b>1993*</b>	54 577	1 285	10 706	11 028	446	23 465	26 350	34 018	5 701	89 301	155 370	233 412
<b>1992</b>												
<b>I</b>	43 876	428	7 472	4 550	..	12 450	17 401	30 223	10 193	68 559	126 376	182 702
<b>II</b>	41 966	408	8 681	2 881	..	11 970	17 034	28 128	10 558	65 317	121 037	174 973
<b>III</b>	45 982	442	8 176	4 032	..	12 650	18 898	30 676	14 188	68 195	131 958	190 590
<b>IV</b>	44 921	469	8 697	7 917	..	17 083	21 389	35 251	12 665	76 647	145 952	207 955
<b>1993*</b>												
<b>I</b>	51 946	676	11 952	7 766	..	20 394	23 664	36 976	12 275	92 392	165 307	237 648
<b>II</b>	48 465	671	10 801	6 627	..	18 099	23 888	34 148	12 159	97 321	167 516	234 080
<b>III</b>	49 447	759	10 074	10 689	..	21 522	23 857	34 208	13 929	98 044	170 039	241 008
<b>IV</b>	54 577	1 285	10 706	11 028	446	23 465	26 350	34 018	5 701	89 301	155 370	233 412
<b>1994*</b>												
<b>I</b>	59 366	1 296	9 576	10 910	622	22 403	24 479	31 396	8 107	91 319	155 301	237 070
<b>II</b>	64 301	1 211	5 953	6 338	550	14 052	26 155	29 866	7 449	106 714	170 183	248 536
<b>III</b>	65 883	1 116	4 175	6 087	561	11 939	24 480	28 376	6 957	113 281	173 094	250 916



6.4 FINLAND'S NET INTERNATIONAL INVESTMENT POSITION (LIABILITIES LESS ASSETS),  
BY SECTOR, MILL. FIM

Position at end of period	Corporate sector	Banks	Bank of Finland	Other financial institutions	Central government	Local government	Net (1+2+3+4+5+6)	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
<b>1989</b>	24 142	88 931	- 23 561	- 3 108	19 264	575	106 243	10 453	8
<b>1990</b>	34 853	110 111	- 36 700	9 910	24 751	610	143 535	13 130	10
<b>1991</b>	28 483	107 434	- 34 046	18 960	52 748	719	174 298	15 671	13
<b>1992*</b>	30 501	82 343	- 27 546	28 283	113 674	2 347	229 602	19 011	14
<b>1993*</b>	49 897	48 189	- 33 279	29 737	167 444	2 956	264 944	21 897	13
<b>1992</b>									
<b>I</b>	28 610	110 668	- 33 471	20 750	60 859	1 623	189 038	4 887	15
<b>II</b>	28 737	94 368	- 31 437	21 931	75 717	1 703	191 019	4 883	14
<b>III</b>	30 741	83 775	- 16 715	24 364	94 016	1 958	218 138	4 314	13
<b>IV</b>	30 501	82 343	- 27 546	28 283	113 674	2 347	229 602	4 926	13
<b>1993*</b>									
<b>I</b>	35 085	65 514	- 27 782	29 660	156 500	2 937	261 914	6 640	16
<b>II</b>	37 112	61 511	- 37 288	27 269	165 160	2 810	256 574	7 103	16
<b>III</b>	45 024	44 622	- 27 318	27 224	173 332	2 967	265 852	3 918	9
<b>IV</b>	49 897	48 189	- 33 279	29 737	167 444	2 956	264 944	4 237	9
<b>1994*</b>									
<b>I</b>	58 950	53 526	- 42 504	27 717	166 274	3 233	267 196	6 607	15
<b>II</b>	58 214	52 727	- 52 617	25 280	181 009	3 248	267 861	4 250	8
<b>III</b>	70 192	34 296	- 52 998	24 271	185 627	3 069	264 457	2 955	6

## 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
<b>1989</b>	99 784	105 516	- 5 732
<b>1990</b>	101 327	103 027	- 1 700
<b>1991</b>	92 842	87 744	5 098
<b>1992</b>	107 463	94 947	12 516
<b>1993*</b>	133 927	103 078	30 849
<b>1993*</b>			
<b>Oct.</b>	13 909	8 432	5 477
<b>Nov.</b>	12 402	9 522	2 880
<b>Dec.</b>	10 880	9 473	1 407
<b>1994*</b>			
<b>Jan.</b>	11 882	8 319	3 563
<b>Feb.</b>	10 911	7 418	3 493
<b>March</b>	12 127	9 515	2 612
<b>April</b>	12 346	9 412	2 934
<b>May</b>	13 368	10 928	2 440
<b>June</b>	13 308	9 598	3 710
<b>July</b>	13 136	9 164	3 972
<b>Aug.</b>	11 561	9 872	1 689
<b>Sept.</b>	13 113	10 121	2 992
<b>Oct.</b>	13 367	10 075	3 292

### 7.2 FOREIGN TRADE: INDICES OF VOLUME, UNIT VALUE AND TERMS OF TRADE, 1980=100

Period	Volume		Unit value		Terms of trade
	Exports	Imports	Exports	Imports	
	1	2	3	4	5
<b>1989</b>	121	144	156	126	123
<b>1990</b>	125	138	154	128	120
<b>1991</b>	114	115	154	131	118
<b>1992</b>	124	112	164	145	113
<b>1993</b>	147	109	172	163	106
<b>1992</b>					
<b>II</b>	125	118	162	143	113
<b>III</b>	117	102	163	142	115
<b>IV</b>	133	116	171	154	111
<b>1993</b>					
<b>I</b>	135	108	176	165	106
<b>II</b>	143	105	174	165	105
<b>III</b>	141	101	174	165	105
<b>IV</b>	165	116	170	161	105
<b>1994</b>					
<b>I</b>	155	107	170	161	106
<b>II</b>	168	129	175	158	111
<b>III</b>	161	124	178	161	111

### 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
	1	2	3	4	5	6	7	8	9	10
<b>1989</b>	7 416	32 513	8 844	32 682	18 329	51 786	8 310	20 606	24 055	759
<b>1990</b>	7 811	31 658	9 540	35 493	16 825	49 210	9 829	19 364	23 888	736
<b>1991</b>	6 984	29 695	10 539	29 188	16 436	42 505	9 399	13 973	21 195	672
<b>1992</b>	7 892	32 587	12 172	35 741	19 071	49 514	9 745	13 348	20 826	1 514
<b>1993*</b>	10 889	37 410	14 192	48 099	23 337	54 778	10 911	15 337	21 045	1 007
<b>1993*</b>										
<b>Oct.</b>	1 136	3 508	1 258	5 866	2 141	4 725	867	983	1 838	19
<b>Nov.</b>	1 061	3 294	1 354	4 479	2 214	4 957	1 275	1 287	1 949	54
<b>Dec.</b>	964	2 954	1 069	3 766	2 127	5 013	1 113	1 356	1 895	96
<b>1994*</b>										
<b>Jan.</b>	978	3 009	1 282	4 272	2 341	4 537	693	1 206	1 820	63
<b>Feb.</b>	1 018	3 060	1 060	3 741	2 032	4 229	608	925	1 621	35
<b>March</b>	1 026	3 623	1 248	4 061	2 169	5 198	752	1 314	2 206	45
<b>April</b>	1 165	3 487	1 156	4 338	2 200	4 823	968	1 662	1 913	46
<b>May</b>	1 431	3 506	1 511	4 538	2 382	6 075	1 290	1 317	2 232	14
<b>June</b>	1 318	3 358	1 289	4 882	2 461	5 513	867	1 192	1 950	76
<b>July</b>	1 015	3 287	1 315	5 802	1 717	4 823	955	1 227	1 792	367
<b>Aug.</b>	935	3 437	1 258	3 816	2 115	5 419	1 029	1 386	2 031	7
<b>Sept.</b>	1 313	3 586	1 354	4 320	2 540	5 656	1 054	1 384	2 027	0
<b>Oct.</b>	1 268	3 566	1 313	4 937	2 283	5 645	803	1 485	2 051	91

## 7.4 FOREIGN TRADE BY REGIONS AND COUNTRIES

Region and country	Exports, fob				Imports, cif			
	1993 *		1994 * January - October		1993 *		1994 * January - October	
	Mill. FIM	Percentage share	Mill. FIM	Percentage change from the corresponding period of the previous year	Mill. FIM	Percentage share	Mill. FIM	Percentage change from the corresponding period of the previous year
	1	2	3	4	5	6	7	8
<b>All OECD countries</b>	102 135	76.3	94 054	10.6	81 607	79.2	73 101	9.9
<b>OECD Europe</b>	86 513	64.6	79 415	10.7	66 956	65.0	58 736	7.9
Of which:								
Austria	1 427	1.1	1 314	9.7	1 179	1.1	1 069	12.6
Belgium and Luxembourg	2 955	2.2	2 808	14.4	3 008	2.9	2 585	9.4
Denmark	4 479	3.3	4 315	16.8	3 231	3.1	2 915	9.3
France	7 114	5.3	6 292	6.3	4 716	4.6	3 944	2.5
Germany	17 628	13.2	16 834	15.5	16 901	16.4	13 969	- 0.6
Italy	4 350	3.2	3 671	0.5	3 811	3.7	3 780	20.8
Netherlands	6 729	5.0	6 455	16.9	3 847	3.7	3 418	7.3
Norway	4 277	3.2	3 974	14.0	5 010	4.9	4 426	9.5
Spain	3 263	2.4	2 881	2.0	1 245	1.2	1 240	29.2
Sweden	14 855	11.1	13 490	10.3	10 531	10.2	9 893	15.5
Switzerland	2 111	1.6	1 891	7.3	2 044	2.0	1 691	0.8
United Kingdom	14 020	10.5	12 915	10.6	9 160	8.9	7 775	9.7
<b>Other OECD</b>	15 622	11.7	14 640	10.0	14 651	14.2	14 366	18.8
Of which:								
Canada	1 075	0.8	861	- 6.8	724	0.7	649	7.2
Japan	2 187	1.6	2 602	47.7	5 958	5.8	5 978	21.6
United States	10 506	7.8	9 453	3.9	7 498	7.3	7 193	16.2
<b>Non-OECD European countries</b>	12 679	9.5	14 685	49.7	11 207	10.9	11 814	28.5
Of which:								
Russia	6 051	4.5	6 477	42.0	7 813	7.6	8 415	29.8
<b>Other countries</b>	19 113	14.3	16 380	3.1	10 264	10.0	9 510	14.4
Of which:								
<b>OPEC countries</b>	3 266	2.4	2 017	- 24.1	542	0.5	467	12.1
<b>TOTAL</b>	133 927	100.0	125 119	13.0	103 078	100.0	94 425	12.4
Of which:								
<b>EC countries</b>	62 850	46.9	58 117	11.2	47 974	46.5	41 439	6.2
<b>EFTA countries</b>	22 799	17.0	20 775	10.6	18 831	18.3	17 149	12.2

## 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
<b>1989</b>	269 879	104 526	129 905	15 149	5 975	525 434	117 241	127 311	515 364
<b>1990</b>	269 754	108 535	121 858	17 286	5 769	523 202	118 828	126 600	515 430
<b>1991</b>	260 031	111 256	93 722	17 243	-2 451	479 801	110 965	111 755	479 011
<b>1992</b>	247 363	108 799	75 338	16 899	4 075	452 474	122 059	112 989	461 544
<b>1993*</b>	237 559	102 932	60 332	14 369	8 264	423 456	142 292	113 352	452 396
<b>1992</b>									
<b>I</b>	63 180	27 422	20 408	4 312	113	115 435	29 534	28 504	116 466
<b>II</b>	61 769	27 272	19 802	4 464	1 208	114 515	30 435	28 927	116 022
<b>III</b>	61 404	27 090	18 370	4 015	1 271	112 149	30 425	27 516	115 059
<b>IV</b>	61 010	27 015	16 758	4 108	1 483	110 374	31 665	28 042	113 997
<b>1993*</b>									
<b>I</b>	60 136	25 989	15 757	3 670	1 973	107 524	34 461	29 303	112 682
<b>II</b>	59 021	25 834	14 730	3 722	1 574	104 881	34 410	27 021	112 270
<b>III</b>	58 918	25 617	14 976	3 674	3 224	106 408	36 035	28 566	113 877
<b>IV</b>	59 484	25 492	14 869	3 304	1 494	104 643	37 386	28 462	113 567
<b>1994*</b>									
<b>I</b>	61 086	24 949	15 664	3 227	427	105 353	37 415	27 888	114 880
<b>II</b>	59 891	24 766	16 360	3 065	4 435	108 517	39 927	30 979	117 465

### 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
<b>1989</b>	100.3	101.9	100.5	102.3	99.6	100.8	97.9
<b>1990</b>	100.2	99.8	100.2	100.1	100.4	100.1	100.0
<b>1991</b>	91.2	91.3	89.9	91.5	85.6	92.6	103.6
<b>1992</b>	92.4	88.4	91.4	94.6	91.1	90.2	103.0
<b>1993*</b>	97.1	85.8	96.2	104.3	99.4	90.4	107.9
<b>1993*</b>							
<b>Sept.</b>	99.5	77.3	98.8	107.6	102.6	92.4	110.1
<b>Oct.</b>	100.7	83.8	100.1	110.3	105.0	92.2	110.6
<b>Nov.</b>	101.2	83.4	100.3	109.3	104.9	93.7	109.7
<b>Dec.</b>	101.8	84.9	100.6	109.4	106.9	93.1	113.1
<b>1994*</b>							
<b>Jan.</b>	102.3	99.4	101.1	111.5	103.7	93.8	113.0
<b>Feb.</b>	103.3	90.5	101.5	109.9	109.5	93.0	119.2
<b>March</b>	103.6	97.9	102.4	111.7	113.0	88.7	116.2
<b>April</b>	105.5	103.2	104.8	111.8	112.6	96.2	114.5
<b>May</b>	108.2	84.7	106.5	113.6	116.6	97.7	116.1
<b>June</b>	107.9	101.0	107.5	113.6	116.7	98.0	117.4
<b>July</b>	108.7	219.9	106.2	120.1	111.3	96.8	113.1
<b>Aug.</b>	107.2	174.5	104.8	113.2	113.3	94.5	125.7
<b>Sept.</b>	111.7	97.7	111.5	114.9	129.5	96.6	118.8

### 8.3 INDICATORS OF DOMESTIC SUPPLY AND DEMAND, 1985=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 indicator of GDP
				Residential buildings	Industrial buildings	Other buildings		
	1	2	3	4	5	6	7	8
<b>1989</b>	124.2	117.0	130.3	132.9	137.6	125.2	161.4	116.7
<b>1990</b>	119.9	111.6	127.3	124.8	161.7	122.1	144.6	117.5
<b>1991</b>	99.4	103.5	103.9	94.4	127.7	109.9	102.1	110.3
<b>1992</b>	87.2	92.9	79.5	73.8	76.2	87.5	84.5	107.0
<b>1993*</b>	82.5	87.6	59.5	60.5	52.9	59.8	83.0	105.5
<b>1993*</b>								
<b>Aug.</b>	83.6	85.7	..	..	..	..	..	104.7
<b>Sept.</b>	81.7	85.5	..	..	..	..	..	105.2
<b>Oct.</b>	80.6	85.9	..	..	..	..	..	105.8
<b>Nov.</b>	83.2	86.9	..	..	..	..	..	107.1
<b>Dec.</b>	84.0	88.9	..	..	..	..	..	107.6
<b>1993*</b>								
<b>II</b>	82.3	87.8	60.5	62.5	52.1	63.6	73.3	104.2
<b>III</b>	83.0	85.6	59.3	60.4	47.9	59.3	60.7	105.0
<b>IV</b>	82.6	87.3	56.7	57.1	61.5	51.4	78.7	106.8
<b>1994*</b>								
<b>Jan.</b>	82.5	88.6	..	..	..	..	..	107.3
<b>Feb.</b>	83.6	89.1	..	..	..	..	..	107.5
<b>March</b>	83.9	92.5	..	..	..	..	..	109.3
<b>April</b>	82.2	87.6	..	..	..	..	..	109.9
<b>May</b>	89.4	90.9	..	..	..	..	..	110.9
<b>June</b>	88.2	89.6	..	..	..	..	..	109.8
<b>July</b>	85.7	85.0	..	..	..	..	..	109.8
<b>Aug.</b>	92.5	88.9	..	..	..	..	..	110.0
<b>1994*</b>								
<b>I</b>	83.4	90.1	53.7	59.5	40.3	50.2	72.7	108.0
<b>II</b>	86.6	89.4	49.1	56.4	50.2	42.0	97.3	110.2

## 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 (SIC3)	Public				Domes- tic goods	Import- ed goods		Export- ed goods	Home market goods	
	1	2	3	4	5	6	7	8	9	10	11	12	13
<b>1989</b>	91.5	91.7	91.1	91.2	94.2	94.9	96.6	96.9	99.1	98.1	100.5	96.9	94.1
<b>1990</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>1991</b>	106.4	106.4	106.1	106.4	104.3	104.1	100.0	99.8	100.8	99.4	98.5	99.8	102.2
<b>1992</b>	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
<b>1993<sup>1</sup></b>	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
<b>1993</b>													
<b>Oct.</b>	..	..	..	..	109.9	110.8	104.9	101.1	119.1	106.1	110.3	104.3	101.0
<b>Nov.</b>	..	..	..	..	109.7	110.8	104.7	101.0	118.3	105.6	109.4	104.0	101.0
<b>Dec.</b>	..	..	..	..	109.7	110.6	104.5	100.8	118.2	105.2	109.2	103.5	100.8
<b>1993<sup>1</sup></b>													
<b>III</b>	108.9	108.2	109.6	110.2	109.6	110.2	105.0	100.9	119.9	105.7	109.4	104.1	100.8
<b>IV</b>	109.9	109.6	111.5	110.7	109.8	110.7	104.7	101.0	118.5	105.6	109.6	103.9	100.9
<b>1994</b>													
<b>Jan.</b>	..	..	..	..	109.4	110.3	104.8	101.2	117.8	105.5	109.4	103.9	101.6
<b>Feb.</b>	..	..	..	..	109.8	110.8	105.1	101.7	117.4	105.5	108.4	104.3	101.6
<b>March</b>	..	..	..	..	110.0	111.0	105.4	101.9	118.1	105.7	108.0	104.7	101.7
<b>April</b>	..	..	..	..	110.2	111.3	105.8	102.1	119.2	105.8	108.0	104.8	101.7
<b>May</b>	..	..	..	..	110.3	111.3	105.8	102.2	119.1	106.4	109.0	105.2	101.9
<b>June</b>	..	..	..	..	111.3	111.3	106.1	102.5	119.5	107.0	110.3	105.6	102.2
<b>July</b>	..	..	..	..	111.4	111.5	106.6	103.1	119.3	107.7	110.9	106.3	102.1
<b>Aug.</b>	..	..	..	..	111.6	111.7	106.8	103.3	119.5	108.2	112.0	106.5	102.4
<b>Sept.</b>	..	..	..	..	111.8	112.0	107.0	103.7	119.3	108.4	112.0	106.8	102.5
<b>Oct.</b>	..	..	..	..	111.9	..	107.1	104.0	118.2	108.4	111.0	107.3	102.9
<b>1994<sup>1</sup></b>													
<b>I</b>	110.4	110.3	113.1	110.9	109.7	110.7	105.1	101.6	117.8	105.6	108.6	104.3	101.6
<b>II</b>	110.9	110.9	114.4	111.0	110.6	111.3	105.9	102.3	119.3	106.4	109.1	105.2	101.9
<b>III</b>	111.1	111.0	114.9	111.2	111.6	111.7	106.8	103.4	119.4	108.1	111.6	106.5	102.3

<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+9)	By industrial status		By industry				Unemployed	Unemployment rate	
				Self-employed	Wage and salary earners	Agri-culture and forestry	Industry	Con-struction	Service industries			
		1000 persons										
		1	2	3	4	5	6	7	8	9	10	11
<b>1989</b>	68.7	2 559	2 470	367	2 104	218	561	199	1 492	89	3.5	
<b>1990</b>	68.4	2 556	2 467	360	2 108	207	556	205	1 500	88	3.4	
<b>1991</b>	67.4	2 533	2 340	340	2 000	197	502	179	1 461	193	7.6	
<b>1992</b>	66.1	2 502	2 174	325	1 849	188	454	150	1 382	328	13.1	
<b>1993</b>	65.3	2 484	2 041	312	1 729	173	423	124	1 319	444	17.9	
<b>1993</b>												
<b>Oct.</b>	65.1	2 479	2 012	315	1 697	175	415	120	1 302	467	18.9	
<b>Nov.</b>	65.3	2 486	2 023	294	1 729	173	414	119	1 318	463	18.6	
<b>Dec.</b>	65.2	2 485	2 013	319	1 693	172	418	114	1 308	472	19.0	
<b>1994</b>												
<b>Jan.</b>	64.7	2 468	1 993	354	1 638	170	410	117	1 296	475	19.3	
<b>Feb.</b>	65.4	2 495	2 029	298	1 731	170	420	112	1 326	466	18.7	
<b>March</b>	65.2	2 489	2 014	313	1 701	166	422	110	1 316	475	19.1	
<b>April</b>	64.7	2 470	2 003	312	1 690	165	420	112	1 305	468	18.9	
<b>May</b>	64.9	2 483	2 017	309	1 709	167	420	114	1 317	465	18.7	
<b>June</b>	64.9	2 484	2 027	314	1 713	172	423	107	1 325	457	18.4	
<b>July</b>	64.6	2 472	2 011	302	1 709	164	423	118	1 306	461	18.6	
<b>Aug.</b>	64.6	2 472	2 027	305	1 722	168	431	112	1 316	445	18.0	
<b>Sept.</b>	65.0	2 491	2 041	310	1 731	170	440	112	1 318	450	18.1	
<b>Oct.</b>	64.8	2 482	2 041	301	1 739	159	435	118	1 328	441	17.8	

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	
<b>1989</b>	39 397	76 458	471	15 990	132 316	3 926	136 241	35 082	72 008	33 244	35 715
<b>1990</b>	42 611	77 364	953	18 423	139 351	4 260	143 611	41 535	81 190	37 646	40 313
<b>1991</b>	41 054	73 251	1 136	19 182	134 624	4 442	139 069	45 085	101 220	42 297	55 160
<b>1992</b>	34 312	69 541	1 512	21 251	126 616	5 054	131 669	49 291	105 184	42 990	59 180
<b>1993</b>	31 667	67 291	1 443	28 823	129 224	7 366	136 593	46 880	108 608	42 720	63 535
<b>1993</b>											
<b>Sept.</b>	2 792	5 185	129	2 247	10 353	108	10 461	3 658	9 482	3 371	5 987
<b>Oct.</b>	2 774	5 548	118	1 072	9 512	64	9 576	3 381	9 774	3 375	6 235
<b>Nov.</b>	2 736	5 757	147	2 672	11 312	2 638	13 952	3 708	9 371	3 437	5 820
<b>Dec.</b>	2 078	6 543	115	5 142	13 878	759	14 637	4 256	10 357	3 609	6 318
<b>1994</b>											
<b>Jan.</b>	2 827	6 024	67	1 857	10 775	27	10 802	3 699	9 936	3 118	6 609
<b>Feb.</b>	2 757	5 500	115	1 770	10 142	83 <sup>r</sup>	10 224 <sup>r</sup>	3 090	8 334	3 084	4 939
<b>March</b>	3 774	4 727	100	2 283	10 884	2 382 <sup>r</sup>	13 265 <sup>r</sup>	4 097	9 474	3 521	5 820
<b>April</b>	2 374	5 134	100	1 945	9 553	208	9 759	3 320	9 049	3 849	5 068
<b>May</b>	2 567	5 970	98	2 717	11 352	241	11 592	3 633	8 999	3 684	5 166
<b>June</b>	2 786	5 511	524	1 977	10 798	1 503	12 300	4 654	9 930	3 725	6 028
<b>July</b>	3 059	5 980	237	1 756	11 032	898	11 929	4 200	8 475	3 195	5 083
<b>Aug.</b>	2 915	6 837	138	1 336	11 226	198	11 424	3 046	8 170	3 115	4 806
<b>Sept.</b>	2 671	5 289	127	1 489	9 576	81	9 658	3 866	8 399	3 147	5 182

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 (3-14)	Net borrowing requirement (7-16)	Net borrowing	Cash surplus (18+19)
<b>1989</b>	8 393	5 343	120 826	7 566	128 390	11 490	7 851	-4 009	3 842
<b>1990</b>	5 962	4 927	133 614	9 319	142 934	5 737	678	1 201	1 879
<b>1991</b>	5 370	6 368	158 044	13 328	171 372	-23 420	-32 304	25 659	-6 645
<b>1992</b>	5 042	8 499	168 016	35 501	203 516	-41 400	-71 847	70 691	-1 155
<b>1993</b>	4 306	18 076	177 870	19 753	197 623	-48 646	-61 030	84 036	23 009
<b>1993</b>									
<b>Sept.</b>	417	1 135	14 692	1 756	16 448	-4 339	-5 987	3 529	-2 457
<b>Oct.</b>	369	2 497	16 021	740	16 761	-6 509	-7 185	6 076	-1 109
<b>Nov.</b>	349	771	14 199	767	14 966	-2 887	-1 014	1 230	216
<b>Dec.</b>	477	1 744	16 834	2 491	19 325	-2 956	-4 688	91	-4 596
<b>1994</b>									
<b>Jan.</b>	187	3 336	17 158	545	17 703	-6 383	-6 901	519	-6 383
<b>Feb.</b>	224	1 202	12 850	631 <sup>r</sup>	13 482 <sup>r</sup>	-2 708	-3 258	7 659	4 402
<b>March</b>	245	3 120	16 936	3 111 <sup>r</sup>	20 047 <sup>r</sup>	-6 052	-6 782	-41	-6 823
<b>April</b>	227	2 081	14 677	1 434	16 112	-5 124	-6 353	789	-5 563
<b>May</b>	257	1 438	14 327	717	15 045	-2 975	-3 453	9 209	5 756
<b>June</b>	342	2 424	17 350	663	18 013	-6 552	-5 713	13 429	7 716
<b>July</b>	353	1 181	14 209	365	14 575	-3 177	-2 646	14 635	11 990
<b>Aug.</b>	298	1 216	12 730	633	13 363	-1 504	-1 939	-1 348	-3 287
<b>Sept.</b>	321	1 748	14 334	6 490	20 824	-4 758	-11 166	13 203	2 037



# 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 11) = bank certificates of deposit held by the Bank of Finland + securities with repurchase commitments + term credits - term deposits. Liquidity position of deposit banks (Column 12): see explanation to Table 2.1. Other claims on financial institutions, net (Column 14) = till-money credits to deposit banks (until May 1993) + bonds + other claims on financial institutions - 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** Banks with access to central bank financing can make call money deposits with the Bank of Finland without limit. They can also obtain liquidity credit with a maturity of 1 day, 7 days, 14 days, 21 days or 28 days. The maturity is determined by the Bank of Finland.

**Table 2.2** The minimum reserve requirement is reported for the month by the end of which the deposit must be made with the Bank of Finland. The requirement is determined on the basis of the reserve base for the previous month. No interest is paid on minimum reserve deposits. The cash reserve figures for 1989 include the additional deposit requirement of 1.1 per cent under the supplementary cash reserve agreement in force at the time, together with the corresponding non-interest-bearing deposits of FIM 3 159 million.

**Table 2.3** 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 2.4** 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 payments 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 2.5** 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. HELIBOR (Helsinki Interbank Offered Rate) (Columns 2-5): The HELIBOR rate for each maturity is calculated by the Bank of Finland as the average of the offered rates for certificates of deposit quoted daily at 1 p.m. by the five largest banks.

**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.

Banks with access to central bank financing can make call money deposits with the Bank of Finland without limit. In addition, they can obtain liquidity credit from the Bank of Finland 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 is obtained by subtracting the interest rate margin for call money deposits from the Bank of Finland's tender rate. The monthly and annual values for maturity and interest rate margins are the last values recorded in each month or year.

**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 averages 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. Yields on taxable government bonds (Columns 3 and 4) are calculated by the Bank of Finland in a similar fashion. Until January 1992, the yield on 5-year taxable government bonds (Column 3) was calculated on a bullet bond due on 15 March 1994 with a coupon rate of 13 per cent. From February 1992 onwards the yield is calculated on a bullet bond due on 15 January 1999 with a coupon rate of 11 per cent. Until June 1993, the yield on 10-year taxable government bonds (Column 4) is calculated on a housing bond (bullet) due on 15 March 2002 with a coupon rate of 10.75 per cent. From July 1993 onwards the yield is calculated on a bullet bond due on 15 March 2004 with a coupon rate of 9.50 per cent. The yield on taxable public issues (Column 5) is calculated as the arithmetic mean of yields on fixed-rate ordinary bonds, debentures and other bonds (excl. zero coupon loans, bonds with equity warrants and convertible debentures) issued by all S25

issuers except the central government with a remaining maturity of between 3 and 6 years. The yield on taxfree public issues (Column 6) is calculated as the arithmetic mean of yields on fixed-rate public bonds with a remaining maturity of between 4 and 5 years. The Bank of Finland calculates the yields for columns 5 and 6 once a week on the basis of the trading quotations of the Helsinki Stock Exchange. Monthly observations are the averages of weekly observations and annual observations the averages of monthly observations. The *share yield* (Column 7) 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, for which daily quotations at noon Finnish time are used. Since 8 September 1992 the markka has been floating. 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. The MERM index (Column 4): The weights are fixed 1977 weights computed on the basis of the IMF's world trade model; 14 currencies are included in this index.

#### 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 placings; 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 (for details, see the article "State Borrowing and Cash Management" by Pekka Laajainen and Pekka Saarinen in the August 1987 issue of the Bulletin). Transferable allocations amounted to FIM 8.1 billion at the end of 1988.

**Table 5.5** Source: 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-denominated bonds outside the Helsinki Stock Exchange. Inter-bank transactions (Column 1) and transactions (purchases and sales) between banks and customers (Column 2) are transactions by the banks

entitled to central bank financing. As from 10 October 1994 the following act as primary dealers: Alfred Berg Pankkiriilike, EVI Fixed Income Securities, Goldman Sachs International, Handelsbanken Finland, Kansalliskaspa-Pankki, Okobank, Postipankki, Skopbank, Union Bank of Finland and Unibors Securities. The primary dealers' quotes are published daily (page JVKD on Reuters). 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.

**Table 5.6** Source: The Helsinki Stock Exchange.

#### 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 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). As a result of the new classification, the contents of many of the items in the capital and financial account have been revised to some extent. In the same context, a number of other revisions and clarifications have been made. The main changes are listed below.

**Table 6.2** Short-term foreign exchange transfers related to cash management flows between direct investors and their direct investment enterprises are classified as direct investment (Columns 1 and 14). Loans received by resident direct investors from group 'in-house' finance companies located abroad (intra-group loans) are also classified as direct investment (Column 14). Money market instruments are classified as portfolio investment (Columns 5 and 17). Premiums and margin payments arising from transactions in financial derivatives are included as a new item under portfolio investment (Columns 6 and 18). Financial derivatives also 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 3 and 16). The category other investment (Columns 8-12 and 20-24) 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 8 and 20). The item

'Other' (Columns 11 and 23) includes transactions in short- and long-term assets and liabilities of different sectors not covered by any of the items above. In addition, this category 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' comprises banks' other short-term assets and liabilities (in practice inter-bank deposits). The central bank's reserve assets (Column 27) comprise gold, special drawings 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. All tables refer to foreign trade in goods.

**Table 7.2** The volume indices (Columns 1 and 2) are calculated according to the Paasche formula and the unit value indices (Columns 3 and 4) according to the Laspeyres formula. The terms of trade (Column 5) is the ratio of the export unit value index to the import unit value index multiplied by one hundred.

**Table 7.4** The regional and country grouping is based on the classification according to Finnish Official Statistics I A.

## 8 DOMESTIC ECONOMIC DEVELOPMENTS

**Tables 8.1-8.5** Source: Statistics Finland. Seasonal adjustment is carried out by the Bank of Finland.

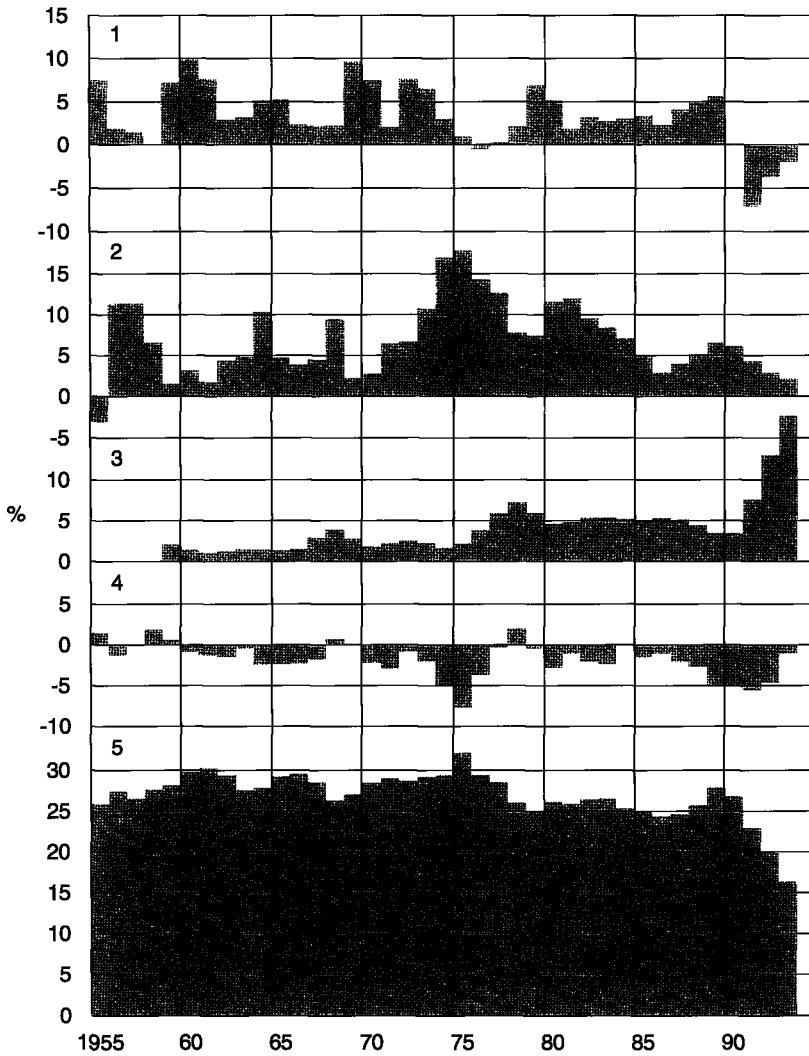
**Table 8.3** The monthly indicator of GDP (Column 8) is weighted together from 11 readily available indicators of developments in output in various industries.

**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.

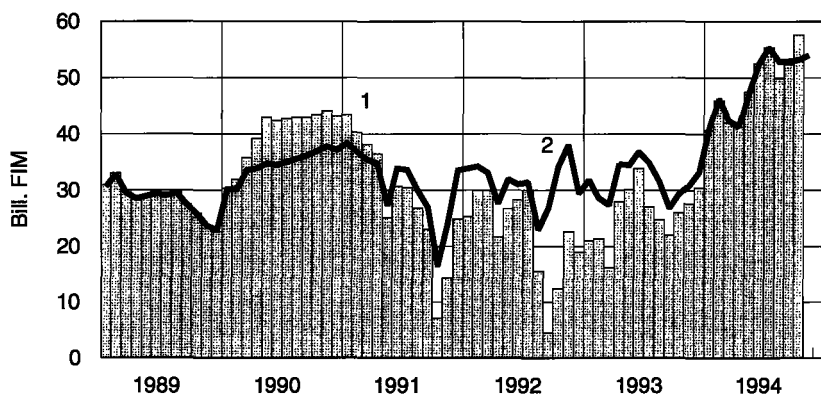
1. Long-term indicators	S28
2. The Bank of Finland's foreign exchange reserves and forward position	S29
3. Forward market	S29
4. Rates of interest set by the Bank of Finland	S29
5. Banks' liquidity position with the Bank of Finland	S30
6. Liquidity management interest rates	S30
7. HELIBOR rates of interest, daily	S30
8. HELIBOR rates of interest, monthly	S31
9. Differential between Finnish and German interest rates	S31
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11. Bank of Finland currency index and the markka value of the ECU	S32
12. Daily spot rates for the markka against the Deutschmark and the US dollar	S32
13. Daily spot rates for the markka against the pound sterling and the Swedish krona	S32
14. Monthly spot rates for the markka against the Deutschmark and the US dollar	S33
15. Monthly spot rates for the markka against the pound sterling and the Swedish krona	S33
16. Banks' markka lending rates and markka funding rates	S33
17. Bank funding from the public	S34
18. Bank lending to the public	S34
19. Money supply	S34
20. Current account	S35
21. Net interest and dividend expenditure	S35
22. Balance of payments	S36
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24. Foreign trade	S37
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27. Production	S38
28. Fixed investment	S38
29. Employment and the unemployment rate	S39
30. Prices and wages	S39
31. Central government finances	S40
32. Central government debt	S40

# 1. LONG-TERM INDICATORS



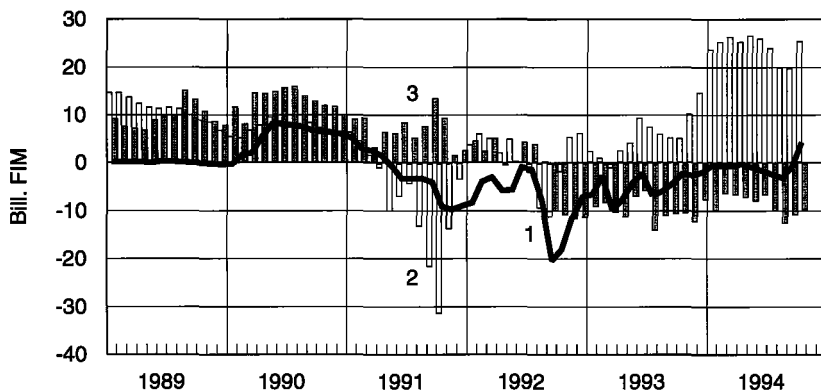
1. GDP, change in volume from the previous year, per cent
2. Consumer prices, change from the previous year, per cent
3. Unemployment rate, per cent
4. Current account, as a percentage of GDP
5. Fixed investment, as a percentage of GDP

## 2. THE BANK OF FINLAND'S FOREIGN EXCHANGE RESERVES AND FORWARD POSITION



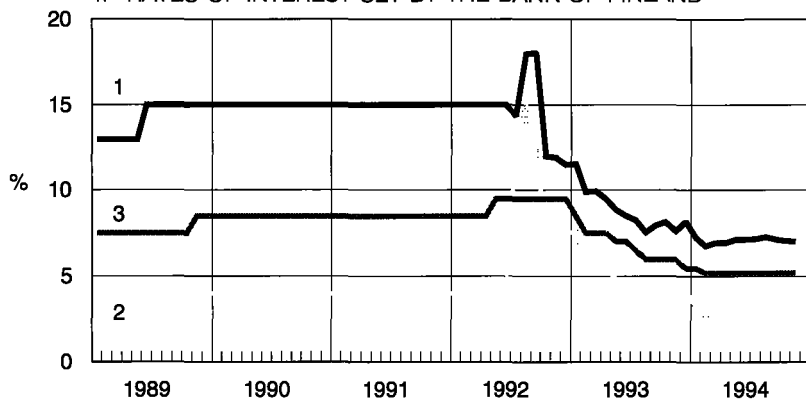
1. Foreign exchange reserves plus forward position
2. Foreign exchange reserves

## 3. FORWARD MARKET



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

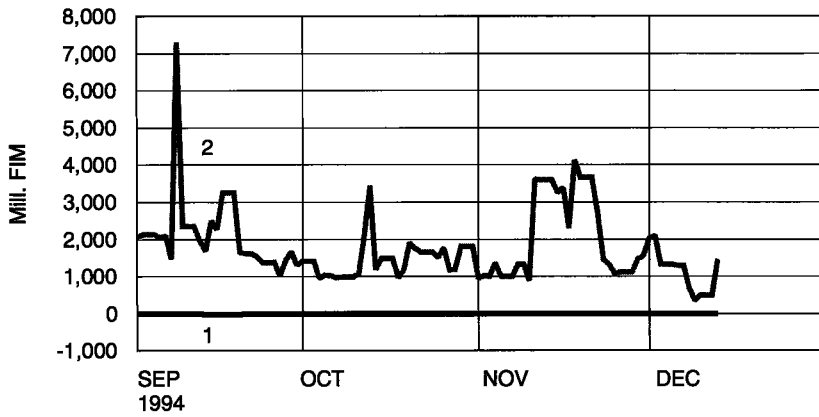
## 4. RATES OF INTEREST SET BY THE BANK OF FINLAND



1. Liquidity credit rate (up to 2 July 1992 call money credit rate)
2. Call money deposit rate
3. Base rate

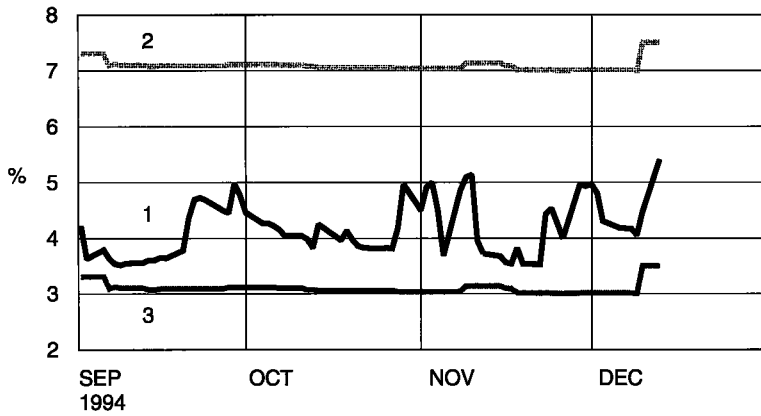
End-of-month observations

5. BANKS' LIQUIDITY POSITION WITH THE BANK OF FINLAND



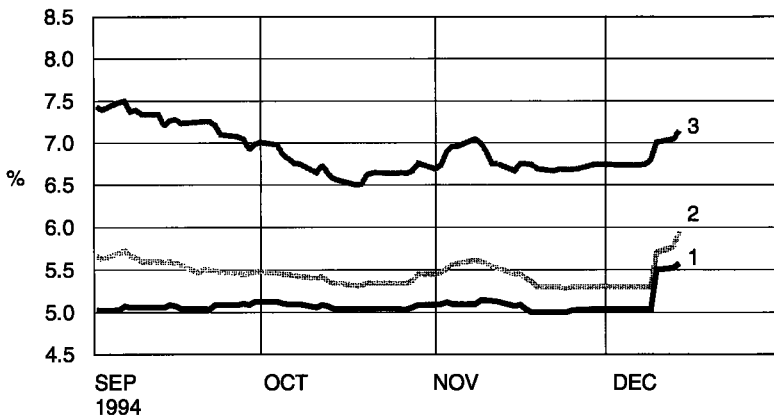
- 1. Liquidity credits (-)
- 2. Call money deposits

6. LIQUIDITY MANAGEMENT INTEREST RATES



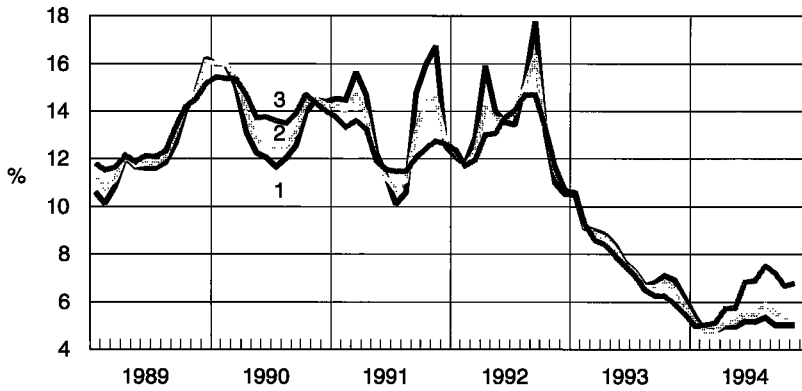
- 1. Inter-bank overnight rate
  - 2. Liquidity credit rate
  - 3. Call money deposit rate
- Daily observations

7. HELIBOR RATES OF INTEREST, DAILY



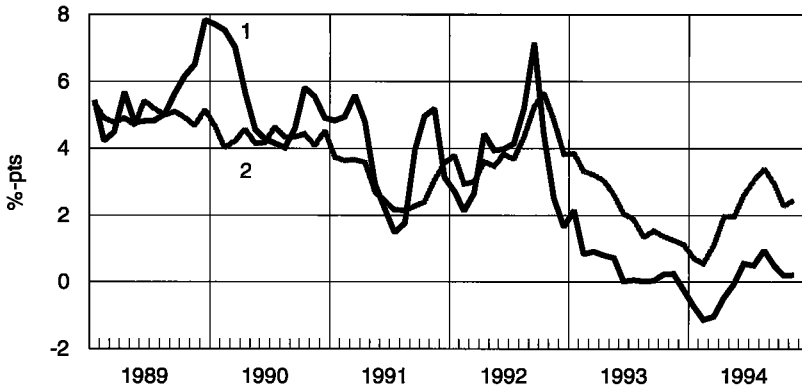
- 1. 1-month HELIBOR
- 2. 3-month HELIBOR
- 3. 12-month HELIBOR

8. HELIBOR RATES OF INTEREST, MONTHLY



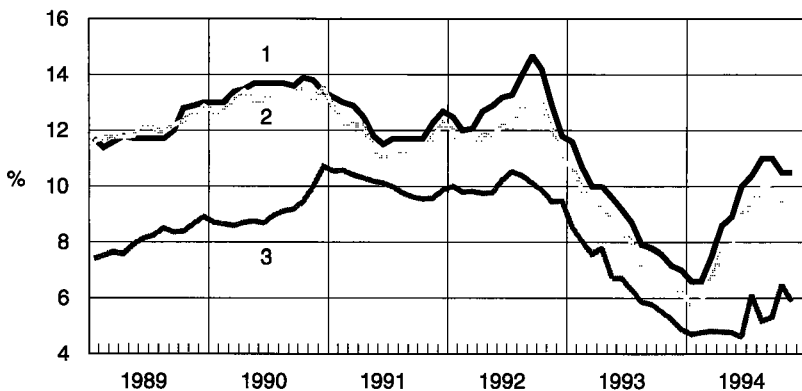
- 1. 1-month HELIBOR
- 2. 3-month HELIBOR
- 3. 12-month HELIBOR

9. DIFFERENTIAL BETWEEN FINNISH AND GERMAN INTEREST RATES



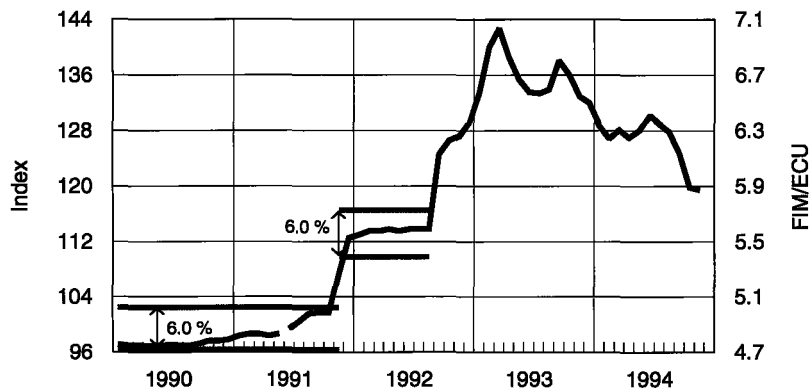
- 1. 3-month HELIBOR *minus* 3-month DEM eurorate
- 2. 5-year Finnish government bond yield *minus* 5-year German government bond yield

10. YIELDS ON BONDS



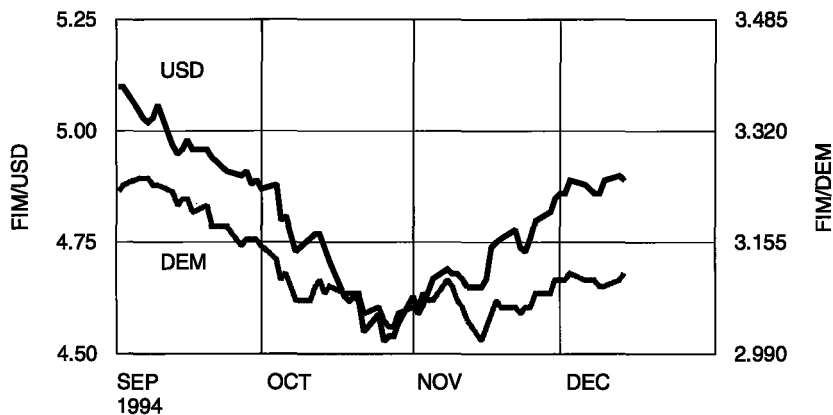
- 1. Bank of Finland's 5-year reference rate
- 2. Yield on (4-5 year) taxable government bonds
- 3. Yield on (4-5 year) taxfree government bonds

11. BANK OF FINLAND CURRENCY INDEX AND THE MARKKA VALUE OF THE ECU



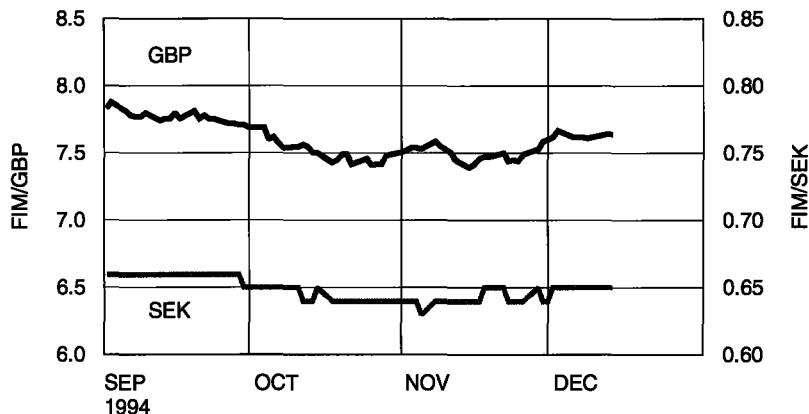
Until 7 June 1991, the Bank of Finland currency index. From 7 June 1991, the markka's exchange rate against the ECU, the fluctuation limits of which were 4.72953-5.02207 in the period 7 June - 14 November 1991, and 5.39166-5.72516 in the period 15 November 1991 - 7 September 1992. Since 8 September 1992, the limits have been temporarily abandoned.  
Monthly averages

12. DAILY SPOT RATES FOR THE MARKKA AGAINST THE DEUTSCHMARK AND THE US DOLLAR



Middle rates  
DEM = right scale  
USD = left scale

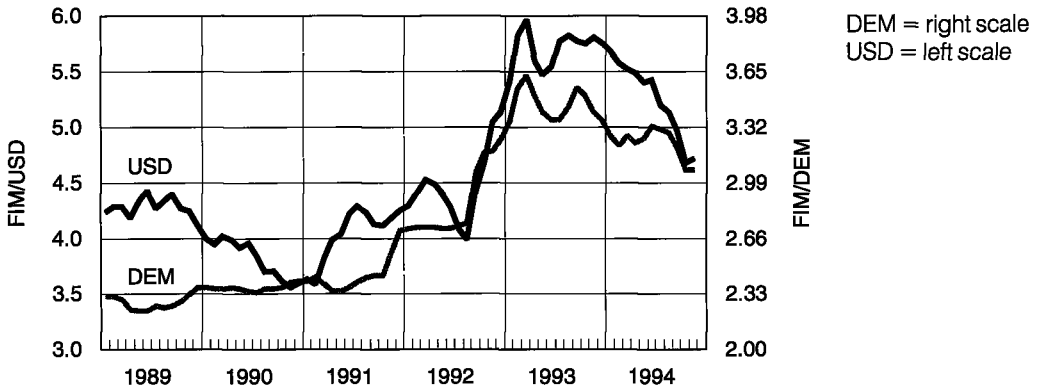
13. DAILY SPOT RATES FOR THE MARKKA AGAINST THE POUND STERLING AND THE SWEDISH KRONA



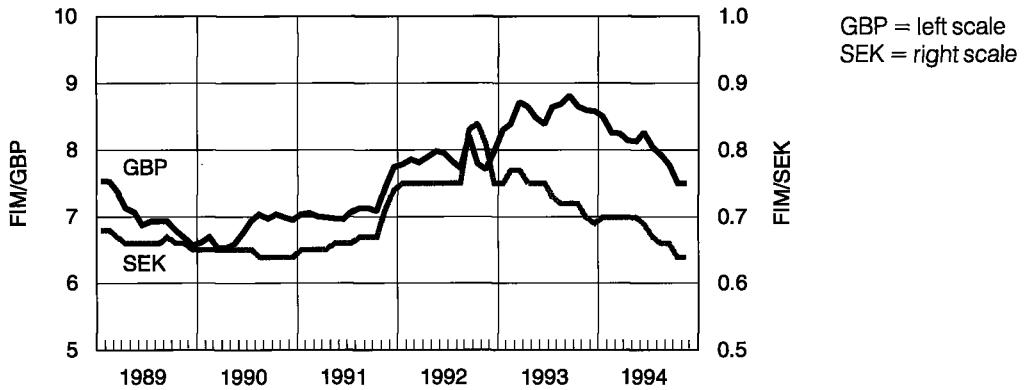
Middle rates  
GBP = left scale  
SEK = right scale



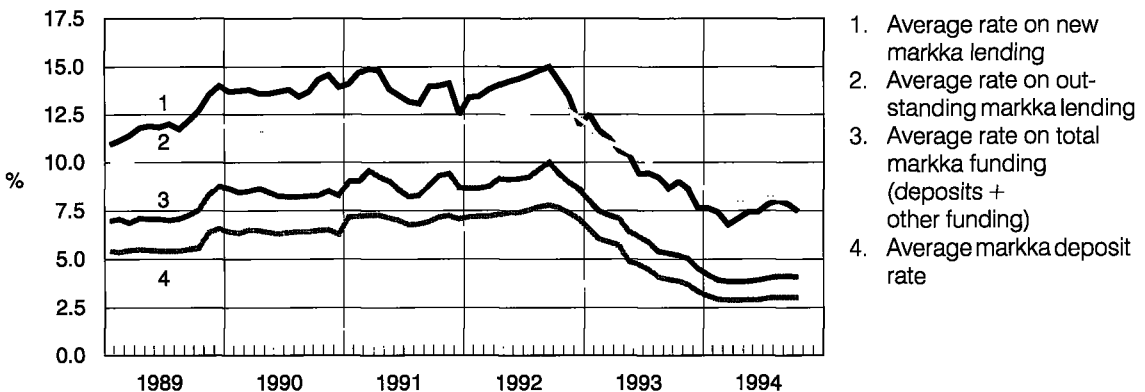
14. MONTHLY SPOT RATES FOR THE MARKKA AGAINST THE DEUTSCHMARK AND THE US DOLLAR



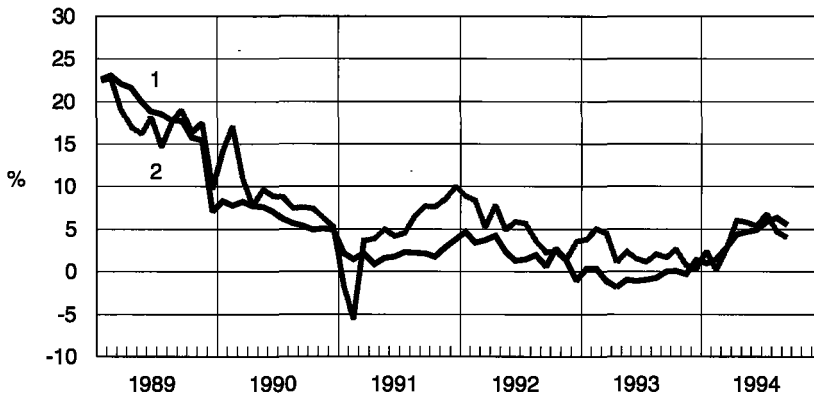
15. MONTHLY SPOT RATES FOR THE MARKKA AGAINST THE POUND STERLING AND THE SWEDISH KRONA



16. BANKS' MARKKA LENDING RATES AND MARKKA FUNDING RATES



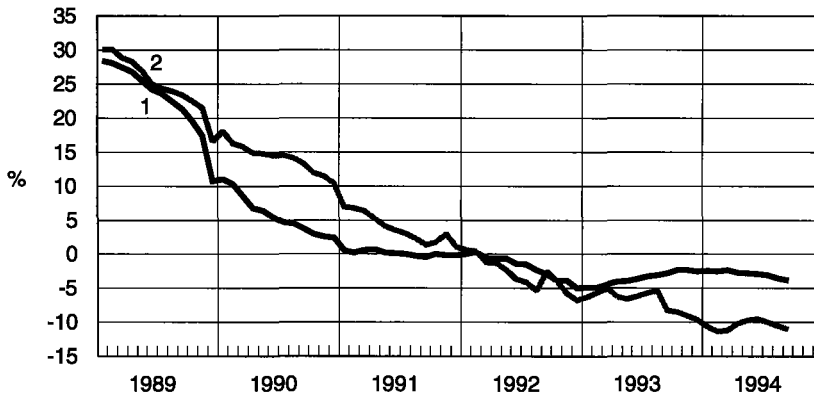
17. BANK FUNDING FROM THE PUBLIC



- 1. Markka deposits
- 2. Total funding

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

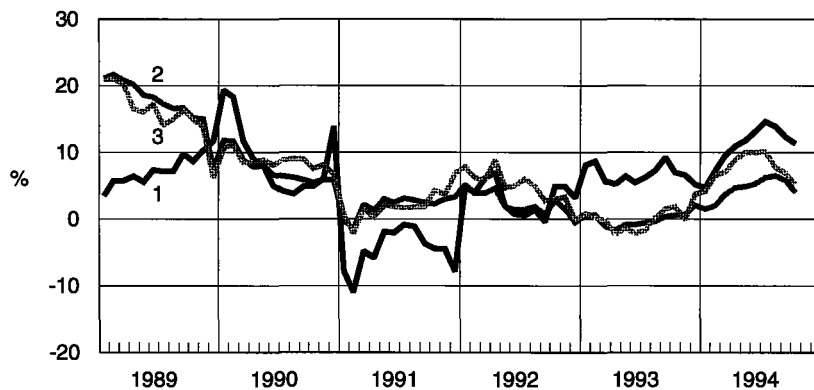
18. BANK LENDING TO THE PUBLIC



- 1. Markka lending
- 2. Total lending

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

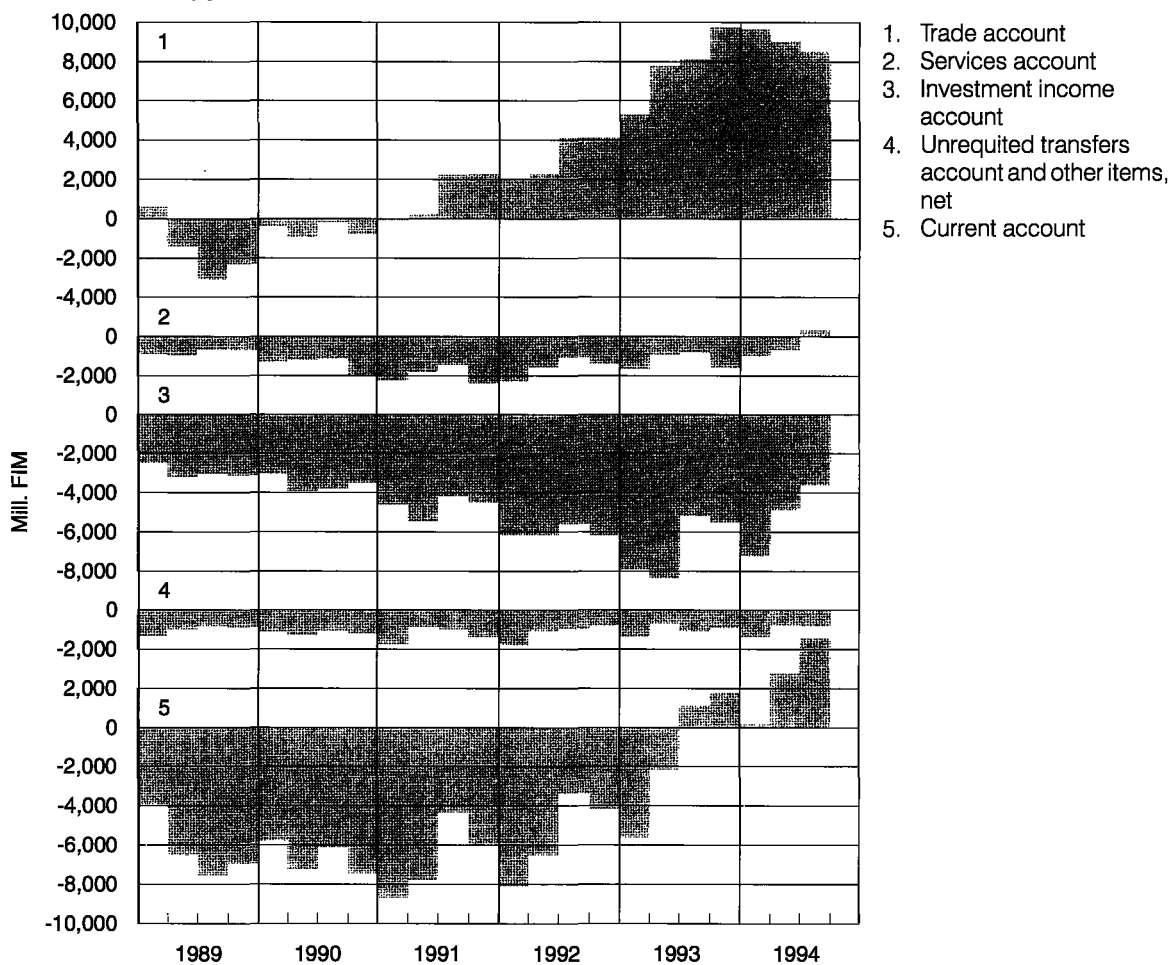
19. MONEY SUPPLY



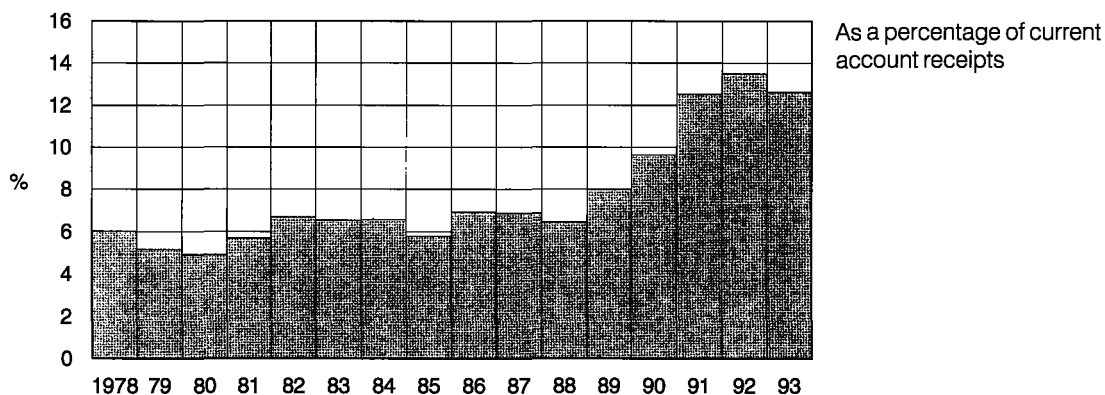
- 1. Narrow money (M1)
- 2. Broad money (M2)
- 3. M2 + bank CDs held by the public (M3)

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

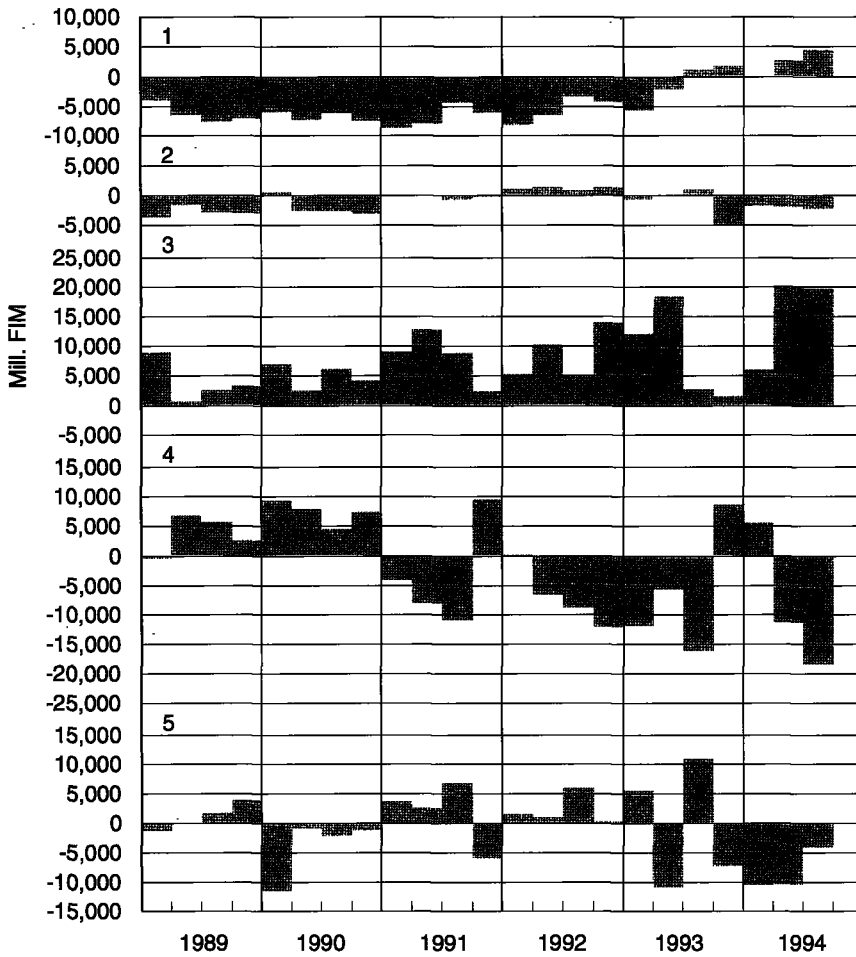
## 20. CURRENT ACCOUNT



## 21. NET INTEREST AND DIVIDEND EXPENDITURE

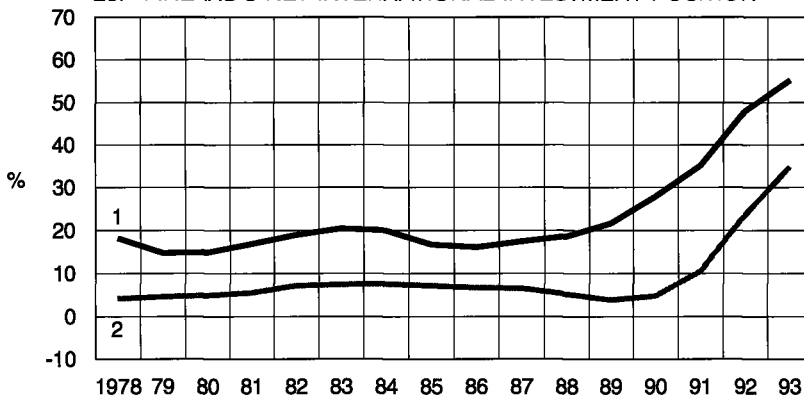


## 22. BALANCE OF PAYMENTS



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

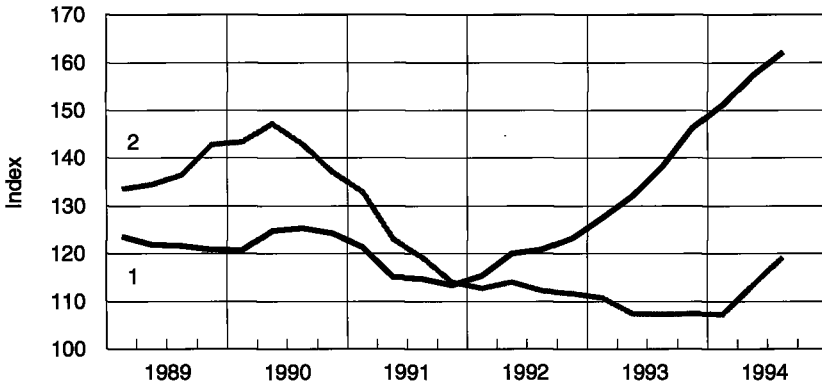
## 23. FINLAND'S NET INTERNATIONAL INVESTMENT POSITION



1. Total
2. Of which:  
central government

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

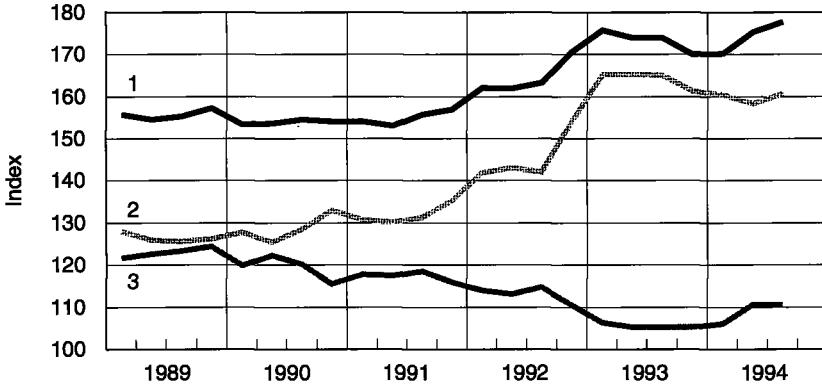
24. FOREIGN TRADE



1. Total exports
2. Total imports

Volume index, 1980 = 100, four-quarter moving average plotted at the last quarter

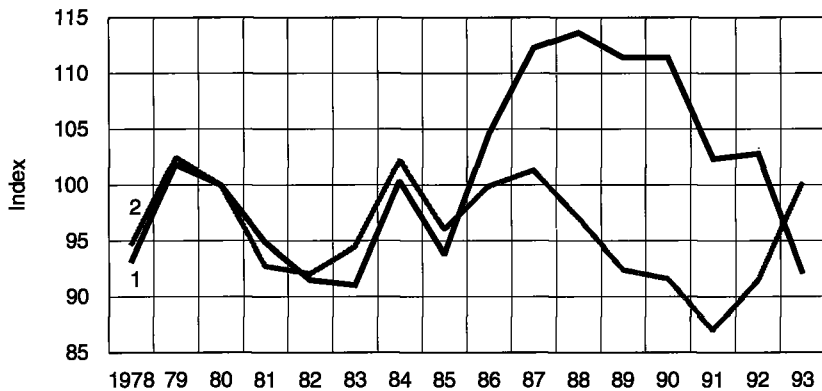
25. FOREIGN TRADE: PRICES AND TERMS OF TRADE



1. Unit value index of exports
2. Unit value index of imports
3. Terms of trade

1980 = 100

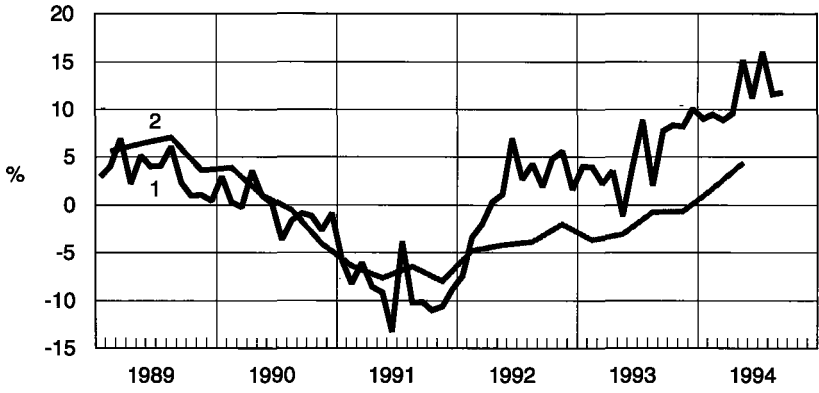
26. FINLAND'S EXPORT PERFORMANCE



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

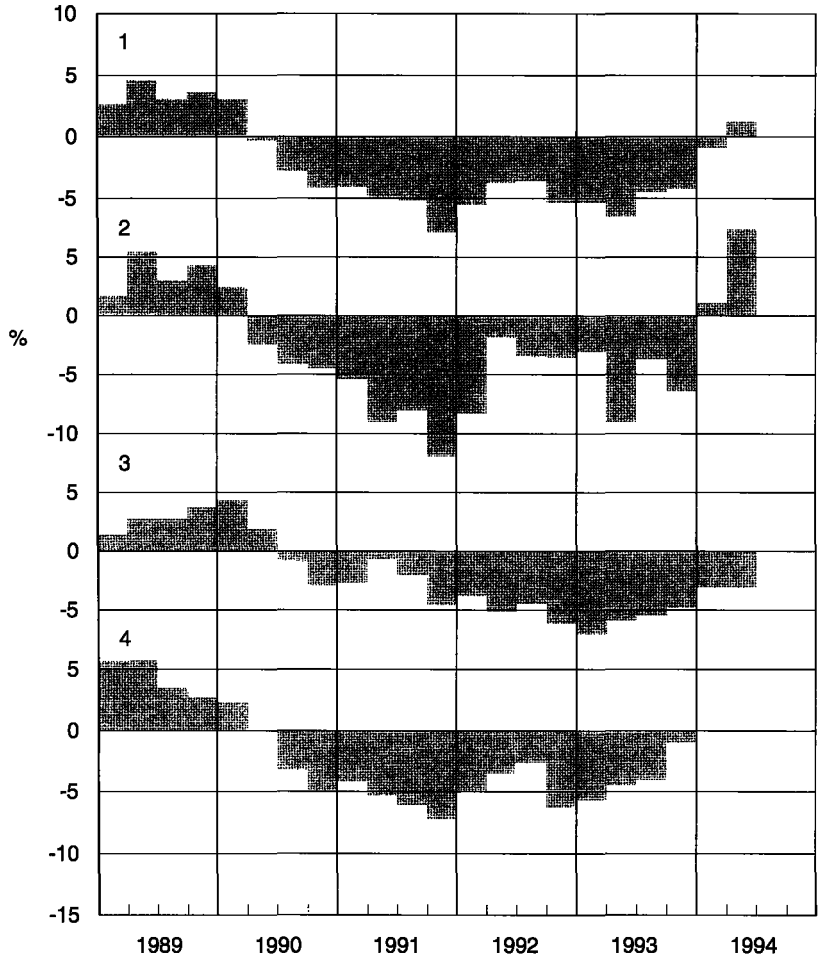
1980 = 100

27. 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

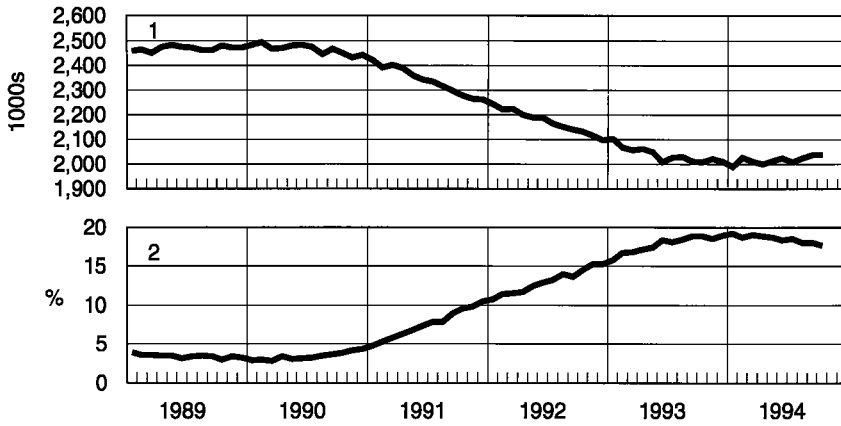
28. FIXED INVESTMENT



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

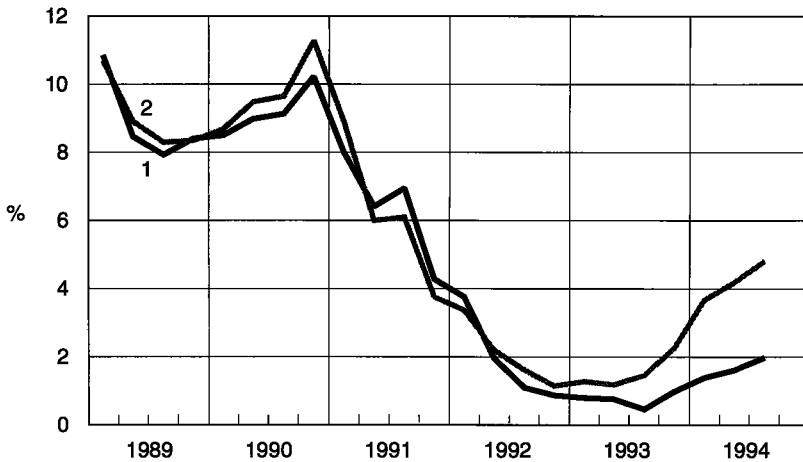
Volume changes calculated from four-quarter moving totals and plotted at the last quarter, per cent

29. EMPLOYMENT AND THE UNEMPLOYMENT RATE



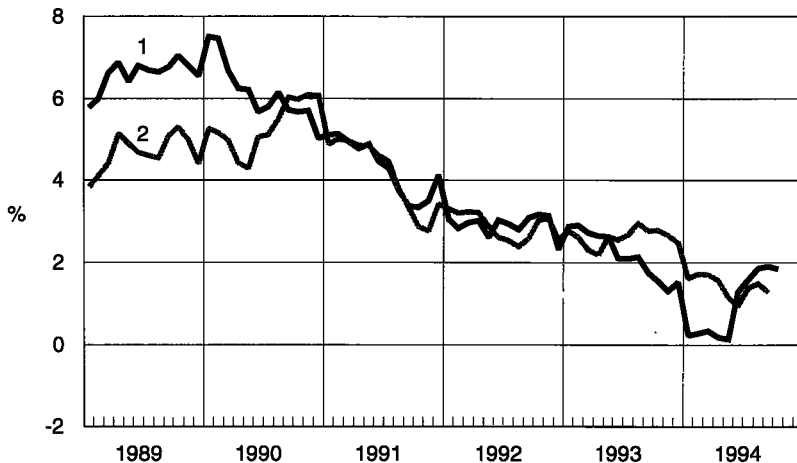
- 1. Employment, 1000 persons
- 2. Unemployment rate, per cent

30. PRICES AND WAGES



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

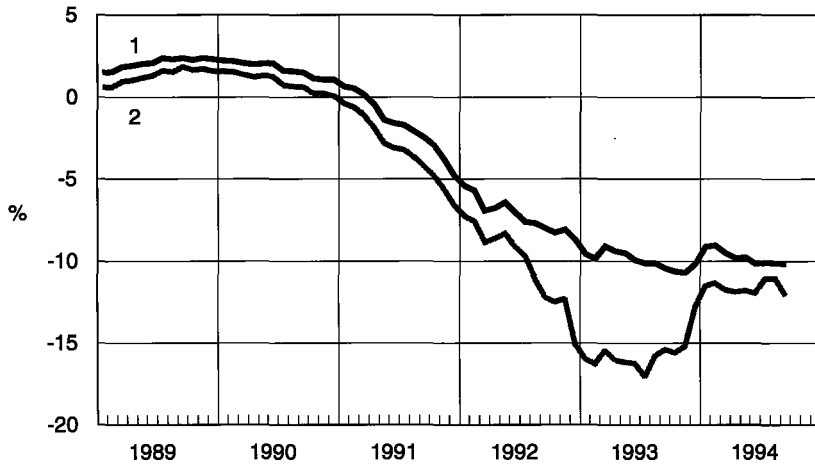
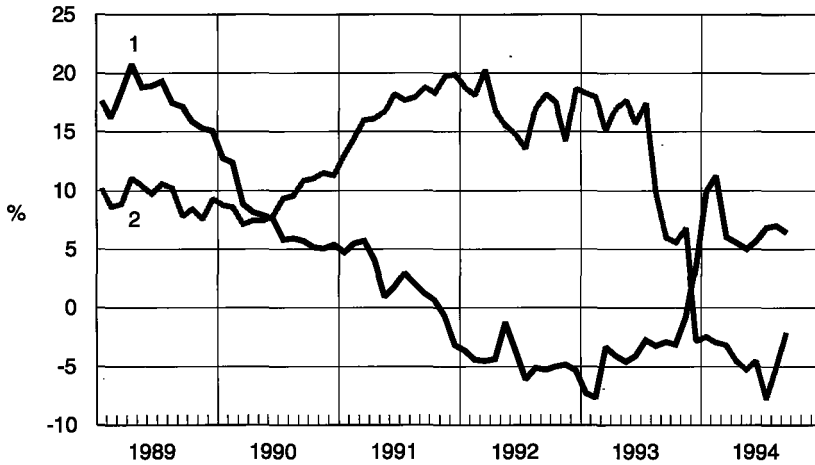
Change from the corresponding quarter of the previous year, per cent



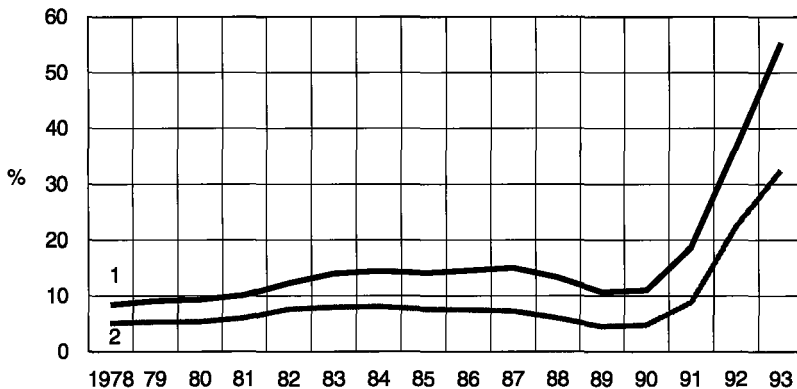
- 1. Consumer price index
- 2. Indicator of underlying inflation

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

31. CENTRAL GOVERNMENT FINANCES



32. CENTRAL GOVERNMENT DEBT





# BANK OF FINLAND

30 June 1994

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---

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JUSSI RANTA, Vice Chairman  
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ESKO SEPPÄNEN  
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ESKO OLLILA

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PENTTI KOIVIKKO

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Administration URPO LEVO

Data Processing PERTTI SIMOLA

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Financial Markets KAARLO JÄNNÄRI,  
Advisers to the Board: HEIKKI KOSKENKYLÄ,  
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Management Secretarial Staff HEIKKI T. HÄMÄLÄINEN,  
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and the Board of Management

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## BRANCH OFFICES

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Kuopio, Oulu, Tampere, Turku

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**SETEC OY** (Security Printing House fully owned by the Bank of Finland)

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VELI TARVAINEN, Managing Director

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