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The Money and Interbank Markets  
in Finland

The Revision and Realization of  
Investment Plans in the Finnish  
Manufacturing Industries in  
1964—1986

<b>The Money and Interbank Markets in Finland</b> by Jarmo Kontulainen	3
<b>The Revision and Realization of Investment Plans in the Finnish Manufacturing Industries in 1964—1986</b> by Ilmo Pyyhtiä	7
Items: Appointment of new Minister of Finance Commemorative coin Publication of the Bank of Finland	13
Monetary and foreign exchange policy measures from April 1989 to March 1990	14
Finland in brief	18
Statistics	S1
Charts	S27

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# THE MONEY AND INTERBANK MARKETS IN FINLAND

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## THE EMERGENCE OF THE CD MARKET

The short-term money market in Finland consists primarily of interbank dealings in negotiable money market instruments. These instruments include certificates of deposit (CDs) issued by banks and the Bank of Finland, commercial paper, Treasury bills and local authority paper. Most trading in the money market is done in CDs, and short-term market rates of interest are determined on the basis of these. Finland's current exchange controls do not permit non-residents to operate in the domestic money market. Banks started to accept deposits at market-related interest rates at the beginning of the 1980s. As there were no negotiable instruments suitable for this purpose in the market, CDs emerged to meet this need. Under current banking legislation, the issue of CDs requires permission from the Ministry of Finance. The first licences were issued in early 1982 and were valid only until the end of 1984. These licences stipulated that the total amount of a bank's CDs outstanding at any time could not exceed FIM 1 600 million.

When the Ministry of Finance renewed the licences for the issue of CDs from the beginning of 1985, more liberal and uniform conditions were applied. According to these conditions, which remained in force until the end of 1988, each bank could have CDs outstanding at any time up to twice the amount of its capital, the maximum nevertheless being FIM 2 billion. In addition, a lower limit was fixed for a bank's capital. CDs had to have a maturity of at least one

month and at most twelve months; banks were allowed to redeem their own CDs before maturity. The minimum denomination was set at FIM 500 000.

Starting from July 1987, the Ministry of Finance began, on application, to issue licences to banks for the issue of CDs with a maturity of more than one year but no longer than five years. CDs with a maturity of more than one year are subject to the cash reserve requirement. The minimum permissible denomination was lowered to FIM 100 000. Since the beginning of 1989, the banks' right to issue CDs has been in force indefinitely. In addition to authorized banks, the largest local (savings and cooperative) banks are now entitled to issue CDs.

The CD market evolved slowly in 1982—1986, with outstanding CDs totalling just over FIM 2 billion at the end of 1986. This was partly due to the lack of a developed secondary market. At that time, banks were not yet willing to quote binding buying and selling rates for CDs issued by other banks, since other, more attractive instruments were available for funding in the money market. However, the situation changed from the beginning of 1987, when CDs were exempted from the cash reserve requirement, the maturity of central bank financing was extended and the system of monetary control was developed by introducing open market operations in CDs.<sup>1</sup>

Contributing to the development of CDs into an instrument used by the central bank for intervention in the money market was the emergence of an organized secondary market. The banks reached agreement on uniform rules for the operation of the money market. In addition, the Bank of Finland started to issue CDs of its own in order to absorb liquidity from the market. A further impetus to the development of the market was provided by the Bank of Finland's announcement that the banks' rights to borrow practically without limit in the call money market were shortly to be rescinded. In the event, this goal was not completely achieved until June 1989.<sup>2</sup>

Initially, the Bank of Finland dealt only in CDs issued by banks entitled to central bank financing. The significance of the call money credit rate decreased and was replaced as a monetary policy instrument by open market operations. In May 1987, the Bank of Finland began to calculate and publish short-term money market rates<sup>3</sup> on a daily basis, and these soon developed into the key reference rates for lending on market terms. There was a marked improvement in the flexibility of the Bank of Finland's money market intervention in respect to different maturities after the commencement of open market operations. Money market rates, together with the banks' call

<sup>2</sup> See the item in the August 1989 issue of the Bulletin.

<sup>1</sup> For a description of the development of the system of monetary control based on open market operations, see the article by Sixten Korkman in the May 1987 issue of the Bulletin and the article by Vesa Vihtiälä in the September 1987 issue of the Bulletin.

<sup>3</sup> There are six HELIBOR rates (Helsinki Interbank Offered Rate) for maturities of 1, 2, 3, 6, 9 and 12 months. They are calculated and published daily on the basis of the offer rates for certificates of deposit quoted by the five largest banks at 1 p.m.

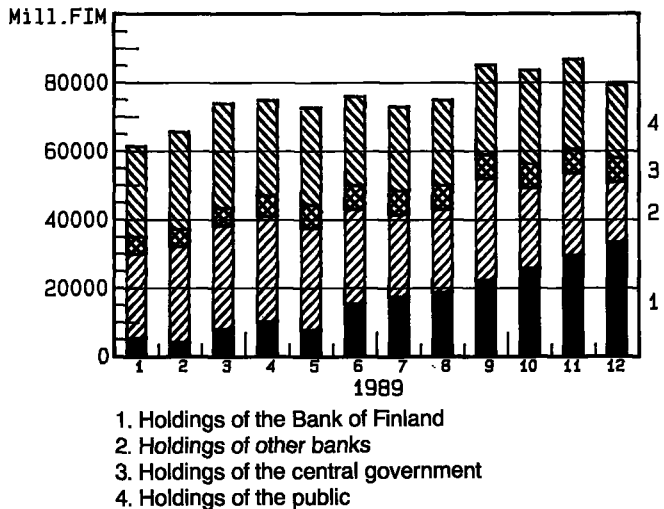
money position or a combination of both, became the immediate target of the Bank of Finland's intervention in the money market.<sup>4</sup> CDs in Finland are non-interest-bearing promissory notes in bearer form, and they serve as the instrument used by the Bank of Finland in its open market operations. They are not homogeneous instruments issued by one party only, such as Treasury bills. At the beginning of 1990, the Bank of Finland revised the rules governing banks' access to the call money market and the conditions on which it is prepared to accept a bank's CDs for use in its money market dealing.<sup>5</sup> These rights affect banks' positions in the money market, since the acceptance of a bank's CDs as paper in which the Bank of Finland is willing to conduct its money market dealings creates liquidity for the bank's CDs and may improve the terms it can obtain on its funding in the money market.

### TURNOVER AND TRADING IN THE MONEY MARKET

Most of the turnover in CDs is generated in the interbank market. At the end of 1989, the total stock of CDs outstanding amounted to FIM 79.1 billion. A breakdown by ultimate holder (Chart 1) shows that banks held about FIM 17.8 billion, the Bank of Finland FIM 33.2 billion and the central government about FIM 7 billion of the CDs outstanding at the end of 1989.

Money market investments are also made by companies looking for a good return in the most liquid form possible. At the end of 1989, the public's holdings of CDs amounted to about FIM 21 billion. The big-

CHART 1.  
OUTSTANDING CERTIFICATES OF DEPOSIT,  
BY INVESTOR



gest companies deal directly in the money market through their treasury departments. Smaller companies can make use of the cash management services provided by firms which operate in the CD market by investing the pooled surplus cash funds of several companies.

The number of participants in the interbank market is small, and the HELIBOR banks, together with the Bank of Finland, have a dominant position in the market and access to the most up-to-date information on it. Thus, the money market is thin and there are occasional differences in quotations between banks and particularly in respect of quotations by other customers. Including repo deals, about 70 per cent of the business in the interbank market is done in maturities of three months or less (Chart 2), which are also the maturities in which the Bank of Finland has primarily conducted its money market operations.

The market is particularly thin in maturities of 6–12 months, which makes interpretation of the yield curve difficult. It was typical of the yield curve in 1989 that the interest

rate on one-month CDs fluctuated sharply and that longer maturities reacted slowly to changes in the interest rate level. Consequently, at times, the yield curve sloped downwards although interest rates were rising. Since, moreover, 3- and 5-year interest rates are also based on a thin market, one should be cautious in interpreting the yield curve for longer maturities.<sup>6</sup>

Banks use CDs both for raising funds and as a high-yielding investment outlet for liquid funds. Owing to their information advantage, banks are in the best position to exploit interest rate fluctuations within the same day. For a bank to operate successfully in the interbank market, it must be able to form an informed view on interest rates and to manage its liquidity position and the term structure of its short-term assets and liabilities.

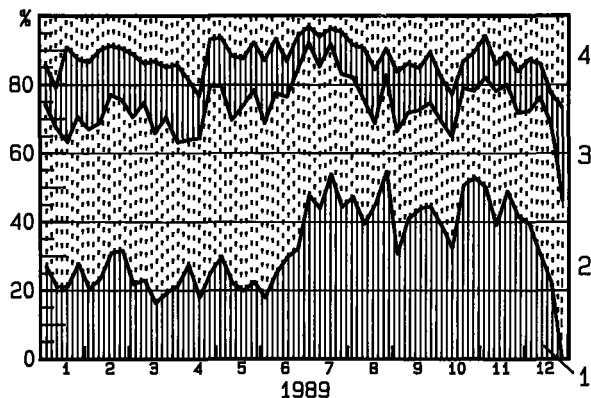
In addition to CDs and Treasury bills, account-based credits and deposits are traded in the interbank market. These include overnight

<sup>4</sup> For a description of the Bank of Finland's market intervention, see the article by Esko Aurikko in the April 1989 issue of the Bulletin.

<sup>5</sup> For further details, see the item in the January 1990 issue of the Bulletin.

<sup>6</sup> For a discussion of the formation of interest rates, see the article by Juhani Raatikainen in the March 1989 issue of the Bulletin.

**CHART 2.**  
**WEEKLY TURNOVER IN THE INTERBANK MARKET,**  
**PERCENTAGE SHARES**



- 1. 1- and 2-week deposits
- 2. 1- 3 month CD purchases
- 3. 4- 6 month CD purchases
- 4. 7- 12 month CD purchases

claims and claims with a maturity of less than one month (usually one or two weeks). For CD transactions, the lag between the trade date and the value date is one banking day. The value date of account-based credits and debts with a maturity of less than one month is the same as the trade date.

Turnover in the CD market grew strongly in the first quarter of 1989 (Chart 3). As uncertainty about interest rates increased and call money financing tightened, the emphasis in trading shifted to 1- and 2-week deposits at the expense of CD purchases, which, in turn, tended to focus more on maturities of three months or less. These changes reflect the key role played by the management of banks' daily liquidity positions in money market dealings. Since it is difficult to form a view on interest rates when movements in interest rates are large and rapid, risk-averse banks tend to shorten the maturities of their dealings in the money market.

**THE BANK OF FINLAND'S OPERATIONS IN THE CD MARKET**

The CD market underwent marked structural changes in

1989. The most striking change concerned the Bank of Finland's holdings of CDs issued by other banks. By the end of 1989, the total value of these holdings had grown to FIM 33.2 billion. This was FIM 26 billion more than at the end of the previous year and exceeded the banks' total cash reserve deposits at the Bank of Finland by about FIM 7.7 billion. All in all, the Bank of Finland's claims on financial institutions amounted to FIM 12.8 billion at the end of 1989 as against net liability to financial institutions of FIM 4.9 billion at the end of 1988. Moreover, outstanding CDs issued by the Bank of Finland, which had peaked at FIM 8.3 billion in March 1988, dwindled to nothing in the course of 1989 as they matured.

The banks' need for central bank financing has arisen along with the overheating of the economy and the tight monetary policy this has required. In the course of 1989, the Bank of Finland absorbed FIM 6.5 billion from the money market in the form of cash reserve deposits; in addition, FIM 3.8 billion was collected in the form of investment deposits and FIM 3.8 billion in government cash fund deposits. Moreover, the Bank of Finland

reduced banks' access to call money credit. A fall of FIM 7.2 billion in the official foreign exchange reserves also squeezed liquidity.

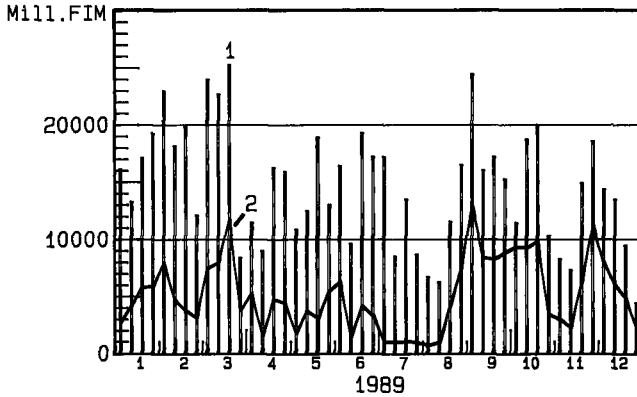
**THE DERIVATIVES MARKET**

On the basis of the CD market, a market has sprung up for trading in standard derivative instruments, of which forward rate agreements (FRAs) are the most important. An interest rate options market is also slowly emerging. In addition to influencing the shape of the yield curve, quotations for FRAs provide information on interest rate expectations prevailing in the market. The FRA market in Finland has its origins in an agreement reached between the banks in 1988, in which they agreed on the general terms to be applied in this market. From the banks' point of view, the purpose of the agreement was to increase turnover in the CD market, to lower the transaction costs of hedging against interest rate risks, to avoid swelling their balance sheets and to facilitate the monitoring of forward positions.

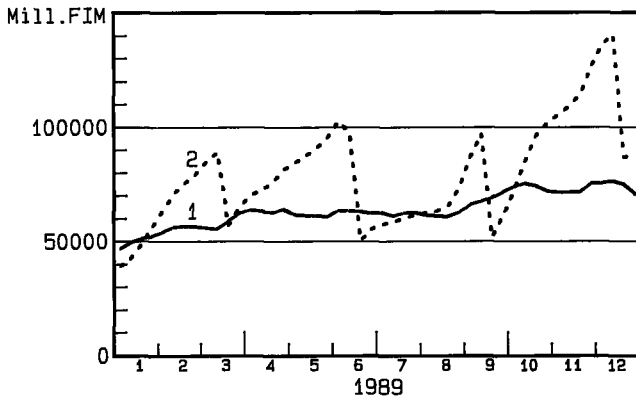
The banks themselves act as brokers in the FRA market. The asset underlying a FRA is a fictitious discount-based CD with a maturity of three months. The instrument is fictitious in the sense that at no stage of the contract is a CD deal actually effected. The parties to the contract agree on the interest rate, the principal amount, the forward period, the selling price (based on the agreed interest rate), the settlement date and other contract terms.

Thus, the FRA market is based on CDs, the settlement rate being the 3-month HELIBOR rate on the settlement date. The parties to the contract can, for example, be a bank and a company which wishes to be certain about the rate of interest on a market-rate loan or investment at a future date or, alternatively,

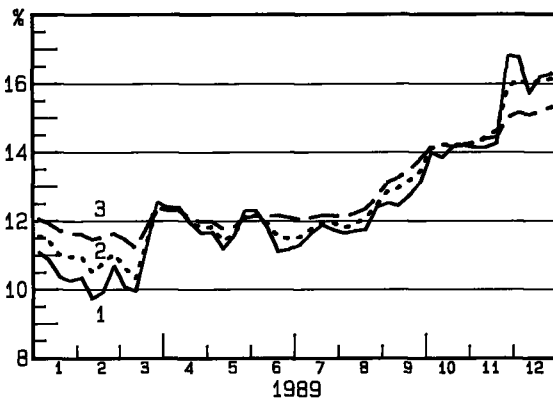
**CHART 3.**  
**MONEY MARKET: TURNOVER, OUTSTANDING**  
**STOCK AND INTEREST RATES**



- 1. CD purchases and 1 - 2 week deposits
- 2. Purchases of forward rate agreements



- 1. Outstanding certificates of deposit
- 2. Outstanding forward rate agreements



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

wishes to benefit from an interest rate view that differs from the market's. The usability of standard FRAs is, however, limited by their fixed maturities, which makes it difficult to benefit from an independent interest rate view or to hedge completely against risk. Forward/forward rates are used in the pricing (determination of the agreed interest rate) of standard FRAs, and hence deviations from the term structure implied by the market are, in principle, non-existent.

If the selling price of the underlying instrument, calculated by means of the settlement rate, is higher (lower) than the selling price calculated by means of the agreed interest rate, the party who is obliged to sell (buy) the fictitious CD, pays the difference between these two prices to the other party. The agreed maturity months are March, June, September and December. The maturity date is the 15th of each month or the first banking day thereafter. Thus, there are four forward periods (December-March, March-June, June-September and September-December).

The stock of FRAs outstanding in December 1989 amounted to about FIM 147 billion (Chart 3). When September-December forwards reached maturity, the total stock fell by nearly a half. Like the CD market, the FRA market functions well for maturities up to three months. The price of the shortest-dated FRA is also closest to the imputed forward rate. The longer the term to maturity, the greater the deviation from the expected rate of interest, as implied by the yield curve. Activity in the FRA market picks up in periods of major changes in interest rate fluctuations and when turnover in CDs is growing. Actual cash transactions in the market are nevertheless only a fraction of total FRAs outstanding.

March 1, 1990

# THE REVISION AND REALIZATION OF INVESTMENT PLANS IN THE FINNISH MANUFACTURING INDUSTRIES IN 1964—1986

by **Ilmo Pyyhtiä**, Dr. Pol. Sc.  
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Bank of Finland

## INTRODUCTION

This article summarizes the results of an extensive study by the author investigating the determination of firms' investment plans and changes in these plans. The aim of the study was to examine the usefulness of survey data on firms' investment plans in economic analysis and forecasting.

Such data are of particular importance in forecasting final investments as firms have information on themselves which may not necessarily be included in published economic data. This information includes factors relating to a firm's output and organization and its market position in its own sector. Survey data on investment plans are also valuable in studying the determination of investment and the effects of economic policy because data on changes in investment plans make it possible to examine the realization process of plans. The sectoral data on manufacturing investment and investment plans used in the study cover more than two decades and were collected by the Bank of Finland.

In investigating changes in firms' investment plans, the study follows the Modigliani tradition dating back to the 1950s. Investment plans, which are regarded as binding decisions, are assumed to be the outcome of the same kind of optimizing behaviour as final investments. Investment plans

and final investment generally differ from each other because there are surprises in the relevant information sets owing to the difference in time and because the realization of plans is seldom completely successful in respect of timing and volume. On the other hand, the costs of revising plans increase as the time of implementation approaches and so it pays to carry out the project even though its potential profitability has deteriorated. In such cases, final investments may not be optimal with regard to the very latest information.

In the study, Modigliani's investment realization function is elaborated by explaining changes in investment plans with innovations in such a way that the determination of optimal investment and investment plans conforms with the neoclassical theory of investment, which was not precisely formulated until the 1960s and 1970s. In addition, the impact of uncertainty on the firm's optimal demand for capital is incorporated in this function. In modelling revisions in investment plans, use is made of rational expectations and optimal decision-making of the firm, which means efficient utilization of the latest information and optimal investment decisions with respect to the forecasts of the future and the relevant loss factors of the firm.

### THE BANK OF FINLAND'S INVESTMENT INQUIRY

Since 1963, the Bank of Finland has conducted a sur-

vey of investment intentions among industrial companies. The surveys are carried out twice a year, in spring and autumn, and they concern the companies' plans for the acquisition of fixed capital during the current and following year and actual investments in the previous year. Companies are requested to report their investment outlays in current and fixed prices and according to the accruals convention, i.e. only actual or planned investment outlays relating to each year.

In order to maintain the comparability of the concept of investment with that used in the System of National Accounts (SNA), the survey is restricted to outlays on new investment goods. Companies are requested to provide a breakdown of their investment outlays by capital goods into machinery and equipment, buildings and other construction. In addition, companies are asked to give an estimate of their capacity utilization rate in the current and following year. Recent additions to the survey include questions on R&D expenditure and price expectations concerning capital goods.

The survey currently covers some 900 industrial companies; up to 1975, the sample comprised some 600 companies. The population of the sample consists of all industrial companies with over 20 employees. The sampling method applied is stratified random sampling. The sub-populations consist of the major divisions of industry: mining and

<sup>1</sup>Ilmo Pyyhtiä, *The Revision and Realization of Investment Plans in the Finnish Manufacturing Industries in 1964—1986*, Bank of Finland, B:43, Helsinki 1989.

quarrying, the wood products industry, the paper industry, the food, beverages and tobacco industries, the textile, clothing, footwear and leather industries, the chemical industry, the clay, glass and stone industries, the printing and publishing industry, the metal and engineering industries, and electricity, gas and water.

The sub-populations are further divided into strata according to the size of the industrial company. Manufacturing companies are classified into three strata: small companies (20—49 employees), medium-sized companies (50—499 employees) and large companies. The survey covers all large companies. The sampling ratio of medium-sized companies is 50 per cent and that of small companies 20 per cent.

### MAIN EMPIRICAL ISSUES

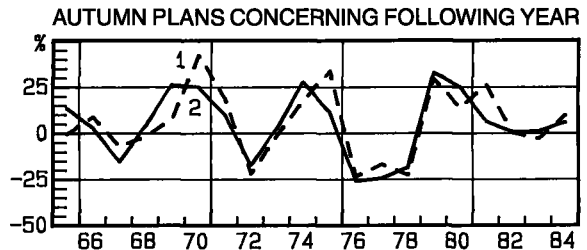
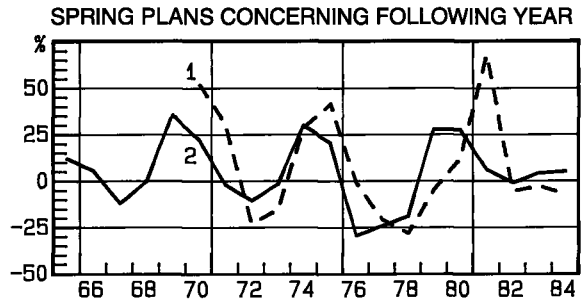
In the empirical modelling of investment plans, the investigation of the nature and predictive power of data on plans was divided into the analysis of three major problems. The first issue addressed was how well do investment plans predict actual developments in investment. Here the difference between plans and forecasts needs to be emphasized. Given the available information, investment plans are conditional decisions on future investments. The firm may revise these decisions if information changes or if it encounters constraints preventing the implementation of plans. Accordingly, the firm's investment plans are not intended to be forecasts of investment developments in the future.

The second major problem was to find out on what kind of surprises changes in investment plans depend in the period leading up to the implementation of the investment. This analysis was divided into two stages: the explanation of revisions in investment plans and the explanation of the reali-

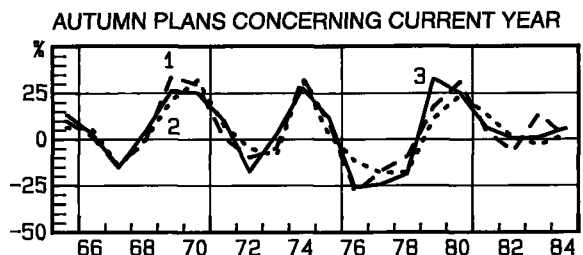
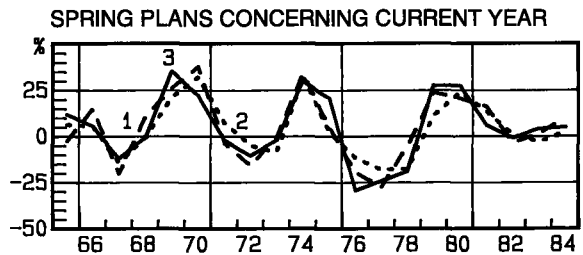
zation of plans. Revisions in plans can be assumed to give rise only to internal administrative adjustment costs, which can be considered to be fixed, whereas final investments also

face external adjustment costs and various market constraints. Hence, it can be assumed that the costs of revising investment plans increase as the time of their realization

CHART 1.  
MANUFACTURING INDUSTRIES:  
PERCENTAGE VOLUME CHANGES IN INVESTMENT  
PLANS OVER DIFFERENT SURVEY HORIZONS AND  
REALIZED INVESTMENTS



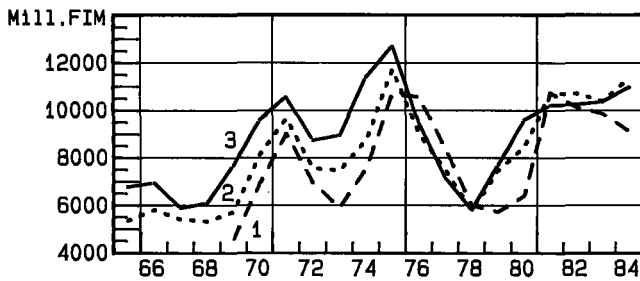
1. Investment plans
2. Realized investments in the spring and autumn surveys, respectively



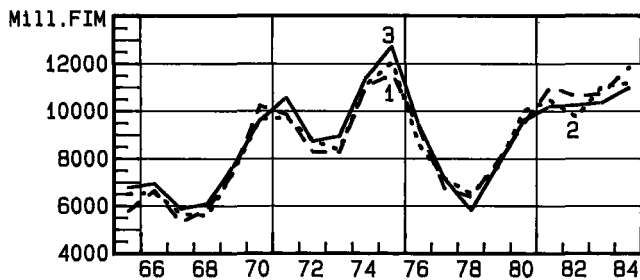
1. Investment plans
2. Realized investments according to the official statistics
3. Realized investments in the spring and autumn surveys, respectively



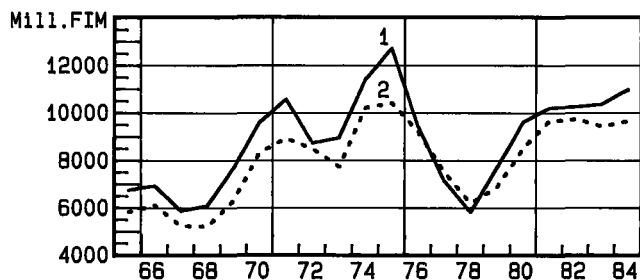
CHART 2.  
MANUFACTURING INDUSTRIES:  
INVESTMENT PLANS AND REALIZED INVEST-  
MENTS, MILLION FIM, AT 1980 PRICES



1. Spring plans concerning following year
2. Autumn plans concerning following year
3. Realized investments according to the survey



1. Spring plans concerning current year
2. Autumn plans concerning current year
3. Realized investments according to the survey



1. Realized investments according to the survey
2. Realized investments according to the official statistics

approaches because the number of various commitments related to the realization of plans grows. On the other hand, the loss arising from the fact that investment plans are not revised depends on the shocks to which the firm is subjected.

The third issue relates to uncertainty about the future. Data on plans can be assumed to depict the uncertainty relating to the firm's forecasts of the future and its behaviour under

uncertainty. In investment theory it can be shown that the steady state capital stock of the firm can increase or decrease with increasing price uncertainty, depending on the assumed probability distribution of the price changes. Another of the main results of investment theory is that the firm cuts back its investments as uncertainty concerning demand for its products increases. In that case, the firm endeavours to postpone its investment pro-

jects and collects information so as to reduce uncertainty. Using suitable data on demand, the effects of increasing uncertainty about demand were tested empirically in the study.

### INVESTMENT PLANS AS FORECASTS

The first part of the empirical analysis was concerned with the screening of the Bank of Finland's investment survey data. Answers were sought to the following questions:

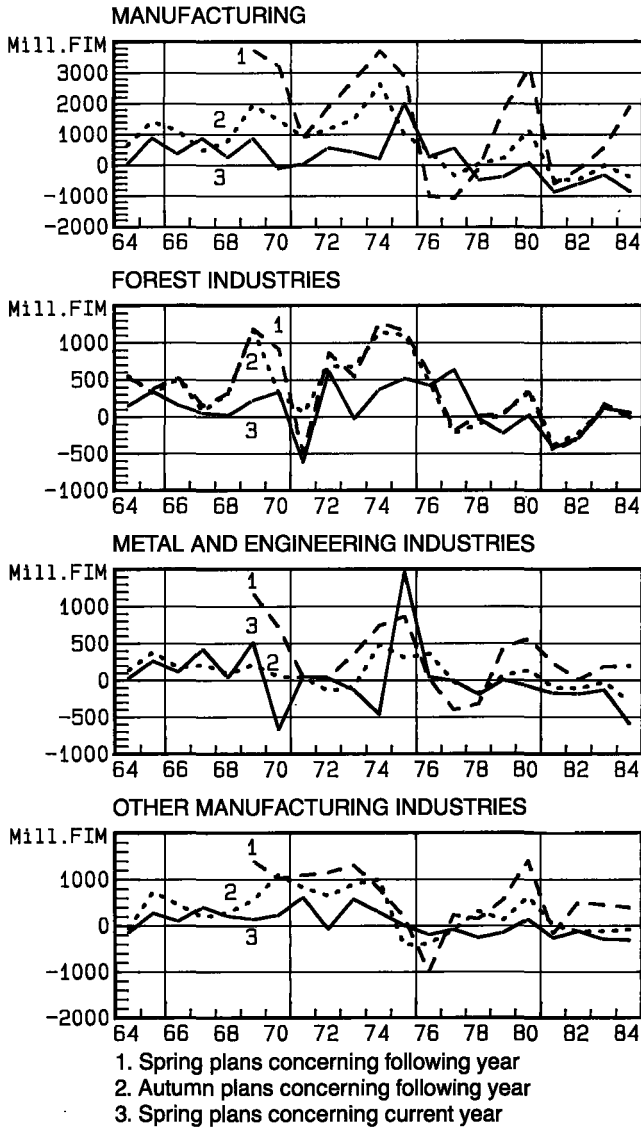
- a) How good are investment plans as "forecasts" of final investments; how much are investment plans revised over each survey horizon and are there any observed differences between manufacturing sectors and over the time period studied?
- b) Do unanticipated changes in the prices of capital goods influence the realization of investment plans?
- c) How efficiently is available information used in formulating investment plans?

As noted above, investment plans are not forecasts but decision variables of the firm conditional on the latest information. The reason for testing the forecasting ability is to determine whether revisions of plans are systematic or merely stochastic. This information is very important as regards using survey data in forecasting.

The data were first described by means of diagrams (Charts 1 and 2) and statistical measures, namely, the "inequality coefficients" of Theil and Tichy. The basic econometric methods applied in screening the data were tests for unbiasedness and orthogonality used in testing rational expectations. The tests were performed using time series data according to manufacturing sector and size of firm, and by pooling the data by sector.

It was found that the "predictive power" of investment plans in manufacturing im-

CHART 3.  
DEVIATION OF REALIZED INVESTMENTS FROM  
INVESTMENT PLANS OVER DIFFERENT SURVEY  
HORIZONS, MILLION FIM, AT 1980 PRICES



proves markedly as the survey horizon shortens. The spring and autumn plans concerning investment in the current year are good forecasts of actual investments in the current year. Forecast errors are white noise and the latest relevant information has been used efficiently in making plans. However, the predictive power of the data differs by sector and type of capital goods. Investment plans in the metal and

engineering industries undergo fewer changes than those in other manufacturing sectors (Chart 3). Plans concerning manufacturing investment in machinery and equipment in the current year may still be changed after the spring of the current year as a result of changes in economic conditions whereas plans concerning building investments are less likely to be changed.

With regard to the two longest survey horizons — the investment plans in the spring and autumn preceding the realization year — the predictive power of investment plans was found to be poor. Plans are changed as new information on economic conditions becomes available. Thus the plans can be considered to be conditional forecasts of future developments in investments. The plans also systematically underestimate actual investment. The forecasting ability of the investment plans does not change significantly during the estimation period. Deviations of plans from realized investment could not be shown to be due to price surprises concerning investment goods. A major problem here was that, during the period studied, firms were requested to report their plans in current prices; questions on price expectations were not included in the inquiry until last year.

### REVISION AND REALIZATION OF INVESTMENT PLANS

The main finding of the analysis of the forecasting ability of investment plans was that the prediction errors are systematic in the case of plans for the two longest survey horizons. The hypothesis which follows naturally from this is that the revision of investment plans depends on new information. The testing of this hypothesis was reduced to the following three questions:

- What is the information set on which the revision of manufacturing investment plans depends?
- How do announced investment plans respond to new information?
- What is the significance of future uncertainty as regards investment plans?

The information set was limited to comprise the explanatory variables of the modified neoclassical invest-

TABLE. MAIN STUDIES ON REALIZATION OF INVESTMENT PLANS

STUDY MADE BY	Theoretical basis	MAIN EXPLANATORY VARIABLES (unexpected change)	EXPECTATION HYPOTHESIS USED	SURVEY	SURVEY HORIZON AND DATA
Modigliani and Weingartner (1958)	Accelerator theory	Sales	Empirical data on expectations	U.S. Department of Commerce	Current and following year, annual data 47-55
Eisner (1962, 1965)	Accelerator theory	Sales, unfilled orders, unrealized investment plans	Adaptive	McGraw-Hill, U.S. Department of Commerce	McGraw-Hill; current and following year, annual data 55-62. U.S. Department of Commerce; one quarter anticipations 48Q1-62Q4
Eliasson (1967)	Accelerator — Residual Funds Theory, Mayer and Kuhn (1957), Mayer and Glauber (1964)	Output and credit availability	Adaptive	Statistical Centre of Sweden	Current and following year, annual data 50-63
Aiginger (1977, 1981)	Different theories (Accelerator and Neoclassical theories)	Output, employment, rate of capacity utilization, price of capital goods	Static, Regressive, Adaptive, Rational	Austrian Institute for Economic Research	Current and following year, annual data 65-78. Survey made twice a year
McKeivey (1980)	Theory based on writings of Hicks (1946), Modigliani and Cohen (1961)	Sales, output, activities of other firms, price of capital goods, investment tax credit	Static, Rational	U.S. Department of Commerce	Three quarters, quarterly data 67Q1-77Q1. Survey made quarterly
Pyyhtiä (1989)	Neoclassical theory	Output, foreign demand, user cost of capital, wages, price of energy, cash flow, demand uncertainty	Static, Rational, Empirical data on expectations	Bank of Finland	Current and following year, annual data 63-86. Survey made twice a year

ment theory, that is, factor prices, demand and credit rationing variables. There nevertheless remained the empirical problem as to what is the best way to measure each theoretical variable. This problem was examined by means of econometric testing, first using a very large amount of information on each variable and then, having found the best candidates in each group, using these in multiple regression analysis. In a similar fashion, the best use of the information set was investigated when all demand variables were condensed to one variable by means of principal component analysis, and this new variable was then used in the regression analysis.

Testing the response of investment plans to surprises in information clearly showed that investment plans change as demand and prices of factors of production change unexpectedly. With respect to the longest survey horizon, the deviations displayed negative correlation with new information on prices of factors of production and positive correlation with demand information in the total manufacturing industry and also in its main sectors.

The coefficient estimate of wages received a negative sign in all sectors, indicating short-term cost effects. Demand surprises accounted for half of the changes in the investment plans of the manufacturing industry, wages for one-third and the price of capital for the rest.

According to the parameter estimates, reactions to shocks decrease when the survey horizon shortens, i.e. from the spring preceding the realization year to the autumn of the same year. This supports the hypothesis that the revision costs of investment plans increase as the realization time approaches. The effects of demand and wages turned out to be larger and the real user cost of capital smaller than in earlier investment studies.

There were, however, considerable differences between the surprise variables. The average lag of the impact of the liquidity shock arising from changes in wages and demand was longer than the lag of the impact caused by changes in capital costs. This suggests that monetary policy measures might influence investment even in the relatively short term, i.e. in a period of

less than twelve months, though it was difficult to draw any clear-cut conclusions because companies' capital costs are also affected by fiscal policy measures and anticipated changes in inflation.

Sectoral differences could also be observed when the survey horizon shortened. By then the commitment to investment plans is so firm that only really significant innovative factors lead to a change in plans. Thus wage costs received a significant coefficient only in the metal and engineering industries. This was also the case for the price of energy, whose positive sign accounts for the impact of the energy crises and bilateral exports in eastern trade on investments. By contrast, changes in the investment plans of the forest industries could be explained solely by surprises in the price of capital.

As regards the effects of demand uncertainty on investment plans the results were not clear cut. Uncertainty concerning demand was described sectorally by four indicators calculated from ex post and ex ante demand data. There was significant negative correlation between changes in investment plans and

changes in the degree of demand uncertainty for the two longest survey horizons. This can be interpreted to mean that, under exceptionally great uncertainty, only obligatory decisions are taken and decision-making is postponed for as long as possible so that additional information can be acquired.

Finally, the results obtained were compared with those of earlier studies. The main theoretical foundations, results and data sources for realization models are shown in the Table. As can be seen the models are based on very different theories ranging from the early Hicksian theory of the firm to the accelerator and residual funds theory, which is a typical credit rationing theory of investment. The explanatory variables used also vary from one study to another. Similarly, the expectations formation hypothesis employed differs, reflecting the decade in which the study was made. The hypotheses used are static, adaptive and rational expectations. Common to all the studies is that the demand variable, in one form or another, is a significant explanatory variable in almost all of them. Prices of factors of production are used in the later studies.

### **CONCLUDING REMARKS**

As far as the use of investment plans for forecasting purposes is concerned, it can be concluded that the plans of

the spring and autumn for the current year can be used as such for forecasting. They do not contain any systematic forecast error which can be explained by economic factors. Of course, not even these plans are implemented as such because implementation is affected by unpredictable random factors. On the other hand, the realized investment figures of the investment survey and those of the official statistics deviate in a way which cannot be forecast. Investment plans provide valuable information for forecasting because they contain internal information on companies which is not publicly available.

Investment plans for the following year can be revised for forecasting purposes by either using a model which is calculated from historical data and mechanically corrects investment plans or, if the forecaster believes he has better information on future economic developments than companies, by using an explanatory model for changes in investment plans, i.e. the realization function. Changes in investment plans can be shown to be dependent to some extent on developments in demand and prices of factors of production. This can be considered to indicate that companies' investment plans are rational decision-making data from the point of view of economic information, similar in nature to final investments.

The study showed that companies' investment plans are fairly sensitive to changes in

the economic environment, including those in economic policy, even in the short term. However, only some indications were obtained concerning the effects of economic policy, because the prices of factors of production, particularly the variable used to indicate the price of capital, are also affected by factors other than monetary and fiscal policy, e.g. expected changes in inflation. Nevertheless, companies' investment can be affected in the fairly short term through the prices of factors of production, whereas previous investment studies have emphasized long lags in effects. Various surprise factors have had an impact on companies' investment plans; these include fluctuations in the price of energy, the effects of which have been reflected in the investment of the metal and engineering industries via bilateral trade.

March 1, 1990

## APPOINTMENT OF NEW MINISTER OF FINANCE

The President of the Republic has accepted the resignation of the Minister of Finance, Mr. Erkki Liikanen, from the Government with effect from March 1, 1990 and appointed the Minister of Justice, Mr. Matti Louekoski, to the post of Minister of Finance with effect from the same date.

## THE DISABLED WAR VETERANS' COMMEMORATIVE COIN

To mark the 50th anniversary of the Disabled War Veterans' Association of Finland, the Mint of Finland has struck a commemorative silver coin in the denomination of 100 markkaa. It was designed by Reijo Paavilainen.

The Disabled War Veterans' Association of Finland was set up as an organization to look after the interests of disabled war veterans and to provide them with a fraternal organization. Today, there are still some 41 000 war invalids in Finland.

The obverse depicts standing men, who are connected by the cross of Finland's flag. The reverse shows a Finnish rural landscape. The edge of the coin is engraved with the text "Uhrin ansiosta lippu liehuu" ("Thanks to the sacrifice the flag flies").

The issue comprises 100 000 pieces. The silver content of the coin is 830 ‰, the weight 24 grammes and the diameter 35 mm.

The coin was issued on March 13th, 1990, the 50th anniversary of the end of the Winter War, and it is legal tender. Foreign sales are handled by the commercial banks.

## PUBLICATION OF THE BANK OF FINLAND

The Bank of Finland's publication "Finnish Bond Issues 1989" has been published. The book contains data in Finnish, Swedish and English on all bonds issued by Finnish borrowers in Finland and abroad and by foreign borrowers in the Finnish market in 1989. In addition, there are summary tables on bonds issued in Finland and abroad.

All in all, bond issues totalling FIM 47.1 billion were registered in 1989, an increase of about 18 per cent on the previous year. Domestic bond issues amounted to FIM 20.7 billion and foreign issues to FIM 26.4 billion. Domestic issues increased by 10 per cent compared with 1988 and foreign issues by 25 per cent.

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# MONETARY AND FOREIGN EXCHANGE POLICY MEASURES FROM APRIL 1989 TO MARCH 1990

1989

## APRIL

**Till-money credits.** The Bank of Finland raises the base amount — the share of banks' till-money holdings which is not financed by the Bank of Finland — by over FIM 60 million as from the beginning of April. The new base amount is effective until the end of March 1990.

**Amendments to the cash reserve agreement and the terms of central bank financing.** The Bank of Finland grants Interbank Ltd. the right to central bank financing with effect from the beginning of April. The bank joins the cash reserve agreement between the Bank of Finland and the banks on February 16, 1989.

## MAY

**Export deposits.** The Government decides to terminate the temporary export deposits levied on wood-free printing paper since the beginning of February, 1989 with effect from the beginning of May.

**Cash reserve requirement.** The Bank of Finland raises the cash reserve requirement for certain banks. Together with the current 8 per cent ratio, the banks' average deposit requirement now amounts to just under 8.2 per cent of the cash reserve base in April.

## JUNE

**Foreign Exchange Regulations.** The Bank of Finland relaxes the foreign exchange regulations concerning direct investments by enterprises in the financial and insurance

sector as from June 1, 1989. After this date, only direct investments by private individuals and direct investments in countries with which Finland maintains payments agreements require the Bank of Finland's authorization.

**Call money market.** With effect from June 16, 1989, the Board of Management of the Bank of Finland decides to abolish the bank-specific quotas for call money credit of the banks entitled to central bank financing. At the same time, the penalty interest charged on borrowing in excess of quota, which last stood at 19 per cent, is abolished.

In addition, the call money credit rate is raised from 13 per cent to 15 per cent; the call money deposit rate remains at 4 per cent.

**Cash reserve requirement.** The Bank of Finland raises the cash reserve requirement for certain banks and groups of banks. Together with the current 8 per cent ratio, the banks' average deposit requirement now amounts to about 8.4 per cent of the cash reserve base in May.

## JULY

**Cash reserve requirement.** The Bank of Finland adjusts the cash reserve requirement for certain banks and groups of banks. Together with the current 8 per cent ratio, the banks' average deposit requirement now amounts to about 8.5 per cent of the cash reserve base in June.

## AUGUST

**Cash reserve requirement.** The Bank of Finland adjusts the cash reserve requirement

for certain banks and groups of banks. Together with the current 8 per cent ratio, the banks' average deposit requirement now amounts to about 8.7 per cent of the cash reserve base in July.

## SEPTEMBER

**Foreign Exchange Regulations.** The Bank of Finland relaxes the foreign exchange regulations concerning foreign investments and capital imports. The amendments enter into force on September 1, 1989, except for those applying to private individuals. For tax control reasons, the decisions regarding capital exports by private individuals will enter into force on a later date, however not later than July 1, 1990.

**Capital exports.** Acquisitions of dwellings and real estate abroad no longer require authorization; previously, permission was necessary if the purchase price exceeded FIM 1 million. Investments in the form of foreign securities, deposits held in accounts with foreign monetary institutions and merchandise held abroad are permitted without the permission of the Bank of Finland or quantitative restrictions. In addition, credit of more than one year's maturity may be granted to non-residents without the Bank of Finland's permission.

**Capital imports.** Non-financial companies, except housing and real estate companies, are permitted to raise foreign credit of more than one year's maturity; previously, only loans of more than five years' maturity were permitted. The authorization

of the Bank of Finland is still required if a company borrows directly from a foreign lender. Suppliers' credits and prepayments in respect of imports are entirely freed from authorization. In addition, most direct investments in Finland no longer require authorization.

#### **Cash reserve requirement.**

The Bank of Finland raises the cash reserve requirement for certain banks. Together with the current 8 per cent ratio, the banks' average deposit requirement now amounts to 8.8 per cent of the cash reserve base in August.

### OCTOBER

#### **Government cash fund deposits.**

The Ministry of Finance and the Bank of Finland reach an agreement according to which the government will make cash fund deposits totalling FIM 5 billion with the Bank of Finland between October 5, 1989 and January 31, 1990. These deposits will be transferred on February 1, 1990 to a pension fund to be set up by the government. Additional deposits totalling FIM 1.6 billion will be made by the government in the pension fund, between February 1 and December 31, 1990.

#### **Cash reserve requirement.**

The Bank of Finland raises the cash reserve requirement for certain banks. Together with the current 8 per cent ratio, the banks' average deposit requirement now amounts to about 9.0 per cent of the cash reserve base in September.

### NOVEMBER

**Base rate.** The Bank of Finland raises the base rate from 7.5 per cent to 8.5 per cent as from November 1.

**Call money market.** With effect from November 6, 1989,

the Bank of Finland amends the terms of the call money credit system so that the 5-day moving average of a bank's position may be negative but in this case the call money credit rate will be charged at double the normal rate. It was a condition of the revision of June 1989 that the moving average of a bank's 5-day call money position should not be negative. The call money credit rate remains unchanged at 15 per cent and the call money deposit rate at 4 per cent.

#### **Cash reserve requirement.**

The Bank of Finland raises the cash reserve requirement for certain banks. Together with the current 8 per cent ratio, the banks' average deposit requirement now amounts to about 9.1 per cent of the cash reserve base in October.

### DECEMBER

#### **Cash reserve requirement.**

The Bank of Finland adjusts the cash reserve requirement for certain banks and groups of banks. Together with the current 8 per cent ratio, the banks' average deposit requirement now amounts to about 9.1 per cent of the cash reserve base in November.

### 1990

### JANUARY

**Prime rates.** The Bank of Finland complements its recommendations on reference rates to banks by permitting them to apply their own prime rates in all their lending and deposit-taking, with effect from January 1, 1990.

#### **Money market operations.**

As from January 1, 1990, only CDs issued by banks which meet the following requirements can be accepted for use in money market dealings: the bank's

capitalization exceeds the minimum amount set by the Bank of Finland, the bank meets the minimum capital adequacy requirements set by the BIS and operates as a market maker in the CD market. These banks may at the same time act as the Bank of Finland's market counterparties and may be granted access to call money credit. As a rule, a one-year transition period will be applied in the introduction of the new requirements for banks which are already entitled to call money credit and in whose CDs the Bank of Finland deals.

#### **Cash reserve requirement.**

The Bank of Finland adjusts the cash reserve requirement for certain banks. Together with the current 8 per cent ratio, the banks' average deposit requirement remains at about 9.1 per cent of the cash reserve base in December.

Provided bank lending does not accelerate sharply in January-February 1990, the collection of additional deposits under the supplementary cash reserve agreement will be discontinued. The interest-free additional deposits collected on the basis of the lending growth figures at the end of December 1989 will remain at the Bank of Finland and be refunded at the latest in July-December of the current year in six equal instalments at the end of each month.

### FEBRUARY

#### **Foreign Exchange Regulations.**

The Bank of Finland allows the sale abroad of new markka-denominated bonds of over one year's maturity as from February 1, 1990, with the exception of bonds issued by housing and real estate

companies. The present ban on cross-border sales remains in force for bonds issued previously. Effective the same date, non-residents allows to issue markka-denominated bonds in Finland.

With effect from the beginning of February, the Bank of Finland also decides to exempt Finnish companies' share issues abroad from the requirement of prior authorization. Starting from this date, the Bank of Finland no longer requires quotation by the Helsinki Stock Exchange or the OTC market as a condition for the issue of foreign securities in Finland. Similarly, it is no longer necessary for non-

residents purchasing Finnish securities to effect their purchases through the Helsinki Stock Exchange or the OTC market.

## MARCH

**Finance companies accorded the right to intermediate foreign finance.** The Bank of Finland decides that, with effect from March 1, 1990, finance companies may apply for the right to intermediate and raise foreign loans to the extent permitted by the limits on their foreign currency positions. Previously only deposit banks were accorded this right.





## 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 the Soviet Union 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 4 954 400 (Dec. 31, 1988) and an average population density of 16.3 per square kilometre. The largest towns are Helsinki (Helsingfors), the capital, with 491 800 inhabitants, Tampere (Tammerfors) 171 000, Espoo (Esbo) 168 100, Turku (Åbo) 159 400 and Vantaa (Vanda) 151 400.

There are two official languages: 93.6 % of the population speaks Finnish as its mother tongue and 6.0 % Swedish. There is a small Lapp population in the north. Finnish is a member of the small Finno-Ugric 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 December 6, 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, March 1, 1988 to March 1, 1994, is Dr. Mauno Koivisto.

Parliament, comprising 200 members, is elected by universal suffrage for a period of four years. Following the parliamentary elections of 1987, the seats of the various parties in Parliament are distributed as follows:

Social Democratic Party 56; National Coalition Party 53; Centre Party 40; People's Democratic League 16; Swedish People's Party 13; Rural Party 9; Christian League 5; the Greens 4; and the Democratic Alternative 4.

Of the 18 ministerial posts in the present government appointed in May 1987, 8 are held by Social Democrats, 7 by the National Coalition Party, 2 by the Swedish People's Party and 1 by the Rural Party. The Prime Minister is Mr. Harri Holkeri of the National Coalition 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 pursues a policy of neutrality in foreign affairs, and enjoys friendly relations with all European countries and countries elsewhere. Finland's development cooperation programmes channel assistance via international organizations and, bilaterally, to a number of African, Asian and Latin American countries.

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 and the MIGA in 1988.

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. 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.

## THE ECONOMY

**Output and employment.** The Finnish economy is essentially based on private enterprise, with over 80 % of manufacturing output and some 90 %

of banking services produced by private companies. Of the gross domestic product of FIM 383 billion in basic values in 1988, 3 % was generated in agriculture and fishing, 3 % in forestry, 27 % in industry, 9 % in construction, 12 % in trade, restaurants and hotels, 8 % in transport and communications, 5 % in finance and insurance, 16 % in other private services and 17 % by producers of government services. Of total employment of 2.3 million persons, 10 % were engaged in primary production, 31 % in industry and construction and 59 % in services.

In 1988, expenditure on the gross domestic product in purchasers' values amounted to FIM 440 billion and was distributed as follows: net exports -0.3 % (exports 24.8 %, imports -25.1 %), gross fixed capital formation 25 %, private consumption 53 % and government consumption 20%. Finland's gross tax ratio (gross taxes in relation to GDP) was 38 % and the net tax ratio (net taxes in relation to GDP) 25 %, which is about the average for OECD countries.

Average annual (compounded) growth of real GDP was 4.9 % in the period 1950-60, 4.8 % in 1960-70, 3.5 % in 1970-80, 3.2 % in 1980-88 and 4.2 % in 1950-88. Finland's GDP per capita in 1988 was USD 21 200; this put Finland in fifth place among the 24 member countries of the OECD, preceded by Switzerland, Iceland, Japan and Norway.

**Foreign trade.** Over 80 % of Finland's trade is carried on with market economies, the most important among which are Sweden, the Federal Republic of Germany, the United Kingdom, the United States, France and Japan. Bilateral trade with the Soviet Union, which is conducted at world market prices, dominates Finland's trade with socialist countries. Finland imports mainly oil and other energy products from the Soviet Union, while her exports consist primarily of manufactured goods.

In 1988, the share of forest industry products in total merchandise exports was 42 %, the share of metal and engineering products 39 % and the share of other goods 19 %. Raw materials and intermediate goods (incl. crude oil) accounted for 55 % of merchandise imports, fuels for 3 %, investment goods for 19 % and consumption goods for 23 %.

**Forest resources.** Finland has fairly abundant forest resources, but

only limited amounts of other raw materials. The growing stock comprises 1 660 million cubic metres, of which 45 % is pine, 37 % spruce and 18 % broad-leaved species, chiefly birch. The annual growth increment totals 68 million cubic metres and the total drain calculated on the basis of commercial fellings was 58 million cubic metres in 1988.

**Energy.** In 1988, gross consumption of primary energy amounted to 30 Mtoe, of which industry accounted for 45 %, heating for 23 %, transportation for 14 % and other purposes for 18 %. The sources of primary energy in 1988 were as follows: oil 32 %, coal 12 %, nuclear power 16 %, hydro-electric power, peat and other indigenous sources 30 %, others 10 %. Compared internationally (1987), Finland's consumption of 6.3 toe per capita was 2.0 times higher than the average in European OECD countries. The self-sufficiency rate (OECD definition) in Finland was 38 %, as compared with 62 % in western Europe on average.

## FINANCE AND BANKING

**Currency.** Since 1865 Finland has had its own monetary system. The currency unit is the markka (plural: markkaa), abbreviation FIM, which is divided into 100 penniä (singular: penni). Since Nov. 1, 1977 the external value of the markka has been officially expressed in terms of a trade-weighted currency index. As from Jan. 1, 1984 only convertible currencies have been included in the index. Since November 30, 1988, the index has been permitted to fluctuate within a range of 6 percentage points (previously 4.5). The range is defined by fluctuation limits which are set by the Government at the proposal of the Bank of Finland. Since March 17, 1989, the fluctuation limits have been 96.5 and 102.5 (1982 = 100), where the lower limit means the highest permissible value for the markka and the upper limit the lowest permissible value.

**International payments.** The use of the markka in foreign trade and as a eurocurrency has increased, but most international payments are effected in other currencies. Finland adopted Article VIII status at the International Monetary Fund in 1979. There are no restrictions concerning payments for merchandise or invisibles, and short-term trade finance may be acquired whenever exporters and importers see fit. The remaining exchange controls apply mainly to financial transactions.

Outward direct investment is permitted without the Bank of Finland's authorization except for direct investments in countries with which Finland maintains payments agreements. Similarly, inward direct investment is permitted without the Bank of Finland's authorization except for direct investments in enterprises in the financial sector and direct investments by countries with which Finland maintains pay-

ments agreements. Foreign investors may also buy shares of listed Finnish companies; however, foreign investment in markka-denominated bonds is normally prohibited for the present. Finnish companies may freely raise foreign credits and extend loans abroad of over one year's maturity. Finnish residents, except enterprises in the financial sector, may invest freely in foreign securities and real estate. The unlimited right to make foreign investments also applies to private individuals, but the date of its entry into force is to be determined separately. The date will not, however, be later than July 1, 1990.

Transactions with the Soviet Union, the German Democratic Republic and Bulgaria are carried out on a bilateral basis and payments are effected through clearing accounts. The necessary licencing of trade for maintaining balance in bilateral trade is carried out by the Export and Import Permits Office; the scope for suppliers' credits is also limited.

**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 of Management 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, open market operations, intervention in the foreign exchange market, determination of the external value of the currency within the fluctuation limits, direct lending and permits for international capital transactions. 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 12 branch offices in other towns.

**Other banks** (Dec. 31, 1988). Finland has four major groups of deposit banks with a total of more than 3 550 offices. There are two big commercial banks with national branch networks and eight smaller ones, four of which are foreign-owned. The commercial banks have a total of 29 foreign branches, subsidiaries and associate banks and 29 representative offices abroad. There are 211 savings banks and 267 cooperative banks with their own extensive branch networks. The government-owned Postipankki has 56 branches and also offers basic services in post offices.

**Financial markets.** Of the total stock of FIM 580 billion in outstanding domestic credit at the end of 1988,

64 % was provided by deposit banks, 4 % by mortgage banks, 15 % by insurance companies, 8 % by other credit institutions and 9 % 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, 69 % of the instruments, which totalled approximately FIM 108 billion at end 1988, were negotiable instruments such as bank certificates of deposit, commercial paper, Treasury notes and local authority paper. Funds intermediated 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 69 listed companies on the Helsinki Stock Exchange, with a market capitalization value of FIM 127 billion (at end-1988). Three foreign companies are also quoted. Domestic bonds and debentures in circulation at end-1988 totalled FIM 93.6 billion; government bonds made up 33 % of the total. Turnover on the Stock Exchange in 1988 amounted to FIM 37 billion; the share of shares and subscription rights in the total was approximately 85 %.



<b>1. THE BALANCE SHEET OF THE BANK OF FINLAND</b>	S2
1.1 The balance sheet of the Bank of Finland	S2
1.2 Time series for the balance sheet items of the Bank of Finland	S3
<b>2. THE BANK OF FINLAND'S MONEY MARKET OPERATIONS AND THE FORWARD MARKET</b>	S4
2.1 The Bank of Finland's money market operations and the call money market	S4
2.2 Forward exchange market	S5
2.3 Banks' central bank position	S5
<b>3. RATES OF INTEREST</b>	S6
3.1 Money market rates and rates applied by the Bank of Finland	S6
3.2 Weighted Eurorate (3 and 12 currencies)	S6
3.3 Covered Eurodollar rate	S6
3.4 Rates of interest applied by banks	S7
3.5 Rates of interest on bonds and debentures	S7
<b>4. RATES OF EXCHANGE</b>	S8
4.1 Average spot selling rates	S8
4.2 Currency indices	S9
<b>5. OTHER DOMESTIC FINANCING</b>	S10
5.1 Bank deposits by the public	S10
5.2 Bank lending to the public	S10
5.3 Money supply and monetary aggregates	S11
5.4 Liabilities and assets of the central government	S11
5.5 Domestic bond market	S12
a) Issues	S12
b) Stock	S12
5.6 Helsinki Stock Exchange	S13
<b>6. BALANCE OF PAYMENTS, FOREIGN LIABILITIES AND ASSETS</b>	S14
6.1 Current account	S14
6.2 Capital account	S15
6.3 Finland's foreign liabilities and assets	S16
6.4 Finland's long-term foreign liabilities and assets by sector	S17
<b>7. FOREIGN TRADE</b>	S18
7.1 Exports, imports and the trade balance	S18
7.2 Foreign trade: indices of volume, unit value and terms of trade	S18
7.3 Foreign trade by main groups	S18
7.4 Foreign trade by regions and countries	S19
<b>8. DOMESTIC ECONOMIC DEVELOPMENTS</b>	S20
8.1 Supply and use of resources	S20
8.2 Volume of industrial production	S20
8.3 Indicators of domestic supply and demand	S21
8.4 Wages and prices	S22
8.5 Labour, employment and unemployment	S23
8.6 Central government finances: revenue, expenditure and financial balance	S24
<b>NOTES AND EXPLANATIONS TO THE STATISTICAL SECTION</b>	S25

# 1. THE BALANCE SHEET OF THE BANK OF FINLAND

## 1.1 THE BALANCE SHEET OF THE BANK OF FINLAND, MILL. FIM

	1989		1990			
	Feb. 28	Dec. 31	Feb. 8	Feb. 15	Feb. 23	Feb. 28
<b>ASSETS</b>						
<b>Gold and foreign currency claims</b>	35 449	23 009	30 309	30 628	30 811	30 436
Gold	2 128	2 179	2 179	2 179	2 179	2 179
Special drawing rights	878	966	983	891	798	846
IMF reserve tranche	959	950	915	915	912	913
Convertible currencies	29 029	18 822	26 117	26 521	26 803	26 379
Tied currencies	2 455	92	115	122	118	118
<b>Other foreign claims</b>	4 209	3 300	3 304	3 304	3 304	3 307
Markka subscription to Finland's IMF quota	2 271	2 103	2 126	2 126	2 126	2 126
Term credit	1 937	1 198	1 178	1 178	1 178	1 181
<b>Claims on financial institutions</b>	11 647	39 054	53 543	55 239	55 872	56 811
Call money credits	59	38	—	8	684	6
Certificates of deposit	3 995	33 230	22 331	20 848	18 307	14 735
Term credits	1 200	—	20 700	24 210	26 340	31 825
Till-money credits	2 657	3 310	7 929	7 604	7 972	7 677
Financing of crop failure loans	1 222	—	—	—	—	—
Bonds	2 275	2 238	2 345	2 331	2 330	2 330
Other claims on financial institutions	239	238	238	238	238	238
<b>Claims on the public sector</b>	1 119	1 137	1 174	1 176	1 181	1 185
Treasury notes and bills	59	—	—	—	—	—
Bonds	22	8	7	7	7	7
Total coinage	1 034	1 129	1 167	1 169	1 174	1 178
Other claims on the public sector	3	—	—	—	—	—
<b>Claims on corporations</b>	2 770	2 207	2 149	2 137	2 129	2 126
Financing of exports	209	1	1	1	1	1
Financing of domestic deliveries (KTR)	2 133	1 697	1 646	1 634	1 626	1 623
Bonds: KTR credits	213	302	295	295	295	295
Bonds: Other	33	21	21	21	21	21
Other claims on corporations	182	186	186	186	186	186
<b>Other assets</b>	119	571	104	105	103	105
Accrued items	—	464	—	—	—	—
Other assets	119	107	104	105	103	105
<b>Total</b>	<b>55 313</b>	<b>69 279</b>	<b>90 583</b>	<b>92 589</b>	<b>93 399</b>	<b>93 969</b>
<b>LIABILITIES</b>						
<b>Foreign currency liabilities</b>	233	697	417	393	470	519
Convertible currencies	110	42	51	38	88	90
Tied currencies	123	656	366	356	382	429
<b>Other foreign liabilities</b>	3 078	2 860	2 875	2 875	2 873	2 874
IMF markka accounts	2 271	2 103	2 126	2 126	2 126	2 126
Allocations of special drawing rights	806	758	749	749	747	748
<b>Notes and coin in circulation</b>	10 769	13 129	21 427	22 456	22 912	23 179
Notes	9 820	12 073	20 327	21 348	21 794	22 055
Coin	949	1 056	1 100	1 108	1 118	1 123
<b>Certificates of deposit</b>	1 460	—	—	—	—	—
<b>Liabilities to financial institutions</b>	21 744	26 303	39 393	40 185	40 357	40 471
Call money deposits	160	569	1 722	1 161	455	1 373
Term deposits	—	—	12 040	13 390	14 270	12 840
Cash reserve deposits	21 328	25 506	25 441	25 441	25 441	26 068
Capital import deposits	220	190	150	150	150	150
Other liabilities to financial institutions	35	38	40	42	40	40
<b>Liabilities to the public sector</b>	2 017	5 325	6 386	6 387	6 399	6 523
Cheque accounts	0	0	1	1	0	0
Cash fund deposits	—	3 770	—	—	—	—
Pension fund deposits	—	—	4 810	4 810	4 810	4 932
Counter-cyclical fund deposit	964	—	—	—	—	—
Counter-cyclical deposits	1 002	1 319	1 319	1 319	1 319	1 319
Export deposits	50	235	253	253	267	268
Other liabilities to the public sector	1	1	3	3	3	4
<b>Liabilities to corporations</b>	6 921	10 810	10 658	10 658	10 645	10 667
Deposits for investment and ship purchase	6 540	10 228	10 102	10 102	10 089	10 115
Capital import deposits	381	583	556	556	556	552
Other liabilities to corporations	—	—	—	—	—	—
<b>Other liabilities</b>	44	1 294	64	51	54	59
Accrued items	—	1 241	—	—	—	—
Other liabilities	44	53	64	51	54	59
<b>Valuation account and reserves</b>	3 212	2 696	3 198	3 419	3 524	3 514
<b>SITRA's capital</b>	400	400	400	400	400	400
<b>Capital accounts</b>	5 436	5 764	5 764	5 764	5 764	5 764
Primary capital	5 000	5 000	5 000	5 000	5 000	5 000
Reserve fund	436	436	764	764	764	764
Profit/loss for the accounting year	—	328	—	—	—	—
<b>Total</b>	<b>55 313</b>	<b>69 279</b>	<b>90 583</b>	<b>92 589</b>	<b>93 399</b>	<b>93 969</b>

## 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, net	Convertible currencies, total (1+2+3+4)	Tied currencies, net	Foreign exchange reserves, total (5+6)	Other claims, net	Net claims (7+8)	Claims	Liabilities	Net liabilities (11-10)
	1	2	3	4	5	6	7	8	9	10	11	12
<b>1985</b>	2 081	931	775	18 572	22 359	-285	22 074	-849	21 225	1 023	4 300	3 277
<b>1986</b>	2 081	983	793	6 778	10 635	3 421	14 056	-838	13 218	1 002	2 001	999
<b>1987</b>	2 128	899	793	23 571	27 391	1 212	28 603	1 131	29 734	977	901	-76
<b>1988</b>	2 128	1 120	940	24 373	28 561	945	29 506	1 117	30 623	1 128	1 903	775
<b>1989</b>	2 179	966	950	18 780	22 875	-564	22 311	440	22 751	1 137	5 325	4 188
<b>1989</b>												
<b>Feb.</b>	2 128	878	959	28 919	32 884	2 332	35 216	1 131	36 347	1 119	2 017	898
<b>March</b>	2 128	853	901	25 659	29 541	1 352	30 893	1 097	31 990	1 079	1 368	289
<b>April</b>	2 128	832	890	24 628	28 478	1 725	30 203	1 085	31 288	1 103	1 404	301
<b>May</b>	2 128	861	1 004	25 028	29 021	1 580	30 601	1 103	31 704	1 113	1 433	320
<b>June</b>	2 128	858	961	25 501	29 448	353	29 801	1 113	30 914	1 136	1 458	322
<b>July</b>	2 128	854	919	25 318	29 219	717	29 936	1 094	31 030	1 113	1 472	359
<b>Aug.</b>	2 128	882	934	25 545	29 489	706	30 195	1 117	31 312	1 113	1 486	373
<b>Sept.</b>	2 129	878	952	23 568	27 527	-826	26 701	1 107	27 808	1 135	1 504	369
<b>Oct.</b>	2 129	1 055	927	21 841	25 952	-307	25 645	772	26 417	1 112	2 683	1 571
<b>Nov.</b>	2 129	851	967	19 826	23 773	-381	23 392	769	24 161	1 126	4 150	3 024
<b>Dec.</b>	2 179	966	950	18 780	22 875	-564	22 311	440	22 751	1 137	5 325	4 188
<b>1990</b>												
<b>Jan.</b>	2 179	900	954	26 179	30 212	-584	29 628	432	30 060	1 168	6 384	5 216
<b>Feb.</b>	2 179	846	913	26 289	30 227	-311	29 916	433	30 349	1 185	6 523	5 338

End of period	Domestic financial sector						Corporate sector			Notes and coin in circulation	Out-standing CDs issued by the Bank of Finland
	Term claims on deposit banks	Call money claims on deposit banks, net	Cash reserve deposits of deposit banks	Till-money credits to deposit banks	Other liabilities to financial institutions, net	Net claims (13+14-15+16-17)	Claims in the form of special financing	Special deposits and other items, net	Net claims (19-20)		
	13	14	15	16	17	18	19	20	21	22	23
<b>1985</b>	.	4 014	10 222	1 925	-1 386	-2 897	4 525	4 113	412	8 072	.
<b>1986</b>	2 381	6 687	9 270	2 305	-2 240	4 343	4 581	4 757	-176	8 668	.
<b>1987</b>	-	-757	10 941	2 730	-2 350	-6 618	3 449	4 782	-1 333	9 990	4 970
<b>1988</b>	7 187	335	19 039	2 920	-3 733	-4 864	2 823	6 579	-3 756	11 550	1 130
<b>1989</b>	33 230	-531	25 506	3 310	-2 248	12 751	2 000	10 604	-8 604	13 129	-
<b>1989</b>											
<b>Feb.</b>	5 195	-101	21 328	2 657	-3 481	-10 096	2 555	6 706	-4 151	10 769	1 460
<b>March</b>	7 917	1 735	22 120	2 481	-3 017	-6 970	2 455	6 700	-4 245	10 996	980
<b>April</b>	10 166	256	22 195	2 342	-2 952	-6 479	2 386	6 935	-4 549	11 190	580
<b>May</b>	7 597	3 803	22 820	2 843	-2 716	-5 861	2 335	7 168	-4 833	11 385	180
<b>June</b>	16 601	-568	23 500	2 518	-2 816	-2 133	2 239	9 557	-7 318	11 737	160
<b>July</b>	17 582	-727	24 116	2 936	-2 817	-1 508	2 252	10 439	-8 187	11 774	160
<b>Aug.</b>	18 641	-839	24 639	2 899	-2 833	-1 105	2 214	10 587	-8 373	11 651	60
<b>Sept.</b>	22 152	-133	25 089	2 569	-2 781	2 280	2 184	10 617	-8 433	11 739	20
<b>Oct.</b>	25 623	-419	25 377	3 023	-2 374	5 224	2 096	10 597	-8 501	11 775	-
<b>Nov.</b>	29 475	261	25 581	2 925	-2 170	9 250	2 066	10 590	-8 524	11 894	-
<b>Dec.</b>	33 230	-531	25 506	3 310	-2 248	12 751	2 000	10 604	-8 604	13 129	-
<b>1990</b>											
<b>Jan.</b>	34 050	-3 243	25 441	8 099	-2 377	15 842	1 950	10 453	-8 503	22 760	-
<b>Feb.</b>	33 720	-1 367	26 068	7 677	-2 378	16 340	1 919	10 460	-8 541	23 178	-

## 2. THE BANK OF FINLAND'S MONEY MARKET OPERATIONS AND THE FORWARD MARKET

### 2.1 THE BANK OF FINLAND'S MONEY MARKET OPERATIONS AND THE CALL MONEY MARKET, MILL. FIM

During period	Purchases of money market instruments	Sales of money market instruments	Matured money market instruments, net	Impact on liquidity (1-2-3)	Call money credits	Call money deposits	Total net change (4+5-6)
	1	2	3	4	5	6	7
<b>1985</b>	.	.	.	.	201	-1 011	1 212
<b>1986</b>	.	.	.	.	1 599	-1 074	2 673
<b>1987</b>	1 263	23 658	-17 520	-4 875	-6 818	626	-12 319
<b>1988</b>	13 840	19 190	-16 850	11 500	463	-629	12 592
<b>1989</b>	131 110	3 855	99 245	28 010	-425	441	27 144
<b>1989</b>							
<b>Feb.</b>	3 260	1 125	2 125	10	-656	77	-723
<b>March</b>	8 695	170	5 095	3 430	1 785	-51	5 266
<b>April</b>	4 710	—	2 370	2 340	-1 548	-69	861
<b>May</b>	6 490	—	7 880	-1 390	3 507	-40	2 157
<b>June</b>	16 295	250	7 875	8 170	-3 798	573	3 799
<b>July</b>	16 790	240	15 170	1 380	7	166	1 221
<b>Aug.</b>	14 560	—	13 160	1 400	-10	102	1 288
<b>Sept.</b>	14 260	—	9 950	4 310	73	-633	5 016
<b>Oct.</b>	16 720	—	13 920	2 800	-72	214	2 514
<b>Nov.</b>	18 220	350	13 560	4 310	510	-170	4 990
<b>Dec.</b>	10 850	530	6 770	3 550	-475	317	2 758
<b>1990</b>							
<b>Jan.</b>	18 660	4 710	13 750	200	14	2 726	-2 512
<b>Feb.</b>	31 775	14 350	18 020	-595	-46	-1 922	1 281



## 2.2 FORWARD EXCHANGE MARKET, MILL. FIM

End of period	Banks' forward positions with					
	Domestic companies			Foreign banks, net	Bank of Finland, net	Total, net (3+4+5)
	Forward exchange bought by banks	Forward exchange sold by banks	Net (1-2)			
1	2	3	4	5	6	
<b>1985</b>	16 982	1 733	15 249	708	-9 005	6 951
<b>1986</b>	11 446	1 319	10 127	-2 461	-92	7 574
<b>1987</b>	21 671	1 158	20 513	-233	-1 287	18 994
<b>1988</b>	16 488	1 543	14 946	9 086	-377	23 654
<b>1989</b>	10 531	3 563	6 967	8 031	205	15 203
<b>1988</b>						
<b>Dec.</b>	16 488	1 543	14 946	9 086	-377	23 654
<b>1989</b>						
<b>Jan.</b>	15 710	1 058	14 652	9 284	-62	23 874
<b>Feb.</b>	15 495	857	14 638	7 706	-273	22 071
<b>March</b>	14 614	871	13 742	7 221	-168	20 795
<b>April</b>	13 536	1 044	12 492	7 003	-63	19 432
<b>May</b>	13 248	1 535	11 714	9 024	-	20 737
<b>June</b>	12 859	1 408	11 451	9 781	-306	20 926
<b>July</b>	13 125	1 393	11 731	9 870	-395	21 207
<b>Aug.</b>	12 652	1 187	11 465	15 126	-220	26 371
<b>Sept.</b>	11 782	1 669	10 113	13 261	-	23 374
<b>Oct.</b>	11 323	2 260	9 063	10 774	-	19 836
<b>Nov.</b>	11 487	2 934	8 552	8 784	-	17 336
<b>Dec.</b>	10 531	3 563	6 967	8 031	205	15 203

## 2.3 BANKS' CENTRAL BANK POSITION, MILL. FIM

Average of daily observations	Call money credits	Bank CDs held by the Bank of Finland	Gross debt to the Bank of Finland (1+2)	Call money deposits	Holdings of CDs issued by the Bank of Finland	Cash reserve deposits	Gross claim on the Bank of Finland (4+5+6)	Net position (3-7)
1	2	3	4	5	6	7	8	
<b>1985</b>	5 812	.	5 812	4 527	.	9 578	14 105	-8 293
<b>1986</b>	7 117	120	7 237	1 256	.	9 189	10 445	-3 208
<b>1987</b>	481	1 581	2 062	703	4 705	10 092	15 501	-13 439
<b>1988</b>	128	2 190	2 319	621	5 044	15 159	20 824	-18 505
<b>1989</b>	373	15 146	15 519	403	465	23 035	23 903	-8 384
<b>1989</b>								
<b>Feb.</b>	129	4 612	4 741	501	1 568	20 423	22 491	-17 750
<b>March</b>	711	5 175	5 886	177	1 202	21 352	22 731	-16 845
<b>April</b>	689	8 697	9 386	129	774	22 128	23 031	-13 644
<b>May</b>	1 176	8 908	10 083	127	330	22 214	22 671	-12 588
<b>June</b>	779	11 264	12 042	321	118	22 842	23 282	-11 240
<b>July</b>	46	17 049	17 095	714	160	23 520	24 394	-7 299
<b>Aug.</b>	46	17 384	17 431	507	116	24 132	24 755	-7 325
<b>Sept.</b>	41	19 738	19 779	446	47	24 669	25 161	-5 382
<b>Oct.</b>	62	24 529	24 591	483	11	25 098	25 592	-1 001
<b>Nov.</b>	360	26 702	27 062	363	-	25 384	25 747	1 315
<b>Dec.</b>	328	31 497	31 824	462	-	25 574	26 036	5 788
<b>1990</b>								
<b>Jan.</b>	308	34 151	34 459	1 200	860	25 504	27 564	6 895
<b>Feb.</b>	367	43 675	44 043	1 017	12 978	25 463	39 459	4 584

### 3. RATES OF INTEREST

#### 3.1 MONEY MARKET RATES AND RATES APPLIED BY THE BANK OF FINLAND, PER CENT

Average of daily observations	Inter-bank overnight rate	HELIBOR				Bank of Finland rates			Cash reserve requirement	
		1 month	3 months	6 months	12 months	Call money credit rate	Call money deposit rate	Base rate	Ordinary	Additional (average)
	1	2	3	4	5	6	7	8	9	10
<b>1985</b>	..	..	..	..	..	13.37	13.37	9.04	5.6	.
<b>1986</b>	11.87	..	..	..	..	13.43	11.34	7.46	4.8	.
<b>1987</b>	9.16	9.90	10.02	10.14	10.40	11.71	7.78	7.00	4.8	.
<b>1988</b>	8.47	9.77	9.97	10.16	10.50	11.50	7.04	7.63	6.5	.
<b>1989</b>	10.21	12.32	12.53	12.61	12.72	13.40	4.00	7.67	8.0	0.5
<b>1989</b>										
<b>Feb.</b>	7.91	10.12	10.78	11.10	11.53	13.00	4.00	7.50	7.8	.
<b>March</b>	9.09	10.85	11.09	11.34	11.66	13.00	4.00	7.50	8.0	.
<b>April</b>	11.37	12.08	12.11	12.11	12.15	13.00	4.00	7.50	8.0	.
<b>May</b>	11.43	11.70	11.75	11.79	11.90	13.00	4.00	7.50	8.0	0.2
<b>June</b>	9.79	11.62	11.78	11.93	12.13	13.00	4.00	7.50	8.0	0.4
<b>July</b>	10.56	11.64	11.79	11.94	12.11	15.00	4.00	7.50	8.0	0.5
<b>Aug.</b>	8.86	11.87	12.06	12.22	12.35	15.00	4.00	7.50	8.0	0.7
<b>Sept.</b>	8.56	12.69	13.09	13.30	13.40	15.00	4.00	7.50	8.0	0.8
<b>Oct.</b>	10.31	14.06	14.19	14.22	14.19	15.00	4.00	7.50	8.0	1.0
<b>Nov.</b>	12.78	14.78	14.77	14.66	14.51	15.00	4.00	8.50	8.0	1.1
<b>Dec.</b>	15.03	16.23	16.08	15.56	15.17	15.00	4.00	8.50	8.0	1.1
<b>1990</b>										
<b>Jan.</b>	.	16.01	16.05	15.73	15.45	15.00	4.00	8.50	8.0	1.1
<b>Feb.</b>	.	16.01	16.01	15.73	15.39	15.00	4.00	8.50	8.0	.

#### 3.2 WEIGHTED EURORATE (3 AND 12 CURRENCIES), PER CENT

Average of daily observations	3 currencies <sup>1</sup>				12 currencies <sup>2</sup>			
	1 month	3 months	6 months	12 months	1 month	3 months	6 months	12 months
	1	2	3	4	5	6	7	8
<b>1985</b>	6.8	6.9	7.0	7.2	..	..	..	..
<b>1986</b>	5.9	5.9	5.9	5.8	..	..	..	..
<b>1987</b>	5.4	5.6	5.7	5.8	7.9	8.0	8.1	8.2
<b>1988</b>	5.9	6.0	6.2	6.4	7.8	8.0	8.1	8.3
<b>1989</b>	8.3	8.4	8.5	8.5	9.7	9.8	9.9	9.9
<b>1989</b>								
<b>Feb.</b>	8.0	8.2	8.4	8.4	9.2	9.3	9.3	9.4
<b>March</b>	8.0	8.3	8.6	8.8	9.3	9.5	9.7	9.8
<b>April</b>	8.0	8.2	8.4	8.6	9.2	9.5	9.6	9.7
<b>May</b>	8.3	8.4	8.6	8.7	9.5	9.7	9.7	9.8
<b>June</b>	8.3	8.4	8.5	8.5	9.7	9.8	9.8	9.9
<b>July</b>	8.3	8.2	8.2	8.1	9.7	9.8	9.7	9.7
<b>Aug.</b>	8.3	8.3	8.2	8.2	9.7	9.8	9.7	9.7
<b>Sept.</b>	8.5	8.6	8.6	8.6	9.9	10.0	10.0	9.9
<b>Oct.</b>	8.9	9.0	8.9	8.8	10.4	10.5	10.4	10.4
<b>Nov.</b>	8.8	9.0	9.0	8.9	10.5	10.7	10.7	10.7
<b>Dec.</b>	9.0	9.0	9.0	8.9	10.8	10.9	10.9	10.9
<b>1990</b>								
<b>Jan.</b>	8.8	9.0	9.2	9.2	10.8	11.0	11.2	11.3
<b>Feb.</b>	8.9	9.1	9.3	9.6	11.1	11.3	11.5	11.7

#### 3.3 COVERED EURO-DOLLAR RATE, PER CENT

Average of daily observations	1 month	3 months	6 months	12 months
	1	2	3	4
<b>1985</b>	12.9	12.8	12.8	12.6
<b>1986</b>	12.1	11.7	11.5	11.1
<b>1987</b>	9.8	9.9	9.9	10.1
<b>1988</b>	9.6	9.8	10.0	10.3
<b>1989</b>	11.8	12.1	12.2	12.2
<b>1989</b>				
<b>Feb.</b>	10.0	10.5	10.7	11.1
<b>March</b>	10.6	10.9	11.1	11.3
<b>April</b>	11.9	11.8	11.8	11.7
<b>May</b>	11.1	11.2	11.2	11.3
<b>June</b>	11.2	11.3	11.4	11.5
<b>July</b>	11.1	11.3	11.5	11.5
<b>Aug.</b>	11.1	11.5	11.7	11.8
<b>Sept.</b>	11.9	12.5	12.8	12.9
<b>Oct.</b>	13.6	13.8	13.8	13.7
<b>Nov.</b>	14.2	14.3	14.3	14.1
<b>Dec.</b>	15.3	15.2	14.8	14.5
<b>1990</b>				
<b>Jan.</b>	14.9	15.4	15.1	15.0
<b>Feb.</b>	15.0	15.0	14.9	14.7

<sup>1</sup> DEM 60 per cent, USD 30 per cent, GBP 10 per cent.

<sup>2</sup> Weighted according to their relative shares in the Bank of Finland currency index. Since March 1989, the index has consisted of 14 currencies.

### 3.4 RATES OF INTEREST APPLIED BY BANKS, PER CENT

End of period	Lending						Deposits					
	New credits <sup>1</sup>				Average lending rate	Of which: Commercial banks	Savings accounts and ordinary deposit accounts	12-month time deposits	24-month time deposits	Average rate of interest on regulated deposits	Average rate of interest on unregulated deposits	Average rate of interest on total deposits
	Cheque account and post-office giro credits	Bills of exchange	Loans	New lending, total								
	1	2	3	4	5	6	7	8	9	10	11	12
<b>1984</b>	..	..	..	..	10.67	10.68	5.25	8.00	9.25	6.22	15.43	7.30
<b>1985</b>	12.04	12.94	10.62	11.55	10.37	10.37	4.75	7.50	8.75	5.91	13.24	6.81
<b>1986</b>	10.89	12.30	9.76	10.64	8.82	8.81	2.75	5.75	7.00	4.43	11.84	5.35
<b>1987</b>	10.50	12.31	10.01	10.62	9.12	8.99	2.75	5.75	7.00	4.56	10.13	5.29
<b>1988</b>	10.22	12.27	10.50	10.72	10.37	10.25	3.75	6.75	8.00	5.87	9.80	6.20
<b>1988</b>												
<b>Nov.</b>	12.08	12.62	11.02	11.33	10.33	10.21	3.75	6.75	8.00	5.66	10.39	6.77
<b>Dec.</b>	10.02	11.68	10.33	10.48	10.37	10.25	3.75	6.75	8.00	5.87	10.62	6.92
<b>1989*</b>												
<b>Jan.</b>	11.63	12.37	10.58	10.95	10.09	9.90	3.50	.	5.50	5.45	10.86	6.99
<b>Feb.</b>	11.63	12.23	10.85	11.18	10.09	9.92	3.50	.	5.50	5.41	10.85	7.06
<b>March</b>	12.04	12.69	11.04	11.45	10.11	9.94	3.50	.	5.50	5.51	10.89	6.87
<b>April</b>	12.73	13.10	11.35	11.80	10.23	10.06	3.50	.	5.50	5.54	11.32	7.09
<b>May</b>	12.75	13.11	11.48	11.91	10.31	10.13	3.50	.	5.50	5.52	11.41	7.07
<b>June</b>	12.46	13.12	11.43	11.83	10.35	10.18	3.50	.	5.50	5.48	11.55	7.06
<b>July</b>	12.60	13.25	11.59	12.03	10.34	10.18	3.50	.	5.50	5.46	11.53	7.04
<b>Aug.</b>	12.67	13.36	11.33	11.79	10.37	10.20	3.50	.	5.50	5.48	11.60	7.07
<b>Sept.</b>	12.28	13.54	11.84	12.21	10.46	10.31	3.50	.	5.50	5.53	11.92	7.29
<b>Oct.</b>	14.08	14.12	12.09	12.72	10.72	10.59	3.50	.	5.50	5.57	12.56	7.56
<b>Nov.</b>	14.99	14.77	12.90	13.58	11.60	11.44	4.50	.	6.50	6.40	13.27	8.35

<sup>1</sup> Average rate of interest for period.

### 3.5 RATES OF INTEREST ON BONDS AND DEBENTURES, PER CENT

Period	Secondary market rates						Rates at issue		
	Long-term rate		Taxable government bonds	Taxable public issues	Issued by:		Taxfree public issues	Taxable public issues	Taxfree public issues
	3 years	5 years			Financial institutions	Corporations			
	1	2	3	4	5	6	7	8	9
<b>1985</b>	..	..	.	12.7	..	..	10.1	12.7	10.6
<b>1986</b>	..	..	.	11.7	..	..	8.3	11.3	8.8
<b>1987</b>	..	..	.	11.2	11.1	11.2	8.1	10.7	7.9
<b>1988</b>	10.7	10.8	10.6	10.6	10.6	10.6	7.8	10.4	7.3
<b>1989</b>	12.2	12.0	12.1	11.9	12.0	12.0	8.1	11.7	6.6
<b>1989</b>									
<b>Jan.</b>	11.8	11.7	11.6	11.8	11.7	12.0	7.4	11.1	6.5
<b>Feb.</b>	11.5	11.4	11.7	11.5	11.8	11.3	7.5	11.5	6.5
<b>March</b>	11.6	11.6	11.8	11.8	11.5	11.8	7.7	11.5	6.5
<b>April</b>	11.9	11.8	11.8	11.8	11.9	11.7	7.6	11.6	6.5
<b>May</b>	11.8	11.7	11.8	11.8	11.9	11.8	7.9	11.6	6.5
<b>June</b>	11.9	11.7	12.3	11.8	11.8	11.7	8.1	11.5	6.5
<b>July</b>	11.8	11.7	12.1	11.8	12.0	11.6	8.2	11.6	6.5
<b>Aug.</b>	11.9	11.7	11.9	11.9	11.8	12.0	8.5	11.5	6.5
<b>Sept.</b>	12.5	12.0	12.2	12.1	12.0	12.2	8.4	11.9	6.5
<b>Oct.</b>	13.3	12.8	12.4	12.4	12.6	12.3	8.4	11.9	6.5
<b>Nov.</b>	13.3	12.9	12.6	12.4	12.2	12.6	8.7	12.2	6.5
<b>Dec.</b>	13.5	13.0	12.9	12.4	12.1	12.6	8.9	12.5	7.5
<b>1990</b>									
<b>Jan.</b>	13.5	13.0	12.7	12.7	12.9	12.4	8.7	12.0	.

## 4. RATES OF EXCHANGE

### 4.1 AVERAGE SPOT SELLING RATES, FIM

Average of daily quotations	New York	Montreal	London	Dublin	Stockholm	Oslo	Copenhagen	Frankfurt a.M.	Amsterdam	Brussels	
	1 USD	1 CAD	1 GBP	1 IEP	1 SEK	1 NOK	1 DKK	1 DEM	1 NLG	1 BEC	1 BEL
	1	2	3	4	5	6	7	8	9	10	11
<b>1985</b>	6.206	4.554	8.000	6.590	0.7222	0.7231	0.5871	2.1142	1.8745	0.10483	0.10421
<b>1986</b>	5.077	3.659	7.459	6.816	0.7138	0.6882	0.6290	2.3454	2.0789	0.11399	0.11299
<b>1987</b>	4.404	3.325	7.213	6.556	0.6952	0.6547	0.6444	2.4514	2.1755	0.11806	0.11735
<b>1988</b>	4.191	3.412	7.466	6.397	0.6848	0.6444	0.6235	2.3895	2.1233	0.11421	0.11345
<b>1989</b>	4.295	3.632	7.051	6.104	0.6673	0.6234	0.5886	2.2879	2.0281	0.10925	0.10894
<b>1989</b>											
<b>Feb.</b>	4.299	3.623	7.550	6.206	0.6814	0.6411	0.5974	2.3231	2.0578	0.11091	0.11045
<b>March</b>	4.302	3.604	7.393	6.170	0.6756	0.6347	0.5925	2.3084	2.0459	0.11026	0.10982
<b>April</b>	4.197	3.534	7.149	6.001	0.6605	0.6190	0.5776	2.2465	1.9913	0.10737	0.10691
<b>May</b>	4.347	3.650	7.090	5.975	0.6618	0.6187	0.5737	2.2325	1.9805	0.10672	0.10639
<b>June</b>	4.437	3.706	6.899	5.985	0.6643	0.6183	0.5757	2.2397	1.9884	0.10708	0.10681
<b>July</b>	4.278	3.602	6.947	6.043	0.6622	0.6164	0.5818	2.2601	2.0043	0.10803	0.10786
<b>Aug.</b>	4.348	3.703	6.950	6.036	0.6657	0.6186	0.5814	2.2582	2.0029	0.10802	0.10782
<b>Sept.</b>	4.419	3.744	6.952	6.050	0.6698	0.6215	0.5830	2.2650	2.0088	0.10827	0.10803
<b>Oct.</b>	4.281	3.649	6.809	6.115	0.6648	0.6177	0.5892	2.2951	2.0326	0.10933	0.10897
<b>Nov.</b>	4.262	3.649	6.715	6.180	0.6644	0.6190	0.6001	2.3302	2.0648	0.11108	0.11089
<b>Dec.</b>	4.125	3.556	6.597	6.262	0.6569	0.6167	0.6107	2.3725	2.1016	0.11294	0.11289
<b>1990</b>											
<b>Jan.</b>	4.010	3.431	6.632	6.270	0.6508	0.6139	0.6117	2.3708	2.1018	0.11317	0.11315
<b>Feb.</b>	3.960	3.315	6.724	6.277	0.6482	0.6129	0.6128	2.3635	2.0966	0.11322	0.11320

Average of daily quotations	Zurich	Paris	Rome	Vienna	Lisbon	Reykjavik	Madrid	Tokyo	Moscow	Melbourne	ECU	SDR
	1 CHF	1 FRF	1 ITL	1 ATS	1 PTE	1 ISK	1 ESP	1 JPY	1 SUR	1 AUD	1 XEU	1 XDR
	12	13	14	15	16	17	18	19	20	21	22	23
<b>1985</b>	2.5360	0.6940	0.00327	0.3012	0.0367	0.1520	0.0366	0.02610	7.419	..	..	6.27879
<b>1986</b>	2.8349	0.7355	0.00343	0.3339	0.0343	0.1259	0.0364	0.03028	7.228	..	..	5.94432
<b>1987</b>	2.9563	0.7345	0.00341	0.3488	0.0315	0.1163	0.0358	0.03050	6.965	3.106	5.075	5.68010
<b>1988</b>	2.8700	0.7060	0.00324	0.3401	0.0294	0.1006	0.0361	0.03273	6.891	3.309	4.954	5.61826
<b>1989</b>	2.6306	0.6757	0.00315	0.3254	0.0276	0.0782	0.0364	0.03122	6.817	3.423	4.731	5.49375
<b>1989</b>												
<b>Feb.</b>	2.7314	0.6838	0.00319	0.3305	0.0286	0.0870	0.0373	0.03369	6.943	3.704	4.838	5.64865
<b>March</b>	2.6830	0.6824	0.00316	0.3284	0.0283	0.0842	0.0372	0.03305	6.896	3.530	4.801	5.60538
<b>April</b>	2.5518	0.6659	0.00308	0.3195	0.0275	0.0819	0.0363	0.03181	6.702	3.395	4.672	5.44433
<b>May</b>	2.5138	0.6615	0.00308	0.3176	0.0273	0.0814	0.0359	0.03151	6.770	3.374	4.644	5.48599
<b>June</b>	2.5942	0.6616	0.00310	0.3185	0.0271	0.0789	0.0351	0.03079	6.831	3.367	4.639	5.49166
<b>July</b>	2.6243	0.6679	0.00314	0.3214	0.0273	0.0762	0.0361	0.03047	6.759	3.260	4.678	5.42928
<b>Aug.</b>	2.6201	0.6700	0.00316	0.3211	0.0273	0.0751	0.0362	0.03079	6.821	3.336	4.678	5.47435
<b>Sept.</b>	2.6202	0.6723	0.00316	0.3220	0.0273	0.0740	0.0363	0.03047	6.870	3.435	4.694	5.49998
<b>Oct.</b>	2.6260	0.6776	0.00314	0.3263	0.0272	0.0717	0.0362	0.03014	6.801	3.338	4.710	5.43586
<b>Nov.</b>	2.6348	0.6868	0.00319	0.3312	0.0273	0.0705	0.0367	0.02971	6.799	3.359	4.765	5.43347
<b>Dec.</b>	2.6339	0.6959	0.00321	0.3371	0.0273	0.0691	0.0369	0.02872	6.716	3.263	4.810	5.35882
<b>1990</b>												
<b>Jan.</b>	2.6457	0.6980	0.00319	0.3371	0.0272	0.0684	0.0367	0.02768	6.640	3.159	4.812	5.27623
<b>Feb.</b>	2.6625	0.6975	0.00320	0.3359	0.0271	0.0684	0.0367	0.02723	6.591	3.029	4.829	5.24250

## 4.2 CURRENCY INDICES, 1982=100

Average of daily observations	Bank of Finland currency index	Other currency indices		Currency	Weights of the Bank of Finland currency index As from January 2, 1990
		Payments currency index	MERM index		
	1	2	3		4
<b>1985</b>	102.5	109.4	112.5	<b>USD</b>	8.4
<b>1986</b>	103.9	106.3	110.4	<b>GBP</b>	13.6
<b>1987</b>	103.3	103.2	106.1	<b>SEK</b>	19.1
<b>1988</b>	102.0	101.0	104.7	<b>NOK</b>	3.8
<b>1989</b>	98.4	98.4	102.8	<b>DKK</b>	4.4
				<b>DEM</b>	19.1
<b>1989</b>				<b>NLG</b>	4.8
<b>Feb.</b>	101.0	100.5	105.2	<b>BEC</b>	3.1
<b>March</b>	100.1	99.8	104.4	<b>CHF</b>	2.4
<b>April</b>	97.4	97.1	101.6	<b>FRF</b>	6.5
<b>May</b>	97.3	97.6	102.4	<b>ITL</b>	5.0
<b>June</b>	97.2	97.9	102.8	<b>ATS</b>	1.6
<b>July</b>	97.4	97.5	101.7	<b>ESP</b>	1.9
<b>Aug.</b>	97.7	98.0	102.6	<b>JPY</b>	6.3
<b>Sept.</b>	98.0	98.6	103.1		
<b>Oct.</b>	97.7	97.8	102.0		
<b>Nov.</b>	98.1	98.1	102.1		
<b>Dec.</b>	97.9	97.6	100.9		
<b>1990</b>					
<b>Jan.</b>	97.2	96.7	99.2		
<b>Feb.</b>	97.1	96.4	98.4		

## 5. OTHER DOMESTIC FINANCING

### 5.1 BANK DEPOSITS BY THE PUBLIC, MILL. FIM

End of period	Demand deposits	Time deposits	Investment accounts	Markka deposits, total (1+2+3)	Foreign currency deposits	Unregulated deposits	Total deposits (4+5+6)
	1	2	3	4	5	6	7
<b>1984</b>	16 975	108 118	.	125 093	4 960	11 287	141 340
<b>1985</b>	19 268	125 366	1 781	146 415	6 184	13 998	166 597
<b>1986</b>	18 393	137 521	3 423	159 337	4 259	17 271	180 866
<b>1987</b>	20 377	155 115	5 243	180 735	3 915	17 892	202 542
<b>1988*</b>	24 831	194 181	5 089	224 102	4 561	41 028	269 690
<b>1988*</b>							
<b>Nov.</b>	23 389	171 714	6 602	201 706	4 936	44 564	251 206
<b>Dec.</b>	24 831	194 181	5 089	224 102	4 561	41 028	269 690
<b>1989*</b>							
<b>Jan.</b>	24 190	194 308	5 842	224 340	4 526	48 256	277 122
<b>Feb.</b>	26 225	194 930	6 433	227 588	4 900	48 346	280 834
<b>March</b>	25 618	193 825	6 932	226 375	4 660	51 153	282 187
<b>April</b>	25 872	195 207	7 408	228 487	5 323	55 898	289 707
<b>May</b>	26 969	194 708	7 672	229 349	5 627	51 275	286 250
<b>June</b>	29 176	196 927	8 080	234 182	6 499	57 898	298 580
<b>July</b>	29 608	195 487	8 371	233 465	6 745	58 715	298 925
<b>Aug.</b>	28 191	195 844	8 612	232 647	6 633	62 039	301 319
<b>Sept.</b>	27 588	196 169	9 219	232 975	6 235	67 515	306 724
<b>Oct.</b>	28 296	195 743	9 667	233 706	6 550	70 701	310 956
<b>Nov.</b>	27 687	195 226	9 913	232 825	6 612	79 346	318 784

### 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>1984</b>	5 233	7 644	111 280	124 157	20 363	144 520
<b>1985</b>	6 313	7 471	132 668	146 451	24 236	170 687
<b>1986</b>	7 542	6 354	152 335	166 231	24 450	190 681
<b>1987</b>	8 507	5 177	178 698	192 382	36 475	228 857
<b>1988*</b>	11 358	5 920	234 268	251 545	49 910	301 455
<b>1988*</b>						
<b>Nov.</b>	10 898	4 902	221 029	236 830	48 213	285 043
<b>Dec.</b>	11 358	5 920	234 268	251 545	49 910	301 455
<b>1989*</b>						
<b>Jan.</b>	11 765	5 334	237 089	254 188	52 726	306 914
<b>Feb.</b>	11 783	5 044	239 517	256 345	56 193	312 537
<b>March</b>	12 595	5 122	241 517	259 234	55 929	315 163
<b>April</b>	12 836	5 129	240 945	258 910	57 233	316 143
<b>May</b>	12 926	5 195	246 520	264 641	59 553	324 194
<b>June</b>	13 422	5 347	248 921	267 691	60 671	328 362
<b>July</b>	14 052	5 305	250 961	270 318	59 621	329 939
<b>Aug.</b>	13 931	5 358	253 401	272 691	60 892	333 582
<b>Sept.</b>	14 691	5 436	256 014	276 141	62 836	338 977
<b>Oct.</b>	15 190	5 471	256 958	277 619	63 133	340 752
<b>Nov.</b>	15 584	5 465	257 252	278 300	64 932	343 232

### 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)
		Claims on the central government	Claims on the public	Total (2+3)			
	1	2	3	4	5	6	7
<b>1984</b>	-2 575	-5 483	176 694	171 211	-26 978	24 945	141 658
<b>1985</b>	-6 641	-8 694	209 231	200 537	-27 244	27 694	166 652
<b>1986</b>	-16 784	-13 884	237 514	223 630	-27 522	27 838	179 324
<b>1987</b>	-25 484	-14 977	277 068	262 090	-36 145	30 342	200 461
<b>1988*</b>	-40 670	-15 691	351 266	335 574	-48 866	35 232	246 039
<b>1988*</b>							
<b>Nov.</b>	-38 919	-16 343	333 845	317 502	-54 941	33 856	223 642
<b>Dec.</b>	-40 670	-15 691	351 266	335 574	-48 866	35 232	246 039
<b>1989*</b>							
<b>Jan.</b>	-40 982	-13 442	358 025	344 583	-57 465	34 954	246 137
<b>Feb.</b>	-41 631	-13 958	364 209	350 252	-58 621	37 294	250 000
<b>March</b>	-43 785	-16 112	368 268	352 156	-59 424	36 810	248 947
<b>April</b>	-45 413	-13 377	372 511	359 134	-61 684	37 559	252 037
<b>May</b>	-47 950	-10 575	377 748	367 173	-65 853	38 966	253 370
<b>June</b>	-50 499	-11 982	384 021	372 039	-58 889	42 526	262 651
<b>July</b>	-49 924	-13 556	385 135	371 579	-59 946	41 333	261 708
<b>Aug.</b>	-51 975	-14 549	390 251	375 703	-62 613	40 017	261 115
<b>Sept.</b>	-53 458	-15 401	396 312	380 911	-66 143	39 625	261 310
<b>Oct.</b>	-55 551	-15 567	399 696	384 128	-66 557	40 176	262 020
<b>Nov.</b>	-57 974	-18 766	403 920	385 154	-65 808	39 730	261 372

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

End of period	Foreign debt				Domestic debt				Total central government debt (4+8)	Out-standing lending	Cash funds
	Bonds	Other bonds and debentures	Long-term promissory notes	Total (1+2+3)	Public bonds	Other long-term liabilities	Treasury notes and bills	Total (5+6+7)			
	1	2	3	4	5	6	7	8	9	10	11
<b>1985</b>	17 316	2 703	5 658	25 677	14 994	4 107	2 203	21 304	46 981	36 032	6 383
<b>1986</b>	17 905	3 038	6 038	26 981	18 059	4 481	2 474	25 013	51 994	38 028	11 686
<b>1987</b>	20 407	2 697	5 576	28 680	22 121	4 692	3 018	29 831	58 511	40 035	11 553
<b>1988</b>	20 202	1 804	4 273	26 279	24 243	5 272	2 290	31 805	58 084	42 990	15 858
<b>1989</b>	18 505	852	3 429	22 786	24 126	5 750	250	30 126	52 912	..	..
<b>1989</b>											
<b>Jan.</b>	20 208	1 790	4 216	26 214	23 563	5 261	2 130	30 954	57 168	43 474	13 022
<b>Feb.</b>	19 999	1 486	4 158	25 643	23 877	5 225	1 930	31 032	56 675	43 932	13 926
<b>March</b>	19 285	1 234	3 893	24 412	24 399	5 219	1 630	31 248	55 660	44 013	17 893
<b>April</b>	18 236	1 219	3 678	23 133	24 508	4 975	1 280	30 763	53 896	44 313	15 128
<b>May</b>	19 333	1 239	3 564	24 136	24 351	4 806	980	30 137	54 273	44 418	14 374
<b>June</b>	18 759	1 249	3 400	23 408	24 539	4 810	780	30 129	53 537	44 595	14 598
<b>July</b>	18 587	1 229	3 370	23 186	24 526	4 812	660	29 998	53 184	44 848	16 701
<b>Aug.</b>	18 809	1 166	3 390	23 365	24 352	4 798	420	29 570	52 935	44 786	17 363
<b>Sept.</b>	18 764	1 160	3 377	23 301	24 404	4 799	280	29 483	52 784	45 032	17 846
<b>Oct.</b>	18 591	1 138	3 385	23 114	23 998	4 801	250	29 049	52 163	45 371	17 788
<b>Nov.</b>	18 601	853	3 319	22 773	23 988	4 798	250	29 036	51 809	45 471	21 445
<b>Dec.</b>	18 505	852	3 429	22 786	24 126	5 750	250	30 126	52 912	45 390	..
<b>1990</b>											
<b>Jan.</b>	18 353	851	3 350	22 554	23 328	5 747	100	29 175	51 729	..	..

## 5.5 DOMESTIC 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 placings	
						Taxable	Taxfree		
	1	2	3	4	5	6	7	8	9
<b>1985</b>	4 799	9 112	5 994	435	33	8 070	6 394	5 909	20 373
<b>1986</b>	4 976	10 638	6 532	422	105	5 987	7 487	9 199	22 674
<b>1987</b>	4 477	9 510	8 119	206	69	9 409	8 830	4 142	22 380
<b>1988</b>	3 027	8 418	6 889	268	61	7 861	6 522	4 280	18 663
<b>1989<sup>*</sup></b>	4 204	11 022	5 717	233	13	11 146	2 997	7 046	21 189
<b>1989<sup>*</sup></b>									
<b>Jan.</b>	738	1 361	1 075	47	—	1 194	1 293	734	3 221
<b>Feb.</b>	153	1 403	1 800	7	—	2 683	400	280	3 362
<b>March</b>	611	1 218	—	6	—	1 067	381	386	1 835
<b>April</b>	274	553	982	13	—	575	—	1 247	1 822
<b>May</b>	353	450	450	56	—	495	450	363	1 308
<b>June</b>	502	2 407	—	15	—	917	—	2 008	2 924
<b>July</b>	58	100	—	8	3	100	—	69	169
<b>Aug.</b>	247	103	450	35	—	507	200	128	835
<b>Sept.</b>	789	663	800	7	3	1 210	273	779	2 262
<b>Oct.</b>	72	1 040	160	8	7	974	—	313	1 287
<b>Nov.</b>	150	875	—	23	—	761	—	288	1 048
<b>Dec.</b>	258	850	—	9	—	665	—	452	1 117
<b>1990<sup>*</sup></b>									
<b>Jan.</b>	399	818	—	—	—	110	—	1 107	1 217

### B) STOCK, MILL. FIM

End of period	By sector					By type of loan			Total (1+2+3+4+5) = (6+7+8)
	Corporations	Financial institutions	Central government	Local government	Others	Public issues		Private placings	
						Taxable	Taxfree		
	1	2	3	4	5	6	7	8	9
<b>1984</b>	6 766	19 960	14 904	247	43	3 531	15 148	23 242	41 921
<b>1985</b>	10 482	26 173	18 575	661	56	10 967	19 002	25 977	55 947
<b>1986</b>	14 075	31 902	22 091	1 042	177	16 432	23 314	29 541	69 287
<b>1987</b>	17 509	36 773	26 518	1 200	232	24 831	28 229	29 172	82 232
<b>1988<sup>*</sup></b>	19 222	42 927	28 953	1 412	292	31 970	30 064	30 771	92 805
<b>1988<sup>*</sup></b>									
<b>III</b>	18 407	40 650	28 478	1 416	246	29 804	29 588	29 805	89 197
<b>IV</b>	19 222	42 927	28 953	1 412	292	31 970	30 064	30 771	92 805
<b>1989<sup>*</sup></b>									
<b>I</b>	20 237	46 069	28 907	1 417	392	35 733	29 416	31 874	97 023
<b>II</b>	20 675	49 118	28 907	1 473	384	37 747	29 384	33 426	100 557
<b>III</b>	21 657	49 328	29 308	1 499	389	39 255	29 487	33 439	102 181



## 5.6 HELSINKI STOCK EXCHANGE

During period	Turnover, mill.FIM			Share prices Unitas index <sup>1</sup> , 1975 = 100		
	Shares and subscription rights	Bonds and debentures	Total (1+2)	Banks	Industry	Overall index
	1	2	3	4	5	6
<b>1985</b>	3 114	9 046	12 160	184	234	229
<b>1986</b>	9 488	6 479	15 968	254	357	350
<b>1987</b>	26 641	4 604	31 245	319	603	546
<b>1988</b>	31 734	5 718	37 452	404	734	677
<b>1989</b>	33 160	7 375	40 536	441	793	742
<b>1989</b>						
<b>Jan.</b>	2 622	314	2 936	439	792	736
<b>Feb.</b>	5 491	883	6 373	447	829	771
<b>March</b>	4 530	463	4 993	467	838	784
<b>April</b>	3 520	171	3 691	489	854	807
<b>May</b>	2 861	367	3 228	482	851	801
<b>June</b>	2 016	268	2 283	486	844	796
<b>July</b>	1 344	303	1 647	473	823	776
<b>Aug.</b>	3 198	1 171	4 370	466	829	776
<b>Sept.</b>	2 265	400	2 665	429	786	732
<b>Oct.</b>	1 304	689	1 993	397	727	677
<b>Nov.</b>	1 081	876	1 957	369	674	627
<b>Dec.</b>	2 929	1 471	4 400	354	669	619
<b>1990</b>						
<b>Jan.</b>	4 475	709	5 184	332	701	633

<sup>1</sup> Average of daily observations.

## 6. BALANCE OF PAYMENTS, FOREIGN LIABILITIES AND ASSETS

### 6.1 CURRENT ACCOUNT, MILL. FIM

During period	Exports of goods, f.o.b.	Trans- port receipts	Travel receipts	Other services receipts	Services receipts, total (2+3+4)	Exports of goods and services (1+5)	Invest- ment income	Trans- fers and other income	Current account receipts (6+7+8) c.i.f.	Imports of goods, c.i.f.	Trans- port ex- pend- iture	Travel ex- pend- iture	Other services ex- pend- iture
	1	2	3	4	5	6	7	8	9	10	11	12	13
<b>1985</b>	82 475	6 216	3 258	6 224	15 698	98 173	5 847	3 791	107 811	80 764	2 545	5 031	6 554
<b>1986</b>	81 066	5 757	3 195	5 616	14 568	95 634	4 510	3 609	103 752	76 736	2 160	5 587	5 415
<b>1987</b>	83 826	6 370	3 736	6 099	16 204	100 030	5 075	3 231	108 336	81 867	2 610	6 811	6 488
<b>1988*</b>	91 299	7 146	4 257	6 333	17 736	109 035	7 752	3 396	120 183	91 234	3 576	7 913	7 500
<b>1989*</b>	98 200	7 900	4 500	6 800	19 200	117 400	10 000	4 200	131 600	104 500	3 900	9 000	8 300
<b>1987</b>													
<b>III</b>	20 849	1 698	1 339	1 573	4 610	25 459	1 115	781	27 355	20 258	670	1 915	1 467
<b>IV</b>	21 638	1 554	808	1 890	4 252	25 890	1 659	777	28 325	21 573	694	1 741	2 019
<b>1988*</b>													
<b>I</b>	20 513	1 663	777	1 511	3 951	24 464	1 804	818	27 086	19 684	715	1 830	2 041
<b>II</b>	22 565	1 828	1 041	1 456	4 325	26 890	1 781	864	29 535	23 185	831	1 917	1 760
<b>III</b>	21 617	1 913	1 486	1 518	4 916	26 533	1 944	883	29 361	23 769	1 013	2 210	1 813
<b>IV</b>	26 603	1 743	954	1 848	4 544	31 148	2 223	831	34 201	24 597	1 017	1 956	1 886
<b>1989*</b>													
<b>I</b>	24 904	1 884	865	1 706	4 454	29 358	2 323	942	32 623	24 320	753	2 081	2 286
<b>II</b>	23 331	2 009	1 100	1 525	4 634	27 965	2 271	1 033	31 269	24 803	905	2 230	2 000
<b>III</b>	22 594	2 115	1 494	1 663	5 272	27 866	2 525	1 114	31 505	25 584	1 128	2 494	2 050
<b>IV</b>	27 371	1 892	1 041	1 907	4 840	32 211	2 881	1 112	36 203	29 793	1 113	2 195	1 963

During period	Services expendi- ture, total (11+12 +13)	Imports of goods and services (10+14)	Invest- ment ex- pend- iture	Trans- fers and other ex- pend- iture	Current account expen- diture (15+16 +17)	Trade account (1-10)	Trans- port (2-11)	Travel (3-12)	Other services (4-13)	Services account and account net (20+21 +22)	Goods and services account net (19+23)	Invest- ment income, others, net (7-16)	Trans- fers and account net (8-17)	Current account (24+25 +26)=
	14	15	16	17	18	19	20	21	22	23	24	25	26	27
<b>1985</b>	14 130	94 893	12 134	5 300	112 327	1 711	3 671	-1 773	-330	1 568	3 279	-6 287	-1 509	-4 517
<b>1986</b>	13 162	89 898	11 719	5 964	107 580	4 329	3 597	-2 392	201	1 406	5 735	-7 209	-2 355	-3 828
<b>1987</b>	15 909	97 775	12 617	5 860	116 251	1 960	3 760	-3 075	-390	296	2 255	-7 542	-2 629	-7 915
<b>1988*</b>	18 989	110 223	15 769	6 771	132 763	64	3 570	-3 656	-1 167	-1 252	-1 188	-8 017	-3 375	-12 580
<b>1988*</b>	21 200	125 700	19 500	7 400	152 600	-6 300	4 000	-4 500	-1 500	-2 000	-8 300	-9 500	-3 200	-21 000
<b>1987</b>														
<b>III</b>	4 052	24 310	2 660	1 303	28 274	591	1 028	-576	106	558	1 149	-1 545	-522	-919
<b>IV</b>	4 455	26 027	3 431	1 523	30 982	65	860	-933	-129	-203	-138	-1 773	-747	-2 657
<b>1988*</b>														
<b>I</b>	4 585	24 269	3 882	1 919	30 070	828	948	-1 053	-529	-634	194	-2 077	-1 100	-2 983
<b>II</b>	4 508	27 692	3 863	1 501	33 056	-619	997	-876	-304	-183	-802	-2 082	-637	-3 521
<b>III</b>	5 037	28 805	3 511	1 503	33 819	-2 151	900	-725	-296	-120	-2 272	-1 567	-620	-4 459
<b>IV</b>	4 859	29 456	4 514	1 848	35 818	2 007	725	-1 003	-38	-315	1 692	-2 291	-1 017	-1 617
<b>1989*</b>														
<b>I</b>	5 121	29 441	4 288	2 106	35 835	584	1 130	-1 216	-581	-666	-82	-1 965	-1 164	-3 212
<b>II</b>	5 135	29 938	5 076	1 735	36 749	-1 472	1 104	-1 130	-475	-501	-1 973	-2 805	-702	-5 480
<b>III</b>	5 672	31 256	4 772	1 676	37 704	-2 990	987	-1 000	-388	-401	-3 391	-2 247	-562	-6 199
<b>IV</b>	5 271	35 064	5 364	1 883	42 312	-2 422	779	-1 154	-56	-431	-2 853	-2 483	-772	-6 109

## 6.2 CAPITAL ACCOUNT, MILL. FIM

During period	Direct investment in Finland	Portfolio investment in Finland	Long-term credits				Imports of other long-term capital	Imports of long-term capital (1+2+6+7)	Direct investment abroad	Portfolio investment abroad	Long-term export credits	Exports of other long-term capital	Exports of long-term capital (9+10+11+12)	Long-term capital account (8-13)
			Central government	Author-ized banks	Others	Total (3+4+5)								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<b>1985</b>	392	4 264	1 556	1 489	442	3 487	140	8 283	2 073	1 329	-1 313	1 026	3 115	5 168
<b>1986</b>	1 627	646	-63	5 935	-482	5 390	87	7 750	3 641	2 347	-381	702	6 309	1 441
<b>1987</b>	424	179	2 284	5 700	2 526	10 510	91	11 204	3 741	3 294	158	3 103	10 296	908
<b>1988*</b>	1 164	-182	-1 690	9 796	9 076	17 182	85	18 249	7 935	1 307	675	1 899	11 816	6 433
<b>1989*</b>	1 353	991	-1 854	14 659	10 854	23 659	79	26 082	11 793	409	2 934	1 852	16 988	9 094
<b>1987</b>														
III	24	82	-1 019	945	549	475	12	593	682	519	106	82	1 389	-796
IV	51	-30	2 108	1 471	-157	3 422	55	3 498	1 346	360	-65	482	2 123	1 376
<b>1988*</b>														
I	63	6	-857	361	3 230	2 734	89	2 892	1 113	245	6	572	1 936	956
II	313	-212	1 171	2 356	1 599	5 126	-42	5 185	2 972	344	180	431	3 927	1 258
III	107	-43	-1 571	3 011	885	2 325	-19	2 370	1 677	375	89	380	2 521	-151
IV	681	67	-433	4 068	3 362	6 997	57	7 802	2 173	343	400	515	3 431	4 371
<b>1989*</b>														
I	-165	706	-141	5 951	2 199	8 009	42	8 592	3 173	-372	1 395	1 057	5 253	3 339
II	176	-256	-1 197	1 491	2 951	3 245	-22	3 143	1 785	430	543	160	2 918	225
III	484	495	-93	2 452	1 938	4 297	-16	5 260	3 237	333	225	158	3 953	1 307
IV	858	46	-423	4 765	3 766	8 108	75	9 087	3 598	18	771	478	4 865	4 222

During period	Basic balance	Short-term capital imports of au- thorized banks	Import liabilities and prepay- ments related to ex- ports	Imports of short- term capital (16+17)	Short- term capital exports of au- thorized banks	Export receiv- ables and prepay- ments related to imports	Exports of short- term capital (19+20)	Other short- term capital incl. errors and omissions	Short-term capital account (18-21+22)	Overall balance exd. reserve movements (15+23)	Change in central bank's foreign ex- change reserves (26+27)	Of which:	
												Convertible reserves	Tied reserves
	15	16	17	18	19	20	21	22	23	24	25	26	27
<b>1985</b>	651	6 890	350	7 240	323	1 732	2 055	-2 092	3 093	3 744	-3 744	-3 729	-15
<b>1986</b>	-2 387	6 019	-3 796	2 222	9 933	-92	9 841	2 075	-5 544	-7 930	7 930	11 678	-3 748
<b>1987</b>	-7 007	19 324	-665	18 659	-7 343	-183	-7 526	-3 442	22 743	15 736	-15 736	-17 817	2 081
<b>1988*</b>	-6 147	10 695	-1 061	9 634	5 970	644	6 614	3 309	6 330	183	-183	-517	334
<b>1989*</b>	-11 906	9 371	2 713	12 084	7 371	-1 287	6 084	-55	5 945	-5 961	5 961	4 455	1 506
<b>1987</b>													
III	-1 714	8 738	-355	8 383	3 494	27	3 521	-2 512	2 351	637	-637	-2 407	1 771
IV	-1 281	-763	-1 468	-2 230	-6 436	27	-6 410	-271	3 908	2 627	-2 627	-2 820	193
<b>1988*</b>													
I	-2 028	6 501	-1 604	4 897	2 966	-692	2 274	1 745	4 368	2 341	-2 341	-1 295	-1 046
II	-2 264	11 731	537	12 268	4 363	-692	3 671	-1 615	6 982	4 718	-4 718	-4 662	-57
III	-4 610	-547	854	308	3 405	1 014	4 419	1 634	-2 478	-7 088	7 088	6 337	751
IV	2 755	-6 990	-849	-7 838	-4 764	1 014	-3 750	1 546	-2 543	212	-212	-897	685
<b>1989*</b>													
I	127	6 707	-384	6 323	4 685	71	4 756	126	1 693	1 820	-1 820	-1 372	-449
II	-5 255	9 788	-2 136	7 652	4 648	72	4 720	1 148	4 080	-1 174	1 174	152	1 022
III	-4 892	4 629	1 447	6 076	4 747	-230	4 517	346	1 905	-2 987	2 987	1 802	1 185
IV	-1 886	-11 753	3 786	-7 967	-6 708	-1 200	-7 908	-1 675	-1 734	-3 620	3 620	3 873	-253

### 6.3 FINLAND'S FOREIGN LIABILITIES AND ASSETS, MILL. FIM

End of period	Long-term liabilities							Long-term assets					Long-term debt, net (8-13)	
	Direct investment in Finland	Portfolio investment in Finland	Long-term credits			Other long-term capital	Total (1+2+6+7)	Direct investment abroad	Portfolio investment abroad	Long-term export credits	Other long-term capital	Total (9+10+11+12)		
			Central government	Authorized banks	Others									Total (3+4+5)
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<b>1985</b>	3 274	6 313	25 678	6 410	34 276	66 364	652	76 603	10 524	2 350	6 539	3 053	22 466	54 137
<b>1986</b>	4 892	7 992	26 292	11 992	32 044	70 330	739	83 953	13 727	4 697	5 649	3 685	27 758	56 195
<b>1987</b>	5 285	7 055	27 861	17 365	33 088	78 314	830	91 483	16 651	7 991	5 240	6 618	36 500	54 983
<b>1988*</b>	6 438	7 251	26 011	27 427	41 787	95 226	915	109 830	24 564	9 298	6 686	8 555	49 103	60 727
<b>1989*</b>	7 773	8 242	23 118	39 946	51 211	114 275	994	131 284	35 647	9 707	9 501	10 379	65 234	66 050
<b>1987</b>														
<b>III</b>	5 243	10 141	25 627	15 825	33 511	74 963	775	91 122	15 633	7 631	5 571	6 229	35 064	56 058
<b>IV</b>	5 285	7 055	27 861	17 365	33 088	78 314	830	91 483	16 651	7 991	5 240	6 618	36 500	54 983
<b>1988*</b>														
<b>I</b>	5 340	7 105	26 637	17 594	35 883	80 114	919	93 478	17 730	8 236	5 248	7 183	38 397	55 081
<b>II</b>	5 664	6 893	28 390	20 464	38 232	87 084	877	100 518	21 168	8 580	5 685	7 712	43 145	57 373
<b>III</b>	5 768	6 850	26 991	23 697	39 248	89 935	858	103 411	22 852	8 955	5 787	8 122	45 716	57 695
<b>IV</b>	6 438	7 251	26 011	27 427	41 787	95 226	915	109 830	24 564	9 298	6 686	8 555	49 103	60 727
<b>1989*</b>														
<b>I</b>	6 233	7 957	25 357	32 799	43 289	101 448	957	116 595	25 355	8 926	8 025	9 590	51 896	64 699
<b>II</b>	6 421	7 701	24 178	34 097	46 669	104 943	935	120 000	28 044	9 356	8 674	9 794	55 868	64 132
<b>III</b>	6 740	8 196	23 893	36 200	48 032	108 124	919	123 979	30 773	9 689	8 830	9 933	59 225	64 754
<b>IV</b>	7 773	8 242	23 118	39 946	51 211	114 275	994	131 284	35 647	9 707	9 501	10 379	65 234	66 050

End of period	Short-term liabilities				Short-term assets				Short-term liabilities, net (18-22)	Debt, net (14+23)	Debt service payments	Of which: repayments	Debt service ratio
	Bank of Finland's short-term liabilities	Short-term liabilities of authorized banks	Trade credits and other liabilities	Total (15+16+17)	Bank of Finland's short-term assets	Short-term assets of authorized banks	Trade credits and other assets	Total (19+20+21)					
	15	16	17	18	19	20	21	22	23	24	25	26	27
<b>1985</b>	4 070	51 374	17 474	72 918	25 183	36 208	18 450	79 841	-6 922	47 215	11 287	4 808	10.5
<b>1986</b>	3 455	56 881	14 483	74 819	16 613	46 141	19 279	82 034	-7 215	48 980	13 462	6 018	13.0
<b>1987</b>	3 362	73 132	16 898	93 392	31 134	38 798	18 060	87 993	5 400	60 383	14 203	6 516	13.1
<b>1988*</b>	3 341	83 828	15 257	102 426	32 037	44 768	20 830	97 635	4 791	65 518	14 240	6 146	11.8
<b>1989*</b>	3 558	93 199	19 701	116 458	25 113	52 139	21 327	98 579	17 879	83 929	13 594	3 998	10.3
<b>1987</b>													
<b>III</b>	3 607	75 547	18 654	97 808	29 291	45 235	18 009	92 535	5 273	61 331	2 771	1 217	10.1
<b>IV</b>	3 362	73 132	16 898	93 392	31 134	38 798	18 060	87 993	5 400	60 383	4 236	2 392	15.0
<b>1988*</b>													
<b>I</b>	3 467	79 633	14 083	97 183	33 515	41 764	18 164	93 443	3 740	58 821	3 530	1 433	13.0
<b>II</b>	3 177	91 364	14 662	109 203	39 025	46 127	16 986	102 138	7 065	64 438	3 326	1 225	11.3
<b>III</b>	3 539	90 817	16 773	111 129	32 750	49 532	19 678	101 960	9 169	66 864	3 980	2 394	13.6
<b>IV</b>	3 341	83 828	15 257	102 426	32 037	44 768	20 830	97 635	4 791	65 581	3 404	1 094	10.0
<b>1989*</b>													
<b>I</b>	3 278	90 535	15 973	109 786	33 376	49 453	20 905	103 734	6 051	70 750	3 227	1 238	9.9
<b>II</b>	3 136	100 323	14 656	118 115	32 142	54 101	22 149	108 392	9 723	73 855	4 581	1 752	14.6
<b>III</b>	3 919	104 952	16 212	125 082	29 839	58 848	22 139	110 826	14 257	79 011	3 027	756	9.6
<b>IV</b>	3 558	93 199	19 701	116 458	25 113	52 139	21 327	98 579	17 879	83 929	2 759	252	7.6

6.4 FINLAND'S LONG-TERM FOREIGN LIABILITIES AND ASSETS, BY SECTOR, MILL. FIM

End of period	Long-term liabilities					Long-term assets					Long-term liabilities, net (5-10)
	Corporate sector	Financial institutions	Central government	Local government	Total (1+2+3+4)	Corporate sector	Financial institutions	Central government	Other	Total (6+7+8+9)	
	1	2	3	4	5	6	7	8	9	10	11
<b>1985</b>	35 709	13 980	26 330	585	76 603	17 102	3 131	1 955	279	22 466	54 137
<b>1986</b>	36 243	20 169	27 031	509	83 953	19 209	5 721	2 309	520	27 758	56 195
<b>1987</b>	35 549	26 734	28 691	511	91 483	23 377	9 740	2 653	730	36 500	54 983
<b>1988*</b>	41 278	41 127	26 926	499	109 830	31 170	12 977	3 101	1 855	49 103	60 727
<b>1989*</b>	50 013	56 584	24 112	575	131 284	42 393	16 339	3 651	2 851	65 234	66 050
<b>1987</b>											
<b>III</b>	38 943	25 240	26 402	538	91 122	22 571	9 297	2 519	677	35 064	56 058
<b>IV</b>	35 549	26 734	28 691	511	91 483	23 377	9 740	2 653	730	36 500	54 983
<b>1988*</b>											
<b>I</b>	37 322	28 095	27 556	506	93 478	23 808	10 716	2 851	1 023	38 397	55 081
<b>II</b>	39 278	31 463	29 267	513	100 518	27 482	11 455	2 887	1 322	43 145	57 373
<b>III</b>	39 353	35 695	27 849	514	103 411	29 354	11 830	2 938	1 594	45 716	57 695
<b>IV</b>	41 278	41 127	26 926	499	109 830	31 170	12 977	3 101	1 855	49 103	60 727
<b>1989*</b>											
<b>I</b>	41 786	47 978	26 314	515	116 595	32 212	14 288	3 299	2 097	51 896	64 699
<b>II</b>	42 941	51 447	25 113	501	120 000	35 327	14 978	3 331	2 232	55 868	64 132
<b>III</b>	45 454	53 224	24 812	491	123 979	37 332	15 906	3 374	2 613	59 225	64 754
<b>IV</b>	50 013	56 584	24 112	575	131 284	42 393	16 339	3 651	2 851	65 234	66 050

## 7. FOREIGN TRADE

### 7.1 EXPORTS, IMPORTS AND THE TRADE BALANCE, MILL. FIM

During period	Exports, f.o.b.	Imports, c.i.f.	Balance (1-2)
	1	2	3
<b>1985</b>	84 028	81 520	2 508
<b>1986</b>	82 579	77 601	4 978
<b>1987</b>	85 516	82 807	2 709
<b>1988</b>	92 902	92 118	784
<b>1989*</b>	99 799	105 304	-5 505
<b>1989<sup>1</sup></b>			
<b>Jan.</b>	8 260	8 251	9
<b>Feb.</b>	8 251	7 603	648
<b>March</b>	8 804	8 714	90
<b>April</b>	8 930	8 361	569
<b>May</b>	7 681	8 635	-954
<b>June</b>	7 145	8 032	-887
<b>July</b>	7 485	7 424	61
<b>Aug.</b>	7 885	9 858	-1 973
<b>Sept.</b>	7 553	8 596	-1 043
<b>Oct.</b>	10 390	10 873	-483
<b>Nov.</b>	9 431	9 920	-489
<b>Dec.</b>	7 978	9 018	-1 040
<b>1990*</b>			
<b>Jan.</b>	8 527	8 300	227

<sup>1</sup> Owing to certain technical difficulties during the summer months the figures for individual months of the foreign trade statistics compiled by the Board of Customs may contain inaccuracies. However, the cumulative total for January—December should not be unduly affected.

### 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>1985</b>	115	104	138	135	102
<b>1986</b>	116	110	135	121	111
<b>1987</b>	118	119	138	119	116
<b>1988</b>	121	130	145	122	119
<b>1989*</b>	121	143	156	126	124
<b>1989<sup>1</sup></b>					
<b>1987</b>					
<b>III</b>	116	116	140	121	115
<b>IV</b>	121	128	140	119	117
<b>1988</b>					
<b>I</b>	114	116	140	120	117
<b>II</b>	123	133	141	121	117
<b>III</b>	113	134	147	123	119
<b>IV</b>	136	137	150	124	121
<b>1989*</b>					
<b>I</b>	123	132	156	128	122
<b>II</b>	116	136	155	126	123
<b>III</b>	112	141	155	125	124
<b>IV</b>	134	161	157	126	125

### 7.3 FOREIGN TRADE BY MAIN GROUPS, MILL. FIM

During period	Exports by industries, f.o.b.					Imports by use of goods, c.i.f.				
	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>1985</b>	6 728	25 030	9 803	24 412	18 055	38 676	17 770	11 675	12 967	432
<b>1986</b>	6 947	24 600	7 858	26 115	17 059	39 292	10 070	12 898	15 069	272
<b>1987</b>	7 470	27 058	7 770	26 230	16 988	41 191	9 389	14 138	17 478	611
<b>1988</b>	7 567	30 474	8 450	29 225	17 186	45 791	7 533	17 274	20 828	692
<b>1989*</b>	7 419	32 523	8 843	32 686	18 328	51 733	8 283	20 467	24 060	761
<b>1989<sup>2</sup></b>										
<b>Jan.</b>	600	2 578	810	2 645	1 627	4 352	408	1 519	1 893	79
<b>Feb.</b>	604	2 621	832	2 704	1 490	3 832	515	1 315	1 912	29
<b>March</b>	624	2 953	761	2 775	1 691	4 375	574	1 495	2 246	24
<b>April</b>	660	2 728	673	3 308	1 561	4 102	540	1 626	1 962	131
<b>May</b>	669	2 712	633	2 198	1 469	4 173	678	1 825	1 833	126
<b>June</b>	598	2 518	587	1 991	1 451	3 926	595	1 791	1 706	14
<b>July</b>	551	2 510	737	2 471	1 216	3 527	925	1 447	1 517	8
<b>Aug.</b>	477	2 978	668	2 379	1 383	5 009	862	1 748	2 189	50
<b>Sept.</b>	597	2 598	648	2 223	1 487	3 941	753	1 778	2 003	121
<b>Oct.</b>	719	2 913	967	3 866	1 925	5 463	733	2 055	2 546	76
<b>Nov.</b>	700	2 859	844	3 318	1 710	4 697	903	1 996	2 284	40
<b>Dec.</b>	618	2 552	684	2 805	1 319	4 326	796	1 867	1 963	66
<b>1990*</b>										
<b>Jan.</b>	617	2 327	824	3 425	1 334	4 029	498	1 781	1 963	29

## 7.4 FOREIGN TRADE BY REGIONS AND COUNTRIES

Region and country	Exports, f.o.b.				Imports, c.i.f.			
	1989*		1990* January		1989*		1990* January	
	Mill. FIM	Percentage share	Mill. FIM	Percentage change from the corresponding period on 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>	75 501	75.7	6 669	1.8	82 732	78.6	6 615	-0.8
<b>OECD Europe</b>	64 400	64.5	5 105	-8.1	67 023	63.6	5 338	-0.6
Of which:								
Austria	1 175	1.2	104	16.6	1 295	1.2	101	5.0
Belgium and Luxembourg	1 947	2.0	153	-17.1	2 932	2.8	248	6.3
Denmark	3 257	3.3	263	-18.4	3 287	3.1	239	-3.4
France	5 453	5.5	502	5.2	4 417	4.2	411	27.7
Federal Republic of Germany	10 785	10.8	892	-0.3	18 234	17.3	1 414	-4.7
Italy	2 989	3.0	205	-26.9	4 900	4.7	380	11.9
Netherlands	3 962	4.0	331	0.2	3 388	3.2	236	-22.9
Norway	2 920	2.9	240	-10.1	2 455	2.3	195	6.8
Spain	1 831	1.8	154	12.1	1 129	1.1	123	4.8
Sweden	14 313	14.3	1 132	-4.2	14 314	13.6	1 121	-9.7
Switzerland	1 686	1.7	131	-7.5	1 829	1.7	132	-19.5
United Kingdom	11 958	12.0	812	-25.8	6 898	6.6	537	6.3
<b>Other OECD</b>	11 102	11.1	1 564	57.2	15 709	14.9	1 277	-1.4
Of which:								
Canada	1 359	1.4	150	20.6	919	0.9	51	-46.9
Japan	2 032	2.0	126	-14.1	7 694	7.3	611	1.8
United States	6 390	6.4	1 231	104.1	6 668	6.3	597	8.1
<b>CMEA countries</b>	16 253	16.3	1 046	4.2	14 711	14.0	1 059	3.9
Of which:								
Soviet Union	14 498	14.5	887	5.2	11 956	11.4	826	8.9
<b>Developing countries</b>	7 223	7.2	683	14.1	6 613	6.3	528	12.0
<b>OPEC countries</b>	1 556	1.6	146	8.5	681	0.6	42	53.8
<b>Other</b>	5 667	5.7	537	15.8	5 933	5.6	486	9.4
<b>Other countries</b>	822	0.8	129	19.2	1 248	1.2	98	3.8
<b>TOTAL</b>	99 799	100.0	8 527	3.2	105 304	100.0	8 300	0.6
Of which:								
<b>EEC countries</b>	43 871	44.0	3 455	-10.2	46 872	44.5	3 768	2.9
<b>EFTA countries</b>	20 200	20.2	1 613	-4.7	20 005	19.0	1 554	-8.5

## 8. DOMESTIC ECONOMIC DEVELOPMENTS

### 8.1 SUPPLY AND USE OF RESOURCES, MILL. FIM, 1985 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>1984</b>	176 038	64 872	67 584	10 202	-2 647	316 049	96 993	88 857	324 185
<b>1985</b>	181 664	68 218	69 599	10 453	1 772	331 706	98 173	94 893	334 986
<b>1986</b>	189 113	70 325	69 328	10 738	810	340 314	99 498	97 795	342 017
<b>1987*</b>	199 981	73 458	72 761	11 654	2 243	360 097	102 130	106 568	355 659
<b>1988*</b>	209 986	75 278	81 256	11 470	8 901	386 891	106 124	118 772	374 243
<b>1987*</b>									
<b>II</b>	49 790	18 292	18 274	2 772	689	89 818	25 930	26 208	89 540
<b>III</b>	49 994	18 467	17 888	3 078	-607	88 820	25 996	26 226	88 590
<b>IV</b>	51 303	18 604	18 693	2 928	1 065	92 593	25 337	27 601	90 329
<b>1988*</b>									
<b>I</b>	51 908	18 617	19 542	2 856	1 496	94 419	25 406	27 905	91 921
<b>II</b>	51 897	18 750	19 866	2 763	2 848	96 124	26 705	29 746	93 083
<b>III</b>	52 883	18 879	20 792	2 980	2 587	98 121	25 617	30 581	93 157
<b>IV</b>	53 297	19 032	21 056	2 871	1 970	98 227	28 396	30 541	96 082
<b>1989*</b>									
<b>I</b>	53 522	19 180	21 259	2 811	3 546	100 319	27 812	31 890	96 241
<b>II</b>	54 617	19 300	22 642	2 796	2 785	102 140	26 061	30 614	97 586
<b>III</b>	54 743	19 411	23 147	2 838	4 626	104 764	25 576	31 969	98 371

### 8.2 VOLUME OF INDUSTRIAL PRODUCTION, 1985=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)	(1.6)	(87.9)	(16.5)	(30.0)	(41.4)	(10.5)
	1	2	3	4	5	6	7
<b>1985</b>	100.4	99.8	100.4	100.1	100.6	100.3	100.2
<b>1986</b>	101.9	102.8	102.0	102.3	103.0	101.2	100.4
<b>1987</b>	107.2	99.9	107.2	106.5	110.2	105.4	107.8
<b>1988*</b>	111.1	110.6	111.2	114.5	114.8	107.3	110.3
<b>1989*</b>	114.5	114.8	115.1	118.1	123.9	107.5	109.1
<b>1988*</b>							
<b>Dec.</b>	113.4	124.3	112.7	120.5	117.0	105.8	116.0
<b>1989*</b>							
<b>Jan.</b>	113.0	121.3	112.9	119.9	119.8	105.9	109.6
<b>Feb.</b>	113.9	119.0	114.8	118.4	120.3	109.0	106.6
<b>March</b>	115.2	119.5	116.1	119.3	123.0	108.0	108.9
<b>April</b>	113.0	112.4	113.4	119.7	120.8	105.4	110.8
<b>May</b>	115.4	113.9	116.0	122.1	122.6	108.7	111.6
<b>June</b>	115.4	116.5	115.5	117.6	124.2	108.2	114.7
<b>July</b>	114.5	109.8	115.6	116.8	125.0	109.1	105.8
<b>Aug.</b>	116.3	103.6	117.6	118.3	131.4	108.1	105.7
<b>Sept.</b>	114.9	110.2	116.3	118.6	126.6	108.1	103.7
<b>Oct.</b>	114.1	117.9	115.2	115.8	125.7	107.1	105.8
<b>Nov.</b>	114.3	116.2	115.2	117.6	124.1	107.4	110.7
<b>Dec.</b>	113.5	117.1	113.2	112.7	123.5	105.1	115.6



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>1984</b>	97.2	96.8	101.8	104.1	112.8	96.2	98.6	96.8
<b>1985</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>1986</b>	104.7	102.5	94.0	88.4	99.9	99.5	105.2	101.9
<b>1987</b>	111.3	107.7	95.6	89.0	101.0	102.6	114.3	106.6
<b>1988*</b>	116.7	113.0	108.6	106.0	113.4	110.6	135.0	110.3
<b>1988*</b>								
<b>Nov.</b>	121.9	115.2	..	..	..	..	..	112.5
<b>Dec.</b>	119.2	115.8	..	..	..	..	..	112.3
<b>III</b>	118.3	114.4	108.2	109.8	106.9	106.1	142.2	110.9
<b>IV</b>	118.3	114.5	116.7	120.2	127.1	113.0	146.0	112.1
<b>1989*</b>								
<b>Jan.</b>	123.5	119.5	..	..	..	..	..	113.3
<b>Feb.</b>	120.7	115.9	..	..	..	..	..	113.0
<b>March</b>	119.5	115.0	..	..	..	..	..	113.5
<b>April</b>	121.5	117.5	..	..	..	..	..	114.1
<b>May</b>	127.5	119.8	..	..	..	..	..	114.6
<b>June</b>	120.9	118.6	..	..	..	..	..	114.7
<b>July</b>	115.7	114.8	..	..	..	..	..	114.2
<b>Aug.</b>	130.5	119.1	..	..	..	..	..	115.6
<b>Sept.</b>	126.2	118.8	..	..	..	..	..	115.2
<b>Oct.</b>	131.5	115.5	..	..	..	..	..	115.7
<b>Nov.</b>	133.8	118.9	..	..	..	..	..	116.4
<b>I</b>	121.2	116.8	117.3	121.1	127.6	105.6	133.9	113.2
<b>II</b>	123.3	118.6	126.3	128.4	149.3	112.9	167.5	114.5
<b>III</b>	124.1	117.6	121.7	127.6	133.8	106.9	152.6	115.0

## 8.4 WAGES AND PRICES, 1985=100

Period	Index of wage and salary earnings	By sectors					Consumer price index	Basic price index for domestic supply	By origin		Producer price index for manufacturing	By marketing area		Building cost index
		Private Total	Of which: Manufacturing (SIC 3)	Central government	Local government	Non-profit institutions			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	14
<b>1984</b>	92.4	92.0	92.9	92.7	93.0	92.0	95.1	95.3	94.8	97.1	96.0	98.1	95.1	94.6
<b>1985</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	100.0
<b>1986</b>	106.9	106.6	106.2	106.6	107.8	107.2	102.9	97.0	98.6	91.0	96.5	96.7	96.4	104.3
<b>1987</b>	114.4	114.5	113.4	115.7	113.3	115.2	107.2	97.9	100.2	89.3	97.3	98.1	96.8	109.1
<b>1988</b>	124.7	124.6	122.7	128.8	122.0	128.0	112.6	101.5	104.9	89.1	101.7	103.8	100.7	116.3
<b>1988</b>														
<b>III</b>	126.3	126.2	124.1	130.3	123.5	129.5	113.4	102.3	105.6	90.0	102.6	105.2	101.3	117.7
<b>IV</b>	128.4	128.5	126.6	132.1	125.2	131.4	114.7	103.6	107.3	90.0	104.0	107.1	102.5	119.6
<b>1989<sup>1</sup></b>														
<b>Jan.</b>	..	..	..	..	..	..	116.0	104.8	108.4	91.7	105.2	108.4	103.6	121.6
<b>Feb.</b>	..	..	..	..	..	..	116.6	105.5	109.0	92.4	105.8	109.6	103.9	121.9
<b>March</b>	..	..	..	..	..	..	117.9	105.9	109.3	93.4	106.3	110.2	104.4	123.4
<b>April</b>	..	..	..	..	..	..	119.1	107.0	110.6	93.6	107.1	109.9	105.8	124.3
<b>May</b>	..	..	..	..	..	..	119.5	107.4	111.3	93.2	107.8	110.1	106.6	124.9
<b>June</b>	..	..	..	..	..	..	120.6	107.4	111.4	92.6	107.9	110.4	106.8	124.6
<b>July</b>	..	..	..	..	..	..	120.4	107.4	111.4	92.6	108.2	110.5	107.1	124.8
<b>Aug.</b>	..	..	..	..	..	..	120.6	107.6	111.8	92.3	108.3	110.6	107.3	125.8
<b>Sept.</b>	..	..	..	..	..	..	121.9	108.1	112.4	92.3	108.8	111.3	107.6	127.6
<b>Oct.</b>	..	..	..	..	..	..	122.4	108.7	113.2	92.5	109.2	111.7	108.0	128.2
<b>Nov.</b>	..	..	..	..	..	..	122.3	108.9	113.5	92.3	109.1	111.2	108.0	128.6
<b>Dec.</b>	..	..	..	..	..	..	123.0	109.0	113.6	92.4	109.3	111.5	108.2	129.8
<b>I</b>	131.6	131.5	129.4	135.2	129.3	134.4	116.8	105.4	108.9	92.5	105.8	109.4	104.0	122.3
<b>II</b>	135.6	136.7	134.3	136.9	130.8	136.3	119.7	107.3	111.1	93.1	107.6	110.1	106.4	124.6
<b>III</b>	135.8	137.0	133.8	136.9	131.0	136.4	121.0	107.7	111.9	92.4	108.4	110.8	107.3	126.1
<b>1990</b>														
<b>Jan.</b>	..	..	..	..	..	..	124.8	109.4	113.9	93.0	109.4	111.5	108.4	130.4

<sup>1</sup> Preliminary figures for columns 1—6.

## 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	Agriculture and forestry	Industry	Construction	Service industries		
%											%
	1	2	3	4	5	6	7	8	9	10	11
<b>1985</b>	69.2	2 566	2 437	361	2 076	280	597	178	1 380	129	5.0
<b>1986</b>	69.1	2 569	2 431	359	2 071	266	589	185	1 391	138	5.4
<b>1987</b>	68.6	2 554	2 423	372	2 051	251	569	184	1 419	130	5.1
<b>1988</b>	68.4	2 546	2 431	368	2 062	238	553	188	1 452	116	4.6
<b>1989</b>	68.7	2 559	2 470	367	2 104	218	561	199	1 492	89	3.5
<b>1988</b>											
<b>Dec.</b>	68.3	2 541	2 430	358	2 072	236	549	193	1 451	112	4.4
<b>1989</b>											
<b>Jan.</b>	68.9	2 562	2 469	371	2 099	227	550	201	1 491	93	3.6
<b>Feb.</b>	69.0	2 568	2 476	370	2 105	231	552	190	1 504	92	3.6
<b>March</b>	68.3	2 543	2 451	365	2 086	230	554	209	1 459	91	3.6
<b>April</b>	69.1	2 572	2 481	374	2 107	229	550	203	1 499	91	3.6
<b>May</b>	69.2	2 577	2 491	362	2 129	220	576	194	1 502	86	3.3
<b>June</b>	68.6	2 555	2 470	362	2 108	216	565	199	1 490	86	3.4
<b>July</b>	68.6	2 556	2 465	368	2 097	204	562	196	1 503	91	3.6
<b>Aug.</b>	68.2	2 541	2 448	345	2 102	197	566	194	1 490	93	3.7
<b>Sept.</b>	68.4	2 549	2 459	362	2 097	214	575	204	1 467	89	3.5
<b>Oct.</b>	68.6	2 557	2 482	377	2 105	218	558	201	1 505	75	2.9
<b>Nov.</b>	68.7	2 561	2 472	372	2 100	213	563	193	1 504	89	3.5
<b>Dec.</b>	68.9	2 569	2 480	372	2 108	216	565	206	1 493	89	3.5

## 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>1984</b>	22 526	42 737	598	9 711	75 572	1 894	77 466	22 155	44 333	18 444	24 836
<b>1985</b>	25 750	47 578	546	10 415	84 290	2 071	86 361	24 835	49 269	21 183	26 866
<b>1986</b>	28 079	51 733	323	11 640	91 774	2 209	93 983	26 354	52 845	23 215	28 131
<b>1987</b>	29 454	57 312	491	12 391	99 648	2 482	102 129	29 419	59 498	26 456	30 964
<b>1988</b>	35 339	66 348	473	13 629	115 789	2 557	118 346	32 266	65 502	29 757	33 108
<b>1988</b>											
<b>Nov.</b>	2 900	6 315	45	1 277	10 536	394	10 931	2 753	6 717	2 711	3 846
<b>Dec.</b>	3 116	7 486	57	1 555	12 214	537	12 751	3 012	5 193	2 542	2 142
<b>1989</b>											
<b>Jan.</b>	3 090	5 482	1	1 180	9 754	6	9 760	2 764	5 635	2 433	3 066
<b>Feb.</b>	2 792	6 185	86	824	9 887	67	9 953	2 708	6 177	2 464	3 446
<b>March</b>	3 375	5 613	37	1 014	10 040	1 713	11 754	2 735	5 204	2 589	2 320
<b>April</b>	3 881	6 221	36	1 266	11 405	63	11 468	2 911	6 055	3 337	2 532
<b>May</b>	2 927	6 045	38	2 349	11 359	300	11 658	3 135	6 870	2 881	3 544
<b>June</b>	3 186	6 347	13	1 156	10 701	264	10 965	3 034	5 632	3 033	2 447
<b>July</b>	3 938	7 353	62	945	12 298	115	12 412	3 453	5 043	2 594	2 203
<b>Aug.</b>	3 211	6 455	119	1 065	10 850	488	11 338	2 780	5 768	2 685	2 918
<b>Sept.</b>	3 172	5 474	46	1 354	10 046	210	10 256	2 792	5 100	2 659	2 312
<b>Oct.</b>	3 108	6 458	46	969	10 581	101	10 682	2 950	6 203	3 001	3 058
<b>Nov.</b>	3 199	7 013	47	1 396	11 655	391	12 046	2 942	6 912	2 817	3 944

During period	Expenditure					Financial balance			
	Fixed investment	Other expenditure	Expenditure before financial transactions (8+9+12+13)	Lending and other financial investment	Expenditure before redemptions of state debt (14+15)	Revenue surplus (5-14)	Net borrowing requirement (7-16)	Net borrowing	Cash surplus (18+19)
<b>1984</b>	5 455	4 220	76 162	4 717	80 878	-590	-3 412	5 200	1 788
<b>1985</b>	5 700	4 936	84 739	4 982	89 722	-449	-3 361	3 506	145
<b>1986</b>	6 111	5 058	90 368	4 913	95 281	1 406	-1 298	4 203	2 905
<b>1987</b>	7 089	4 732	100 738	5 672	106 410	-1 090	-4 280	7 604	3 324
<b>1988</b>	7 565	5 614	110 946	6 529	117 476	4 842	870	1 853	2 723
<b>1988</b>									
<b>Nov.</b>	645	199	10 313	428	10 741	223	190	-1 239	-1 049
<b>Dec.</b>	811	208	9 224	316	9 540	2 990	3 211	323	3 533
<b>1989</b>									
<b>Jan.</b>	580	743	9 722	623	10 345	32	-586	-881	-1 466
<b>Feb.</b>	501	288	9 675	557	10 232	212	-278	-634	-912
<b>March</b>	591	640	9 170	1 841	11 011	870	742	137	880
<b>April</b>	544	941	10 451	379	10 830	954	638	-1 512	-875
<b>May</b>	670	642	11 317	639	11 956	42	-297	189	-109
<b>June</b>	839	316	9 821	515	10 336	880	629	-708	-79
<b>July</b>	619	-13	9 103	414	9 517	3 195	2 895	-151	2 744
<b>Aug.</b>	634	309	9 490	467	9 957	1 359	1 381	-519	862
<b>Sept.</b>	740	649	9 282	470	9 752	765	505	-75	429
<b>Oct.</b>	779	672	10 604	617	11 221	-23	-539	-532	-1 072
<b>Nov.</b>	758	193	10 805	503	11 308	850	738	-387	351

# 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 claim on deposit banks (Column 13) = term credits (from December 1986 to July 1987) + bank certificates of deposit held by the Bank of Finland (since March 1987). Other liabilities to financial institutions, net (Column 17) = capital import deposits + other liabilities to financial institutions - bonds and debentures - other claims on financial institutions. *Corporate sector.* Claims in the form of special financing (Column 19) = export bills + new-export credits + financing of domestic deliveries. Special deposits, net (Column 20) = deposits for investment and ship purchase + capital import deposits + export deposits + other liabilities to corporations - bonds - other claims on corporations.

### 2 THE BANK OF FINLAND'S MONEY MARKET OPERATIONS AND THE FORWARD EXCHANGE MARKET

**Table 2.1** Money market instruments (Columns 1-3) denote bank certificates of deposit, Treasury bills and banks' fixed-term deposits with the Bank of Finland. Matured money market instruments, net, comprise both purchased and sold instruments.

**Table 2.3** Bank CDs held by the Bank of Finland (Column 2) include term credits. Holdings of CDs issued by the Bank of Finland (Column 5) include term liabilities.

## 3 RATES OF INTEREST

**Table 3.1** 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 rates shown are based on the lending rates quoted for the respective currencies in the Euromarket.

**Table 3.3** The covered Eurodollar rate is a computed rate of interest for the markka obtained by adding the difference between the forward selling rate and the spot selling rate for the U.S. dollar expressed as an annual rate of interest to the Eurodeposit rate for the dollar. The rates shown are based on daily quotations at noon by two banks.

**Table 3.4** *Lending.* New credits (Columns 1-4): the rates of interest on new credits drawn during the month are average monthly rates weighted by loan amounts, whereas annual rates are arithmetic averages of monthly observations. As from January 1989, Postipankki Oy has been included in the calculation of the average rate on the commercial banks' outstanding stock of loans. *Deposits.* The rates of interest applied to deposit accounts (Columns 7-9) are the rates of interest applied to standard tax-exempt deposit accounts as agreed upon between banks. The average rate of interest on the stock of regulated deposits (Column 10) is the average rate of interest weighted by the deposit amounts at the end of period, where the stock of deposits comprises cheque accounts, postal giro accounts, deposit accounts with a cheque facility, savings and ordinary deposit accounts, other time deposit accounts and taxable investment accounts. The average rate of interest on unregulated deposits (Column 11) is the average rate of interest weighted by the amounts in the period. Unregulated deposits include, inter alia, sales of certificates of deposit, promissory notes and bonds as well as corporate deposits at market rates.

**Table 3.5** *Secondary market rates.* The long-term unregulated market rate (Columns 1 and 2) is calculated by the Bank of Finland as the monthly average of the offered rates for taxable, fixed-rate bonds quoted by the five largest banks. The rate of interest for taxable government bonds (Column 3) is the effective annual yield, calculated as the arithmetic mean, on fixed-rate government bonds with a remaining maturity of between 4 and 5 years.

The rate of interest for taxable public issues (Column 4) is the effective annual yield, calculated as the arithmetic mean, on fixed-rate ordinary bonds, debentures or other bonds (excl. zero coupon loans, bonds with equity warrants and convertible debentures) issued by all issuers except the central government with a remaining maturity of between 3 and 6 years. Financial institutions (Column 5): as in Column 4 for issues by financial institutions incl. banks. Corporations (Column 6): as in Column 4 for issues by non-financial corporations. The rate of interest for taxfree public issues (Column 7) is the yield on fixed-rate public bonds with a remaining maturity of between 4 and 5 years. The Bank of Finland calculates the yields for columns 3-7 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. *Rates at issue* on taxable public bonds and debentures (Column 8) are the average rates of interest weighted by issue amounts - in the case of government bonds by sales amounts - on ordinary bonds, debentures and other bonds (excl. zero coupon loans, bonds with equity warrants and convertible debentures) issued during the period.

The rate of interest on taxfree bonds issued by the government and mortgage banks (Column 9) in the period from December 1, 1989 to December 31, 1990 may not exceed the Bank of Finland's base rate.

## 4 RATES OF EXCHANGE

**Table 4.2** The weights of the Bank of Finland currency index (Column 1) are moving averages of the shares of countries in Finland's merchandise export and import trade. The index comprises 14 convertible currencies. The index values are based on the Bank of Finland's daily quotations at noon. The weights of the payments currency index (Column 2) are moving averages of the shares of payments currencies in Finland's trade. The index comprises 14 convertible currencies. The weights of the MERM index (Column 3) are fixed 1977 weights computed on the basis of the IMF's world trade model. Fourteen currencies are included in this index.

## 5 OTHER DOMESTIC FINANCING

**Table 5.1** Source: The Central Statistical Office of Finland. The public

comprises households and non-profit institutions, enterprises (excl. financial institutions) and local government. Domestic foreign-currency deposits are included in the figures. Time deposits (Column 2) consist of tax-exempt time deposits held by the public. Investment accounts (Column 3) are taxable time deposits held by the public. For the definition of unregulated deposits (Column 6), see the explanation under Table 3.4. Since the beginning of 1987, the figures for banks' holdings of certificates of deposit issued by other banks have been netted out. Netting out is done by the Bank of Finland.

**Table 5.2** Source: The Central Statistical Office of 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. claims on banks' foreign branches) - the Bank of Finland's foreign liabilities - banks' foreign liabilities (incl. liabilities to 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 intermediated by banks from state funds. 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 + capital accounts of deposit banks + unclassified assets and liabilities of deposit banks, net (bank debentures, bank CD's held by the public and other unregulated wholesale deposits).  $M_1$  (Column 6) = notes and coin in circulation - till money held by banks + cheque and postal giro account deposits held by the public.  $M_2$  (Column 7) =  $M_1$  + quasi-money (time deposits held by the public, incl. deposits with the Bank of Finland).

**Table 5.4** Source: State Treasury Office. *Foreign debt*. Other bonds and debentures (Column 2) are so-called private placings. Long-term promissory notes (Column 3) are bank loans. Outstanding lending (Column 10) comprises the stock of central 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 Laajanen 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 5.6** *Turnover*. Source: The Helsinki Stock Exchange. *Share prices*. Source: Union Bank of Finland Ltd.

## 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.

**Table 6.2** Columns 1-8: Net change in long-term liabilities. Columns 9-13: Net change in long-term assets. Portfolio investment in Finland (Column 2) and abroad (Column 10); Secondary market transactions in securities and share issues. As from the June-July 1989 issue of the Bulletin, portfolio investment abroad (Column 10) also includes investments in long-term bonds and shares by Finnish authorized banks. These were previously included in short-term capital exports of authorized banks. Long-term credits (Columns 3-6): Financial loans, import credits and leasing credits. Others (Column 5): Long-term credits of enterprises, financial institutions other than authorized banks and local government. Imports of other long-term capital (Column 7): Finland's subscriptions to international financial institutions paid in the form of promissory notes. Exports of other long-term capital (Column 12) = financial loans abroad + development credits + purchases of real estate and other acquisitions by private persons + Finland's subscriptions to international financial institutions.

**Table 6.3** Net foreign debt (Columns 1-24) at the end of a period is classified in the same way as the corresponding data on changes in the capital account (Table 6.2). The items included in net foreign debt have been translated into markkaa using the spot rates for each date. Thus the figures include the impact of changes in exchange rates. Debt service payments (Column 25): the total of net payments of interest, dividends and remunerations relating to long- and short-term foreign liabilities and assets plus net repayments relating to long-term foreign liabilities and assets. Repayments do not include early repayments of loans, repatriations of equity capital included under direct investment, repurchases of shares included under portfolio investment (since 1986), repayments of the Bank of Finland's reserve tranche and oil facility credits, or repayments of rouble-denominated assets included under loan assets. The debt-service ratio (Column 27) = ser-

vice charges on net foreign debt as a percentage of current account earnings.

**Table 6.4** All direct investments have been placed under the corporate sector (Columns 1 and 6). Other (Column 9) consists mainly of long-term assets of private persons.

The sectoral figures for short-term foreign liabilities and assets correspond to the figures shown in Columns 15-23 of Table 6.3.

## 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: Central Statistical Office of Finland. Seasonal adjustment is carried out by the Bank of Finland.

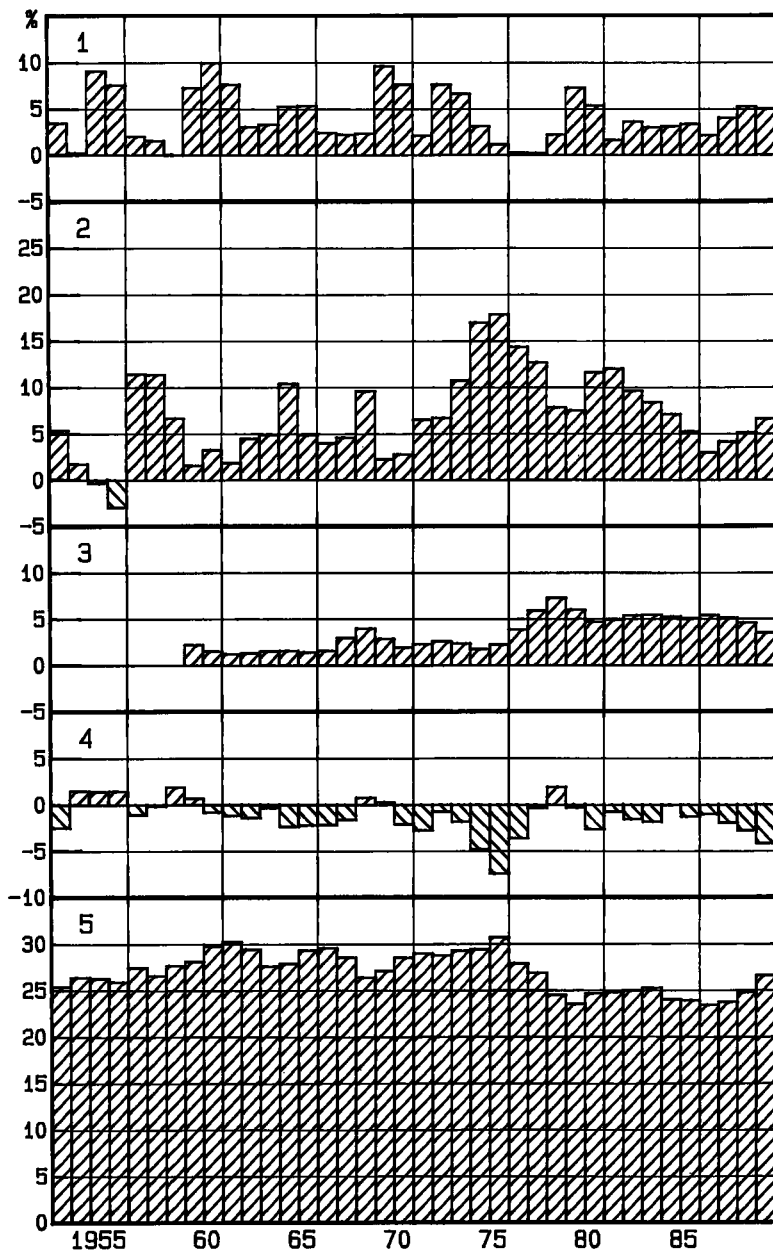
**Table 8.3** The monthly indicator of GDP (Column 8) is weighted together from 11 readily available indicators of developments in output in various industries.

**Table 8.4** The consumer price index (Column 7) was revised as from January 1988. Both the weights and the methods of calculation were changed (see the item in the March 1988 issue of the Bulletin). The base year of the new CPI is 1985, while the base year of the index shown until end-1984 is 1981.

**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. Items affecting domestic liquidity	S29
5. Overnight rates	S30
6. HELIBOR rates of interest (daily)	S30
7. HELIBOR rates of interest (monthly)	S30
8. Rates of interest applied by the Bank of Finland	S31
9. 3-month covered Eurodollar rate and 3-month currency basket rates	S31
10. Rates on bonds and debentures	S31
11. Bank of Finland currency index (monthly)	S32
12. Bank of Finland currency index (daily)	S32
13. Changes in the exchange rates of selected Nordic currencies	S32
14. Changes in the exchange rates of selected major currencies	S33
15. Bank deposits from the public	S33
16. Bank lending to the public	S33
17. Money supply	S34
18. Direct investment	S34
19. Central government debt	S34
20. Current account	S35
21. Foreign debt	S35
22. Balance of payments	S36
23. Debt service ratio	S36
24. Foreign trade	S37
25. Western trade	S37
26. Bilateral trade	S37
27. Foreign trade: prices and terms of trade	S38
28. Western trade: prices and terms of trade	S38
29. Bilateral trade: prices and terms of trade	S38
30. Production	S39
31. Fixed investment	S39
32. Employment and unemployment rate	S40
33. Prices and wages	S40
34. Central government finances	S41

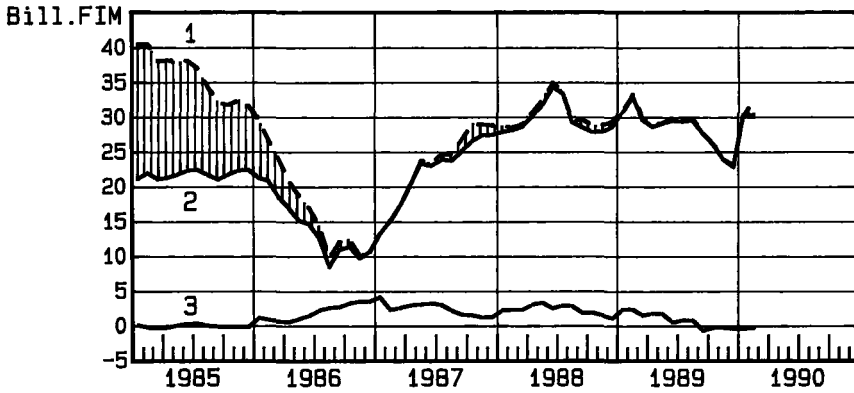
# 1. LONG-TERM INDICATORS



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

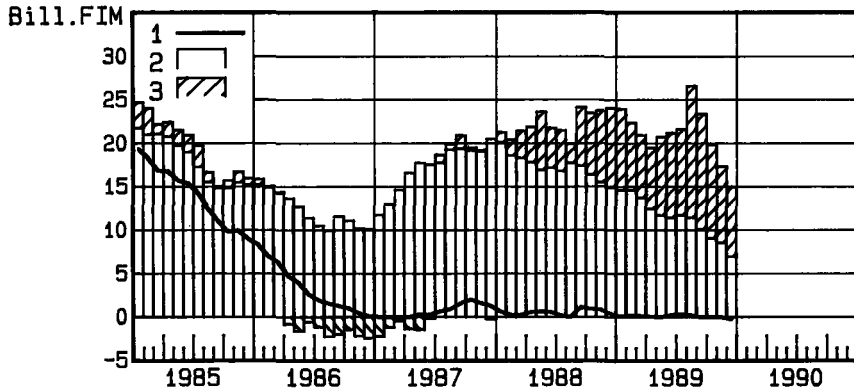


2. THE BANK OF FINLAND'S FOREIGN EXCHANGE RESERVES AND FORWARD POSITION



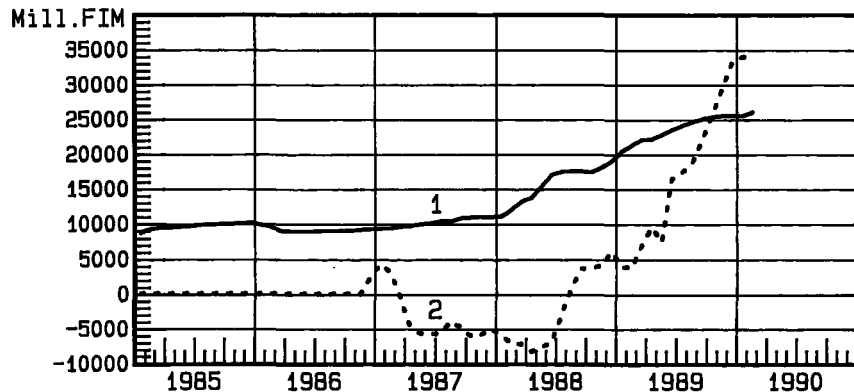
1. Convertible foreign exchange reserves plus forward position
2. Convertible foreign exchange reserves
3. Tied currencies

3. FORWARD MARKET



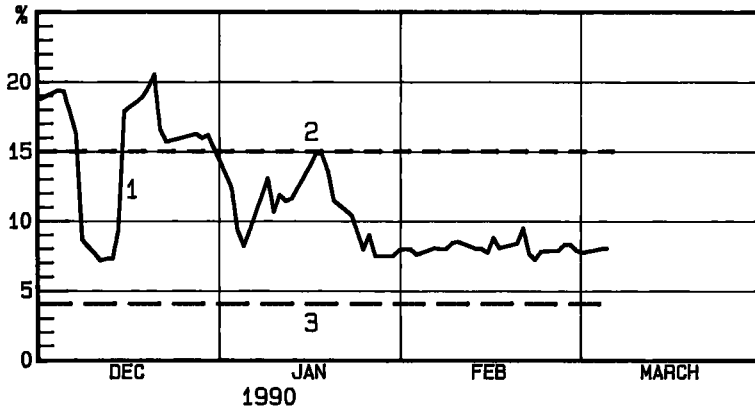
1. Forward exchange purchased by the Bank of Finland from banks
2. Forward exchange sold by companies to banks
3. Forward exchange sold by foreign banks to banks

4. ITEMS AFFECTING DOMESTIC LIQUIDITY



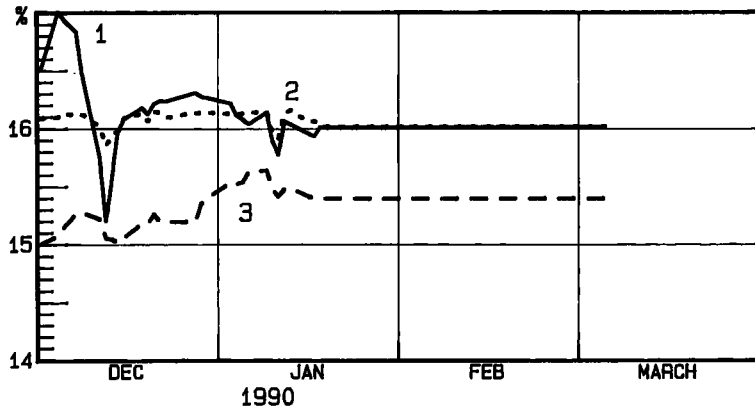
1. Cash reserve deposits
2. Bank of Finland's holdings of money market instruments, net

5. OVERNIGHT RATES



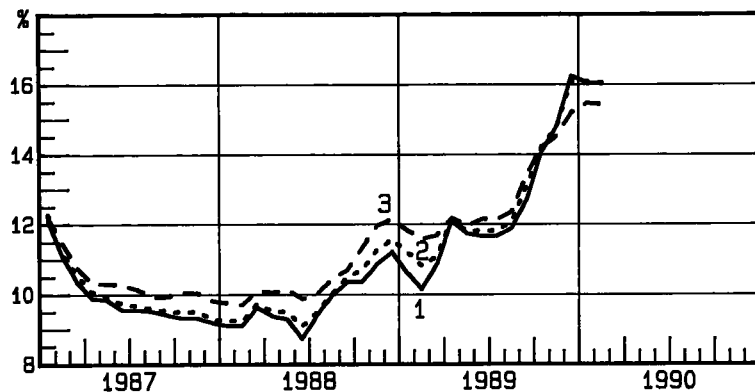
- 1. Inter-bank overnight rate
  - 2. Call money credit rate
  - 3. Call money deposit rate
- Daily observations

6. HELIBOR RATES OF INTEREST



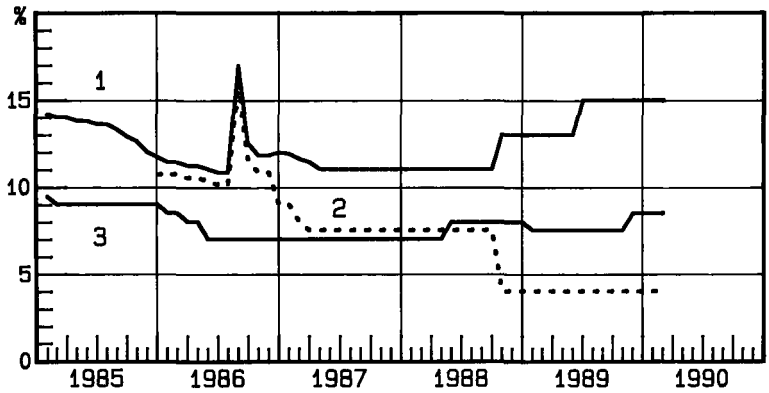
- 1. 1-month HELIBOR
  - 2. 3-month HELIBOR
  - 3. 12-month HELIBOR
- Daily observations

7. HELIBOR RATES OF INTEREST



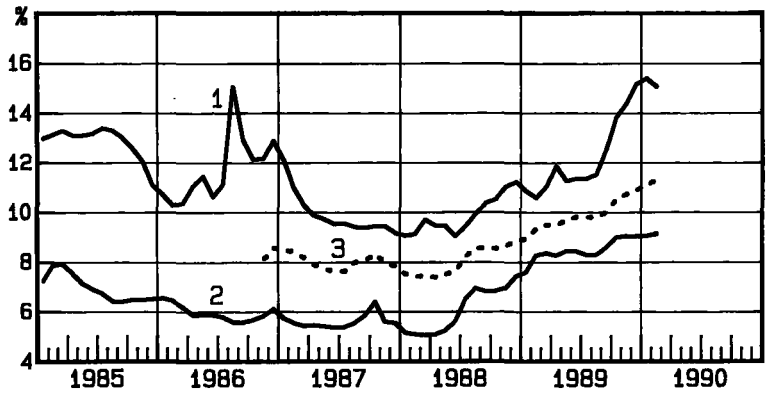
- 1. 1-month HELIBOR
  - 2. 3-month HELIBOR
  - 3. 12-month HELIBOR
- Monthly averages

8. RATES OF INTEREST APPLIED BY THE BANK OF FINLAND



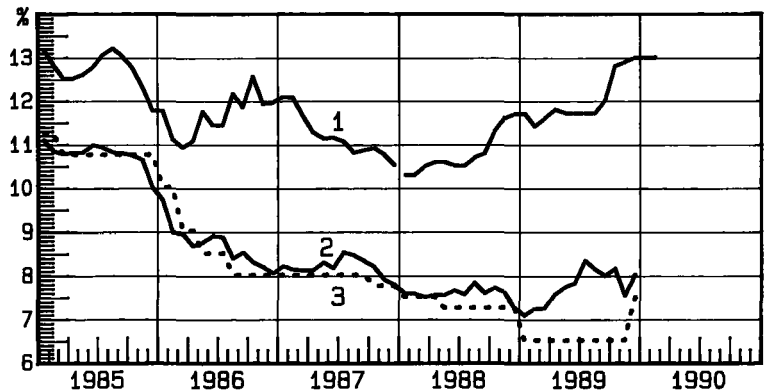
- 1. Call money credit rate
  - 2. Call money deposit rate
  - 3. Base rate
- End-of-month observations

9. 3-MONTH COVERED EURODOLLAR RATE AND 3-MONTH CURRENCY BASKET RATES



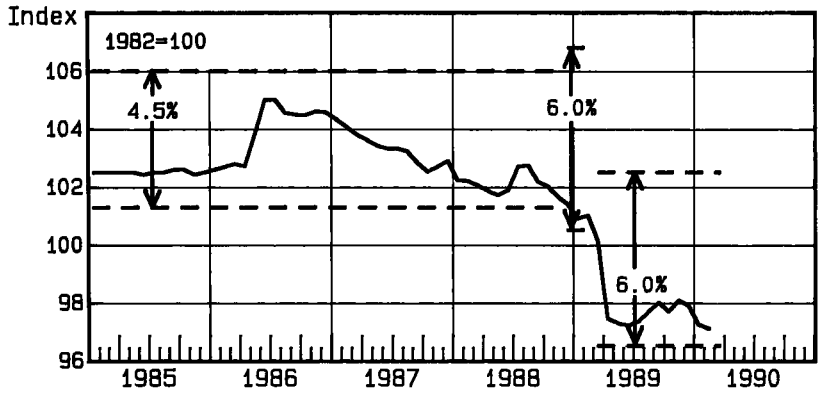
- 1. Covered Eurodollar rate
- 2. 3-currency basket rate (DEM 60 %, USD 30 %, GBP 10 %)
- 3. 14-currency basket rate (Bank of Finland currency index weights)

10. RATES ON BONDS AND DEBENTURES



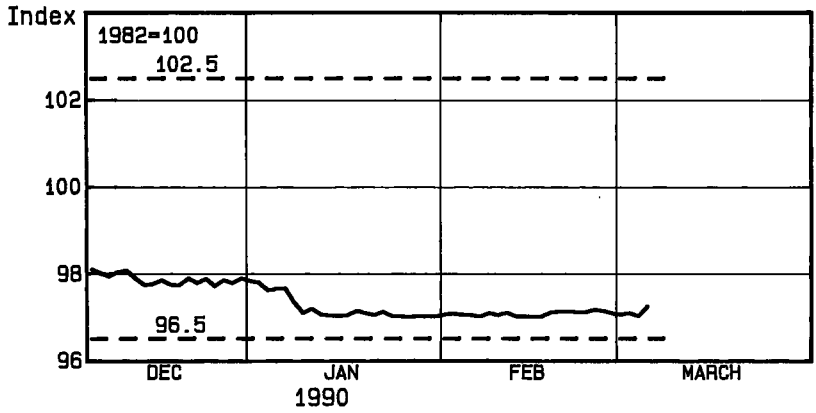
- 1. Long-term (5-year) market rate (before 1988 rate on (3-6 year) fixed-rate debentures)
- 2. Rate on (9-10 year) tax-free government bonds
- 3. Rate at issue on new 10-year tax-free government bonds

11. BANK OF FINLAND CURRENCY INDEX



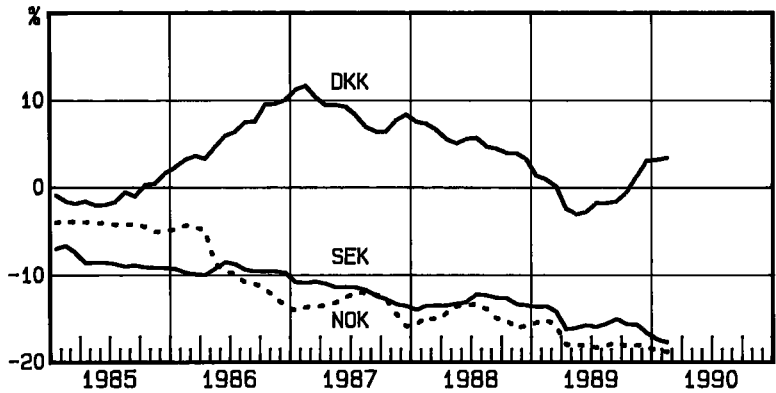
4.5 % and 6.0 % = fluctuation range of the index  
Monthly averages

12. BANK OF FINLAND CURRENCY INDEX



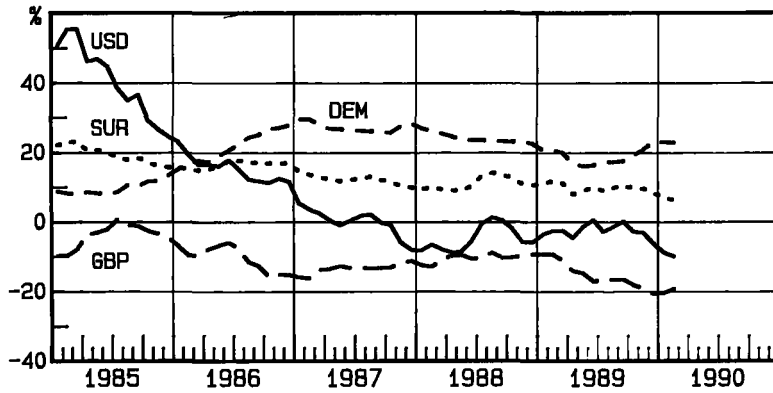
Daily observations

13. CHANGES IN THE EXCHANGE RATES OF SELECTED NORDIC CURRENCIES



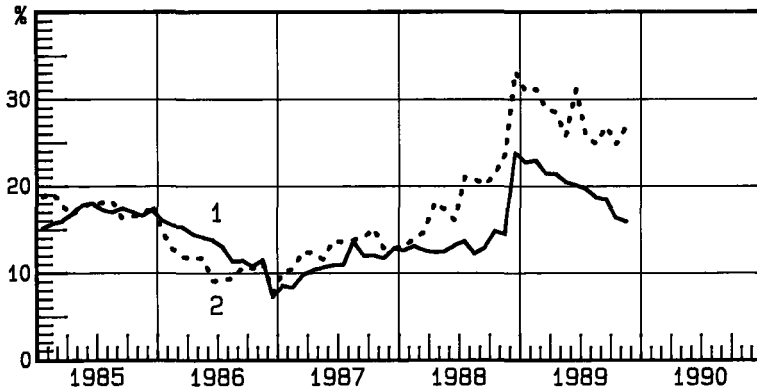
Monthly changes in markka selling rates calculated from the average rates for January 1982

14. CHANGES IN THE EXCHANGE RATES OF SELECTED MAJOR CURRENCIES



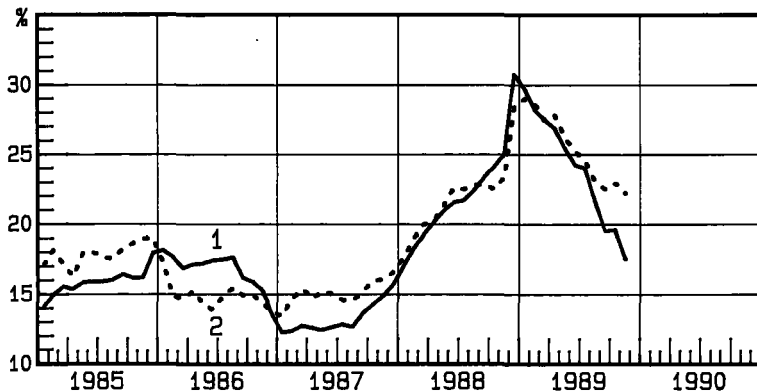
Monthly changes in markka selling rates calculated from the average rates for January 1982

15. BANK DEPOSITS FROM THE PUBLIC



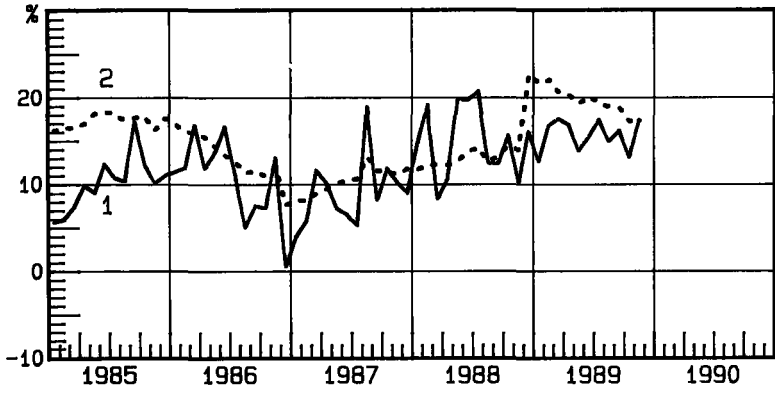
1. Regulated deposits  
2. Total deposits  
Change from the corresponding month of the previous year, per cent

16. BANK LENDING TO THE PUBLIC



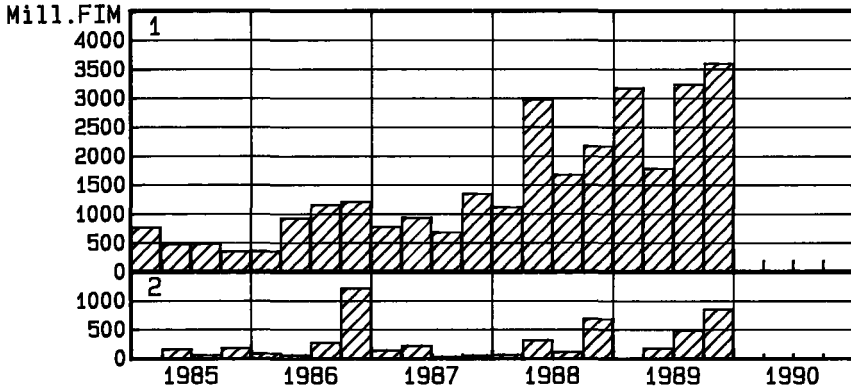
1. Markka lending  
2. Total lending  
Change from the corresponding month of the previous year, per cent

17. MONEY SUPPLY



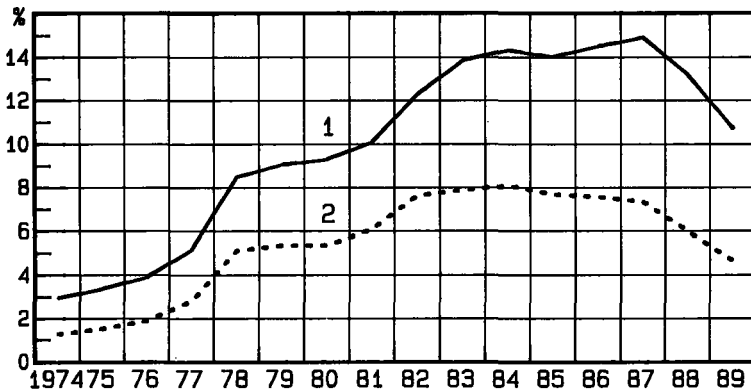
- 1. Narrow money supply (M1)
  - 2. Broad money supply (M2)
- Change from the corresponding month of the previous year, per cent

18. DIRECT INVESTMENT



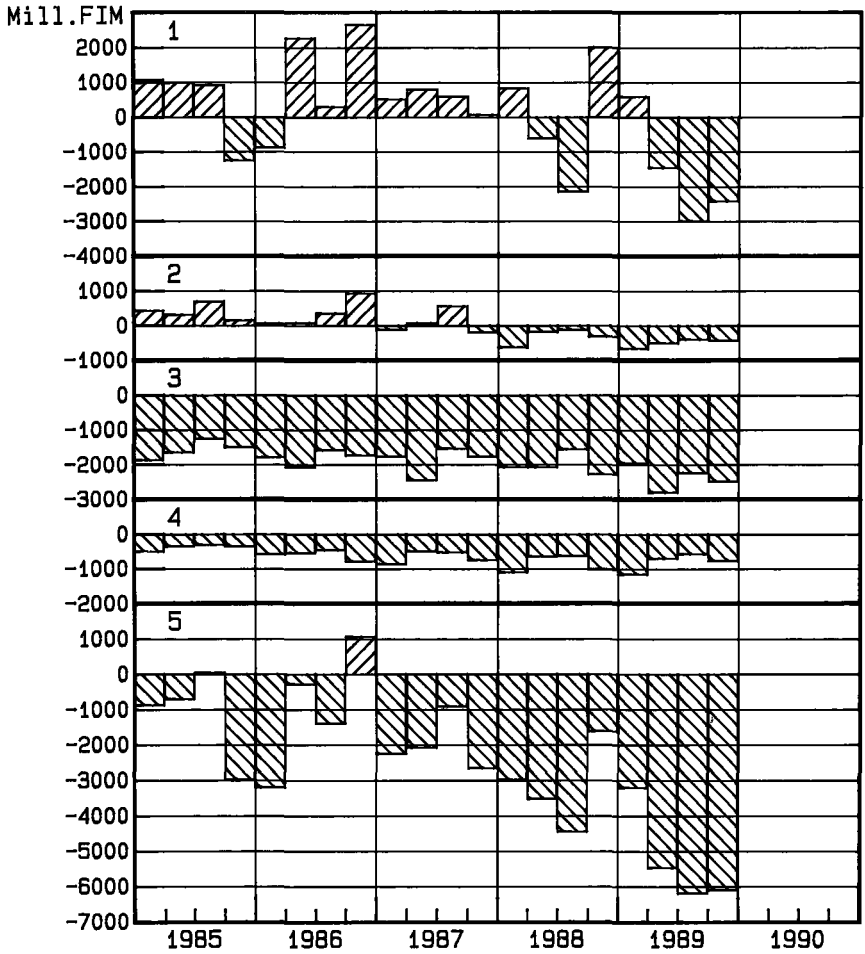
- 1. Finnish direct investment abroad, net
- 2. Foreign direct investment in Finland, net

19. CENTRAL GOVERNMENT DEBT



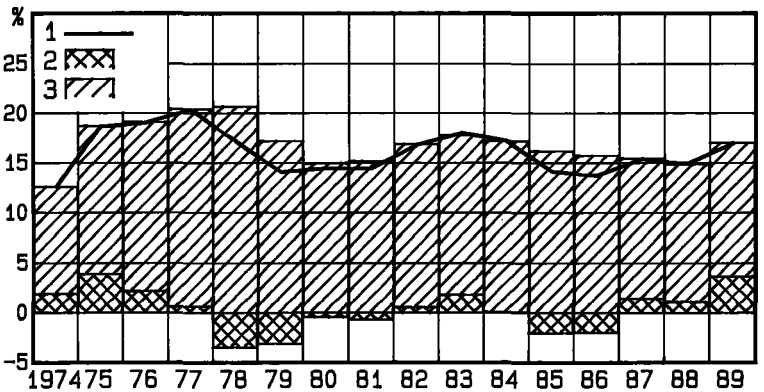
- 1. Total debt
  - 2. Of which: foreign debt
- As a percentage of GDP

20. CURRENT ACCOUNT



- 1. Trade account
- 2. Services account
- 3. Investment income account
- 4. Unrequited transfers account and other items, net
- 5. Current account

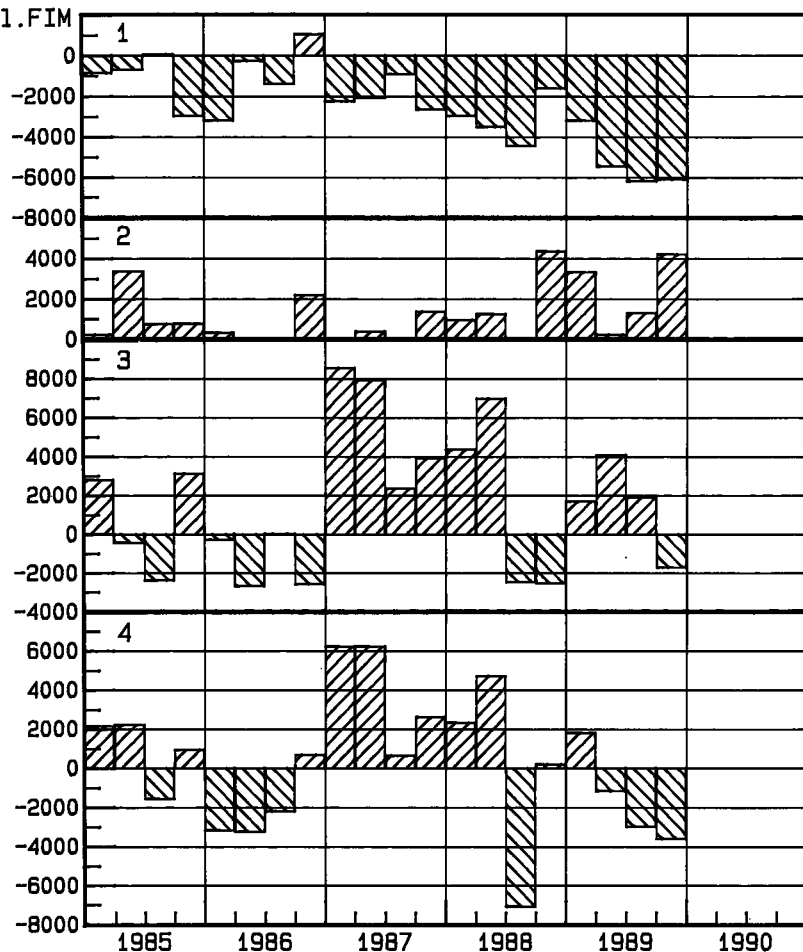
21. FOREIGN DEBT



- 1. Total foreign net debt
  - 2. Short-term net debt
  - 3. Long-term net debt
- As a percentage of GDP

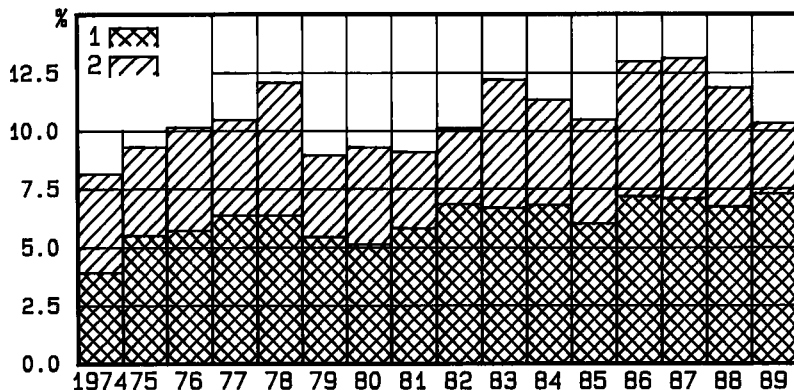
## 22. BALANCE OF PAYMENTS

Mill.FIM



1. Current account
2. Long-term capital account
3. Short-term capital account
4. Overall balance=change in the foreign exchange reserves of the Bank of Finland

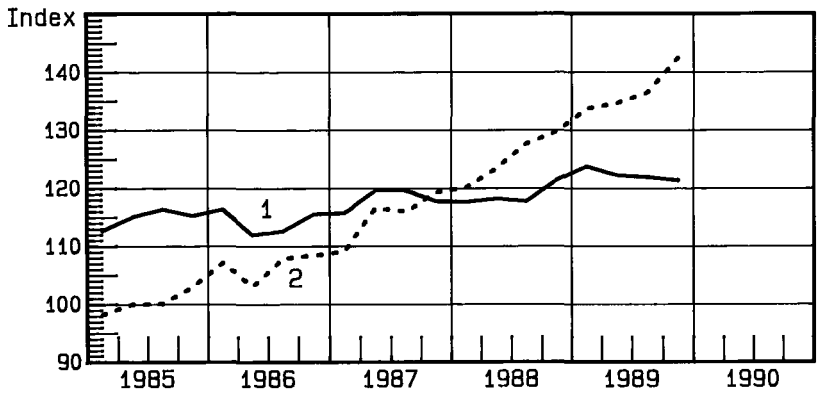
## 23. DEBT SERVICE RATIO



1. Interest payments
  2. Redemptions
- As a percentage of current account earnings

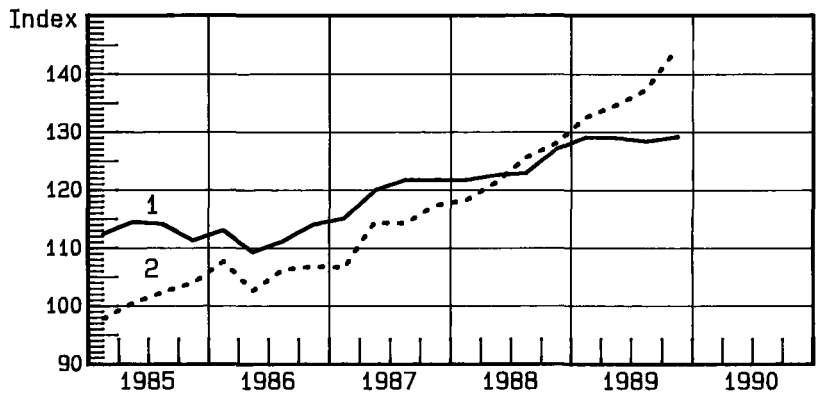


## 24. FOREIGN TRADE



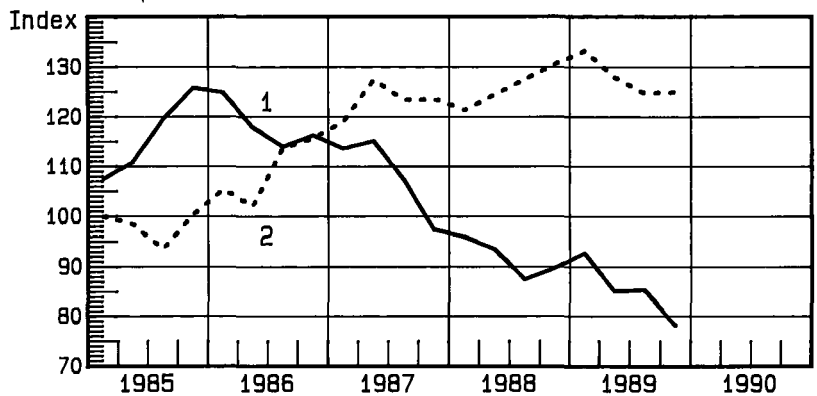
1. Total exports  
2. Total imports  
Volume index, 1980 = 100,  
four-quarter moving average  
shown as at the last quarter

## 25. WESTERN TRADE



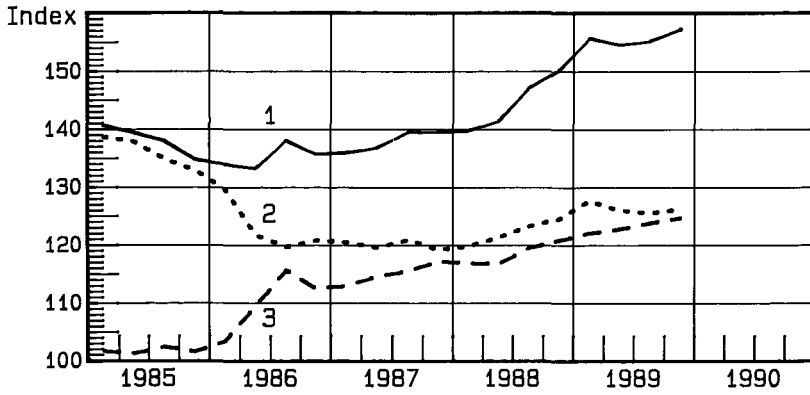
1. Western exports  
2. Western imports  
Volume index, 1980 = 100,  
four-quarter moving average,  
shown as at the last quarter

## 26. BILATERAL TRADE



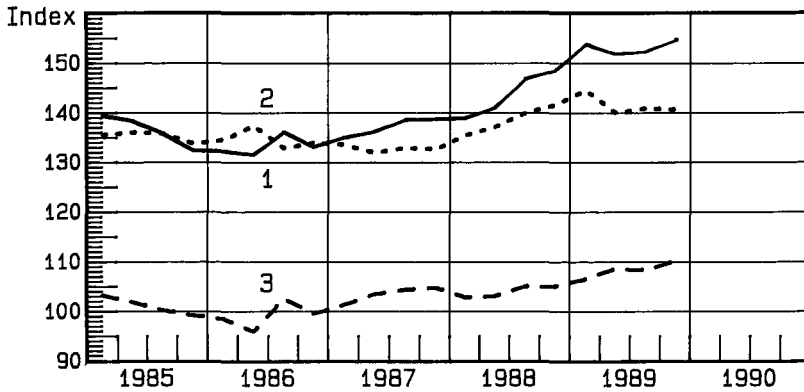
1. Bilateral exports  
2. Bilateral imports  
Volume index, 1980 = 100,  
four-quarter moving average  
shown as at the last quarter

**27. FOREIGN TRADE: PRICES AND TERMS OF TRADE**



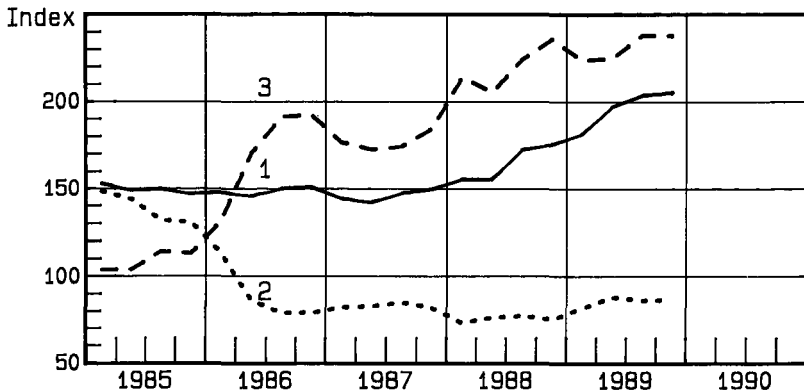
1. Unit value index of exports
  2. Unit value index of imports
  3. Terms of trade
- 1980 = 100

**28. WESTERN TRADE: PRICES AND TERMS OF TRADE**



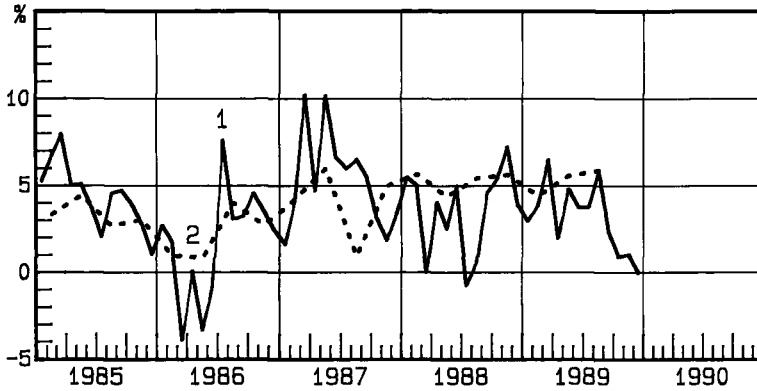
1. Unit value index of western exports
  2. Unit value index of western imports
  3. Terms of trade in western trade
- 1980 = 100

**29. BILATERAL TRADE: PRICES AND TERMS OF TRADE**



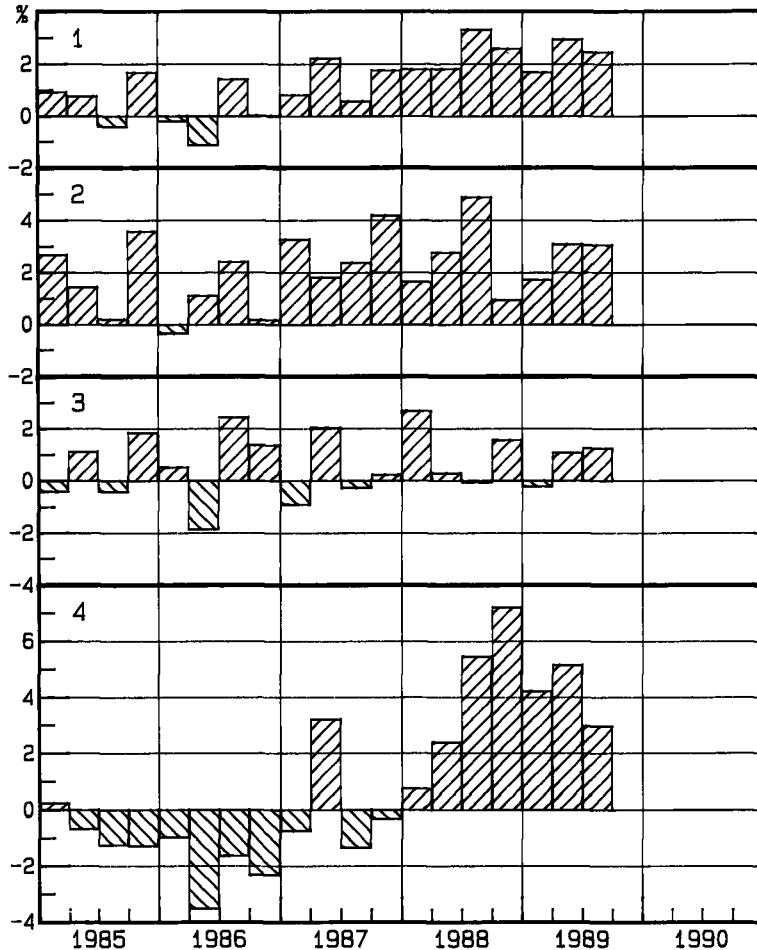
1. Unit value index of bilateral exports
  2. Unit value index of bilateral imports
  3. Terms of trade in bilateral trade
- 1980 = 100

30. PRODUCTION



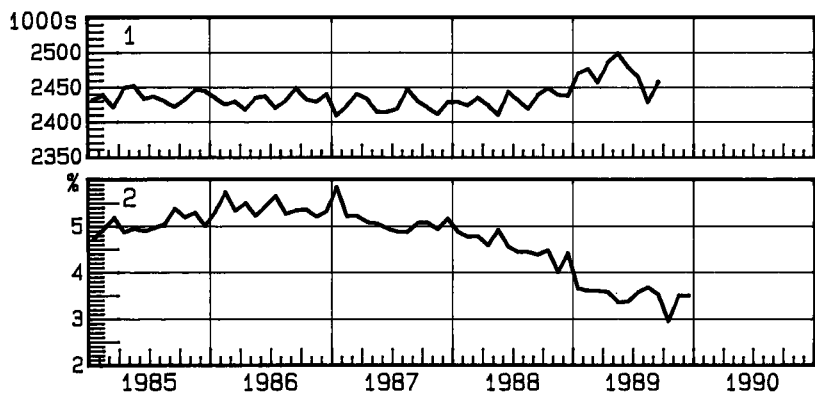
- 1. Industrial production, change in volume from the corresponding month of the previous year, per cent
- 2. GDP, change in volume from the corresponding quarter of the previous year, per cent

31. FIXED INVESTMENT



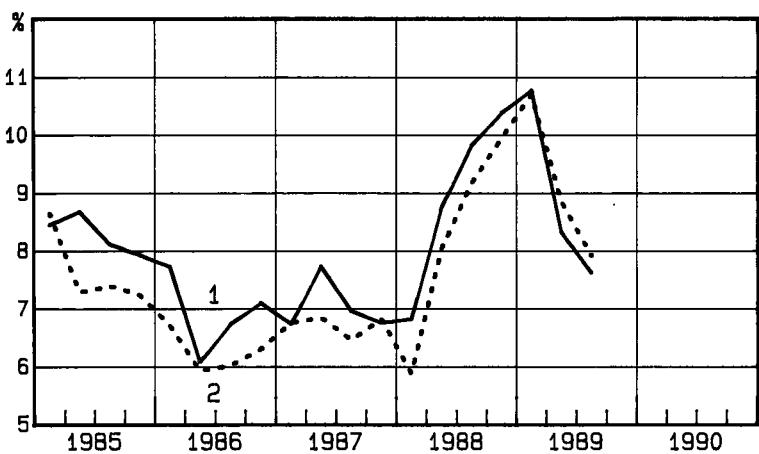
- 1. Total fixed investment
  - 2. Investment in machinery and equipment
  - 3. Building investment, excl. residential buildings
  - 4. Residential buildings
- Volume changes calculated from four-quarter moving totals and shown as at the last quarter, per cent

### 32. EMPLOYMENT AND THE UNEMPLOYMENT RATE

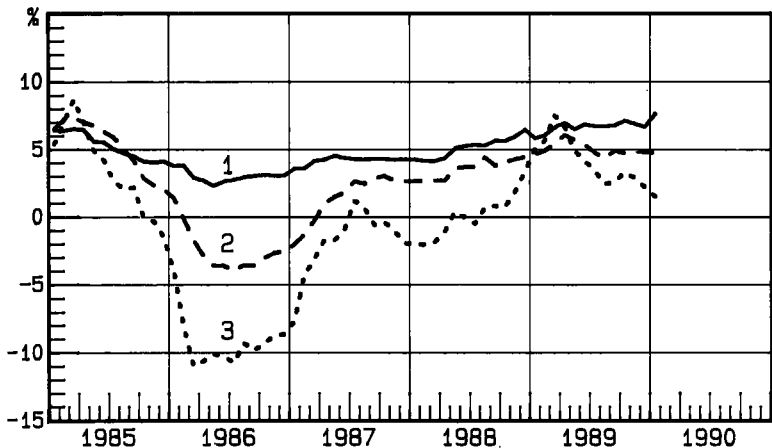


- 1. Employment, 1000 persons
- 2. Unemployment rate, per cent

### 33. PRICES AND WAGES

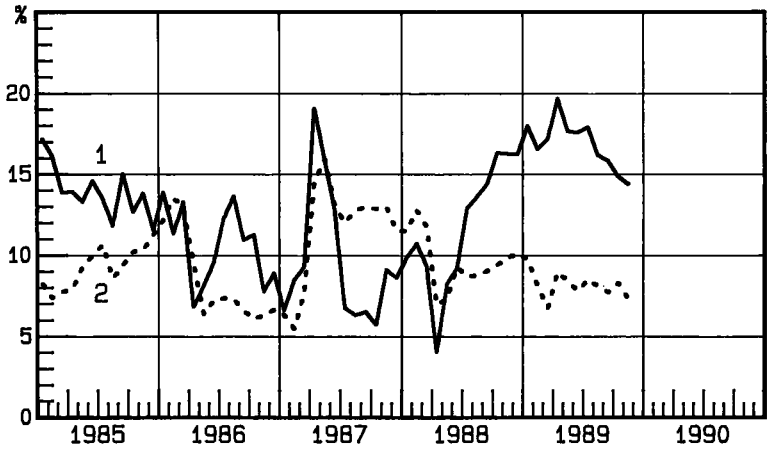


- 1. Index of wage and salary earnings, all wage and salary earners
  - 2. Index of wage and salary earnings, manufacturing workers
- Change from the corresponding quarter of the previous year, per cent



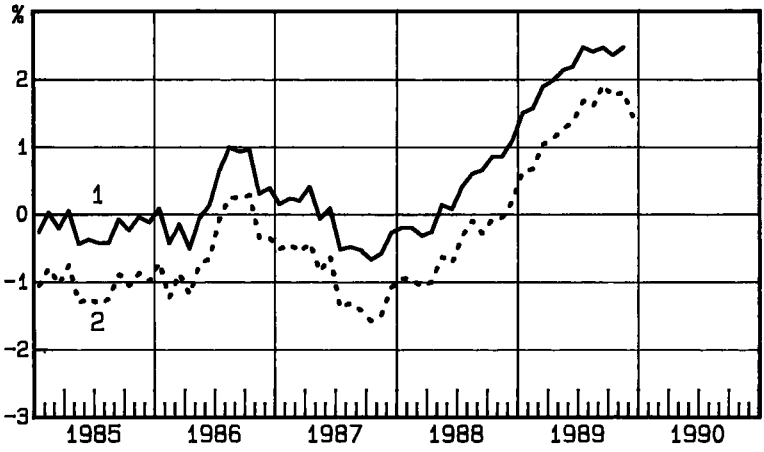
- 1. Consumer price index
  - 2. Wholesale price index
  - 3. Import price index
- Change from the corresponding month of the previous year

34. CENTRAL GOVERNMENT FINANCES



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

Changes calculated from 12-month moving totals and shown as at the last month, per cent



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

12-month moving total shown as at the last month and as a percentage of GDP

# BANK OF FINLAND

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PERTTI HIETALA, Vice Chairman  
MATTI MAIJALA

TUURE JUNNILA  
ANTTI KALLIOMÄKI

HEIKKI PERHO  
JUSSI RANTA

HENRIK WESTERLUND  
PAAVO VÄYRYNEN

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ESKO OLLILA

PENTTI UUSIVIRTA

KALEVI SORSA  
Speaker of Parliament, on leave of absence

ELE ALENIUS

MARKKU PUNTILA, Acting Member

HARRI HOLKERI  
Prime Minister, on leave of absence

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Administration Department URPO LEVO  
Data Processing Department RIITTA JOKINEN

Payment Instruments Department  
REIJO MÄKINEN  
Personnel Department ANTON MÄKELÄ  
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HEIKKI T. HÄMÄLÄINEN,  
Secretary to the Parliamentary Supervisory  
Board and the Board of Management

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12 branches: Joensuu, Jyväskylä, Kotka, Kuopio, Lahti, Mikkeli, Oulu, Pori, Rovaniemi, Tampere, Turku, Vaasa

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VELI TARVAINEN, Managing Director

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