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The Bank of Finland's interbank funds transfer system and preparations for EMU¹

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The Bank of Finland's interbank funds transfer (BOF) system, which was introduced in March 1991, is one of the first real time gross settlement (RTGS) systems to operate in Europe. Owing to rapid changes in the operating environment for payment transfer systems, the BOF system is about to undergo major modifications. Finland's membership in the EU and the transition to Stage Three of economic and monetary union (EMU) will require changes in the rules and technical features of the BOF system. In addition, certain modifications will be needed in order to facilitate banks' risk management and provide the capacity for fluid processing of increasing payment volumes.

Future developments

When Stage Three of EMU starts at the beginning of 1999, the BOF system will become a part of the EU-wide RTGS system called TARGET (Trans-European Automated Real-time Gross-settlement Express Transfer). The Bank of Finland has decided to join the TARGET system as soon as it is launched. While it is not yet known which countries will initially form the euro area, ie participate in Stage Three from the start, it has been agreed that non-participating EU countries will also have access to TARGET. Most of the preparations for TARGET-related modifications are now in place, and the focus of work has shifted from planning to actual implementation.

TARGET is to be a rapid (virtually real-time) euro-based EU-wide payment system, created by linking together participating member states' national RTGS systems. The main object of the TARGET system will be to settle payments related to the single monetary policy of member states in the euro area. The system, which is expected to promote fluid payment transfers within the EU as a whole, will also be well equipped to process customer payments.

Linkup of the BOF system with the TARGET system will entail a considerable expansion of payment services that the Bank of Finland provides for

banks. The fact that the BOF system will be an EU-wide system is of vital importance to the users. With the necessary modifications, the BOF system will be well adapted for processing customers' cross-border as well as domestic payments. As the TARGET system will facilitate cross-border payments in Europe, bank customers can expect an improvement in the security and efficiency of payment services, especially in respect of large and urgent payments.

The volume of payments processed in the BOF system, which is presently small compared to those of similar systems in most European countries, is likely to grow substantially in the future. This will occur not only because of the extension of the BOF system to include cross-border payments but also because the share of domestic transactions processed in the system will expand as domestic payments are increasingly settled on a gross, rather than net, basis. In the future, banks will use the BOF system for transferring domestic (especially large and urgent) payments. For instance, the settlement of large-value express transfers, large markka-denominated foreign (loro) payments and payments related to securities trades will be effected to an increasing extent on an RTGS basis.

The increase in transaction volumes places higher demands on the functionality of the BOF system. In order to ensure fluid processing of payments, the BOF system rules and technical features will need to be revised in accord with the new operating environment.

Table. RTGS transactions in different EU countries in 1995

Country	RTGS transactions, thousands	RTGS transactions/GDP (Finland=1)	RTGS transactions/capita (Finland=1)	Implementation year
Austria	910	4.5	5.2	1989
Denmark	349	2.3	3.1	1981
Finland	110	1.0	1.0	1991
Germany	5 500	2.6	3.1	1988
Italy	46	0.0	0.0	1989
Netherlands	400	1.2	1.2	1985
Sweden	119	0.6	0.6	1990

¹ See also the article 'The Bank of Finland real-time gross settlement system' by J Marvala and M Palva, Bank of Finland Bulletin, May 1995.

Changes in BOF system rules

When Finland moves to Stage Three of EMU, banks' current accounts at the Bank of Finland will be denominated in euro instead of markkaa as will domestic interbank payment transactions. However, during a transition phase (1 Jan 1999 – 30 Jun 2002), the banks will also provide markka-denominated services for their customers.

Over the next few years, extensive changes will be made in all aspects of BOF system rules, in line with the requirements of the domestic payment system and European integration. The primary objective of the changes is to increase system flexibility and transparency.

The most important changes will affect the following areas:

- 1 Access conditions
- 2 Operating hours
- 3 Pricing
- 4 Collateral policy
- 5 Limits policy

The central banks of member states of the EU and European Economic Area (EEA) must revise access conditions for their interbank funds transfer systems so as to ensure freedom to offer cross-border services as prescribed in the Second Banking Directive. The Council of the European Monetary Institute (EMI) has agreed on an interpretation by which EU credit institutions should be allowed to participate in central banks' interbank funds transfer systems in countries where they have no branch or subsidiary (remote access). Hence, BOF system access conditions must be revised to incorporate the right to remote access. The right to remote access will lower the start-up threshold for banks' cross-border operations.

Operating hours for the BOF system will be extended to about 18 hours per day and will be among the longest in the EU. The need to extend system operating hours is currently being discussed in many central banks, including all the EU central banks. Longer operating hours for central bank systems will facilitate banks' management of payment transfer risks.

The central banks' RTGS systems that are linked to the TARGET system will observe partly harmonized operating hours. All systems will close at 19.00 Finnish time, so that euro-area monetary policy operations can be effected simultaneously in all the countries on the basis of end-of-day account balances. It has been agreed that the minimum overlap of operating hours will be 11 hours, but national central banks will be entitled to observe longer hours, as opening times will not be harmonized.

It has been planned to extend the operating hours of the BOF system gradually so that from September 1998 the closing time will be 18.00

Finnish time and from the start of 1999 19.00. The opening time will be changed to about 1.00 in September 1998, at which time a second settlement process for banks' payment systems will be introduced. The banks and the Bank of Finland have agreed on the introduction of a second settlement for the banks' (net settlement) payment system in addition to the present afternoon settlement at 15.45 Finnish time. The second settlement will be effected in the BOF system immediately after it opens.

The Bank of Finland will continue to observe cost recovery pricing in the provision of services after the changeover to the euro. However, the EU central banks are striving toward greater harmonization of pricing policies, which may affect the fees charged by the Bank of Finland. The EU central banks are currently engaged in discussions on pricing policies.

Planned changes in the Bank of Finland's collateral and limits policies are intended to facilitate banks' liquidity management. Further development of liquidity management techniques is crucial to the prevention of possible negative effects of growing transaction volumes on the fluidity of payment transfers. The Bank of Finland has decided to discontinue the application procedure for banks wishing to change their BOF system intraday credit limits. Banks will be able to change their credit limits at any time during the day in accord with their needs. A bank that changes its credit limit will be required to post full collateral with the Bank of Finland.

The transition to Stage Three of EMU will also entail an expansion in the range of assets eligible as collateral for central bank credit. Not all aspects of the common collateral policy to be observed by the central banks of the euro area have yet been defined. In the course of preparing for monetary union, agreement in principle has been reached to the effect that cross-border use of collateral should be allowed in Stage Three. Consequently, the central banks of the member states of the euro area will accept foreign assets as collateral for central bank credit. The range of assets accepted as collateral by the Bank of Finland will thus be wider than at present, and this will make it easier for foreign banks (and others) to operate in Finland. The Bank of Finland will in each case require full collateral for all types of credit.

Technical modifications

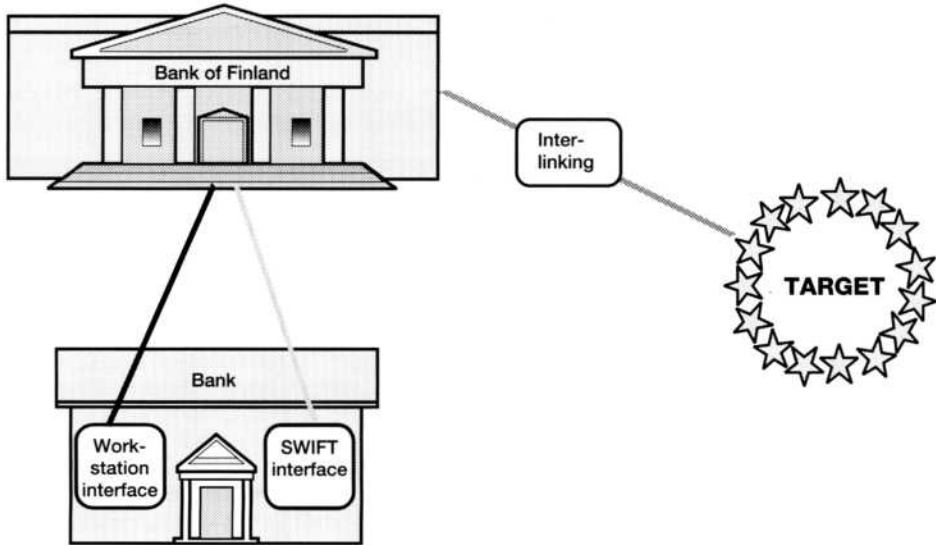
The most important technical modifications in the BOF system will concern the following areas:

- 1 Linkage to other central banks (Interlinking system)
- 2 SWIFT user interface for domestic banks
- 3 Queuing system

A communications network called the Interlinking system will interconnect the RTGS systems of the

Chart.

BOF system interfaces



national central banks in the euro area to form the TARGET system. Because the Bank of Finland must see to it that its system is capable of processing messages sent via the Interlinking system, certain technical modifications will need to be made in the BOF system. The processing of Interlinking messages at the Bank of Finland will be fully automated. From the viewpoint of the Bank of Finland's customers, ie the banks, the new Interlinking system is significant mainly in that it enables banks to effect cross-border payments via the Bank of Finland.

In the future, the BOF system will provide more diversified user interfaces for banks. The present PC-based workstation application, which uses the TCP/IP protocol (Transport Control Protocol/Internet Protocol) for communication purposes, will be supplemented by a SWIFT-based (Society for Worldwide Interbank Financial Telecommunication) user interface. The banks will use the SWIFT user interface to transmit customers' payment messages based on TARGET standards. The TCP/IP-based user interface provides banks with a wide range of facilities to monitor their intraday account positions at the Bank and to make changes in payment queues (more on queuing below).

The Bank of Finland decided to build the SWIFT user interface because notable changes would

have been required in its current workstation application to enable the processing of customer payments based on TARGET standards. In the future, domestic and cross-border payments may be transferred using payment messages MT100 and MT202 based on SWIFT communication standards. Several European central banks will use both SWIFT-based and TCP/IP-based user interfaces.

The Bank of Finland will incorporate a payment queuing procedure in the BOF system. The queuing procedure is required in instances where the sending bank's current account at the Bank of Finland does not have adequate funds to cover a payment. In such a case, the payment order will be put into a queue until sufficient funds are made available. When adequate funds enter the sending bank's account, the payments in the queue will be settled automatically. In light of the expected substantial increase in transaction volumes processed by the BOF system, it is important that payments queuing be arranged in order to ensure fluid payment transfers.

The banks will be able to view the payment queues and change the order of payments via their workstations. The banks will also be able to prioritize payments, specify earliest possible entry dates for them or remove them from the queue. In order to

resolve a gridlock situation, the system will check automatically on whether all queued payments can be effected simultaneously.

Concluding remarks

In the next few years, the BOF system will undergo significant changes, reflecting both the cooperative efforts of the EU central banks and the needs of domestic payment systems. Transition to Stage Three of EMU will require changes in the rules and technical features of the BOF system. In order to ensure fluid processing of increasing transaction volumes, the rules must be made more flexible and the level of technical services raised. These changes in the

BOF system are a sign of the growing importance of the system – which is to serve as a channel for domestic payments as well as cross-border payments between Finland and other European countries.

30 April 1997

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- Key words: Bank of Finland, RTGS, TARGET

The BOF5 macroeconomic model of the Finnish economy

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The Bank of Finland's BOF model is designed to simulate the Finnish economy in an aggregative way and to produce quantitative information on responses of the economy to various types of impulses originating eg in the world economy or in economic policy measures. The BOF model is a medium-sized quarterly macroeconomic model¹, used for forecasting and policy analysis. This article describes the structure of the latest version of the model and provides some examples of its behaviour in simulation experiments. Expectations for a very large set of variables can now be treated as genuinely forward-looking, which extends the model's applicability for several types of policy simulation.

Evolution of the BOF model

In retrospect, there have been several jumps in the development of the theoretical foundations of the BOF model in its more than 25 years of existence. These jumps fairly well reflect overall developments in the art of building macroeconomic models. In the 1970s the BOF model was a typical Keynesian demand-oriented model. In the 1980s it was modified so as to be more consistent with the 'neoclassical synthesis', which stressed the importance of long-run supply constraints.

The 1980s also saw the development of a theoretical framework for modelling the functioning of financial markets. In the BOF3 version of 1985, disequilibrium economic theory was applied to the Finnish financial markets. This reflected the fact that until the mid-1980s Finnish monetary policy was based on credit rationing. Around that time, the Finnish financial markets were deregulated and the focus of attention shifted from excess demand for bank loans to the demand and supply of broad money, the determination of money market interest rates and the term structure of interest rates. Hence, the BOF4's (1990) financial block was modelled within a conventional framework in which the interest rate clears the money market.

New version: forward looking

The latest version of the model, BOF5, was recently put into operation. One aim of recent work on the

model has been to further develop the theoretical foundations and reduce the gap between macroeconomic models and mainstream macroeconomic theory. This gap is largely associated with difficulties in modelling and solving large-scale macroeconomic models with rational (forward-looking) expectations, even though in the theoretical literature rational expectations has been the main working hypothesis for expectations formation for some 20 years.

With the development of solution algorithms, estimation software, and more powerful PC hardware, the treatment of expectations as being forward looking is no longer out of reach of model builders. Hence, in building the BOF5 the main hypothesis has been that expectations are rational or 'model-consistent'.

In connection with forecasting, however, this hypothesis is still computationally burdensome and considered to reflect a rather extreme view. For this reason the BOF5 also contains a backward-looking alternative for each forward-looking equation, with exactly the same long-run properties.

In preparing the medium-term macro forecast, a part of which is the inflation forecast, inflation expectations can be treated as forward looking. The inflation forecast indicates whether the inflation target is likely to be achieved with no change in the stance of monetary policy. On the other hand, in analysing policy, rational expectations entail indisputable advantages, and the whole spectrum of forward-lookingness can be utilized.

Other improvements over the BOF4 concern the wealth and credit channels, of which the wealth channel is described below. Because the credit channel is not yet included in the version normally used, we do not discuss it here. Without the credit channel, the financial block of the BOF5 reflects a straightforward application of the monetary tradition of financial modelling.

Main features of the BOF5 model

An aggregative description

We first sketch a broad picture of the model before describing more precisely the workings of the core of the model, ie the private sector.

In the goods and production factor markets, the model contains three domestic behavioural sec-

¹ The number of key behavioural equations in the model is currently about 60. In addition, there are more than 300 identities, input-output equations and definitional equations.

tors: household sector, corporate sector and government sector. The corporate sector is disaggregated into two production sectors: the manufacturing sector, assumed to be exposed to foreign competition, and the rest of the private sector, assumed to be sheltered from direct foreign competition.

Mainly because of the need to determine incomes and outlays, the general government sector is disaggregated into central government, local government sector and social security funds. The local government sector is treated as a single independent decisionmaking unit, which is assumed to maximize the utility of municipality residents under a tight budget constraint. The central government guides the behaviour of the local government sector mainly through transfer payments to municipalities.

In the financial block of the BOF5 model the agents (decisionmakers) are households, firms, banks, other financial institutions, the government sector, the central bank and foreign investors.

A fixed exchange rate regime is normally incorporated, but the central bank decision variable can be varied in the simulations. This means that the model can also be solved assuming a floating exchange rate regime. Perfect capital mobility, implying uncovered interest parity, is the benchmark case.

In the context of wage formation, labour unions and centralized bargaining play an important role in Finland. This is reflected in the structure of the model in that wage developments are decomposed into 'negotiated' wage rate increases and 'wage drift' occurring outside the contractual wage formation mechanism. Inflation expectations, tax wedges and unemployment are the main determinants of negotiated wages. The wage drift component in turn is determined by disequilibrium factors in the labour market, i.e. the unemployment rate and the real-wage gap. The latter is determined by the difference between lagged real product wage and the warranted wage, given by the marginal product of labour.

Theoretical foundations

The theoretical starting point adopted in constructing the BOF5 is that it represents the neoclassical synthesis. By this, we mean that in the short run, owing to the relative rigidity of wages and prices, production, income and employment are determined by aggregate demand. The short-run properties of the model are thus Keynesian. In the course of time, however, wages and prices respond to possible discrepancies between demand and supply, and consequently the product and labour markets tend to converge to full employment and purchasing power parity between domestic and foreign currency prices.

In specifying the equations of the BOF5 model, expectation variables appear as explanatory variables in many of the estimated equations: private

consumption, housing investment, private fixed investment, inventory investment, demand for labour, price of housing, price of exports, producer prices and the demand for money. Systematic use of the 'Euler approach' makes the model forward looking. In addition, the negotiated wages equation entails rational inflation expectations and the long-term interest rate is determined as a weighted average of expected short-term interest rates.

Unlike in traditional models, where only the past values of fundamental explanatory variables affect dependent variables, it is now the entire expected future time paths of fundamental variables which affect dependent variables. However, although it is forward looking, the BOF5 also contains a substantial amount of friction and rigidities, mainly resulting from adjustment costs. Thus it is not only the future that matters for the solution of the model; the past performance of the economy also has a strong impact.

A common way of taking into account adjustment costs is to apply two-stage optimization. The first stage, which is carried out as if there were no adjustment costs, determines the desired levels of the variables. In the second stage, adjustment costs – which increase with deviations of actual levels from desired levels and with changes in actual values – are minimized. This procedure results in equations which although forward-looking also have a strong backward-looking character.

In the following, we focus on the household and corporate sectors, because both households and firms are modelled to make intertemporal decisions for which expectations formation plays an important role.

Household sector behaviour

Both past and future matter

Households gain utility from consumption and services associated with holding money. Via the budget constraint, consumption and investment decisions affect net borrowing and further accumulation of wealth in the household sector. As owner-occupied housing is part of household sector wealth, the housing market should be modelled in order to have wealth formation fully determined.

The behaviour of the household sector is based on intertemporal maximization of utility under a flow budget constraint, with wealth composed of housing wealth, money balances and debt. In addition, we follow general empirical practice in assuming that some households are liquidity constrained.

These assumptions imply that private consumption depends on current-period real disposable income, real wealth and the present value of the expected stream of future real income. Hence, consumption is forward looking.

As a result of utility maximization, the demand for real money balances is determined by private consumption and the nominal interest rate. Because

of adjustment costs associated with money balances, we end up with a forward-looking equation for the demand for money, which also contains backward-looking elements, ie the demand for actual real money balances depends on the weighted averages of past and future consumption streams and on nominal interest rates.

The wealth channel

The interaction of the demand and supply of housing services plays an important role in the wealth channel mechanism and hence in the transmission of monetary policy to the household sector. The equilibrium condition for the demand and supply of housing services, which determines the rental price of housing, depends positively on permanent income and negatively on the existing housing stock. The market price of housing is the discounted present value of the determinants of the rental price of housing and is therefore forward looking. However, as it is assumed that the demand for housing services reacts slowly to changes in permanent income, this relationship also includes a strong backward-looking element. In this equation, monetary policy affects the market price of housing directly through the interest rate used in discounting.

The market price of housing affects household sector wealth via the value of the housing stock and the accumulation of the housing stock. The construction of new dwellings is a function of the market price of housing relative to production costs (Tobin's q). In addition, changes in the interest rate also have a direct effect on housing investment. This direct link is associated with the cost of financing during the construction period.

The household sector flow budget constraint defines the net borrowing requirement, ie the accumulated changes in outstanding debt of the household sector.

Anticipated change in future income

Charts 1 and 2, which give the results of partial simulations, illustrate the working of the household sector and the implications of forward-lookingness. These simulations are based on endogenous equations for consumption, market price of housing, housing investment, housing stock, market value of housing stock, accumulation of net financial wealth and total nominal wealth. Disposable income of households is increased permanently by one per cent in the experiments.

In the first case it is assumed that households know with certainty the permanent increase in future income long before it occurs. In the second case the increase in income comes as a surprise, but after its occurrence it is known to be permanent. In Chart 1, we see that consumption starts to react to an anticipated future increase in income immediately when households become informed of it, ie households try to smooth their life-cycle consumption paths.

Chart 1.

Reaction of private consumption to anticipated and unanticipated permanent increase in real disposable income

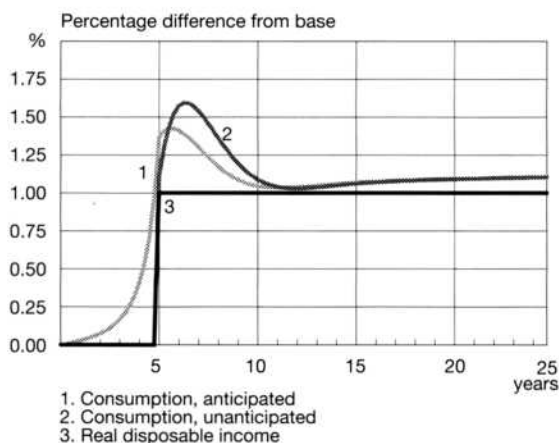


Chart 2.

Reaction of private consumption to anticipated permanent increase in real disposable income

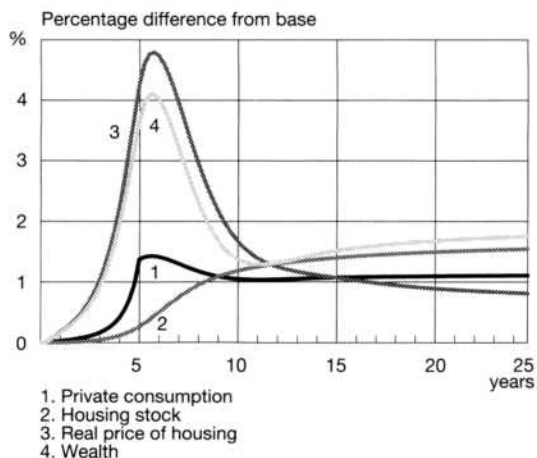


Chart 2 shows how consumption, the real price of dwellings, the stock of housing and real wealth move toward their new long-run equilibrium levels in the case of an anticipated increase in income. The housing price reacts quite strongly to future income increases and is transmitted to the wealth

variable. As the estimated income elasticity of the demand for housing services is greater than unity, the percentage increase in the housing stock is in the long run greater than the percentage increase in consumption. The real price of housing remains permanently above the baseline. This is necessary in order to keep investment in dwellings at the level required by the greater depreciation associated with a larger housing stock.

Corporate sector behaviour

Firms maximize future profits ...

The behaviour of firms is based on profit maximization. Again, the two-stage optimization approach is used. Desired levels are first determined and then the adjustment costs are minimized.

In the first stage, firms maximize the value of their expected future profit streams subject to their respective production functions², product demand functions and adjustment costs associated with investment. The manufacturing sector meets two demand functions: the foreign demand for exportables, ie the goods exports equation; and domestic demand for import-competing products. In line with the small open economy hypothesis, the price elasticity of exportables is high and approaches infinity in the long run.

Demand in the rest of the private sector is solely domestic demand. Demand for domestically produced goods and services is obtained indirectly as the difference between total domestic demand and imports. As the price elasticity of imports is low, there is low substitutability between domestically produced and imported goods.

As a result of profit maximization we obtain forward-looking fixed investment functions for each sector so that investment depends on both future and past differences between the marginal product and the rental price of capital. The main determinant of the rental price of capital is the real interest rate. Marginal products of capital are calculated from estimated production functions and depend positively on the output-capital ratio. Hence, accumulation of the capital stock decreases the marginal product of capital and the incentive for additional investment, unless the demand for output grows at the same time.

The desired demand for labour input can be solved from the inverted production function. The first stage maximization also defines the desired price levels for exportables and for commodities sold in domestic markets as a markup over short-run marginal costs of production. Marginal costs include raw material costs and the ratio of nominal labour costs to the marginal product of labour (measured in terms of the capital-labour ratio). Hence, a

positive demand shock causes upward price pressure via the decreasing marginal product of labour.

It is worth noting that although the main determinant of export prices is the short-run marginal cost of production, in the long run purchasing power parity must hold between export prices and competing world market prices. For instance, if relative export prices are too high, the volume of exports and hence production decreases. This process continues until costs are restored to a level consistent with competing world market prices, mainly through wage responses to lower demand for labour.

... And minimize adjustment costs

The second stage of the minimization of adjustment cost functions produces equations for actual export prices, producer prices and actual labour demand, with both forward- and backward-looking elements. A similar type of equation is also derived for inventory investment by assuming increasing costs associated with deviations of inventories and production from desired levels.

The input-output identity for production with the assumption of fixed input shares is used in solving for value-added deflators. Likewise, prices for demand components are obtained as weighted averages of sectoral producer prices, import prices and indirect taxes. The consumer price index is modelled to include the imputed housing cost term.

Simulation properties of the model

We now illustrate some of the main features of the model with the aid of simulation experiments. Two different types of shocks are discussed: a government consumption shock and a real interest rate shock. To demonstrate the importance of expectations modelling, both shocks are introduced under two extreme assumptions regarding expectations.

The first assumption is that of forward-looking expectations. Here, rational expectations are incorporated into a wide set of behavioural equations as described above. The second assumption is that of backward-looking expectations. In this case economic agents look only at past developments in making intertemporal choices. Expectations in the private sector are formed solely on the basis of past observations. For modelling purposes, we use extrapolative expectations in fundamentals combined with exogenous inflation expectations.

In the forward-looking simulations, the nominal interest rate reacts to changes in inflation, with the real interest rate remaining constant. Fixed nominal exchange rates are assumed in all the experiments.

Government expenditure shock

In the expenditure shock, central government consumption is permanently decreased by an amount roughly equal to one per cent of real GDP in 1997. Chart 3 shows that the model behaves according to the principles of the 'neoclassical synthesis'. In the

² In manufacturing, the value-added production function is a Cobb-Douglas function and for the rest of the private sector the functional form is CES. In both sectors the input share of raw materials is assumed constant in volume terms.

Chart 3.

BOF5 model simulations

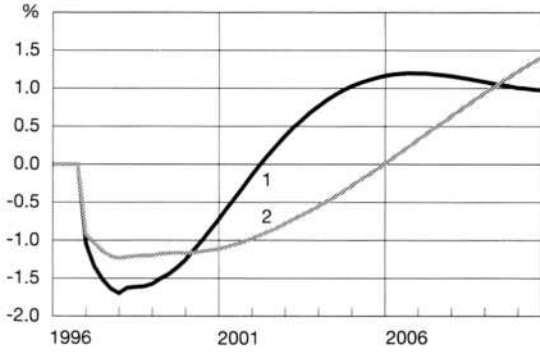
- 1. Forward looking
- 2. Backward looking

Key variables, differences from base

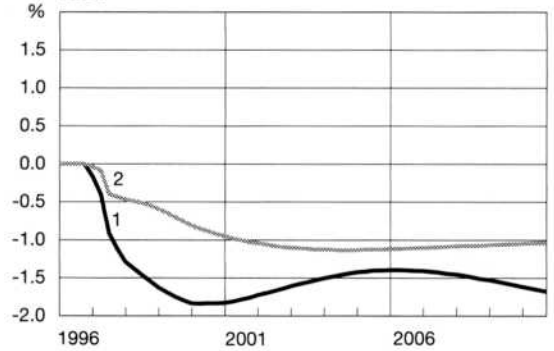
Central government consumption decreased by one per cent of GDP

Real interest rate increased by one percentage point

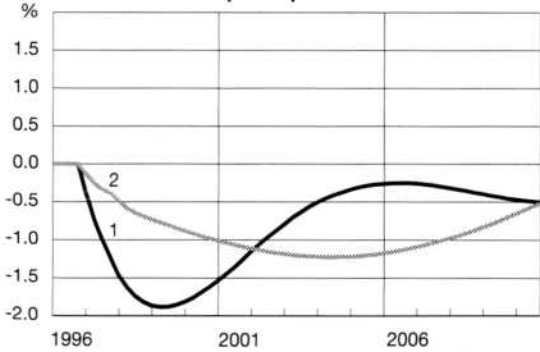
GDP



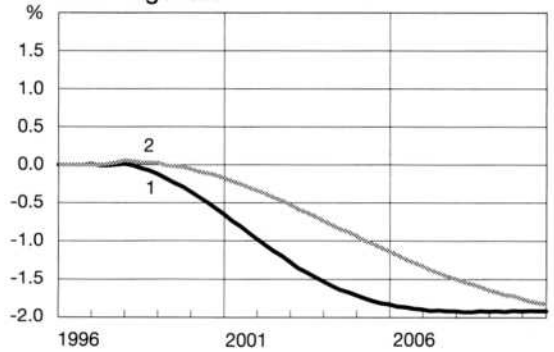
GDP



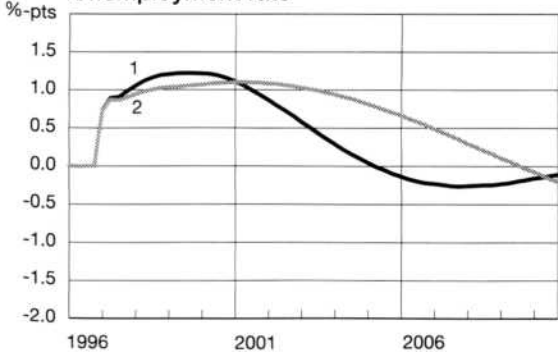
Private consumption prices



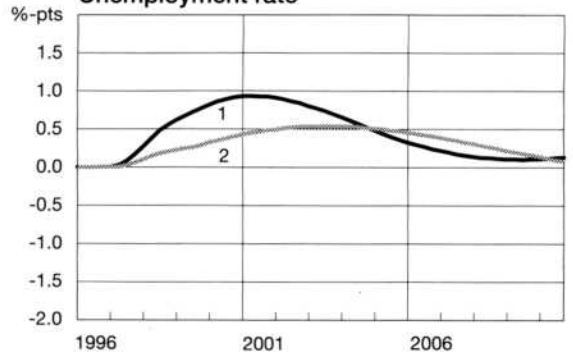
Real wage rate



Unemployment rate



Unemployment rate



short run, the decrease in government expenditure has a contractionary effect on output. In the longer run, the adjustment of prices and wages works to adjust the economy toward an equilibrium level of output, which is determined by supply considerations such as the available labour force and exogenously determined technical progress.

In the simulation, the resultant shift of resources from the government sector to the private sector increases average productivity, so that the long-run level of output is somewhat higher than without the cut in the government spending. However, neither the unemployment rate nor prices are permanently affected.

The adjustment to a shock follows a different time path, depending on how expectations formation is modelled. With forward-looking expectations, the adjustment toward a new equilibrium seems to be much faster.

Real interest rate shock

In the interest rate simulation, the real ex post short-term money market rate is permanently raised by one percentage point. The simulation is not intended to be a realistic monetary policy simulation. Rather, it serves merely to clarify the role of the real interest rate as such in the model. In a more realistic monetary policy simulation, the accompanying exchange rate effects would of course have to be included as well. It is also questionable whether monetary policy is at all capable of permanently influencing the real interest rate.

The rise in the real interest rate results in a permanent decrease in production. This comes mainly through adjustment of the capital stock to a lower level in response to an increase in the rental price of capital. Likewise, we see that the real wage rate must decline in order to maintain full employment in the new long-run equilibrium.

Ongoing work aims at further improvements

The BOF5 model is currently under thorough testing in the Bank of Finland's Economics Department. This testing will probably lead to continued refinements in model structure details. Future work on the BOF5 model will focus not only on practical forecasting applications but also on reporting of the structure and full properties of the model.

A particularly important area for further research relates to means of handling credibility issues in practical macroeconomic modelling. Progress in this area is obviously vital to the usefulness of econometric models in analysing economic policy in general and monetary policy in particular.

30 April 1997

- Key words: macroeconomic models, econometric modelling, simulation, expectations

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Items

New 20 markka note issue set for 12 May

Finland's current 20 markka note was first issued in 1993. Now a new issue (Litt. A) of the 20 markka note incorporating a hologram for greater security will be released. The note will have a more blue-green look to make it easier to distinguish from the 100 markka note.

The Bank of Finland will begin issue of the new 20 markka note on 12 May. Older 20 markka banknotes will be gradually withdrawn from circulation, though they will continue to be legal tender and may be used as before in making payments.



Publications of the Bank of Finland

The Bank of Finland Annual Report 1996 has been published. The Report includes the Governor's review, a review of monetary policy and other central bank activities in 1996, as well as the financial statements and accompanying notes. Various banking transactions undertaken by the Bank during the year under review are included in a statistical appendix. Helsinki 1997. 121 pp. ISSN 1239-9345.

* * *

The Bank of Finland has released its statistical bulletin *Finnish Bond Issues 1996*. The bulletin contains data in Finnish, Swedish and English on all markka-denominated bonds issued by Finnish borrowers in Finland during 1996. The data is based on a bond register maintained by the Financial Supervision Authority. The report also includes data on foreign currency-denominated government bond issues in 1996 as well as summaries of all markka-denominated bond issues from 1991 to 1996, broken down by sector.

Altogether, 81 markka-denominated bond issues were registered in 1996. Their total value was FIM 73.8 billion, which is 2 per cent more than in 1995. Issues of markka-denominated government bonds amounted to FIM 62.1 billion, ie some 84 per cent of the total amount of markka-denominated bonds issued. Issues of bonds by financial institutions totalled FIM 8.5 billion and issues by companies FIM 3.2 billion. A single local authority issue amounted to FIM 20 billion.

At the end of 1996, the total amount of outstanding markka-denominated bonds was about FIM 254 billion, of which issues to the public accounted for approximately FIM 223 billion.

Helsinki 1997. 12 p. ISSN 0781-4437.

Measures concerning monetary and foreign exchange policy and the financial markets

1996

FEBRUARY

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

MARCH

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

MAY

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

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

JUNE

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

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

JULY

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

AUGUST

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

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

SEPTEMBER

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

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

OCTOBER

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

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

Finland in brief

Land, climate and population

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

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

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

Form of government

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

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

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

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

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

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

International relations

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

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

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

The economy

Output and employment. Of the gross domestic product of FIM 478 billion in basic values in 1995, 2 % was generated in agriculture and fishing, 3 % in forestry, 29 % in industry, 5 % in construction, 11 % in trade, restaurants and hotels, 8 % in transport and communications, 3 % in finance and insurance, 20 % in other private services and 19 % by producers of government services. Of total employment of 2.1 million persons in 1996, 7.1 % were engaged in primary production, 27.6 % in industry and construction and 65.3 % in services.

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

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

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

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

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

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

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

Finance and banking

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

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

Other banks (31 December 1996). Finland has three major groups of deposit banks with a total of 1 447 offices. There are two big commercial banks with national branch networks and five smaller ones. The commercial banks have a total of 14 foreign branches, subsidiaries and associate banks and 18 representative offices abroad. There are 40 savings banks and 298 cooperative banks with their own extensive branch networks. In addition, four foreign banks have branches in Finland and nine foreign banks have representative offices.

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

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

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

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1. The balance sheet of the Bank of Finland

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

	1996		1997		
	31 Dec.	8 April	15 April	23 April	30 April
ASSETS					
Reserve assets	36 397	61 587	60 441	61 325	58 775
Gold	1 742	1 742	1 742	1 742	1 742
Special drawing rights	1 344	1 526	1 536	1 543	1 186
IMF reserve tranche	1 953	1 947	1 966	1 979	1 986
ECU-claim on the European Monetary Institute	2 541	2 554	3 981	4 008	4 011
Foreign exchange assets	28 817	53 818	51 216	52 053	49 851
Other foreign claims	3 853	3 947	3 947	3 947	3 947
Markka subscription to Finland's quota in the IMF	3 794	3 887	3 887	3 887	3 887
Share in the European Monetary Institute	59	59	60	60	60
Claims on financial institutions	13 497	15 107	16 724	18 864	18 864
Liquidity credits	—	—	76	—	—
Securities with repurchase commitments	11 626	13 293	14 854	17 070	17 070
Term credits	—	—	—	—	—
Bonds	196	169	169	169	169
Other claims on financial institutions	1 676	1 645	1 625	1 625	1 625
Claims on the public sector	1 906	1 902	1 904	1 904	1 904
Treasury bills	—	—	—	—	—
Bonds	—	—	—	—	—
Total coinage	1 906	1 902	1 904	1 904	1 904
Other claims on the public sector	—	—	—	—	—
Claims on corporations	2 266	2 254	2 253	2 248	2 047
Financing of domestic deliveries (KTR)	70	58	56	52	50
Other claims on corporations	2 197	2 197	2 197	2 197	1 997
Other assets	598	1 267	1 086	1 083	1 108
Accrued items	490	1 148	976	974	1 000
Other assets	108	119	110	109	108
Valuation account	—	—	—	—	—
Total	58 518	86 065	86 354	89 371	86 645
LIABILITIES					
Foreign liabilities	5 680	5 082	5 091	5 155	5 174
Allocations of special drawing rights	951	995	1 004	1 011	1 014
IMF markka accounts	3 794	3 887	3 887	3 887	3 887
Other foreign liabilities	934	200	199	257	273
Notes and coin in circulation	16 891	15 634	15 543	15 552	16 064
Notes	15 076	13 854	13 770	13 781	14 288
Coin	1 815	1 780	1 773	1 771	1 776
Certificates of deposit	15 530	41 950	48 150	42 650	41 700
Liabilities to financial institutions	8 329	9 043	2 634	10 775	8 217
Reserve deposits	6 829	7 541	1 134	9 275	6 717
Term deposits	—	—	—	—	—
Other liabilities to financial institutions	1 500	1 503	1 500	1 500	1 500
Liabilities to the public sector	—	—	—	—	—
Current accounts	—	—	—	—	—
Other liabilities to the public sector	—	—	—	—	—
Liabilities to corporations	574	263	252	247	213
Deposits for investment and ship purchase	574	263	252	247	213
Other liabilities to corporations	—	—	—	—	—
Other liabilities	220	123	118	119	108
Accrued items	193	89	89	90	81
Other liabilities	27	35	29	29	27
Valuation account	260	2 934	3 532	3 839	4 135
Provisions	5 270	5 270	5 270	5 270	5 270
Pension provision	1 516	1 516	1 516	1 516	1 516
Other provisions	3 754	3 754	3 754	3 754	3 754
Capital accounts	5 764	5 764	5 764	5 764	5 764
Primary capital	5 000	5 000	5 000	5 000	5 000
Reserve fund	764	764	764	764	764
Net earnings	—	—	—	—	—
Total	58 518	86 065	86 354	89 371	86 645

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

End of period	Foreign sector								Public sector		
	Gold	Special drawing rights	IMF reserve tranche	ECU-claim on the European Monetary Institute	Foreign exchange assets	Reserve assets (1+2+3+4+5)	Other claims, net	Net claims (6+7)	Claims	Liabilities	Net claims (9-10)
	1	2	3	4	5	6	7	8	9	10	11
1992	2 180	564	1 732	.	25 041	29 517	-2 998	26 519	2 446	90	2 356
1993	2 180	664	1 747	.	28 882	33 473	-1 324	32 148	1 788	784	1 004
1994	2 180	1 537	1 354	.	47 672	52 743	-1 114	51 629	1 806	93	1 713
1995	1 742	1 569	1 685	3 363	40 506	48 865	-2 082	46 783	1 882	75	1 807
1996	1 742	1 344	1 953	2 541	28 817	36 397	-1 826	34 571	1 906	-	1 906
1996											
April	1 742	1 401	1 864	3 070	33 986	42 063	-1 481	40 582	1 873	342	1 531
May	1 742	1 474	1 953	3 002	27 814	35 985	-1 725	34 260	6 670	0	6 670
June	1 742	1 243	1 908	2 964	26 851	34 707	-2 015	32 692	6 460	0	6 460
July	1 742	1 187	1 880	2 642	26 402	33 854	-2 066	31 788	6 460	-	6 460
Aug.	1 742	1 186	1 909	2 613	27 139	34 590	-2 588	32 002	6 297	-	6 297
Sept.	1 742	1 412	1 928	2 614	27 619	35 315	-1 774	33 541	5 998	-	5 998
Oct.	1 742	1 017	1 915	2 519	29 510	36 703	-1 863	34 840	5 982	-	5 982
Nov.	1 742	1 044	1 945	2 541	29 713	36 985	-2 088	34 897	5 987	-	5 987
Dec.	1 742	1 344	1 953	2 541	28 817	36 397	-1 826	34 571	1 906	-	1 906
1997											
Jan.	1 742	1 370	1 937	2 528	54 432	62 009	-1 292	60 717	1 907	-	1 907
Feb.	1 742	1 544	1 983	2 544	54 189	62 002	-1 370	60 632	1 907	-	1 907
March	1 742	1 514	1 930	2 532	51 982	59 700	-1 268	58 432	1 907	-	1 907
April	1 742	1 186	1 986	4 011	49 851	58 775	-1 227	57 548	1 904	-	1 904

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, net	Reserve deposits of deposit banks ¹	Other claims on financial institutions, net	Net claims (12+13+14)	Claims in the form of special financing	Special deposits and other items, net	Net claims (16+17)		
	12	13	14	15	16	17	18		
1992	3 738	-13 165	4 022	-5 405	747	-2 651	-1 904	14 508	4 880
1993	7 337	-6 398	-463	476	496	720	1 216	14 994	14 837
1994	1 480	-6 526	-347	-5 392	316	1 285	1 601	14 315	35 236
1995	7 076	-15 676	655	-7 945	185	1 706	1 891	15 611	27 090
1996	11 626	-6 829	372	5 169	70	1 623	1 692	16 891	15 530
1996									
April	3 430	-8 831	304	-5 097	138	1 628	1 767	14 759	20 350
May	10 237	-8 790	527	1 974	129	1 541	1 670	14 967	20 700
June	7 887	-4 191	498	4 194	124	1 560	1 685	15 275	21 420
July	6 540	-7 203	487	-176	117	1 581	1 698	15 251	16 445
Aug.	9 988	-5 400	472	5 060	108	1 592	1 700	15 201	21 920
Sept.	10 147	-3 676	443	6 914	102	1 630	1 732	15 331	24 650
Oct.	10 683	-5 131	394	5 946	92	1 662	1 754	15 296	24 920
Nov.	7 041	-4 145	1 100	3 996	74	1 591	1 665	15 449	22 160
Dec.	11 626	-6 829	372	5 169	70	1 623	1 692	16 891	15 530
1997									
Jan.	14 277	-5 082	336	9 531	68	1 797	1 865	15 659	47 370
Feb.	12 104	-1 404	324	11 024	63	1 856	1 918	15 590	47 520
March	18 158	-10 649	319	7 828	59	1 919	1 978	16 131	41 950
April	17 070	-6 717	294	10 647	50	1 784	1 834	16 064	41 700

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

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

	Reserve requirement			Required reserves ¹ , mill. FIM	Excess reserves, mill. FIM	Total reserves, mill. FIM (4+5)	Liquidity credits, mill. FIM
	On deposits payable on demand, %	On other deposits, %	On other items, %				
	1	2	3	4	5	6	7
1993	2.0	1.5	1.0	6 398	.	.	440
1994	2.0	1.5	1.0	6 526	.	.	14
1995	2.0	1.5	1.0	6 557	.	.	123
1996	I-IX	2.0	1.5	6 530	616	7 146	37
	X-XII	2.0	1.5	6 652	440	7 092	121
1996							
April	2.0	1.5	1.0	6 672	148	6 821	153
May	2.0	1.5	1.0	6 624	105	6 730	-
June	2.0	1.5	1.0	6 689	481	7 171	-
July	2.0	1.5	1.0	6 728	139	6 868	-
Aug.	2.0	1.5	1.0	6 672	308	6 981	544
Sept.	2.0	1.5	1.0	6 636	1 634	8 270	-
Oct.	2.0	1.5	1.0	6 703	631	7 334	-
Nov.	2.0	1.5	1.0	6 596	136	6 732	233
Dec.	2.0	1.5	1.0	6 578	992	7 570	186
1997							
Jan.	2.0	1.5	1.0	6 560	423	6 983	-
Feb.	2.0	1.5	1.0	6 590	992	7 582	-
March	2.0	1.5	1.0	6 582	1 478	8 060	-
April	2.0	1.5	1.0	6 589	566	7 156	18

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

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

During period	Purchases of money market instruments	Sales of money market instruments	Matured money market instruments, net	Money market transactions, net (1-2-3)
	1	2	3	4
1992	76 230	137 940	-60 417	-1 293
1993	86 521	146 899	-50 486	-9 892
1994	35 540	351 820	-295 165	-21 115
1995	50 435	434 810	-393 930	9 555
1996	94 080	250 980	-190 562	33 662
1996				
April	3 500	16 320	-26 040	13 220
May	10 500	20 060	-12 880	3 320
June	7 900	14 020	-2 390	-3 730
July	6 700	16 450	-13 510	3 760
Aug.	14 800	21 920	-9 892	2 772
Sept.	11 900	24 650	-15 530	2 780
Oct.	10 600	24 920	-12 030	-2 290
Nov.	7 900	19 340	-23 630	12 190
Dec.	12 650	15 530	-6 430	3 550
1997				
Jan.	17 100	47 370	-2 780	-27 490
Feb.	15 500	47 520	-28 660	-3 360
March	1 450	41 950	-47 030	6 530
April	24 200	41 700	-13 630	-3 870

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

During period	Intervention in the foreign exchange market			Spot transactions related to forward contracts, net	Central government's foreign exchange transactions, net
	Spot purchases	Spot sales	Forward exchange intervention = change in forward exchange position		
	1	2	3	4	5
1992	20 050	-70 640	-1 650	390	45 060
1993	25 120	-45 080	7 460	-6 910	33 240
1994	20 930	-12 900	9 060	-8 930	24 660
1995	4 910	-5 470	-6 170	9 170	-10 135
1996	7 360	-7 320	-	-	-13 868
1996					
March	-	-440	-	-	-1 970
April	-	-1 100	-	-	-1 710
May	1 200	-	-	-	-6 230
June	240	-	-	-	-720
July	60	-	-	-	-50
Aug.	1 350	-	-	-	-658
Sept.	2 310	-	-	-	-2 210
Oct.	2 200	-	-	-	-690
Nov.	-	-480	-	-	30
Dec.	-	-	-	-	-950
1997					
Jan.	38 340	-	12 620	-12 260	-250
Feb.	-	-	430	-	-1 660
March	1 460	-720	-2 610	2 540	-3 490

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

Stock at end of period	Finnish banks' forward contracts						Non-residents' forward contracts with Finnish customers (excl. Finnish banks)			The Bank of Finland's forward contracts	
	With Finnish customers (excl. Finnish banks)			With foreign customers			Total				
	Currency purchases from Finnish customers	Currency sales to Finnish customers	Net (1-2)	Currency purchases from foreign customers	Currency sales to foreign customers	Net (4-5)	Net (3+6)	Currency purchases from Finnish customers	Currency sales to Finnish customers	Net (8-9)	Net currency sales
1	2	3	4	5	6	7	8	9	10	11	
1992	39 195	32 939	6 256	21 142	32 339	-11 197	-4 941	1 614	1 929	-315	7 133
1993	38 373	23 721	14 652	14 346	21 895	-7 548	7 104	11 632	2 173	9 459	1 939
1994	51 096	22 093	29 003	19 236	32 791	-13 555	15 448	18 372	4 780	13 592	-6 080
1995	60 280	19 095	41 185	31 837	48 906	-17 069	24 116	12 829	6 871	5 957	-
1996	53 520	21 793	31 726	44 068	72 021	-27 953	3 773	15 871	6 908	8 963	-
1996											
March	69 288	29 810	39 478	47 057	66 398	-19 341	20 137	15 413	8 400	7 013	-
April	65 120	29 781	35 340	42 328	63 860	-21 532	13 808	15 326	8 836	6 490	-
May	63 924	29 718	34 206	43 553	66 290	-22 737	11 469	17 851	8 327	9 525	-
June	60 709	27 714	32 995	43 406	61 302	-17 896	15 099	16 731	8 494	8 237	-
July	57 388	27 873	29 514	42 949	62 681	-19 733	9 781	16 977	8 127	8 849	-
Aug.	56 042	26 638	29 404	43 992	68 884	-24 891	4 513	17 407	7 513	9 894	-
Sept.	54 160	23 422	30 738	46 476	69 507	-23 031	7 707	18 761	7 536	11 225	-
Oct.	54 587	24 466	30 120	50 823	73 163	-22 341	7 779	18 988	6 902	12 085	-
Nov.	53 072	22 459	30 614	51 554	76 001	-24 446	6 168	18 476	7 649	10 827	-
Dec.	53 520	21 793	31 726	44 068	72 021	-27 953	3 773	15 871	6 908	8 963	-
1997											
Jan.	61 066	21 103	39 964	61 130	72 501	-11 371	28 593	18 219	5 597	12 622	-12 185
Feb.	60 646	20 139	40 507	58 008	66 207	-8 199	32 308	18 779	5 040	13 740	-12 185
March	62 218	23 415	38 803	57 783	85 313	-27 530	11 273	18 160	5 138	13 023	-9 924

3. Rates of interest

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

Average of daily observations	Interbank overnight rate	HELIBOR				Bank of Finland rates		
		1 month	3 months	6 months	12 months	Liquidity credit rate ¹	Excess-reserve rate ²	Base rate
	1	2	3	4	5	6	7	8
1992	13.32	13.49	13.27	13.08	12.96	14.90	7.41	9.17
1993	7.71	7.85	7.73	7.59	7.47	8.95	4.95	6.85
1994	4.38	5.11	5.35	5.78	6.33	7.11	3.11	5.27
1995	5.26	5.63	5.76	5.97	6.34	7.63	3.63	5.20
1996	3.66	3.58	3.63	3.74	3.99	5.57	1.57	4.38
1996								
April	3.91	3.77	3.82	3.95	4.21	5.75	1.75	4.50
May	4.01	3.75	3.76	3.86	4.16	5.75	1.75	4.50
June	3.38	3.67	3.72	3.84	4.11	5.67	1.67	4.50
July	3.48	3.54	3.63	3.78	4.07	5.52	1.52	4.50
Aug.	3.94	3.45	3.54	3.70	4.00	5.43	1.43	4.50
Sept.	3.16	3.19	3.28	3.43	3.67	5.19	1.19	4.25
Oct.	3.11	3.04	3.10	3.20	3.40	5.03	1.03	4.00
Nov.	3.29	3.02	3.08	3.21	3.46	5.00	1.00	4.00
Dec.	3.11	3.02	3.08	3.20	3.40	5.00	1.00	4.00
1997								
Jan.	2.68	3.02	3.07	3.16	3.34	5.00	1.00	4.00
Feb.	2.85	3.01	3.07	3.17	3.34	5.00	1.00	4.00
March	2.51	3.01	3.07	3.18	3.42	5.00	1.00	4.00
April	3.24	3.02	3.08	3.21	3.48	5.00	1.00	4.00

¹ Call money credit rate until 2 July 1992.

² Call money deposit rate until 2 October 1995.

3.2 The Bank of Finland's liquidity facility

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

¹ July-December.

3.3 Weighted Eurorates and commercial ECU interest rate, per cent

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

3.4 Rates of interest applied by banks, per cent

Average for period	Lending						Markka deposits and other markka funding					
	New credits				Average lending rate	Of which: Commercial banks	24-month tax-exempt deposits ¹	36-month tax-exempt deposits ¹	Other tax-exempt deposits, max. rate of interest ¹	Average rate of interest on deposits	Average rate of interest on other funding	Average rate of interest on markka funding
	Cheque account and postal giro credits	Bills of exchange	Loans	New lending, total								
	1	2	3	4	5	6	7	8	9	10	11	12
1992	14.04	15.86	13.32	13.75	12.46	12.13	7.50	8.50	4.50	7.41	12.84	9.14
1993	9.69	13.55	9.40	9.75	10.20	9.92	3.50	4.50	2.00	4.78	8.86	6.15
1994	7.32	11.55	7.13	7.35	8.18	7.91	3.25	4.25	2.00	2.99	5.96	4.01
1995	7.85	11.33	7.30	7.46	8.04	7.75	2.75	3.75	2.00	3.13	6.29	4.08
1996	5.61	9.61	5.31	5.43	6.49	6.15	2.00	3.00	2.00	2.15	4.31	2.78
1996												
March	5.13	10.78	5.93	5.99	6.88	6.57	2.50	3.50	2.00	2.37	4.63	3.00
April	4.83	8.19	5.71	5.75	6.77	6.43	2.50	3.50	2.00	2.32	4.71	2.99
May	5.96	9.19	5.59	5.73	6.64	6.30	2.50	3.50	2.00	2.27	4.59	2.97
June	5.31	10.66	5.35	5.44	6.55	6.20	2.50	3.50	2.00	2.23	4.10	2.79
July	6.26	9.78	5.48	5.63	6.48	6.12	2.50	3.50	2.00	2.21	4.29	2.81
Aug.	6.19	9.74	5.51	5.66	6.42	6.04	2.50	3.50	2.00	2.07	4.09	2.71
Sept.	6.24	9.95	4.92	5.06	6.23	5.87	2.00	3.00	2.00	1.93	3.92	2.52
Oct.	5.63	9.73	4.90	5.04	5.99	5.67	2.00	3.00	2.00	1.84	3.72	2.39
Nov.	5.12	9.58	4.87	4.98	5.94	5.62	2.00	3.00	2.00	1.80	3.77	2.38
Dec.	5.21	9.04	4.38	4.48	5.83	5.48	2.00	3.00	2.00	1.73	3.92	2.35
1997*												
Jan.	4.03	9.93	4.63	4.65	5.75	5.40	2.00	.	2.00	1.69	..	..
Feb.	..	..	..	4.80	5.71	5.36	2.00	.	2.00	1.61	..	..
March	..	..	..	4.88	5.68	5.32	2.00	.	2.00	1.48	..	..

¹ End of period.

3.5 Yields on bonds and shares, per cent

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

¹ November and December only.

4. Rates of exchange

4.1 Middle rates, FIM

Average of daily quotations	New York 1 USD	Montreal 1 CAD	London 1 GBP	Dublin 1 IEP	Stockholm 1 SEK	Oslo 1 NOK	Copenhagen 1 DKK	Reykjavik 1 ISK	Frankfurt am Main 1 DEM	Amsterdam 1 NLG	Brussels 1 BEF	Zurich 1 CHF
	1	2	3	4	5	6	7	8	9	10	11	12
1992	4.4835	3.706	7.875	7.636	0.7714	0.7222	0.7444	0.0778	2.8769	2.5552	0.1397	3.2000
1993	5.7189	4.434	8.582	8.371	0.7350	0.8059	0.8822	0.0846	3.4584	3.0787	0.1655	3.8706
1994	5.2184	3.824	7.982	7.799	0.6758	0.7393	0.8207	0.0745	3.2169	2.8684	0.1561	3.8179
1995	4.3658	3.181	6.891	6.999	0.6123	0.6889	0.7790	0.0674	3.0471	2.7202	0.1481	3.6941
1996	4.5905	3.367	7.164	7.345	0.6847	0.7111	0.7921	0.0689	3.0530	2.7247	0.1484	3.7211
1996												
April	4.7313	3.482	7.169	7.402	0.7040	0.7285	0.8147	0.0709	3.1434	2.8109	0.1530	3.8805
May	4.7568	3.475	7.207	7.437	0.6996	0.7233	0.8038	0.0706	3.1028	2.7755	0.1509	3.7924
June	4.6713	3.420	7.204	7.398	0.6991	0.7153	0.7933	0.0695	3.0590	2.7310	0.1487	3.7172
July	4.5888	3.352	7.128	7.354	0.6909	0.7113	0.7910	0.0687	3.0495	2.7171	0.1480	3.7178
Aug.	4.4777	3.263	6.941	7.215	0.6765	0.6986	0.7816	0.0676	3.0210	2.6932	0.1466	3.7227
Sept.	4.5383	3.313	7.075	7.309	0.6834	0.7029	0.7826	0.0680	3.0145	2.6889	0.1464	3.6860
Oct.	4.5714	3.383	7.245	7.352	0.6925	0.7049	0.7803	0.0681	2.9918	2.6669	0.1452	3.6337
Nov.	4.5500	3.400	7.571	7.576	0.6869	0.7162	0.7839	0.0687	3.0106	2.6843	0.1461	3.5703
Dec.	4.6398	3.409	7.726	7.709	0.6799	0.7173	0.7809	0.0692	2.9883	2.6635	0.1450	3.4927
1997												
Jan.	4.7765	3.541	7.924	7.791	0.6764	0.7408	0.7803	0.0700	2.9754	2.6498	0.1443	3.4297
Feb.	4.9757	3.672	8.089	7.898	0.6720	0.7508	0.7794	0.0707	2.9729	2.6468	0.1441	3.4264
March	5.0716	3.702	8.141	7.932	0.6622	0.7448	0.7834	0.0713	2.9886	2.6558	0.1448	3.4601
April	5.1307	3.681	8.360	7.965	0.6678	0.7360	0.7876	0.0721	3.0003	2.6680	0.1454	3.5109

Average of daily quotations	Paris 1 FRF	Rome 1 ITL	Vienna 1 ATS	Lisbon 1 PTE	Madrid 1 ESP	Athens 1 GRD	Tallinn 1 EEK	Tokyo 1 JPY	Melbourne 1 AUD	ECU Commercial 1 XEU	SDR 1 XDR
	13	14	15	16	17	18	19	20	21	22	23
1992	0.8486	0.00364	0.4088	0.0332	0.0438	0.024	0.4060	0.03546	3.289	5.798	6.31546
1993	1.0096	0.00364	0.4916	0.0356	0.0451	0.025	0.4323	0.05168	3.885	6.685	7.98671
1994	0.9406	0.00324	0.4573	0.0314	0.0390	0.0215	0.4021	0.05106	3.814	6.175	7.46629
1995	0.8748	0.00268	0.4331	0.0291	0.0350	0.0189	0.3809	0.04663	3.238	5.644	6.61879
1996	0.8978	0.00298	0.4340	0.0298	0.0363	0.0191	0.3816	0.04225	3.593	5.751	6.66357
1996											
April	0.9262	0.00302	0.4470	0.0306	0.0377	0.0195	0.3929	0.04411	3.719	5.882	6.86087
May	0.9170	0.00306	0.4412	0.0302	0.0372	0.0196	0.3878	0.04474	3.790	5.844	6.87179
June	0.9026	0.00303	0.4348	0.0297	0.0363	0.0193	0.3824	0.04292	3.698	5.787	6.74035
July	0.9006	0.00301	0.4334	0.0297	0.0361	0.0193	0.3812	0.04200	3.622	5.762	6.65070
Aug.	0.8848	0.00295	0.4293	0.0294	0.0356	0.0189	0.3776	0.04153	3.506	5.683	6.52988
Sept.	0.8854	0.00299	0.4284	0.0295	0.0358	0.0190	0.3768	0.04132	3.598	5.714	6.57191
Oct.	0.8846	0.00300	0.4253	0.0296	0.0355	0.0191	0.3740	0.04071	3.620	5.731	6.58126
Nov.	0.8898	0.00301	0.4279	0.0298	0.0358	0.0191	0.3763	0.04052	3.625	5.782	6.60942
Dec.	0.8845	0.00304	0.4247	0.0296	0.0355	0.0189	0.3735	0.04075	3.702	5.767	6.67218
1997											
Jan.	0.8817	0.00305	0.4229	0.0298	0.0355	0.0190	0.3719	0.04051	3.712	5.777	6.75569
Feb.	0.8806	0.00301	0.4225	0.0296	0.0351	0.0190	0.3716	0.04048	3.818	5.771	6.88718
March	0.8859	0.00299	0.4246	0.0297	0.0352	0.0190	0.3736	0.04138	3.998	5.801	6.98562
April	0.8908	0.00303	0.4263	0.0299	0.0356	0.0190	0.3750	0.04086	3.997	5.853	7.03636

4.2 Markka value of the ECU and currency indices

Average of daily observations	Markka value of the ECU FIM/ECU	Currency indices, 1982=100	
		Trade-weighted currency index	Payments currency index
	1	2	3
1992	5.80140	116.4	115.7
1993	6.69420	132.4	136.0
1994	6.19108	123.2	125.5
1995	5.70936	111.6	111.6
1996	5.83028	115.3	115.8
1996			
April	5.98143	118.3	119.0
May	5.93160	117.8	118.8
June	5.85380	116.3	117.1
July	5.82763	115.3	115.8
Aug.	5.74674	113.5	113.6
Sept.	5.76093	114.0	114.5
Oct.	5.75237	114.3	114.9
Nov.	5.81220	115.1	115.2
Dec.	5.79898	115.2	115.9
1997			
Jan.	5.80159	115.8	117.4
Feb.	5.80357	116.4	119.4
March	5.82954	116.8	120.5
April	5.87626	117.8	121.6

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

Average of daily observations	ECU	DEM	FRF	NLG	DKK	BEF	ESP	ATS	PTE	IEP	ITL
Central rate as of 25 Nov. 1996	5.85424	3.04000	0.906422	2.69806	0.796976	0.147391	0.0357345	0.432094	0.029657	7.32960	0.00307071
	1	2	3	4	5	6	7	8	9	10	11
1995	-1.69	0.23	-3.48	0.82	-2.25	0.49	-2.02	0.24	-1.84	-4.52	...
1996	0.30	0.43	-0.95	0.99	-0.61	0.65	1.49	0.44	0.40	0.21	-3.07
1996											
April	3.01	3.40	2.19	4.18	2.23	3.81	5.44	3.45	3.20	0.98	-1.57
May	2.15	2.07	1.16	2.87	0.85	2.41	4.03	2.10	1.83	1.46	-0.50
June	0.81	0.62	-0.42	1.22	-0.47	0.90	1.46	0.62	0.16	0.94	-1.31
July	0.36	0.31	-0.64	0.71	-0.76	0.42	1.05	0.31	0.01	0.34	-2.08
Aug.	-1.03	-0.63	-2.38	-0.18	-1.93	-0.53	-0.34	-0.64	-0.79	-1.56	-3.83
Sept.	-0.79	-0.84	-2.32	-0.34	-1.80	-0.66	0.10	-0.85	-0.48	-0.28	-2.75
Oct.	-0.93	-1.58	-2.40	-1.16	-2.09	-1.46	-0.56	-1.58	-0.18	0.31	-2.35
Nov.	-0.10	-0.97	-1.84	-0.51	-1.64	-0.87	0.10	-0.98	0.43	3.36	-2.10
Dec.	-0.94	-1.70	-2.42	-1.28	-2.02	-1.63	-0.70	-1.71	-0.14	5.17	-1.16
1997											
Jan.	-0.90	-2.13	-2.73	-1.79	-2.10	-2.07	-0.78	-2.12	0.39	6.29	-0.74
Feb.	-0.87	-2.21	-2.85	-1.90	-2.20	-2.26	-1.79	-2.23	-0.21	7.76	-2.04
March	-0.42	-1.69	-2.27	-1.57	-1.70	-1.73	-1.45	-1.73	0.29	8.22	-2.53
April	0.38	-1.31	-1.73	-1.12	-1.18	-1.34	-0.52	-1.34	0.88	8.67	-1.31

5. Other domestic financing

5.1 Bank funding from the public, mill. FIM

End of period	Cheque and giro deposits	Trans-action deposits	Time deposits	Other deposits	Markka deposits, total (1+2+3+4)	Foreign currency deposits	Total deposits (5+6)	Other funding	Total funding (7+8)
	1	2	3	4	5	6	7	8	9
1992	34 832	88 526	114 771	21 218	259 347	14 626	273 973	65 557	339 530
1993	36 379	92 357	112 413	21 766	262 915	14 883	277 798	63 173	340 971
1994	41 200	99 691	108 922	19 838	269 650	12 774	282 424	44 228	326 651
1995	52 496	110 455	103 573	22 166	288 689	13 679	302 369	37 851	340 220
1996	58 016	131 632	49 827	45 963	285 438	12 358	297 796	40 315	338 111
1995 Dec.	52 496	110 455	103 573	22 166	288 689	13 679	302 369	37 851	340 220
1996 Jan.	49 611 ^r	112 796 ^r	95 511 ^r	25 399 ^r	283 316	13 011	296 327	50 008	346 335
Feb.	50 458 ^r	114 837 ^r	92 259 ^r	24 321 ^r	281 875	14 184	296 059	38 431	334 490
March	47 744 ^r	117 393 ^r	88 832 ^r	24 956 ^r	278 925	13 951	292 876	41 906	334 782
April	48 998 ^r	118 926 ^r	85 803 ^r	25 557 ^r	279 285	14 896	294 182	43 472	337 653
May	49 759 ^r	120 368 ^r	82 956 ^r	26 065 ^r	279 148	15 399	294 547	46 802	341 349
June	50 372 ^r	123 941 ^r	77 448 ^r	29 039 ^r	280 800	13 816	294 617	43 867	338 483
July	49 770 ^r	123 827 ^r	74 304 ^r	31 319 ^r	279 221	13 735	292 955	42 524	335 479
Aug.	49 632 ^r	124 983 ^r	71 631 ^r	32 613 ^r	278 859	12 857	291 717	47 258	338 975
Sept.	51 578 ^r	124 477 ^r	67 805 ^r	33 601 ^r	277 462	13 706	291 168	53 697	344 865
Oct.	53 460 ^r	127 084 ^r	63 616 ^r	34 720 ^r	278 880	12 938	291 818	48 272	340 090
Nov.	52 682 ^r	128 841 ^r	59 728 ^r	35 853 ^r	277 104	12 050	289 154	47 988	337 142
Dec.	58 016	131 632	49 827	45 963	285 438	12 358	297 796	40 315	338 111

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
1992	16 045	3 335	252 163	271 544	95 168	366 712
1993	14 217	2 223	248 406	264 846	66 931	331 777
1994	13 241	1 301	242 417	256 958	45 138	302 096
1995	12 348	901	235 074	248 323	32 252	280 575
1996	11 712	628	238 839	251 179	23 302	274 481
1995 Dec.	12 348	901	235 074	248 323	32 252	280 575
1996 Jan.	12 150 ^r	792	234 104 ^r	247 046	32 406	279 452
Feb.	12 182 ^r	853	235 211 ^r	248 246	31 240	279 486
March	12 262 ^r	835	235 623 ^r	248 719	30 734	279 453
April	12 142 ^r	834	235 029 ^r	248 005	31 704	279 709
May	12 117 ^r	763	235 306 ^r	248 187	29 035	277 221
June	11 936 ^r	747	237 366 ^r	250 049	29 206	279 255
July	11 722 ^r	698	236 967 ^r	249 387	27 516	276 903
Aug.	11 872 ^r	685	237 913 ^r	250 471	26 540	277 011
Sept.	11 803 ^r	659	237 999 ^r	250 462	26 131	276 593
Oct.	11 522 ^r	640	238 811 ^r	250 974	25 311	276 285
Nov.	11 725 ^r	616	239 174 ^r	251 515	24 736	276 251
Dec.	11 712	628	238 839	251 179	23 302	274 481

5.3 Money supply, mill. FIM

End of period	Foreign assets, net	Domestic credit			Other items, net	Monetary aggregates		
		Claims on the central government	Claims on the public	Total (2+3)		M ₁	M ₂ (1+4+5)	M ₃
	1	2	3	4	5	6	7	8
1992	-68 099	81	439 937	440 018	-97 909	134 829	274 011	310 733
1993	-25 989	1 848	403 742	405 589	-100 006	141 759	279 595	322 408
1994	12 844	6 092	365 712	371 804	-97 953	154 357	286 696	328 509
1995	25 481	19 837	353 340	373 177	-94 870	175 921	303 788	329 820
1996*	40 638	12 821	350 230	363 052	-106 399	204 834	297 291	325 473
1996*								
March	29 809	12 658	350 873	363 531	-100 364	178 909	292 976	335 117
April	25 644	18 817	351 511	370 329	-103 109	181 799	292 864	327 546
May	24 810	19 008	349 775	368 783	-100 462	184 749	293 131	325 511
June	28 625	23 209	351 923	375 131	-108 995	189 332	294 761	328 990
July	36 492	24 318	349 162	373 481	-118 138	188 023	291 834	327 935
Aug.	34 402	25 936	349 733	375 669	-117 975	189 292	292 096	325 470
Sept.	33 218	15 243	349 521	364 764	-106 967	190 781	291 016	329 848
Oct.	31 312	17 873	349 742	367 615	-105 768	195 621	293 160	332 372
Nov.	36 768	16 834	350 532	367 366	-111 862	196 631	292 273	326 535
Dec.	40 638	12 821	350 230	363 052	-106 399	204 834	297 291	325 473
1997*								
Jan.	49 211	13 395	346 320	359 715	-110 628	206 956	298 298	338 996
Feb.	53 508	8 959	348 953	357 912	-118 417	200 381	293 003	327 837
March	..	..	..	..	..	205 786	299 167	338 118

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

End of period	Foreign currency-denominated debt			Markka-denominated debt					Total central government debt (3+8)	Out-standing lending	Cash funds
	Bonds	Other debt	Total (1+2)	Public bonds	Other long-term liabilities	Treasury notes and bills	Miscellaneous items	Total (4+5+6+7)			
	1	2	3	4	5	6	7	8	9	10	11
1992	100 244	6 143	106 387	40 578	13 555	14 762		68 895	175 282	61 671	19 781
1993	142 824	12 753	155 577	71 082	16 060	22 824		109 966	265 543	66 439	36 487
1994	160 587	15 975	176 562	93 008	17 100	33 153	-5 945	137 316	313 878	67 658	43 012
1995	158 545	13 756	172 301	143 948	17 492	37 864	-5 609	193 695	365 996	66 855	41 878
1996	158 847	16 161	175 008	177 700	17 187	37 620	-5 354	227 425	402 433	64 316	38 369
1996											
April	172 009	15 082	187 091	158 510	17 369	43 946	-5 298	214 724	401 815	67 576	48 628
May	162 738	14 670	177 408	163 861	17 369	46 049	-5 294	222 182	399 590	67 077	48 909
June	159 874	15 192	175 066	166 921	17 359	46 102	-5 324	225 176	400 242	66 754	48 626
July	158 676	15 699	174 375	171 787	17 220	44 668	-5 367	228 426	402 801	66 824	50 441
Aug.	156 801	15 491	172 292	177 586	17 220	45 698	-5 405	235 236	407 528	67 027	55 516
Sept.	156 467	15 694	172 161	167 234	17 219	46 627	-5 408	225 851	398 012	64 300	44 278
Oct.	157 132	15 908	173 040	172 555	17 219	40 147	-5 454	224 666	397 706	64 438	38 903
Nov.	159 449	16 292	175 741	174 696	17 198	36 909	-5 459	223 597	399 338	63 764	42 220
Dec.	158 847	16 161	175 008	177 700	17 187	37 620	-5 354	227 425	402 433	64 316	38 369
1997											
Jan.	159 222	20 920	180 142	180 261	17 187	40 506	-5 405	232 821	412 963	..	38 322
Feb.	162 085	21 502	183 587	183 752	17 187	43 932	-5 417	239 652	423 239	..	51 137
March	158 001	21 195	179 196	187 972	17 149	43 821	-5 440	243 739	422 935	..	44 839
April	155 575	21 828	177 403	192 178	16 865	43 658	-5 107	247 781	425 184	..	..

5.5 Markkå bond market

A) Issues, mill. FIM

During period	Corporations	Financial institutions	Central government	Local government	Others	Total (1+2+3+4+5)
	1	2	3	4	5	6
1992	6 984	15 043	12 965	2 674	4	37 671
1993	11 691	10 481	36 512	2 235	63	60 981
1994	4 053	9 899	31 553	593	-	46 099
1995	643	4 487	66 557	26	-	71 713
1996*	2 140	8 988	62 139	20	-	73 287
1996*						
March	-	467	2 661	-	-	3 128
April	850	212	7 887	-	-	8 949
May	572	3 090	6 351	-	-	10 012
June	-	522	3 847	20	-	4 390
July	-	-	4 876	-	-	4 876
Aug.	-	306	9 671	-	-	9 977
Sept.	20	770	5 373	-	-	6 163
Oct.	600	600	6 976	-	-	8 176
Nov.	250	1 411	2 656	-	-	4 316
Dec.	-	1 429	3 538	-	-	4 968
1997*						
Jan.	-	372	4 608	-	-	4 790
Feb.	417	432	4 836	-	-	5 685
March	75	1 170	4 658	-	-	5 903

B) Stock, mill. FIM

End of period	By sector					By type of loan			Total (1+2+3+4+5) = (6+7+8)
	Corporations	Financial institutions	Central government	Local government	Others	Public issues		Private placings	
						Taxable	Taxfree		
	1	2	3	4	5	6	7	8	9
1992	26 624	82 153	44 005	5 238	3 358	89 382	13 918	58 078	161 378
1993	32 459	73 893	73 682	6 884	2 009	119 552	10 391	58 984	188 927
1994	30 179	66 467	94 865	6 981	953	141 935	7 581	49 929	199 445
1995	26 480	55 223	145 177	5 814	357	186 799	5 034	41 218	233 051
1996*	25 245	44 656	179 419	4 362	140	219 863	2 956	31 003	253 822
1996*									
March	25 636	51 138	152 376	5 619	355	191 338	3 910	39 876	235 124
April	26 394	50 739	159 728	5 612	355	199 907	3 899	39 022	242 828
May	25 973	52 413	165 080	5 558	150	207 499	3 636	38 039	249 174
June	25 534	50 254	168 139	4 647	149	209 581	3 622	35 520	248 723
July	25 016	49 375	173 505	4 646	148	213 605	3 617	35 468	252 690
Aug.	24 756	49 075	179 304	4 638	148	219 241	3 360	35 320	257 921
Sept.	24 649	48 067	168 951	4 652	148	208 317	3 113	35 037	246 467
Oct.	25 184	46 793	174 273	4 642	145	213 851	2 974	34 212	251 037
Nov.	25 641	47 288	176 414	4 641	142	217 494	2 962	33 670	254 126
Dec.	25 245	44 656	179 419	4 362	140	219 863	2 956	31 003	253 822
1997*									
Jan.	25 091	43 814	181 980	4 357	140	222 769	2 614	29 999	255 382
Feb.	24 727	41 827	185 472	4 302	140	226 058	2 393	28 017	256 468
March	25 514	43 257	189 688	4 126	99	231 672	2 118	28 894	262 684

C) Turnover, mill. FIM

During period	Interbank transactions	Transactions between banks and customers	Primary dealers' transactions in benchmark government bonds		
			Purchases from other primary dealers	Purchases from others	Sales to others
			1	2	3	4	5
1992	18 383	58 757	10 744	12 156	13 354
1993	47 803	246 104	42 945	95 647	117 489
1994	184 599	359 697	173 096	150 908	176 647
1995	147 037	436 052	133 357	190 069	215 879
1996	207 230	496 383	201 528	222 584	242 310
1996					
April	12 424	35 405	12 336	15 989	15 769
May	13 809	27 849	13 505	12 223	11 995
June	10 679	23 361	9 499	8 982	10 037
July	13 411	26 745	12 763	10 069	12 616
Aug.	13 452	50 597	12 908	22 320	22 356
Sept.	20 933	58 941	20 680	26 345	29 739
Oct.	26 602	52 158	26 298	25 293	26 064
Nov.	13 084	37 331	12 545	16 312	20 612
Dec.	9 524	27 581	9 510	12 084	14 868
1997					
Jan.	26 179	47 138	25 954	23 993	23 081
Feb.	12 722	32 173	12 586	13 762	18 477
March	25 187	44 696	24 965	20 852	24 048
April	18 713	37 831	18 425	17 110	21 183

5.6 Helsinki Stock Exchange

Average of daily observations	Share prices										Turnover ¹ , mill. FIM		
	HEX index (28 Dec 1990=1000)										Shares and subscription rights	Bonds and debentures	Total
	All-share index	Banks and finance	Insurance	Trade	Construction	Forest industries	Metal and engineering	Telecommunications and electronics	Chemicals	Conglomerates			
1	2	3	4	5	6	7	8	9	10	11	12	13	
1992	772	425	467	-	-	1 123	1 206	-	-	890	10 277	15 377	25 654
1993	1 240	608	644	-	-	1 695	1 749	-	-	1 751	46 337	59 977	106 314
1994	1 847	719	802	-	-	2 284	2 675	-	-	3 068	68 671	2 147	70 818
1995	1 918	500	638	-	-	2 062	2 255	-	-	4 251	83 019	1 075	84 094
1996	2 032	460	820	-	-	2 040	2 564	-	-	5 681	101 265	541	101 806
1996													
April	1 867	412	747	-	-	2 040	2 399	-	-	5 188	7 940	32	7 972
May	1 995	418	754	-	-	2 095	2 622	-	-	5 532	10 860	42	10 902
June	2 019	408	787	-	-	2 079	2 616	-	-	5 627	7 681	36	7 717
July	2 002	400	779	-	-	2 174	2 588	-	-	5 815	5 885	17	5 902
Aug.	2 082	407	805	-	-	2 240	2 732	-	-	6 175	6 995	44	7 039
Sept.	2 131	401	862	-	-	2 188	2 778	-	-	6 125	7 204	49	7 253
Oct.	2 217	520	967	-	-	2 087	2 764	-	-	6 367	10 410	53	10 463
Nov.	2 317	573	977	-	-	2 017	2 744	-	-	6 442	10 676	39	10 715
Dec.	2 446	588	1 006	-	-	2 131	2 850	-	-	6 692	10 379	60	10 438
1997													
Jan.	2 674	633	1 183	1 995	1 001	2 241	2 984	1 107	834	6 605	16 271	95	16 366
Feb.	2 850	714	1 384	2 180	1 021	2 349	3 232	1 151	894	6 862	15 554	43	15 597
March	2 907	723	1 365	2 215	1 041	2 521	3 336	1 140	891	7 228	10 786	..	..
April	2 826	654	1 357	2 200	1 017	2 487	3 276	1 100	877	7 148	12 401	..	..

¹ During period.

6. Balance of payments, foreign liabilities and assets

6.1 Current account, mill. FIM

During period	Exports of goods, fob	Transport receipts	Travel receipts	Other services receipts	Services receipts, total (2+3+4)	Exports of goods and services (1+5)	Investment income	Transfers and other income	Current account receipts (6+7+8)	Imports of goods, cif	Transport expenditure	Travel expenditure	Other services expenditure
	1	2	3	4	5	6	7	8	9	10	11	12	13
1992	105 809	8 643	6 089	7 730	22 462	128 272	6 423	5 920	140 614	93 187	4 360	10 962	13 369
1993	132 550	10 430	7 079	9 379	26 888	159 438	6 137	6 506	172 080	101 559	5 646	9 237	17 008
1994	152 022	11 385	7 314	11 808	30 508	182 530	9 617	4 919	197 067	118 684	5 862	8 697	16 800
1995*	172 820	11 900	7 536	14 986	34 422	207 242	13 729	8 596	229 567	125 450	6 029	10 450	19 150
1996*	181 764	12 291	7 338	15 830	35 460	217 224	14 129	7 325	238 678	137 342	6 300	10 559	17 520
1994													
III	37 322	3 092	2 230	2 960	8 282	45 604	2 027	1 180	48 811	28 743	1 549	2 256	3 899
IV	41 832	2 728	1 700	3 360	7 788	49 620	3 025	1 260	53 905	35 716	1 563	2 291	4 721
1995*													
I	41 131	2 971	1 499	3 827	8 297	49 428	3 285	1 543	54 256	29 895	1 479	2 326	5 039
II	45 919	2 977	1 891	3 571	8 439	54 358	3 446	1 549	59 353	31 773	1 572	2 639	4 825
III	39 617	2 976	2 243	3 718	8 937	48 554	2 907	2 143	53 604	29 856	1 498	2 707	4 349
IV	46 154	2 976	1 903	3 870	8 749	54 903	4 092	3 360	62 355	33 926	1 481	2 779	4 937
1996*													
I	42 605	3 056	1 677	3 601	8 334	50 939	4 163	1 353	56 455	33 359	1 535	2 615	4 449
II	47 949	3 123	1 873	3 858	8 854	56 803	4 217	1 983	63 002	34 520	1 627	2 678	4 238
III	41 737	3 024	2 065	4 286	9 374	51 111	2 983	1 245	55 339	31 789	1 545	2 571	4 144
IV	49 473	3 089	1 724	4 085	8 897	58 370	2 766	2 744	63 881	37 676	1 593	2 696	4 689

During period	Services expenditure, total (11+12+13)	Imports of goods and services (10+14)	Investment expenditure	Transfers and other expenditure	Current account expenditure (15+16+17)	Trade account (1-10)	Transport (2-11)	Travel (3-12)	Other services (4-13)	Services account (20+21+22)	Goods and services account (19+23)	Investment income, net (7-16)	Transfers and others, net (8-17)	Current account (24+25+26)=(9-18)
	14	15	16	17	18	19	20	21	22	23	24	25	26	27
1992	28 690	121 878	30 424	10 347	162 649	12 622	4 283	-4 873	-5 639	-6 228	6 394	-24 001	-4 428	-22 035
1993	31 891	133 450	34 580	10 390	178 421	30 991	4 784	-2 159	-7 629	-5 004	25 988	-28 443	-3 885	-6 340
1994	31 359	150 043	31 801	8 596	190 440	33 339	5 523	-1 382	-4 992	-851	32 487	-22 184	-3 676	6 627
1995*	35 629	161 080	32 529	12 627	206 236	47 370	5 870	-2 914	-4 164	-1 207	46 162	-18 800	-4 032	23 331
1996*	34 380	171 722	32 783	14 144	218 649	44 422	5 991	-3 221	-1 690	1 080	45 502	-18 654	-6 819	20 028
1994														
III	7 704	36 447	6 246	1 971	44 664	8 580	1 542	-26	-939	578	9 157	-4 220	-791	4 147
IV	8 575	44 291	7 399	1 984	53 673	6 117	1 166	-591	-1 361	-787	5 330	-4 375	-724	231
1995*														
I	8 844	38 739	9 295	2 825	50 858	11 235	1 492	-827	-1 212	-546	10 689	-6 009	-1 282	3 398
II	9 036	40 809	10 067	3 191	54 067	14 145	1 406	-748	-1 254	-597	13 549	-6 622	-1 641	5 286
III	8 554	38 410	6 630	3 205	48 244	9 761	1 478	-464	-631	383	10 144	-3 723	-1 061	5 360
IV	9 196	43 122	6 538	3 407	53 067	12 228	1 494	-875	-1 066	-447	11 781	-2 446	-47	9 287
1996*														
I	8 599	41 958	8 580	3 916	54 453	9 247	1 521	-938	-848	-265	8 981	-4 417	-2 563	2 002
II	8 543	43 062	10 775	3 768	57 604	13 430	1 496	-805	-380	311	13 741	-6 558	-1 785	5 398
III	8 260	40 048	6 671	2 961	49 680	9 949	1 478	-506	143	1 115	11 063	-3 689	-1 716	5 659
IV	8 979	46 654	6 757	3 500	56 911	11 798	1 496	-972	-605	-81	11 716	-3 991	-756	6 970

6.2 Capital and financial account, mill. FIM

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

During period	Capital account, exports of capital	Financial account													Errors and omissions	Change in central bank's reserve assets (increase -)
		Direct investment abroad	Portfolio investment abroad						Other investment abroad				Total (15+20+24)			
			Shares	Bonds	Money market instruments	Financial derivatives	Total (16+17+18+19)	Trade credits	Loans	Other capital	Total (21+22+23)					
14	15	16	17	18	19	20	21	22	23	24	25	26	27			
1992	0	-3 372	46	321	2 748	..	3 115	3 634	3 409	7 720	14 763	14 506	-293	9 180		
1993	0	8 050	873	767	1 932	..	3 571	1 923	-839	9 576	10 660	22 282	6 055	-1 219		
1994	0	22 447	434	-4 294	-855	-279	-4 994	1 213	-7 460	9 762	3 516	20 968	-4 058	-25 504		
1995*	206	7 339	892	3 685	-5 492	-168	-1 084	3 839	-2 712	11 750	12 877	19 132	-5 652	1 480		
1996*	340	16 309	3 278	15 424	364	-172	18 895	389	4 281	15 704	20 375	55 579	884	14 075		
1994																
III	0	4 897	-41	-1 166	422	-53	-839	-153	-251	9 532	9 127	13 186	-2 799	-3 921		
IV	0	7 341	19	768	2 956	2	3 745	1 724	-2 734	-3 522	-4 532	6 555	3 600	-1 132		
1995*																
I	0	2 212	-128	1 757	-2 249	-48	-668	660	-1 234	9 695	9 121	10 665	1 918	-1 691		
II	104	1 490	375	104	-2 798	31	-2 288	2 379	-150	-7 809	-5 580	-6 377	-824	1 288		
III	0	1 027	461	28	521	-37	973	-132	1 044	3 431	4 343	6 343	1 131	1 592		
IV	102	2 610	184	1 797	-967	-115	899	933	-2 373	6 433	4 993	8 502	-7 878	291		
1996*																
I	61	5 391	577	4 019	2 424	-26	6 993	-605	2 416	6 458	8 269	20 654	3 666	7 254		
II	0	6 670	1 041	3 041	162	71	4 315	716	-2 064	4 830	3 483	14 468	-3 100	8 457		
III	0	3 751	729	4 169	-2 457	-51	2 389	-818	1 565	1 924	2 671	8 811	-264	-1 132		
IV	279	497	932	4 195	235	-165	5 197	1 097	2 364	2 491	5 952	11 646	582	-505		

6.3 Finland's international investment position, mill. FIM

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

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

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

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

7. Foreign trade

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

During period	Exports, fob	Imports, cif	Balance (1-2)
	1	2	3
1992	107 463	94 947	12 516
1993	134 114	103 165	30 949
1994	154 164	120 612	33 552
1995	176 021	128 556	47 465
1996*	185 798	140 996	44 802
1996*			
Feb.	15 201	11 641	3 560
March	15 075	12 105	2 970
April	15 710	11 913	3 797
May	16 175	11 931	4 244
June	17 060	11 589	5 471
July	13 292	10 058	3 234
Aug.	14 338	10 685	3 653
Sept.	15 103	11 959	3 144
Oct.	16 990	13 289	3 701
Nov.	18 910	12 536	6 374
Dec.	14 619	12 764	1 855
1997*			
Jan.	14 900	11 096	3 804
Feb.	14 500	11 500	3 000

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

Period	Volume (seasonally adjusted)		Prices		Terms of trade
	Exports	Imports	Exports	Imports	
	1	2	3	4		5
1992	102.7	84.7	103.1	108.6	95.0
1993	120.6	83.6	109.7	119.6	91.7
1994	136.5	98.0	111.4	119.3	93.3
1995	145.7	104.6	119.2	119.2	100.0
1996*	152.7	112.9	120.2	121.1	99.3
1996*					
Feb.	152.9	117.5	122.4	119.3	102.6
March	141.9	111.9	123.2	120.4	102.3
April	148.9	110.2	122.5	122.2	100.2
May	153.4	110.8	121.8	121.8	100.0
June	165.2	113.2	121.3	121.6	99.8
July	140.0	105.7	119.6	121.8	98.2
Aug.	154.9	107.3	118.2	120.9	97.8
Sept.	151.8	115.7	117.6	121.6	96.7
Oct.	162.5	119.6	118.0	122.3	96.5
Nov.	177.6	114.9	117.8	120.8	97.5
Dec.	148.7	118.2	116.7	120.8	96.6
1997*					
Jan.	157.6	113.8	116.6	121.6	95.9
Feb.	154.2	114.3	115.9	121.3	95.5

7.3 Foreign trade by main groups, mill. FIM

During period	Exports by industries, fob					Imports by use of goods, cif					
	Wood industry products	Paper industry products	Chemical industry products	Metal and engineering industry products	Other goods	Raw materials (excl. crude oil)	Crude oil, fuels and lubricants	Finished goods		Other goods	
	1	2	3	4	5	6	7	Investment goods	Consumer goods	8	9	10
1992	7 892	32 587	12 172	35 741	19 071	49 514	9 745	13 348	20 826	1 514	
1993	10 910	37 430	14 205	48 158	23 411	54 792	10 904	15 396	21 066	1 007	
1994	14 198	41 249	15 725	55 895	27 097	66 156	11 687	17 227	24 684	858	
1995	13 451	48 754	15 877	69 336	28 603	71 397	9 685	19 660	25 514	2 300	
1996*	12 256	43 385	18 005	74 884	37 268	70 783	12 570	21 058	29 886	6 699	
1996*											
Jan.	960	3 564	1 283	4 767	2 751	5 672	694	1 462	2 219	479	
Feb.	940	3 619	1 238	6 636	2 768	5 734	876	2 008	2 623	400	
March	1 012	4 137	1 469	5 432	3 025	6 270	700	1 863	2 782	490	
April	1 127	3 777	1 515	6 104	3 187	5 955	1 059	1 780	2 603	516	
May	1 192	3 765	1 866	5 761	3 591	6 315	1 058	1 675	2 415	468	
June	1 073	3 538	1 473	8 060	2 916	6 136	816	1 910	2 224	503	
July	820	3 524	1 418	4 877	2 653	4 805	1 199	1 126	2 260	668	
Aug.	870	3 599	1 598	5 132	3 139	5 474	900	1 397	2 296	618	
Sept.	1 032	3 440	1 449	6 108	3 074	5 923	1 219	1 636	2 554	627	
Oct.	1 119	3 253	1 658	6 443	4 517	6 383	1 303	1 966	2 800	837	
Nov.	1 139	3 743	1 642	9 034	3 352	6 184	1 340	1 924	2 583	505	
Dec.	972	3 426	1 396	6 530	2 295	5 932	1 406	2 311	2 527	588	
1997*											
Jan.	1 096	3 600	1 497	5 886	2 821	5 512	1 295	1 618	2 468	203	

7.4 Foreign trade by regions and countries

Region and country	Exports, fob				Imports, cif			
	1996*		Feb. 1996 – Jan. 1997		1996*		Feb. 1996 – Jan. 1997	
	Mill. FIM	Percentage share	Mill. FIM	12-month change calculated from 12-month moving total	Mill. FIM	Percentage share	Mill. FIM	12-month change calculated from 12-month moving total
	1	2	3	4	5	6	7	8
European Union ¹	101 339	54.5	102 422	1.6	84 999	60.3	85 032	11.2
Austria	1 610	0.9	1 666	11.0	1 556	1.1	1 531	-4.5
Belgium and Luxembourg	4 692	2.5	4 778	-5.9	4 136	2.9	4 129	10.2
Denmark	5 679	3.1	5 689	0.8	4 950	3.5	5 000	20.0
France	7 856	4.2	7 883	-0.8	6 349	4.5	6 370	22.1
Germany	22 451	12.1	22 630	-3.5	21 269	15.1	21 218	6.5
Greece	959	0.5	992	6.0	366	0.3	365	7.1
Ireland	1 096	0.6	1 118	20.6	1 154	0.8	1 150	6.8
Italy	4 768	2.6	4 826	-4.1	5 732	4.1	5 666	12.2
Netherlands	7 372	4.0	7 432	2.0	4 999	3.5	5 112	1.7
Portugal	913	0.5	920	4.6	1 026	0.7	1 032	-2.5
Spain	3 978	2.1	4 096	-4.4	1 958	1.4	1 948	17.3
Sweden	19 799	10.7	19 877	8.7	16 749	11.9	16 721	12.6
United Kingdom	18 980	10.2	19 309	7.0	12 437	8.8	12 416	17.2
Rest of Europe	33 238	17.9	33 479	18.2	23 728	16.8	24 363	8.5
Of which:								
Estonia	5 073	2.7	5 127	21.9	1 658	1.2	1 665	6.2
Norway	5 283	2.8	5 303	0.1	5 889	4.2	6 349	9.9
Poland	2 703	1.5	2 823	25.5	1 301	0.9	1 328	-5.4
Russia	11 307	6.1	11 409	31.8	10 232	7.3	10 381	9.8
Switzerland	2 089	1.1	2 080	-8.8	2 428	1.7	2 416	11.6
Non-European industrialized countries ²	22 935	12.3	22 910	13.9	19 661	13.9	19 429	2.1
Of which:								
Australia	2 043	1.1	2 038	-12.6	1 219	0.9	1 147	31.0
Japan	4 826	2.6	4 702	-0.3	7 255	5.1	7 182	-11.2
U.S.A.	14 696	7.9	14 783	27.9	10 294	7.3	10 179	11.1
Dynamic Asian economies ³	13 749	7.4	13 763	11.7	6 489	4.6	6 459	0.0
Of which:								
China	2 670	1.4	2 730	10.9	2 072	1.5	2 094	20.3
Hong Kong	3 027	1.6	2 998	19.5	693	0.5	699	-3.0
South Korea	2 704	1.5	2 686	17.8	791	0.6	758	-20.2
Other countries	14 537	7.8	14 798	3.4	6 118	4.3	6 283	36.0
TOTAL	185 798	100.0	187 373	6.5	140 996	100.0	141 566	9.7
Of which:								
Africa	2 550	1.4	2 545	-6.5	881	0.6	885	40.9
Asia	27 362	14.7	27 457	13.5	16 106	11.4	16 107	0.3
Central and South America	3 070	1.7	3 129	-59.6	2 714	1.9	2 765	18.3
North America	15 751	8.5	15 846	23.8	11 132	7.9	11 043	10.2
Europe	134 577	72.4	135 901	5.2	108 728	77.1	109 395	10.6
Oceania	2 488	1.3	2 494	-4.5	1 435	1.0	1 372	37.4

¹ Including exports / imports to EU unspecified by country.

² Australia, Canada, Japan, New Zealand, United States.

³ China, Hong Kong, Malaysia, Singapore, South Korea, Taiwan, Thailand.

8. Domestic economic developments

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

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

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

Period	Total industry	Mining and quarrying	Manu- facturing	Wood and paper industries (16.8)	Metal and engineering industries (31.3)	Other manu- facturing (41.5)	Energy and water supply (9.1)
	(100.0)	(1.3)	(89.6)				
	1	2	3	4	5	6	7
1992	92.4	88.4	91.4	94.6	91.1	90.2	103.0
1993	97.4	86.1	96.4	104.5	99.7	90.8	107.9
1994	108.5	96.2	108.1	117.0	119.5	95.8	114.3
1995*	116.6	95.7	117.5	118.0	143.8	97.4	111.1
1996*	120.9	88.1	121.3	115.3	153.1	99.8	121.8
1996*							
Feb.	116.4	80.7	116.3	109.1	147.9	96.9	124.7
March	118.5	83.9	118.8	110.5	149.1	98.4	119.1
April	118.0	92.6	118.3	112.0	149.0	98.8	118.5
May	119.9	81.2	120.3	111.4	151.4	99.2	124.7
June	121.6	83.6	122.2	112.2	153.3	100.7	120.4
July	120.2	56.7	121.0	116.1	151.1	100.9	121.6
Aug.	120.0	158.7	120.1	117.4	151.7	100.0	121.2
Sept.	123.7	82.8	123.8	120.1	155.2	100.9	125.4
Oct.	124.0	84.7	124.1	120.8	156.8	100.8	127.1
Nov.	125.5	83.4	126.3	124.0	159.0	101.1	119.5
Dec.	126.8	78.1	127.5	120.9	160.1	102.4	124.2
1997*							
Jan.	124.9	85.3	125.1	126.3	157.9	102.2	129.7
Feb.	124.4	89.9	125.1	125.8	157.5	102.9	124.8

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

Period	Volume of wholesale trade	Volume of retail trade	Volume of construction of buildings	Of which:		Imports of investment goods	Monthly GDP indicator
				Residential buildings	Industrial buildings		
	1	2	3	4	5	6	7
1992	72.7	83.0	59.9	57.3	44.8	78.1	91.1
1993	68.5	78.1	46.9	47.2	35.6	72.9	89.9
1994	73.0	79.7	42.2	45.1	35.2	84.4	93.7
1995*	76.2	82.6	42.0	41.1	49.9	88.5	97.7
1996*	77.8	86.0	43.9	38.5	55.6	102.8	100.6
1996*							
Feb.	84.8	79.5	41.3	40.2	54.8	107.1	98.5
March	82.7	73.8	42.3	41.6	54.2	103.0	97.5
April	85.1	79.9	42.7	40.8	55.2	100.8	98.7
May	85.9	77.5	42.8	38.6	55.4	100.4	99.9
June	82.7	72.9	43.0	36.5	53.8	100.0	99.7
July	87.3	79.4	44.5	35.0	55.5	98.8	100.9
Aug.	86.8	75.3	44.1	32.7	55.5	96.4	100.9
Sept.	85.1	76.9	46.0	34.2	56.9	104.1	102.3
Oct.	89.3	81.3	46.4	37.0	56.8	109.7	103.5
Nov.	88.3	77.7	47.2	41.3	57.0	105.2	103.0
Dec.	88.2	79.7	48.9	46.3	59.1	110.3	103.9
1997*							
Jan.	89.6	81.8	46.5	47.7	57.8	106.7	103.9
Feb.	86.3	78.4	47.8	51.4	57.1	..	103.1

8.4 Wages and prices, 1990=100

Period	Index of wage and salary earnings	By sectors			Consumer price index	Indicator of underlying inflation	Basic price index for domestic supply	By origin		Producer price index for manufacturing	By marketing area		Building cost index
		Private	Of which: Manufacturing (SIC3)	Public				Domes-tic goods	Import-ed goods		Export-ed goods	Home market goods	
	1	2	3	4	5	6	7	8	9	10	11	12	13
1992	108.4	108.1	108.3	109.0	107.4	107.1	101.4	99.5	108.5	101.6	102.7	101.1	100.4
1993	109.2	108.8	110.0	110.1	109.7	109.9	104.8	100.8	119.3	105.5	109.2	103.9	100.7
1994	111.4	111.6	115.0	111.1	110.9	111.4	106.2	102.8	118.7	107.1	110.2	105.8	102.2
1995	116.6	117.4	123.1	114.7	112.0	111.3	106.9	103.8	118.5	110.8	118.0	107.7	103.5
1996 ¹	121.1	121.8	127.5	119.2	112.6	111.4	105.9	102.0	120.1	110.9	118.5	107.6	102.7
1995 IV	119.1	119.9	125.4	117.3	112.0	111.2	105.8	102.6	117.5	112.0	121.4	108.0	103.3
1996 March	..	..	..	..	112.5	111.6	106.0	102.2	119.7	112.0	121.3	108.0	102.0
April	..	..	..	..	112.7	111.6	106.1	102.0	121.5	111.7	120.6	107.9	102.1
May	..	..	..	..	112.9	111.7	105.9	101.7	121.0	111.4	120.0	107.7	102.4
June	..	..	..	..	112.9	111.7	105.5	101.4	120.9	110.8	119.5	107.1	102.7
July	..	..	..	..	112.8	111.5	105.5	101.2	121.0	110.2	117.8	106.9	102.8
Aug.	..	..	..	..	112.6	111.1	105.4	101.3	120.2	109.7	116.4	106.8	103.1
Sept.	..	..	..	..	112.8	111.5	105.9	101.9	120.8	109.8	115.8	107.2	103.0
Oct.	..	..	..	..	113.0	111.7	106.4	102.5	120.8	110.2	116.2	107.6	103.1
Nov.	..	..	..	..	112.7	111.5	105.9	102.3	119.3	110.0	116.0	107.4	103.3
Dec.	..	..	..	..	112.7	111.5	106.3	102.7	119.3	110.1	115.5	107.8	103.4
1996 ¹ I	120.3	121.1	126.7	118.3	112.3	111.3	106.1	102.3	118.9	112.2	121.2	108.4	102.0
II	120.5	121.3	127.0	118.5	112.8	111.6	105.8	101.7	121.1	111.3	120.0	107.6	102.4
III	120.6	121.3	126.8	118.7	112.7	111.3	105.6	101.5	120.7	109.9	116.7	107.0	103.0
IV	123.0	123.7	129.4	121.3	112.8	111.6	106.2	102.5	119.8	110.1	115.9	107.6	103.3
1997 Jan.	..	..	..	..	112.6	111.1	106.5	102.6	120.1	110.1	115.3	107.7	103.7
Feb.	..	..	..	..	112.8	111.3	106.7	103.2	119.8	110.2	115.0	108.1	103.7
March	..	..	..	..	113.2	..	106.7	103.2	119.6	110.2	114.5	108.3	104.1

¹ Preliminary figures for columns 1-4.

8.5 Labour, employment and unemployment (seasonally adjusted figures)

Period	Labour force participation rate among 15-74 year olds	Labour force	Total employment (4+5) = (6+7+8)	By industrial status			By industry			Unemployed	Unemployment rate
				Self-employed	Wage and salary earners	Agriculture, forestry and fishing	Mining, manufacturing and energy supply	Other industries			
									1000 persons		
%											
	1	2	3	4	5	6	7	8	9	10	
1992	66.1	2 502	2 174	325	1 849	187	453	1 534	328	13.1	
1993	65.3	2 484	2 041	312	1 729	173	424	1 444	444	17.9	
1994	64.8	2 480	2 024	312	1 712	167	426	1 430	456	18.4	
1995	65.1	2 497	2 068	304	1 764	158	456	1 454	430	17.2	
1996*	65.0	2 503	2 096	302	1 794	148	459	1 489	408	16.3	
1996*											
March	64.9	2 543	2 131	350	1 781	148	463	1 520	409	16.1	
April	65.5	2 557	2 157	359	1 798	154	470	1 533	400	15.6	
May	65.1	2 542	2 137	351	1 786	150	451	1 535	404	16.1	
June	64.7	2 518	2 123	344	1 779	141	454	1 528	395	16.2	
July	64.7	2 537	2 142	354	1 788	148	466	1 528	394	15.5	
Aug.	65.5	2 557	2 153	356	1 797	146	456	1 550	404	15.9	
Sept.	64.5	2 528	2 138	344	1 794	143	441	1 554	391	14.7	
Oct.	64.9	2 541	2 151	342	1 809	149	467	1 534	390	15.2	
Nov.	65.5	2 560	2 165	350	1 815	150	469	1 546	395	15.5	
Dec.	64.9	2 541	2 156	348	1 808	145	453	1 558	387	15.1	
1997*											
Jan.	65.2	2 537	2 150	332	1 818	148	460	1 542	389	15.4	
Feb.	65.7	2 555	2 169	343	1 826	151	469	1 549	389	15.1	
March	65.8	2 561	2 169	335	1 834	146	457	1 567	391	15.4	

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
1992	34 312	69 541	1 512	21 251	126 616	5 054	131 669	49 291	105 184	42 990	59 180
1993	31 667	67 291	1 443	28 823	129 224	7 366	136 593	46 880	108 608	42 720	63 535
1994	34 588	68 124	1 792	24 095	128 599	7 308	135 900	48 750	108 155	40 388	65 519
1995	40 092	66 902	1 720	35 837	144 550	7 923	152 473	51 446	113 644	39 481	67 514
1996	48 357	73 943	1 947	39 778	164 024	9 893	173 918	53 696	110 039	33 199	69 533
1995 Dec.	5 347	5 549	60	5 700	16 657	598	17 254	5 846	10 189	3 292	6 954
1996 Jan.	3 735	7 182	110	3 792	14 818	165	14 983	3 930	12 283	2 974	7 880
Feb.	3 693	7 341	1 089	3 784	15 907	233	16 141	4 064	7 922	2 839	4 692
March	5 458	5 992	150	1 841	13 441	137	13 578	4 486	9 261	3 475	5 194
April	3 590	5 237	58	4 006	12 891	3 469	16 360	4 154	9 517	2 945	5 752
May	3 016	5 805	75	2 979	11 876	843	12 719	4 095	8 753	2 996	5 189
June	3 435	5 863	72	5 222	14 592	850	15 443	5 032	8 952	2 863	5 459
July	3 817	6 187	59	2 003	12 067	323	12 390	5 036	8 707	2 891	5 151
Aug.	3 766	6 125	59	2 483	12 433	219	12 652	3 913	6 090	1 476	4 505
Sept.	3 481	6 391	57	2 526	12 455	3 261	15 716	4 579	8 030	2 747	4 913
Oct.	3 590	6 542	58	3 602	13 792	329	14 121	4 205	10 912	2 995	7 040
Nov.	4 260	6 049	91	3 216	13 616	1 113	14 729	4 068	7 922	2 301	5 158
Dec.	6 515	5 228	69	4 324	16 136	-1 050	15 087	6 133	11 691	2 698	8 599

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)
1992	5 042	8 499	168 016	35 501	203 516	-41 400	-71 847	70 691	-1 155
1993	4 306	18 076	177 870	19 753	197 623	-48 646	-61 030	84 036	23 009
1994	3 737	22 281	182 923	17 886	200 760	-54 324	-64 860	73 193	8 336
1995	3 208	26 336	194 635	16 765	211 399	-50 085	-58 926	54 071	-4 854
1996	3 325	29 911	196 972	13 756	210 747	-32 947	-36 828	34 502	-2 326
1995 Dec.	603	2 089	18 726	-159	18 567	-2 070	-1 313	1 905	593
1996 Jan.	151	5 235	21 599	623	22 221	-6 781	-7 238	6 755	-484
Feb.	260	1 544	13 790	454	14 243	2 118	1 897	10 359	12 256
March	185	4 560	18 491	393	18 884	-5 050	-5 306	760	-4 546
April	175	2 759	16 605	3 605	20 210	-3 714	-3 850	6 544	2 694
May	207	1 291	14 346	770	15 117	-2 470	-2 398	2 496	98
June	219	3 060	17 262	2 075	19 338	-2 670	-3 895	3 503	-392
July	316	1 154	15 214	437	15 651	-3 147	-3 261	3 900	639
Aug.	334	1 090	11 427	457	11 884	1 006	768	6 829	7 597
Sept.	290	4 787	17 686	586	18 272	-5 231	-2 556	-10 228	-12 784
Oct.	369	1 832	17 318	489	17 807	-3 526	-3 686	-258	-3 943
Nov.	260	963	13 213	479	13 693	403	1 036	-191 ^f	846 ^f
Dec.	560	1 637	20 021	3 388	23 426	-3 885	-8 339	4 032	-4 308

Notes and explanations to the statistical section

General

Source

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

Symbols used

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

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

Notes and explanations to tables

1 The balance sheet of the Bank of Finland

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

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

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

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

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

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

Table 2.4 The markka value of forward contracts is given.

3 Rates of interest

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

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

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

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

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

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

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

4 Rates of exchange

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

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

5 Other domestic financing

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

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

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

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

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

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

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

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

6 Balance of payments, foreign liabilities and assets

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

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

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

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

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

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

7 Foreign trade

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

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

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

8 Domestic economic developments

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

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

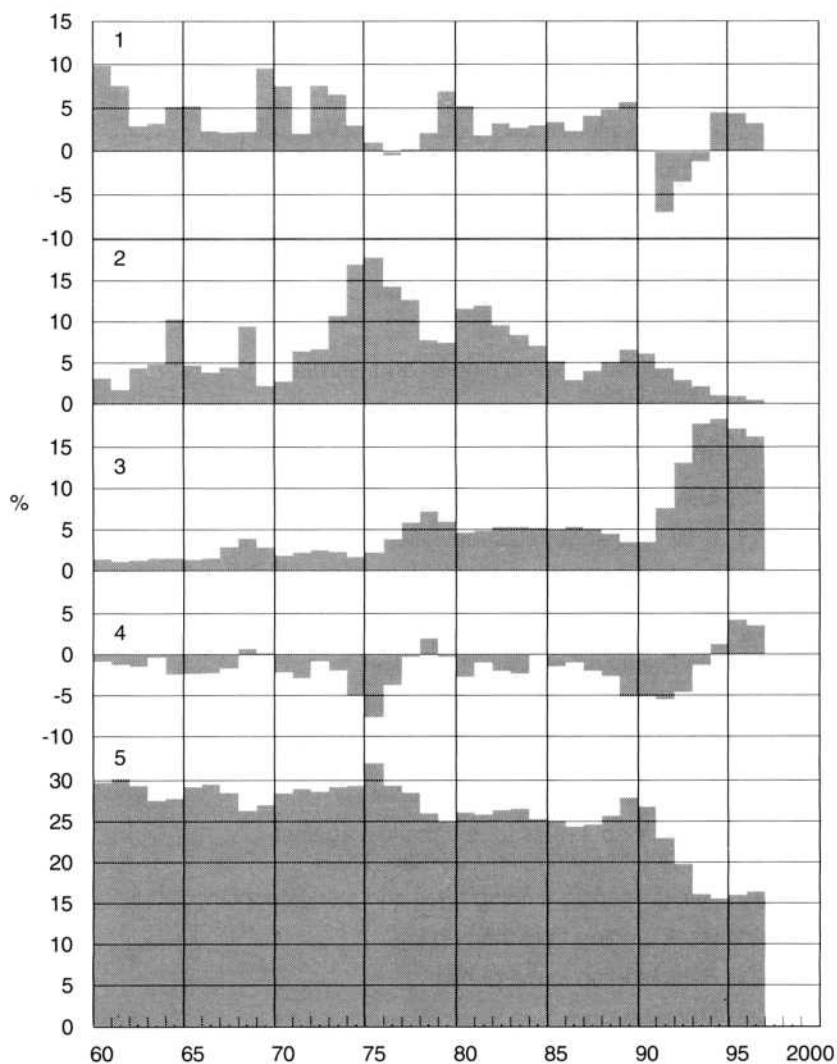
Table 8.3 The indices of wholesale and retail trade (Columns 1 and 2) are seasonally adjusted by Statistics Finland. The monthly GDP indicator (Column 7) is a weighted index of 11 readily available output indicators for various industries.

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

Table 8.6 Source: Ministry of Finance.

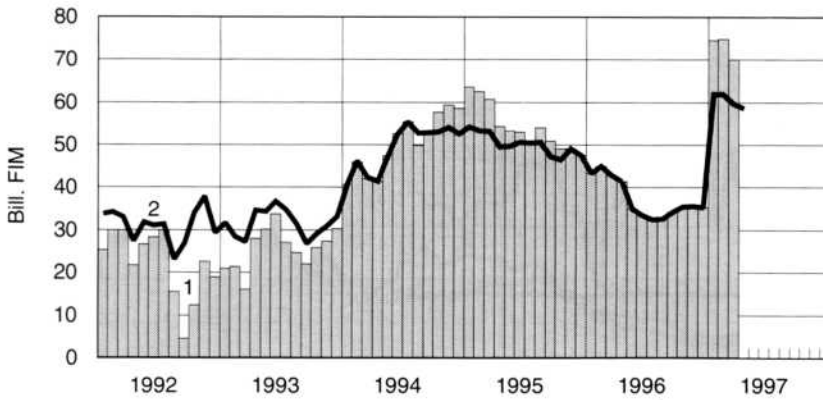
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5. Banks' liquidity position at the Bank of Finland	S32
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1. Long-term indicators



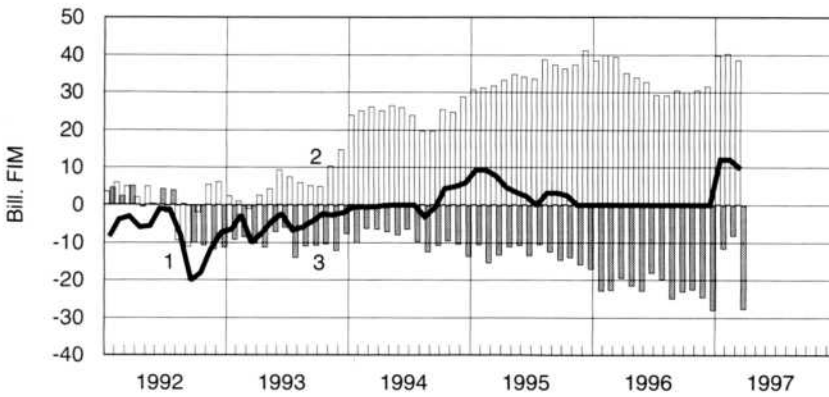
1. GDP, change in volume from the previous year, per cent
2. Consumer prices, change from the previous year, per cent
3. Unemployment rate, per cent
4. Current account, as a percentage of GDP
5. Fixed investment, as a percentage of GDP

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



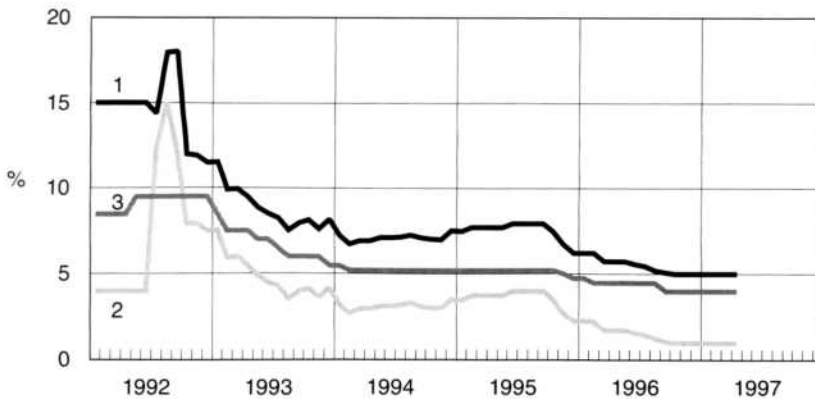
1. Foreign exchange reserves plus forward position
2. Foreign exchange reserves

3. Forward market



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

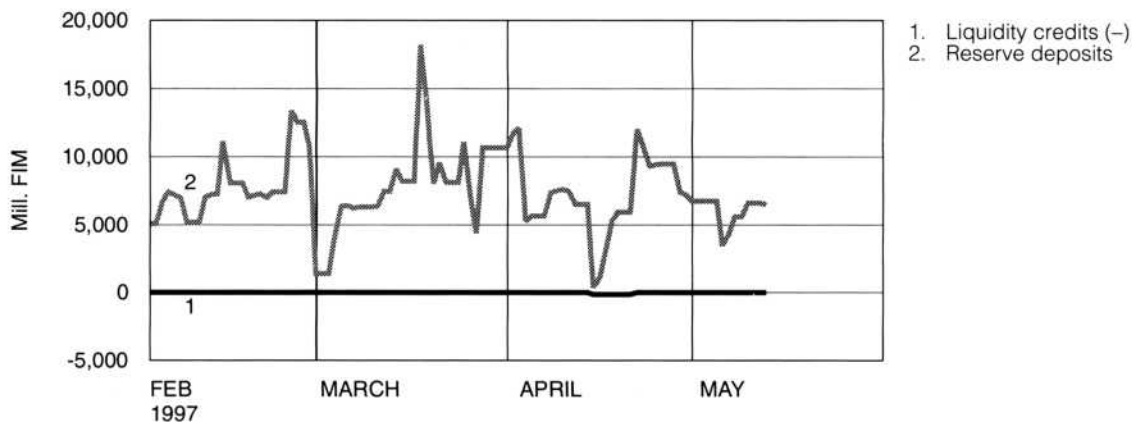
4. Rates of interest set by the Bank of Finland



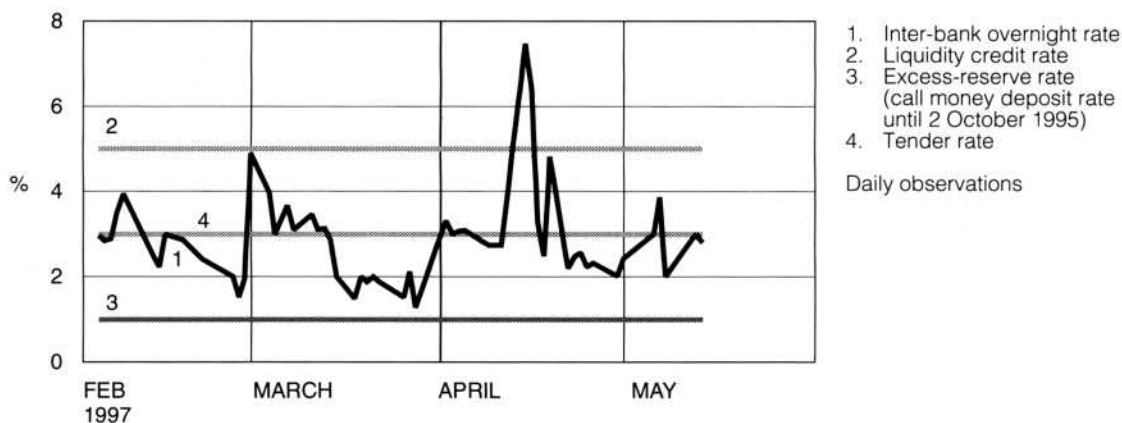
1. Liquidity credit rate (up to 2 July 1992 call money credit rate)
2. Excess-reserve rate (call money deposit rate until 2 October 1995)
3. Base rate

End-of-month observations

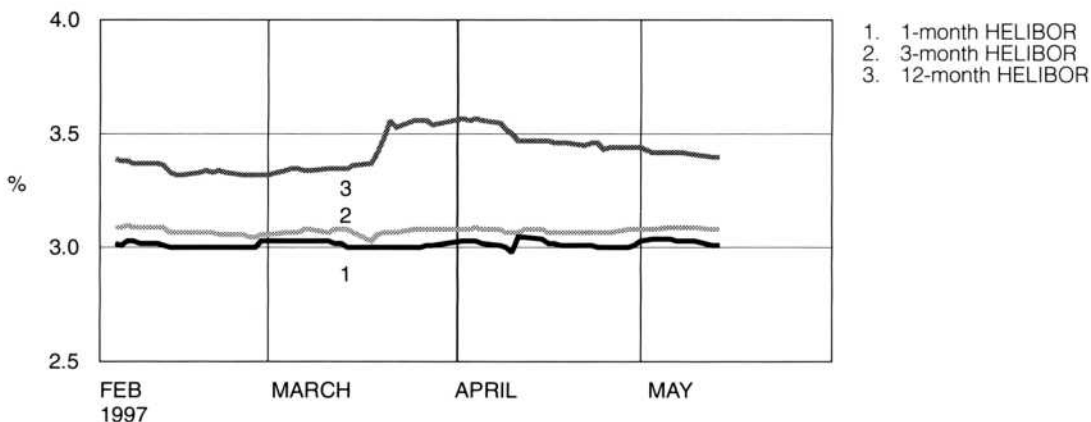
5. Banks' liquidity position at the Bank of Finland



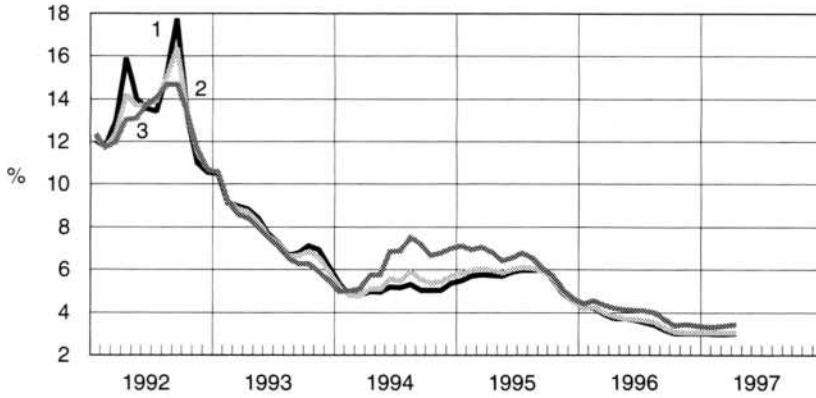
6. Liquidity management interest rates



7. HELIBOR rates of interest, daily

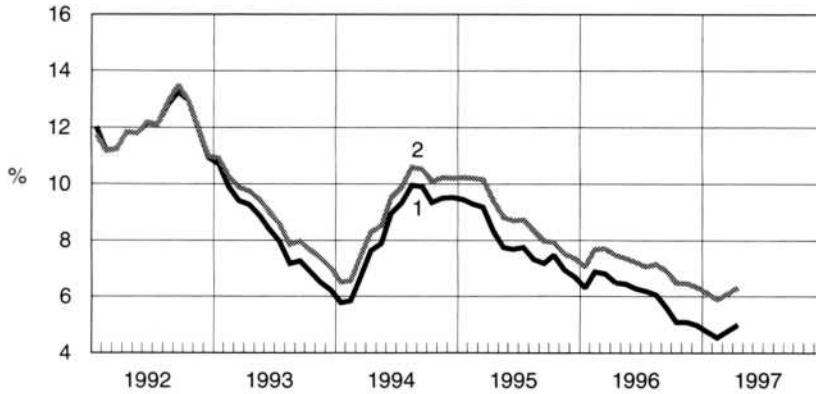


8. HELIBOR interest rates, monthly



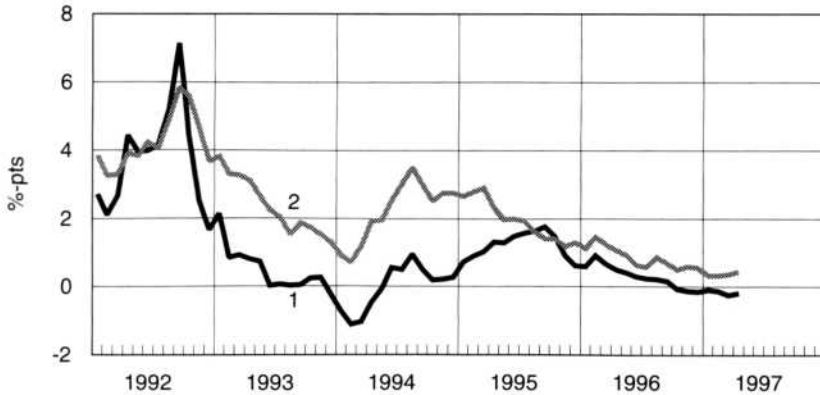
1. 1-month HELIBOR
2. 3-month HELIBOR
3. 12-month HELIBOR

9. Bond yields



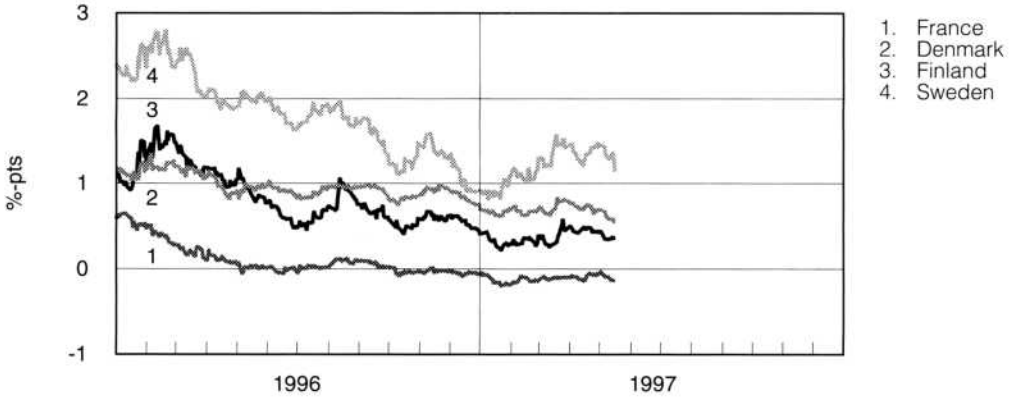
1. Yield on 5-year government bonds
2. Yield on 10-year government bonds

10. Differential between Finnish and German interest rates

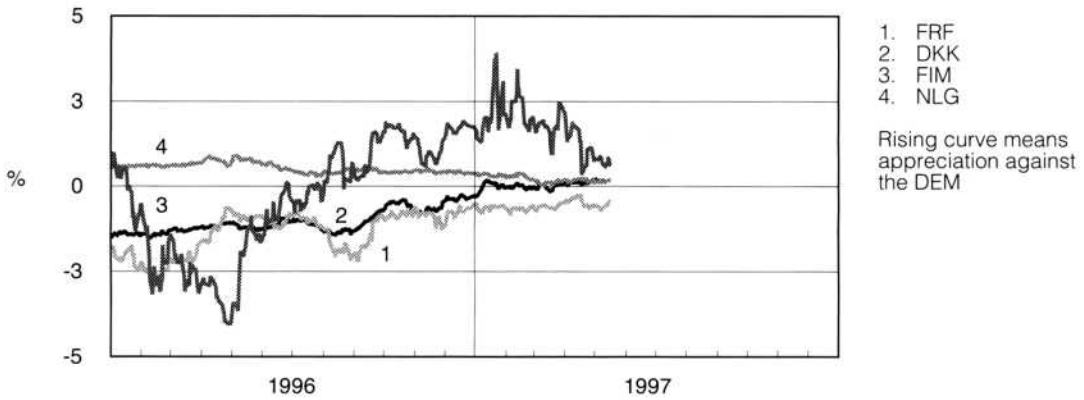


1. 3-month HELIBOR minus 3-month DEM eurorate
2. 10-year Finnish government bond yield minus 10-year German government bond yield

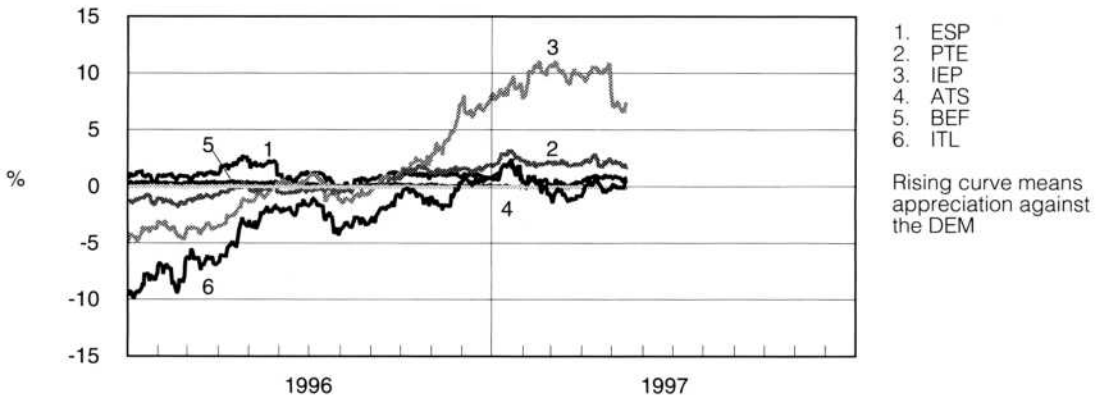
11. Differential between German and selected EU-countries' 10-year interest rates



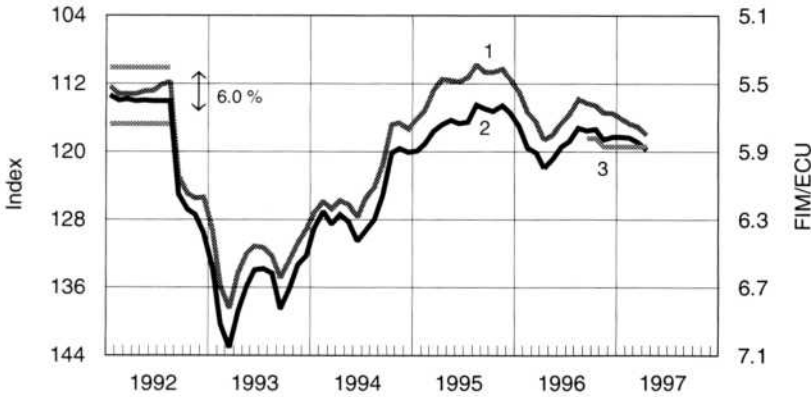
12. ERM exchange rates: deviation from DEM central parity



13. ERM exchange rates: deviation from DEM central parity

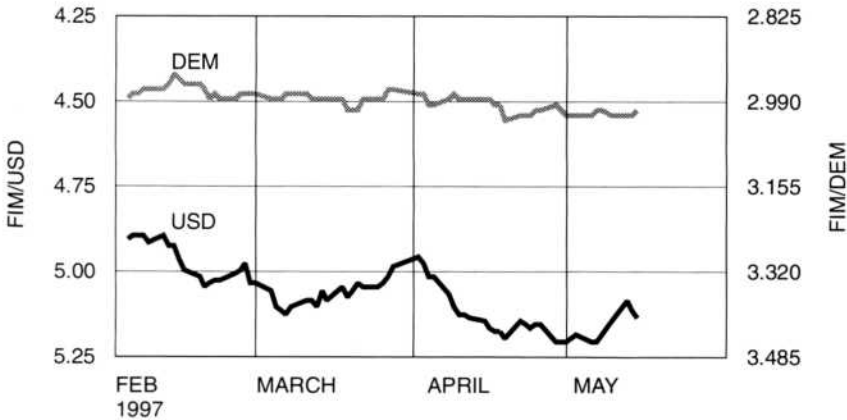


14. Bank of Finland currency index and markka value of the ECU



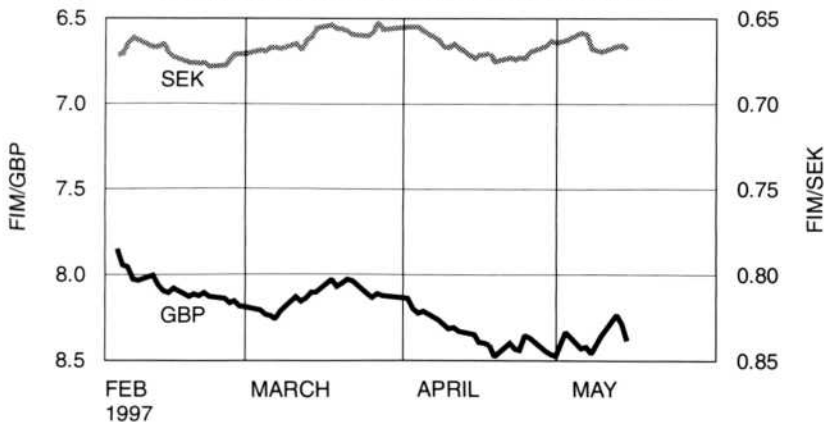
1. Bank of Finland currency index, 1982 = 100 (left scale)
2. Markka value of the ECU from 7 June 1991 (right scale)
3. ECU central rate from 14 October 1996 (right scale)

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



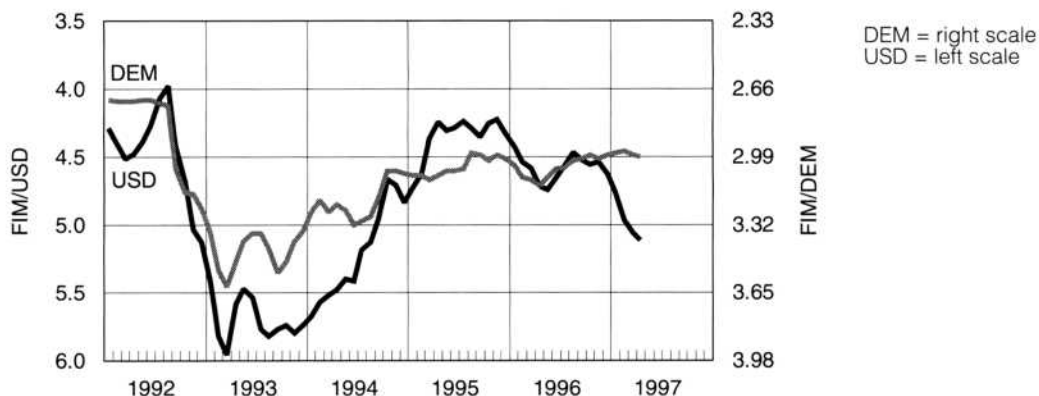
- Middle rates
DEM = right scale
USD = left scale

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

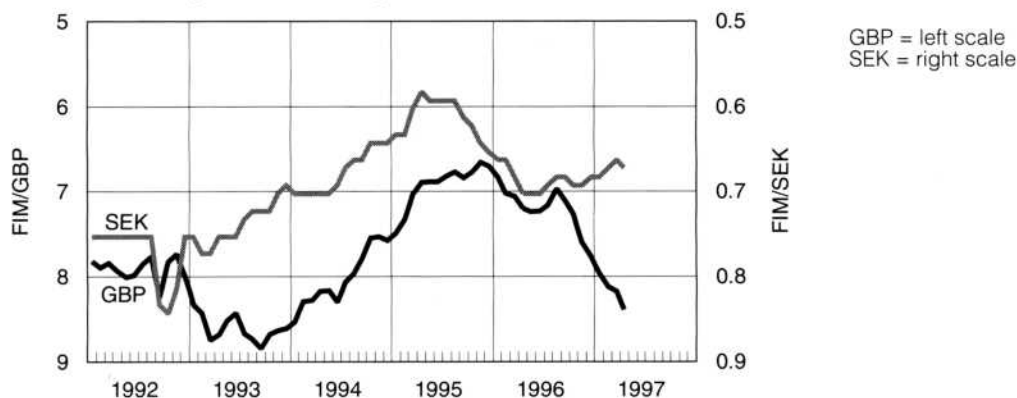


- Middle rates
GBP = left scale
SEK = right scale

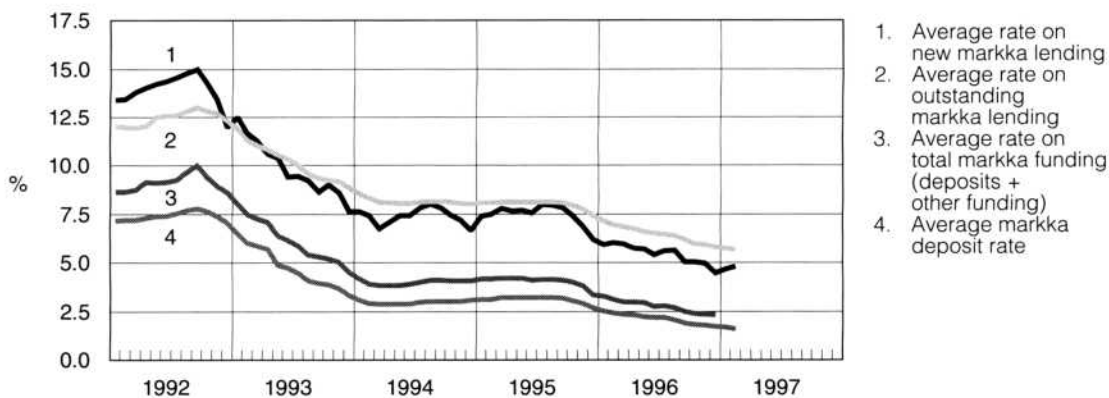
17. Monthly spot rates for the markka against the Deutschemark and US dollar



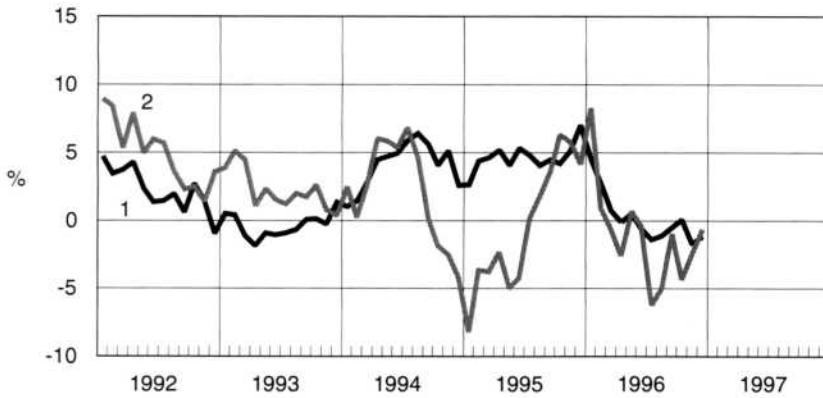
18. Monthly spot rates for the markka against the pound sterling and Swedish krona



19. Banks' markka lending rates and markka funding rates



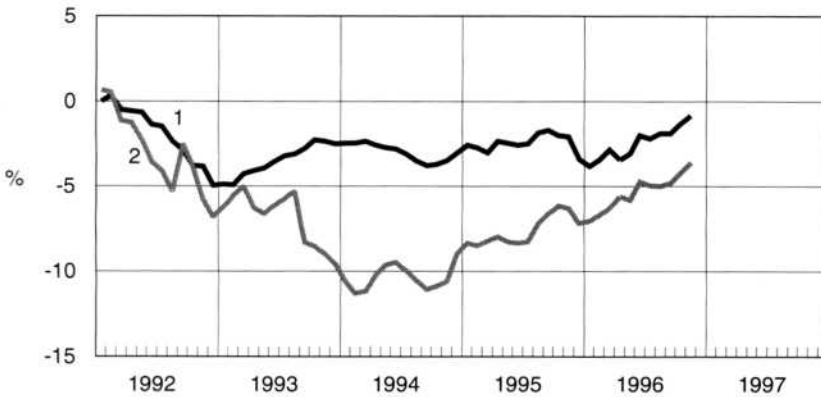
20. Bank funding from the public



1. Markka deposits
2. Total funding

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

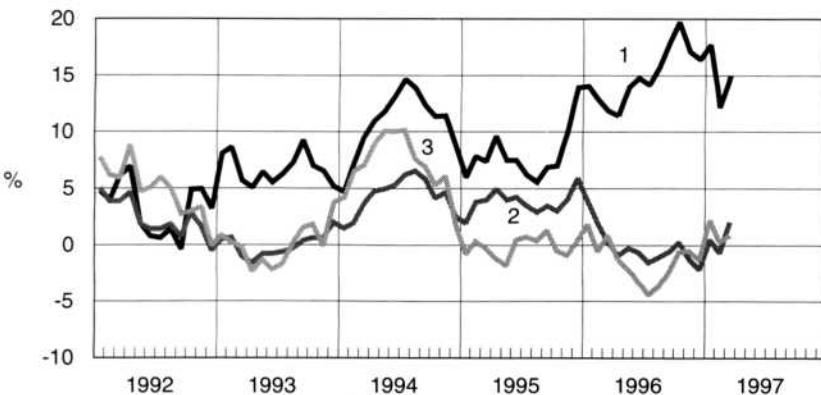
21. Bank lending to the public



1. Markka lending
2. Total lending

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

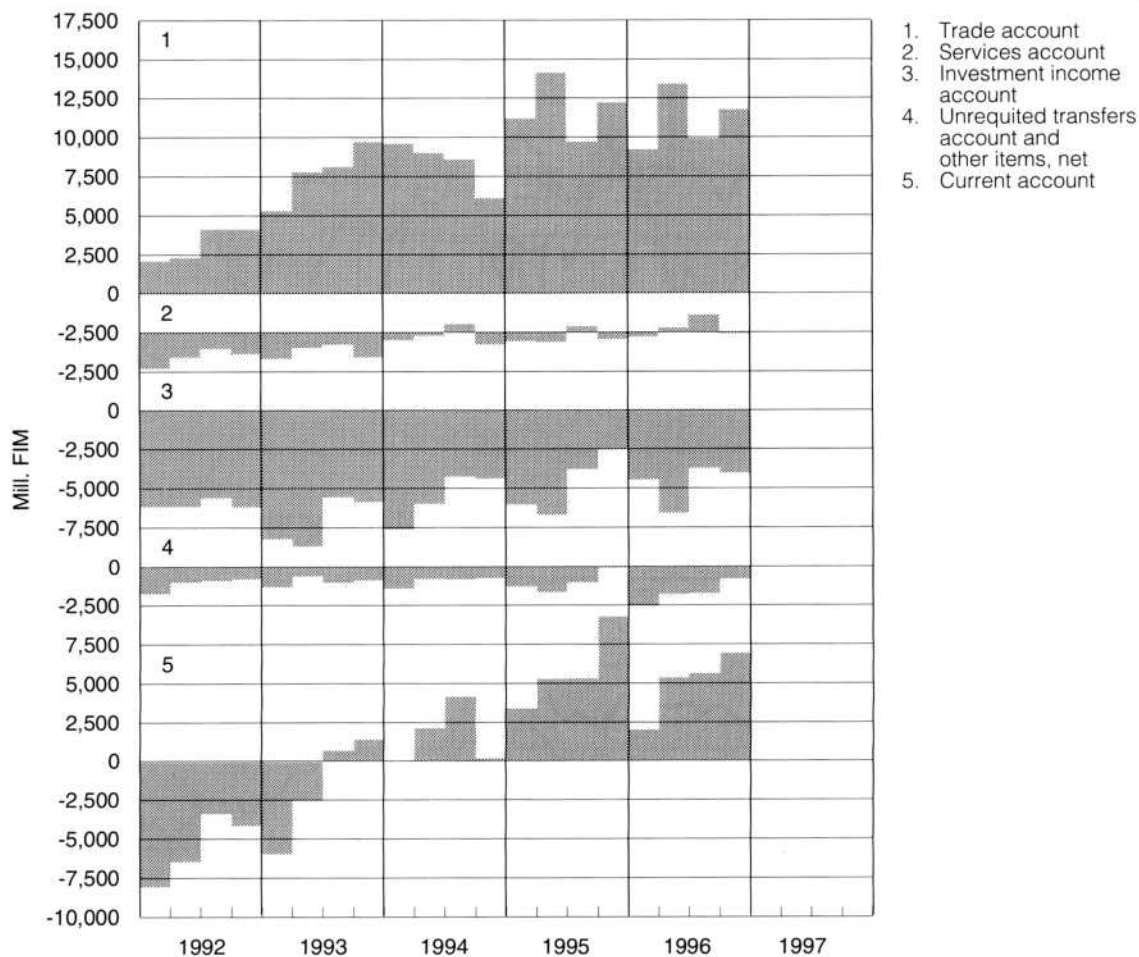
22. Money supply



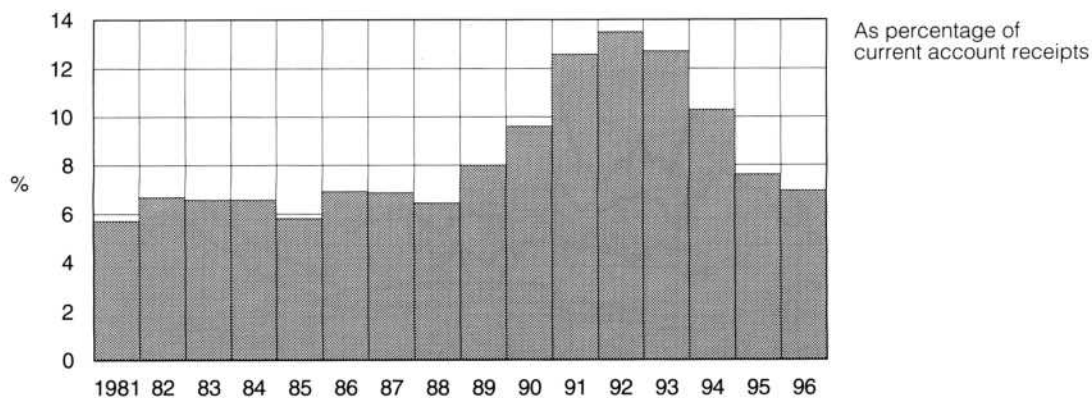
1. Narrow money (M1)
2. Broad money (M2)
3. M2 + bank CDs held by the public (M3)

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

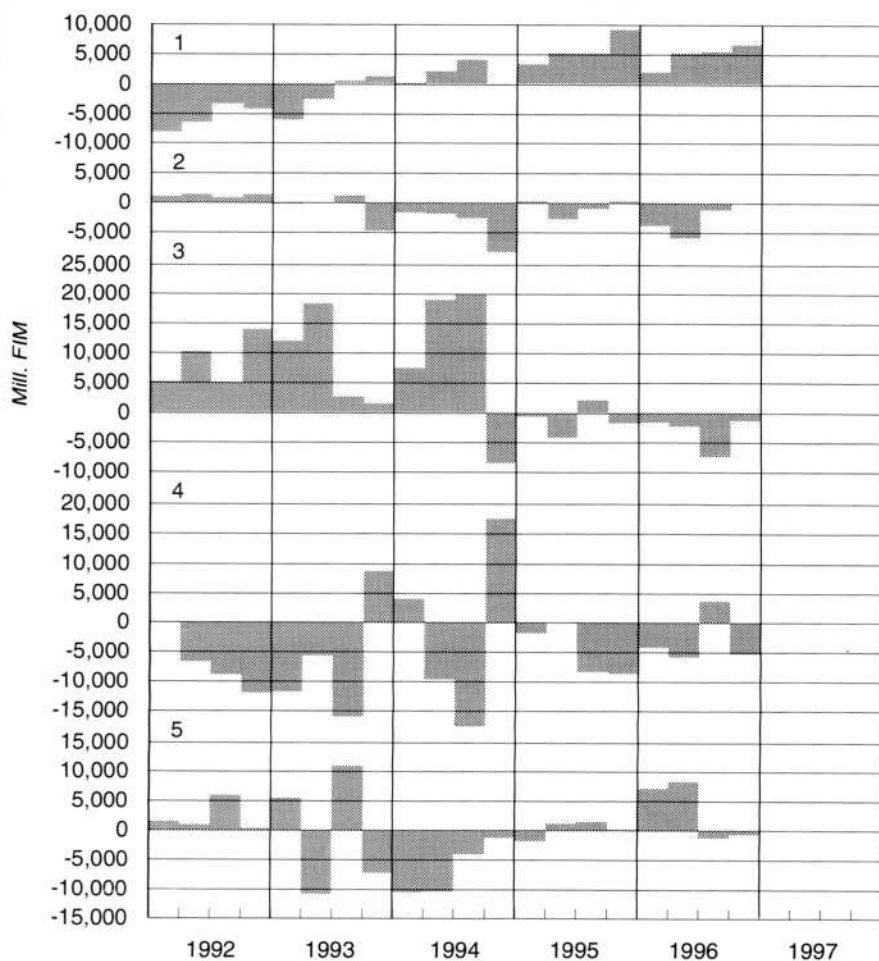
23. Current account



24. Net interest and dividend expenditure

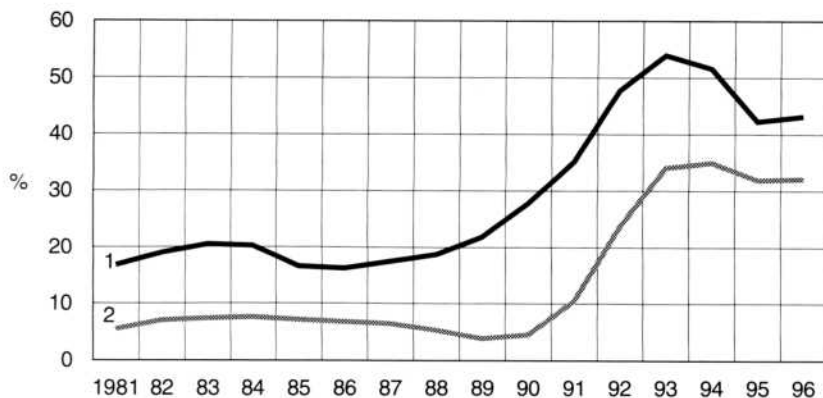


25. Balance of payments



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

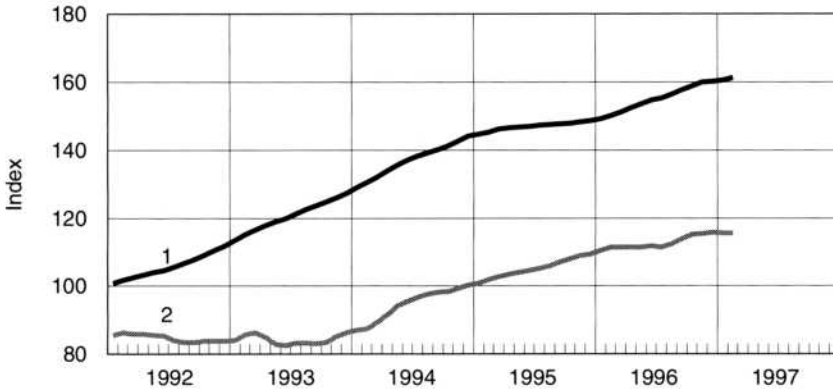
26. Finland's net international investment position



1. Total
2. Of which:
central government

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

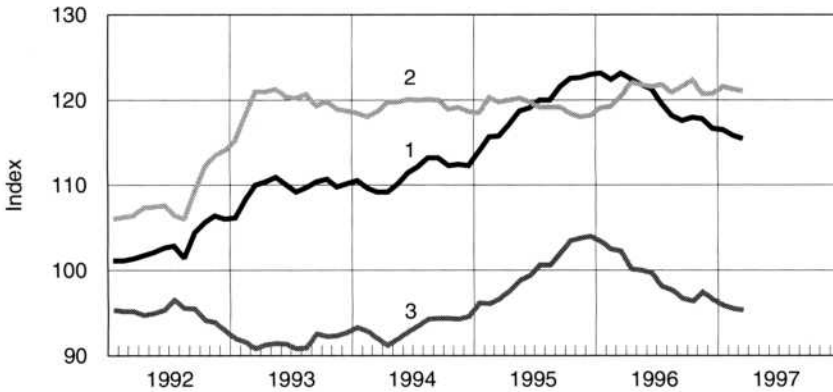
27. Foreign trade



1. Exports of goods
2. Imports of goods

Volume index, 1990 = 100, trend

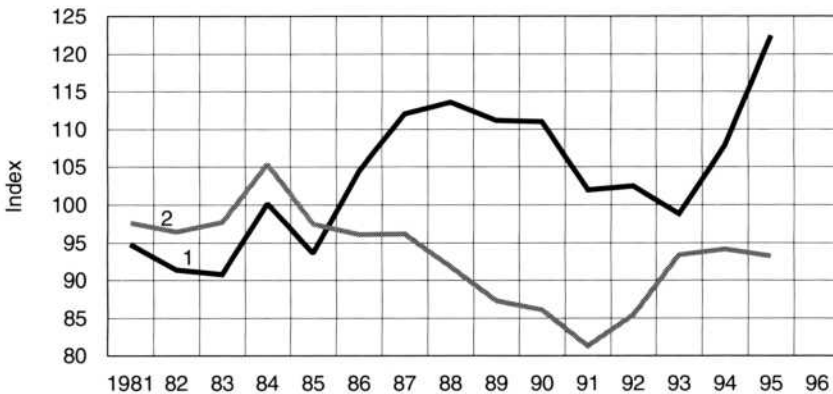
28. Foreign trade: prices and terms of trade



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

Index 1990 = 100

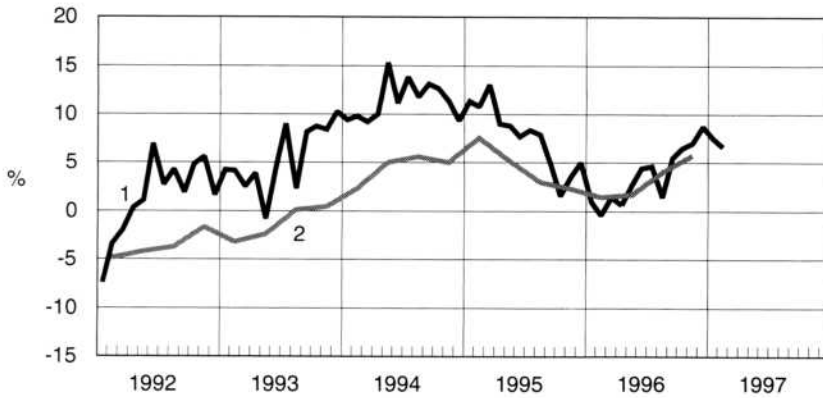
29. Finland's export performance



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

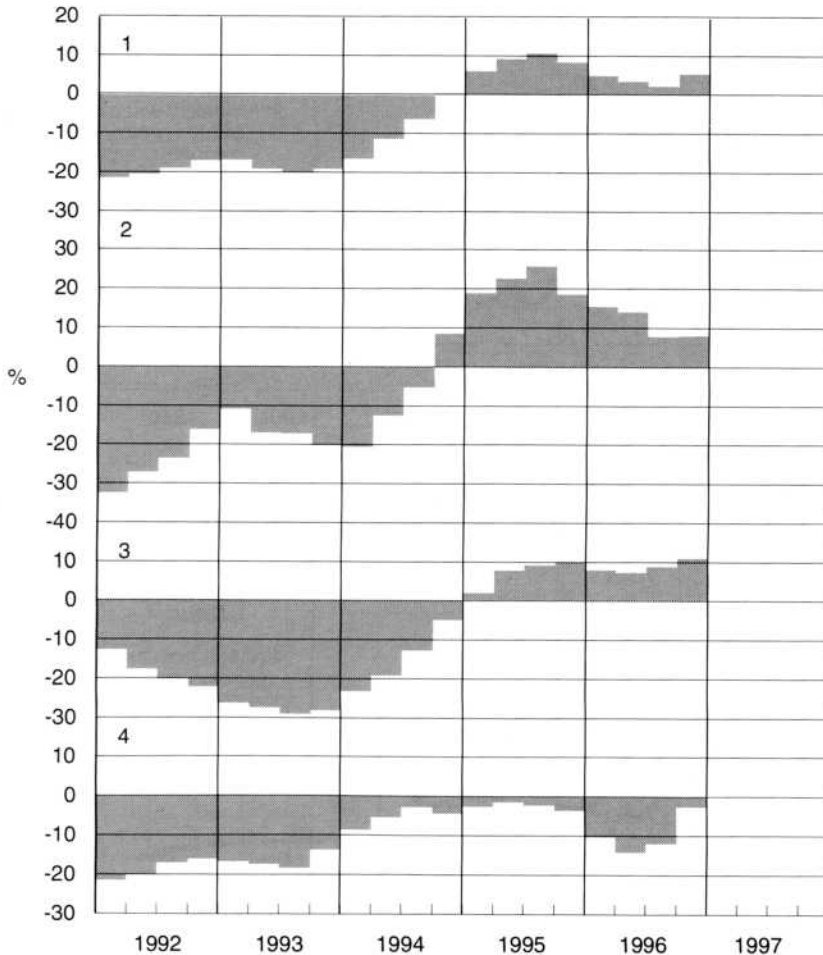
1980 = 100

30. Production



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

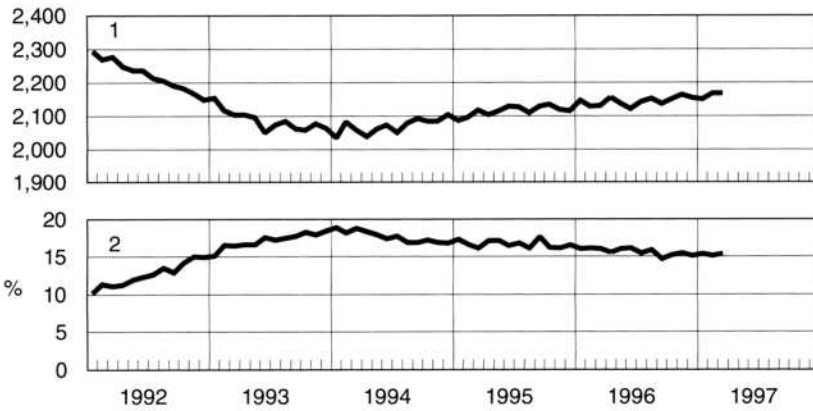
31. Fixed investment



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

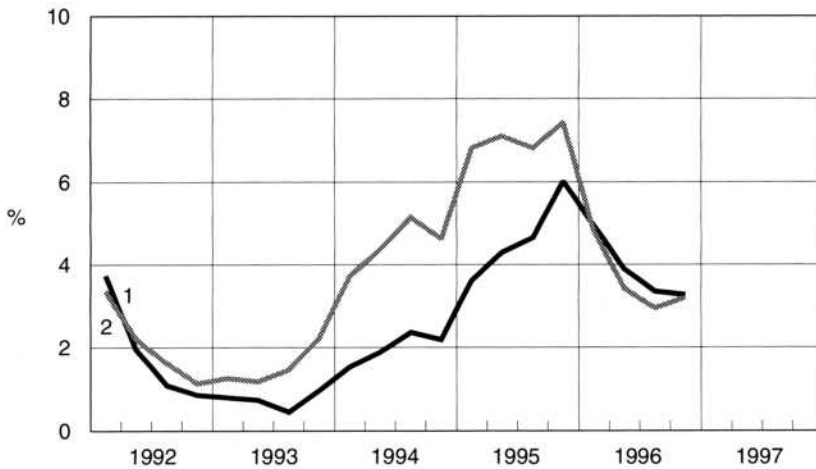
Four-quarter volume change calculated from four-quarter moving totals and plotted at the last quarter, per cent

32. Employment and the unemployment rate



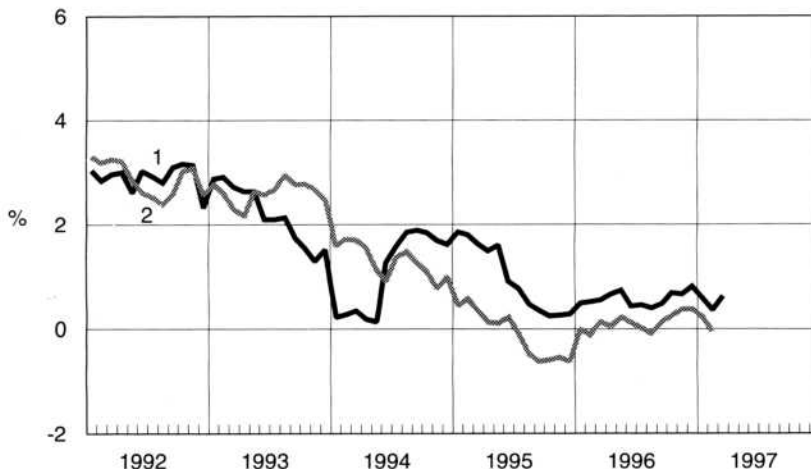
1. Employment, 1000 persons
2. Unemployment rate, per cent

33. Prices and wages



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

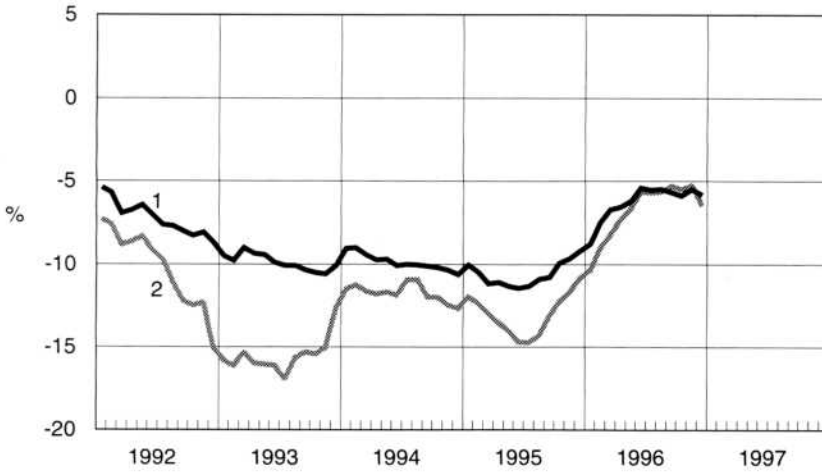
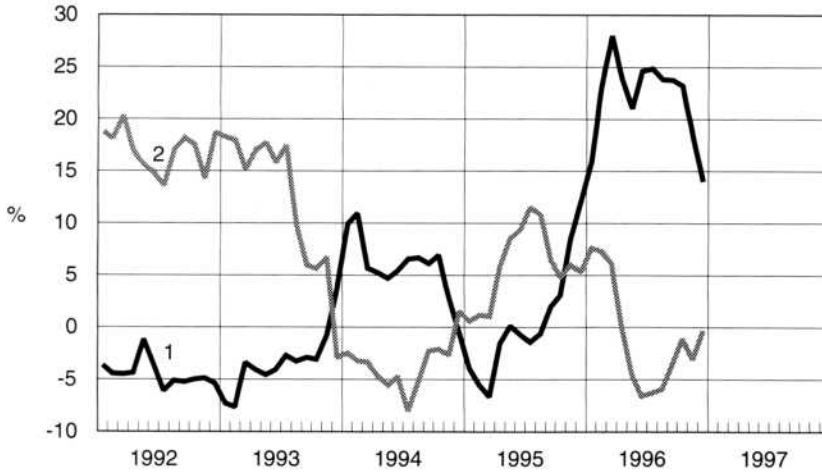
Change from the corresponding quarter of the previous year, per cent



1. Consumer price index
2. Indicator of underlying inflation

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

34. Central government finances



35. Central government debt

