



# BULLETIN

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National central securities depositories  
and EMU

Causes of the credit bubble

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# National central securities depositories and EMU

by **Markku Malkamäki**, Head of Office  
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Financial Markets Department  
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**D**eregulation of financial markets, new information technology (IT) and the introduction of new financial instruments have led to a rapid expansion in international investment. Competition in investment services has been significantly opened up by the EU directive on investment services in the securities field (ISD). The ISD grants market participants in the EU area free access to all national markets of member states. International competition thus materially affects also stock markets and support services for securities trade.

As we move into the Stage Three of EMU, the changeover to the single currency (euro), to the single monetary policy and to the Europe-wide payment system (TARGET: Trans-European Automated Gross Settlement Express Transfer) will remove all remaining significant barriers to free competition in the financial sector (excl. taxation) within the single currency area. This is likely to foment significant structural changes in European banking systems and securities markets in the near future, as competition over market share and marketplace location intensifies. The pressure for change also concerns support systems for securities trade, ie the registration and settlement functions.

## Centralization of securities trade systems

Settlement systems for securities trade are arrangements for clearing and settlement of payments and securities after a deal has been agreed. Traditionally, securities trades have been settled directly between the counterparties. With the growth of trading volumes and increased efforts to minimize risk, there has been a movement toward centralized settlement systems in which these functions are handled by a clearing house. In Finland it was not until spring 1991 that the Helsinki Stock Exchange (HSE) introduced centralized settlement of equity trades based on physical securities. The changeover from physical securities to a book-entry securities system began in 1992. In the same year, the Helsinki Money Market Center Ltd (HMMC) introduced centralized clearing and settlement of short-term debt instruments and the HSE started clearing and settling trades in book-entry securities.

In contrast to many other countries, Finland's book-entry system was decentralized from the start,

so that different entities can function as book-entry registrars in different information systems, subject to licensing by the Ministry of Finance. The registration system for book-entry equity instruments became scattered among different IT environments, mostly maintained by banks, and in the centralized shareholder register kept by the Central Share Register of Finland Cooperative. By contrast, the registration and settlement of wholesale trades in debt instruments was concentrated in a single IT environment, the HMMC. The Securities Association was set up to coordinate the activities of the book-entry system.

However, the growth of trading volumes and internationalization of securities markets soon revealed problems inherent in the decentralized system. Thus the idea arose at an early stage that Finland's book-entry and settlement systems should be combined into one institution. The Bank of Finland and the government have actively pursued the establishment of a national central securities depository (CSD). With the rapid growth of central government debt and the shift toward market-based implementation of monetary policy, the infrastructure of the securities market has become increasingly important to the public authorities.

## The Finnish Central Securities Depository Ltd began operations at the start of 1997

With a modest initial capital base, the Finnish government established the Finnish Central Securities Depository Ltd (FCSD) in December 1995. On 30 May 1995 the government, the Bank of Finland and the major private sector market participants signed an agreement to increase the FCSD's share capital, widen its shareholder base and commence operations as Finland's national CSD. The FCSD's equity was raised to FIM 90 million in December 1996. Ownership was divided into private sector holdings of 60 per cent and public sector holdings of 40 per cent. The largest ownership holding is that of the Bank of Finland (24.4 per cent); the remaining shares are held by the State (15.6 per cent), the Central Share Register of Finland Cooperative (24 per cent), the Helsingin Arvo-osuuskeskus Oy (10 per cent), Merita Bank (13 per cent), Okobank (6 per cent), Postipankki (6 per cent) and Aktia Savings Bank (1 per cent). Other interested securi-

ties market participants can also become shareholders of the FCSD.

Toward the end of 1996 the FCSD acquired the business operations of the HMMC and the Central Share Register of Finland Cooperative as well as the clearing and settlement operations of the HSE. The operations of the Securities Association were transferred to the FCSD under a legislative revision that became effective 1 January 1997. On the same date, the FCSD commenced actual operations with the combined personnel of the merged units (Chart 1).

The FCSD acts as the central securities depository for book-entry securities issued in Finland and as the clearinghouse for reported securities trades. Its status is based on legislation as well as Ministry of Finance licensing and confirmation of rules. The FCSD is supervised by the Financial Supervision Authority. The FCSD began operations on the basis of existing systems. The aim of the concerned parties is to make the FCSD a cost-effective, reliable and internationally competitive institution for securities registration, clearing and settlement. The approach is to enhance the efficiency and reliability of formerly decentralized book-entry operations by concentrating them technically and juridically in a single institution.

### **Points of departure for international competition**

Most western European countries have a national central securities depository. The Swedish book-entry system comprises registers maintained by the Swedish Central Securities Depository (Värdepapperscentralen or VPC), which also handles clearing and settlement. Book-entry accounts are held in the VPC's centralized information system, which has the sole right by law to maintain such registers. The largest owner of the VPC is the Swedish State (50 per cent). The combined ownership interest of banks and securities intermediaries is 25 per cent, as is that of issuers.

The Danish Central Securities Centre, (Værdipapircentralen or VP), is a private nonprofit institution managed jointly by market participants, authorities and investors. The VP maintains Denmark's centralized book-entry registers and handles the clearing and settlement of securities trades. In addition, it is responsible for the electronic trading system used on the Copenhagen Stock Exchange. For the time being, the VP is the only Nordic securities depository that is directly linked to the international Euroclear securities centre. The Norwegian book-entry system is modelled after its Danish counterpart and centralized in the Norwegian central securities depository (Verdipapircentralen), which has been granted by law the sole legal right to maintain the system.

The German securities markets revolve around a single institution, the Deutsche Börse AG. The functions of a national CSD are carried out by its wholly-owned subsidiary Deutscher Kassenverein

AG (DKV). The registration, clearing and settlement of all book-entry securities is centralized in DKV, which has the status of a bank and is supervised in the same way as other credit institutions. Deutsche Börse AG is itself owned by German banks (81 per cent), local stock exchanges (10 per cent) and securities intermediaries (9 per cent). Of all European countries, Germany has the most comprehensively combined marketplaces with the clearing, settlement and registration functions under a single holding company.

In addition to national CSDs, there are international CSDs, such as Euroclear in Belgium and Cedel in Luxembourg. The bulk of debt issues in international markets are still effected with physical bearer instruments. Both Euroclear and Cedel provide centralized facilities for securities immobilization and book-entry transfer of ownership within their information systems. Both institutions operate in a multicurrency environment and their settlement volumes are many times those of most national systems. The Finnish government has issued foreign currency-denominated bonds through both Euroclear and Cedel.

### **Competition has already tightened**

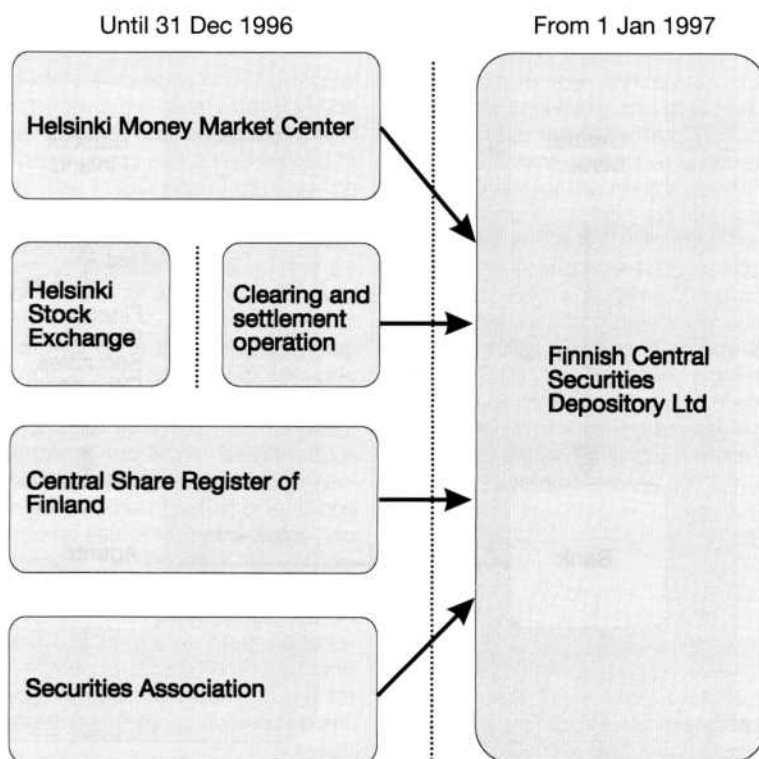
The rapid deregulation of capital movements in the 1980s led to an increase in trade volumes, especially in formerly protected national securities markets as foreigners proceeded to diversify their portfolios. Nonetheless, investment service providers operating in national markets have long been protected by various national features, such as different codes of conduct, special licensing procedures and national currencies.

The single market programme introduced by the European Union, particularly the incorporation of the ISD in member states' national legislation, has enabled cross-border provision of investment services and subjected the financial sectors of EU states to tighter international competition. Apart from banks and securities intermediaries, this applies also to stock exchanges and providers of support services for securities trade, such as registration, clearing and settlement. These institutions must already now be able to compete with other European marketplaces for company listings, debt security issues and trade in securities and derivative instruments.

Moreover, technological advances have made demands as regards both the speed, reliability and cost effectiveness of transactions as well as data dissemination. An increasing number of clearing and settlement systems are capable of continuous real-time processing of transactions. The international clearinghouses Euroclear and Cedel have recently enhanced their clearing/settlement linkup (bridge) in order to improve the processing of transactions between their respective customers and transaction chains. They have also tried to expand their direct linkages with national CSDs.

**Chart 1.**

**Securities settlement in Finland**



In recent years, international competition in financial services provision has intensified significantly, particularly in the EU area. This process is likely to continue over the coming years, even absent Stage Three of EMU, which would itself further intensify the competition in many respects.

**Stage Three of EMU will increase pressure for market concentration**

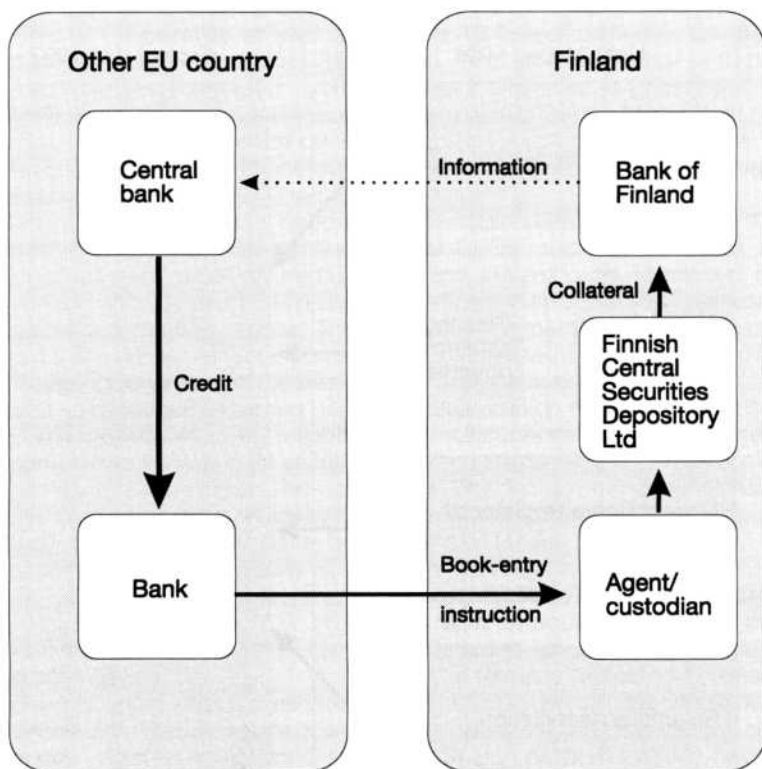
The use of a single European currency will eliminate exchange rate risk from all transactions between countries participating in Stage Three of EMU. For Finnish investors, this will mean a many-fold increase in investment opportunities that are free of currency risk. Likewise, Finnish issues will attract new potential investors. It is likely that at the onset of Stage Three of EMU a considerable reallocation of investment portfolios will take place within the euro area.

Monetary union will rapidly increase pressure for concentrating debt and derivative instrument markets in large international financial centres. This pressure will be especially strong with respect to the wholesale money markets inter alia because it will be possible to transfer large sums of money quickly and reliably from one country to another in real time via TARGET, the payment system being developed by European central banks.

National securities markets will probably continue to exist, at least initially. Whether local markets will survive in the longer run depends entirely on their competitiveness. Besides risk and taxation factors, cost and efficiency differences in infrastructures of national markets will be passed through directly to securities prices. Price spreads due to institutional factors will channel trade in otherwise identical instruments to the most price-competitive markets. In order for national equity and debt securities markets to be competitive, it is cru-

**Chart 2.**

**Correspondent central banking model**



cial that they provide efficient and cost-effective registration, clearing and settlement of securities trades because securities issuers and investors will hardly take on an additional cost merely to have their trades effected in a particular national system.

The linking of national securities trading infrastructures – registration, clearing, settlement and payment systems – to international systems will in the future have a crucial effect on competitiveness. Despite efforts to develop national systems, it is possible that the partial centralization of trade will gradually lead to centralization of the issue and settlement functions as well.

**The single monetary policy will place demands on settlement systems**

Implementation of the single monetary policy by the European System of Central Banks (ESCB) will mean that national registration and settlement systems must meet certain demands. They must en-

able processing of all instruments eligible for ESCB credit operations and cross-border use of collateral. ESCB credit operations and the related full-collateralization requirement will tightly link securities settlement systems with the single monetary policy and TARGET system.

National CSDs will not be required to carry out cross-border transactions on a delivery versus payment (DVP) basis immediately at the start of Stage Three of EMU. Instead, central banks will ensure, via the 'correspondent central banking model' (possibly supplemented by the 'guarantee model'), that collateral is posted before a credit is granted. ESCB counterparties can use securities deposited in other EU countries as collateral for credit obtained from their home national central banks. The central banks will design a correspondent central banking network and will provide each other with custodial services in connection with central bank credit. Counterparties will, either directly or through

an agent, deliver collateral to a correspondent central bank, which will hold the collateral in custody on behalf of the lending central bank. These models enable counterparties to obtain central bank credit in all countries in which they have business establishments, regardless of where the collateral is located.

Chart 2 shows how the correspondent central banking model would work in the case where a bank established in another EU state applies for credit from that state's central bank using securities issued in Finland as collateral. The FCSD would transfer the securities to the Bank of Finland's register, which on receipt of the collateral would inform the credit-granting central bank. The credit would not be granted until the collateral was with finality posted at the custodial central bank.

The longer-run objective is to link up national settlement systems into a euro area-wide network, similar to TARGET. The national CSDs of the EU countries are currently designing such a cooperative network. The demands placed on both international book-entry and payment linkages will however increase substantially at the onset of operations in the network of national settlement systems when it may become necessary to effect also cross-border transactions on a same-day DVP basis. At present, most national settlement systems operate on a net settlement basis. It is likely that the need to facilitate the transfer of financial instruments from one market to another will evoke pressure to shift increasingly into real-time trade-by-trade settlement.

### **Concluding remarks**

Adoption of the single currency will increase the pressure for centralizing securities trade in Europe in respect to wholesale money markets as well as

trade in shares of large companies and derivative instruments. There will be a similar need to centralize registration and settlement arrangements for these instruments unless the current systems are swiftly upgraded to a level where they can compete with the centralized international CSDs and entail adequate international interlinking. Where issuers and investors are concerned, the crucial factors are quality, reliability and low cost. It remains to be seen whether the network of national CSDs will provide a sufficiently effective alternative to centralization and how far the centralization process will go.

Tighter competition will in any event require that marketplaces and CSDs provide service ranges and operations that are up to international standards of quality. The development or acquisition of the necessary international network as well as continuous product and systems development require heavy inputs of capital and highly qualified personnel. Because these are very expensive, we may see more intensive cooperation among present competitors, for example in the areas of IT and product development.

17 February 1997

- Keywords: book-entry system, securities markets, EMU, clearing and settlement, Finnish Central Securities Depository

# Causes of the credit bubble<sup>1</sup>

by **Vesa Vihriälä**<sup>2</sup>, Head of Office  
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**T**he recession of the early 1990s and the resultant mass unemployment unquestionably add up to the greatest economic catastrophe to hit Finland in the postwar era. Since even minor misfortunes raise questions as to cause – and guilty parties – it should not come as a surprise that the search for answers in this case has been particularly highly motivated. Nor is there a shortage of mistakes to be found in the management of the crisis.

There are three basic views of the causation. One is the purely external forces view. The prime factor here is the collapse of eastern trade. We call this the 'shock' view.

The second delineable view considers the financial crisis and recession to be the results of uncoordinated behaviour of profit-seeking economic units making decisions based on imperfect information. We might well call this the 'natural instability of the market economy' view.

The third view sees the economy's exceptional rapid growth and subsequent collapse as a direct result of policy errors. These errors may relate just as well to macropolicy, ie monetary and fiscal policy, as to tax incentives and financial market regulations.

An easy way to construct a comprehensive explanation of the birth and breaking of the bubble is to argue that all three basic causal views were involved. This would also appear to be the fact. But of course merely rubber-stamping this approach is hardly adequate. In order to learn something from the crisis, one must attempt to evaluate the roles of the different views more deeply.

## **Moral hazard was an important contributing factor in the expansion of credit – no evidence of a credit crunch**

This study is an attempt to find evidence for this type of evaluation in one specific quarter: the banks' credit-supply behaviour. Both the natural instability and policy error views contain the idea that the private sector took on excessive debt in the lat-

ter half of the 1980s and that the debt contraction of the 1990s was extreme – whether by force or by choice. A key issue addressed in this study is whether the banks supplied credit to a degree that was in some sense excessive in the late 1980s and insufficient in the early 1990s.

On the basis of aggregate data on the whole banking sector and on the major categories of banks (banking groups), this would appear to be the case. However, because of the nature of the problem, we need to carefully analyse the behaviour of individual banks. The study dealt with nearly 500 cooperative and savings banks, which together account for about half of the total Finnish banking market over the period studied. This analysis of the credit supply of cooperative and savings banks shows that in the late 1980s, *ceteris paribus*, credit growth was stronger, the weaker the banks' basic profitability and capital position. Because of the strength of the statistical relationship, chance can be ruled out as a plausible explanation.

It is also difficult to imagine that the management of capital deficient banks was on average more shortsighted or less competent. Instead, the dependency relationship found here can be explained by the moral hazard problem, ie by intentional risk taking. When a bank has too little equity capital, the possible loss from risk taking is small compared to the possible gain. Moral hazard became a problem because the banks' creditors believed in the security of their claims despite the riskiness of the banks' lending. The substantially higher growth rate of lending by savings banks compared to cooperative banks can be completely explained by this type of distorted incentive. Hence the analysis here also finds the explanation for the large losses of savings banks and the bulk of the bank support in intentional risk taking.

On the other hand, the contraction in the stock of lending in the early 1990s does not appear to be as closely related to banks' behaviour. In this case, the explanation is found largely in borrowers' poor creditworthiness and lack of incentive to borrow. The hypothesis that the banks' capital deficiency caused a credit crunch is not supported by our findings.

The findings raise at least two important questions as to possible policy errors. First, why is it that

<sup>1</sup> This article is based on the author's *lectio praecursoria* in the defence of his doctoral thesis, 8 February 1997.

<sup>2</sup> Since 1 March 1997, Managing Director of Pellervo Economic Research Institute.



the banks' creditors trusted the banks to such a high degree in the late 1980s? Secondly, was the crisis policy of the early 1990s completely misguided? That policy was founded on the prevention of a credit crunch via bank support.

### **Implicit protection of creditors was the main cause of the moral hazard problem**

Underpriced deposit insurance has been cited in the literature since the 1970s as a key factor in promoting banks' risk taking. It has attained the status of primary cause through the interpretation of the US savings and loan association crisis of the 1980s. In light of the fact that in Finland deposits are fully guaranteed via security funds and banks' fees for this protection are low, the same underpricing thesis is a natural choice as an explanation for the Finnish crisis. However, the present findings do not support this view. Instead, they point to the low pricing and easy availability of nondeposit financing. As for individual savings banks, this seems to have been largely the result of the policies of Skopbank, which was owned by the savings banks and functioned as their central financial institution. It appears that Skopbank was prepared to lend virtually unlimited amounts of money to savings banks at 'market rates' as a means of realizing a group-level strategy. In this respect, Skopbank's behaviour differs essentially from the relatively strict lending policy of Okobank, the central financial institution of the cooperative banks.

Why did Skopbank behave in this way? Again, we may consider as possibilities chance, incompetency and intentional risk taking. Because we have only one observation on Skopbank (on the savings bank group as a whole), the choice cannot be based on statistical analysis, contrary to the case of individual savings and cooperative banks. Anecdotal evidence and for instance Antti Kuusterä's historical study of the savings banks<sup>3</sup> provides evidence for all three possibilities. Intentional risk taking and underestimation of risk levels are apparently inseparably intertwined. When we consider the bankers' time-honoured rule of thumb that rapid growth and risk go hand in hand, it is difficult to ascribe their disregard of risk to pure incompetency. One very revealing document in this respect is Skopbank's letter of recommendations sent to the savings banks in spring 1989, according to which it was advisable to step up lending now when other banks were starting to cut back in an environment of economic weakness and monetary tightening and out of a fear of risk taking.

Whatever the motivation for the behaviour of Skopbank and the whole savings bank group, the question remains: How could those supplying the financing trust these banks to such an extent?

<sup>3</sup> Kuusterä, A (1995) 'Aate ja raha. Säästöpankit suomalaisessa yhteiskunnassa 1822–1994' (Ideology and Money: Savings Banks in Finnish Society 1822–1994), Otava, Helsinki.

Certainly, the history of Finnish banks' ability to handle their debts and the optimistic spirit of the times (Finland dubbed the 'Japan of Europe' etc) were important factors, although the existence of such phenomena is impossible to prove. Nonetheless, the issue mainly concerns domestic and foreign investors operating in the wholesale money market. Such professional investors should be well informed of the risks inherent in banking. It is thus difficult to sidestep the idea that at least part of the reason for the trust was the belief that the government would not allow a bank like Skopbank to run out of liquidity. Market discipline did not function because there was a guarantor – a lender of last resort – in the background.

In light of the centralized nature of the Finnish banking system, the presence of the 'too big to fail' problem was obvious. After all, efforts had been made to prevent big banks from failing, regardless of cost, even in less centralized systems. And, sadly, the actions of officials only reinforced this attitude. How else can one interpret for instance the easing of the banks' interest cost burden in connection with cash reserve requirements just before the credit boom started in 1986, when it was high interest rates – as high as 40 per cent – that had stemmed speculation about devaluation? The Bank of Finland in fact revised the rules of the game by temporarily raising the interest rate on reserve deposits closer to the high level of market rates in order to ease the reserve requirement burden on banks' profitability. Connected with this successful operation was the tragic firming of confidence in the sustainability of the markka's exchange rate. Another troublesome factor was the equal treatment of all bank and central bank CDs in open market operations in 1987. Private banks' short-term debt paper was equated to public sector debt in terms of riskiness.

If and when the 'too big to fail' phenomenon rendered market discipline impotent, the task of regulation and supervision become extremely demanding. The situation was exacerbated by the intoxicating spell of liberalization under which interference in financial affairs by legislative or official supervisory means was not only irksome but quite behind the times. It was more common to make a court case of an official interpretation than to try to agree on the meaning of risk management. But to my mind, neither can we avoid the question of whether officials' cautiousness was partly of their own choosing, motivated by a desire to cling tightly to the narrow concept of legality supervision even when they could have taken a more comprehensive view. I feel that this issue would be an interesting topic for a jurisprudential study, and at least one such study touching on the issue is already underway.

At the start of the 1990s the banking crisis thus posed a true test of the extent and nature of the public financial safety net. We know the test result. Those who trusted in the safety net were well ad-

vised to do so. In light of both this experience and the yet greater centralization of the banking system, it would be pointless to rely in the future on creditors to inflict market discipline on the banks.

### **Management of the banking crisis: hardly any alternative to a bank bailout, but ...**

Would it have been preferable to take some other course when the crisis broke out, especially since my findings show that there was no credit crunch due to a shortage of bank capital? No and yes.

Of course, we cannot know for sure what would have happened if for instance Skopbank would have been allowed to go bankrupt in autumn 1991. Clearly, the seriousness of the consequences, in light of the macroeconomic situation, would be difficult to exaggerate. Hence, I feel that it was wise not to have taken that route. Nor was there much interest in taking that route in such countries as Sweden, Norway, USA or Japan, where the shocks were considerably smaller. Thus I feel that in the last analysis there was no viable alternative to protecting the banks' creditors.

But, even having admitted this, many questions remain open concerning the handling of the bank support. In Finland it was not insisted that the condition for all bank support would be the shift of ownership rights into public hands, as happened in Norway. However, when market discipline based on overseeing by creditors is not possible, control of moral hazard must be based on the assumption of responsibility by the banks' owners and management. This view is strongly supported in the academic literature. The theoretical conclusions of the present study also show that owners should bear the primary risk of banks' losses.

However, the matter is not so simple. The literature also provides justification for patience and moderate support. Such support could induce owners to invest in firms that fall into difficulty. In the management of the Finnish banking crisis, this view was reflected mainly in the FIM 8 billion of so-called general capital injections and various types of guarantees. The nature of the capital injections was quite extraordinary. The government offered to make capital investments absent ownership rights in all Finnish deposit banks pro rata to size. This kind of general capital support was not used in other countries that experienced banking crises. Guarantees, on the other hand, were used to a significant degree in many countries, for example in Sweden. It is my view that both general capital support and guarantees, including the Parliamentary resolution, were essential factors enabling banks to obtain equity capital from the markets, for instance via share issues of commercial banks. Until research shows otherwise, I must consider these forms of support to have been, given the circumstances, a successful and cost-effective means of preserving confidence in the core financial system,

which was only moderately distortive of competition. Problems encountered by the authorities in the handling and closing of Skopbank and the Savings Bank of Finland (formed from over 40 savings banks), whose management fell into public hands, do not give cause for confidence in that particular approach.

Even though much has been written on the banking crisis and especially on the related bank support, mainly in the realm of investigative and hard-hitting journalism, a careful overall analysis has not yet been done. The topic is nonetheless important but also difficult. Not all the key information is public information. On the other hand, especially from the standpoint of moral hazard, evaluation of the approach used is just as important as evaluation of the results themselves. An overall analysis of the crisis certainly would require not only economic research but also historical research as well as the methodologies of political science and (as mentioned above) jurisprudence.

### **The problem of the 1990s: debt deflation**

Besides the bank support itself, another key issue related to the crisis policy was the situation vis-à-vis debtors. In macroeconomic analyses of the deepness and longevity of the recession, a central role is ascribed to so-called debt deflation, ie the weakening of balance sheets of households and firms due to falling asset values. Findings from my own research support the view that the balance sheet structures of customers are crucial. From this standpoint, the best crisis policy would have been to support debtors by some means or other.

A popular, and from the moral standpoint understandable, demand heard during the crisis years was that funds should have been allocated not to the banks but rather to the banks' debtors. This would not only have directly alleviated debt deflation but would also have indirectly helped the banks. Unfortunately, this would not have been a panacea. A proportionate, eg FIM 50 billion, transfer to all debtors would not have been adequate for the problem customers. Elimination of some would have been unavoidable, partly because weak firms must also be weeded out. For this task, the authorities clearly would not have had the necessary resources. Evaluation of customers' credit worthiness is precisely the job of the financial system. Moreover, one support programme implemented by the authorities indicates that only limited numbers of worthy potential recipients of support could be found. The Finnish Guarantee Board's stabilization programme of 1993-1995 was able to find recipients worthy of a total of less than FIM 1 billion in guarantees - considerably less than its authorized sum of FIM 3.5 billion.

Another question is whether it would have been possible to curtail debt deflation by means of macroeconomic policy. An easing of fiscal policy

beyond that provided by built-in stabilizers would hardly have been a realistic alternative. Some observers have suggested that the level of indebtedness already present at the time might have had a deflationary impact via interest rates. Yet the timing of the tax reform left something to be desired: The tightening of the tax treatment of housing loans and application of the value-added tax to the service sector in the middle of the recession were hardly what was needed.

Would a substantial easing of monetary policy have been helpful? The United States, which suffered like Finland from the breaking of a credit bubble, resorted to a very loose monetary policy in the early 1990s. This is generally considered to have both alleviated substantially the plight of debtors and prevented a large-scale banking crisis. Nor did monetary ease lead to an acceleration of inflation. In my opinion, it is proper to question the conduct of monetary policy in Finland: The attempt to defend the exchange rate led to an extremely high level of interest rates given the situation with respect to demand and inflation. Nonetheless, one should be careful about going too far in drawing conclusions here. The Finnish situation differed in one essential respect from that of the USA. Many firms serving the domestic markets were carrying large amounts of foreign currency-denominated debt at the start of the decade. The above-mentioned decline in the external value of the markka substantially increased the debt burdens of these firms. Anecdotal evidence links bankruptcies of many firms to precisely this phenomenon. An easier monetary policy would only have reinforced this deflationary effect. In my opinion, the appropriate role of monetary policy in this respect is still an open question - another interesting challenge for future research.

It is worthwhile in principle to try to separate the causes of the crisis into factors related to chance, to the natural instability of the market mechanism and to policy errors for three reasons. We can try to avoid repeating policy errors; we can try to affect the weakness of the market mechanism; and we can try to be prepared for random shocks.

This study underlines the importance of risk taking and the implicit protection provided by the authorities to banks' creditors that enabled such risk taking. This is in a sense disturbing because the structural change that has taken place in the banking system and the expectations reinforced by the crisis experience make it extremely difficult to excise the incentive for inappropriate risk taking. We must nonetheless try to do this. One factor seems to stand above all others: The market discipline associated with debts and the necessarily imperfect supervisory discipline are needed less, the greater

the own resources of financial institutions. Further tightening of capital requirements, if necessary to levels exceeding international standards, should be retained as a viable option. Also important are the overseeing of capital adequacy and clear sanctions for failure to meet the requirements. If we do not believe that we can make progress in this direction, the only alternative may be to try to substantially reduce Finland's dependence on domestic financial institutions.

Debt deflation is in a certain sense a reflection of a malfunctioning market mechanism: Balance sheet structures affect behaviour by exacerbating the effects of external shocks. But also in this respect there is not much that can be done to alleviate the problem. The importance of the balance sheet structure is based primarily on built-in information problems. But it is perhaps not too much to hope for that macropolicy would at least not magnify the natural ups and downs of asset prices. This is particularly important in boom periods when, as experience teaches, large risk exposures come into being.

Although we could avoid both the distortion of incentives associated with official support and extreme macropolicy errors (by providing information), I suspect that bubbles big enough to shake the financial system could arise in the future. Knowledge of future events is not only imperfect, but the 'spirit of the times' appears to determine to a large extent how we should react to events, which risks we take seriously and in general what alternatives we take into consideration. It may be that there is not much here that can be changed. But if there is hope for change, it resides above all in the academic community. It has the essential task of questioning the view of the times that is rising to the status of the 'one and only truth'. It does not matter whether the issue concerns the impossibility of a large bank going bankrupt or the floating of a small currency. The most important lesson to be learned from the fact of imperfect information is perhaps the need to build economic institutions that can firmly withstand even shocks considered improbable. The collapse of the Soviet Union is not likely to be the last improbable shock to hit us.

28 February 1997

- Key words: credit crunch, moral hazard, capital regulation, banking crisis

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

1996

## FEBRUARY

**Base rate.** The Parliamentary Supervisory Board 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 Board 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 69 % and inland waters for 10 %. Located between latitudes 60° and 70° north, Finland has warm summers and cold winters. Helsinki on the south coast has an average maximum temperature of 22° C (72° F) in July and -4° C (25° F) in February.

Finland has a population of 5 116 800 (31 December 1995) and an average population density of 16.6 per square kilometre. The largest towns are Helsinki (Helsingfors), the capital, with 525 000 inhabitants, Espoo (Esbo) 191 200, Tampere (Tammerfors) 182 700, Vantaa (Vanda) 166 500 and Turku (Åbo) 164 700.

There are two official languages: 92.9 % of the population speaks Finnish as its mother tongue and 5.8 % Swedish. There is a small Lapp population in the north. Finnish is a member of the small Finno-Ugrian group of languages, which also includes Estonian and Hungarian.

## Form of government

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

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

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

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

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

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

## International relations

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

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

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

## The economy

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

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

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

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

**Foreign trade.** EU countries absorb the bulk of Finnish merchandise exports. In 1991-1995 their average share was 51.0 %. Over the same period, Finland's exports to other European countries (including Russia) accounted for 25.4 % and to the rest of the world for 23.6 %. The regional distribution of Finland's merchandise imports in the same period has been quite similar to that of exports: EU countries accounted for 48.6 %, other European countries for 27.5 % and the rest of the world for 23.9 %.

In 1995, the share of forest industry products in total merchandise exports was 36 %, the share of metal and engineering products 36 % and the share of other goods 28 %. Raw materials and intermediate goods (incl. crude oil) accounted for 60 % of merchandise imports, fuels for 5 %, investment goods for 14 % and consumption goods for 20 %.

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

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

## **Finance and banking**

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

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

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

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

In the money market, 69 % of the instruments, which totalled approximately FIM 142 billion at end-1995, 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 73 listed companies on the Helsinki Stock Exchange, with a market capitalization value of FIM 191 billion (at end-1995). Domestic bonds and debentures in circulation at end-1995 totalled FIM 234 billion; government bonds made up 62 % of the total. Turnover on the Stock Exchange in 1995 amounted to FIM 84 billion; the share of shares and subscription rights in the total was approximately 99 %.

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# 1. The balance sheet of the Bank of Finland

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

	1996		1997		
	31 Dec.	7 Feb.	14 Feb.	21 Feb.	28 Feb.
<b>ASSETS</b>					
<b>Reserve assets</b>	36 397	61 865	61 673	61 885	62 002
Gold	1 742	1 742	1 742	1 742	1 742
Special drawing rights	1 344	1 369	1 585	1 717	1 544
IMF reserve tranche	1 953	1 936	1 951	1 972	1 983
ECU-claim on the European Monetary Institute	2 541	2 531	2 529	2 548	2 544
Foreign exchange assets	28 817	54 287	53 865	53 906	54 189
<b>Other foreign claims</b>	3 853	3 911	3 911	3 911	3 911
Markka subscription to Finland's quota in the IMF	3 794	3 852	3 852	3 852	3 852
Share in the European Monetary Institute	59	59	59	59	59
<b>Claims on financial institutions</b>	13 497	16 655	16 655	16 647	13 928
Liquidity credits	—	—	—	—	—
Securities with repurchase commitments	11 626	14 823	14 823	14 823	12 104
Term credits	—	—	—	—	—
Bonds	196	176	176	176	176
Other claims on financial institutions	1 676	1 656	1 656	1 648	1 648
<b>Claims on the public sector</b>	1 906	1 907	1 907	1 907	1 907
Treasury bills	—	—	—	—	—
Bonds	—	—	—	—	—
Total coinage	1 906	1 907	1 907	1 907	1 907
Other claims on the public sector	—	—	—	—	—
<b>Claims on corporations</b>	2 266	2 265	2 263	2 262	2 259
Financing of domestic deliveries (KTR)	70	68	66	65	63
Other claims on corporations	2 197	2 197	2 197	2 197	2 197
<b>Other assets</b>	598	1 151	1 198	1 386	1 392
Accrued items	490	1 053	1 098	1 286	1 289
Other assets	108	98	100	100	102
<b>Valuation account</b>	—	—	—	—	—
<b>Total</b>	<b>58 518</b>	<b>87 753</b>	<b>87 607</b>	<b>87 998</b>	<b>85 399</b>
<b>LIABILITIES</b>					
<b>Foreign liabilities</b>	5 680	5 198	5 206	5 287	5 281
Allocations of special drawing rights	3 794	972	979	990	996
IMF markka accounts	—	3 853	3 852	3 852	3 852
Other foreign liabilities	934	373	375	445	433
<b>Notes and coin in circulation</b>	15 076	15 675	15 586	15 531	15 590
Notes	0	13 912	13 824	13 766	13 826
Coin	1 815	1 763	1 762	1 765	1 764
<b>Certificates of deposit</b>	15 530	47 370	44 070	44 400	47 520
<b>Liabilities to financial institutions</b>	8 329	6 699	9 548	8 904	2 904
Reserve deposits	6 829	5 199	8 048	7 404	1 404
Term deposits	—	—	—	—	—
Other liabilities to financial institutions	1 500	1 500	1 500	1 500	1 500
<b>Liabilities to the public sector</b>	—	—	—	—	—
Current accounts	—	—	—	—	—
Other liabilities to the public sector	—	—	—	—	—
<b>Liabilities to corporations</b>	574	362	356	345	341
Deposits for investment and ship purchase	574	362	356	345	341
Other liabilities to corporations	—	—	—	—	—
<b>Other liabilities</b>	220	160	154	155	138
Accrued items	193	126	127	128	110
Other liabilities	27	34	27	27	28
<b>Valuation account</b>	260	1 256	1 653	2 342	2 591
<b>Provisions</b>	5 270	5 270	5 270	5 270	5 270
Pension provision	1 516	1 516	1 516	1 516	1 516
Other provisions	3 754	3 754	3 754	3 754	3 754
<b>Capital accounts</b>	5 764	5 764	5 764	5 764	5 764
Primary capital	5 000	5 000	5 000	5 000	5 000
Reserve fund	764	764	764	764	764
Net earnings	—	—	—	—	—
<b>Total</b>	<b>58 518</b>	<b>87 753</b>	<b>87 607</b>	<b>87 998</b>	<b>85 399</b>



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

End of period	Foreign sector							Public sector			
	Gold	Special drawing rights	IMF reserve tranche	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											
Feb.	1 742	1 061	1 767	3 376	37 832	45 778	-1 484	44 294	1 880	54	1 826
March	1 742	1 165	1 802	3 435	35 330	43 475	-1 364	42 111	1 874	40	1 834
April	1 742	1 401	1 864	3 070	33 986	42 063	-1 481	40 582	1 873	342	1 531
May	1 742	1 474	1 953	3 002	27 814	35 985	-1 725	34 260	6 670	0	6 670
June	1 742	1 243	1 908	2 964	26 851	34 707	-2 015	32 692	6 460	0	6 460
July	1 742	1 187	1 880	2 642	26 402	33 854	-2 066	31 788	6 460	-	6 460
Aug.	1 742	1 186	1 909	2 613	27 139	34 590	-2 588	32 002	6 297	-	6 297
Sept.	1 742	1 412	1 928	2 614	27 619	35 315	-1 774	33 541	5 998	-	5 998
Oct.	1 742	1 017	1 915	2 519	29 510	36 703	-1 863	34 840	5 982	-	5 982
Nov.	1 742	1 044	1 945	2 541	29 713	36 985	-2 088	34 897	5 987	-	5 987
Dec.	1 742	1 344	1 953	2 541	28 817	36 397	-1 826	34 571	1 906	-	1 906
1997											
Jan.	1 742	1 370	1 937	2 528	54 432	62 009	-1 292	60 717	1 907	-	1 907
Feb.	1 742	1 544	1 983	2 544	54 189	62 002	-1 370	60 632	1 907	-	1 907

End of period	Domestic financial sector				Corporate sector				
	Term claims on deposit banks, net	Reserve deposits of deposit banks <sup>1</sup>	Other claims on financial institutions, net	Net claims (12+13+14)	Claims in the form of special financing	Special deposits and other items, net	Net claims (16+17)	Notes and coin in circulation	Out-standing CDs issued by the Bank of Finland
	12	13	14	15	16	17	18	19	20
1992	3 738	-13 165	4 022	-5 405	747	-2 651	-1 904	14 508	4 880
1993	7 337	-6 398	-463	476	496	720	1 216	14 994	14 837
1994	1 480	-6 526	-347	-5 392	316	1 285	1 601	14 315	35 236
1995	7 076	-15 676	655	-7 945	185	1 706	1 891	15 611	27 090
1996	11 626	-6 829	372	5 169	70	1 623	1 692	16 891	15 530
1996									
Feb.	2 095	-8 092	2 046	-3 951	159	1 808	1 968	14 428	28 325
March	2 244	-6 564	598	-3 722	153	1 825	1 978	14 448	25 426
April	3 430	-8 831	304	-5 097	138	1 628	1 767	14 759	20 350
May	10 237	-8 790	527	1 974	129	1 541	1 670	14 967	20 700
June	7 887	-4 191	498	4 194	124	1 560	1 685	15 275	21 420
July	6 540	-7 203	487	-176	117	1 581	1 698	15 251	16 445
Aug.	9 988	-5 400	472	5 060	108	1 592	1 700	15 201	21 920
Sept.	10 147	-3 676	443	6 914	102	1 630	1 732	15 331	24 650
Oct.	10 683	-5 131	394	5 946	92	1 662	1 754	15 296	24 920
Nov.	7 041	-4 145	1 100	3 996	74	1 591	1 665	15 449	22 160
Dec.	11 626	-6 829	372	5 169	70	1 623	1 692	16 891	15 530
1997									
Jan.	14 277	-5 082	336	9 531	68	1 797	1 865	15 659	47 370
Feb.	12 104	-1 404	324	11 024	63	1 856	1 918	15 590	47 520

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

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

	Reserve requirement			Required reserves <sup>1</sup> , mill. FIM	Excess reserves, mill. FIM	Total reserves, mill. FIM (4+5)	Liquidity credits, mill. FIM
	On deposits payable on demand, %	On other deposits, %	On other items, %				
	1	2	3	4	5	6	7
1993	2.0	1.5	1.0	6 398	.	.	440
1994	2.0	1.5	1.0	6 526	.	.	14
1995	I-IX	1.5	1.0	6 557	.	.	123
	X-XII	1.5	1.0	6 530	616	7 146	37
1996	2.0	1.5	1.0	6 652	440	7 092	121
1996							
Feb.	2.0	1.5	1.0	6 681	251	6 932	50
March	2.0	1.5	1.0	6 699	240	6 939	278
April	2.0	1.5	1.0	6 672	148	6 821	153
May	2.0	1.5	1.0	6 624	105	6 730	-
June	2.0	1.5	1.0	6 689	481	7 171	-
July	2.0	1.5	1.0	6 728	139	6 868	-
Aug.	2.0	1.5	1.0	6 672	308	6 981	544
Sept.	2.0	1.5	1.0	6 636	1 634	8 270	-
Oct.	2.0	1.5	1.0	6 703	631	7 334	-
Nov.	2.0	1.5	1.0	6 596	136	6 732	233
Dec.	2.0	1.5	1.0	6 578	992	7 570	186
1997							
Jan.	2.0	1.5	1.0	6 560	423	6 983	-
Feb.	2.0	1.5	1.0	6 590	992	7 582	-

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

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

During period	Purchases of money market instruments	Sales of money market instruments	Matured money market instruments, net	Money market transactions, net (1-2-3)
	1	2	3	4
1992	76 230	137 940	-60 417	-1 293
1993	86 521	146 899	-50 486	-9 892
1994	35 540	351 820	-295 165	-21 115
1995	50 435	434 810	-393 930	9 555
1996	94 080	250 980	-190 562	33 662
1996				
Feb.	2 100	27 420	-24 080	-1 240
March	2 280	24 350	-21 300	-770
April	3 500	16 320	-26 040	13 220
May	10 500	20 060	-12 880	3 320
June	7 900	14 020	-2 390	-3 730
July	6 700	16 450	-13 510	3 760
Aug.	14 800	21 920	-9 892	2 772
Sept.	11 900	24 650	-15 530	2 780
Oct.	10 600	24 920	-12 030	-2 290
Nov.	7 900	19 340	-23 630	12 190
Dec.	12 650	15 530	-6 430	3 550
1997				
Jan.	17 100	47 370	-2 780	-27 490
Feb.	15 500	47 520	-28 660	-3 360

### 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					
Jan.	-	-3 970	-	-	-1 150
Feb.	-	-1 330	-	-	2 440
March	-	-440	-	-	-1 970
April	-	-1 100	-	-	-1 710
May	1 200	-	-	-	-6 230
June	240	-	-	-	-720
July	60	-	-	-	-50
Aug.	1 350	-	-	-	-658
Sept.	2 310	-	-	-	-2 210
Oct.	2 200	-	-	-	-690
Nov.	-	-480	-	-	30
Dec.	-	-	-	-	-950
1997					
Jan.	38 340	-	12 620	-12 260	-250

### 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				Net currency sales
	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)	
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											
Jan.	62 881	24 416	38 465	38 155	61 008	-22 854	15 611	15 426	9 221	6 205	-
Feb.	69 329	29 225	40 105	44 599	67 131	-22 532	17 573	16 168	9 036	7 132	-
March	69 288	29 810	39 478	47 057	66 398	-19 341	20 137	15 413	8 400	7 013	-
April	65 120	29 781	35 340	42 328	63 860	-21 532	13 808	15 326	8 836	6 490	-
May	63 924	29 718	34 206	43 553	66 290	-22 737	11 469	17 851	8 327	9 525	-
June	60 709	27 714	32 995	43 406	61 302	-17 896	15 099	16 731	8 494	8 237	-
July	57 388	27 873	29 514	42 949	62 681	-19 733	9 781	16 977	8 127	8 849	-
Aug.	56 042	26 638	29 404	43 992	68 884	-24 891	4 513	17 407	7 513	9 894	-
Sept.	54 160	23 422	30 738	46 476	69 507	-23 031	7 707	18 761	7 536	11 225	-
Oct.	54 587	24 466	30 120	50 823	73 163	-22 341	7 779	18 988	6 902	12 085	-
Nov.	53 072	22 459	30 614	51 554	76 001	-24 446	6 168	18 476	7 649	10 827	-
Dec.	53 520	21 793	31 726	44 068	72 021	-27 953	3 773	15 871	6 908	8 963	-
1997											
Jan.	61 066	21 103	39 964	61 130	72 501	-11 371	28 593	18 219	5 597	12 622	-12 185

### 3. Rates of interest

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

Average of daily observations	Interbank overnight rate	HELIBOR				Bank of Finland rates		
		1 month	3 months	6 months	12 months	Liquidity credit rate <sup>1</sup>	Excess-reserve rate <sup>2</sup>	Base rate
	1	2	3	4	5	6	7	8
1992	13.32	13.49	13.27	13.08	12.96	14.90	7.41	9.17
1993	7.71	7.85	7.73	7.59	7.47	8.95	4.95	6.85
1994	4.38	5.11	5.35	5.78	6.33	7.11	3.11	5.27
1995	5.26	5.63	5.76	5.97	6.34	7.63	3.63	5.20
1996	3.66	3.58	3.63	3.74	3.99	5.57	1.57	4.38
1996								
Feb.	4.05	4.27	4.28	4.33	4.58	6.25	2.25	4.50
March	3.83	3.95	4.01	4.12	4.36	5.94	1.94	4.50
April	3.91	3.77	3.82	3.95	4.21	5.75	1.75	4.50
May	4.01	3.75	3.76	3.86	4.16	5.75	1.75	4.50
June	3.38	3.67	3.72	3.84	4.11	5.67	1.67	4.50
July	3.48	3.54	3.63	3.78	4.07	5.52	1.52	4.50
Aug.	3.94	3.45	3.54	3.70	4.00	5.43	1.43	4.50
Sept.	3.16	3.19	3.28	3.43	3.67	5.19	1.19	4.25
Oct.	3.11	3.04	3.10	3.20	3.40	5.03	1.03	4.00
Nov.	3.29	3.02	3.08	3.21	3.46	5.00	1.00	4.00
Dec.	3.11	3.02	3.08	3.20	3.40	5.00	1.00	4.00
1997								
Jan.	2.68	3.02	3.07	3.16	3.34	5.00	1.00	4.00
Feb.	2.85	3.01	3.07	3.17	3.34	5.00	1.00	4.00

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

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

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

	The Bank of Finland's tender rate, %	Liquidity credit: interest rate margin, %-points	Liquidity credit: maturity, days	Call money deposits: interest rate margin, %-points	Excess-reserve rate	
	1	2	3	4	5	
1992 <sup>1</sup>	13.85	1992	+1.00	7	-3.00	.
1993	7.87	1993	+2.00	7	-2.00	.
1994	5.11	1994	+2.00	7	-2.00	.
1995	5.63	1995	+2.00	7	.	2.25
1996	3.57	1996	+2.00	7	.	1.00
1996		1996				
Feb.	4.25	Feb.	+2.00	7	.	2.25
March	3.94	March	+2.00	7	.	1.75
April	3.75	April	+2.00	7	.	1.75
May	3.75	May	+2.00	7	.	1.75
June	3.67	June	+2.00	7	.	1.60
July	3.52	July	+2.00	7	.	1.50
Aug.	3.43	Aug.	+2.00	7	.	1.25
Sept.	3.19	Sept.	+2.00	7	.	1.10
Oct.	3.03	Oct.	+2.00	7	.	1.00
Nov.	3.00	Nov.	+2.00	7	.	1.00
Dec.	3.00	Dec.	+2.00	7	.	1.00
1997		1997				
Jan.	3.00	Jan.	+2.00	7	.	1.00
Feb.	3.00	Feb.	+2.00	7	.	1.00
13.3.1996	3.75	13.3.1996				1.75
14.6.1996	3.60	14.6.1996				1.60
5.7.1996	3.50	5.7.1996				1.50
23.8.1996	3.25	23.8.1996				1.25
18.9.1996	3.10	18.9.1996				1.10
9.10.1996	3.00	9.10.1996				1.00

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

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

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

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

Average for period	Lending					Markka deposits and other markka funding						
	New credits				Average lending rate	Of which: Commercial banks	24-month tax-exempt deposits <sup>1</sup>	36-month tax-exempt deposits <sup>1</sup>	Other tax-exempt deposits, max. rate of interest <sup>1</sup>	Average rate of interest on deposits	Average rate of interest on other funding	Average rate of interest on markka funding
	Cheque account and postal giro credits	Bills of exchange	Loans	New lending, total								
	1	2	3	4	5	6	7	8	9	10	11	12
1992	14.04	15.86	13.32	13.75	12.46	12.13	7.50	8.50	4.50	7.41	12.84	9.14
1993	9.69	13.55	9.40	9.75	10.20	9.92	3.50	4.50	2.00	4.78	8.86	6.15
1994	7.32	11.55	7.13	7.35	8.18	7.91	3.25	4.25	2.00	2.99	5.96	4.01
1995	7.85	11.33	7.30	7.46	8.04	7.75	2.75	3.75	2.00	3.13	6.29	4.08
1996	5.61	9.61	5.31	5.43	6.49	6.15	2.00	3.00	2.00	2.15	4.31	2.78
1996												
Jan.	6.30	11.05	5.81	5.94	7.18	6.88	2.75	3.75	2.00	2.55	5.17	3.29
Feb.	5.79	9.32	6.04	6.08	6.99	6.70	2.50	3.50	2.00	2.44	4.98	3.15
March	5.13	10.78	5.93	5.99	6.88	6.57	2.50	3.50	2.00	2.37	4.63	3.00
April	4.83	8.19	5.71	5.75	6.77	6.43	2.50	3.50	2.00	2.32	4.71	2.99
May	5.96	9.19	5.59	5.73	6.64	6.30	2.50	3.50	2.00	2.27	4.59	2.97
June	5.31	10.66	5.35	5.44	6.55	6.20	2.50	3.50	2.00	2.23	4.10	2.79
July	6.26	9.78	5.48	5.63	6.48	6.12	2.50	3.50	2.00	2.21	4.29	2.81
Aug.	6.19	9.74	5.51	5.66	6.42	6.04	2.50	3.50	2.00	2.07	4.09	2.71
Sept.	6.24	9.95	4.92	5.06	6.23	5.87	2.00	3.00	2.00	1.93	3.92	2.52
Oct.	5.63	9.73	4.90	5.04	5.99	5.67	2.00	3.00	2.00	1.84	3.72	2.39
Nov.	5.12	9.58	4.87	4.98	5.94	5.62	2.00	3.00	2.00	1.80	3.77	2.38
Dec.	5.21	9.04	4.38	4.48	5.83	5.48	2.00	3.00	2.00	1.73	3.92	2.35
1997												
Jan.	..	..	..	4.68	5.76	5.39	2.00	3.00	2.00	1.70	..	..

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

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

Period	Bonds				Shares
	Reference rates calculated by the Bank of Finland		Taxable government bonds		Share yield
	3 years	5 years	5 years	10 years	
	1	2	3	4	5
1992	13.1	13.0	12.0	11.5 <sup>1</sup>	2.5
1993	8.5	8.9	8.2	8.8	1.2
1994	8.5	9.3	8.4	9.1	1.0
1995	8.2	8.9	7.9	8.8	2.4
1996	5.8	6.8	6.0	7.1	2.1
1996					
Jan.	6.1	6.9	6.3	7.0	1.8
Feb.	6.4	7.3	6.9	7.7	1.8
March	6.4	7.5	6.8	7.7	2.7
April	6.1	7.2	6.5	7.5	2.7
May	6.1	7.4	6.5	7.4	1.9
June	6.0	7.2	6.3	7.2	1.9
July	5.9	6.9	6.2	7.1	1.9
Aug.	5.8	6.9	6.1	7.2	1.8
Sept.	5.4	6.5	5.6	6.9	2.4
Oct.	5.0	5.9	5.1	6.5	2.4
Nov.	5.0	5.9	5.1	6.5	2.3
Dec.	5.0	5.9	5.0	6.3	2.2
1997					
Jan.	4.8	5.7	4.8	6.1	2.2

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

## 4. Rates of exchange

### 4.1 Middle rates, FIM

Average of daily quotations	New York 1 USD	Montreal 1 CAD	London 1 GBP	Dublin 1 IEP	Stockholm 1 SEK	Oslo 1 NOK	Copenhagen 1 DKK	Reykjavik 1 ISK	Frankfurt am Main 1 DEM	Amsterdam 1 NLG	Brussels 1 BEF	Zurich 1 CHF
	1	2	3	4	5	6	7	8	9	10	11	12
1992	4.4835	3.706	7.875	7.636	0.7714	0.7222	0.7444	0.0778	2.8769	2.5552	0.1397	3.2000
1993	5.7189	4.434	8.582	8.371	0.7350	0.8059	0.8822	0.0846	3.4584	3.0787	0.1655	3.8706
1994	5.2184	3.824	7.982	7.799	0.6758	0.7393	0.8207	0.0745	3.2169	2.8684	0.1561	3.8179
1995	4.3658	3.181	6.891	6.999	0.6123	0.6889	0.7790	0.0674	3.0471	2.7202	0.1481	3.6941
1996	4.5905	3.367	7.164	7.345	0.6847	0.7111	0.7921	0.0689	3.0530	2.7247	0.1484	3.7211
1996												
Feb.	4.5520	3.309	6.991	7.200	0.6611	0.7107	0.8026	0.0687	3.1048	2.7725	0.1510	3.8076
March	4.6019	3.370	7.026	7.234	0.6836	0.7158	0.8062	0.0694	3.1140	2.7818	0.1515	3.8459
April	4.7313	3.482	7.169	7.402	0.7040	0.7285	0.8147	0.0709	3.1434	2.8109	0.1530	3.8805
May	4.7568	3.475	7.207	7.437	0.6996	0.7233	0.8038	0.0706	3.1028	2.7755	0.1509	3.7924
June	4.6713	3.420	7.204	7.398	0.6991	0.7153	0.7933	0.0695	3.0590	2.7310	0.1487	3.7172
July	4.5888	3.352	7.128	7.354	0.6909	0.7113	0.7910	0.0687	3.0495	2.7171	0.1480	3.7178
Aug.	4.4777	3.263	6.941	7.215	0.6765	0.6986	0.7816	0.0676	3.0210	2.6932	0.1466	3.7227
Sept.	4.5383	3.313	7.075	7.309	0.6834	0.7029	0.7826	0.0680	3.0145	2.6889	0.1464	3.6860
Oct.	4.5714	3.383	7.245	7.352	0.6925	0.7049	0.7803	0.0681	2.9918	2.6669	0.1452	3.6337
Nov.	4.5500	3.400	7.571	7.576	0.6869	0.7162	0.7839	0.0687	3.0106	2.6843	0.1461	3.5703
Dec.	4.6398	3.409	7.726	7.709	0.6799	0.7173	0.7809	0.0692	2.9883	2.6635	0.1450	3.4927
1997												
Jan.	4.7765	3.541	7.924	7.791	0.6764	0.7408	0.7803	0.0700	2.9754	2.6498	0.1443	3.4297
Feb.	4.9757	3.672	8.089	7.898	0.6720	0.7508	0.7794	0.0707	2.9729	2.6468	0.1441	3.4264

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											
Feb.	0.9028	0.00289	0.4414	0.0299	0.0368	0.0188	0.3881	0.04305	3.439	5.704	6.67427
March	0.9095	0.00294	0.4427	0.0301	0.0370	0.0190	0.3892	0.04346	3.549	5.772	6.72716
April	0.9262	0.00302	0.4470	0.0306	0.0377	0.0195	0.3929	0.04411	3.719	5.882	6.86087
May	0.9170	0.00306	0.4412	0.0302	0.0372	0.0196	0.3878	0.04474	3.790	5.844	6.87179
June	0.9026	0.00303	0.4348	0.0297	0.0363	0.0193	0.3824	0.04292	3.698	5.787	6.74035
July	0.9006	0.00301	0.4334	0.0297	0.0361	0.0193	0.3812	0.04200	3.622	5.762	6.65070
Aug.	0.8848	0.00295	0.4293	0.0294	0.0356	0.0189	0.3776	0.04153	3.506	5.683	6.52988
Sept.	0.8854	0.00299	0.4284	0.0295	0.0358	0.0190	0.3768	0.04132	3.598	5.714	6.57191
Oct.	0.8846	0.00300	0.4253	0.0296	0.0355	0.0191	0.3740	0.04071	3.620	5.731	6.58126
Nov.	0.8898	0.00301	0.4279	0.0298	0.0358	0.0191	0.3763	0.04052	3.625	5.782	6.60942
Dec.	0.8845	0.00304	0.4247	0.0296	0.0355	0.0189	0.3735	0.04075	3.702	5.767	6.67218
1997											
Jan.	0.8817	0.00305	0.4229	0.0298	0.0355	0.0190	0.3719	0.04051	3.712	5.777	6.75569
Feb.	0.8806	0.00301	0.4225	0.0296	0.0351	0.0190	0.3716	0.04048	3.818	5.771	6.88718

#### 4.2 Markka value of the ECU and currency indices

Average of daily observations	Markka value of the ECU FIM/ECU	Currency indices, 1982=100	
		Trade-weighted currency index	Payments currency index
	1	2	3
1992	5.80140	116.4	115.7
1993	6.69420	132.4	136.0
1994	6.19108	123.2	125.5
1995	5.70936	111.6	111.6
1996	5.83028	115.3	115.6
1996			
Feb.	5.86385	115.0	115.3
March	5.89568	116.2	116.4
April	5.98143	118.3	118.8
May	5.93160	117.8	118.5
June	5.85380	116.3	116.8
July	5.82763	115.3	115.6
Aug.	5.74674	113.5	113.5
Sept.	5.76093	114.0	114.3
Oct.	5.75237	114.3	114.6
Nov.	5.81220	115.1	114.9
Dec.	5.79898	115.2	115.5
1997			
Jan.	5.80159	115.8	116.8
Feb.	5.80357	116.4	118.6

#### 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											
Feb.	0.99	2.13	-0.40	2.76	0.71	2.43	3.07	2.16	0.69	-1.77	-5.78
March	1.53	2.43	0.34	3.10	1.15	2.79	3.50	2.46	1.46	-1.30	-4.13
April	3.01	3.40	2.19	4.18	2.23	3.81	5.44	3.45	3.20	0.98	-1.57
May	2.15	2.07	1.16	2.87	0.85	2.41	4.03	2.10	1.83	1.46	-0.50
June	0.81	0.62	-0.42	1.22	-0.47	0.90	1.46	0.62	0.16	0.94	-1.31
July	0.36	0.31	-0.64	0.71	-0.76	0.42	1.05	0.31	0.01	0.34	-2.08
Aug.	-1.03	-0.63	-2.38	-0.18	-1.93	-0.53	-0.34	-0.64	-0.79	-1.56	-3.83
Sept.	-0.79	-0.84	-2.32	-0.34	-1.80	-0.66	0.10	-0.85	-0.48	-0.28	-2.75
Oct.	-0.93	-1.58	-2.40	-1.16	-2.09	-1.46	-0.56	-1.58	-0.18	0.31	-2.35
Nov.	-0.10	-0.97	-1.84	-0.51	-1.64	-0.87	0.10	-0.98	0.43	3.36	-2.10
Dec.	-0.13	-1.70	-2.42	-1.28	-2.02	-1.63	-0.70	-1.71	-0.14	5.17	-1.16
1997											
Jan.	-0.09	-2.13	-2.73	-1.79	-2.10	-2.07	-0.78	-2.12	0.39	6.29	-0.74
Feb.	-0.05	-2.21	-2.85	-1.90	-2.20	-2.26	-1.79	-2.23	-0.21	7.76	-2.04

## 5. Other domestic financing

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

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

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

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



### 5.3 Money supply, mill. FIM

End of period	Foreign assets, net	Domestic credit			Other items, net	Monetary aggregates		
		Claims on the central government	Claims on the public	Total (2+3)		M <sub>1</sub>	M <sub>2</sub> (1+4+5)	M <sub>3</sub>
	1	2	3	4	5	6	7	8
1991	-86 555	-6 516	470 852	464 336	-102 540	130 644	275 241	310 924
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*								
Jan.	21 471	12 339	350 717	363 056	-87 920	175 684	296 607	331 664
Feb.	29 249	11 358	350 755	362 114	-96 312	178 534	295 050	326 921
March	29 809	12 658	350 873	363 531	-100 364	178 909	292 976	335 117
April	25 644	18 817	351 511	370 329	-103 109	181 799	292 864	327 546
May	24 810	19 008	349 775	368 783	-100 462	184 749	293 131	325 511
June	28 625	23 209	351 923	375 131	-108 995	189 332	294 761	328 990
July	36 492	24 318	349 162	373 481	-118 138	188 023	291 834	327 935
Aug.	34 402	25 936	349 733	375 669	-117 975	189 292	292 096	325 470
Sept.	33 218	15 243	349 521	364 764	-106 967	190 781	291 016	329 848
Oct.	31 312	17 873	349 742	367 615	-105 767	195 592	293 160	332 373
Nov.	36 768	16 834	350 532	367 366	-111 862	196 631	292 273	326 535
Dec.	..	..	..	..	..	204 834	297 291	325 473
1997*								
Jan.	..	..	..	..	..	205 203	297 811	329 273

### 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	.	143 261	319 823	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	..	..
1996											
Jan.	159 917	13 867	173 784	148 462	17 437	40 160	-5 670	200 389	374 173	67 194	38 351
Feb.	167 905	14 099	182 004	150 312	17 437	42 259	-5 682	204 326	386 330	67 257	53 668
March	168 150	14 304	182 454	150 650	17 909	44 939	-5 697	207 998	390 452	67 471	45 117
April	172 009	15 082	187 091	158 510	17 369	43 946	-5 298	214 724	401 815	67 576	48 628
May	162 738	14 670	177 408	163 861	17 369	46 049	-5 294	222 182	399 590	67 077	48 909
June	159 874	15 192	175 066	166 921	17 359	46 102	-5 324	225 176	400 242	66 754	48 626
July	158 676	15 699	174 375	171 787	17 220	44 668	-5 367	228 426	402 801	66 824	50 441
Aug.	156 801	15 491	172 292	177 586	17 220	45 698	-5 405	235 236	407 528	67 027	55 516
Sept.	156 467	15 694	172 161	167 234	17 219	46 627	-5 408	225 851	398 012	64 300	44 278
Oct.	157 132	15 908	173 040	172 555	17 219	40 147	-5 454	224 666	397 706	64 438	38 903
Nov.	159 449	16 292	175 741	174 696	17 198	36 909	-5 459	223 597	399 338	63 764	42 220
Dec.	158 847	16 161	175 008	177 700	17 187	37 620	-5 354	227 425	402 433	..	..
1997											
Jan.	159 222	20 920	180 142	180 261	17 187	40 506	-5 405	232 821	412 963	..	..

## 5.5 Markka bond market

### A) Issues, mill. FIM

During period	Corporations	Financial institutions	Central government	Local government	Others	Total (1+2+3+4+5)
	1	2	3	4	5	6
1992	6 984	15 043	12 965	2 674	4	37 671
1993	11 691	10 481	36 512	2 235	63	60 981
1994	4 053	9 899	31 553	593	-	46 099
1995	643	4 487	66 557	26	-	71 713
1996*	2 140	8 988	62 139	20	-	73 287
1996*						
Jan.	-	-	6 405	-	-	6 405
Feb.	-	339	1 899	-	-	2 238
March	-	467	2 661	-	-	3 128
April	850	212	7 887	-	-	8 949
May	540	3 090	6 351	-	-	9 980
June	-	522	3 847	20	-	4 390
July	-	-	4 876	-	-	4 876
Aug.	-	311	9 671	-	-	9 981
Sept.	-	560	5 373	-	-	5 933
Oct.	500	600	6 976	-	-	8 076
Nov.	250	1 458	2 656	-	-	4 364
Dec.	-	1 429	3 538	-	-	4 968
1997*						
Jan.	-	272	4 608	-	-	4 690

### 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*									
Jan.	26 039	52 804	149 692	5 814	357	190 005	4 521	40 180	234 706
Feb.	25 942	52 026	151 541	5 679	357	191 421	4 290	39 834	235 545
March	25 636	51 138	152 376	5 619	355	191 338	3 910	39 876	235 124
April	26 394	50 739	159 728	5 612	355	199 907	3 899	39 022	242 828
May	25 973	52 413	165 080	5 558	150	207 499	3 636	38 039	249 174
June	25 534	50 254	168 139	4 647	149	209 581	3 622	35 520	248 723
July	25 016	49 375	173 505	4 646	148	213 605	3 617	35 468	252 690
Aug.	24 756	49 075	179 304	4 638	148	219 241	3 360	35 320	257 921
Sept.	24 649	48 067	168 951	4 652	148	208 317	3 113	35 037	246 467
Oct.	25 184	46 793	174 273	4 642	145	213 851	2 974	34 212	251 037
Nov.	25 641	47 288	176 414	4 641	142	217 494	2 962	33 670	254 126
Dec.	25 245	44 656	179 419	4 362	140	219 863	2 956	31 003	253 822
1997*									
Jan.	25 091	43 814	181 980	4 357	140	222 769	2 614	29 999	255 382

### C) Turnover<sub>t</sub>, 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					
Feb.	28 639	49 337	28 117	23 641	24 870
March	21 686	47 221	21 298	22 895	23 603
April	12 424	35 405	12 336	15 989	15 769
May	13 809	27 849	13 505	12 223	11 995
June	10 679	23 361	9 499	8 982	10 037
July	13 411	26 745	12 763	10 069	12 616
Aug.	13 452	50 597	12 908	22 320	22 356
Sept.	20 933	58 941	20 680	26 345	29 739
Oct.	26 602	52 158	26 298	25 293	26 064
Nov.	13 084	37 331	12 545	16 312	20 612
Dec.	9 524	27 581	9 510	12 084	14 868
1997					
Jan.	26 179	47 138	25 954	23 993	23 081
Feb.	12 722	32 173	12 586	13 762	18 477

### 5.6 Helsinki Stock Exchange

Average of daily observations	Share prices										Turnover <sup>1</sup> , mill. FIM		
	HEX index (28 Dec 1990=1000)										Shares and subscription rights	Bonds and debentures	Total
	All-share index	Banks and finance	Insurance	Trade	Construction	Forest industries	Metal and engineering	Telecommunications and electronics	Chemicals	Conglomerates			
1	2	3	4	5	6	7	8	9	10	11	12	13	
1992	772	425	467	-	-	1 123	1 206	-	-	890	10 277	15 377	25 654
1993	1 240	608	644	-	-	1 695	1 749	-	-	1 751	46 337	59 977	106 314
1994	1 847	719	802	-	-	2 284	2 675	-	-	3 068	68 671	2 147	70 818
1995	1 918	500	638	-	-	2 062	2 255	-	-	4 251	83 019	1 075	84 094
1996	2 032	460	820	-	-	2 040	2 564	-	-	5 681	101 265	541	101 806
1996													
Feb.	1 810	472	735	-	-	1 796	2 267	-	-	4 798	8 238	51	8 289
March	1 851	458	776	-	-	1 951	2 330	-	-	5 051	7 758	54	7 812
April	1 867	412	747	-	-	2 040	2 399	-	-	5 188	7 940	32	7 972
May	1 995	418	754	-	-	2 095	2 622	-	-	5 532	10 860	42	10 902
June	2 019	408	787	-	-	2 079	2 616	-	-	5 627	7 681	36	7 717
July	2 002	400	779	-	-	2 174	2 588	-	-	5 815	5 885	17	5 902
Aug.	2 082	407	805	-	-	2 240	2 732	-	-	6 175	6 995	44	7 039
Sept.	2 131	401	862	-	-	2 188	2 778	-	-	6 125	7 204	49	7 253
Oct.	2 217	520	967	-	-	2 087	2 764	-	-	6 367	10 410	53	10 463
Nov.	2 317	573	977	-	-	2 017	2 744	-	-	6 442	10 676	39	10 715
Dec.	2 446	588	<u>1 006</u>	-	-	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

<sup>1</sup> During period.

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

### 6.1 Current account, mill. FIM

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

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

## 6.2 Capital and financial account, mill. FIM

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

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

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

Position at end of period	Liabilities												Total liabilities (1+7+12)
	Direct investment in Finland	Portfolio investment					Other investment						
		Shares	Bonds	Of which: markka denominated bonds	Money market instruments	Financial derivatives	Total (2+3+5+6)	Trade credits	Loans	Currency and deposits	Other	Total (8+9+10+11)	
1	2	3	4	5	6	7	8	9	10	11	12	13	
1992	19 348	5 138	211 361	14 366	19 391	..	235 889	13 305	78 330	11 881	78 804	182 320	437 557
1993	24 391	30 375	266 269	27 402	14 995	-6 103	305 536	18 206	90 825	4 025	54 188	167 243	497 170
1994	31 846	60 558	258 823	22 285	10 309	-5 179	324 511	19 852	82 649	3 430	46 566	152 498	508 855
1995*	36 894	63 746	228 676	19 638	10 099	1 545	304 066	18 540	69 249	2 568	53 557	143 914	484 874
1996*	42 536	108 932	230 147	26 497	10 689	3 634	353 401	15 100	83 373	1 733	53 745	153 952	549 889
1994													
III	33 010	56 036	272 306	26 009	11 864	-5 704	334 501	15 539	79 730	3 752	47 152	146 174	513 685
IV	31 846	60 558	258 823	22 285	10 309	-5 179	324 511	19 852	82 649	3 430	46 566	152 498	508 855
1995*													
I	34 509	53 488	254 534	21 434	7 065	-5 996	309 092	17 218	79 143	3 369	53 433	153 163	496 764
II	33 866	79 430	243 399	18 054	5 577	-6 768	321 638	18 049	75 411	2 580	51 169	147 208	502 233
III	33 665	93 020	233 054	20 230	7 262	-520	332 815	16 930	68 882	2 364	50 032	138 208	504 688
IV	36 894	63 746	228 676	19 638	10 099	1 545	304 066	18 540	69 249	2 568	53 557	143 914	484 874
1996*													
I	38 701	68 674	241 179	20 771	11 192	2 424	323 468	14 975	77 934	1 518	55 412	149 838	512 007
II	39 414	80 962	234 442	23 965	11 126	3 099	329 629	14 344	81 836	1 939	51 588	149 707	518 750
III	42 030	91 198	225 433	23 766	11 286	2 948	330 865	14 024	82 365	1 742	55 621	153 752	526 647
IV	42 536	108 932	230 147	26 497	10 689	3 634	353 401	15 100	83 373	1 733	53 745	153 952	549 889

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

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

Position at end of period	Corporate sector	Households and nonprofit institutions	Banks	Bank of Finland	Other financial institutions	Central government	Local government	Net (1+2+3+4+5+6+7)	Net interest and dividend expenditure	Net interest and dividend expenditure in relation to current account receipts, %
	1	2	3	4	5	6	7	8	9	10
1992	33 761	-3 260	82 343	-27 546	28 283	112 064	2 347	227 992	19 011	13.5
1993	54 315	-3 436	45 658	-33 279	29 737	164 892	3 062	260 949	21 897	12.7
1994	82 428	-3 503	33 800	-52 606	21 931	179 113	3 093	264 257	20 296	10.3
1995*	71 574	-2 293	18 970	-47 708	13 297	174 481	3 085	231 405	17 490	7.6
1996*	109 492	-1 142	-13 719	-35 521	912	183 737	2 451	246 209	16 654	7.0
1994										
III	77 901	-3 564	34 039	-52 998	24 992	183 115	3 175	266 659	3 748	7.7
IV	82 428	-3 503	33 800	-52 606	21 931	179 113	3 093	264 257	3 903	7.2
1995*										
I	73 872	-3 359	23 396	-53 298	19 524	185 724	3 159	249 018	5 681	10.5
II	94 745	-3 495	27 092	-50 742	18 024	175 932	3 305	264 861	6 295	10.6
III	103 212	-3 599	20 558	-47 488	17 173	172 368	3 227	265 451	3 396	6.3
IV	71 574	-2 293	18 970	-47 708	13 297	174 481	3 085	231 405	2 118	3.4
1996*										
I	74 977	-2 512	4 719	-42 679	9 483	188 118	3 169	235 276	3 922	7.0
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*	185 418	141 487	43 931
1995*			
Dec.	15 331	11 080	4 251
1996*			
Jan.	13 208	10 374	2 834
Feb.	15 168	11 561	3 607
March	15 035	12 039	2 996
April	15 654	11 836	3 818
May	16 158	11 908	4 250
June	17 020	11 561	5 459
July	13 246	10 004	3 242
Aug.	14 307	10 539	3 768
Sept.	15 067	11 912	3 155
Oct.	16 800	13 107	3 693
Nov.	18 355	12 246	6 109
Dec.	15 400	14 400	1 000

### 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	136.6	98.0	111.4	119.3	93.3
1995*	145.7	104.6	119.2	119.2	100.0
1996*	152.4	113.3	120.2	121.1	99.3
1995*					
Dec.	144.5	102.0	123.0	118.2	104.1
1996*					
Jan.	128.9	108.7	123.2	119.1	103.4
Feb.	151.5	116.4	122.4	119.3	102.6
March	142.2	111.3	123.2	120.4	102.3
April	150.9	109.4	122.5	122.2	100.2
May	154.8	110.6	121.8	121.8	100.0
June	167.7	112.9	121.3	121.6	99.8
July	136.6	105.5	119.6	121.8	98.2
Aug.	153.2	106.4	118.2	120.9	97.8
Sept.	151.3	115.9	117.6	121.6	96.7
Oct.	161.4	118.7	118.0	122.3	96.5
Nov.	176.8	113.7	117.8	120.8	97.5
Dec.	153.2	130.8	116.7	120.8	96.6

\* See Notes and explanations to the statistical section.

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

During period	Exports by industries, fob					Imports by use of goods, cif				
	Wood industry products	Paper industry products	Chemical industry products	Metal and engineering industry products	Other goods	Raw materials (excl. crude oil)	Crude oil, fuels and lubricants	Finished goods		Other goods
								Investment goods	Consumer goods	
	1	2	3	4	5	6	7	8	9	10
1991	6 984	29 695	10 539	29 188	16 436	42 505	9 399	13 973	21 195	672
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
1995*										
Nov.	1 190	3 987	1 268	6 871	2 691	5 948	898	2 503	2 197	269
Dec.	918	3 666	1 245	7 256	2 246	5 660	1 011	2 118	2 012	279
1996*										
Jan.	960	3 564	1 283	4 767	2 634	5 672	694	1 462	2 219	327
Feb.	940	3 619	1 238	6 636	2 735	5 734	876	2 008	2 623	320
March	1 012	4 137	1 469	5 432	2 985	6 270	700	1 863	2 782	424
April	1 127	3 777	1 515	6 104	3 131	5 955	1 059	1 780	2 603	439
May	1 192	3 765	1 866	5 761	3 574	6 315	1 058	1 675	2 415	445
June	1 073	3 538	1 473	8 060	2 876	6 136	816	1 910	2 224	475
July	820	3 524	1 418	4 877	2 607	4 805	1 199	1 126	2 260	614
Aug.	870	3 599	1 598	5 132	3 108	5 474	900	1 397	2 296	472
Sept.	1 032	3 440	1 449	6 108	3 038	5 923	1 219	1 636	2 554	580
Oct.	1 119	3 253	1 658	6 443	4 327	6 383	1 303	1 966	2 800	655
Nov.	1 139	3 743	1 642	9 034	2 797	6 184	1 340	1 924	2 583	215



## 7.4 Foreign trade by regions and countries

Region and country	Exports, fob				Imports, cif			
	1995*		December 1995–November 1996*		1995*		December 1995–November 1996*	
	Mill. FIM	Percentage share	Mill. FIM	12-month change calculated from 12-month moving total	Mill. FIM	Percentage share	Mill. FIM	12-month change calculated from 12-month moving total
	1	2	3	4	5	6	7	8
<b>European Union</b> <sup>1</sup>	101 538	57.7	100 942	-1.5	76 435	59.5	83 663	7.6
Austria	1 524	0.9	1 560	0.7	1 629	1.3	1 493	-10.9
Belgium and Luxembourg	5 196	3.0	4 645	-10.5	3 754	2.9	4 029	4.5
Denmark	5 609	3.2	5 688	0.8	4 126	3.2	4 757	12.1
France	7 989	4.5	7 814	-4.5	5 198	4.0	6 110	14.4
Germany	23 639	13.4	22 377	-6.5	19 967	15.5	21 041	2.8
Greece	950	0.5	947	-1.4	342	0.3	367	20.6
Ireland	894	0.5	1 057	18.8	1 081	0.8	1 155	5.7
Italy	5 219	3.0	4 786	-9.7	5 111	4.0	5 594	6.8
Netherlands	7 423	4.2	7 359	-3.2	4 916	3.8	4 937	-1.7
Portugal	879	0.5	890	0.7	1 053	0.8	1 055	1.1
Spain	4 398	2.5	3 973	-9.5	1 669	1.3	1 917	11.6
Sweden	17 985	10.2	19 792	8.9	14 874	11.6	16 445	8.9
United Kingdom	18 276	10.4	18 781	1.9	10 608	8.3	12 365	14.4
<b>Rest of Europe</b>	27 829	15.8	32 767	15.8	21 879	17.0	23 008	0.2
Of which:								
Estonia	4 125	2.3	4 986	21.0	1 561	1.2	1 622	2.8
Norway	5 279	3.0	5 253	-1.8	5 357	4.2	5 790	4.0
Poland	2 256	1.3	2 672	11.9	1 374	1.1	1 259	-13.4
Russia	8 450	4.8	11 094	31.0	9 314	7.2	9 716	-2.3
Switzerland	2 291	1.3	2 095	-10.7	2 176	1.7	2 446	12.2
<b>Non-European industrialized countries</b> <sup>2</sup>	20 020	11.4	22 639	14.4	19 253	15.0	19 405	-4.0
Of which:								
Australia	2 330	1.3	2 027	-14.6	931	0.7	1 208	26.1
Japan	4 509	2.6	4 966	14.7	8 170	6.4	7 320	-14.9
U.S.A.	11 683	6.6	14 256	22.8	9 268	7.2	9 987	2.9
<b>Dynamic Asian economies</b> <sup>3</sup>	12 296	7.0	13 792	13.5	6 491	5.0	6 395	-7.4
Of which:								
China	2 605	1.5	2 541	-5.3	1 722	1.3	2 032	11.9
Hong Kong	2 438	1.4	3 029	30.0	714	0.6	681	-14.0
South Korea	2 272	1.3	2 704	17.9	991	0.8	780	-24.5
<b>Other countries</b>	14 337	8.1	15 208	17.7	4 498	3.5	5 696	19.5
<b>TOTAL</b>	176 021	100.0	185 349	5.5	128 556	100.0	138 167	4.2
Of which:								
Africa	2 778	1.6	2 603	-6.1	625	0.5	848	32.0
Asia	23 884	13.6	28 511	28.4	16 062	12.5	15 944	-6.3
Central and South America	4 468	2.5	2 951	-68.4	2 406	1.9	2 732	4.3
North America	12 910	7.3	15 325	19.4	10 103	7.9	10 823	2.1
Europe	129 367	73.5	133 710	2.2	98 315	76.5	106 671	5.9
Oceania	2 615	1.5	2 475	-6.4	1 044	0.8	1 414	37.5

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

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

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

## 8. Domestic economic developments

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

Period	Consumption expenditure		Fixed investment		Change in stocks, incl. statistical discrepancy	Domestic demand (1+2+3+4+5)	Exports	Imports	GDP (6+7-8)
	Private	Public	Private	Public					
	1	2	3	4	5	6	7	8	9
1991	260 031	111 256	93 722	17 243	-2 451	479 801	110 965	111 755	479 011
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	22 095	461 464	176 157	138 948	498 673
1994*									
II	60 381	25 651	14 824	3 508	5 899	110 263	39 797	31 085	118 975
III	61 226	25 613	15 391	3 513	6 740	112 483	41 224	32 906	120 801
IV	62 140	25 918	15 905	3 574	8 188	115 725	42 233	36 053	121 905
1995*									
I	62 824	25 542	16 986	3 489	4 881	113 722	44 570	34 071	124 221
II	63 719	26 182	16 684	3 420	4 371	114 376	45 036	34 497	124 915
III	63 412	26 237	17 483	3 377	6 903	117 412	42 373	35 098	124 687
IV	63 980	26 495	16 108	3 431	5 940	115 954	44 178	35 282	124 850
1996*									
I	64 858	26 080	16 572	3 602	8 084	119 196	42 535	35 937	125 794
II	64 696	26 437	16 763	3 858	5 983	117 737	44 180	35 072	126 845
III	65 166	26 519	17 972	3 911	6 530	120 098	44 100	34 728	129 470

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

Period	Total industry	Mining and quarrying	Manu- facturing	Wood and paper industries	Metal and engineering industries	Other manu- facturing	Energy and water supply
	(100.0)	(1.3)	(89.6)	(16.8)	(31.3)	(41.5)	(9.1)
	1	2	3	4	5	6	7
1992	92.4	88.4	91.4	94.6	91.1	90.2	103.0
1993	97.4	86.1	96.4	104.5	99.7	90.8	107.9
1994	108.5	96.2	108.1	117.0	119.5	95.8	114.3
1995	116.6	95.7	117.5	118.0	143.8	97.4	111.1
1996	120.9	88.1	121.3	115.3	153.1	99.8	121.8
1995							
Dec.	117.3	82.0	117.9	103.4	152.3	96.2	114.6
1996							
Jan.	115.9	90.3	116.1	110.6	146.6	97.2	119.2
Feb.	115.8	80.8	115.6	109.5	145.6	97.1	127.4
March	118.4	83.9	118.7	110.7	148.3	98.4	120.4
April	117.9	92.6	118.2	112.1	148.1	98.8	120.1
May	119.9	81.2	120.3	111.5	151.5	99.2	124.0
June	121.7	83.6	122.3	112.2	154.0	100.7	120.0
July	120.2	56.7	121.0	116.1	150.1	100.9	118.1
Aug.	120.0	158.7	120.0	117.2	151.2	100.0	117.0
Sept.	123.9	82.8	124.0	120.1	156.3	100.9	124.3
Oct.	124.3	84.7	124.4	120.4	158.2	100.8	128.5
Nov.	125.9	83.4	126.8	123.6	161.9	101.0	118.9
Dec.	127.5	78.1	128.3	119.6	164.6	102.3	124.3

### 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	76.4	89.8
1994	73.0	79.7	42.2	45.1	35.2	75.8	93.7
1995*	76.2	82.6	42.0	41.1	49.9	74.6	97.7
1996*	77.8	86.0	43.9	38.5	55.6	..	100.5
1995*							
Dec.	85.0	77.4	38.6	34.0	52.9	90.1	97.8
1996*							
Jan.	85.9	79.6	39.6	37.9	53.4	97.1	98.5
Feb.	84.8	79.5	41.0	39.8	54.5	107.1	98.2
March	82.7	73.8	42.0	41.2	53.9	102.9	97.4
April	85.1	79.9	42.5	40.6	55.0	100.8	98.6
May	85.9	77.5	42.5	38.4	55.5	100.4	99.8
June	82.7	72.9	42.9	36.3	53.4	100.0	99.7
July	87.3	79.4	44.5	35.0	55.3	98.8	100.7
Aug.	86.8	75.3	44.3	32.9	55.5	96.4	100.7
Sept.	85.1	76.9	46.0	34.4	57.0	104.1	102.2
Oct.	89.3	81.3	46.3	37.1	57.0	109.6	103.4
Nov.	88.3	77.7	47.1	41.4	57.3	105.1	103.0
Dec.	88.2	79.7	48.3	46.2	58.8	..	104.0

## 8.4 Wages and prices, 1990=100

Period	Index of wage and salary earnings	By sectors			Consumer price index	Indicator of underlying inflation	Basic price index for domestic supply	By origin		Producer price index for manufacturing	By marketing area		Building cost index
		Private	Of which: Manufacturing (SIC 3)	Public				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 <sup>1</sup>	121.1	121.8	127.5	119.2	112.6	111.4	105.9	102.0	120.1	110.9	118.5	107.6	102.7
1995 IV	119.1	119.9	125.4	117.3	112.0	111.2	105.8	102.6	117.5	112.0	121.4	108.0	103.3
1996 Jan.	..	..	..	..	112.0	110.8	106.2	102.0	118.4	112.4	121.6	108.5	102.1
Feb.	..	..	..	..	112.4	111.4	106.1	102.7	118.6	112.3	120.7	108.7	101.9
March	..	..	..	..	112.5	111.6	106.0	102.2	119.7	112.0	121.3	108.0	102.0
April	..	..	..	..	112.7	111.6	106.1	102.0	121.5	111.7	120.6	107.9	102.1
May	..	..	..	..	112.9	111.7	105.9	101.7	121.0	111.4	120.0	107.7	102.4
June	..	..	..	..	112.9	111.7	105.5	101.4	120.9	110.8	119.5	107.1	102.7
July	..	..	..	..	112.8	111.5	105.5	101.2	121.0	110.2	117.8	106.9	102.8
Aug.	..	..	..	..	112.6	111.1	105.4	101.3	120.2	109.7	116.4	106.8	103.1
Sept.	..	..	..	..	112.8	111.5	105.9	101.9	120.8	109.8	115.8	107.2	103.0
Oct.	..	..	..	..	113.0	111.7	106.4	102.5	120.8	110.2	116.2	107.6	103.1
Nov.	..	..	..	..	112.7	111.5	105.9	102.3	119.3	110.0	116.0	107.4	103.3
Dec.	..	..	..	..	112.7	111.5	106.3	102.7	119.3	110.1	115.5	107.8	103.4
1996 <sup>1</sup> I	120.3	121.1	126.7	118.3	112.3	111.3	106.1	102.3	118.9	112.2	121.2	108.4	102.0
II	120.5	121.3	127.0	118.5	112.8	111.6	105.8	101.7	121.1	111.3	120.0	107.6	102.4
III	120.6	121.3	126.8	118.7	112.7	111.3	105.6	101.5	120.7	109.9	116.7	107.0	103.0
IV	123.0	123.7	129.4	121.3	112.8	111.6	106.2	102.5	119.8	110.1	115.9	107.6	103.3
1997 Jan.	..	..	..	..	112.6	..	106.5	102.6	120.1	110.1	115.3	107.7	103.7

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

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

Period	Labour force participation rate among 15-74 year olds	Labour force	Total employment (4+5) = (6+7+8)	By industrial status			By industry			Unemployed	Unemployment rate
				Self-employed	Wage and salary earners	Agriculture, forestry and fishing	Mining, manufacturing and energy supply	Other industries			
									1000 persons		
										%	
										%	
										%	
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	
1995 Dec.	64.9	2 493	2 070	296	1 774	149	460	1 460	423	17.1	
1996 Jan.	65.3	2 511	2 094	305	1 789	152	468	1 474	418	16.9	
Feb.	65.1	2 503	2 089	309	1 780	155	458	1 476	415	16.8	
March	65.1	2 502	2 083	299	1 784	148	461	1 474	413	16.6	
April	65.4	2 518	2 107	309	1 798	153	468	1 486	407	16.2	
May	65.1	2 506	2 089	302	1 787	149	451	1 488	424	16.9	
June	64.7	2 490	2 073	294	1 779	137	453	1 483	420	16.8	
July	64.7	2 496	2 094	305	1 789	146	462	1 487	411	16.2	
Aug.	65.4	2 520	2 104	307	1 797	144	453	1 507	416	16.5	
Sept.	64.4	2 479	2 090	296	1 793	141	443	1 506	387	15.6	
Oct.	64.8	2 498	2 102	294	1 808	148	465	1 489	390	15.5	
Nov.	65.4	2 522	2 116	302	1 814	150	467	1 499	403	16.1	
Dec.	64.7	2 496	2 108	302	1 806	143	453	1 512	386	15.6	

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

mill FIM, cash flow basis

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

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

# Notes and explanations to the statistical section

## General

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

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

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

## Notes and explanations to tables

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

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

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

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

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

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

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

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

### 3 Rates of interest

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

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

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

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

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

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

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

#### 4 Rates of exchange

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

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

#### 5 Other domestic financing

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

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

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

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

**Table 5.4** Source: State Treasury Office. Other foreign currency-denominated debt (Column 2) consists of other bonds and debentures and long-term promissory notes. Other bonds and debentures are so-called private 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 Pankkiiriliike Oy, Evli Fixed Income Securities, Goldman Sachs International, Merita Bank, Okobank, Postipankki, Skandinaviska Enskilda Banken, Svenska Handelsbanken AB (publ), Branch Operation in Finland and Unibank A/S. Purchases from and sales to others (Columns 4 and 5) consist of transactions in benchmark government bonds between primary dealers and other parties. Other parties refer to all parties that are not primary dealers. Bank of Finland releases data daily (page SPFI on Reuters and page 20981 on Telerate) on the trading in benchmark government bonds among primary dealers and between primary dealers and their customers.

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

## 6 Balance of payments, foreign liabilities and assets

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

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

**Table 6.2** The capital account (Columns 1 and 14) reflects unrequited capital transfers such as forgiven debts and aid from EU funds. Financial derivatives include payments arising from currency and interest rate swaps related to loans, 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 category includes changes in the central government's subscriptions to and quotas in international organizations as well as transactions in the Bank of Finland's short- and

long-term assets and liabilities (excl. reserve items). The most important sub-item under the item 'other 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 7.1** The trade figures for December 1996 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.

**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.

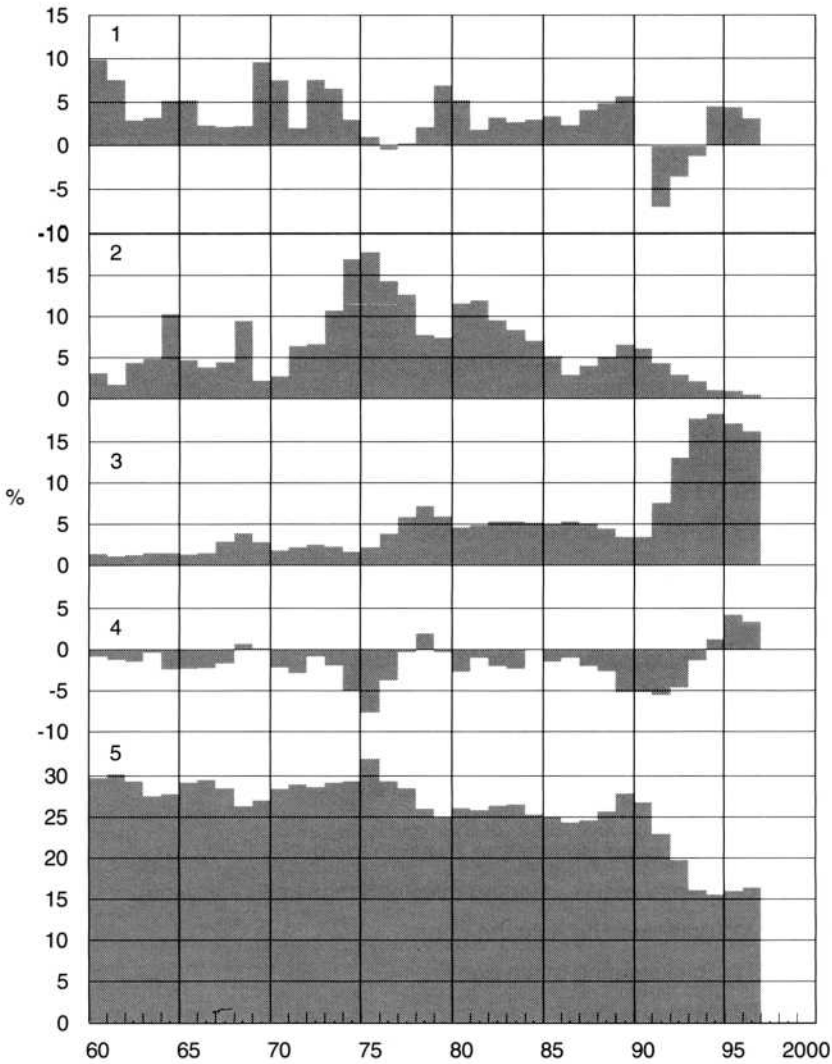
**Table 8.3** The indices of wholesale and retail trade (Columns 1 and 2) are seasonally adjusted by Statistics Finland. The monthly GDP indicator (Column 7) is a weighted index of 11 readily available output indicators for various industries.

**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.

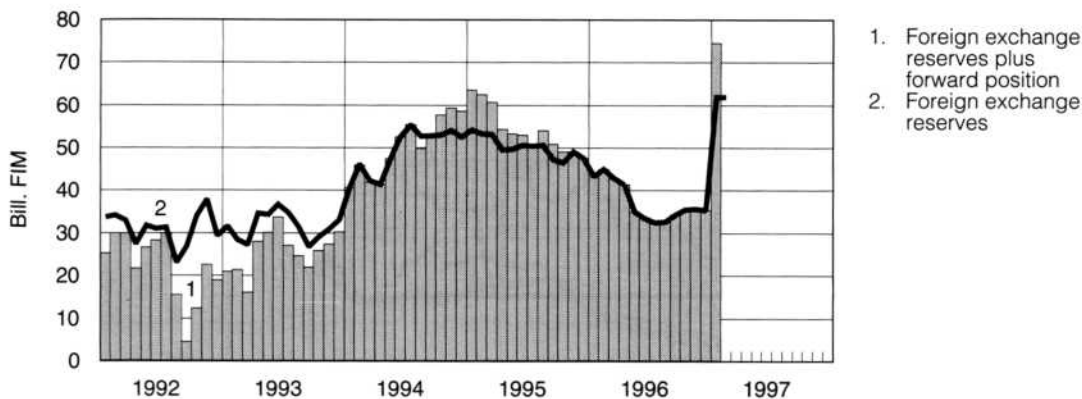
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2. The Bank of Finland's foreign exchange reserves and forward position	S31
3. Forward market	S31
4. Rates of interest set by the Bank of Finland	S31
5. Banks' liquidity position at the Bank of Finland	S32
6. Liquidity management interest rates	S32
7. HELIBOR rates of interest, daily	S32
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10. Differential between Finnish and German interest rates	S33
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20. Bank funding from the public	S37
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# 1. Long-term indicators

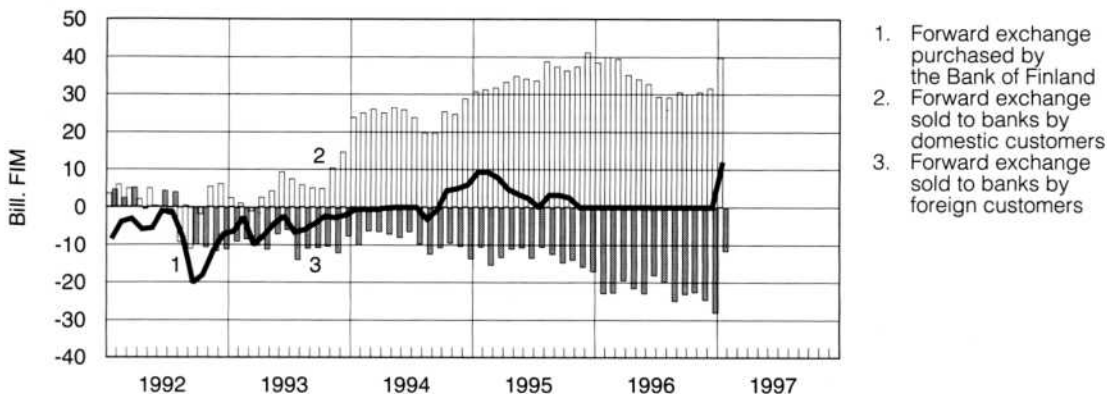


1. GDP, change in volume from the previous year, per cent
2. Consumer prices, change from the previous year, per cent
3. Unemployment rate, per cent
4. Current account, as a percentage of GDP
5. Fixed investment, as a percentage of GDP

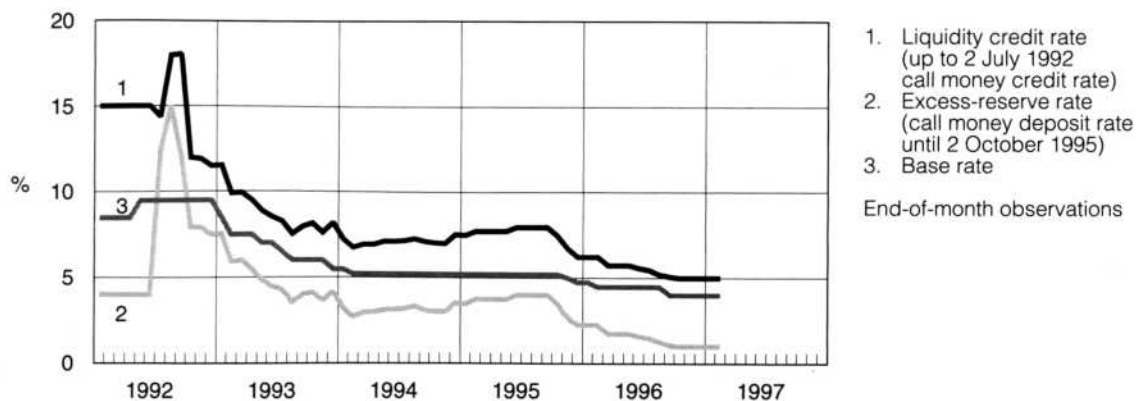
## 2. The Bank of Finland's foreign exchange reserves and forward position



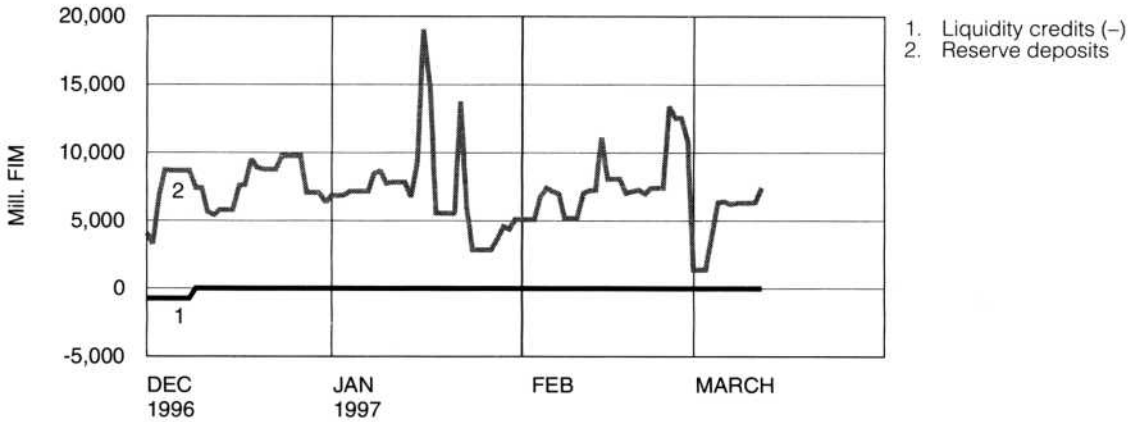
## 3. Forward market



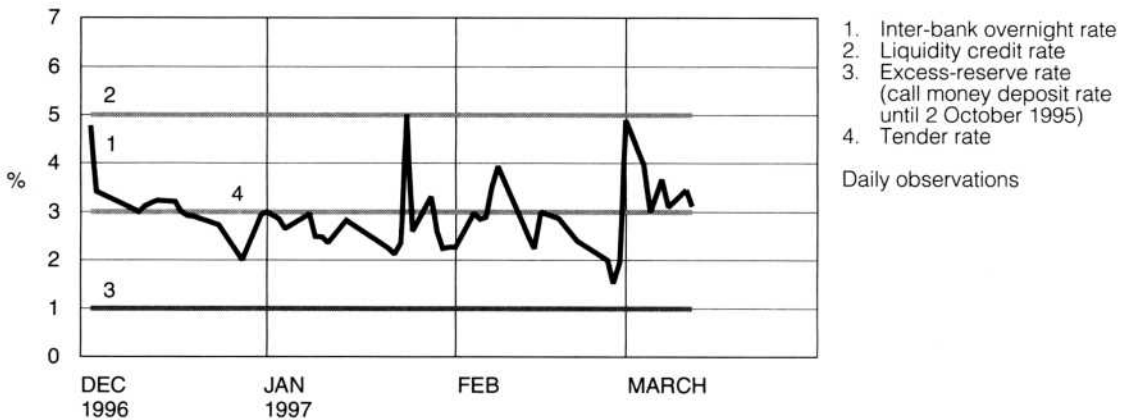
## 4. Rates of interest set by the Bank of Finland



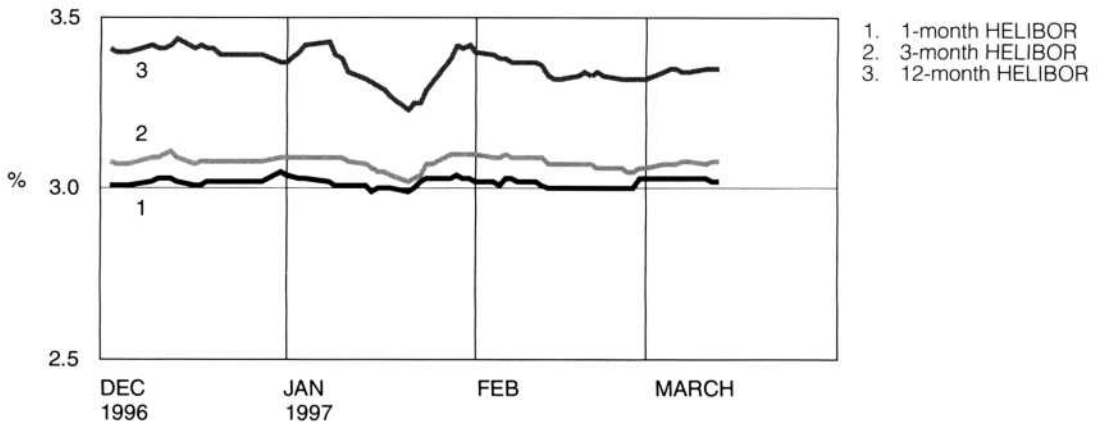
## 5. Banks' liquidity position at the Bank of Finland



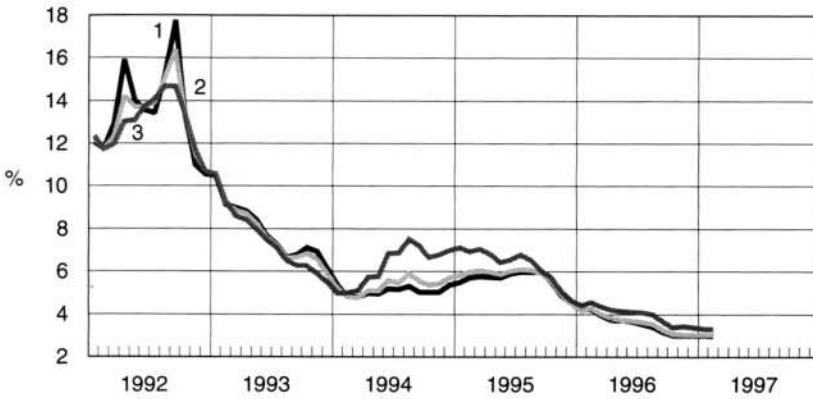
## 6. Liquidity management interest rates



## 7. HELIBOR rates of interest, daily

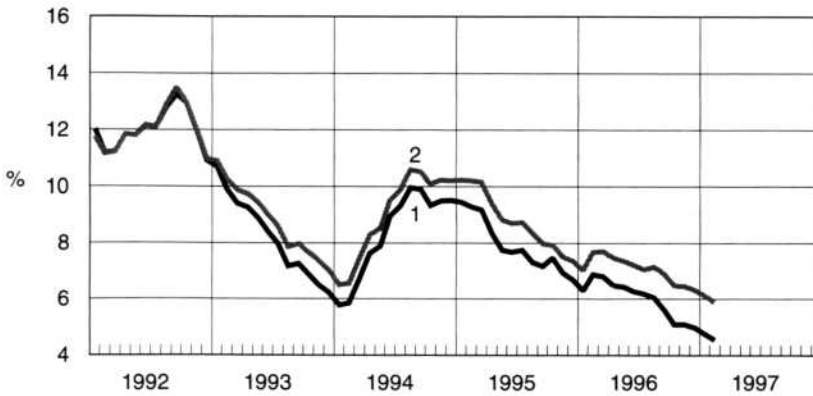


## 8. HELIBOR interest rates, monthly



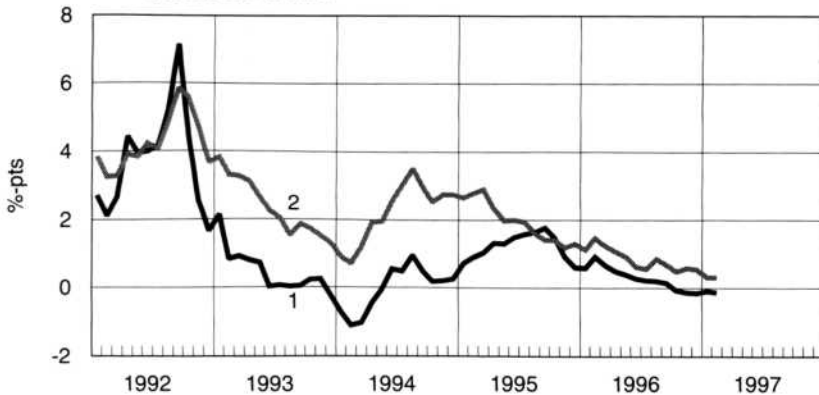
1. 1-month HELIBOR
2. 3-month HELIBOR
3. 12-month HELIBOR

## 9. Bond yields



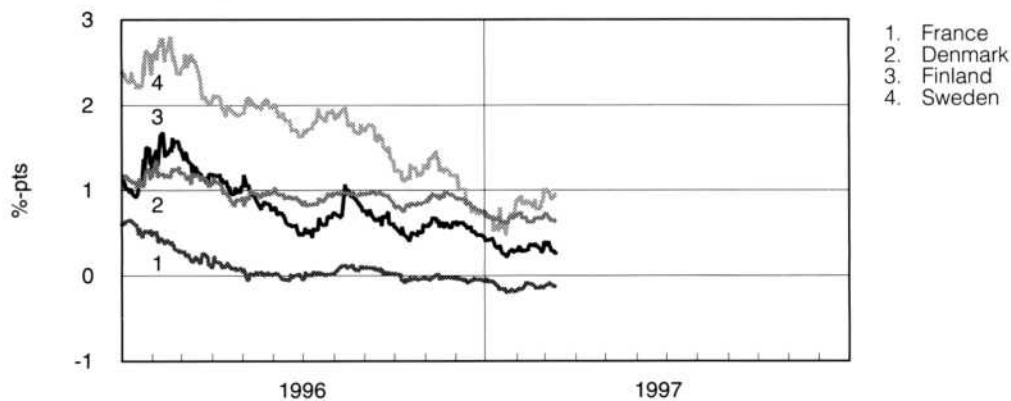
1. Yield on 5-year government bonds
2. Yield on 10-year government bonds

## 10. Differential between Finnish and German interest rates

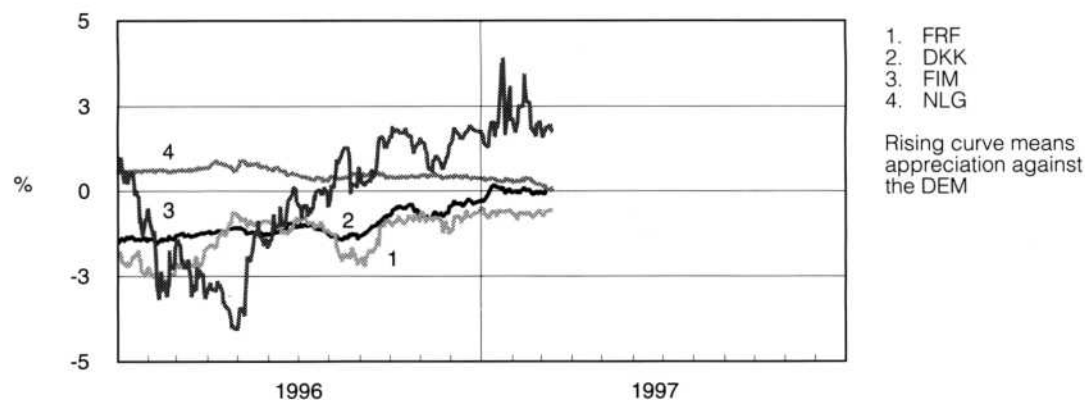


1. 3-month HELIBOR minus 3-month DEM eurorate
2. 10-year Finnish government bond yield minus 10-year German government bond yield

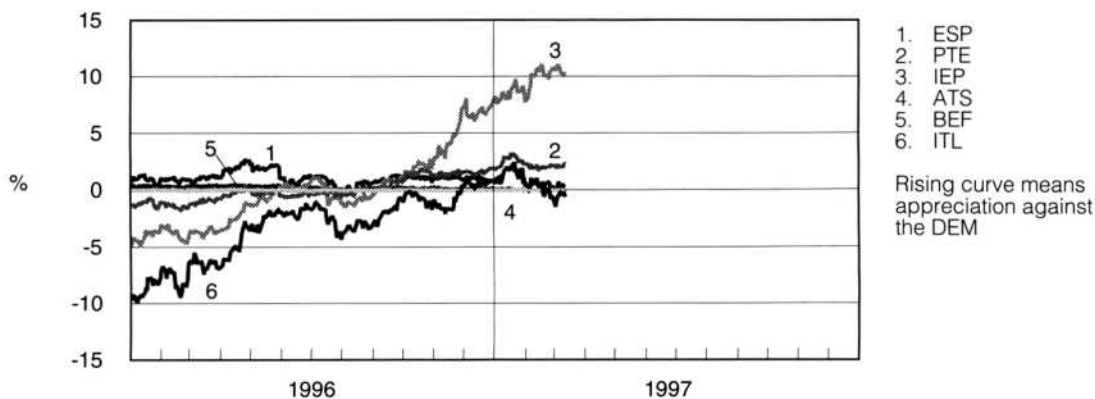
### 11. Differential between German and selected EU-countries' 10-year interest rates



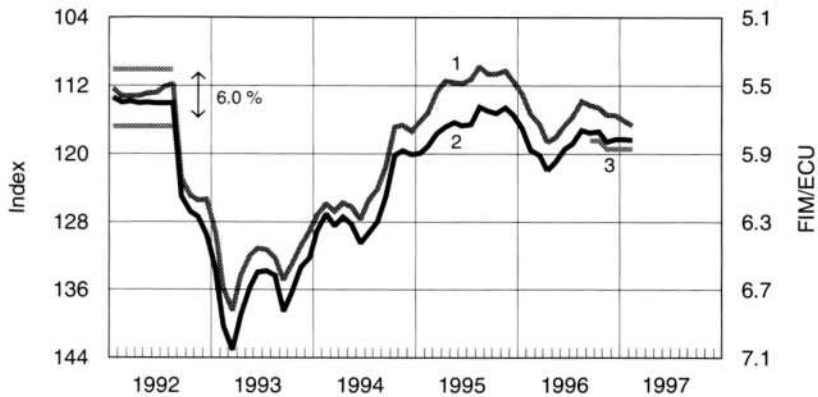
### 12. ERM exchange rates: deviation from DEM central parity



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

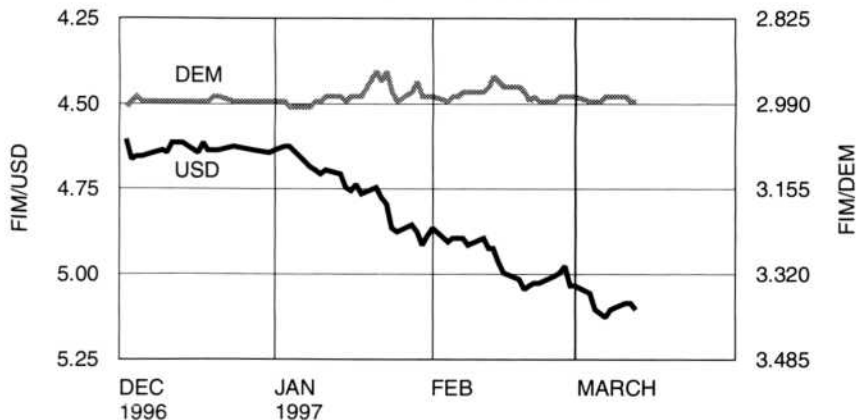


#### 14. Bank of Finland currency index and markka value of the ECU



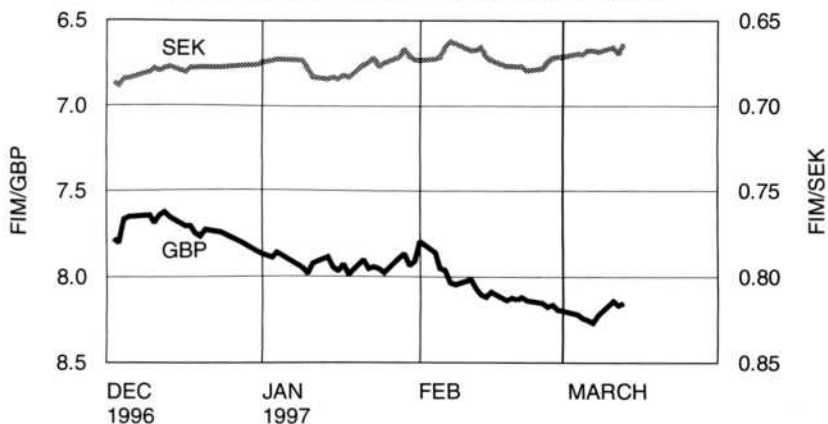
1. Bank of Finland currency index, 1982 = 100 (left scale)
2. Markka value of the ECU from 7 June 1991 (right scale)
3. ECU central rate from 14 October 1996 (right scale)

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



- Middle rates  
DEM = right scale  
USD = left scale

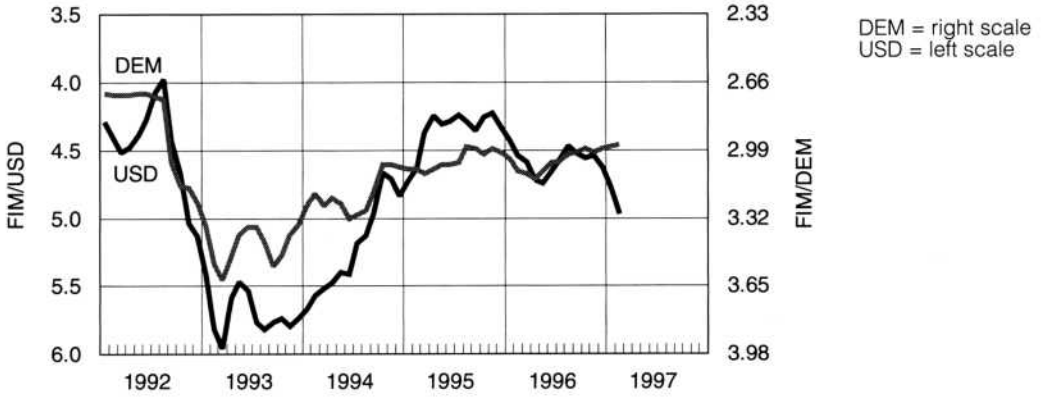
#### 16. Daily spot rates for the markka against the pound sterling and Swedish krona



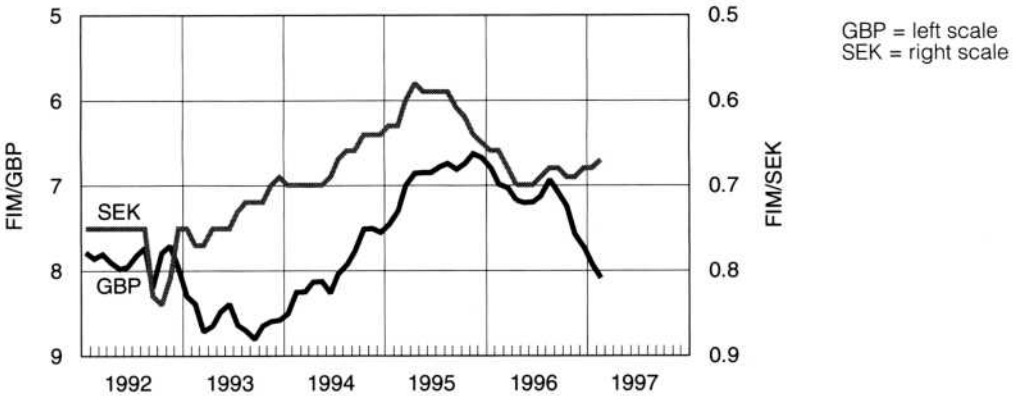
- Middle rates  
GBP = left scale  
SEK = right scale



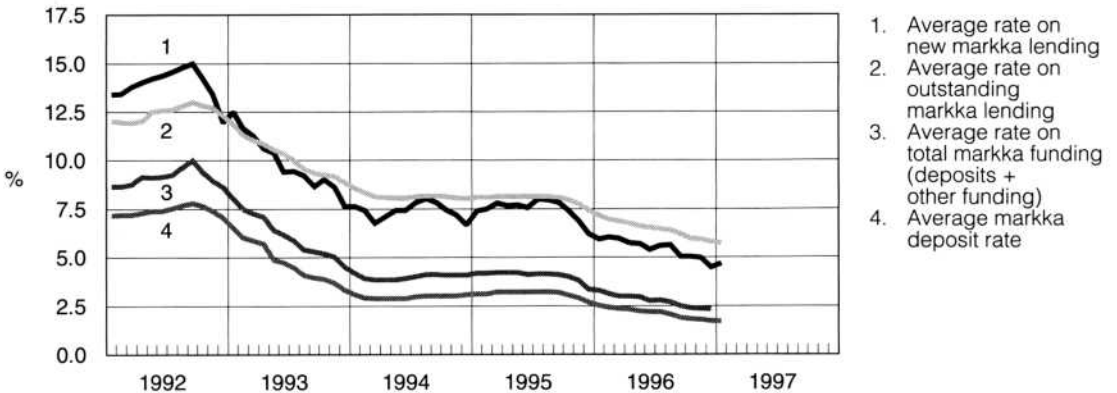
**17. Monthly spot rates for the markka against the Deutschemark and US dollar**



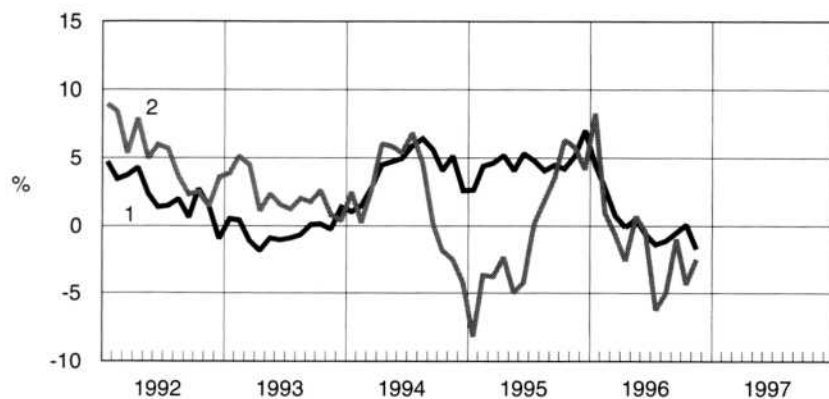
**18. Monthly spot rates for the markka against the pound sterling and Swedish krona**



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



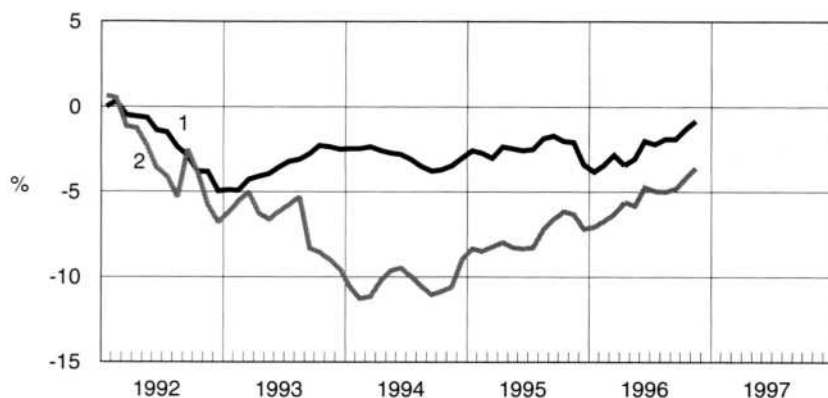
## 20. Bank funding from the public



1. Markka deposits
2. Total funding

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

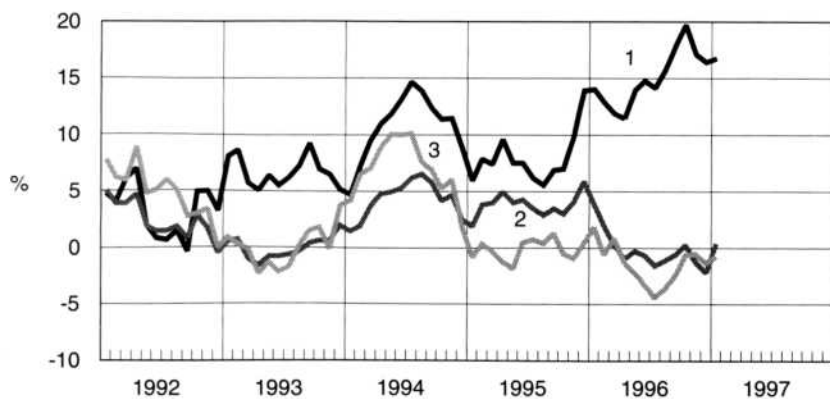
## 21. Bank lending to the public



1. Markka lending
2. Total lending

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

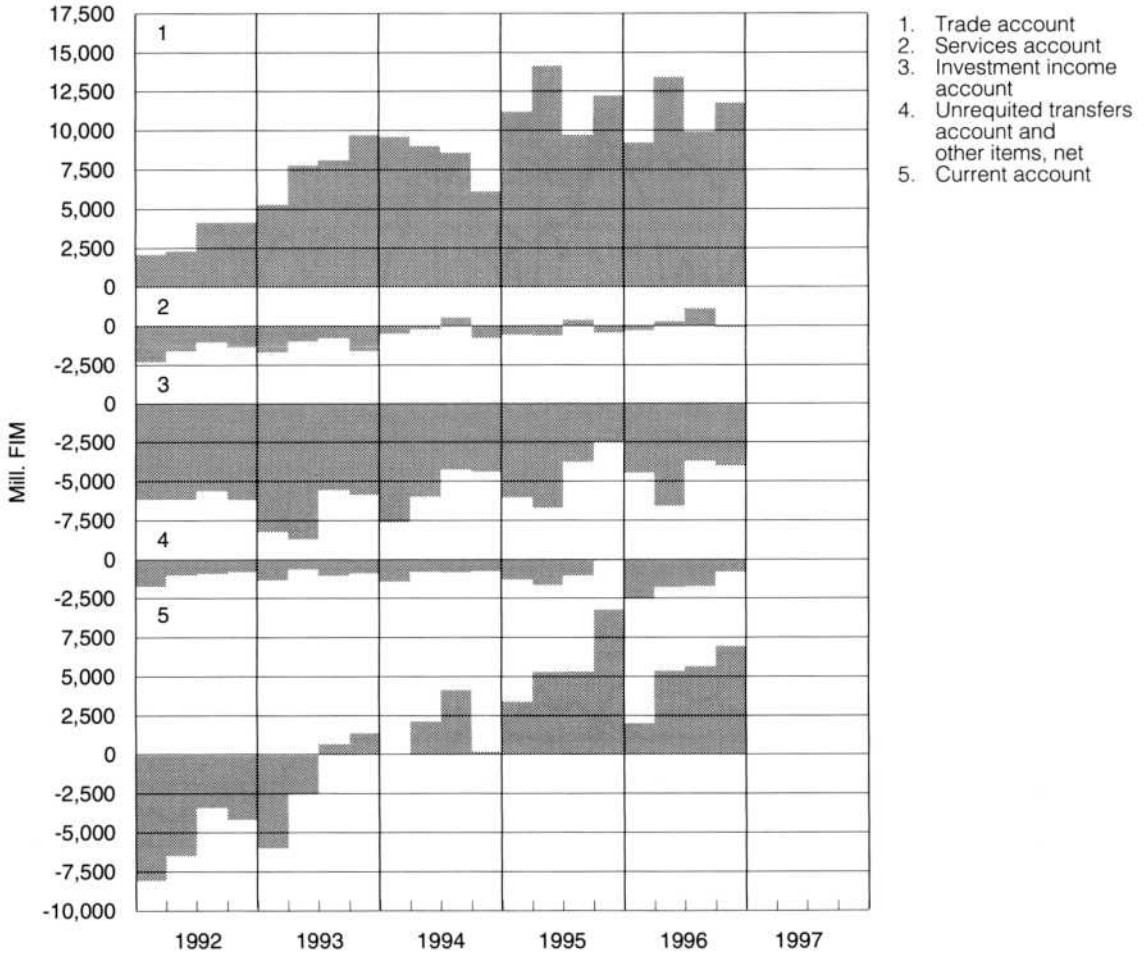
## 22. Money supply



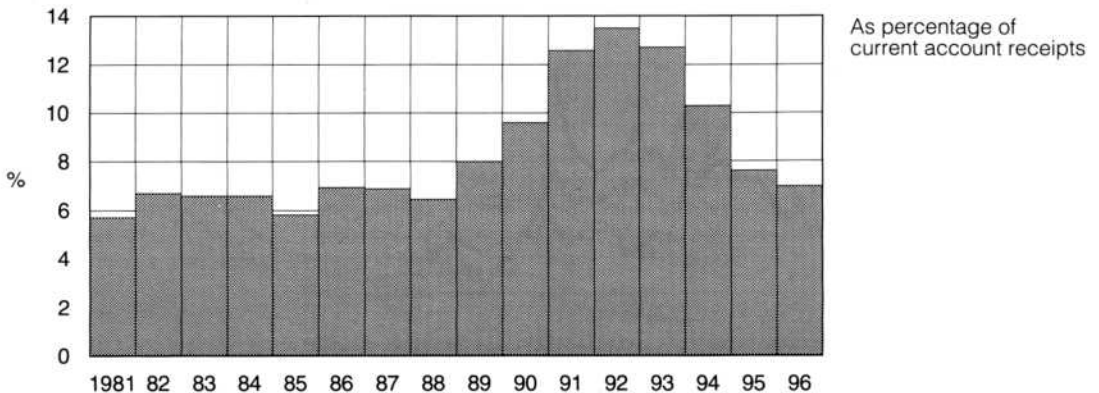
1. Narrow money (M1)
2. Broad money (M2)
3. M2 + bank CDs held by the public (M3)

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

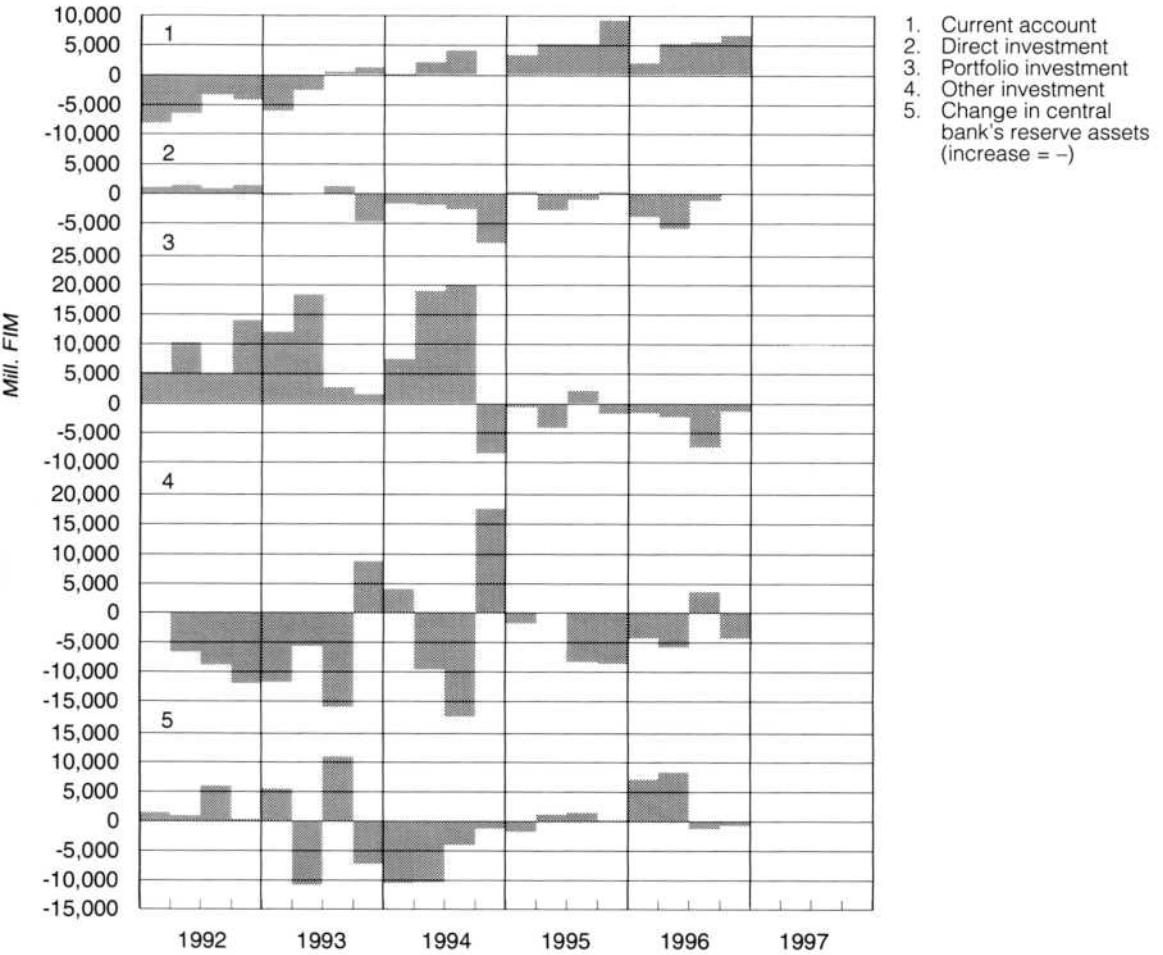
### 23. Current account



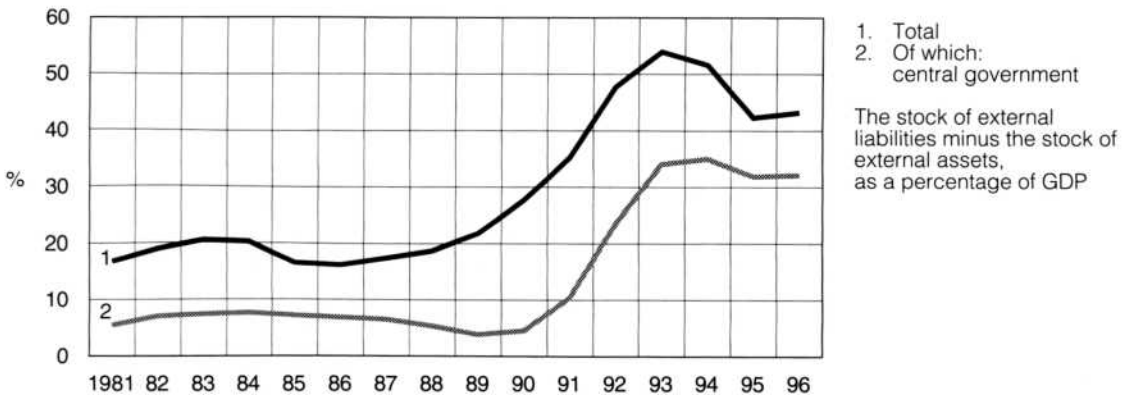
### 24. Net interest and dividend expenditure



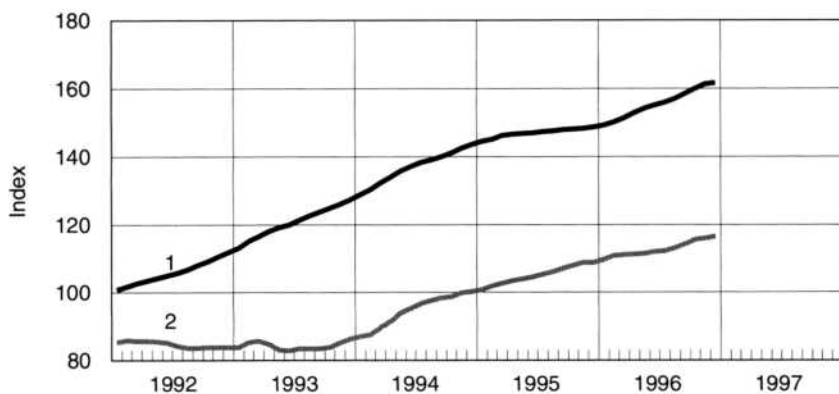
## 25. Balance of payments



## 26. Finland's net international investment position



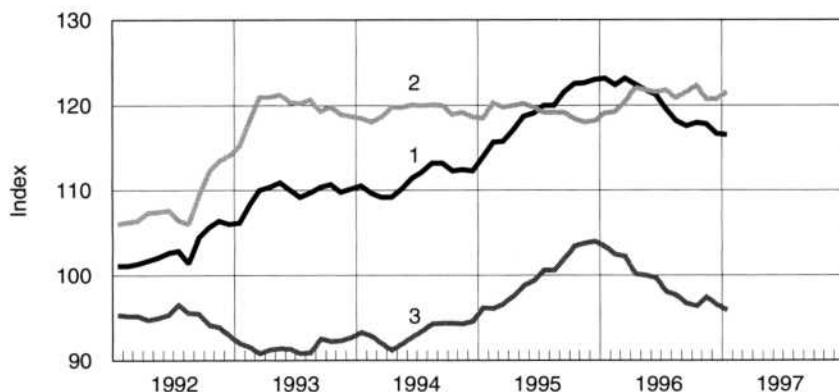
## 27. Foreign trade



1. Exports of goods
2. Imports of goods

Volume index, 1990 = 100, trend

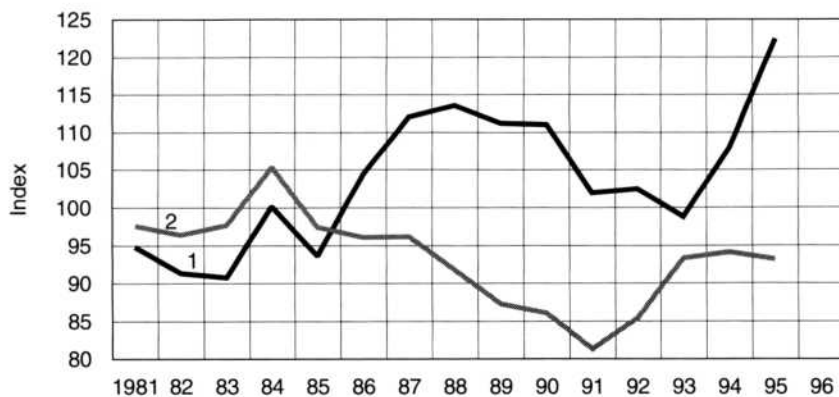
## 28. Foreign trade: prices and terms of trade



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

Index 1990 = 100

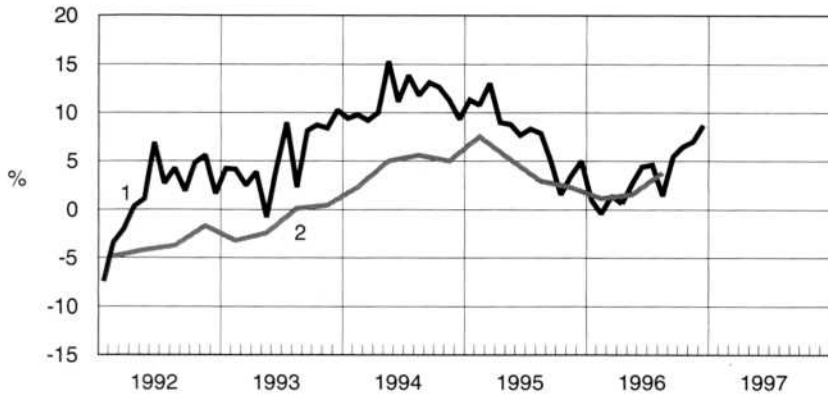
## 29. Finland's export performance



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

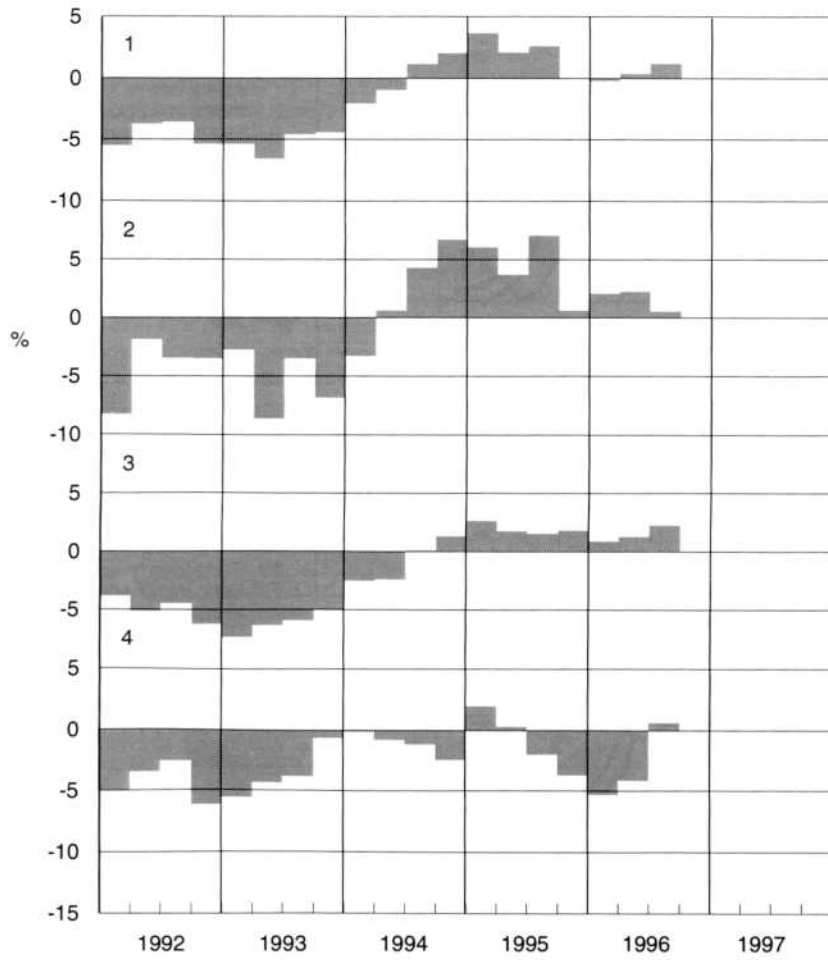
1980 = 100

### 30. Production



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

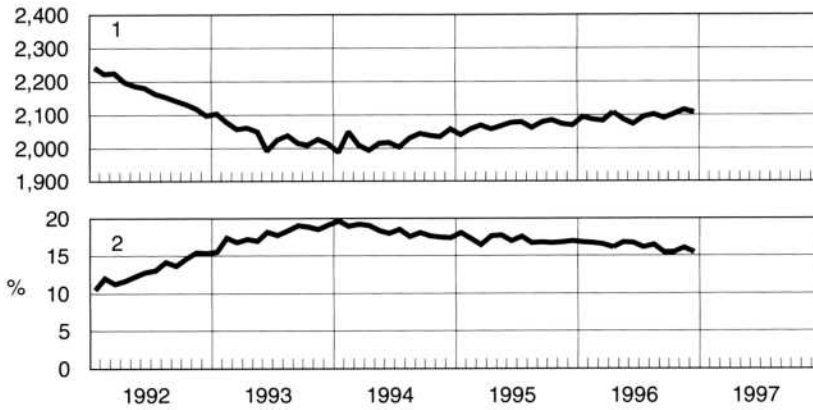
### 31. Fixed investment



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

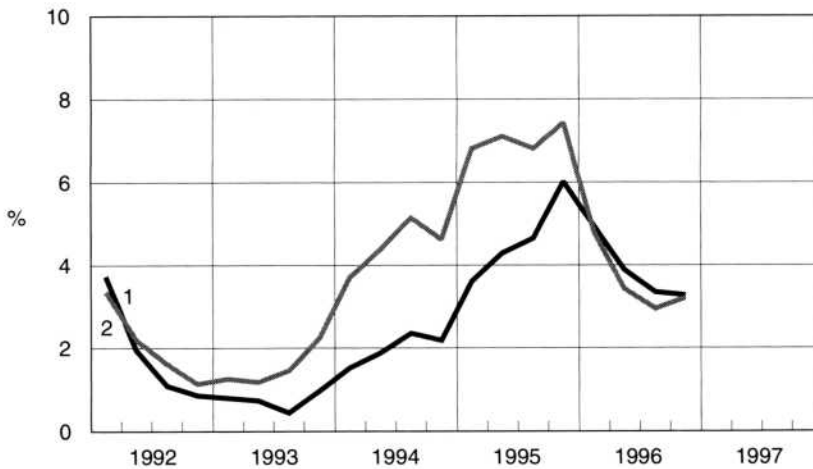
Volume changes calculated from four-quarter moving totals and plotted at the last quarter, per cent

### 32. Employment and the unemployment rate



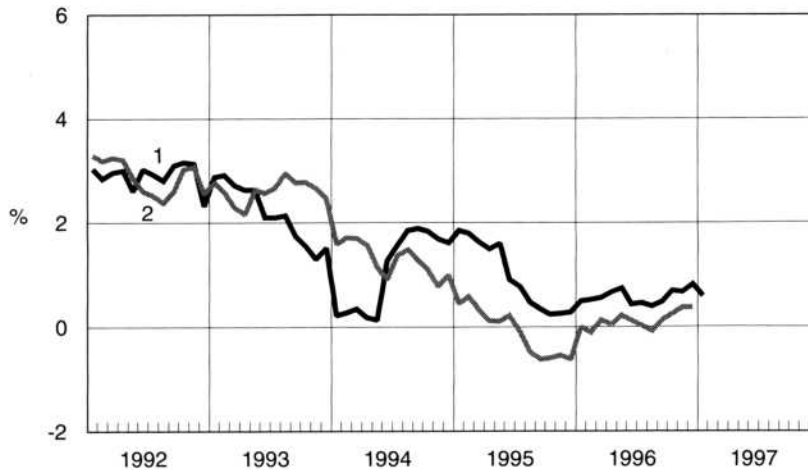
1. Employment, 1000 persons
2. Unemployment rate, per cent

### 33. Prices and wages



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

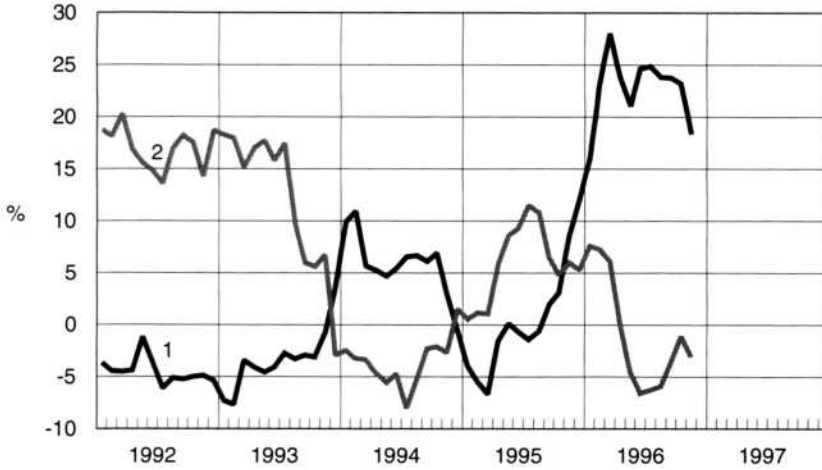
Change from the corresponding quarter of the previous year, per cent



1. Consumer price index
2. Indicator of underlying inflation

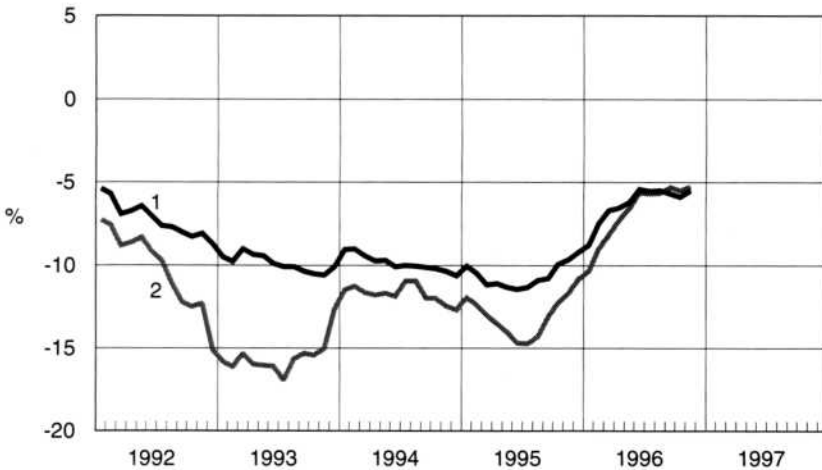
Change from the corresponding month of the previous year, per cent

### 34. Central government finances



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

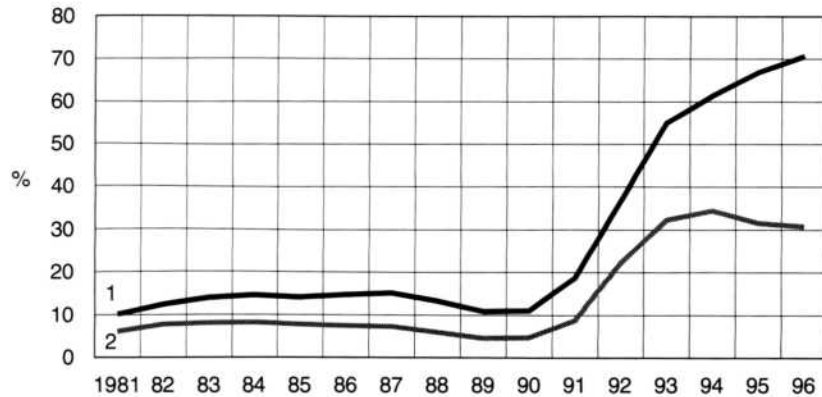
12-month changes calculated from 12-month moving totals and plotted at the last month, per cent



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

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

### 35. Central government debt



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

As a percentage of GDP