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Asset prices and monetary policy

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Fluctuations in the prices of assets, such as shares, real estate and housing, are important from the standpoint of monetary policy for three reasons. First, a sharp rise in asset prices can be a sign of accelerating inflation and inflation expectations. Secondly, asset prices affect the aggregate wealth of the private sector. When asset prices raise households' nominal wealth, consumption demand increases, which may indirectly (via demand pressures) also raise the prices of goods and services. Thirdly, a rise in asset prices may be based on unfounded expectations of returns or anticipated capital gains. When the inevitable burst of the price bubble finally occurs, a severe financial crisis may ensue.

Because the significance of asset prices for the inflation process depends on the prevailing circumstances, asset prices cannot be an automatic trigger for monetary policy action. Nonetheless, in all circumstances the monitoring of asset prices and careful analysis of changes therein are important to the central bank. Experience from different countries suggests that the most difficult problems for monetary policy and for economic policy in general arise when a rise in asset prices is associated with rapid growth in lending and a surge in private sector indebtedness. International evidence also indicates that fluctuations in asset prices have been smaller in countries in which inflation has been low and stable than in those with a history of high and unstable inflation.

Special characteristics of asset prices

In contrast to goods and services, shares, real estate and other assets are acquired and held because they provide their owners with returns now and in the future. This means that asset prices are normally determined in the markets on the basis of the present value of the expected future returns. These returns may comprise monetary flows such as interest income, dividends and rents, or imputed returns (eg imputed rent on owner-occupied housing). Changes in asset prices can also lead to short-term positive or negative returns in the form of capital gains or losses. Over the long-run, changes in asset prices ultimately derive from changes in anticipated returns and risk.

Changes in share prices are generally large relative to changes in other asset prices. This is because expectations about companies' profitability and thus anticipated future dividends and risk respond quickly to new information and to changes in economic conditions. For the same reason, commercial real estate prices typically fluctuate more than housing prices. Market prices of assets and fluctuations therein also reflect all measures taken by the public sector that have an impact on asset returns. Hence, for example, a reduction in capital taxes will have a positive effect on asset prices because it will raise the after-tax returns on assets. Likewise, tax provisions that encourage the purchase of residential property will have a positive effect on real estate and housing prices.

Should monetary policy react to changes in asset prices?

Generally speaking, the answer to the question is 'no'. It is not an objective of monetary policy to control the path of asset prices but rather to ensure a stable price level. Nonetheless, asset prices may at times signal future inflation. Thus the central bank will generally react to a rise in asset prices only if it jeopardizes the inflation objective. An exceptional situation in which the continuation of a rapid and steep rise in asset prices would threaten the stability of the financial markets could provide the rationale for monetary tightening by the central bank even absent any visible threat of accelerating inflation.

The impact of asset prices on inflation expectations and on future inflation depend partly on the factors behind the change in asset prices and partly on the effects of asset prices on the behaviour of companies and households. If the basis for a rise in share prices is a long-term or permanent improvement in companies' profitability, a tax reform or a change in economic agents' investment behaviour, the rise in share prices is not a sign of a build-up in inflation pressures. Nor would a rise in housing prices due to, say, a newly introduced tax advantage aimed at owner-occupied housing necessarily signal accelerating inflation.

On the other hand an increase in wealth that is based on a rise in asset prices could entail the risk of a pickup in inflation. This would be the case if the

increase in wealth were to lower the saving rate in the private sector or encourage indebtedness because the demand for goods and services would then increase faster than it would in the absence of the wealth effect. Moreover, a rise in asset prices might boost overall inflation if it raises inflation expectations and affects wage setting and companies' pricing practices.

When a rise in asset prices is actually a symptom and signal of accelerating inflation, this generally means that the monetary stance has been overly expansionary and that the inflation process is already in progress. This has happened when easy money and credit policies have led to excessive liquidity and/or rapid credit expansion. When too much liquidity is channelled into the housing, real estate and stock markets or into other asset purchases, before long the demand for goods and services also increases and price rises spread throughout the economy. Thus excessively easy money market conditions can be a cause of both a sharp increase in asset prices and a rise in the overall price level – asset prices only respond sooner and more pronouncedly.

Experiences from the 1970s and 1980s

The sharp rise in asset prices experienced in the latter half of the 1980s was not a new phenomenon as such. An earlier similar experience occurred in the first half of the 1970s. In each case, asset prices rose simultaneously in many countries, so that the phenomenon was an international one. It is also noteworthy that the sharpest fluctuations in asset prices occurred in the same set of countries in both periods. The rise in asset prices in the 1980s however covered a longer time period and was much more pronounced than that of the 1970s.¹

The most important difference between the 1980s and 1970s was that in the 1970s the boom and bust in asset prices did not lead to a severe financial crisis as was the case in many countries in the 1980s. The adjustment to the excessive rises in share and housing prices was considerably more painful in the 1980s because it occurred specifically via a collapse in nominal prices whereas in the 1970s a pickup in overall inflation reduced real asset prices.

The liberalization of the financial markets in the 1980s is certainly one of the key factors explaining the differences in the experiences of the 1970s and 1980s. In the 1970s the rise in asset prices was affected particularly by the real interest rate, which was low relative to expected returns on different types of assets. On the other hand, in the 1980s the

greater availability of credit, in connection with the liberalization of the financial markets, led to a surge in credit expansion, which in turn fed the excessive rise in asset prices, despite the fact that the real interest rate was significantly higher than in the 1970s. The difference was also affected by the fact that in the 1980s the rise in asset prices was preceded by a long period of steady economic growth, which supported highly positive expectations as to future economic performance.

The credit channel was particularly important in the Nordic countries (excl. Denmark), the United Kingdom, Japan and Australia (Chart 1). Thus in retrospect it is easy to demonstrate that the credit expansion was a sign that the real costs of acquiring real estate or shares were too low for too long in these countries. Particularly in those countries that experienced major structural changes in financial markets, the monetary stance has been too easy. The rise in asset prices should therefore have alerted the authorities much earlier than was the case.

Why is it that monetary policy was not tightened soon enough to avoid the asset price bubble? There are many reasons, of which perhaps the most important is once again connected with the liberalization of the financial markets. The deregulation of the financial markets and capital flows, together with increasing internationalization, altered the mechanisms by which monetary policy affects inflation. In the new circumstances, it was especially difficult to properly assess the actual tightness of monetary policy or the effects of policy measures. Moreover, the ability of monetary policy to control the amount of money held by the public and the stock of bank credit was weakened as a result of the deregulation. This was particularly true of the Nordic countries, in which monetary policy was tied to the rules of the fixed exchange rate regime.

In many countries the rise in asset prices was in fact long attributed largely to structural factors such as tax reform, demographic changes and more or less permanent shifts in international investment flows. Such changes can raise the relative prices of assets even absent an excessively easy monetary stance. Monetary tightening was delayed in many countries in the 1980s also because the usual indicators of inflation did not warn of the effects of excessive money and credit growth, which eventually led to an unsustainable rise in asset prices. It is noteworthy that despite the rapid rise in asset prices inflation accelerated only gradually in the 1980s.

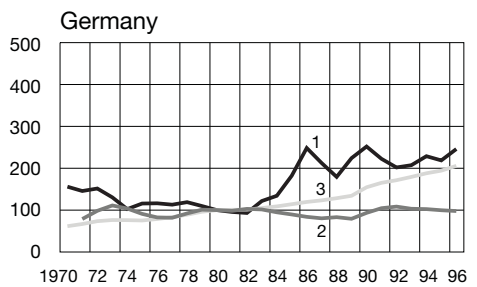
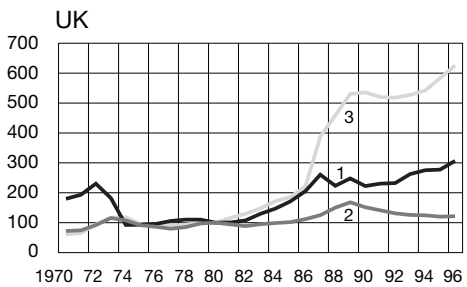
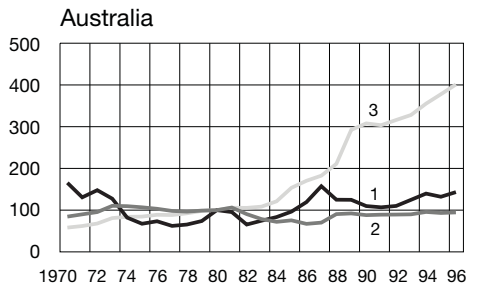
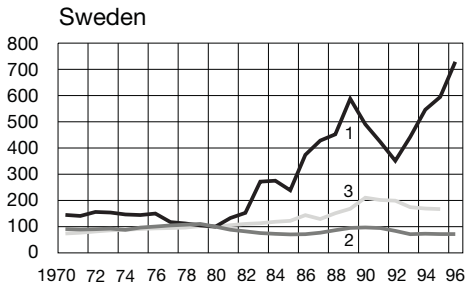
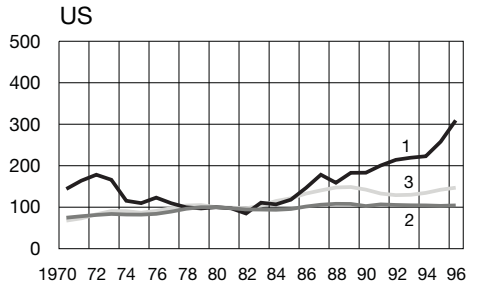
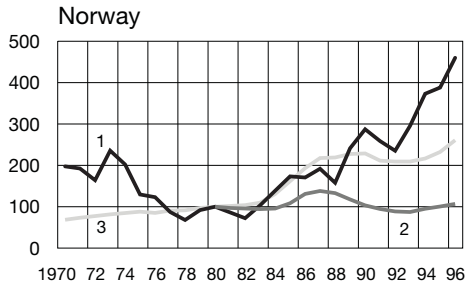
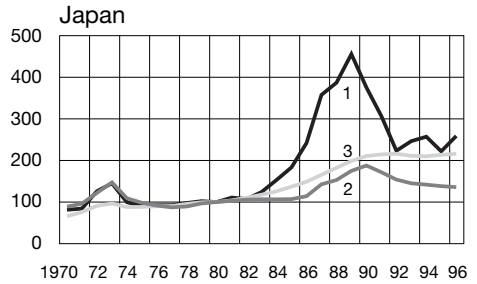
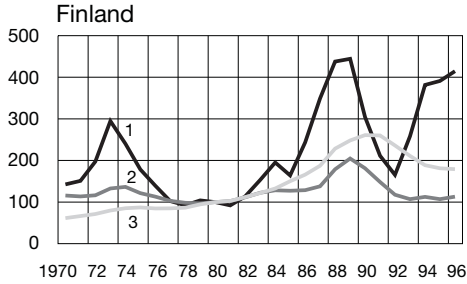
Why is it that excessively easy conditions in the money markets and the rise in asset prices did not together lead to an earlier and stronger pickup in inflation? One answer is that the excess liquidity was channelled largely to the large institutional investors, large companies and high-income households. Since the uptrend in asset prices, which was due to the long-standing favourable economic performance, had already begun and monetary tightening was not anticipated, it is not surprising that

¹ A comprehensive treatment of asset price fluctuations in different countries is contained in Borio, C.E.V., Kennedy, N. and Prowse, S. D., 'Exploring Aggregate Price Fluctuations Across Countries'. BIS economic Papers, No. 40, April 1994. See also Schinasi, G. J. and Hargraves, M., 'Boom and Bust' in Asset Markets in the 1980s: Causes and Consequences. IMF Staff studies for the World Economic Outlook, December 1993.

Chart 1.

Asset prices and bank lending, in real terms

Indices, 1980 = 100



- 1. Share prices
- 2. Housing prices
- 3. Bank lending to the private sector

the liquidity possessed by these entities found its way into the asset markets. Strong income expectations, easier availability of credit and expectations of capital gains quickly unleashed new demand into the markets, which was reflected especially in sharply rising prices of shares and dwellings.

Particularly in the Nordic countries, asset prices reacted to the growth in corporate profits that marked the boom of the 1980s.² As regards the prior decade, the role of profits in asset price developments was much smaller. Moreover, in Finland and many other countries the tax-deductibility of interest payments on housing loans reduced the real cost of housing investments and thus increased the incentive to finance housing investments by borrowing. The behaviour of many was probably affected also by the expectation that overall inflation would eventually accelerate and further lower the real cost of borrowing, as a result of their experiences during the previous era of tight regulation. Looking back at the actual course of events, it is easy to argue that too little attention was paid to the behaviour of asset prices in the conduct of monetary policy.

Internationalization, significant structural changes and a heightening of competition in the markets for goods and services also tended to restrain inflationary pressures and weaken the impact of excessive money market liquidity on the overall price level. At the same time in many European countries, rising unemployment kept wages on a moderate path. Through its impact on competitiveness, this had a price-stabilizing influence on other countries also.

Considering these observations, what can be said about the role of monetary policy in explaining the behaviour of asset prices? If easy monetary policy is equated with low real interest rates, then one can say that most of the rise in asset prices that occurred in the 1970s was a result of easy monetary policy. In so far as what transpired in the 1980s, monetary policy played a smaller role, if one uses short-term real interest rates as the measure. On the other hand, if we measure the ease of monetary policy by money and credit growth, monetary policy assumes a bigger role also in driving the events of the 1980s: in the latter half of the decade monetary conditions were comparatively easy at least in the Nordic countries, Japan and the United Kingdom. In Finland, Sweden and Norway, monetary easiness was a result of an increase in the demand for credit in connection with deregulation. The new demand was satisfied via massive capital imports by the private sector, which – absent the possibility of exchange rate appreciation – increased the liquidity. In Australia the impact of the liberalization of the financial markets on credit expansion and asset prices was less pronounced

than in the Nordic countries since, in the floating exchange rate environment, it was possible to tighten monetary policy.

The German experience presents an interesting counterexample. Fluctuations in asset prices remained small compared to those in many other countries, both in the 1970s and 1980s. Obvious reasons are disciplined monetary policy and the society's widespread commitment to low inflation, on the one hand, and the relatively undeveloped state of the German money market, on the other.

Lessons of the past and the current situation

On the basis of past experiences, we know that asset prices are more volatile than other prices and that this will continue to hold in the future. With the increases in speed and enhancements in efficiency that we are seeing in the area of information processing, prices change rapidly, especially in the stock markets. These price changes will come to have even greater importance in the future as securitization and the capital markets assume increased importance in the intermediation of financing.

Experience teaches that asset prices can rise substantially even in the absence of any significant acceleration in the rate of change of indices that measure the overall price level. This has in fact been the case for Finland and a number of other OECD countries thus far in the 1990s. Of asset prices generally, those of shares and, recently, housing have risen in many countries and this has raised the issue of whether monetary conditions have been excessively easy despite the fact that inflation has stayed low. The debate has been particularly active in the United States.

Unsustainable increases in asset prices have also been an important contributing factor in the current crisis in one of the southeast Asian countries. The crisis reminds one in many ways of the situation at the start of the decade in Norway, Finland and Sweden. In southeast Asia, as earlier in the Nordic countries, the rise in asset prices was fuelled by excessive credit expansion deriving from large capital inflows. The asset price bubble inflated by overly expansionary money and credit policies inevitably burst, and a painful adjustment to reality was the unavoidable outcome.

In Finland asset prices have again been rising rapidly for several years already. This is partly due to the recession-induced plummeting of share prices and housing prices to exceptionally low starting levels. The rise in both share prices and housing prices so far can be largely attributed to economic fundamentals: a strong economic performance, stability-oriented economic policies and an improvement in companies' profitability. The rise in asset prices has nonetheless been a cause for concern at the central bank because it could boost demand pressures via the wealth effect and raising inflation expectations in an otherwise booming econ-

² Borio, C.E.V., Kennedy, N. and Prowse, S.D., 'Exploring Aggregate Asset Price Fluctuations Across Countries'. BIS Economic Papers, No. 40, April 1994.

omy. The prime difference between what has been happening in recent years and events of the latter part of the 1980s is that the recent rise in asset prices has not been associated with a sharp expansion in credit.

Concluding remarks

From the standpoint of monetary policy it is important to carefully monitor asset prices even though rises in them do not directly derive from an overly lax monetary stance. Specifically, it is well-advised to suspect that an increase in liquidity, as in the 1980s, quickly leads to a rise in asset prices and only gradually to a pickup in overall inflation. If this is allowed to happen, the monetary policy response is likely to come too late.

Different asset prices normally fluctuate according to widely differing patterns. These differences are usually the result of microeconomic factors such as changes in anticipated returns and risks. Macroeconomic problems, such as excessively easy money market conditions, may be involved if the prices of many different types of assets move simultaneously in the same direction. In order to monitor the macroeconomy, some countries have constructed aggregated asset price indices that take into account not only specific asset price indices but also the structure of private sector wealth. In describing the average development of asset prices, these aggregate indices generally give a more reliable picture of inflation pressures connected with asset price developments than do individual asset price indices.

Not all asset prices can continually rise at a faster pace than the overall price level if the com-

ponent reflecting the stream of returns on assets is removed from the price measure. This means that an excessive rise in asset prices will eventually lead to a counter movement. Historically considered, the best protection against large fluctuations in asset prices has been the central bank's commitment to the maintenance of a stable price level. A credible monetary policy aimed at low inflation will stabilize inflation expectations and at the same time dampen capital gains expectations, which have often driven asset price bubbles.

The primary task of the European Central Bank will be to ensure price stability in the euro area. Success in this endeavour would also dampen asset price fluctuations and thus reduce the risks of unstable financial markets. But even success in ensuring a stable overall price level will not eliminate asset price volatility. Such volatility is an inherent feature of asset markets due to the fact that anticipated returns and risks react quickly to new information and are thus vulnerable to changes. One would nonetheless anticipate that in the euro area asset price fluctuations will tend to be asset- and sector-specific rather than country-specific or area-wide phenomena.

20 April 1998

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- Key words: asset prices, monetary policy

From eastern European economies to transition economies

by **Pekka Sutela**, Head
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At the start of 1998 the Bank of Finland's Unit for Eastern European Economies became the Institute for Economies in Transition. At the same time, the number of employees increased somewhat, to 14. The organizational change is connected with the goal of developing the Institute over the next few years into a research organization of the highest international standards that will focus on monitoring and research in connection with the economies of Russia and the Baltic countries. Why would a central bank maintain a unit that does not directly serve the core functions of the bank? Why was it decided to develop that unit just now, when European central banks are focusing on Stage Three of European Economic and Monetary Union?

Why a Unit for Eastern European Economies?

The answer is partly historical. Up until 1990 Finland carried on trade with the Soviet Union and several other centrally planned countries on the basis of bilateral clearing. Under this arrangement, the Bank of Finland had the main responsibility for keeping the clearing accounts and managing payment transfers as well as for trade-related monitoring and financing. These functions were carried out by the Bank's special Bilateral Trade Department. Within the Bank, in the 1980s in particular, it was felt that functioning as the authority required not only a command of day-to-day accounting techniques but also, increasingly, the skill to analyse and forecast developments in the Soviet economy. By the 1970s at the latest, the Soviet Union had moved into a phase of sluggish economic growth that economic reforms, inconsistently planned and only partially implemented at best, could not redress. In fact, the would-be reforms only increased the uncertainty attached to economic and political developments. The fact that at its peak Finnish-Soviet trade accounted for more than a quarter of total Finnish exports meant that the arrangement entailed considerable macroeconomic risk. Furthermore, the Bank of Finland had to cover the fairly high financing costs involved.

It was the 'perestroika' reforms of the late 1980s that dealt the final blow to the Soviet Union. Some time before the collapse in 1991, it had become clear that the neighbouring country no longer had

the wish nor the capacity to continue the clearing trade. Just as the Bank of Finland had anticipated, the clearing system was suddenly dismantled without any kind of a transitional period, which exacerbated the impact of the trade-related shock that had hit the Finnish economy. Whereas Finland's exports to the Soviet Union accounted for well over 10 per cent of its total exports in 1990, they fell to 4.9 per cent in the following year. It has been estimated that the sharp drop in Soviet trade reduced Finland's GDP by about 3 per cent. This was an important reason, albeit not the main one, for Finland's economic crisis of 1991–1993.

With the termination of the Finnish-Soviet clearing regime, the Bank of Finland ceased to be the official authority for Finland's trade with the eastern European countries, and Finland's trade with the former socialist countries was put on a normal market-determined basis. The Bank had to decide whether or not the Bilateral Trade Department was superfluous and thus ripe for dismantlement. This did not happen. Over the years, the Department had accumulated a large stock of information and analytical skills (see Korhonen 1990), and the Bank decided to replace the Bilateral Trade Department with the Unit for Eastern European Economies. The Unit did not inherit any operational central bank functions. Its task was to monitor and analyse economic developments and economic policy in the territories of the former Soviet Union and east-central Europe. It was evident from the start that developments in both Russia and the Baltic countries, which had regained their independence, were of crucial importance for Finland. In fact, the monitoring and research work performed by the Unit was focussed on these countries.

The decision to establish the Unit for Eastern European Economies was made in 1991 and operations commenced in autumn of the same year. Although the Unit was part of the central bank, it served mainly the needs of decisionmakers, the media, business and the general public, both in Finland and abroad. It was clear from the start that the Unit's output had to be made available to the general public. Within two years, the Unit's publication programme was moulded into its final form. First on the list of publications, and included in the Bank's publications series, are books that often

contain a collection of articles devoted to a common theme. The topics include the overall Russian economy (Sutela 1993), Russia's financial system and financial markets (Rautava 1996), economic change in the Baltic countries (Lainela-Sutela 1994) and the Finnish-Russian trade system (Laurila 1995). This year a new book is appearing in the series, dealing with the financial system of Russia (Korhonen 1998).

The Unit's own publication, *Siirtymätalouksien katsauksia – Review of Economies in Transition*, has been another of its major publications since 1992. It appears five to ten times a year, with each issue containing two to six articles. At first, most of the articles appeared in Finnish, but over the years the Review has become almost entirely an English language publication. Nowadays, the annual economic reviews of target countries are practically the only Finnish-language publications.

Idäntalouksien viikko, a review of the previous week's events in Russia and the Baltic countries, which was introduced in autumn 1991, represents the third publishing forum. This two-page review reports on the major economic and economic policy events in a concise and pithy manner. Being quick and easy to read, yet analytically grounded, the weekly review has become a success. Since the onset of 1997 it has also been available in English in electronic form (*Russia and the Baltic Economies – The Week in Review*).

The Unit's researchers naturally also publish their findings in external publication series and in book form, give numerous lectures each year, grant interviews, participate in seminars and conferences in Finland and abroad, and maintain contacts with various governmental bodies. The Unit's visiting scholars programme has proved to be of vital importance. The Unit's expertise and contact network have strengthened considerably ever since it has had the opportunity to recruit (often young) researchers for two to six month periods. They have made contributions to the Unit's publications and have helped to spread knowledge about their own countries via various fora. Although the visiting scholars programme is relatively new, some of its former participants have already moved into positions at the ministerial or central bank board level in their home countries. Other visitors to the Unit have stayed in the research field and are thus available for fruitful cooperative research projects.

Is the Bank of Finland an appropriate forum for research on economies in transition?

To a country in a geographic position like that of Finland, having the need to trade with economies in transition, it is quite necessary to analyse developments in the transition economies. About 15 per cent of Finnish exports go to the formerly centrally planned economies. Finland has recorded particularly rapid growth in trade with Russia, Estonia and

the other Baltic countries, and Poland. The present trade regime does not, however, pose the same degree of macroeconomic risk as the bilateral trade system did in the 1980s. There are many reasons for this. An analysis of Finnish exports reveals that they are diversified among many different countries, which are unlikely to run into difficulties at the same time. In addition, a large part of Finnish exports are attributable to small and medium-sized firms, and exports to transition economies do not form a significant part of the total exports of any one domestic industrial sector. Since the trade is for the most part on a cash basis, the credit risk is negligible. Moreover, the fact that the domestic content of Finnish exports is now considerably lower than it was during the clearing regime, when domestic content was subject to official monitoring, also reduces the risks involved.

It is nonetheless clear that there is a need for analytical studies on Russia and the Baltic countries. On the one hand, the gap in living standards between Finland and its eastern neighbour is one of the widest in the world, and this could have various repercussions in the course of time. Unfortunately, there are no signs that the gap is being closed. Thus the study of transition economies can also be considered important in the context of security policy in a broad sense. On the other hand, only a few years ago hopes were high for the economy because of Finland's geographic position between Russia and the global markets. A significant part of Finnish-Russian trade is transit trade. Finnish investment in Russia has however increased much more slowly than optimists anticipated, nor are Russian businesses very active in Finland. Even so, there is good reason to believe that a change for the better in both areas could be in the offing, and should the change occur, the need for information on Russia would increase.

Government, business and the general public have all been slower than the central bank to recognize the need for research on the transition economies. However, during the last three years the Ministry of Education has designated the promotion of research on Russia as a high priority area. The Finnish Academy is implementing its second comprehensive programme of research on Russia. A number of university-level institutions have stepped up their research and educational activities in this field, and the University of Helsinki has established the Aleksanteri Institute as a coordinating body. Although it is still the case that very few people study the Russian language in Finnish schools, the subject is fairly popular in adult classes. Various means of advanced and supplemental education are being arranged, with the emphasis on practical cooperation and trade-related matters.

Research and educational activities in respect of the transition economies are available at several university-level institutions, such as the Universities of Turku and Helsinki and the Lappeenranta Uni-

versity of Technology. It is however at the Bank of Finland that we find the largest organization in the field. Why is Finnish research in this area so closely associated with the central bank? In Sweden, for instance, the major centre is at the Stockholm School of Economics and Business Administration and in some other European countries independent research institutes lead the field.

As mentioned above, history has made its mark here. It is clear that other potential sponsors – primarily governments and universities – have not in the crisis years of the 1990s had the means to maintain adequate activities in this field. The Bank of Finland has felt that it is important to preserve the experience and professional skills that have accumulated in the research on transition economies even though the field does not fall within the scope of normal central banking activities. But research on economies in transition also benefits directly from connections with a central bank. International financial institutions have played a central role in implementing the first phase of economic policy in the transition economies. They continue to conduct or finance a substantial part of the economic research focusing on these economies. Access to information and contacts with these institutions are greatly abetted by an association with a central bank. Moreover, since the study of economies in transition involves primarily applied economics, with a focus on economic policy analysis, another benefit is the opportunity to draw on the central bank's related traditions and expertise.

From the central bank's perspective, the study of economies in transition is a part of the analysis of the operating environment for economic policy. As the European System of Central Banks (ESCB) develops, the national central banks will need more Europe-oriented information and analysis to assist in the conduct of monetary policy. The Bank of Finland is in the process of developing its overall economic research and analysis programme, and the study of transition economies is one segment of that programme. Of the future members of the ESCB, the Austrian central bank has a tradition in the economic analyses of east-central Europe while the Bank of Finland has relevant experience as regards Russia and the Baltic countries.

The decision to convert the Unit for Eastern European Economies into the Institute for Economies in Transition should be seen against this background. The Institute will continue to monitor the transition economies in the traditional manner. The above-mentioned weekly review of Russia and the Baltic countries is available in both English and Finnish. At the start of this year the Institute also began publication of *Russian Economy – The Month in Review*, an English-language monthly review of the Russian economy. It has rapidly acquired a good international reputation as an analytically sound and independent source of information. The easiest way to obtain any of these publi-

cations, as well as *Idäntalouksien katsauksia – Review of Economies in Transition*, is by subscribing via email at bofit@bof.fi.

While the monitoring function will continue more or less as before, our goal for the future is a simple (to state) one: to raise the level of analytical work carried on at the Institute for Economies in Transition within the next few years to the highest of international standards for the field. As to just how this is to be achieved, we have a clear set of guidelines. We plan to raise the level of the Institute's researchers through training and recruitment; to orient the Institute more toward Europe via networking, cooperative research and recruitment; to enhance our cooperation with Finnish and foreign universities; and to utilize more fully the potential pay-offs of our visiting scholars' programme. The future of the Institute rests on better and better cross-border communications links among researchers, officials and economic agents.

What type of research on economies in transition?

The most turbulent phase of economic transition is already over for the east-central European and Baltic countries. The transition there is an accomplished fact in the sense that these countries are now clearly market economies. Their compatibility with the developed industrial countries has been officially acknowledged in that three east-central European countries – Poland, the Czech Republic and Hungary – have become members of the OECD and five transition countries have begun membership negotiations with the European Union. Like all market economies, however, these countries have their own unique features, which makes comparative analysis especially interesting. Although the emphasis in our analytical work is elsewhere, the Institute for Economies in Transition does include these countries in the scope of its research.

It should be underlined that Finnish researchers have comparative advantages as well as obligations in respect to research on the Baltic economies. These small countries are often in fact kept out of the limelight even where European research is concerned. Unfortunately, this is often the case also for international organizations, which often work under tight budgetary constraints. The geographic proximity, the truly close economic integration of Finland and Estonia, and the importance of the Baltic rim for Finland mean that Finnish research on transition economies must focus more on these countries than their geographic dimension would warrant. This is also well-founded from an analytical standpoint: the variety of paths taken by Estonia, Latvia and Lithuania gives us a variety of interesting research problems.

The situation in the former Soviet Union area is different from that in east-central Europe. Although, even here, the period of transition can be said to be over, at least insofar that traditional central planning

no longer exists, the version of market economy that exists in even the most advanced of these countries, eg Russia, is highly unique. The easier part of transition – rejection of the old system – is over. The more important and interesting part – formation of the new system – is still in the ladle. In the case of Russia, at least three unique features are discernible.

The first feature has perhaps been the least understood. Although Russia is a market economy, it is not a true monetary economy. Only a third of the economy, at most, is based on the use of the rouble. The bulk of the economy is based on dollars, barter trade and various surrogate monies. There are many other dollarized countries, but the widespread use of barter trade and surrogate money makes Russia unique and difficult to analyse. Nor is it evident what should be done to 're-monetarize' the economy.

Another special feature of Russia is the structure of ownership rights. There is hardly any other industrial country in the world where most of the shares in the production plants are owned by insiders – employees and managers. The much-discussed bank ownership is of secondary importance and concerns only a narrow circle of export and infrastructure firms, although these firms are dominant on the stock exchange. Insider ownership of firms may curb economic growth. These owners do not normally have capital and, since they oppose outside-investor ownership, operations focus on job security for current employees and on prevention of external influence. The banks are relatively small and their capacity to channel savings into real investment is limited by both the apparently very low real domestic rate of saving and the generous availability of more lucrative investment opportunities in the money market.

Russia's third unique feature is the relationship between the state and the economy. The change-over from a centrally planned to a market economy should have included the separation of the state and the economy. This has not happened to an sufficient degree. Economic power still derives from political power, particularly at the local level, where the key decisions are being made to an increasing extent. The central government has not managed to handle all of its fundamental tasks, such as protecting ownership rights, and the line between the legal and the illegal is blurred. This is the main reason for two phenomena characteristic of the Russian market economy: new economic activities rarely spring up in the private sector and existing businesses concentrate chiefly on asset and earnings redistribution rather than accumulation.

According to Russian economic statistics, the downtrend in economic growth has come to a halt. Many market economy institutions have developed and also function better than before. Several growth requisites are in place. From a Finnish-European perspective, the crucial question is just

how rapid can the economy grow. Economists who rank natural resources as the key factor are optimistic about Russia. But those who emphasize the importance of institutions and policymakers in economic performance are more pessimistic. The economic structure of Russia is exceptional, and it is difficult to foresee the turns it will take. Hence, one is well-advised to be tentative about the outlook.

In some respects, the economic transition may be over. This, however, is only the first condition for development. Only over the next few years will we see what type of market economy will emerge from the ruins of socialist planning. This will in turn determine the future position of the present transition economies, their influence within the global economy, and the manner of neighbours they will be to Finland and Europe as a whole. Thus there are ample grounds for saying that the key issues are still open. The most interesting phase in the study of transition economies is still to come. For its own part, the Bank of Finland is well placed to meet the challenges of that phase.

30 April 1998

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- Key words: research institute, transition economies, Russia, Baltic countries

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Items

Bank of Finland to continue quoting HELIBOR rates until the end of 1998

The Bank of Finland decided to continue to quote HELIBOR rates until commencement of quoting of euro area-wide reference interest rates at the start of 1999. The Bank will discontinue the quoting of HELIBOR and three- and five-year reference rates on 31 December 1998.

Publications of the Bank of Finland

The doctoral dissertation of Sinimaaria Ranki, *'Exchange Rates in European Monetary Integration'*, has been published in the Bank of Finland's Series E (E:9).

The three essays included in the work examine empirically exchange rate theory and analyse the transmission of disturbances within the international exchange rate system. The international exchange rate regime that will emerge within the EMU will represent a new entity, as a group of European currencies is replaced by a single currency – the euro – which will take its place along side the premier currency, the US dollar. The behaviour of the exchange rate between currencies of two large economic areas is significant for the performance of the international economy. Economists have indeed pondered over whether it is more appropriate for two of the world's large economic areas to allow their bilateral exchange rate to float or to engage in a suitable arrangement for exchange rate policy cooperation.

The approach here is based on a model of two large open economies, in which the central bank's policy decisions take into account not only domestic goals but also developments vis-à-vis the exchange rate and the other country. The model is used as a tool for analysing how monetary policy reacts to various types of shock to the economy, which may be related to demand, supply or exchange rates. Tests using data on the US and Germany (representing Europe) suggest that supply shocks to both economic areas explain to a large extent changes in inflation rates. Supply

shocks tend to boost the inflation rate, domestically and abroad, and to weaken the domestic currency. This means that only one of the two countries can achieve both domestic price stability and exchange rate stability via monetary policy. The other country will have to choose either domestic price stability, while accepting an appreciation of its currency, or a stable exchange rate, while accepting an acceleration of domestic inflation. On the basis of the findings, it could be said that the latter country may be well advised to consider a cooperative exchange rate policy arrangement with the international-engine economy.

The other two essays deal with experiences with the European exchange rate mechanism. In the first, the author measures devaluation expectations and attempts to encapsulate the importance of various economic variables for the formation of such expectations. In the second, she models the impact of the exchange rate mechanism on monetary policy. The foundation for the analysis is the traditional central bank cost equation, in which the bank is obliged to stress the objectives of domestic monetary policy. The innovative aspect of the model is the inclusion of EMS membership in the equation. Besides its concern for domestic goals, the central bank will have to decide on the relative importance of EMS membership. Membership entails two goals: maximization of credibility and stabilization of the domestic-currency exchange rates at levels as close as possible to the central rates. Only complete credibility will enable the central bank to decide for itself whether it will closely mimic the anchor country's monetary policy or make use also of the leeway for domestic interest rates afforded by the exchange-rate fluctuation margins.

Helsinki 1998. ISBN 951-686-564-X. ISSN 1238-1691.

* * *

The Bank of Finland has released its statistical bulletin *'Finnish Bond Issues, 1997'*. The bulletin contains data in Finnish, Swedish and English on all markka-denominated bonds issued by Finnish borrowers in Finland during 1997. The data is based

on a bond register maintained by the Financial Supervision Authority. The report also includes data on foreign currency-denominated government bond issues in 1997 as well as summaries of all markka-denominated bond issues from 1992 to 1997, broken down by sector.

Altogether, 97 markka-denominated bond issues were registered in 1997. Their total value was FIM 66.6 billion, which is 11 per cent less than in 1996. Issues of markka-denominated government bonds amounted to FIM 57.2 billion, ie some 86 per

cent of the total amount of markka-denominated bonds issued. Issues of bonds by financial institutions totalled FIM 7.0 billion and issues by companies FIM 2.4 billion.

At the end of 1997, the total amount of outstanding markka-denominated bonds was about FIM 287 billion, of which issues to the public accounted for approximately FIM 263 billion.

Helsinki 1998. ISSN 0781-4437.

Measures concerning monetary and foreign exchange policy and the financial markets

1997

SEPTEMBER

Tender rate. On 15 September, the Bank of Finland raises its tender rate from 3.00 per cent to 3.25 per cent. In addition, the interest rate on banks' excess reserves is raised from 1.00 per cent to 1.25 per cent.

NOVEMBER

Money market tenders. As at 3 November, the Bank of Finland shortens the maturity applied in its money market tenders from one month to two weeks. The normal settlement day for these tenders will be the banking day following the trade day.

Liquidity credit. As at 3 November, the Bank of Finland shortens the maturity applied in its liquidity credit from seven days to one day. The Bank of Finland also abolishes the limits on collateralized liquidity credit.

1998

JANUARY

Finnish deposit guarantee scheme revised.

The Finnish deposit guarantee scheme is revised as from the start of 1998 by amendment and extension of the Act on Credit Institutions (1229/97). All deposit banks must now belong to a common deposit guarantee fund. Instead of the previous full coverage, the guarantee is now limited to a maximum of FIM 150 000 per depositor/bank.

MARCH

Tender rate. On 19 March, the Bank of Finland raises its tender rate from 3.25 per cent to 3.40 per cent. In addition, the interest rate on banks' excess reserves is raised from 1.25 per cent to 1.40 per cent.



VISITING SCHOLARS PROGRAMME

BANK OF FINLAND

The Bank of Finland, the central bank, has 750 employees, some 30 of whom are involved in research. The Bank is located in Helsinki.

The Bank of Finland welcomes applications from foreign and Finnish scholars for a post under the Bank's Visiting Scholars Programme at the Research Department. Scholarships for six months are available for faculty or post-doctoral level research projects in two main research areas:

- (1) The modelling of monetary policy
- (2) The future of the financial services sector.

In the area of monetary policy modelling, we are especially interested in incorporating the analysis of credibility and policy uncertainty in applied models that could be used to analyze monetary policy in practice. The second area aims at illuminating the ongoing structural transformation of the global financial services industry, as driven by electronification and increased competition in particular. This area of interest includes stability and other public policy aspects of this transformation.

A visiting scholar will be expected to conduct research based on a mutually agreed research plan. Articles stemming from the research are expected to be included in the Bank's Discussion Papers and may be published elsewhere as well.

A visiting scholar should normally also give a lecture at the Bank to an audience of economists on his or her research topic as well as interact with other researchers engaged in projects in the same area.

Remuneration for visiting scholars will be commensurate with their research experience.

Persons interested in applying are invited to send

- a brief research proposal concerning either of the two areas
- a CV specifying the applicant's academic and research background, with the names of two or three referees

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Finland in brief

Land, climate and population

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

Finland has a population of 5 147 349 (31 December 1997) and an average population density of 17 per square kilometre. The largest towns are Helsinki (Helsingfors), the capital, with 539 363 inhabitants, Espoo (Esbo) 200 834, Tampere (Tammerfors) 188 726, Vantaa (Vanda) 171 297 and Turku (Åbo) 168 772.

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

Form of government

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

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

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

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

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

Finland is divided into 452 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 502 billion in basic values in 1996, 2 % was generated in agriculture and fishing, 2 % in forestry, 26 % in industry, 6 % in construction, 11 % in trade, restaurants and hotels, 9 % in transport and communications, 4 % in finance and insurance, 21 % in other private services and 19 % by producers of government services. Of total employment of 2.2 million persons in 1997, 7.0 % were engaged in primary production, 27.4 % in industry and construction and 65.6 % in services.

In 1996, expenditure on the gross domestic product in purchasers' values amounted to FIM 577 billion and was distributed as follows: net exports 8 % (exports 38 %, imports -30 %), gross fixed capital formation 16 %, private consumption 55 % and government consumption 22 %. Finland's tax ratio (gross taxes including compulsory employment pension contributions relative to GDP) was 48.2 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 1950–96. Finland's GDP per capita in 1996 was USD 24 400.

Foreign trade. EU countries absorb the bulk of Finnish merchandise exports. In 1993–1997 their average share was 51.7 %. Over the same period, Finland's exports to other European countries (including Russia) accounted for 22.1 % and to the rest of the world for 26.2 %. The regional distribution of Finland's merchandise imports in the same period has been quite similar to that of exports: EU countries accounted for 53.8 %, other European countries for 22.3 % and the rest of the world for 24.0 %.

In 1997, the share of forest industry products in total merchandise exports was 30.8 %, the share of metal and engineering products 43.3 % and the share of other goods 25.9 %. Raw materials and intermediate goods (incl. crude oil) accounted for 60.9 % of merchandise imports, fuels for 4.4 %, investment goods for 15 % and consumption goods for 21.9 %.

Forest resources. Finland has fairly abundant forest resources but only limited amounts of other raw materials. The growing stock comprises 1 937 million cubic metres, of which 46 % is pine, 36 % spruce, 15 % birch and 3 % other broad-leaved species.

According to the latest National Forest Inventory (1989–1994), the annual volume increment is about 75.4 million cubic metres. During the same time period, the average annual drain has been about 55 million cubic metres.

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 16 March 1998 the ECU central rate is FIM 6.01125.

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

Other banks (31 Dec 1997). Finland has three major groups of deposit banks with a total of 1 242 offices. There are two big commercial banks with national branch networks and five smaller ones. The commercial banks have a total of 10 foreign branches, subsidiaries and associate banks and 16 representative offices abroad. There are 40 savings banks and 294 cooperative banks, both with extensive branch networks. In addition, 6 foreign banks have branches and 7 foreign banks have representative offices in Finland.

Financial markets. Of the total stock of FIM 726 billion in outstanding domestic credit at end-September 1997, 48 % was accounted for by deposit banks, 6 % by insurance companies, 23 % by pension insurance institutions, 12 % by other credit institutions, and 11 % by state and local authorities and social security funds.

In the money market, 72 % of the instruments in value terms, which totalled about FIM 134 billion at end-December 1997, were accounted for by bank certificates of deposit (including central bank paper). Other negotiable money market instruments consist of Treasury bills, commercial paper and local authority paper.

At end-March 1998, there are 81 companies on the official list, 32 on the OTC list and 15 on the brokers list for the HEX, Helsinki Exchanges. Total market capitalization for the official list was FIM 518 billion, the OTC list FIM 6 billion, and the brokers list FIM 8 billion, at end-March 1998. Domestic bonds and debentures in circulation at end-March 1998 totalled FIM 289 billion; government bonds comprised 76 % of the total. Turnover on the HEX, Helsinki Exchanges amounted to FIM 187 billion in 1997. In January–March 1998 share turnover amounted to FIM 60 billion.

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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

	1997		1998		
	31 Dec	8 Apr	15 Apr	23 Apr	30 Apr
ASSETS					
Reserve assets	51 455	44 145	43 966	42 936	46 414
Gold	1 742	1 742	1 742	1 742	1 742
Special drawing rights	1 772	1 598	1 593	1 574	1 558
IMF reserve tranche	3 036	3 399	3 389	3 354	3 351
ECU-claim on the European Monetary Institute	4 078	3 329	2 733	2 727	2 727
Foreign exchange assets	40 827	34 076	34 509	33 538	37 034
Other foreign claims	3 342	3 027	3 027	3 027	3 027
Markka subscription to Finland's quota in the IMF	3 281	2 966	2 966	2 966	2 966
Share in the European Monetary Institute	61	61	61	61	61
Claims on financial institutions	2 951	149	132	132	132
Liquidity credits	-	-	-	-	-
Securities with repurchase commitments	-	-	-	-	-
Term credits	-	-	-	-	-
Bonds	114	93	93	93	93
Other	2 837	56	39	39	39
Claims on the public sector	2 015	2 017	2 017	2 018	2 019
Treasury bills	-	-	-	-	-
Bonds	-	-	-	-	-
Total coinage	2 015	2 017	2 017	2 018	2 019
Other	-	-	-	-	-
Claims on corporations	1 762	1 754	1 754	1 750	1 750
Financing of domestic deliveries (KTR)	26	18	18	14	14
Other	1 736	1 736	1 736	1 736	1 736
Other assets	635	461	480	513	542
Accrued items	528	363	383	418	444
Other	107	98	96	95	99
Valuation account	-	-	-	-	-
Total	62 159	51 553	51 376	50 375	53 883
LIABILITIES					
Foreign liabilities	4 911	4 604	4 591	4 642	4 638
Allocations of special drawing rights	1 046	1 063	1 060	1 049	1 048
IMF markka accounts	3 281	2 966	2 966	2 966	2 966
Other	584	575	565	627	624
Notes and coin in circulation	17 817	16 833	16 666	16 455	16 845
Notes	15 923	14 969	14 797	14 587	14 973
Coin	1 894	1 864	1 869	1 868	1 872
Certificates of deposit	10 500	4 300	2 100	2 650	6 900
Liabilities to financial institutions	10 681	6 153	8 460	7 333	6 255
Reserve deposits	7 911	6 153	8 460	7 333	6 255
Term deposits	-	-	-	-	-
Other	2 770	0	0	0	0
Liabilities to the public sector	-	-	-	-	-
Current accounts	-	-	-	-	-
Other	-	-	-	-	-
Liabilities to corporations	32	17	17	13	13
Deposits for investment and ship purchase	32	17	17	13	13
Other	-	-	-	-	-
Other liabilities	55	65	106	147	135
Accrued items	23	17	72	112	98
Other	32	47	34	35	37
Valuation account	258	1 677	1 533	1 230	1 192
Provisions	12 140	12 140	12 140	12 140	12 140
Pension provision	1 601	1 601	1 601	1 601	1 601
Other	10 540	10 540	10 540	10 540	10 540
Capital accounts	5 764	5 764	5 764	5 764	5 764
Primary capital	5 000	5 000	5 000	5 000	5 000
Reserve fund	764	764	764	764	764
Net earnings	-	-	-	-	-
Total	62 159	51 553	51 376	50 375	53 883

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
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
1997	1 742	1 772	3 036	4 078	40 827	51 455	-1 569	49 886	2 015	-	2 015
1997											
Apr	1 742	1 186	1 986	4 011	49 851	58 775	-1 227	57 548	1 904	-	1 904
May	1 742	1 121	1 998	4 000	49 607	58 468	-1 267	57 201	1 908	-	1 908
Jun	1 742	1 100	1 963	3 984	50 322	59 111	-1 397	57 714	1 921	-	1 921
Jul	1 742	1 557	2 023	3 965	55 189	64 475	-1 533	62 942	1 921	-	1 921
Aug	1 742	1 711	2 031	3 978	54 008	63 470	-1 622	61 848	1 926	-	1 926
Sep	1 742	1 588	2 081	3 958	52 686	62 055	-1 750	60 305	1 939	-	1 939
Oct	1 742	1 489	2 068	4 031	54 754	64 085	-1 941	62 144	1 947	-	1 947
Nov	1 742	1 234	2 271	4 071	41 920	51 238	-2 256	48 982	1 955	-	1 955
Dec	1 742	1 772	3 036	4 078	40 827	51 455	-1 569	49 886	2 015	-	2 015
1998											
Jan	1 742	1 323	3 065	3 310	40 268	49 709	-1 389	48 320	2 019	-	2 019
Feb	1 742	1 230	3 389	3 318	38 830	48 510	-1 413	47 097	2 020	-	2 020
Mar	1 742	1 680	3 399	3 334	34 412	44 567	-1 362	43 205	2 017	-	2 017
Apr	1 742	1 558	3 351	2 727	37 034	46 414	-1 611	44 803	2 019	-	2 019

End of period	Domestic financial sector				Corporate sector				
	Term claims on deposit banks, net	Reserve deposits of deposit banks ¹	Other claims on financial institutions, net	Net claims (12+13+14)	Claims in the form of special financing	Special deposits and other items, net	Net claims (16+17)	Notes and coin in circulation	Out-standing CDs issued by the Bank of Finland
	12	13	14	15	16	17	18	19	20
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
1997	-	-7 911	181	-7 730	26	1 704	1 730	17 817	10 500
1997									
Apr	17 070	-6 717	294	10 647	50	1 784	1 834	16 064	41 700
May	12 568	-8 091	283	4 760	42	1 669	1 712	16 068	34 760
Jun	9 558	-10 397	258	-581	42	1 695	1 738	16 315	29 110
Jul	10 575	-3 651	252	7 176	42	1 712	1 754	16 359	40 170
Aug	8 225	-12 522	252	-4 045	37	1 748	1 785	16 287	28 440
Sep	9 214	-4 458	226	4 982	33	1 767	1 800	16 046	36 760
Oct	15 103	-13 983	188	1 308	26	1 792	1 819	16 144	34 900
Nov	4 411	-11 612	184	-7 017	26	1 684	1 710	16 381	12 200
Dec	-	-7 911	181	-7 730	26	1 704	1 730	17 817	10 500
1998									
Jan	1 929	-5 642	157	-3 556	26	1 713	1 739	16 416	13 740
Feb	3 648	-10 365	155	-6 562	21	1 715	1 736	16 274	9 360
Mar	-	-8 417	153	-8 264	18	1 718	1 736	16 190	3 100
Apr	-	-6 255	132	-6 123	14	1 723	1 737	16 845	6 900

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

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

	Reserve requirement			Required reserves ¹ , mill. FIM	Excess reserves, mill. FIM	Total reserves, mill. FIM (4+5)	Liquidity credits, mill. FIM
	On deposits payable on demand, %	On other deposits, %	On other items, %				
	1	2	3	4	5	6	7
1993	2.0	1.5	1.0	6 398	.	.	440
1994	2.0	1.5	1.0	6 526	.	.	14
1995	2.0	1.5	1.0	6 557	.	.	123
I-IX	2.0	1.5	1.0	6 530	616	7 146	37
X-XII	2.0	1.5	1.0	6 652	440	7 092	121
1997	2.0	1.5	1.0	6 717	747	7 464	1
1997							
Apr	2.0	1.5	1.0	6 589	566	7 156	18
May	2.0	1.5	1.0	6 623	598	7 221	-
Jun	2.0	1.5	1.0	6 602	1 165	7 767	-
Jul	2.0	1.5	1.0	6 777	378	7 155	-
Aug	2.0	1.5	1.0	6 803	626	7 429	-
Sep	2.0	1.5	1.0	6 769	521	7 290	-
Oct	2.0	1.5	1.0	6 799	1 020	7 818	-
Nov	2.0	1.5	1.0	6 911	892	7 803	-
Dec	2.0	1.5	1.0	6 999	310	7 309	-
1998							
Jan	2.0	1.5	1.0	6 995	321	7 317	-
Feb	2.0	1.5	1.0	6 947	147	7 095	-
Mar	2.0	1.5	1.0	6 947	895	7 842	0
Apr	2.0	1.5	1.0	6 866	198	7 065	-

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

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

During period	Purchases of money market instruments	Sales of money market instruments	Matured money market instruments, net	Money market transactions, net (1-2-3)
	1	2	3	4
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
1997	128 220	422 500	-294 770	490
1997				
Apr	24 200	41 700	-13 630	-3 870
May	5 700	34 760	-34 700	5 640
Jun	9 600	32 760	-22 160	-1 000
Jul	10 420	36 520	-22 950	-3 150
Aug	8 350	30 260	-26 320	4 410
Sep	12 300	34 630	-23 120	790
Oct	12 200	36 900	-28 830	4 130
Nov	11 400	15 700	-18 480	14 180
Dec	0	22 430	-26 110	3 680
1998				
Jan	2 000	30 040	-27 770	-270
Feb	4 280	23 540	-19 260	0
Mar	0	7 000	-9 610	2 610
Apr	0	10 400	-7 850	-2 550

2.3 The Bank of Finland's transactions in foreign currencies and the stock of reserve assets, mill FIM

During period	Intervention in the foreign exchange market			Spot transactions related to forward contracts, net	Central government's foreign exchange transactions, net	Reserve assets (end of period)	
	Spot purchases	Spot sales	Forward exchange intervention = change in forward exchange position			mill. FIM	mill. USD
	1	2	3	4	5	6	7
1993	25 120	-45 080	7 460	-6 910	33 240	29 517	5 628
1994	20 930	-12 900	9 060	-8 930	24 660	33 473	5 787
1995	4 910	-5 470	-6 170	9 170	-10 135	52 743	11 120
1996	7 360	-7 320	-	-	-13 868	48 865	11 211
1997	47 620	-1 470	-	4 310	-37 540	36 397	7 838
1997							
Apr	-	-690	-4 240	3 070	-8 160	58 775	11 285
May	-	-60	-100	-	-930	58 468	11 407
Jun	2 880	-	70	-	-870	59 111	11 392
Jul	4 940	-	-1 310	6 300	-3 560	64 475	11 807
Aug	-	-	-70	-	-670	63 470	11 784
Sep	-	-	-70	-	-1 240	62 055	11 707
Oct	-	-	-3 160	3 100	-800	64 085	12 342
Nov	-	-	-1 560	1 560	-15 300	51 238	9 602
Dec	-	-	-	-	-610	51 455	9 492
1998							
Jan	-	-	-	-	-2 730	49 709	8 974
Feb	-	-	-	-	-1 410	48 510	8 825
Mar	5 330	-	2 800	-2 780	-6 590	44 567	7 950
Apr	-	-	-	-	-	46 414	8 529

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

Stock at end of period	Finnish banks' forward contracts						Non-residents' forward contracts with Finnish customers (excl. Finnish banks)			The Bank of Finland's forward contracts	
	With Finnish customers (excl. Finnish banks)			With foreign customers			Total	Currency purchases from Finnish customers	Currency sales to Finnish customers	Net	Net currency sales
	Currency purchases from Finnish customers	Currency sales to Finnish customers	Net	Currency purchases from foreign customers	Currency sales to foreign customers	Net					
	1	2	3	4	5	6	7	8	9	10	11
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	-
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	-
1997	66 649	37 507	29 142	105 128	127 793	-22 665	6 477	23 490	14 552	8 938	-
1997											
Mar	62 218	23 415	38 803	57 783	85 313	-27 530	11 273	18 160	5 138	13 023	-9 924
Apr	65 819	25 160	40 659	59 142	84 411	-25 268	15 391	20 854	10 927	9 927	-5 589
May	65 324	25 735	39 588	53 735	82 076	-28 340	11 248	22 115	9 477	12 638	-5 589
Jun	65 886	30 056	35 830	58 688	83 157	-24 468	11 362	24 007	12 681	11 326	-5 589
Jul	71 933	31 074	40 859	55 146	83 978	-28 831	12 028	30 797	14 976	15 821	-4 690
Aug	74 387	33 124	41 263	60 935	99 872	-38 936	2 327	28 558	17 323	11 235	-4 690
Sep	69 721	36 411	33 310	68 654	93 287	-24 632	8 678	24 439	16 998	7 441	-4 690
Oct	68 258	37 917	30 340	92 393	116 191	-23 798	6 542	24 034	19 297	4 737	-1 578
Nov	68 813	36 778	32 035	93 566	115 303	-21 737	10 298	28 528	17 234	11 294	-
Dec	66 649	37 507	29 142	105 128	127 793	-22 665	6 477	23 490	14 552	8 938	-
1998											
Jan	66 113	32 546	33 568	95 925	116 620	-20 695	12 873	19 041	7 592	11 449	-
Feb	70 214	32 074	38 140	91 570	118 695	-27 125	11 015	22 024	6 215	15 809	-
Mar	67 157	33 100	34 057	96 525	121 046	-24 521	9 536	19 762	6 366	13 396	-2 766

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	Excess-reserve rate ¹	Base rate
		1	2	3	4	5	6	7	8
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
1997	2.87	3.10	3.23	3.41	3.69	5.07	1.07	4.00
1997								
Apr	3.24	3.02	3.08	3.21	3.48	5.00	1.00	4.00
May	2.51	3.01	3.08	3.19	3.40	5.00	1.00	4.00
Jun	2.76	3.00	3.07	3.19	3.42	5.00	1.00	4.00
Jul	2.85	3.00	3.08	3.22	3.50	5.00	1.00	4.00
Aug	3.02	3.01	3.13	3.31	3.68	5.00	1.00	4.00
Sep	3.06	3.15	3.31	3.52	3.89	5.14	1.14	4.00
Oct	2.75	3.29	3.57	3.91	4.26	5.25	1.25	4.00
Nov	2.90	3.35	3.65	4.00	4.32	5.25	1.25	4.00
Dec	3.20	3.31	3.60	3.87	4.18	5.25	1.25	4.00
1998								
Jan	2.80	3.30	3.48	3.63	3.86	5.25	1.25	4.00
Feb	3.18	3.29	3.42	3.56	3.74	5.25	1.25	4.00
Mar	3.10	3.36	3.47	3.58	3.76	5.31	1.31	4.00
Apr	3.30	3.50	3.63	3.75	3.93	5.40	1.40	4.00

¹ 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		
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
1997	3.07	1997	+2.00	1	.	1.25
1997		1997				
Apr	3.00	Apr	+2.00	7	.	1.00
May	3.00	May	+2.00	7	.	1.00
Jun	3.00	Jun	+2.00	7	.	1.00
Jul	3.00	Jul	+2.00	7	.	1.00
Aug	3.00	Aug	+2.00	7	.	1.00
Sep	3.14	Sep	+2.00	7	.	1.25
Oct	3.25	Oct	+2.00	7	.	1.25
Nov	3.25	Nov	+2.00	1	.	1.25
Dec	3.25	Dec	+2.00	1	.	1.25
1998		1998				
Jan	3.25	Jan	+2.00	1	.	1.25
Feb	3.25	Feb	+2.00	1	.	1.25
Mar	3.31	Mar	+2.00	1	.	1.40
Apr	3.40	Apr	+2.00	1	.	1.40
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
15.9.1997	3.25	15.9.1997				1.25
19.3.1998	3.40	19.3.1998				1.40

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
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
1997	4.3	4.4	4.3
1997			
Apr	4.1	4.4	4.2
May	4.1	4.3	4.2
Jun	4.1	4.3	4.2
Jul	4.2	4.3	4.2
Aug	4.3	4.4	4.4
Sep	4.3	4.5	4.3
Oct	4.5	4.6	4.5
Nov	4.6	4.8	4.6
Dec	4.5	4.8	4.5
1998			
Jan	4.4	4.6	4.3
Feb	4.4	4.6	4.4
Mar	4.4	4.6	4.3
Apr	4.4	4.6	4.3

3.4 Rates of interest applied by banks, per cent

Average for period	Lending						Markka deposits and other markka funding					
	New credits				Average lending rate	Of which: Commercial banks	24-month tax-exempt deposits ¹	36-month tax-exempt deposits ¹	Other tax-exempt deposits, max. rate of interest ¹	Average rate of interest on deposits	Average rate of interest on other funding	Average rate of interest on markka funding
	Cheque account and postal giro credits	Bills of exchange	Loans	New lending, total								
	1	2	3	4	5	6	7	8	9	10	11	12
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
1997	4.83	9.66	4.73	4.81	5.64	5.29	.	.	2.00	1.47	..	..
1997												
Mar	5.51	9.97	4.78	4.91	5.67	5.32	2.00	.	2.00	1.48	..	..
Apr	6.03	9.68	4.53	4.64	5.65	5.29	2.00	.	2.00	1.47	..	..
May	5.25	9.83	4.85	4.96	5.62	5.27	2.00	.	2.00	1.45	..	..
Jun	5.46	9.31	4.84	4.93	5.59	5.24	2.00	.	2.00	1.43	..	..
Jul	5.45	9.69	4.43	4.53	5.57	5.21	2.00	.	2.00	1.42	..	..
Aug	4.17	9.77	4.75	4.80	5.54	5.18	2.00	.	2.00	1.42	..	..
Sep	4.99	9.42	4.69	4.77	5.57	5.22	2.00	.	2.00	1.42	..	..
Oct	4.08	9.70	4.95	4.97	5.61	5.27	2.00	.	2.00	1.44	..	..
Nov	6.06	9.52	4.98	5.08	5.67	5.35	2.00	.	2.00	1.43	..	..
Dec	6.07	9.21	4.74	4.83	5.74	5.43	.	.	2.00	1.44	..	..
1998												
Jan	4.54	9.58	4.75	4.80	5.71	5.41	.	.	2.00	1.44	..	..
Feb	5.43	9.26	4.75	4.84	5.71	5.40	.	.	2.00	1.43	..	..
Mar	5.91	9.23	4.74	4.83	5.60	5.34	.	.	2.00	1.36	..	..

¹ End of period.

3.5 Yields on bonds and shares, per cent

Period	Bonds				Shares
	Reference rates calculated by the Bank of Finland		Taxable government bonds		Share yield
	3 years	5 years	5 years	10 years	
	1	2	3	4	5
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
1997	5.0	5.7	4.9	6.0	2.0
1997					
Mar	4.8	5.6	4.8	6.1	2.1
Apr	5.0	5.8	5.0	6.4	2.3
May	4.9	5.7	4.8	6.2	2.2
Jun	4.9	5.7	4.8	6.1	2.1
Jul	4.9	5.6	4.7	5.9	2.0
Aug	5.0	5.7	4.9	5.9	2.0
Sep	5.2	5.8	4.9	5.8	2.0
Oct	5.3	5.9	5.1	5.7	1.9
Nov	5.4	5.9	5.1	5.8	2.0
Dec	5.2	5.8	4.8	5.6	2.0
1998					
Jan	5.0	5.5	4.6	5.3	1.8
Feb	4.9	5.4	4.5	5.2	2.0
Mar	4.9	5.4	4.4	5.0	2.5

4. Rates of exchange

4.1 Middle rates, FIM

Average of daily quotations	New York	Montreal	London	Dublin	Stockholm	Oslo	Copenhagen	Reykjavik	Frankfurt am Main	Amsterdam	Brussels	Zurich
	1 USD	1 CAD	1 GBP	1 IEP	1 SEK	1 NOK	1 DKK	1 ISK	1 DEM	1 NLG	1 BEF	1 CHF
	1	2	3	4	5	6	7	8	9	10	11	12
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
1997	5.1944	3.753	8.506	7.871	0.6799	0.7339	0.7859	0.0732	2.9939	2.6603	0.1451	3.5785
1997												
Apr	5.1307	3.681	8.360	7.965	0.6678	0.7360	0.7876	0.0721	3.0003	2.6680	0.1454	3.5109
May	5.1337	3.722	8.382	7.780	0.6694	0.7271	0.7922	0.0729	3.0169	2.6825	0.1462	3.5903
Jun	5.1732	3.737	8.503	7.797	0.6680	0.7177	0.7869	0.0735	2.9961	2.6637	0.1452	3.5881
Jul	5.3051	3.854	8.869	7.942	0.6793	0.7134	0.7783	0.0747	2.9641	2.6325	0.1436	3.5832
Aug	5.5097	3.967	8.838	8.004	0.6891	0.7221	0.7850	0.0759	2.9903	2.6550	0.1448	3.6380
Sep	5.3561	3.862	8.571	7.931	0.6954	0.7318	0.7862	0.0747	2.9932	2.6579	0.1450	3.6364
Oct	5.2695	3.803	8.595	7.730	0.6958	0.7444	0.7874	0.0737	2.9981	2.6613	0.1454	3.6278
Nov	5.2205	3.696	8.809	7.844	0.6902	0.7395	0.7916	0.0735	3.0130	2.6731	0.1461	3.7093
Dec	5.3714	3.768	8.925	7.830	0.6899	0.7413	0.7934	0.0749	3.0220	2.6817	0.1465	3.7327
1998												
Jan	5.4948	3.815	8.988	7.599	0.6858	0.7333	0.7946	0.0755	3.0268	2.6859	0.1467	3.7261
Feb	5.5022	3.835	9.018	7.573	0.6812	0.7282	0.7958	0.0760	3.0328	2.6908	0.1470	3.7570
Mar	5.5420	3.913	9.203	7.584	0.6956	0.7311	0.7962	0.0764	3.0348	2.6927	0.1471	3.7242
Apr	5.5063	3.854	9.205	7.651	0.7039	0.7312	0.7960	0.0764	3.0356	2.6957	0.1471	3.6565

Average of daily quotations	Paris	Rome	Vienna	Lisbon	Madrid	Athens	Tallinn	Tokyo	Melbourne	Seoul	ECU Commercial	SDR
	1 FRF	1 ITL	1 ATS	1 PTE	1 ESP	1 GRD	1 EEK	1 JPY	1 AUD	1 KRW	1 XEU	1 XDR
	13	14	15	16	17	18	19	20	21	22	23	24
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
1997	0.8894	0.00305	0.4255	0.0296	0.0355	0.0190	0.3742	0.04303	3.859	.	5.864	7.14420
1997												
Apr	0.8908	0.00303	0.4263	0.0299	0.0356	0.0190	0.3750	0.04086	3.997	.	5.853	7.03636
May	0.8945	0.00305	0.4286	0.0299	0.0357	0.0189	0.3771	0.04335	3.975	.	5.880	7.12016
Jun	0.8878	0.00305	0.4258	0.0297	0.0355	0.0189	0.3745	0.04527	3.902	.	5.855	7.19320
Jul	0.8785	0.00304	0.4213	0.0293	0.0351	0.0189	0.3705	0.04609	3.939	0.00596	5.846	7.30859
Aug	0.8873	0.00306	0.4250	0.0295	0.0354	0.0191	0.3738	0.04672	4.085	0.00614	5.886	7.45951
Sep	0.8904	0.00307	0.4254	0.0295	0.0355	0.0190	0.3741	0.04434	3.876	0.00589	5.872	7.28131
Oct	0.8936	0.00306	0.4260	0.0294	0.0355	0.0190	0.3748	0.04355	3.800	0.00569	5.891	7.21962
Nov	0.9000	0.00308	0.4281	0.0295	0.0357	0.0192	0.3766	0.04172	3.630	0.00507	5.961	7.17348
Dec	0.9028	0.00308	0.4295	0.0296	0.0357	0.0192	0.3777	0.04152	3.562	0.00368	5.980	7.27353
1998												
Jan	0.9038	0.00308	0.4303	0.0296	0.0357	0.0192	0.3784	0.04253	3.611	0.00325	5.978	7.38238
Feb	0.9048	0.00307	0.4311	0.0296	0.0358	0.0192	0.3791	0.04377	3.711	0.00340	5.989	7.42807
Mar	0.9053	0.00308	0.4314	0.0297	0.0358	0.0182	0.3794	0.04298	3.712	0.00373	6.018	7.44954
Apr	0.9055	0.00307	0.4315	0.0296	0.0357	0.0174	0.3794	0.04169	3.592	0.00397	6.017	7.39411

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
1993	6.69420	132.4	136.0
1994	6.19108	123.2	125.5
1995	5.70936	111.6	111.6
1996	5.83028	115.3	115.8
1997	5.88125	118.4	122.6
1997			
Apr	5.87626	117.8	121.5
May	5.90366	118.6	122.1
Jun	5.88180	118.7	122.4
Jul	5.86447	119.0	123.8
Aug	5.90587	120.4	126.4
Sep	5.89038	119.5	124.7
Oct	5.89974	119.4	123.9
Nov	5.94676	119.4	123.7
Dec	5.97130	119.5	125.4
1998			
Jan	5.98008	120.1	126.7
Feb	5.98982	120.4	126.8
Mar	6.00921	121.3	127.6
Apr	6.00867	121.2	127.3

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	GRD
Central rate as of												
16 Mar 1998	6.01125	3.04001	0.906420	2.69806	0.796976	0.147391	0.0357345	0.432094	0.0296571	7.54951	0.00307071	0.0168382
	1	2	3	4	5	6	7	8	9	10	11	12
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	..
1997	0.46	-1.52	-1.88	-1.40	-1.39	-1.56	-0.78	-1.53	-0.12	7.38	-0.72	..
1997												
Apr	0.38	-1.31	-1.73	-1.12	-1.18	-1.34	-0.52	-1.34	0.88	8.67	-1.31	..
May	0.84	-0.76	-1.31	-0.58	-0.60	-0.84	0.02	-0.80	0.97	6.14	-0.53	..
Jun	0.47	-1.44	-2.06	-1.27	-1.26	-1.49	-0.74	-1.45	0.01	6.37	-0.61	..
Jul	0.17	-2.50	-3.08	-2.43	-2.35	-2.58	-1.65	-2.50	-1.04	8.36	-0.86	..
Aug	0.88	-1.64	-2.11	-1.60	-1.50	-1.74	-0.92	-1.65	-0.47	9.20	-0.30	..
Sep	0.62	-1.54	-1.77	-1.49	-1.36	-1.62	-0.73	-1.56	-0.59	8.20	-0.11	..
Oct	0.78	-1.38	-1.41	-1.36	-1.20	-1.38	-0.63	-1.40	-0.75	5.47	-0.29	..
Nov	1.58	-0.89	-0.71	-0.92	-0.67	-0.89	-0.18	-0.92	-0.46	7.02	0.14	..
Dec	2.00	-0.59	-0.40	-0.61	-0.45	-0.62	0.03	-0.59	-0.26	6.83	0.40	..
1998												
Jan	2.15	-0.43	-0.28	-0.45	-0.29	-0.45	-0.07	-0.42	-0.21	3.68	0.16	..
Feb	2.32	-0.24	-0.18	-0.27	-0.15	-0.30	0.13	-0.24	-0.14	3.32	0.09	..
Mar	1.18	-0.17	-0.12	-0.20	-0.10	-0.19	0.17	-0.17	-0.01	1.81	0.36	..
Apr	-0.04	-0.15	-0.10	-0.09	-0.12	-0.18	0.02	-0.15	-0.14	1.35	0.06	3.46

5. Financial markets and money supply

5.1 Bank funding from the public, mill. FIM

End of period	Tax-exempt				Subject to withholding tax			Other taxable			Markka deposits, total (4+7+10)	Foreign currency deposits	Other markka funding	Total funding (11+12+13)
	Cheque and trans-actions accounts	Time deposits	Other deposits	Total (1+2+3)	Cheque and trans-actions accounts	Other deposits	Total (5+6)	Cheque and trans-actions accounts	Other deposits	Total (8+9)				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1993	88 881	66 361	1 457	156 699	10 360	51 943	62 303	32 098	17 664	49 762	268 764	15 788	62 599	347 151
1994	96 796	63 329	1 895	162 021	9 467	47 908	57 375	37 279	18 739	56 018	275 414	13 332	58 067	346 813
1995	106 997	63 599	2 611	173 207	10 916	45 529	56 445	45 558	16 163	61 721	291 373	14 843	50 675	356 891
1996	132 113	<u>29 672</u>	<u>27 140</u>	188 926	10 746	25 207	35 953	48 329	10 438	58 767	283 646	12 495	55 046	351 187
1997*	140 891	46 976	19 119	206 985	7 883	14 446	22 329	52 472	9 293	61 765	291 079	12 272	74 141	377 491
1997*														
Mar	132 054	50 024	13 824	195 902	11 512	19 201	30 713	48 803	9 973	58 775	285 390	11 876	66 039	363 306
Apr	133 313	50 984	15 063	199 360	8 525	16 990	25 515	46 969	10 294	57 263	282 139	10 794	66 369	359 302
May	134 300	51 556	15 254	201 111	8 771	16 450	25 222	50 048	10 116	60 164	286 497	11 900	69 938	368 335
Jun	134 432	52 104	15 364	201 900	8 548	15 788	24 336	52 499	9 558	62 057	288 293	11 743	63 526	363 561
Jul	135 230	52 563	15 484	203 277	8 252	15 059	23 311	49 515	9 541	59 056	285 645	11 480	74 487	371 612
Aug	136 678	52 854	15 575	205 107	8 207	14 379	22 586	48 581	9 569	58 150	285 843	11 434	73 195	370 472
Sep	134 963	53 793	14 845	203 602	8 277	14 162	22 439	49 347	9 239	58 587	284 627	12 458	77 982	375 067
Oct	135 800	51 832	16 358	203 990	8 482	14 102	22 584	51 018	9 275	60 293	286 867	12 254	82 490	381 611
Nov	137 885	50 911	16 516	205 312	7 798	14 078	21 876	51 174	9 123	60 297	287 485	12 079	66 002	365 566
Dec	140 891	46 976	19 119	206 985	7 883	14 446	22 329	52 472	9 293	61 765	291 079	12 272	74 140	377 491
1998*														
Jan	142 092	48 768	18 294	209 154	7 817	14 148	21 965	51 535	9 591	61 126	292 245	11 550	74 305	378 100
Feb	141 276	48 538	18 784	208 598	6 456	13 726	20 182	48 528	9 480	58 009	286 789	10 960	74 473	372 222
Mar	140 308	48 707	19 424	208 439	6 422	13 484	19 906	54 182	9 497	63 679	292 024	10 273	76 224	378 522

5.2 Bank lending to the public, mill. FIM

End of period	Non-financial corporations	Financial and insurance institutions (excl. banks)	General government (excl. central government)	Non-profit institutions	Households	Foreign sector	Markka-lending, total (1+2+3+4+5+6)	Foreign currency lending	Total lending (7+8)
1993	83 285	9 304	4 036	12 802	171 540	103	281 070	69 819	350 889
1994	81 130	11 121	3 367	13 016	162 913	124	271 670	47 078	318 748
1995	78 601	13 045	2 918	12 645	155 990	253	263 452	33 124	296 575
1996	<u>82 894</u>	<u>18 554</u>	<u>3 052</u>	<u>13 088</u>	<u>152 594</u>	<u>119</u>	<u>270 301</u>	<u>24 130</u>	<u>294 430</u>
1997*	77 351	21 257	3 241	13 453	155 388	.	270 691	16 252	286 943
1997*									
Mar	79 043	15 757	2 956	13 160	151 711	.	262 627	18 834	281 461
Apr	79 582	16 409	2 979	13 213	151 866	.	264 049	18 707	282 756
May	79 532	17 233	3 031	13 154	152 515	.	265 466	18 491	283 956
Jun	79 240	17 409	2 973	13 214	152 671	.	265 507	17 709	283 215
Jul	78 977	17 866	2 964	13 294	153 460	.	266 562	17 318	283 879
Aug	78 637	19 006	2 976	13 467	154 484	.	268 570	16 802	285 371
Sep	78 597	19 613	3 071	13 617	155 001	.	269 898	16 378	286 276
Oct	78 392	20 566	3 055	13 573	155 563	.	271 147	18 314	289 461
Nov	76 557	21 218	3 215	13 709	156 001	.	270 699	16 928	287 627
Dec	77 351	21 257	3 241	13 453	155 388	.	270 691	16 246	286 937
1998*									
Jan	77 916	21 485	3 240	13 152	155 345	.	271 138	16 352	287 490
Feb	78 339	22 196	3 450	13 166	155 871	.	273 022	17 431	290 453
Mar	77 954	22 033	3 422	13 273	156 557	.	273 238	17 505	290 743

5.3 Money supply, mill. FIM

End of period	Foreign assets, net	Domestic credit			Other items, net	Monetary aggregates		
		Claims on the central government	Claims on the public	Total (2+3)		M ₁	M ₂ (1+4+5)	M ₃
	1	2	3	4	5	6	7	8
1993	-25 989	1 848	403 742	405 589	-100 006	141 759	279 595	322 408
1994	12 844	6 092	365 712	371 804	-97 953	154 357	286 696	328 509
1995	25 481	19 837	353 340	373 177	-94 870	175 921	303 788	329 820
1996	40 638	12 821	350 230	363 052	-106 399	204 834	297 291	325 473
1997*	69 620	12 184	339 143	351 327	-115 351	215 763	305 596	353 735
1997*								
Mar	56 787	10 209	337 213	347 421	-105 146	206 040	299 062	338 407
Apr	58 607	14 411	337 724	352 134	-115 087	202 323	295 654	340 840
May	63 055	16 769	338 988	355 757	-118 523	206 912	300 289	349 640
Jun	73 732	3 256	337 432	340 689	-112 526	209 080	301 894	350 332
Jul	73 618	6 226	337 876	344 102	-118 445	206 628	299 276	353 820
Aug	72 388	5 162	339 432	344 594	-117 141	207 465	299 841	348 202
Sep	87 246	3 686	340 221	343 906	-133 023	206 090	298 129	350 548
Oct	83 239	5 621	342 934	348 555	-131 049	209 178	300 745	353 649
Nov	71 173	9 482	340 584	350 067	-119 678	210 932	301 561	345 464
Dec	69 620	12 184	339 143	351 327	-115 351	215 763	305 596	353 735
1998*								
Jan	66 185	11 387	339 957	351 344	-111 237	215 491	306 292	363 245
Feb	62 239	8 547	342 763	351 310	-112 745	210 276	300 804	355 012
Mar	..	..	..	..	..	214 506	305 618	364 489

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

End of period	Foreign currency-denominated debt			Markka-denominated debt				Total (4+5+6+7)	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				
	1	2	3	4	5	6	7	8	9	10	11
1993	142 824	12 753	155 577	71 082	16 060	22 824	-9 700	100 266	255 843	66 439	36 487
1994	160 587	15 975	176 562	93 008	17 100	33 153	-12 300	130 961	307 523	67 658	43 012
1995	158 545	13 756	172 301	143 948	17 492	37 864	-12 300	187 004	359 305	66 855	41 878
1996	158 847	16 161	175 008	177 700	17 187	37 620	-12 300	220 479	395 487	64 316	38 369
1997	142 717	25 839	168 556	214 876	16 545	30 388	-12 300	249 745	418 301	..	33 868
1997											
Apr	155 575	21 828	177 403	192 178	16 865	43 658	-12 300	240 588	417 991	66 479	41 543
May	155 880	23 054	178 934	194 126	16 865	44 045	-12 300	242 923	421 857	65 951	46 841
Jun	159 454	24 635	184 089	186 952	16 581	42 797	-12 300	234 248	418 337	65 979	37 376
Jul	156 183	25 261	181 444	190 450	16 574	44 522	-12 300	239 533	420 977	65 569	37 195
Aug	155 814	24 994	180 808	192 441	16 574	41 545	-12 300	238 547	419 355	65 716	37 233
Sep	154 425	25 586	180 011	202 789	16 573	39 063	-12 300	246 332	426 343	66 004	48 389
Oct	154 826	25 462	180 288	204 172	16 573	34 599	-12 300	243 310	423 598	66 151	48 685
Nov	141 898	25 597	167 495	216 455	16 557	34 458	-12 300	255 396	422 891	65 837	42 539
Dec	142 717	25 839	168 556	214 876	16 545	30 388	-12 417	249 628	418 184	65 305	33 868
1998											
Jan	143 626	26 312	169 938	214 642	16 545	31 081	-12 417	250 047	419 985	..	..
Feb	143 776	26 265	170 041	217 195	16 545	25 712	-12 417	247 232	417 273	..	..
Mar	137 141	26 233	163 374	218 647	16 494	27 949	-12 417	250 870	414 244	..	..
Apr	132 022	25 735	157 757	220 246	16 310	24 755	-12 417	249 051	406 808	..	..

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
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	3 213	9 074	62 139	20	-	74 447
1997*	2 383	7 041	57 165	-	-	66 589
1997*						
Mar	75	730	4 660	-	-	5 465
Apr	6	920	4 258	-	-	5 184
May	-	585	2 201	-	-	2 785
Jun	451	289	5 472	-	-	6 212
Jul	-	-	3 508	-	-	3 508
Aug	-	218	3 375	-	-	3 593
Sep	820	783	10 431	-	-	12 034
Oct	1	387	7 424	-	-	7 812
Nov	553	1 210	6 393	-	-	8 156
Dec	60	1 112	-	-	-	1 172
1998*						
Jan	-	714	14 651	-	-	15 365
Feb	401	1 763	4 032	-	-	6 196
Mar	491	825	6 505	-	-	7 821

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
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	25 266	44 849	179 419	4 362	100	220 037	2 956	31 003	253 996
1997*	23 327	43 881	216 215	3 648	84	261 316	1 345	24 494	287 155
1997*									
Mar	25 514	43 257	189 688	4 126	99	231 672	2 118	28 894	262 684
Apr	25 462	44 214	193 517	4 126	99	236 936	2 107	28 375	267 418
May	24 336	43 819	195 466	3 977	93	238 090	1 842	27 759	267 691
Jun	23 872	42 300	188 292	3 943	91	229 911	1 833	26 754	258 498
Jul	23 402	41 461	191 789	3 932	91	232 715	1 829	26 131	260 675
Aug	23 103	41 564	193 780	3 924	91	234 752	1 663	26 047	262 462
Sep	23 844	42 915	204 128	3 918	90	247 500	1 477	25 918	274 895
Oct	23 433	43 068	211 426	3 910	88	254 735	1 366	25 824	281 925
Nov	23 709	44 123	217 794	3 860	86	262 709	1 349	25 514	289 572
Dec	23 327	43 881	216 215	3 648	84	261 316	1 345	24 494	287 155
1998*									
Jan	22 774	43 700	215 980	3 632	84	261 271	1 131	23 768	286 170
Feb	23 012	44 944	218 534	3 489	84	265 528	1 003	23 532	290 063
Mar	23 341	42 322	219 982	3 483	82	265 134	845	23 231	289 210

C) Turnover, mill. FIM

During period	Primary dealers' transactions in benchmark government bonds		
	Purchases from other primary dealers	Purchases from customers	Sales to customers
	1	2	3
1993	42 945	95 647	117 489
1994	173 096	150 908	176 647
1995	133 357	190 069	215 879
1996	201 528	222 584	242 310
1997	258 634	264 994	291 056
1997			
Apr	18 425	17 110	21 183
May	14 193	16 206	21 661
Jun	15 845	20 317	23 502
Jul	17 873	23 428	27 905
Aug	21 752	25 146	25 637
Sep	28 032	34 507	37 825
Oct	40 705	33 503	31 670
Nov	17 106	19 655	19 411
Dec	21 198	16 515	16 656
1998			
Jan	22 397	23 508	25 746
Feb	12 826	15 971	16 099
Mar	17 211 ^r	22 000 ^r	23 870 ^r
Apr	14 448	15 315	18 415

5.6 Helsinki Stock Exchange

Average of daily observations	Share prices										Turnover ¹ , mill. FIM		
	HEX index (28 Dec 1990=1000)										Shares and subscriptions 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	
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
1997	3 207	822	1 576	2 255	1 006	2 712	3 408	1 416	900	7 477	186 088	488	186 576
1997													
Apr	2 826	654	1 357	2 200	1 017	2 487	3 276	1 100	877	7 148	12 401	43	12 444
May	3 045	705	1 420	2 272	1 015	2 713	3 481	1 241	922	7 887	12 254	24	12 278
Jun	3 135	679	1 442	2 362	1 031	2 732	3 574	1 334	926	7 927	14 405	28	14 433
Jul	3 432	839	1 590	2 361	1 064	2 919	3 768	1 565	929	7 849	15 708	28	15 736
Aug	3 530	898	1 581	2 301	1 022	3 001	3 692	1 672	913	7 705	15 325	46	15 371
Sep	3 480	883	1 627	2 209	989	3 001	3 543	1 662	885	7 445	15 719	43	15 762
Oct	3 733	1 016	1 921	2 268	994	3 204	3 607	1 833	926	7 689	24 739	33	24 772
Nov	3 448	1 022	1 925	2 279	946	2 737	3 231	1 631	901	7 593	15 163	27	15 190
Dec	3 303	1 080	2 105	2 370	926	2 508	3 065	1 449	900	7 757	17 764	53	17 817
1998													
Jan	3 430	1 136	2 128	2 526	956	2 589	3 045	1 499	933	8 324	15 485	53	15 538
Feb	3 851	1 190	2 418	2 639	1 005	2 886	3 167	1 804	988	9 848	20 050	43	20 093
Mar	4 249	1 270	2 570	2 759	1 009	3 278	3 393	2 085	1 054	10 813	24 260	173	24 433
Apr	4 705	1 393	2 957	2 876	1 073	3 460	3 506	2 450	1 135	11 596	25 985	38	26 023

¹ During period.

6. Balance of payments, foreign liabilities and assets

6.1 Current account, mill. FIM

During period	Exports of goods, fob	Transport receipts	Travel receipts	Other services receipts	Services receipts, total (2+3+4)	Exports of goods and services (1+5)	Investment income	Transfers and other income	Current account receipts (6+7+8)	Imports of goods, cif	Transport expenditure	Travel expenditure	Other services expenditure
	1	2	3	4	5	6	7	8	9	10	11	12	13
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	12 929	8 596	228 767	125 450	6 029	10 450	19 150
1996*	182 436	12 404	7 338	15 315	35 057	217 493	15 375	7 698	240 566	138 106	5 529	10 559	16 921
1997*	207 800	13 410	8 380	15 396	37 186	244 985	17 479	8 023	270 487	155 444	6 117	11 435	17 034
1995													
III	39 617	2 976	2 243	3 718	8 937	48 554	2 707	2 143	53 404	29 856	1 498	2 707	4 349
IV	46 154	2 976	1 903	3 870	8 749	54 903	3 892	3 360	62 155	33 926	1 481	2 779	4 937
1996*													
I	42 631	2 997	1 677	3 473	8 146	50 777	4 242	1 446	56 466	33 495	1 382	2 615	4 299
II	48 126	3 128	1 873	3 729	8 730	56 856	4 511	2 076	63 443	34 519	1 367	2 678	4 088
III	41 925	3 252	2 065	4 158	9 474	51 399	3 110	1 339	55 848	31 989	1 402	2 571	3 994
IV	49 754	3 027	1 724	3 955	8 706	58 460	3 512	2 837	64 809	38 102	1 377	2 696	4 540
1997*													
I	46 179	3 206	1 566	3 334	8 106	54 285	3 643	2 131	60 059	35 672	1 524	2 475	4 227
II	52 517	3 407	2 131	4 035	9 572	62 089	5 182	1 899	69 170	39 411	1 545	2 958	4 305
III	52 609	3 546	2 578	3 959	10 082	62 691	4 091	1 877	68 659	38 213	1 538	2 919	3 867
IV	56 495	3 252	2 105	4 069	9 426	65 920	4 562	2 117	72 599	42 148	1 509	3 082	4 635

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
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	206 237	47 370	5 870	-2 914	-4 164	-1 207	46 162	-19 600	-4 032	22 531
1996*	33 009	171 115	32 900	14 520	218 535	44 330	6 875	-3 221	-1 606	2 048	46 378	-17 525	-6 821	22 031
1997*	34 586	190 030	33 591	15 240	238 861	52 356	7 293	-3 055	-1 639	2 600	54 955	-16 112	-7 217	31 626
1995														
III	8 554	38 410	6 630	3 205	48 244	9 761	1 478	-464	-631	383	10 144	-3 923	-1 061	5 160
IV	9 196	43 122	6 538	3 407	53 067	12 228	1 494	-875	-1 066	-447	11 781	-2 646	-47	9 087
1996*														
I	8 296	41 792	8 529	4 010	54 331	9 136	1 614	-938	-827	-151	8 985	-4 287	-2 563	2 135
II	8 133	42 652	10 773	3 862	57 287	13 607	1 761	-805	-358	598	14 204	-6 262	-1 786	6 157
III	7 966	39 956	6 556	3 055	49 567	9 936	1 850	-506	164	1 508	11 444	-3 447	-1 716	6 280
IV	8 613	46 715	7 042	3 593	57 350	11 652	1 650	-972	-585	93	11 745	-3 530	-756	7 459
1997*														
I	8 226	43 898	8 461	4 472	56 831	10 507	1 681	-909	-893	-120	10 387	-4 818	-2 341	3 228
II	8 809	48 220	10 444	3 480	62 145	13 106	1 861	-827	-271	763	13 869	-5 263	-1 581	7 026
III	8 325	46 538	7 217	3 806	57 562	14 395	2 008	-342	91	1 757	16 153	-3 126	-1 930	11 097
IV	9 226	51 374	7 468	3 482	62 324	14 347	1 743	-977	-566	199	14 547	-2 906	-1 365	10 275

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				Total (9+10+11)	
			Shares	Bonds	Of which: markka-denominated bonds	Money market instruments	Financial derivatives	Total (3+4+6+7)	Trade credits	Loans	Other capital		
1	2	3	4	5	6	7	8	9	10	11	12	13	
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	-5 125	-1 216	-6 985	8 376	176	-307
1996*	596	5 093	8 937	-4 624	6 250	1 016	1 501	6 830	-3 383	12 737	-1 347	8 006	19 929
1997*	1 295	8 009	20 774	-4 353	17 191	2 776	616	19 813	-662	10 681	6 320	16 340	44 161
1995													
III	0	151	2 940	-2 503	932	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	1 759	1 216	2 635	1 155	502	1 119	5 472	-3 416	4 632	-552	665	7 895
II	0	486	6 143	-5 184	2 516	363	754	2 076	-735	4 717	-3 119	863	3 425
III	0	2 522	374	-4 841	277	-254	-180	-4 902	-42	2 516	4 371	6 844	4 463
IV	596	326	1 204	2 766	2 303	406	-192	4 185	809	872	-2 048	-366	4 145
1997*													
I	0	2 342	5 121	4 126	952	2 197	-94	11 349	-822	6 608	16 464	22 250	35 941
II	450	2 574	7 579	5 234	9 562	-1 751	28	11 091	-1 731	3 193	-7 150	-5 688	7 977
III	0	552	3 460	2 844	10 013	-2 252	438	4 489	867	5 016	3 438	9 322	14 363
IV	845	2 541	4 614	-16 558	-3 336	4 582	245	-7 117	1 023	-4 135	-6 432	-9 544	-14 120

During period	Capital account, exports of capital	Financial account											Errors and omissions	
		Direct investment abroad	Portfolio investment abroad					Other investment abroad				Total (15+20+24)		Change in central bank's reserve assets (increase -)
			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	
1993	0	8 050	873	767	1 932	..	3 571	1 923	-839	9 576	10 660	22 282	-1 219	6 055
1994	0	22 447	434	-4 294	-855	-279	-4 994	1 213	-7 460	9 762	3 516	20 968	-25 504	-4 058
1995	206	6 539	892	3 685	-5 492	-168	-1 084	3 839	-2 712	11 750	12 877	18 332	1 480	-5 652
1996*	340	16 516	3 250	15 455	364	-172	18 897	982	4 523	15 927	21 431	56 845	14 075	554
1997*	0	22 879	9 493	15 215	-617	371	24 463	3 789	6 761	3 107	13 657	60 998	-10 788	-5 296
1995														
III	0	827	461	28	521	-37	973	-132	1 044	3 431	4 343	6 143	1 592	1 131
IV	102	2 410	184	1 797	-967	-115	899	933	-2 373	6 433	4 993	8 302	291	-7 878
1996*														
I	61	5 508	567	4 019	2 424	-26	6 983	-670	2 416	6 458	8 205	20 696	7 254	3 473
II	0	6 798	1 041	3 041	162	71	4 315	779	-2 064	4 834	3 549	14 662	8 457	-3 377
III	0	3 793	728	4 179	-2 457	-51	2 399	-792	1 565	1 927	2 700	8 892	-1 132	-721
IV	279	417	914	4 216	235	-166	5 200	1 665	2 606	2 708	6 979	12 595	-505	1 179
1997*														
I	0	2 347	1 866	6 620	4 286	13	12 786	918	3 245	-3 185	978	16 110	-22 134	-925
II	0	6 338	2 475	5 313	-2 783	275	5 280	189	1 127	7 390	8 706	20 324	3 031	1 841
III	0	3 551	2 165	595	-2 975	52	-162	966	14 561	4 868	20 395	23 784	-2 968	1 292
IV	0	10 643	2 987	2 687	855	31	6 559	1 716	-12 172	-5 966	-16 422	780	11 283	-7 504

6.3 Finland's international investment position, mill. FIM

Position at end of period	Liabilities												Total liabilities (1+7+12)
	Direct investment in Finland	Portfolio investment					Total (2+3+5+6)	Other investment				Total (8+9+10+11)	
		Shares	Bonds	Of which: markka-denominated bonds	Money market instruments	Financial derivatives		Trade credits	Loans	Currency and deposits	Other		
1	2	3	4	5	6	7	8	9	10	11	12	13	
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*	40 854	108 932	229 919	26 284	10 888	3 634	353 373	14 863	83 295	1 733	55 279	155 170	549 397
1997*	49 005	172 393	243 679	45 180	14 110	5 567	435 749	13 997	98 221	2 760	64 262	179 241	663 996
1995													
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	38 422	68 674	241 085	20 699	11 192	2 424	323 375	14 873	77 934	1 518	55 412	149 737	511 533
II	38 616	80 962	234 317	23 855	11 126	3 099	329 504	14 214	81 836	1 939	51 588	149 577	517 697
III	40 808	91 198	225 308	23 656	11 286	2 948	330 740	13 940	82 365	1 742	55 621	153 668	525 216
IV	40 854	108 932	229 919	26 284	10 888	3 634	353 373	14 863	83 295	1 733	55 279	155 170	549 397
1997*													
I	43 191	129 824	240 656	27 577	13 258	2 789	386 527	13 794	90 724	2 624	72 506	179 648	609 366
II	45 801	162 713	254 080	37 534	11 813	1 003	429 609	12 092	97 074	2 870	66 344	178 380	653 791
III	46 350	201 959	258 062	47 920	9 267	2 642	471 930	12 978	102 147	2 737	69 899	187 762	706 042
IV	49 005	172 393	243 679	45 180	14 110	5 567	435 749	13 997	98 221	2 760	64 262	179 241	663 996

Position at end of period	Assets											Total assets (14+19+24)	
	Direct investment abroad	Portfolio investment					Trade credits	Loans	Other investment				Total (20+21+22+23)
		Shares	Bonds	Money market instruments	Financial derivatives	Total (15+16+17+18)			Currency and deposits	Other			
14	15	16	17	18	19	20	21	22	23	24	25		
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	65 350	3 216	9 619	2 736	177	15 748	28 358	20 381	7 290	115 543	171 571	252 669	
1996*	82 038	7 460	25 077	3 478	-21	35 993	29 929	25 438	5 895	124 541	185 803	303 834	
1997*	110 216	18 373	42 384	3 155	1 404	65 316	30 027	34 236	7 249	148 954	220 466	395 998	
1995													
III	60 880	2 661	6 870	3 503	200	13 233	27 092	22 978	6 397	108 057	164 524	238 637	
IV	65 350	3 216	9 619	2 736	177	15 748	28 358	20 381	7 290	115 543	171 571	252 669	
1996*													
I	73 551	3 984	14 063	5 670	169	23 886	27 980	23 594	5 435	121 308	178 317	275 754	
II	79 164	4 999	16 834	5 842	93	27 768	28 892	21 499	5 523	118 075	173 989	280 922	
III	81 377	5 835	20 620	3 176	48	29 679	27 902	22 873	6 488	119 331	176 594	287 650	
IV	82 038	7 460	25 077	3 478	-21	35 993	29 929	25 438	5 895	124 541	185 803	303 834	
1997*													
I	85 318	9 898	32 534	7 598	171	50 201	26 391	29 411	6 065	147 489	209 355	344 875	
II	93 589	13 400	38 994	5 080	610	58 083	26 976	31 180	7 027	155 578	220 760	372 433	
III	98 456	16 001	39 793	2 239	813	58 845	28 097	45 991	5 490	165 857	245 435	402 736	
IV	110 216	18 373	42 384	3 155	1 404	65 316	30 027	34 236	7 249	148 954	220 466	395 998	

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
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	72 374	-2 293	18 970	-47 708	13 297	174 481	3 085	232 205	17 490	7.6
1996*	107 522	-1 468	-12 904	-35 522	1 785	183 703	2 448	245 563	16 477	6.8
1997*	153 965	-3 218	-11 076	-50 931	-11 561	188 315	2 503	267 998	15 712	5.8
1995										
III	103 812	-3 599	20 558	-47 488	17 173	172 368	3 227	266 051	3 396	6.4
IV	72 374	-2 293	18 970	-47 708	13 297	174 481	3 085	232 205	2 118	3.4
1996*										
I	75 429	-2 502	4 613	-42 679	9 630	188 118	3 169	235 779	4 025	7.1
II	83 595	-2 595	-4 569	-33 647	5 689	185 184	3 118	236 776	6 000	9.5
III	92 415	-1 104	-6 027	-34 482	1 893	182 336	2 535	237 566	3 185	5.7
IV	107 522	-1 468	-12 904	-35 522	1 785	183 703	2 448	245 563	3 268	5.0
1997*										
I	130 938	-1 715	6 325	-59 120	-3 336	189 002	2 396	264 491	4 713	7.8
II	159 963	-1 854	-11 131	-58 737	-8 240	198 960	2 396	281 358	5 158	7.5
III	192 639	-2 930	-20 426	-61 333	-9 756	202 657	2 456	303 306	3 021	4.4
IV	153 965	-3 218	-11 076	-50 931	-11 561	188 315	2 503	267 998	2 821	3.9

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
1993	134 114	103 165	30 949
1994	154 164	120 612	33 552
1995	176 021	128 556	47 465
1996	186 336	141 720	44 616
1997*	211 696	159 190	52 506
1997*			
Feb	15 042	11 945	3 097
Mar	16 719	13 152	3 567
Apr	18 827	14 314	4 513
May	17 341	12 709	4 632
Jun	17 317	13 324	3 993
Jul	18 231	12 271	5 960
Aug	16 339	12 189	4 150
Sep	19 006	14 690	4 316
Oct	20 747	15 190	5 557
Nov	19 370	13 990	5 380
Dec	17 355	13 902	3 453
1998*			
Jan	17 263	12 627	4 636
Feb	19 500	13 400	6 100

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
1993	120.6	83.6	109.7	119.6	91.7
1994	136.5	98.0	111.4	119.3	93.3
1995	145.7	104.6	119.2	119.2	100.0
1996	153.1	113.5	120.2	121.1	99.3
1997*	177.4	126.1	117.7	122.4	96.2
1997*					
Feb	158.7	118.4	115.9	121.3	95.5
Mar	168.8	121.6	115.5	121.1	95.4
Apr	185.8	131.7	116.2	120.8	96.2
May	173.3	119.6	116.2	122.3	95.0
Jun	175.2	128.8	116.3	121.9	95.4
Jul	190.0	125.8	117.2	123.6	94.8
Aug	175.9	121.7	118.5	123.5	96.0
Sep	188.3	137.4	118.7	123.3	96.3
Oct	193.6	134.5	120.7	123.8	97.5
Nov	180.0	127.7	120.1	123.2	97.5
Dec	174.1	128.5	120.7	122.5	98.5
1998*					
Jan	178.4	132.2	120.2	121.4	99.0
Feb	196.4	132.9	120.4	120.7	99.8

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
1993	10 910	37 430	14 205	48 158	23 411	54 792	10 904	15 396	21 066	1 007
1994	14 198	41 249	15 725	55 895	27 097	66 156	11 687	17 227	24 684	858
1995	13 451	48 754	15 877	69 336	28 603	71 397	9 685	19 660	25 514	2 300
1996	12 688	44 602	18 482	78 969	31 595	72 970	12 944	22 004	30 897	2 905
1997*	15 423	49 674	20 743	91 757	34 099	84 129	12 886	23 904	34 899	3 372
1997*										
Jan	1 120	3 809	1 559	6 208	2 706	5 732	1 306	1 725	2 590	161
Feb	1 133	3 611	1 725	5 955	2 618	6 238	1 044	1 608	2 840	215
Mar	1 258	3 851	1 576	7 341	2 693	6 977	805	2 002	3 000	368
Apr	1 352	4 222	1 936	8 272	3 045	7 628	941	2 086	3 125	534
May	1 440	4 160	1 804	6 969	2 968	6 944	1 067	1 779	2 700	219
Jun	1 294	3 695	1 702	7 752	2 874	7 374	1 065	1 957	2 645	283
Jul	1 195	4 303	1 667	8 595	2 471	6 396	1 151	1 724	2 811	189
Aug	933	4 282	1 741	6 656	2 727	6 869	767	1 697	2 654	202
Sep	1 453	4 408	1 697	8 273	3 175	7 622	1 061	2 255	3 178	574
Oct	1 649	4 845	2 009	8 950	3 294	7 803	1 350	2 438	3 395	204
Nov	1 373	4 255	1 882	8 931	2 929	7 483	1 137	2 257	2 909	204
Dec	1 223	4 233	1 445	7 855	2 599	7 063	1 192	2 376	3 052	219
1998*										
Jan	1 106	4 508	1 712	7 053	2 884	6 578	1 164	1 888	2 791	206

7.4 Foreign trade by regions and countries

Region and country	Exports, fob				Imports, cif			
	1997*		Feb 1997 – Jan 1998		1997*		Feb 1997 – Jan 1998	
	Mill. FIM	Percentage share	Mill. FIM	12-month change calculated from 12-month moving total	Mill. FIM	Percentage share	Mill. FIM	12-month change calculated from 12-month moving total
	1	2	3	4	5	6	7	8
European Union¹	112 277	53.0	113 532	10.5	93 841	58.9	94 377	10.0
Austria	2 003	0.9	2 093	24.7	1 702	1.1	1 707	10.9
Belgium and Luxembourg	4 890	2.3	4 928	3.0	4 048	2.5	4 063	-1.9
Denmark	6 494	3.1	6 495	13.2	5 459	3.4	5 564	10.7
France	8 862	4.2	9 110	15.1	7 734	4.9	7 831	22.4
Germany	23 226	11.0	23 457	3.2	23 147	14.5	23 286	9.2
Greece	1 243	0.6	1 262	26.6	401	0.3	403	10.2
Ireland	1 682	0.8	1 744	55.9	1 242	0.8	1 252	7.9
Italy	6 290	3.0	6 503	34.5	6 461	4.1	6 547	14.6
Netherlands	8 675	4.1	8 806	18.4	6 437	4.0	6 452	24.0
Portugal	1 192	0.6	1 194	29.2	1 167	0.7	1 157	10.5
Spain	4 594	2.2	4 673	14.0	2 275	1.4	2 328	18.8
Sweden	20 830	9.8	20 864	3.9	19 088	12.0	19 170	13.0
United Kingdom	21 108	10.0	21 194	9.6	12 164	7.6	12 060	-4.0
Rest of Europe	42 815	20.2	43 509	28.4	27 652	17.4	27 855	14.2
Of which:								
Estonia	6 719	3.2	6 805	31.4	2 188	1.4	2 217	32.3
Norway	6 345	3.0	6 428	19.8	5 899	3.7	5 876	-6.2
Poland	3 756	1.8	3 815	34.2	1 794	1.1	1 781	32.5
Russia	15 463	7.3	15 772	36.5	12 522	7.9	12 647	21.1
Switzerland	2 080	1.0	2 082	-0.6	2 669	1.7	2 685	10.8
Non-European industrialized countries²	23 857	11.3	23 891	3.7	22 441	14.1	22 773	15.9
Of which:								
Australia	2 666	1.3	2 642	29.4	1 020	0.6	1 016	-12.9
Japan	4 025	1.9	3 929	-16.9	8 586	5.4	8 714	19.9
U.S.A	14 733	7.0	14 866	0.0	11 719	7.4	11 975	16.4
Dynamic Asian economies³	16 726	7.9	16 543	19.0	7 249	4.6	7 276	11.2
Of which:								
China	3 814	1.8	3 834	37.0	2 844	1.8	2 841	31.5
Hong Kong	3 944	1.9	4 070	35.3	633	0.4	646	-7.7
South Korea	2 456	1.2	2 335	-14.1	701	0.4	689	-9.4
Other countries	16 022	7.6	16 081	8.2	8 007	5.0	8 022	26.5
TOTAL	211 696	100.0	213 557	13.3	159 190	100.0	160 303	12.4
Of which:								
Africa	3 330	1.6	3 388	32.4	1 381	0.9	1 414	49.7
Asia	29 849	14.1	29 518	6.6	18 807	11.8	18 902	16.5
Central and South America	3 554	1.7	3 610	18.9	3 515	2.2	3 560	54.9
North America	16 783	7.9	16 941	6.2	12 754	8.0	12 961	16.2
Europe	155 091	73.3	157 041	14.9	121 493	76.3	122 232	11.0
Oceania	3 087	1.5	3 059	22.4	1 242	0.8	1 236	-11.4

¹ Including exports / imports to EU unspecified by country.

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

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

8. Domestic economic developments

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

Period	Consumption expenditure		Fixed investment		Change in stocks, incl. statistical discrepancy	Domestic demand (1+2+3+4+5)	Exports	Imports	GDP (6+7-8)
	Private	Public	Private	Public					
	1	2	3	4						5	6	7	8	9
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	255 968	104 645	69 718	13 338	20 568	464 237	174 580	137 327	501 490
1996*	265 673	108 272	75 262	14 742	17 399	481 348	181 447	143 300	519 495
1997*	273 638	107 926	84 708	15 420	20 544	502 236	204 736	156 625	550 347
1995*									
III	64 055	26 291	18 017	3 223	6 212	117 798	42 194	34 495	125 497
IV	64 504	26 545	17 122	3 373	5 265	116 809	43 596	34 868	125 537
1996*									
I	65 995	26 653	18 039	3 541	6 545	120 773	43 212	36 380	127 605
II	65 779	27 108	18 231	3 663	2 840	117 621	45 161	34 890	127 892
III	66 546	27 195	19 396	3 770	4 290	121 197	45 065	35 167	131 095
IV	67 353	27 316	19 596	3 768	3 724	121 757	48 009	36 863	132 903
1997*									
I	67 481	26 619	18 707	3 730	5 898	122 435	47 984	37 500	132 919
II	68 017	27 035	20 975	3 976	5 802	125 805	50 590	39 318	137 077
III	68 700	27 110	22 290	3 910	3 478	125 488	54 000	40 090	139 398
IV	69 440	27 162	22 736	3 804	5 366	128 508	52 162	39 717	140 953

8.2 Volume of industrial production, 1995=100 (seasonally adjusted figures)

Period	Total industry	Mining and quarrying	Manu- facturing	Wood and paper industry (23.5)	Metal industry (36.2)	Other manu- facturing (30.3)	Energy
	(100.0)	(1.1)	(90.0)				(8.9)
	1	2	3	4	5	6	7
1993	84.9	90.2	83.7	89.2	72.6	92.5	96.0
1994	94.2	102.0	93.4	99.5	85.1	98.4	101.6
1995	100.1	99.3	100.1	100.0	100.2	100.0	100.0
1996*	103.4	100.4	102.9	97.3	106.8	102.5	109.6
1997*	112.6	123.4	112.8	111.0	119.5	106.2	109.5
1997*							
Feb	108.1	116.4	107.9	105.9	111.0	104.9	108.0
Mar	109.3	129.8	109.2	105.8	113.8	106.0	108.8
Apr	111.7	112.2	111.9	106.6	119.4	104.5	110.1
May	109.8	109.6	109.9	110.7	113.7	103.5	107.4
Jun	112.3	139.6	112.6	109.2	119.4	105.0	105.6
Jul	117.3	128.7	116.9	111.4	126.6	108.6	109.7
Aug	113.9	95.0	114.5	112.4	121.2	106.0	110.3
Sep	114.8	145.3	115.3	110.4	119.4	104.5	105.6
Oct	119.6	139.0	120.6	113.9	123.0	106.9	109.3
Nov	117.2	138.3	117.6	119.3	123.6	108.7	111.5
Dec	120.8	133.8	122.0	121.0	131.1	111.0	112.1
1998*							
Jan	117.6	124.6	118.5	115.2	127.4	109.3	106.9
Feb	118.2	126.6	118.7	116.4	127.4	109.1	111.1

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
1993	68.5	78.1	46.9	47.2	35.6	72.9	89.8
1994	73.0	79.7	42.2	45.1	35.2	84.4	93.7
1995	76.2	82.6	42.0	41.1	49.9	88.5	97.8
1996	77.8	86.0	43.5	38.8	52.0	106.2	100.7
1997*	82.7	89.2	53.4	53.4	63.0	118.8	106.6
1997*							
Feb	87.0	78.5	49.9	52.1	60.5	114.6	103.5
Mar	86.0	77.0	50.2	53.5	61.5	112.9	104.2
Apr	89.8	84.9	52.3	55.0	62.5	121.0	106.0
May	88.7	79.8	52.4	53.2	63.9	112.8	105.0
Jun	89.5	83.4	53.3	53.2	62.8	117.3	106.3
Jul	90.3	84.8	54.7	52.5	64.3	120.4	107.5
Aug	89.5	81.7	56.0	52.7	65.3	109.5	106.9
Sep	91.7	86.9	57.5	54.2	65.1	127.5	108.0
Oct	92.0	86.5	58.0	55.3	65.6	132.4	108.6
Nov	87.4	82.9	57.5	56.1	65.4	117.1	109.2
Dec	90.2	85.9	56.8	57.6	64.8	128.7	110.2
1998*							
Jan	..	..	53.9	56.1	63.1	117.3	108.7
Feb	..	..	52.6	55.0	61.2	..	109.7

8.4 Wages and prices, 1990=100

Period	Index of wage and salary earnings	By sectors			Consumer price index	Indicator of underlying inflation	Basic price index for domestic supply	By origin		Producer price index for manufacturing	By marketing area		Building cost index
		Private	Of which: Manufacturing (SIC3)	Public				Domestic goods	Imported goods		Exported goods	Home market goods	
	1	2	3	4	5	6	7	8	9	10	11	12	13
1993	109.2	108.8	110.0	110.1	109.7	109.9	104.8	100.8	119.3	105.5	109.2	103.9	100.7
1994	111.4	111.6	115.0	111.1	110.9	111.4	106.2	102.8	118.7	107.1	110.2	105.8	102.2
1995	116.6	117.4	123.1	114.7	112.0	111.3	106.9	103.8	118.5	110.8	118.0	107.7	103.5
1996 ¹	121.2	122.0	127.8	119.3	112.6	111.4	105.9	102.0	120.1	110.9	118.5	107.6	102.7
1997 ¹	123.7	124.4	130.8	122.0	114.0	112.3	107.6	104.0	120.9	111.4	116.8	109.1	105.2
1996 ¹ IV	123.2	123.9	130.3	121.4	112.8	111.6	106.2	102.5	119.8	110.1	115.9	107.6	103.3
1997													
Mar	..	..	..	..	113.2	111.7	106.7	103.2	119.6	110.2	114.5	108.3	104.1
Apr	..	..	..	..	113.8	112.0	106.6	103.2	119.3	110.4	115.2	108.4	104.4
May	..	..	..	..	114.0	112.3	107.3	103.6	120.8	110.7	115.2	108.7	104.8
Jun	..	..	..	..	114.2	112.5	107.4	103.9	120.5	111.0	115.4	109.1	105.2
Jul	..	..	..	..	114.2	112.3	107.9	104.1	122.1	111.4	116.3	109.3	105.5
Aug	..	..	..	..	114.4	112.5	108.2	104.5	122.0	112.2	117.6	109.9	106.0
Sep	..	..	..	..	114.6	112.8	108.4	104.8	121.8	112.3	117.8	110.0	106.1
Oct	..	..	..	..	114.9	113.1	108.7	105.0	122.3	113.0	119.8	110.0	106.3
Nov	..	..	..	..	114.8	112.9	108.5	104.9	121.7	112.8	119.2	110.0	106.2
Dec	..	..	..	..	114.8	113.0	108.2	104.8	121.0	112.8	119.9	109.7	106.3
1997 ¹													
I	123.5	124.3	130.8	121.7	112.9	111.4	106.6	103.0	119.8	110.2	114.9	108.0	103.8
II	123.5	124.2	130.7	121.8	114.0	112.2	107.1	103.6	120.2	110.7	115.3	108.7	104.8
III	123.6	124.3	130.6	122.1	114.4	112.5	108.2	104.5	122.0	112.0	117.2	109.7	105.9
IV	124.0	124.7	131.2	122.3	114.9	113.0	108.5	104.9	121.7	112.9	119.6	109.9	106.3
1998													
Jan	..	..	..	..	115.0	112.7	107.5	104.2	119.9	112.0	119.4	108.9	106.6
Feb	..	..	..	..	114.9	112.7	107.1	103.9	119.3	112.0	119.5	108.5	106.6
Mar	..	..	..	..	115.2	..	107.0	103.9	119.8	111.9	119.4	108.6	107.0

¹ Preliminary figures for columns 1–4.

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

Period	Labour force participation rate among 15-74 year olds	Labour force	Total employment (4+5) = (6+7+8)	By industrial status			By industry		Unemployed	Unemployment rate
				Self-employed	Wage and salary earners	Agriculture, forestry and fishing	Mining, manufacturing and energy supply	Other industries		
%										
	1	2	3	4	5	6	7	8	9	10
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
1997*	65.7	2 537	2 170	325	1 845	153	463	1 554	367	14.5
1997*										
Mar	66.0	2 545	2 159	302	1 857	151	459	1 549	387	15.2
Apr	65.7	2 546	2 158	297	1 860	159	462	1 537	388	15.3
May	66.4	2 551	2 170	305	1 865	152	462	1 556	381	15.1
Jun	66.1	2 549	2 178	309	1 870	156	455	1 566	371	14.6
Jul	65.0	2 525	2 168	297	1 872	155	463	1 550	357	13.9
Aug	65.4	2 534	2 177	301	1 876	148	477	1 552	357	14.0
Sep	65.6	2 535	2 177	296	1 881	145	461	1 572	358	14.1
Oct	65.3	2 520	2 173	289	1 884	154	458	1 561	347	13.7
Nov	65.6	2 530	2 190	300	1 889	146	464	1 579	341	13.4
Dec	65.7	2 544	2 208	311	1 897	150	472	1 585	337	13.2
1998*										
Jan	65.3	2 528	2 200	298	1 902	145	463	1 591	328	12.9
Feb	65.4	2 533	2 208	302	1 906	147	474	1 587	325	12.8
Mar	65.2	2 518	2 195	284	1 911	146	461	1 589	323	12.8

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

mill FIM, cash flow basis

During period	Revenue							Expenditure			
	Direct taxes	Indirect taxes	Other taxes and similar revenue	Other revenue	Revenue before financial transactions (1+2+3+4)	Redemptions of loans granted by the state	Revenue before borrowing (5+6)	Consumption	Transfers and subsidies	Of which:	
										Local government	Other domestic sectors
	1	2	3	4	5	6	7	8	9	10	11
1993	31 667	67 291	1 443	28 823	129 224	7 366	136 593	46 880	108 608	42 720	63 535
1994	34 588	68 124	1 792	24 095	128 599	7 308	135 900	48 750	108 155	40 388	65 519
1995	40 092	66 902	1 720	35 837	144 550	7 923	152 473	51 446	113 644	39 481	67 514
1996	48 357	73 943	1 947	39 778	164 024	9 893	173 918	53 696	110 039	33 199	69 533
1997	52 548	78 273	3 686	38 716	173 223	8 413	181 637	54 596	101 948	30 133	64 125
1996 Dec	6 515	5 228	69	4 324	16 136	-1 050	15 087	6 133	11 691	2 698	8 599
1997 Jan	3 070	6 448	121	3 151	12 790	48	12 839	3 875	11 713	3 518	6 429
Feb	3 984	5 292	63	3 363	12 702	37	12 739	3 649	8 393	3 467	4 437
Mar	6 173	8 768	353	2 692	17 986	213	18 199	4 753	8 779	3 719	4 702
Apr	3 808	5 040	219	3 072	12 139	3 262	15 401	4 102	10 571	4 062	5 786
May	5 929	6 399	179	4 036	16 543	1 030	17 573	4 199	8 482	3 687	4 223
Jun	3 928	6 110	260	2 619	12 917	551	13 468	5 440	9 483	3 447	5 304
Jul	4 133	6 519	273	1 522	12 447	1 270	13 717	4 888	1 531	-2 955	3 794
Aug	4 034	6 841	181	1 590	12 646	339	12 985	3 975	6 801	1 363	4 855
Sep	3 869	6 859	178	3 857	14 763	251	15 014	4 611	7 596	2 413	4 575
Oct	3 744	6 392	1 407	1 839	13 382	506	13 888	4 037	9 934	2 409	6 971
Nov	5 733	6 835	201	5 057	17 826	878	18 704	4 616	7 271	2 501	4 507
Dec	4 143	6 770	251	5 918	17 082	28	17 110	6 451	11 394	2 502	8 542

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)
1993	4 306	18 076	177 870	19 753	197 623	-48 646	-61 030	84 036	23 009
1994	3 737	22 281	182 923	17 886	200 760	-54 324	-64 860	73 193	8 336
1995	3 208	26 336	194 635	16 765	211 399	-50 085	-58 926	54 071	-4 854
1996	3 325	29 911	196 972	13 756	210 747	-32 947	-36 828	33 845	-2 983
1997	3 317	24 636	184 497	10 542	195 037	-11 274	-13 400	10 371	-3 028
1996 Dec	560	1 637	20 021	3 388	23 426	-3 885	-8 339	3 375	-4 965
1997 Jan	131	5 180	20 899	538	21 437	-8 109	-8 598	9 507	909
Feb	221	663	12 926	421	13 347	-224	-608	7 344	6 736
Mar	164	4 660	18 356	425	18 780	-370	-581	1 203	622
Apr	193	3 094	17 960	4 670	22 630	-5 821	-7 229	-2 609	-9 837
May	377	752	13 810	739	14 549	2 733	3 024	3 167	6 191
Jun	203	2 121	17 247	708	17 954	-4 330	-4 486	-3 959	-8 445
Jul	328	1 750	8 497	921	9 417	3 950	4 300	209	4 509
Aug	253	286	11 315	494	11 809	1 331	1 176	-987	189
Sep	326	2 860	15 393	641	16 034	-630	-1 020	8 777	7 757
Oct	297	1 957	16 225	682	16 906	-2 843	-3 018	-3 021	-6 039
Nov	234	734	12 855	589	13 444	4 971	5 260	-3 608	1 651
Dec	590	579	19 014	-286	18 730	-1 932	-1 620	-5 652	-7 271

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 May 1993 until November 1993 it was 2.5 per cent and thereafter 2.0 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. As from 1 January 1998 the five-year yield is based on quotations for a fixed-rate bullet housing bond (1/92, 15 Mar 1992 – 15 Mar 2002). As from 24 November 1997 the ten-year yield is based on quotations for a fixed-rate bullet serial bond (1/97, 25 Apr 1997–2008). 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 16 March 1998 the ECU central rate is FIM 6.01125. Trade-weighted currency index (Column 2): The weights are moving averages of the shares of (currently) 16 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 (16 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 Financial markets and money supply

Table 5.1 The public comprises all entities except the central government, deposit banks and the Bank of Finland. Markka deposits are classified according to tax treatment. The tax status (exempt vs subject to withholding tax) of deposits held by households and estates is determined by the rate of interest. Time deposits that are tax-exempt under income tax law (maximum interest rate: 2 per cent) were transferred in connection with a statistical revision from other deposits (column 3) to time deposits (column 2) at the start of 1997. The remaining traditional 24- and 36-month tax-exempt deposits matured in 1996 and 1997 as the law on deposits tax relief expired. The withholding tax is a final tax collected at source by banks in connection with the payment of interest. Deposits under 'Other taxable' (columns 8–10) are held by entities other than households and estates, ie mostly by enterprises and local governments, and interest earned on them is taxed as ordinary income. Other markka funding (column 13) comprises CDs issued by banks, money market promissory notes and repo sales. The figures for bank CDs include only CDs held by entities other than banks, the Bank of Finland and the central government.

Table 5.2 The public comprises all entities except the central government, deposit banks and the Bank of Finland. Loans granted from central government funds are not included in markka lending. Banks' markka lending to the foreign sector (column 6) comprises foreign economic units located in Finland, eg foreign embassies, consulates and units of international organizations. As from 1 Jan 1997 lending to these entities is no longer included in domestic lending, pursuant to the new classification of institutional sectors. The breaks in series at end-1996 are due to the statistical revision. Since the revision, these columns do not include lending by foreign branches of Finnish deposit banks nor do columns 1–7 and 9 any longer include bonds, debentures and other bearer instruments held by banks and classified as investment assets.

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) consist of two minus items, the liability to the State Pension Fund and the liability to the State Fund for Nuclear Waste Disposal, which are intragovernmental debts. In the September 1997 issue of the Bulletin, columns 7, 8 and 9 were retroactively revised for the whole period shown. 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 Sources: Table A: Financial Supervision from the beginning of 1994. Table B: Statistics Finland. Table C: Finnish Central Securities Depository from 1 August 1997. 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. As from 15 January 1997 the following act as primary dealers: Alfred Berg Finland, Den Danske Bank, Evli Fixed Income Securities, Goldman Sachs International, Merita Bank, Okobank, Postipankki, Skandinaviska Enskilda Banken, Svenska Handelsbanken AB (publ) and Unibank A/S. Customers include all parties other than primary dealers.

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

6 Balance of payments, foreign liabilities and assets

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

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

Table 6.2 The capital account (Columns 1 and 14) reflects unrequited capital transfers such as forgiven debts and aid from EU funds. Financial derivatives include payments arising from currency and interest rate swaps related to loans, i.e. outstanding loans are recorded according to the original loan contract. Medium-term notes (MTNs) are included under bonds (Columns 4 and 17). The category other investment (Columns 9–12 and 21–24) covers transactions related to trade credits, loans, currency and deposits and other assets and liabilities. Transactions in

assets and liabilities related to short- and long-term supplier credits and advance payments related to imports and exports are recorded under trade credits (Columns 9 and 21). The item 'Other capital' (Columns 11 and 23) includes transactions in currency and deposits and short- and long-term assets and liabilities of different sectors not covered by any of the items above. In addition, this 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 26) comprise gold, special drawing rights (SDRs), the reserve position in the IMF, ECU-claim on the EMI and foreign exchange assets. A negative figure implies an increase in reserves.

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

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

7 Foreign trade

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

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

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

8 Domestic economic developments

Tables 8.1 – 8.5 Source: Statistics Finland. Seasonal adjustment for tables 8.1 and 8.2 is provided by Statistics Finland, for tables 8.3 and 8.5 by the Bank of Finland.

Table 8.2 Volume index of industrial production has been revised. The new base year is 1995 = 100. Industrial classification has also been slightly revised. The indices are adjusted for the number of working days in each month. This causes small differences in the annual averages from the corresponding unadjusted figures.

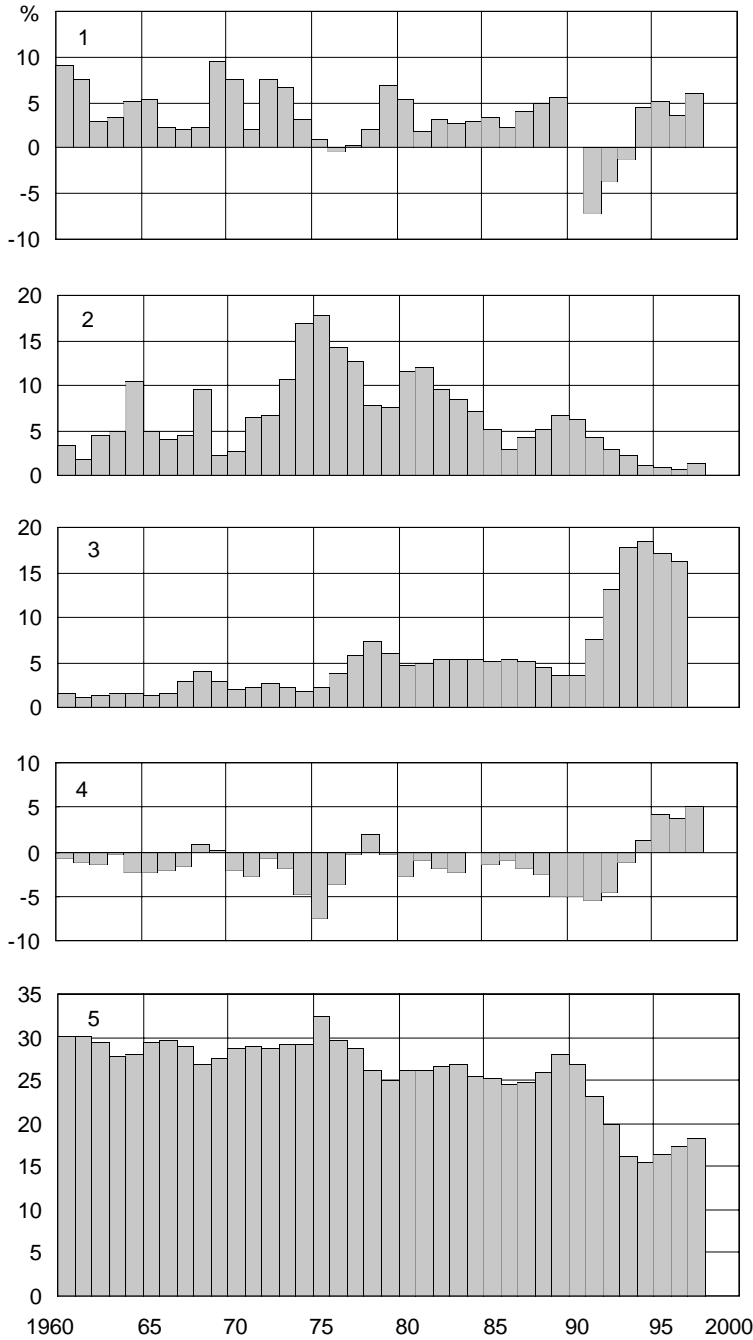
Table 8.3 The indices of wholesale and retail trade (Columns 1 and 2) are seasonally adjusted by Statistics Finland. The monthly GDP indicator (Column 7) is a weighted index of 11 readily available output indicators for various industries.

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 Tyräinen in the June – July 1993 issue of the Bulletin). Statistics Finland calculates the indicator and publishes it together with the consumer price index on the 15th of every month (or the next business day). It is lagged by one month in comparison with the consumer price index.

Table 8.6 Source: Ministry of Finance.

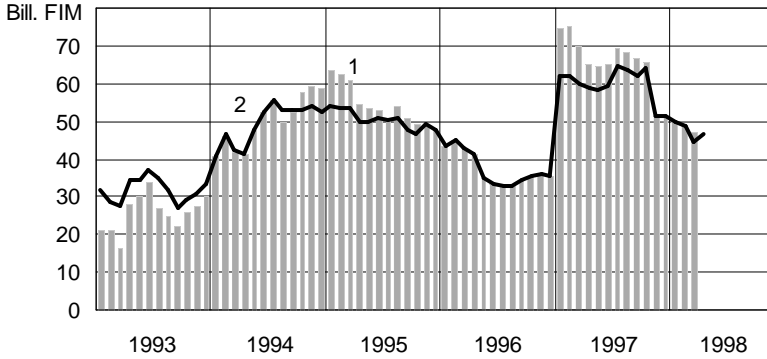
1. Long-term indicators	S30
2. The Bank of Finland's foreign exchange reserves and forward position	S31
3. Forward market	S31
4. Interest rates set by the Bank of Finland	S31
5. Banks' liquidity position at the Bank of Finland	S32
6. Liquidity management interest rates	S32
7. HELIBOR interest rates, daily	S32
8. HELIBOR interest rates, monthly	S33
9. Bond yields	S33
10. Differential between Finnish and German interest rates	S33
11. Differential between German and selected EU-countries' 10-year interest rates	S34
12. ERM exchange rates: deviation from DEM central parity	S34
13. ERM exchange rates: deviation from DEM central parity	S34
14. Bank of Finland currency index and markka value of the ECU	S35
15. Daily spot rates for the markka against the Deutschemark and US dollar	S35
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18. Monthly spot rates for the markka against the pound sterling and Swedish krona	S36
19. Banks' markka lending rates and markka funding rates	S36
20. Bank funding from the public	S37
21. Bank lending to the public	S37
22. Money supply	S37
23. Current account	S38
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32. Fixed investment	S42
33. Employment and the unemployment rate	S43
34. Prices and wages	S43
35. Central government finances	S44
36. Central government debt	S44

1. Long-term indicators



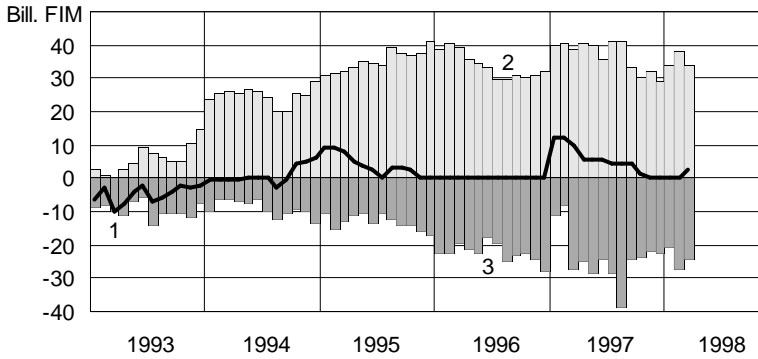
1. GDP, change in volume from the previous year, per cent
2. Consumer prices, change from the previous year, per cent
3. Unemployment rate, per cent
4. Current account, as a percentage of GDP
5. Fixed investment, as a percentage of GDP

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



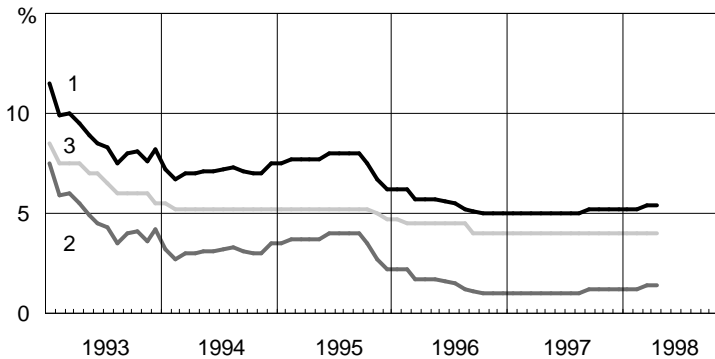
1. Foreign exchange reserves plus forward position
2. Foreign exchange reserves

3. Forward market



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

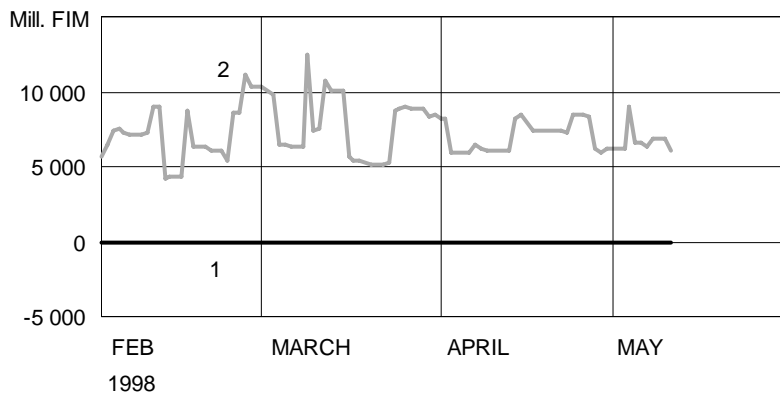
4. Rates of interest set by the Bank of Finland



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

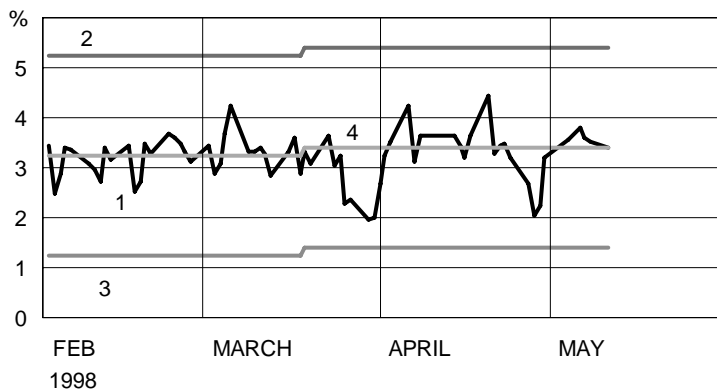
End-of-month observations

5. Banks' liquidity position at the Bank of Finland



1. Liquidity credits (-)
2. Reserve deposits

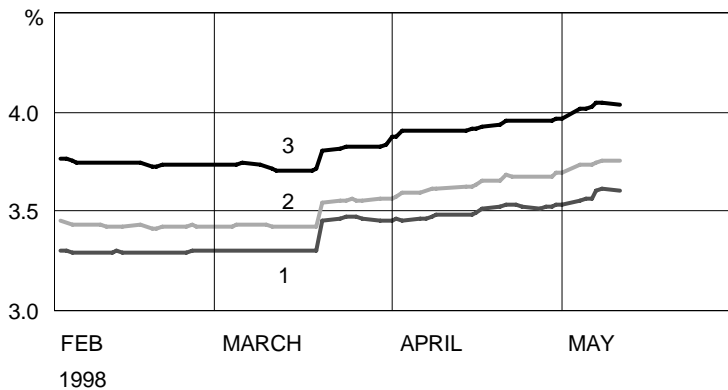
6. Liquidity management interest rates



1. Inter-bank overnight rate
2. Liquidity credit rate
3. Excess-reserve rate
4. Tender rate

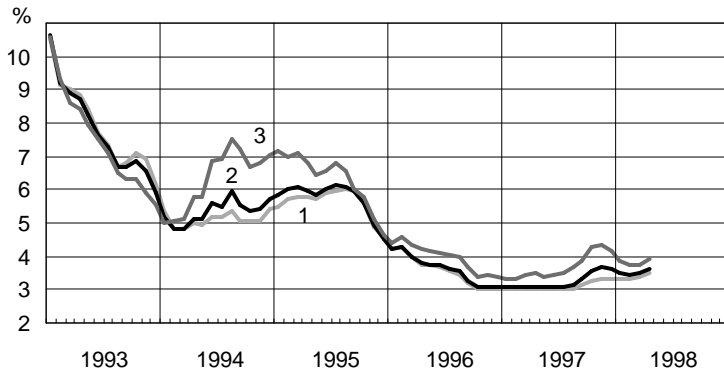
Daily observations

7. HELIBOR rates of interest, daily



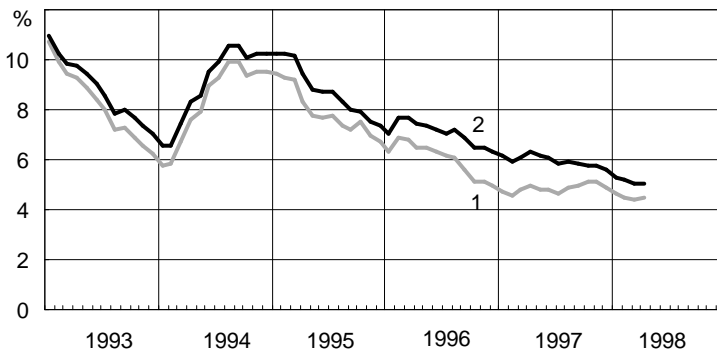
1. 1-month HELIBOR
2. 3-month HELIBOR
3. 12-month HELIBOR

8. HELIBOR interest rates, monthly



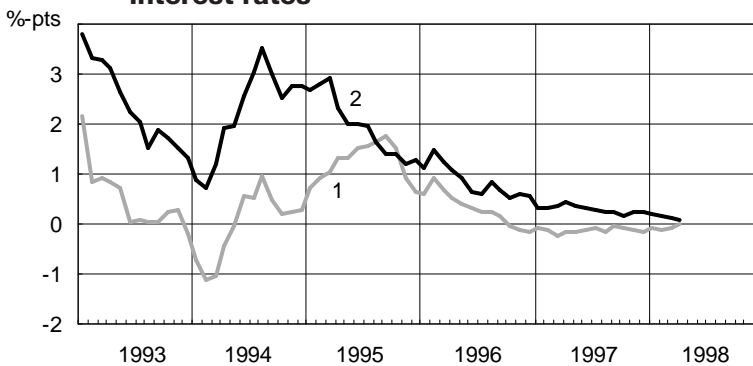
1. 1-month HELIBOR
2. 3-month HELIBOR
3. 12-month HELIBOR

9. Bond yields



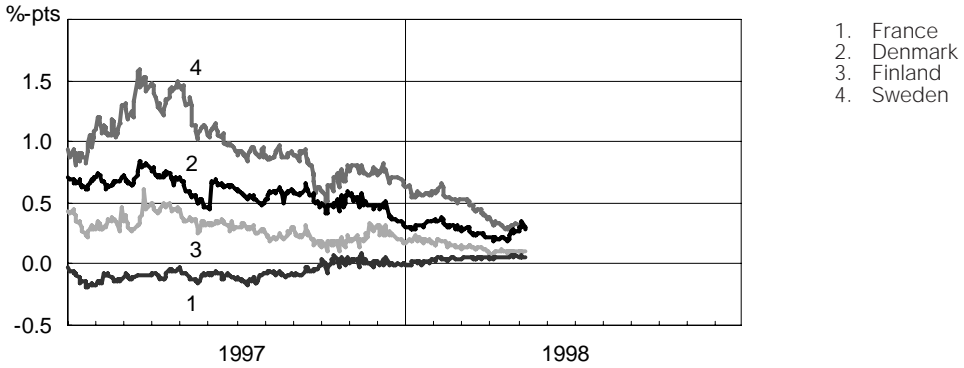
1. Yield on 5-year government bonds
2. Yield on 10-year government bonds

10. Differential between Finnish and German interest rates

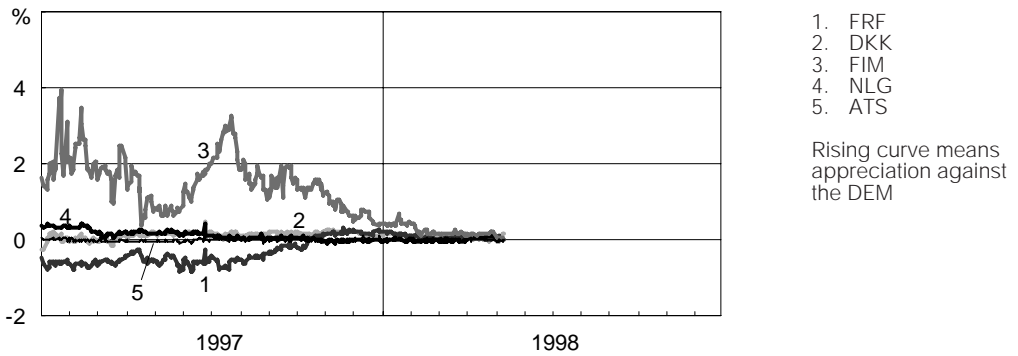


1. 3-month HELIBOR minus 3-month DEM eurorate
2. 10-year Finnish government bond yield minus 10-year German government bond yield

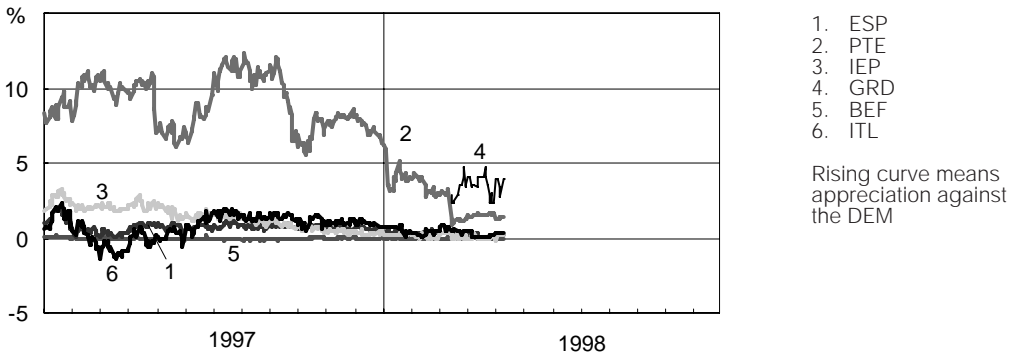
11. Differential between German and selected EU-countries' 10-year interest rates



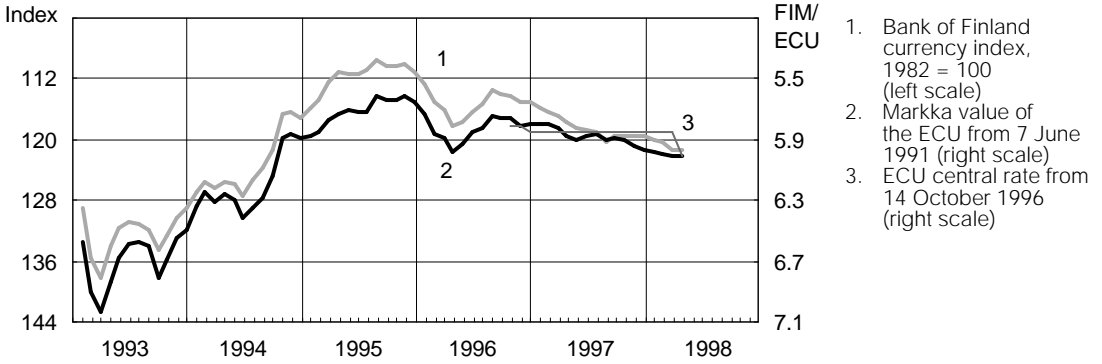
12. ERM exchange rates: deviation from DEM central parity



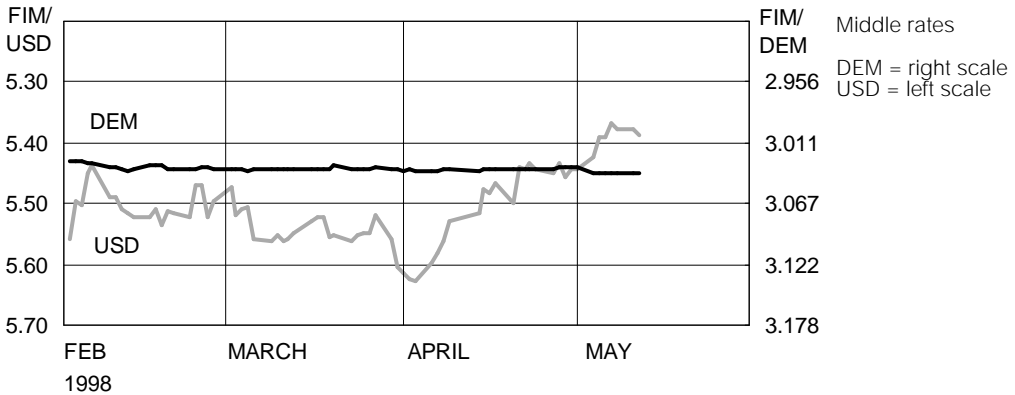
13. ERM exchange rates: deviation from DEM central parity



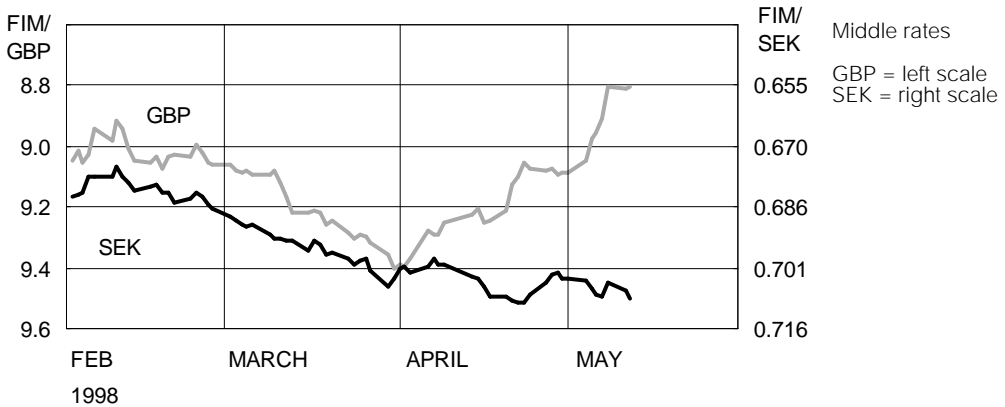
14. Bank of Finland currency index and markka value of the ECU



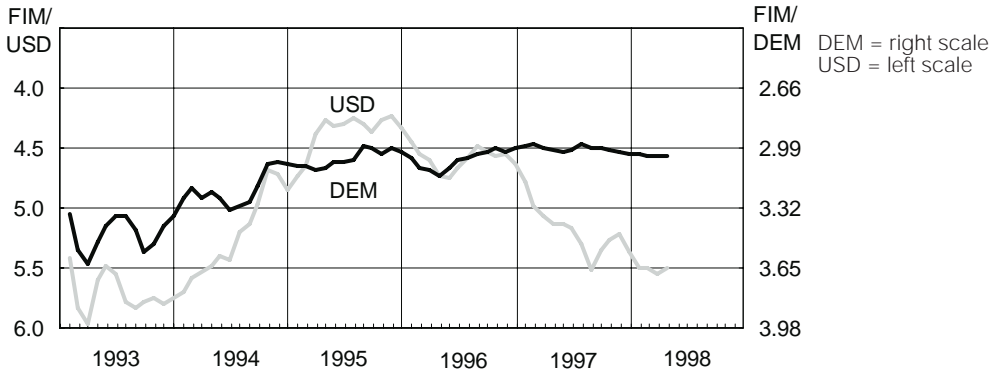
15. Daily spot rates for the markka against the Deutschmark and US dollar



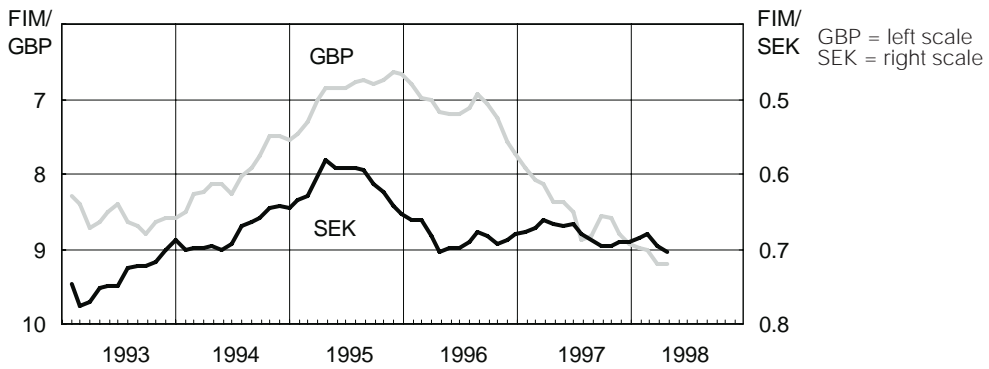
16. Daily spot rates for the markka against the pound sterling and Swedish krona



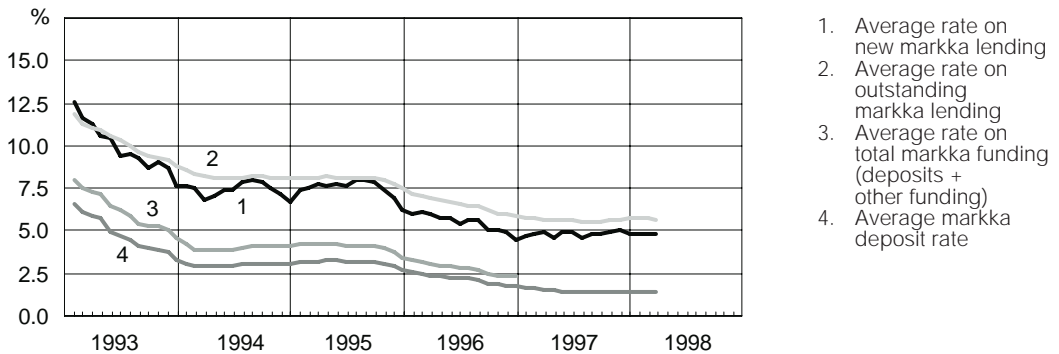
17. Monthly spot rates for the markka against the Deutschemark and US dollar



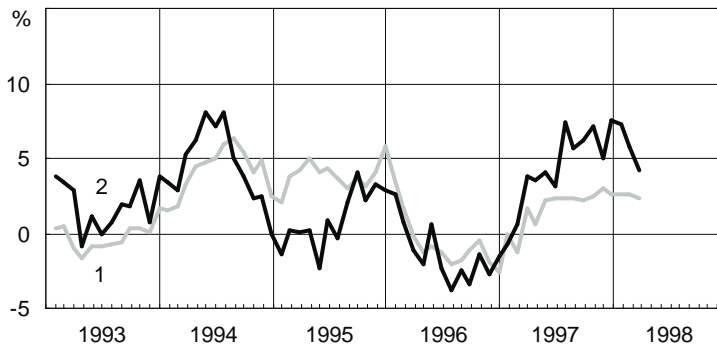
18. Monthly spot rates for the markka against the pound sterling and Swedish krona



19. Banks' markka lending rates and markka funding rates



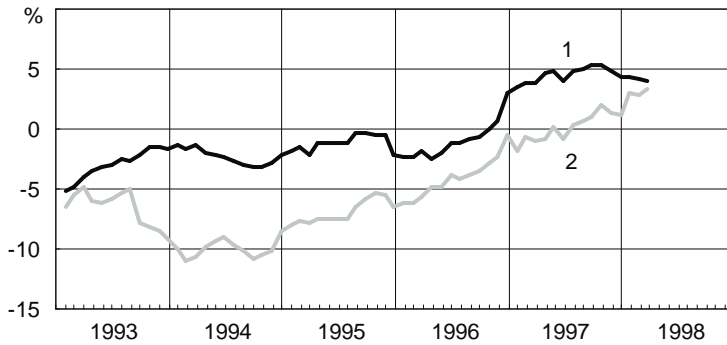
20. Bank funding from the public



1. Markka deposits
2. Total funding

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

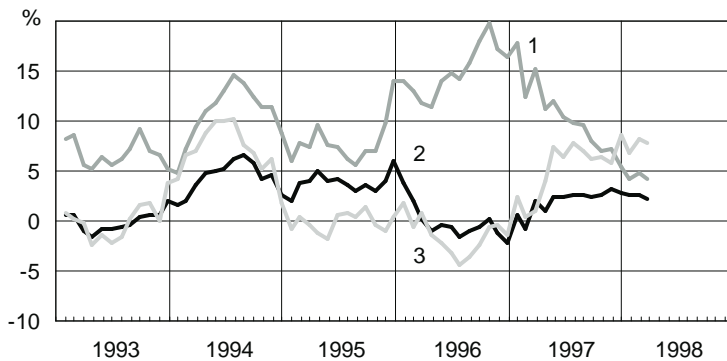
21. Bank lending to the public



1. Markka lending
2. Total lending

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

22. Money supply

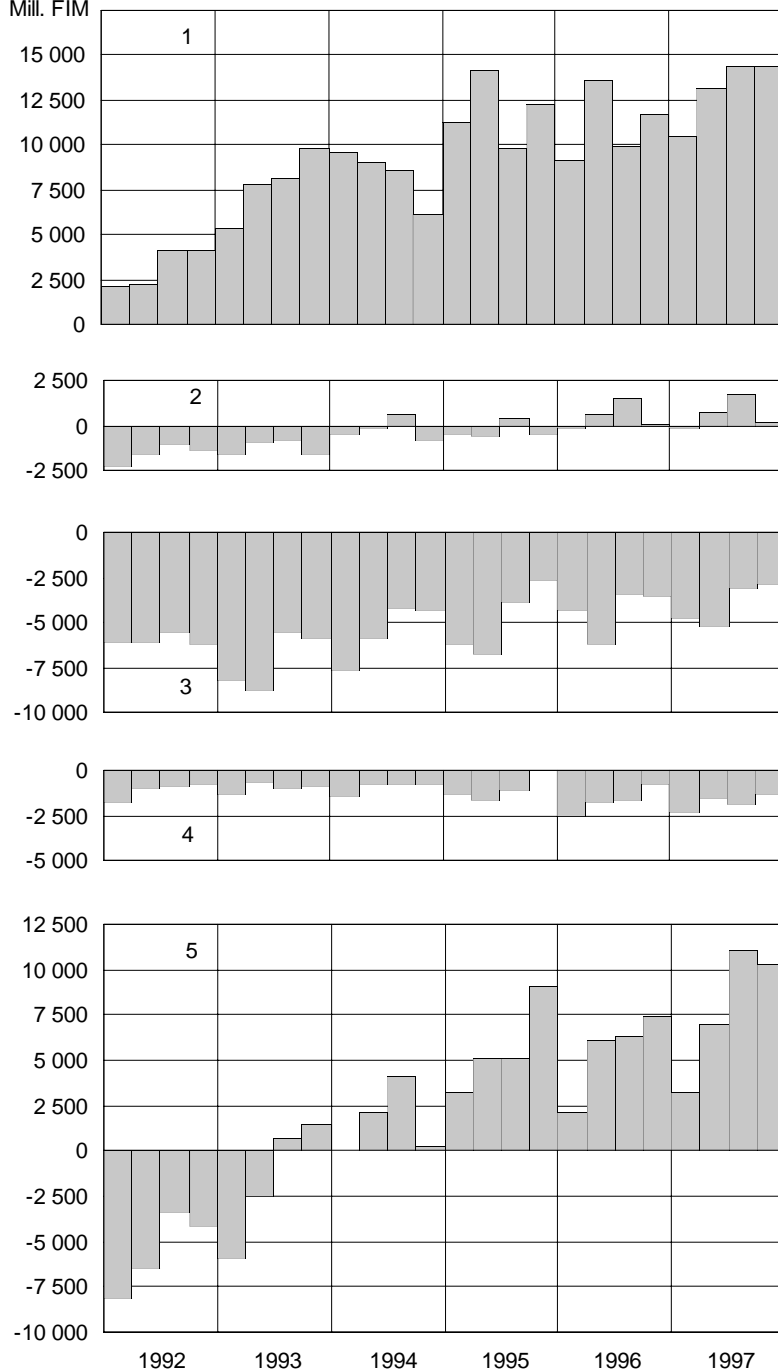


1. Narrow money (M1)
2. Broad money (M2)
3. M2 + bank CDs held by the public (M3)

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

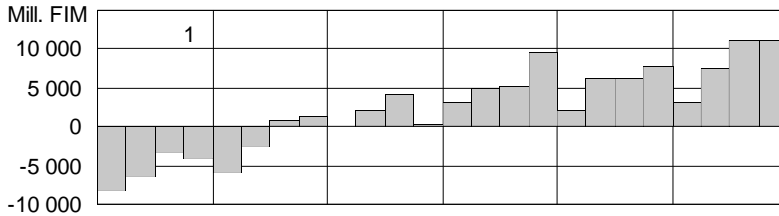
23. Current account

Mill. FIM

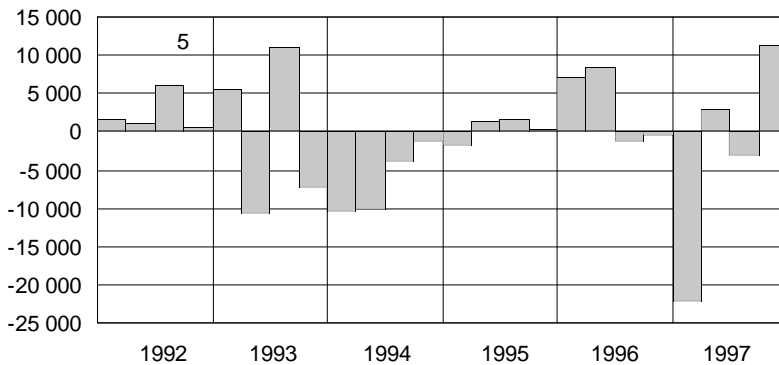
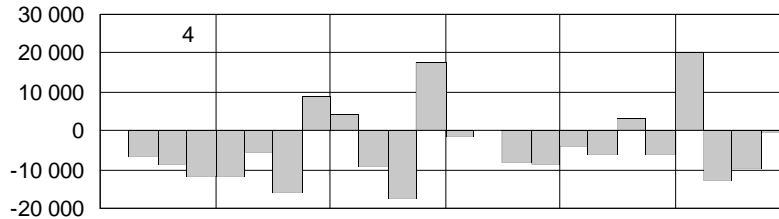
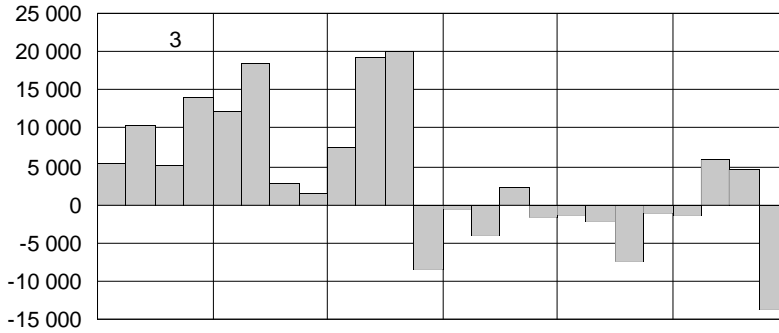
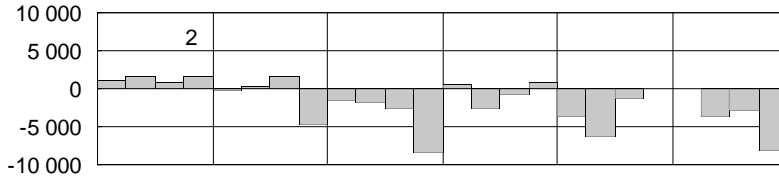


1. Trade account
2. Services account
3. Investment income account
4. Unrequited transfers account and other items, net
5. Current account

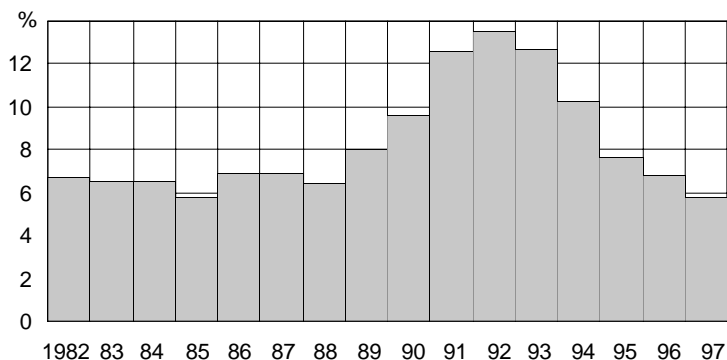
24. Balance of payments



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

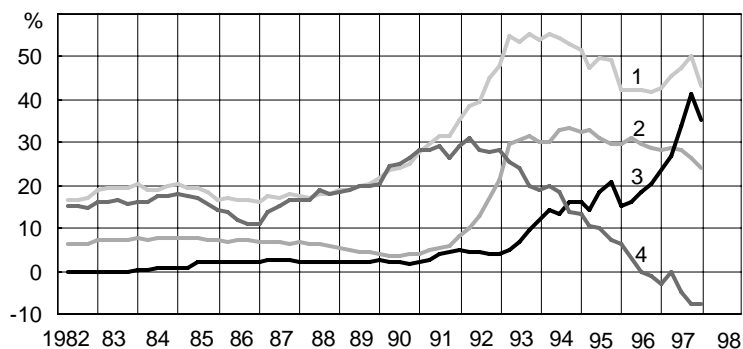


25. Net interest and dividend expenditure



As percentage of current account receipts

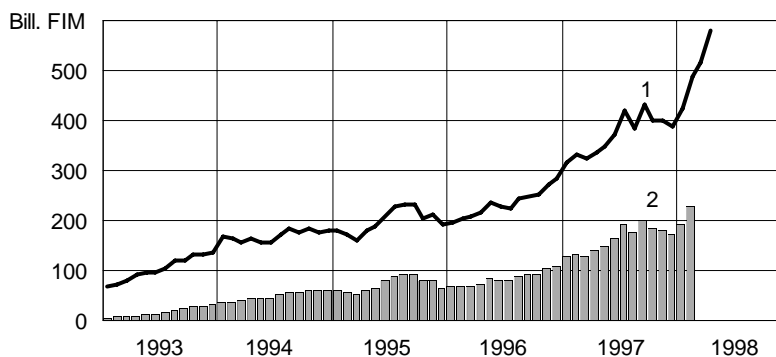
26. Finland's net international investment position



As a percentage of GDP

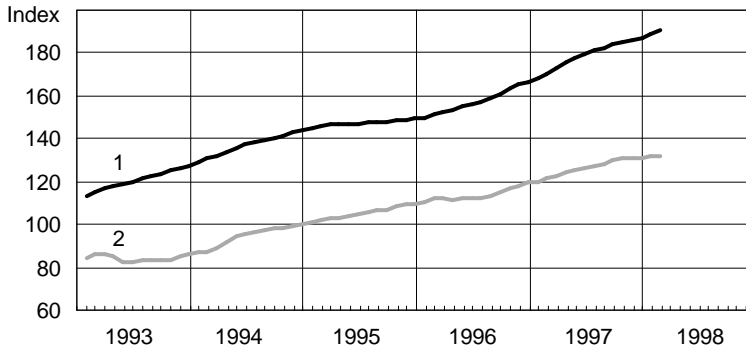
1. Total net debt
2. Central government (in foreign currencies)
3. Markka-denominated securities
4. Other, net (excl. Bank of Finland's foreign exchange)

27. Share market



1. Market capitalization of listed shares
2. Non-residents' holdings of Finnish shares

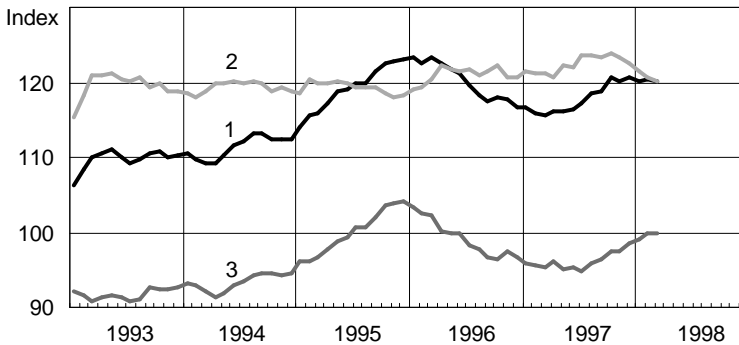
28. Foreign trade



1. Exports of goods
2. Imports of goods

Volume index, 1990 = 100, trend

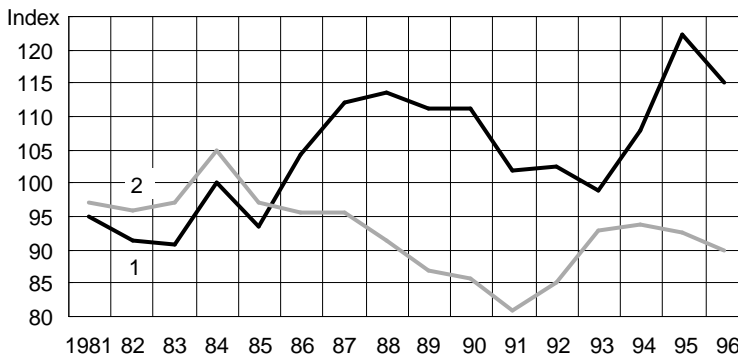
29. Foreign trade: prices and terms of trade



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

Index 1990 = 100

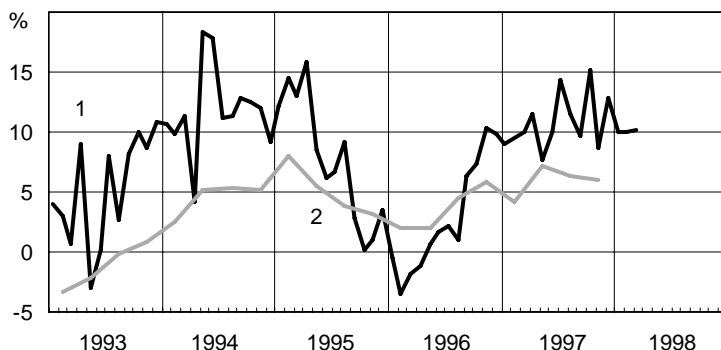
30. Finland's export performance



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

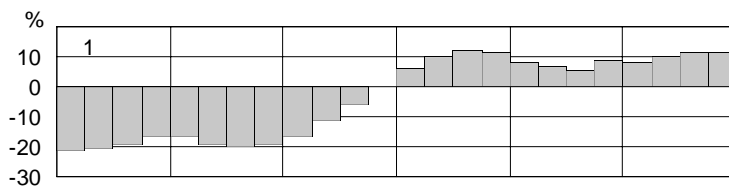
1980 = 100

31. Production

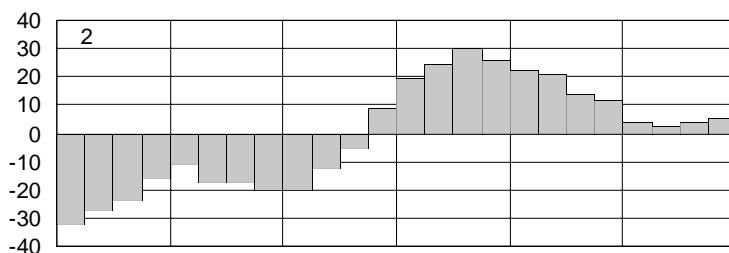


1. Industrial production, change in volume from the corresponding month of the previous year, per cent
2. GDP, change in volume from the corresponding quarter of the previous year, per cent

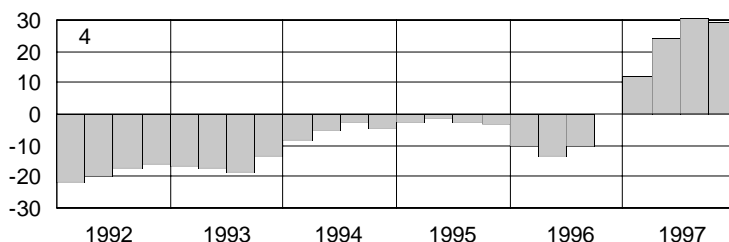
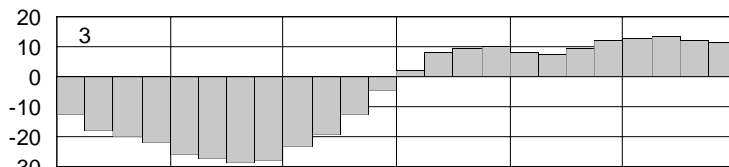
32. Fixed investment



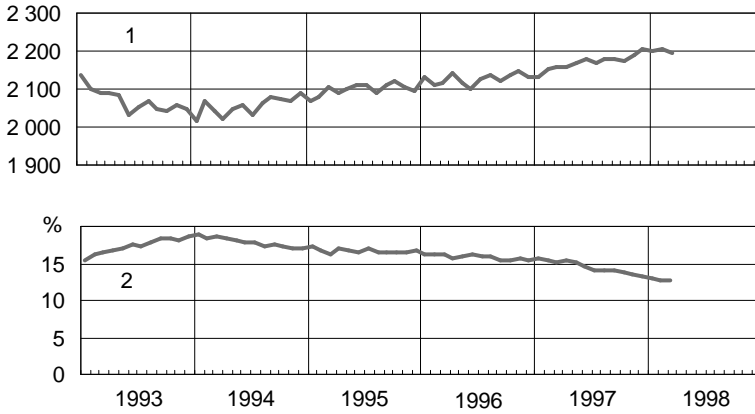
1. Total fixed investment
2. Investment in machinery and equipment
3. Building investment, excl. residential buildings
4. Residential buildings



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

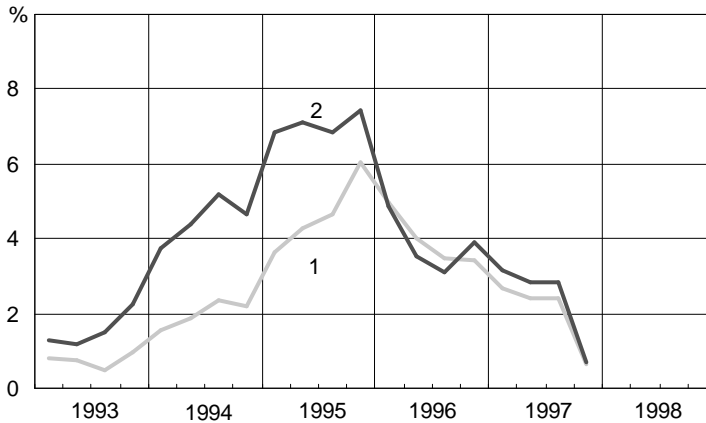


33. Employment and the unemployment rate



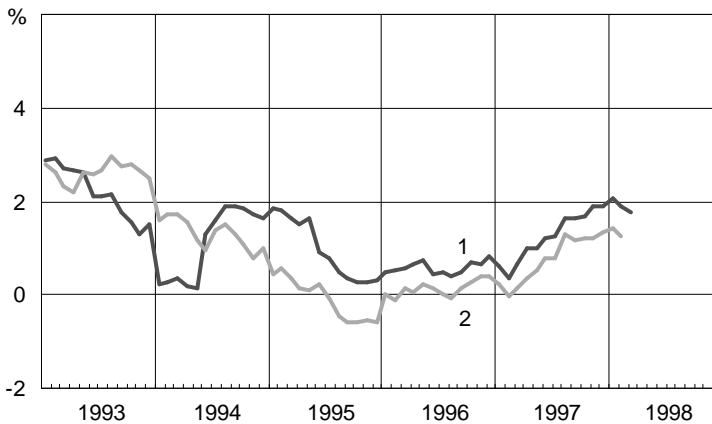
1. Employment, 1000 persons
2. Unemployment rate, per cent

34. Prices and wages



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

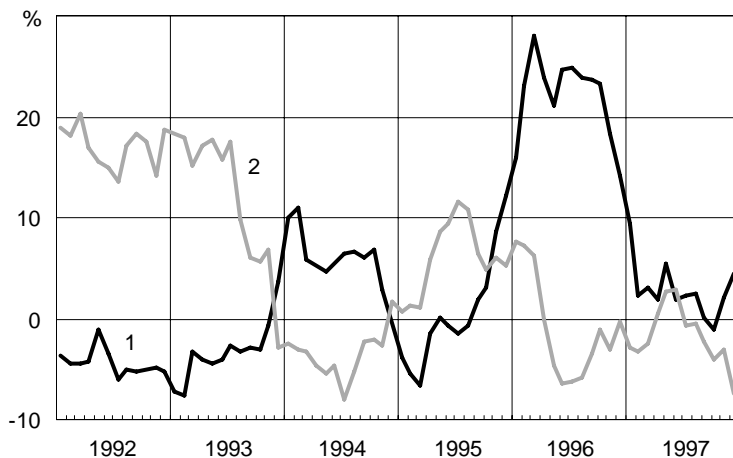
Change from the corresponding quarter of the previous year, per cent



1. Consumer price index
2. Indicator of underlying inflation

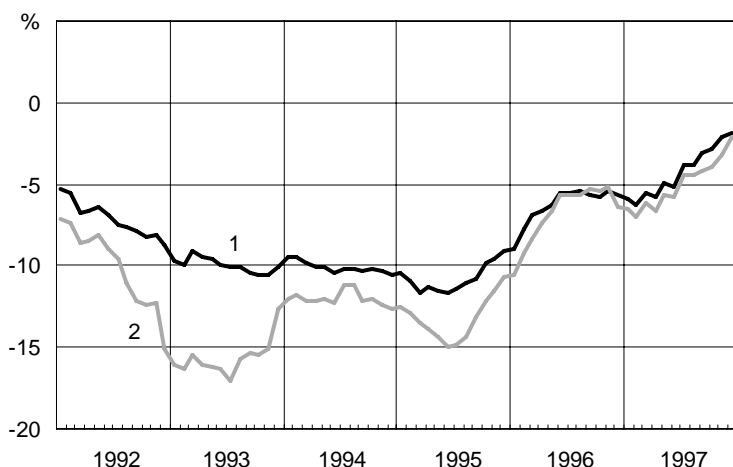
Change from the corresponding month of the previous year, per cent

35. Central government finances



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

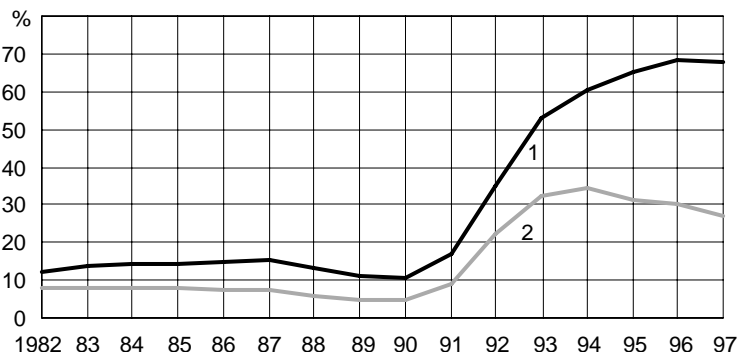
12-month changes calculated from 12-month moving totals and plotted at the last month, per cent



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

36. Central government debt



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

As a percentage of GDP

BANK OF FINLAND

1 February 1998

THE PARLIAMENTARY SUPERVISORY COUNCIL

ILKKA KANERVA, Chairman
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