



# BULLETIN

BANK OF FINLAND

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Inflation, monetary policy and  
economic performance

Experiences with reserves averaging

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Direct investment in 1995



# ***Inflation, monetary policy and economic performance***

**O**ver the last two years the Finnish economy has been stabilizing although unemployment has declined less rapidly than targeted. The economy's external indebtedness has diminished and the central government deficit has contracted. The Finnish markka has remained stable, and overall conditions for keeping the price level stable have been favourable. As a result of an easing of monetary policy, short-term interest rates have decreased to the same level as in the major ERM countries. The differentials in respect of long-term rates have also diminished.

Finnish economic performance is expected to continue on a favourable path over the coming years, and price and wage developments are estimated to remain moderate. Prospects are good for achieving financial balance in the public sector, and the current account will remain in surplus. Thus it seems that monetary stability will continue and hence conditions are still favourable for moderate interest rate developments.

Finland joined the Exchange Rate Mechanism (ERM) of the European Monetary System in October. By joining the ERM, Finland strengthens its exchange rate policy cooperation with the other EU member states. Under favourable conditions, the ERM decision will not have a major effect on monetary policy. The system allows for very large fluctuations against other participating currencies. While the formal fluctuation margin is  $\pm 15$  per cent, actual fluctuations in the markka exchange rate have been considerably smaller for some time already.

Price stability will continue to be the aim of monetary policy, because the inflation target of about 2 per cent specified by the Bank of Finland in February 1993 corresponds to the inflation targets of the core ERM countries. In this regard, Finland's essential monetary policy stance remains unchanged. However, exchange rate stability will assume increasing importance in the conduct of economic policy.

## ***The markka after the ERM decision***

The Government decided to join the Finnish markka to the ERM of the European Monetary System on Saturday, 12 October 1996. In accordance with section 4 of the Currency Act, the Board of the

Bank of Finland submitted to the Parliamentary Supervisory Board a proposal concerning the joining of the markka and the central rate. The Council of State approved the Bank's proposal. The level of the markka's central rate was agreed among representatives of ministries of finance and central banks of the EU member states at a meeting of the Monetary Committee in Brussels. The markka has participated in the ERM since Monday, 14 October 1996.

The markka's ECU central rate was set at FIM 5.80661. This central rate determines the bilateral central rates between the markka and the currencies of each of the other countries participating in the ERM. The central rate against the Deutsche mark is FIM 3.04, which is close to the average level that has prevailed over the last couple years.

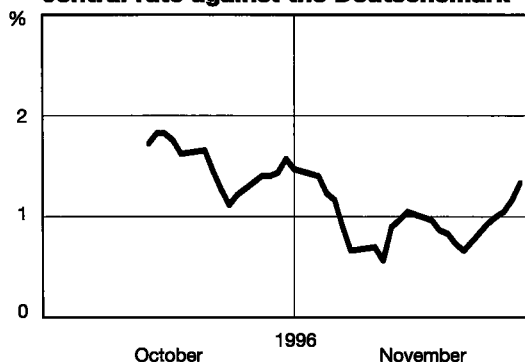
The foreign exchange markets have reacted calmly to the ERM decision. The value of the markka remained almost unchanged during the week following the link-up. Compared to its central rate against the Deutsche mark, the markka was about 1.7 per cent on the strong side. In November the markka weakened slightly, being now about 1 per cent on the strong side of its central rate against the Deutsche mark (Chart 1). The markka's deviations from its central rate against the weakest currency have fluctuated between about 1.5 and 3 per cent. At the moment there are relatively large deviations between participating currencies owing to the strengthening of the Irish pound.

Reentry of the Italian lira to the ERM changed the ECU central rates for the markka and other ERM currencies whereas the ERM bilateral central rates remained unchanged. The markka's new ECU central rate is FIM 5.85424.

Prior to entry to the ERM, the markka had been subject to upward pressure. One reason for the pressure was that in September and October, before the ERM link-up, companies sold foreign currency worth about FIM 5 billion in net terms. Apparently expectations of markka strengthening had spurred companies to exchange foreign currencies for markkaa at an increasing pace. The Bank of Finland was obliged to purchase foreign currency on several occasions in order to curb excessively rapid strengthening of the markka.

**Chart 1.**

**Deviation of the Finnish markka from its central rate against the Deutschemark**



Rise = markka strengthens

**Interest rates continued to fall**

Continuing moderate price developments, moderate inflation expectations and confidence in the markka formed the basis for small interest rate cuts in September and October. The Bank of Finland's tender rate was lowered by a total of 0.25 percentage point to 3 per cent. Between October 1995 and October 1996, the tender rate declined by one-half.

At the moment, the tender rate is at the same level as the Bundesbank's repo rate. Short-term market rates are slightly lower than German money market rates. Prior to this, a corresponding situation prevailed for a short time at the beginning of 1994 as a result of strong expectations of markka appreciation.

Three-month forward rate agreements suggest that interest rate expectations for 1997 are moderate. According to these agreements, the (three-month) HELIBOR rate is expected to remain between 3.2 and 3.8 per cent next year.

Finnish long-term rates also continued to decline until mid-October but have subsequently bottomed out. At the moment, the yield on the benchmark government bond maturing in 2006 is about 6.4 per cent. The Finnish ten-year rate is now clearly below the corresponding Danish rate, for example.

Along with the decline in long-term rates, the differential against German rates narrowed to less than 0.5 per cent in October but has widened slightly in November. In August the differential was still about one percentage point. The narrowing of the interest rate differential reflects the stabilization

of the Finnish economy as a whole and positive expectations concerning the EMU process.

**Interest rates in ERM countries have remained stable**

Since the end of August the German central bank has kept its repo rate at 3.00 per cent, which is historically an exceptionally low level. The Bundesbank has occasionally stated that no further cuts should be expected in the central bank rate. Like the German rates, the central bank rates of several other EU countries have also remained unchanged since August.

The Italian central bank lowered its key interest rates in July and October by a total of 1.5 percentage points. Currently, the discount rate stands at 7.50 per cent and the Lombard rate at 9.00 per cent. The interest rate cuts were based on improved inflation prospects but also reflected a normalization of interest rate conditions following an interest rate shock in 1995. At that time, the central bank had to raise interest rates by a total of 3.50 percentage points in response to downward pressure on the lira.

This year the lira has strengthened considerably and long-term rates have declined. The development has been favourable enough to allow for the lira's return to the ERM at the end of November. The lira was joined to the ERM at a somewhat stronger-than-expected exchange rate. During the week following the link-up the lira strengthened to close to its Deutschemark central rate of ITL 990. The lira's return to the ERM, having been expected, was taken calmly by the markets.

Of the countries outside the ERM, Sweden continued to ease its monetary policy in the autumn. The central bank's repo rate was lowered in September and November by a total of 0.9 percentage point to 4.35 per cent. The interest rate cuts were based on extremely favourable inflation prospects. In October consumer prices in Sweden were 0.1 per cent lower than a year earlier. Market interest rates followed the fall in the repo rate. In October short-term market rates were about four percentage points below their year-earlier level. As anticipated, the Swedish central bank lowered its interest rate band by 0.50 percentage point at the end of October. Its lending rate was lowered to 5.75 per cent and its deposit rate to 4.25 per cent.

The Bank of England raised its base rate by 0.25 percentage point to 6.00 per cent at the end of October. Immediately after the rise, the pound strengthened against the US dollar and Deutschemark. The governor of the central bank had been insisting on a base rate hike since the spring, but the Government had remained reluctant to raise the rate. According to the Government, the strengthening of the pound over the last few months had had the same anti-inflationary effect as a rise in the base rate.

Several economic indicators in the UK argued for a hike in the base rate. The rate of economic



growth has picked up, and annual growth of the money supply (M3) has accelerated as has the demand for consumer credit. According to the central bank, the target level for underlying inflation (2.5 per cent) cannot be attained in 1997 without an increase in either the interest rate or taxes. In October the twelve-month rate of underlying inflation was 3.3 per cent.

In the United States, the central bank has kept its overnight rate unchanged at 5.25 per cent since the beginning of February, even though the markets have on several occasions expected a rise. According to Federal Reserve projections, the rapid economic growth will not accelerate inflation.

In Japan economic recovery has been slow, and the central bank has announced that it will keep interest rates low so long as the recovery remains unsure. The Tankan Report published by the central bank at the end of November supported the present stance of monetary policy. According to the report, companies' expectations for economic performance have improved slightly, but their overall tone is still negative. The discount rate of the Japanese central bank has been at a record low of 0.50 per cent already for a year.

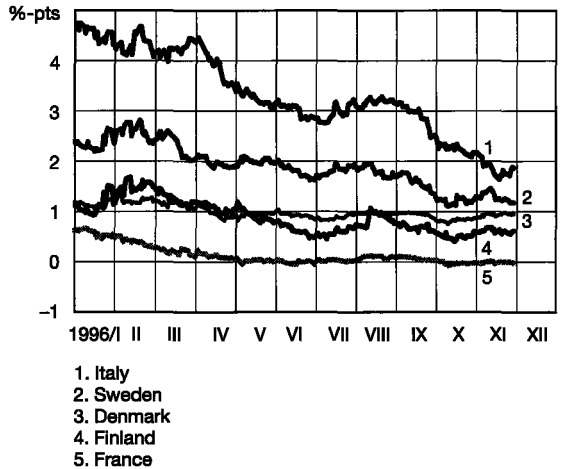
In August–October the US dollar strengthened by 5.7 per cent against the Japanese yen. The development was in line with the recommendations of the G7 countries. At the end of October the dollar was valued at about JPY 113–114, which was the weakest yen quotation in almost three years. In November the weakening of the yen halted. Statements by Japanese authorities have been interpreted to indicate that the yen was already sufficiently weak. The US dollar also strengthened by 2.5 per cent against the Deutschmark in August–October, but in November the Deutschmark, like the yen, gained against the dollar. In November the Deutschmark also strengthened against the yen.

In many countries the decline in long-term interest rates has continued in the autumn. Since end-September, when the Federal Reserve decided to keep its steering rates unchanged, long-term rates fell both in the United States and in Europe. In the United States the decline in long-term rates has continued throughout the autumn as a result of the stabilization of economic growth, favourable inflation prospects and the election results.

In Europe interest rate differentials narrowed in the autumn as the markets were confident that EMU will be realized on schedule. At the same time, tensions within the ERM have abated. It is now estimated that the number of countries participating in the third stage of EMU from the beginning will be greater than previously expected. This has benefited especially so-called high-yield countries (Italy, Spain, Portugal and Sweden). EMU optimism and confidence in a favourable economic performance have contributed particularly to the decline in Spanish and Italian long-term rates (Chart 2).

**Chart 2.**

**Yield differentials vis-à-vis Germany on 10-year government bonds of selected countries**



**Inflation outlook remains subdued**

The rates of rise in the consumer price index and indicator of underlying inflation reflect the present calmness on the inflation front (Charts 3A and 3B). The consumer price index has been constrained by declining interest rates and the indicator of underlying inflation by the increasing (for technical reasons) effect of the tax rate index on the indicator<sup>1</sup>. However, the rise in the price level has been modest even if gauged without taking these factors into account.

An interim harmonized consumer price index based on EU recommendations, in which housing prices, interest payments and other factors that do not reflect actual commodity prices are excluded, is the best indicator of developments in the market prices of goods and services. In summer and early autumn, the twelve-month rate of change of this index amounted to slightly more than one percentage point. By this measurement, the risk of deflation, which prompted some public discussion in summer and autumn, seems very unlikely. The importance of the interim harmonized consumer price

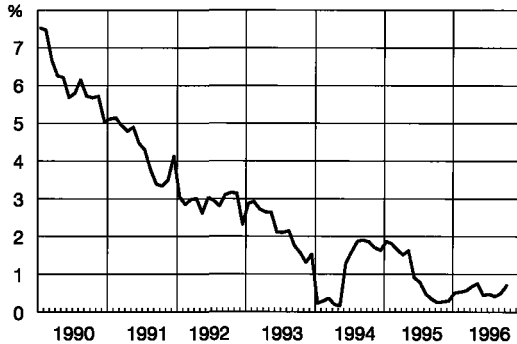
<sup>1</sup> For example, within the EU framework cuts in agricultural income subsidies do not affect agricultural prices nor (hence) food prices. However, in Finland cuts that were made in agricultural subsidies, for technical reasons, raised the tax rate index for January–October 1996 sufficiently to reduce the magnitude of the change in the indicator of underlying inflation by 0.5 percentage point as compared to what the change would have been without the imputed price effect of the tax rate index.

**Chart 3.**

**Consumer prices,  
12-month change, %**

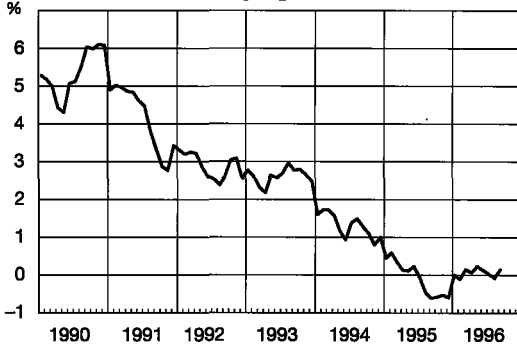
**A**

**CPI, 1990 = 100**



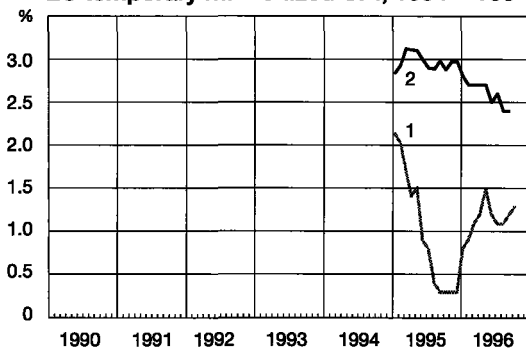
**B**

**Indicator of underlying inflation, 1990 = 100**



**C**

**EU temporary harmonized CPI, 1994 = 100**



1. Finland  
2. EU15

index is underlined by the fact that the final version of that index that will be used in spring 1998 to determine which countries meet the price stability convergence criterion prescribed by the Maastricht Treaty.

There have been virtually no changes in factors that affect consumer prices as would argue for a significant adjustment of earlier inflation forecasts. Despite a pickup in domestic demand, inflation expectations have remained moderate. In October households expected prices to increase by 1.4 per cent by the end of 1997. The latest (October) survey of firms also points to continuing low inflation.

International price developments have also remained moderate. In September inflation in the EU area amounted to 2.4 per cent, as measured by the interim harmonized consumer price index, which is used in the assessment of the EMU price stability criterion. Among the EU countries, Sweden recorded the lowest inflation, 0.6 per cent. In five EU countries, inflation remained below 1.5 per cent and only the southern EU countries and the UK registered rates of inflation exceeding 2.5 per cent. Inflation differentials across EU countries have diminished considerably in the course of 1996. As measured by the interim harmonized consumer price index, price developments in Finland did not differ much from average price developments in EU countries (Chart 3C).

Producer prices have continued to fall in many European countries. This, together with wage constraint, points to continued moderate consumer price developments also in the near future. In the United States expectations concerning accelerating inflation have abated in the course of the autumn as a result of the slowing of economic growth. The prices of raw materials included in the HWWA index (excl. energy raw materials) decreased by 3.6 per cent in July–October. However, the world market price of oil has continued to rise.

In Finland import prices in markka terms rose by 1.2 per cent in August–October owing to the rise in the price of crude oil. Import prices have risen by 3.3 per cent compared with October 1995. However, foreign currency-denominated import prices have been trending downward, as the weakening of the markka's trade-weighted exchange rate has exceeded the rise in import prices over the last twelve months. Developments in import prices are expected to remain calm in the first half of 1997, although expectations for recovery of the world economy have strengthened. Upward pressures on prices have been curbed, among other things, by increased competition in world trade and by the wide observance of the price stability objective among the industrial countries.

Export prices turned up in Finland in October, mainly due to rising timber prices. Prior to this, export prices had decreased continuously from April to September. In October export prices were 3.8 per cent lower than a year earlier due mainly to the

fall in prices of pulp and paper industry products. In October export prices of pulp and paper industry products remained almost unchanged. From December 1995 to October 1996, the terms of trade weakened by more than 7 per cent. The general market situation in the cyclically sensitive forest industries will play an important role in the future development of export prices and the terms of trade.

The declining trend in producer prices since February stopped in September due to a rise in the prices of oil products. In October producer prices were nonetheless clearly lower than a year earlier. According to the October survey of business confidence conducted by the Confederation of Finnish Industry and Employers, manufacturing companies estimated that the decrease in producer prices had bottomed out and expected prices to remain unchanged on average in the near future.

Price stability has also been supported by a continuing slowdown in the rise of domestic production costs, as a result *inter alia* of a moderate wage agreement concluded last autumn. In the third quarter of 1996, wage earnings were 3.3 per cent higher than a year earlier. Wage drift continued to be relatively insignificant owing to moderate inflation expectations. Cost drift is also expected to remain subdued in the near future because significant shortages of skilled labour and capacity have appeared only in the electronics industries.

In manufacturing, an increase in capacity utilization since April has constrained the rise in unit labour costs while a decline in financing costs, due to lower interest rates, has constrained the rise in fixed costs. In the first half of the year producer prices declined more rapidly than costs. As a result manufacturing companies' profitability has remained clearly lower than a year ago. Nonetheless, profitability is expected to improve in all the main sectors in the course of 1997.

Changes in asset prices are also pointing to very moderate price developments but clearly not to deflation. New stumpage price agreements brought stumpage prices back to their level of autumn 1995. Compared with early summer, the level of stumpage prices increased by about 4 to 5 per cent, and as a result, there has been a notable pickup in timber trade compared to the preceding months. Prices of old flats rose substantially throughout the country in the first half of 1996, and the rise has continued since then. As the real prices of real estate are still very low, the price rise is not expected to strengthen inflation expectations.

Neither do changes in monetary aggregates point to an increase in inflationary pressures, considering that they have been affected mainly by a contraction in and a change in the composition of deposits. The change in the composition of deposits has meant that M1 has increased owing to the growth in transaction accounts and cash held by the public as well as to the maturing of tax-

exempt fixed-term deposits. Consequently, M2 has contracted.

Conditions for a continuation of subdued inflation in the coming years are still favourable, in line with earlier projections. This in turn will promote continued moderate interest rate developments. The rise in consumer prices is estimated to remain at about 1 per cent in 1996. Wage developments will remain fairly constrained until January 1998 in accord with currently valid agreements. On the other hand, there is no risk of deflation, stemming from the rapid increase in private consumption and the rise in house prices. However, there is a slight risk that markups will widen more than expected. On the basis of currently available data, the underlying rate of inflation is expected to remain below 2 per cent next year. Inflation in 1998 will be largely dependent on pay settlements to be concluded toward the end of 1997.

### ***Economic growth continues stable***

Even the latest data confirm that economic growth in Finland this year has been based mainly on private consumption. Sales of cars and durable goods have continued at a brisk pace in the latter half of the year. Similarly, indications of an upturn in lending to households have also strengthened as a result of the decline in interest rates. Moreover, the survey of consumer confidence carried out by Statistics Finland has never been as high (14.2) as in September during its nine years of existence. With the exception of the October reading, consumer confidence has strengthened continuously and steadily since April, which suggests that private consumption will continue to grow also during the latter part of the year.

The volume of exports started to increase in the second quarter, owing partly to vessel deliveries. As expected, signs of recovery in the international economy have increased in the last few months, with economic prospects having improved especially in Germany. The future course for Finnish exports is largely dependent on the market situation in the cyclically sensitive forest industries. For now, the market situation continues to be unclear as the volume of export orders is still quite low despite the recent increase. The decline in export prices of paper may continue longer than expected. And the increase in the price of pulp has been fairly modest.

It seems that the impact of fixed investment on economic growth has, for the time being, remained smaller than expected. The volume of investment is difficult to estimate because of the dearth of statistics<sup>2</sup>. According to the October survey, manufacturing companies still appear to be rather cautious as

<sup>2</sup> The statistics reflect investment in machinery and equipment as of the year of initial usage. As investment projects are completed, the volume of investment in manufacturing will remain high even as the flow of investment financing diminishes. Unfinished machinery and equipment are included in manufacturer's inventories of work in progress until they are finished.

regards their outlook for the future. They expect their investment levels in one year's time to be roughly unchanged from this autumn. However, the number of new building permits granted between January and September was 21 per cent higher than for the corresponding period a year ago, which points to a pickup in construction investment in the future. New housing loans have also been raised at a brisk pace since spring, partly due to the fall in interest rates on housing loans. The rise in house prices is expected to boost the housing market. So far, investment activity has been based mainly on large investment projects that had been launched earlier.

In the second quarter of this year, the rate of GDP growth was almost 0.5 percentage point lower than the rate as measured by the monthly GDP indicator. The volume of output for the first quarter was however slightly higher than forecast. In the first half of 1996 total output was 1.5 per cent higher than in the year-earlier period. As measured by the monthly indicator, GDP appears to have grown at a brisk pace in July–September compared with the second quarter. Compared with the year-earlier period, GDP increased by 3.5 per cent. In the third quarter industrial output increased by 1.7 per cent on the previous quarter. The growth of total output is also expected to continue at a rapid pace in the latter half of the year owing to the recovery of construction activity and output in the export sector.

Data based on the labour survey by Statistics Finland indicate that employment has started to improve slowly in the latter half of the year following a deterioration in spring and early summer. In January–October 1996 the average number of employed was 24 000 higher than in the corresponding period a year ago (seasonally-adjusted). This in turn has had a positive effect on the expectations of households and companies, which has been reflected inter alia in stronger growth of private consumption.

The seasonally-adjusted unemployment rate stood at 15.5 per cent in October. Unemployment has declined slightly more rapidly than expected. However, this should not yet be read as a sure sign that unemployment is declining rapidly, as all branches of the manufacturing industries are planning for at least marginal cutbacks in personnel in the fourth quarter, according to the latest survey on business confidence.

### **Large current account surplus – public sector deficit narrowing rapidly**

Despite a notable weakening in the terms of trade since January 1996, the twelve-month cumulative surplus on the current account has remained close to the end-1995 level. Exports decreased considerably in the third quarter compared with the previous quarter, largely on account of factors related to the timing of vessel deliveries. Import activity has been subdued; the value of imports rose only slightly from the corresponding quarter last year.

The current account surplus is expected to remain large over the remainder of the year inter alia because of improved prospects in Finland's export markets. This projection is supported by the fact that inventory adjustments will be coming to a halt. This year, exports of forest industry products may remain slightly lower than expected. The terms of trade may also deteriorate more than expected, and thus this year's current account surplus is estimated to fall somewhat short of the 1995 level.

Positive financial savings for the whole economy reflect the rapid contraction of the public sector deficit and a large (albeit gradually decreasing) financial surplus in the private sector. The financial surplus in the private sector means continued strengthening of the sector's financial structure. For the corporate sector, this will bring gains in competitiveness via decreasing indebtedness and financing costs.

Owing to the rapid growth of private consumption and aggregate wages, the tax base has widened more rapidly than the growth in total output. This development has in turn contributed to the contraction in the public sector deficit, in contrast to other European countries where economic growth has remained relatively sluggish. From October 1995 to September 1996, the twelve-month cumulative net borrowing requirement of the central government amounted to slightly over FIM 30 billion, ie almost 50 per cent less than the requirement for calendar 1995. However, certain expenditures related in part to employment enhancing and bank support measures, will increase the net borrowing requirement considerably in the latter part of the year. This year the central government's net borrowing requirement is forecast to increase to about FIM 40 billion. As the financial surplus of the employment pension institutions will remain large, Finland's general government sector could meet the Maastricht Treaty deficit criterion (3 per cent of GDP) already in 1996.

29 November 1996

- Key words: inflation, monetary policy, economic performance

# Experiences with reserves averaging

by **Hannele Kuosmanen**, Economist  
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**T**he rationale behind the central bank's right to collect mandatory reserves from banks has changed with the times. Originally the aim was to ensure banks' liquidity even in case of large deposit withdrawals and thus to maintain the stability of the financial markets. Another reason has been that by collecting reserves the central bank can influence the money supply and credit expansion. Control of the money supply has been a key objective particularly during periods of credit rationing.

However, the role of the reserve system has changed with the development of the financial markets. Control of the money supply is no longer the central bank's most important goal, even in countries with formal money supply targets. Increasingly, central banks aim at price stability by influencing short-term market rates, interest rate expectations and thus the demand for money. Banks' liquidity is ensured via open market operations and various central bank lending facilities.

The role of the reserve requirement has also become more controversial because it involves a cost burden that distorts the functioning of financial markets. Mandatory reserves held at the central bank on which zero or sub-market interest rates are paid are a form of tax on the banking system. Mandatory reserves become a tax specifically when their amount exceeds that which a bank would hold voluntarily.

To bear the costs of the reserve requirement, banks must apply higher lending rates and/or lower deposit rates than they would otherwise apply. Thus the minimum reserve system weakens the competitiveness of banks subject to the reserve requirement vis-à-vis other financial institutions. In countries with zero or very low reserve requirements, financial institutions are at least in principle in an advantageous competitive position. Increasing internationalization of financial markets underlines the importance of this aspect.

Banks seek to avoid the minimum reserve requirement by finding investment outlets that are not subject to the requirement. This may unnecessarily distort balance sheet structures. The practice can be discouraged by expanding the range of balance sheet items subject to the reserve requirement and by lowering the requirement percentage.

The tax effect can be completely eliminated by paying interest on required reserves. However, this compromises the effectiveness of the reserve system as a means for controlling credit expansion.

A new role has been sought for the reserve system as regards the steering of interest rates. When banks fulfil their reserve requirements on the basis of averaging, they are able at the same time to act on their expectations for interest rate movements. When there are no specific daily requirements, banks can hold larger reserves when the interest rate is most favourable for doing so. Furthermore, the fact that required reserves can also be used for settling interbank payments has increased the flexibility of banks' liquidity management. These features are seen to even out fluctuations in the shortest interest rates and to reduce the central bank's need to regulate banking system liquidity on a daily basis.

One argument for collecting minimum reserves has been that they are a means of providing for banks' on-going liquidity needs. It is felt that having banks in a position of reliance on the central bank for meeting reserve requirements facilitates the central bank's conduct of monetary policy.

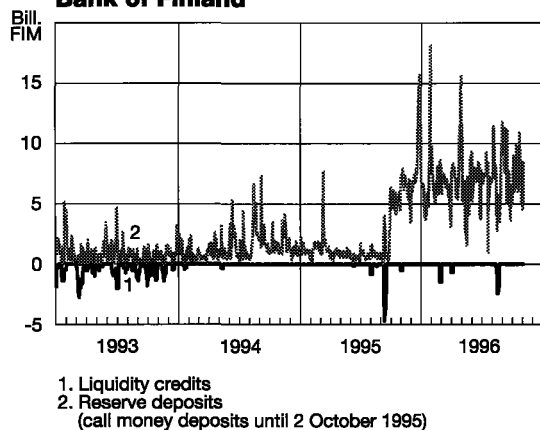
Another motive for a reserve requirement is that a reserve deposit which can be imposed and collected by the central bank strengthens the central bank's profitability and thus increases its independence. The Bank of England collects reserves only in amounts sufficient to cover its operating expenses, ie as a charge for central bank services provided to the banks. According to this interpretation, the collection of mandatory reserves from banks cannot be regarded as a tax. Instead, one can argue that not to collect such reserves would constitute subsidization of the banking sector.

Banks' deposits at the central bank also ensure the smooth flow of payments provided that deposit funds can be used to effect payments. The importance of this consideration has increased now that interbank payment settlement is handled via central banks' real-time gross settlement systems in which payments are settled trade by trade instead of by batching and netting as before. Real-time systems require more liquidity than netting systems.

It is nonetheless true that more and more central banks have lowered banks' reserve require-

**Chart 1.**

**Banks' liquidity position at Bank of Finland**



ments in recent years. In most cases this has been based on a desire to reduce the banks' 'tax burden' and thus improve their competitiveness.

Preparations for the European System of Central Banks (ESCB) have brought the issue of the minimum reserve system to the fore again. The Maastricht Treaty requires that the European Central Bank (ECB) be enabled to apply reserve requirements if it so wishes. In practice this means that a reserve system must be in place even if the

ECB decides not to make use of it. Cross-country attitudes toward minimum reserve systems are largely divided on the basis of whether or not a country uses such a system. One important argument for such a system in user countries is that averaged reserves can even out liquidity fluctuations and dampen interest rate volatility. Thus it is likely that if a minimum reserve requirement is applied by the ESCB, the reserves will be calculated on the basis of averaging. In fact, this is already the current practice of most European central banks. (Table 1).

**Averaging facilitates banks' liquidity management**

In Finland up until October 1995, banks' minimum reserves were held in special accounts at the Bank of Finland. Just as regards the prior cash reserve system, banks had to meet minimum reserve requirements on a daily basis. In practice, minimum reserves were deposited monthly in banks' special minimum reserve accounts at the central bank and could not be used to effect payments. This meant that a bank was obliged to hold so-called call money deposits in its current account for making payments or it would have to borrow the needed funds from the central bank. Both alternatives were costly to the bank because the liquidity credit rate was higher and the call money deposit rate lower than the market rate. This arrangement led to a situation wherein the central bank was obliged to operate frequently in the market in order to provide for banks' daily liquidity needs.

**Table 1. Key features of minimum reserve systems in different countries <sup>1</sup>**

	Requirement, %	Averaging	Period	Lag	Interest on reserves
Germany	2 % liquid 1.5 % others	yes	1 month	15 days	no
France	1 % liquid 0.5 % others	yes	1 month	15 days	no
UK	0.35 %	no	1 day	180 days	no
Spain	2 %	yes	10 days	2 days	no
Italy	15 %	yes	1 month	45 days	yes
Netherlands	variable	no	variable		yes
Ireland	3 %	no	1 month	50 days	yes
Austria	5 % liquid 3 % others	yes	1 month	15 days	no
Greece	12 % domestic 70 % foreign	no	1 month	60 days	yes
Portugal	2 %	yes	7 days	3 days	yes
Finland	2 % liquid 1.5 % other deposits 1 % others	yes	1 month	60 days	no

<sup>1</sup>Data are based on the situation in October 1996.

As from the beginning of October 1995, the minimum reserve system was changed so that banks meet their requirements on the basis of monthly averaging.<sup>1</sup> Moreover, reserves are now deposited in a bank's current account at the Bank of Finland rather than in a special minimum reserve account (Chart 1). In practice this means that a bank can use its reserve deposits to effect payments as long as it can show that on the last banking day of the month its average deposit balance for the month meets the minimum reserve requirement (Chart 2).

No interest is paid on the minimum reserves. However, if a bank has funds in its current account in excess of its minimum reserve requirement, it receives interest on such excess reserves at a sub-market rate.

In connection with the onset of reserves averaging, the limits on banks' intraday credits were lowered. This was only natural because banks then acquired about FIM 6.5 billion in reserves for use in their daily payment transactions. Credit limits were lowered by a total of about FIM 2.7 billion.

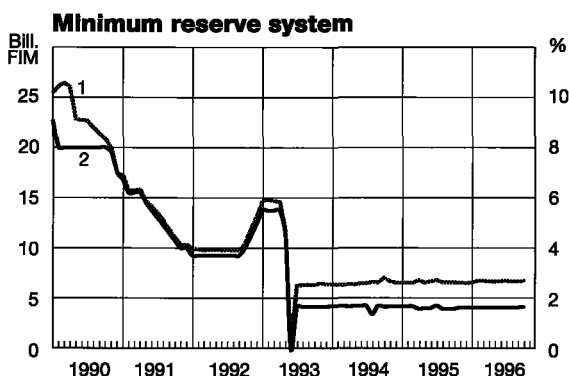
### **Averaging has not smoothed out overnight rates**

During the last couple of years, the Bank of Finland has fine-tuned its monetary policy operating system in two ways, both of which are aimed at increasing the transparency of monetary policy. First, the determination of the tender rate was changed at the end of 1994, and second, averaging is now applied to the minimum reserve requirement.

At the end of 1994 the Bank of Finland changed its money market tenders from variable rate to fixed rate tenders. Previously, the Bank of Finland accepted banks' bids on rates and volumes and the tender rate was calculated as the average of accepted bid rates. Now the central bank sets the tender rate and banks bid on volumes only. It is also the Bank of Finland's practice to provide banks with sufficient liquidity for meeting their monthly reserve requirement. In effect this means that the Bank of Finland has accepted all the banks' volume bids at the tenders.

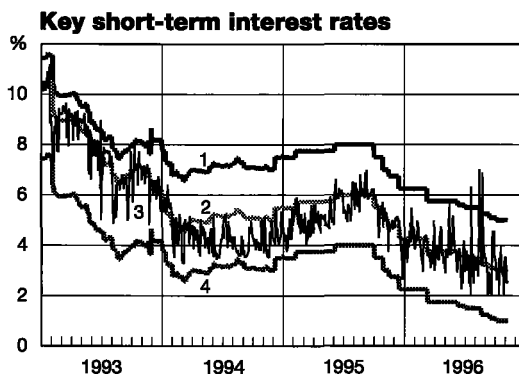
The tender rate has a strong impact on the one-month HELIBOR rate. It also determines the rate at which banks can obtain short-term liquidity credit from the central bank. The rate on this credit exceeds the tender rate by a specified margin. The rate paid on banks' voluntarily held excess reserves is also in effect tied to the tender rate; presently, it is two percentage points below the tender rate. Thus in effect, the tender rate determines the fluctuation range for the overnight rate, which is determined in the interbank overnight market (Chart 3). However, the overnight rate may occasionally exceed the liquidity credit rate. This stems

**Chart 2.**



1. Banks' required reserves (left scale); cash reserve deposits prior to 1 July 1993
2. Average required reserve percentage (right scale); cash reserve percentage prior to 1 July 1993

**Chart 3.**



1. Liquidity credit rate
2. Tender rate
3. Interbank overnight rate
4. Excess reserve rate (call money deposit rate until 2 October 1995)

<sup>1</sup> See Hasko H, and Kuisma M, 'Recent changes in monetary policy instruments', Bank of Finland Bulletin, 10/95.

from the fact that because the maturity of liquidity credit is seven days, a bank will sometimes find it worthwhile to pay a premium for overnight credit.

In 1994 and as late as 1995, prior to reserves averaging, the overnight rate generally fluctuated within a range upper-bounded by the tender rate and lower-bounded by the call money deposit rate. Because the Bank of Finland was then targeting an interest rate level, it accommodated the liquidity requirements of the banking system and thus banks had no need for liquidity credit. The banks' surfeit of liquidity kept the overnight rate below the midpoint of the range. The Bank of Finland's practice of setting the tender rate served to reinforce the arrangement.

Reserves averaging has changed the situation in that now the overnight rate moves above and below the tender rate. This is attributable to the fact that the tender rate now determines the rates at which banks can obtain reserves from the central bank. The opportunity cost of reserves is no longer the call money deposit rate, which, prior to averaging, determined the lower limit of the interest rate range, but rather the tender rate. It is only after banks have covered their minimum reserve requirements that a strong liquidity position will push the overnight rate down close to the excess-reserve rate, which, in the new arrangement, determines the lower limit of the range for the overnight rate.

Even though the new arrangement has increased liquidity in the interbank market by FIM 6.5 billion, the liquidity has not always been optimally distributed. A case in point is the wide gyrations that occurred in August of this year even though the Bank of Finland's tenders afforded banks adequate opportunities during the month to meet their minimum reserve requirements.

Table 2 presents some indicators of the fluctuations that occurred in the overnight rate and bank liquidity. The indicators have been calculated for four different periods. The first period covers the time when the tender rate was determined as the average of banks' interest rate bids in tenders arranged by the Bank of Finland. During the second period the Bank of Finland set the tender rate but averaging was not yet applied. In the third period, which is further divided into two six-month periods, both volume tenders and averaging were applied.

The first row gives the variation in the overnight rate for each period as measured by the average of absolute values of daily changes in the overnight rate. The measure remained virtually unchanged over the first three periods but increased during the last six-month period.

Because variations in the overnight rate also reflect changes in the tender rate and in the entire range for the overnight rate, the effects of these changes were eliminated by calculating another measure of variation, i.e. the square of the difference between the overnight and tender rates. The values

**Table 2. Variation in overnight rate and liquidity**

	1 Jan– 30 Nov 94	1 Dec 94– 30 Sep 95	1 Oct 95–30 Sep 96	
			1 Oct 95– 31 Mar 96	1 Apr 96– 30 Sep 96
Variation in overnight rate <sup>1</sup>	0.274	0.271	0.266	0.524
(Overnight rate minus tender rate) <sup>2</sup>	0.916	0.605	0.194	0.666
Minimum reserves + excess reserves (previously call money deposits), variance	1367.11	575.66	4085.5	6138.7
Above figure as per cent of average deposit balance	97.0	62.0	59.0	88.0

<sup>1</sup> Variation measured as average of absolute values of daily changes.

of this measure are presented in the second row of Table 2. Variation relative to the tender rate clearly decreased with the changeover to volume tenders and even further with reserves averaging, although it did increase again in the last period.

The third row gives the variance of banks' overnight deposits (from 1 October 1995 variance of total reserves). Fluctuations in liquidity have followed the same pattern as those of the overnight rate. Thus the variation has clearly increased during the fourth period. The variation in liquidity relative to reserve deposits, given in the last row, corroborates this conclusion.

Overall, in the first six-month period with averaging, no major change from the previous period can be detected in interest rate variation. Some measures in fact seem to suggest that the variation was slightly smaller. However, variations in the overnight rate and in liquidity did increase in the latter half of that period. This is due to the fact that in the Finnish interbank market, with small numbers of agents, liquidity is occasionally unevenly distributed. However, with the short observation period, it is not possible to detect whether volatility increases as the moment for meeting the reserve requirement draws nearer. Such an increase in volatility is typical of a minimum reserve system, as seen eg in the German system.

Experiences thus far with averaging in a minimum reserve system have not always fulfilled expectations as regards the dampening of volatility in overnight interest rates. Although banks have readily accepted the regime change, it appears that banking operations have not yet stabilized in an environment that demands a sharper reckoning of liquidity needs.



**Central bank market operations  
less frequent with reserves averaging**

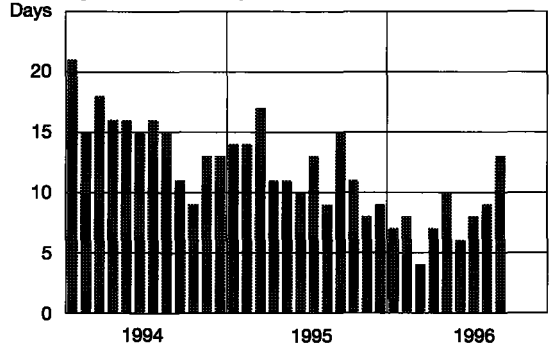
Before reserves averaging was introduced in 1995, the Bank of Finland operated in the money market on 13 days per month on average. Since the onset of averaging, market operations have been limited to an average of eight days per month, and for the first half of this year, the average was seven days (Chart 4). The reduced need for central bank market operations is a natural consequence of the less frequent (monthly rather than daily) need to meet reserve requirements.

11 November 1996

- Key words: monetary policy, monetary policy instruments, minimum reserves

**Chart 4.**

**Bank of Finland's money market operations, days/month**



## **Direct investment in 1995**

According to a survey of companies carried out by the Bank of Finland, there was a net direct investment capital outflow of FIM 2.7 billion in the financial account in 1995. At the end of the year, the book value of Finnish direct investment abroad amounted to FIM 66.2 billion, while the corresponding value of foreign direct investment in Finland was FIM 36.9 billion. Net direct investment income showed a surplus of FIM 0.2 billion in the current account.

## **Finnish direct investment abroad**

**Capital outflow decreased on 1994.** In 1995 Finnish companies exported capital totalling FIM 7.3 billion in net terms to foreign subsidiaries and associates abroad (FIM 5.2 billion in equity, FIM 0.8 billion in loans and FIM 1.3 billion in reinvested earnings, ie growth in retained earnings). Capital exports decreased by FIM 15.1 billion on the previous year, in which intra-group loan arrangements had an exceptionally large increasing effect on the outflow of capital. Manufacturing companies increased their investment abroad, whereas finance and insurance companies reduced their investment abroad by FIM 2.5 billion (retained earnings of the direct investment enterprises decreased by FIM 1.6 billion).

At the end of 1995, the book value of direct investment abroad totalled FIM 66.2 billion, of which FIM 54.6 billion represented equity investments. Manufacturing companies accounted for FIM 56.9 billion of the total book value, with metal and engineering accounting for the major part. The stock of direct investment abroad by enterprises in the finance and insurance sector totalled FIM 3.6 billion. The major immediate host countries were the United States, Sweden and the Netherlands.

**Direct investment income totalled FIM 4.6 billion.** Income from Finnish direct investment abroad (share of investee profits and net interest received) totalled FIM 4.6 billion in 1995, up FIM 2.6 billion on the previous year. Direct investment abroad by enterprises in the finance and insurance sector recorded further losses.

Direct investment income is broken down into dividends, interest and reinvested earnings (change

in accumulated retained earnings of direct investment enterprises). Finnish companies repatriated from their foreign subsidiaries and associates FIM 2.7 billion in dividends and FIM 1.3 billion in interest and remitted FIM 0.7 billion in interest to them. Accumulated retained earnings in foreign subsidiaries and associates grew by FIM 1.3 billion.

**Finnish-owned manufacturing operations abroad were more profitable.** In 1995 the total turnover of Finnish manufacturing companies abroad was FIM 160 billion, and they employed 140 000 persons on average. The leading manufacturing sector in terms of turnover and number of employees was metal and engineering. The major host countries for Finnish manufacturing operations abroad were Sweden, the United States, Germany, France, the Netherlands and the United Kingdom.

The average profitability of Finnish-owned manufacturing companies abroad, in terms of operating income and net income, increased on the previous year. Operating income was 7 per cent of turnover (5 per cent in 1994) and net income was 4 per cent (2 per cent in 1994).

## **Foreign direct investment in Finland**

**Direct investment in manufacturing companies declined.** In 1995 foreign enterprises invested capital in their subsidiaries and associates in Finland amounting to FIM 4.6 billion in net terms, as against FIM 8.2 billion in 1994. Capital invested in manufacturing companies decreased by FIM 4.3 billion on 1994, mainly as a result of extensive loan repayments. The book value of foreign enterprises' direct investment in Finland totalled FIM 36.9 billion at the end of the year. Manufacturing companies accounted for FIM 20.9 billion, half of which was invested in the metal and engineering industries. The share of sales companies amounted to FIM 9.4 billion. The major immediate investor countries were Sweden, the Netherlands and the United States.

According to the International Monetary Fund's guidelines, direct investment is defined as investment by a resident entity in one economy in an enterprise resident in another country with the objective of obtaining a lasting interest in the enterprise and an effective voice in its management. For statistical purposes, an investment is classified as direct investment, if a resident enterprise holds 10 per cent or more of the ownership or voting power of a foreign enterprise.

***Direct investment income totalled FIM 4.4 billion.*** Income on foreign direct investment in Finland totalled FIM 4.4 billion in 1995, compared to FIM 3.4 billion in the previous year. Income on investments in manufacturing companies amounted to FIM 2.5 billion, while income on sales companies amounted

to FIM 1.7 billion. Foreign-owned companies remitted to their foreign investors FIM 1.5 billion in dividends and FIM 0.3 billion in net interest. The accumulated retained earnings of foreign-owned enterprises increased by FIM 2.6 billion.

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

1995

## NOVEMBER

**Base rate.** The Parliamentary Supervisory Board lowers the Bank of Finland's base rate from 5.25 per cent to 5.00 per cent with effect from 1 November.

**Tender rate.** The Bank of Finland lowers its tender rate from 5.50 per cent to 5.00 per cent on 1 November and from 5.00 per cent to 4.75 per cent on 20 November. In addition, the interest rate on banks' excess reserves is cut from 3.50 per cent to 3.00 per cent on 1 November and from 3.00 per cent to 2.75 per cent on 20 November.

**The Savings Bank of Finland – SBF and Siltapankki become asset management companies.** The Ministry of Finance revokes the authorization of the Savings Bank of Finland and Siltapankki as from 30 November. In addition, Siltapankki is transferred to the Arsenal Group.

## DECEMBER

**Base rate.** The Parliamentary Supervisory Board lowers the Bank of Finland's base rate from 5.00 per cent to 4.75 per cent with effect from 15 December.

**Tender rate.** On 19 December, the Bank of Finland lowers its tender rate from 4.75 per cent to 4.25 per cent. In addition, the interest rate on banks' excess reserves is cut from 2.75 per cent to 2.25 per cent.

1996

## JANUARY

**Reorganization of the responsibilities of the government and the Bank of Finland.** On 9 January, the Cabinet Economic Policy Committee took the following decisions in principle:

- responsibility for the Sponda group, which is owned by the Bank of Finland and which was set up to manage Skopbank's assets (real estate and shares), will be transferred to the Council of State
- the government will settle its coinage-related debt to the Bank of Finland in the amount of some FIM 2 billion.

The required measures will be prepared in connection with the first supplementary budget for 1996.

**The Government Guarantee Fund.** On 9 January, the Cabinet Economic Policy Committee decides to propose that the Government Guarantee Fund be transferred to the authority of the Council of State as from the beginning of April.

## FEBRUARY

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

## MARCH

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

## MAY

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

**The Government takes over Sponda.** On 23 May, the Finnish Government bought the entire share capital of Sponda Oy at a purchase price of FIM 1 248 million. The Bank of Finland originally set up Sponda Oy in 1991 to manage the real estate and equity assets transferred from Skopbank after the bank ran into severe liquidity and solvency problems.

## JUNE

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

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

## JULY

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

## AUGUST

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

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

## SEPTEMBER

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

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

## OCTOBER

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

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

# Monetary policy instruments – November 1996

In February 1993 the Bank of Finland specified its monetary policy objective: to stabilize the inflation rate at about 2 per cent. This corresponds to the price stability objectives of the major ERM countries. Finland joined the Exchange Rate Mechanism (ERM) of the European Monetary System (EMS) on 14 October 1996. In this regard, Finland's monetary policy remains unchanged, although membership underlines the importance of exchange rate stability. The central rate for the markka was set at FIM 5.80661 per ECU and the corresponding central rate against the Deutschmark is FIM 3.04. The Bank of Finland is responsible for ensuring that the markka remains within the  $\pm 15$  per cent fluctuation margin vis-à-vis the other ERM currencies.

The Bank of Finland's instruments of monetary policy comprise market operations, minimum reserve requirements imposed on the banks and the Bank of Finland's liquidity credit facility.

Through its market operations, the Bank of Finland can on its own initiative have an immediate impact on banks' liquidity, short-term market rates and the exchange rate. Money market operations are usually conducted via tenders. Changes in the tender rate have immediate effects on money market rates and through them on banks' lending and deposit rates. The Bank of Finland can also affect the exchange rate when this is deemed appropriate.

The minimum reserve requirement is used to affect both the demand for central bank financing and banks' lending possibilities. Because required reserves held at the central bank do not bear interest, the system also supports the central bank's profitability. Fulfilment of the reserve requirements on the basis of averaging facilitates banks' management of payment transactions.

The liquidity credit facility consists of liquidity credit granted by the Bank of Finland when needed and deposits of excess reserves at the Bank. The main function of this facility in respect of an individual bank is to safeguard its liquidity in the event of an unexpected change in liquidity conditions. The rates of interest on liquidity credit and excess reserves, which are decided by the central bank, usually form the upper and lower limits for the shortest market rates.

Banks wishing to participate in the Bank of Finland's money market operations and to gain access to the liquidity credit facility are required to have a current account at the Bank of Finland. By means of a current account, a bank is able to effect payment transactions with the Bank of Finland and other current account holders in a safe, efficient manner.

The base rate, which is set by the Bank of Finland and was formerly an important reference rate, is gradually being superseded by market rates. It has hardly any practical importance in the determination of new lending and borrowing rates.

## Minimum reserve system

By virtue of the Act on the Bank of Finland, a deposit bank or branch of a foreign credit institution which carries on deposit banking activities in Finland must hold non-interest-bearing reserves at the Bank of Finland. The maxi-

mum reserve requirement is 5 per cent of the mandatory reserve holder's debt. The reserve requirement is calculated against the reserve base as at the last day of each calendar month. The reserve requirement based on the reserve base effective at the end of a given month must be met during the second calendar month following such effective date. Thus the lag between the effective date of the reserve base and the end of the corresponding reserve maintenance period is about 60 days.

The reserve requirement is graded according to the composition of a bank's funding so that the more money-like (liquid) an item, the larger the reserve requirement. The reserve requirement on deposits payable on demand (ie liquid deposits) is 2 per cent, on other deposits 1.5 per cent and on other balance sheet items 1 per cent. At the end of October 1996, the sum total of required reserves was FIM 6.7 billion and the weighted average reserve requirement 1.6 per cent.

A bank with a current account at the Bank of Finland can meet its reserve requirements by maintaining the monthly average of its daily balances at least as high as the minimum reserve requirement. Thus banks may use funds in their current accounts for effecting payments so long as the average monthly balances meet their respective reserve requirements on the last banking day of each month. Banks that do not have a current account at the Bank of Finland or use another bank as their central bank deposit their reserves in special minimum reserve accounts at the Bank of Finland.

The minimum reserve requirement applies to the following banks:

Aktia Savings Bank Ltd  
Bank of Åland Ltd  
Banque Indosuez Helsinki Branch  
Citibank International plc Finland Branch  
Interbank Ltd  
Merita Bank Ltd  
OP-Homebank Ltd  
Okobank  
Okopankki Oy, an Okobank subsidiary  
Postipankki Ltd  
Skandinaviska Enskilda Banken Helsinki Branch  
Skopbank  
Svenska Handelsbanken AB,  
Branch Operation in Finland  
Other cooperative banks and savings banks

## Market operations

The Bank of Finland affects interest rates and exchange rates by means of market operations, ie by dealing in securities or foreign exchange assets with its selected counterparties.

Money market operations can be carried out in the form of either bilateral money market transactions or tenders. Tenders, in which the Bank of Finland lends money to the banks, are carried out via repurchase (repo) transactions. In order to drain liquidity from the banking system, ie collect deposits from banks, the Bank of Finland generally sells its own CDs via tenders.

In a volume tender, the Bank of Finland announces the tender rate in advance, and the banks submit bids for the volumes they wish to transact. In an interest rate tender, banks bid by both rate and volume, and the Bank of Finland's tender rate becomes the weighted average of accepted bids. The tender rate applies to one-month maturity and is expressed as an annual rate. Short-term market rates move in line with the tender rate. On 31 October the tender rate was 3.00 per cent.

The Bank of Finland may accept as money market counterparties credit institutions that are subject to minimum reserve requirements and which the Bank of Finland considers to be otherwise qualified to operate as counterparties. A counterparty is required to have a current account at the Bank of Finland and adequate technical facilities and to be an active and important money market participant. Counterparties in outright bilateral trades are also required to act as market makers' for money market instruments and to observe the money market rules and code of conduct. At its discretion, the Bank of Finland may also accept as counterparties market participants that are not subject to minimum reserve requirements.

The following banks have been accepted as counterparties for money market operations:

Aktia Savings Bank Ltd  
Bank of Åland Ltd  
Merita Bank Ltd  
Okobank  
Postipankki Ltd  
Skandinaviska Enskilda Banken Helsinki Branch  
Svenska Handelsbanken AB,  
Branch Operation in Finland

Normally, the instruments accepted for the Bank of Finland's outright money market transactions are Treasury bills and Bank of Finland certificates of deposit. In special cases, other money market instruments can be approved for use in outright transactions.

Acceptable underlying assets for repo transactions comprise Bank of Finland CDs, benchmark government bonds, Treasury bills, notes issued by Asset Management Company Arsenal, and CDs issued by banks that operate as money market counterparties.

In repo transactions, haircuts are set according to issuer and maturity as follows:

Issuer		Short-term 12 months or less	Long-term over 12 months
Bank of Finland	CDs	0 %	
Government	Treasury bills	0 %	
	Benchmark government bonds	0 %	5 %
Arsenal	Notes	5 %	
Banks	CDs	5 %	

The Bank of Finland conducts foreign exchange operations with the banks primarily when it wants to influence the exchange rate. The Bank attempts to even out wide fluctuations in the exchange rate and, in the context of the ERM, it is responsible for keeping the markka's exchange

value against other ERM currencies within the allowed  $\pm 15$  per cent fluctuation margins. In addition, the Bank of Finland converts currencies that the central government has borrowed from abroad into markkaa and sells foreign exchange to the central government as needed to service loans.

The Bank of Finland requires that its counterparties in foreign exchange operations act as market makers for the Finnish markka. The following banks have been accepted as counterparties for foreign exchange operations:

Merita Bank Ltd  
Okobank  
Postipankki Ltd  
Skandinaviska Enskilda Banken Helsinki Branch  
Svenska Handelsbanken AB,  
Branch Operation in Finland

### **Liquidity credit facility**

Upon application, the Bank of Finland may grant access to the liquidity credit facility to any credit institution which is subject to the minimum reserve requirement and has a current account at the Bank of Finland. The facility enables the credit institution to obtain liquidity credit or accrue interest on its excess reserve deposits at the Bank of Finland.

Liquidity credit must be fully collateralized and the applicable interest rate is tied to the Bank of Finland's tender rate. On 31 October the rate on liquidity credit was 5.00 per cent, ie the margin versus the tender rate was 2 percentage points. The maturity for liquidity credit may be 1, 7, 14, 21 or 28 days. The maturity and other terms and conditions are decided by the Bank of Finland. Since October 1992 the maturity has been 7 days.

If the monthly average of a bank's daily current account balances exceeds the bank's reserve requirement, the bank is considered to have excess reserves. The Bank of Finland may separately decide to pay interest on excess reserves; on 31 October the rate was 1.0 per cent.

The following banks have been granted access to the Bank of Finland's liquidity credit facility:

Aktia Savings Bank Ltd  
Bank of Åland Ltd  
Banque Indosuez Helsinki Branch  
Citibank International plc Finland Branch  
Interbank Ltd  
Merita Bank Ltd  
Okobank  
Postipankki Ltd  
Skandinaviska Enskilda Banken Helsinki Branch  
Svenska Handelsbanken AB,  
Branch Operation in Finland  
Skopbank

### **Current account system**

The Bank of Finland's current account system is an essential part of the payment and clearing system in Finland. Payments effected in the system can be divided into three main types: (1) business transactions between the Bank of Finland and the banks, ie payments related to monetary policy and maintenance of the money supply, (2) interbank payments and (3) payments related to clearing and settlement systems, including cover for interbank settlement of trades effected via the Helsinki Money Market Center or Helsinki Stock Exchange.

Upon application, the Bank of Finland may open a current account for any Finnish or foreign credit institution operating in Finland which is subject to minimum reserve

<sup>1</sup> Functioning as a market maker means that the counterparty is able to give binding buy/sell quotes on the securities or foreign currencies in question.

requirements and which fulfils certain other requirements. The credit institution must be subject to supervision by the Financial Supervision Authority or to other comparable public supervision. It must meet the capital adequacy requirements laid down in the Credit Institutions Act and its own funds must amount to at least FIM 30 million. For special reasons, the Bank of Finland may at its discretion open current accounts for other institutions participating in the financial markets.

Upon application, the Bank of Finland may also grant an intraday credit limit on the current account of a credit institution subject to minimum reserve requirements if such account holder provides the Bank of Finland full collateral for the credit limit in accordance with the Bank's guidelines.

Current account holders have workstations linked to the Bank of Finland's current account data base via a data communications network. Current account holders themselves effect payments to other current account holders via their workstations.

The following entities have a current account at the Bank of Finland:

Aktia Savings Bank Ltd  
Asset Management Company Arsenal Ltd  
Bank of Åland Ltd  
Banque Indosuez Helsinki Branch

Citibank International plc Finland Branch  
Helsinki Money Market Center Ltd  
Finnish Export Credit Ltd  
SOM Ltd, Securities and Derivatives Exchange,  
Clearing House  
Government Guarantee Fund  
Helsinki Stock Exchange  
Interbank Ltd  
Merita Bank Ltd  
Okobank  
Postipankki Ltd  
Skandinaviska Enskilda Banken Helsinki Branch  
Skopbank  
State Treasury  
Svenska Handelsbanken AB,  
Branch Operation in Finland

### **Base rate**

The Parliamentary Supervisory Board decides on the Bank of Finland's base rate upon a proposal of the Board of the Bank of Finland. The base rate is used as a market reference rate. About 22 per cent of outstanding deposits and 20 per cent of lending is tied to the base rate, but only 1.2 per cent of new lending is tied to it (October 1996). As from 16 September 1996, the base rate has been 4.0 per cent.





# Finland in brief

## Land, climate and population

Finland covers an area of more than 338 000 square kilometres. The total area is slowly increasing because of the steady uplift of the land since the last glacial era. The country shares frontiers with Sweden in the west, Norway in the north and Russia in the east and has a coastline bordered by the Baltic Sea in the south and west. Agricultural land accounts for 8 % of the total area, forest and other wooded land for 69 % and inland waters for 10 %. Located between latitudes 60° and 70° north, Finland has warm summers and cold winters. Helsinki on the south coast has an average maximum temperature of 22° C (72° F) in July and -4° C (25° F) in February.

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

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

## Form of government

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

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

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

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

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

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

## International relations

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

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

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

## The economy

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

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

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

3.7 % in 1970–79, 3.7 % in 1980–89 and 3.6 % in 1950–95. Finland's GDP per capita in 1995 was USD 24 500.

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

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

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

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

## **Finance and banking**

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

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

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

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

In the money market, 69 % of the instruments, which totalled approximately FIM 142 billion at end-1995, were bank certificates of deposit (including central bank paper). Other negotiable money market instruments consist of Treasury bills, commercial paper and local authority paper.

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



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# 1. The balance sheet of the Bank of Finland

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

	1995		1996		
	31 Dec.	8 Nov.	15 Nov.	22 Nov.	29 Nov.
<b>ASSETS</b>					
<b>Reserve assets</b>	48 865	37 444	37 541	36 951	36 985
Gold	1 742	1 742	1 742	1 742	1 742
Special drawing rights	1 569	1 021	1 036	1 037	1 044
IMF reserve tranche	1 685	1 932	1 933	1 932	1 945
ECU-claim on the European Monetary Institute	3 363	2 545	2 538	2 548	2 541
Foreign exchange assets	40 506	30 203	30 291	29 691	29 713
<b>Other foreign claims</b>	3 969	4 053	4 053	4 053	4 053
Markka subscription to Finland's quota in the IMF	3 911	3 994	3 994	3 994	3 994
Share in the European Monetary Institute	58	59	59	59	59
<b>Claims on financial institutions</b>	8 831	12 356	12 348	13 141	9 640
Liquidity credits	-	-	-	793	721
Certificates of deposit	-	-	-	-	-
Securities with repurchase commitments	7 076	10 461	10 461	10 461	7 041
Term credits	-	-	-	-	-
Bonds	417	206	206	206	198
Other claims on financial institutions	1 339	1 689	1 681	1 681	1 681
<b>Claims on the public sector</b>	1 882	5 982	5 982	5 985	5 987
Treasury bills	-	-	-	-	-
Bonds	-	-	-	-	-
Total coinage	1 882	1 882	1 882	1 885	1 886
Loans for stabilizing the money market	-	3 268	3 268	3 268	3 268
Other claims on the public sector	-	832	832	832	832
<b>Claims on corporations</b>	2 886	2 279	2 274	2 271	2 271
Financing of domestic deliveries (KTR)	185	82	78	74	74
Other claims on corporations	2 700	2 197	2 197	2 197	2 197
<b>Other assets</b>	5 645	625	642	619	654
Loans for stabilizing the money market	4 532	-	-	-	-
Accrued items	972	522	539	517	527
Other assets	141	103	103	102	127
<b>Valuation account</b>	643	-	-	-	-
<b>Capitalized expenditures and losses due to safeguarding the stability of the money market</b>	1 400	1 400	1 400	1 400	1 400
<b>Total</b>	<b>74 121</b>	<b>64 138</b>	<b>64 240</b>	<b>64 420</b>	<b>60 989</b>
<b>LIABILITIES</b>					
<b>Foreign currency liabilities</b>	1 214	1 140	1 128	1 201	1 199
<b>Other foreign liabilities</b>	4 837	4 936	4 937	4 936	4 942
IMF markka accounts	3 911	3 994	3 994	3 994	3 994
Allocations of special drawing rights	927	942	943	942	948
Other foreign liabilities	-	-	-	-	-
<b>Notes and coin in circulation</b>	15 611	15 347	15 301	15 319	15 449
Notes	13 868	13 600	13 556	13 572	13 698
Coin	1 743	1 746	1 746	1 748	1 751
<b>Certificates of deposit</b>	27 090	21 220	22 510	22 160	22 160
<b>Liabilities to financial institutions</b>	16 777	10 016	8 951	9 343	5 646
Reserve deposits	15 676	8 515	7 450	7 843	4 145
Term deposits	-	-	-	-	-
Other liabilities to financial institutions	1 101	1 500	1 500	1 500	1 500
<b>Liabilities to the public sector</b>	75	-	-	-	-
Cheque accounts	0	-	-	-	-
Deposits of the Government Guarantee Fund	75	-	-	-	-
Other liabilities to the public sector	-	-	-	-	-
<b>Liabilities to corporations</b>	994	661	657	610	606
Deposits for investment and ship purchase	994	661	657	610	606
Other liabilities to corporations	-	-	-	-	-
<b>Other liabilities</b>	327	279	273	289	243
Accrued items	300	238	240	255	209
Other liabilities	27	42	33	34	34
<b>Valuation account</b>	-	3 344	3 287	3 365	3 549
<b>Provisions</b>	1 431	1 431	1 431	1 431	1 431
Pension provision	1 431	1 431	1 431	1 431	1 431
Other provisions	-	-	-	-	-
<b>Capital accounts</b>	5 764	5 764	5 764	5 764	5 764
Primary capital	5 000	5 000	5 000	5 000	5 000
Reserve fund	764	764	764	764	764
Net earnings	-	-	-	-	-
<b>Total</b>	<b>74 121</b>	<b>64 138</b>	<b>64 240</b>	<b>64 420</b>	<b>60 989</b>

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

End of period	Foreign sector							Public sector			
	Gold	Special drawing rights	IMF reserve tranche	ECU-claim on the European Monetary Institute	Foreign exchange assets	Reserve assets (1+2+3+4+5)	Other claims, net	Net claims (6+7)	Claims	Liabilities	Net claims (9-10)
	1	2	3	4	5	6	7	8	9	10	11
	2 180	932	1 136	.	29 381	33 629	-424	33 204	1 375	3	1 372
	2 180	564	1 732	.	25 041	29 517	-2 998	26 519	2 446	90	2 356
	2 180	664	1 747	.	28 882	33 473	-1 324	32 148	1 788	784	1 004
	2 180	1 537	1 354	.	47 672	52 743	-1 114	51 629	1 806	93	1 713
	1 742	1 569	1 685	3 363	40 506	48 865	-2 082	46 783	1 882	75	1 807
	1 742	1 421	1 666	3 279	42 396	50 503	-2 113	48 390	1 819	75	1 744
	1 742	1 569	1 685	3 363	40 506	48 865	-2 082	46 783	1 882	75	1 807
	1 742	1 174	1 716	3 337	36 023	43 993	-1 378	42 615	1 879	132	1 747
	1 742	1 061	1 767	3 376	37 832	45 778	-1 484	44 294	1 880	54	1 826
	1 742	1 165	1 802	3 435	35 330	43 475	-1 364	42 111	1 874	40	1 834
	1 742	1 401	1 864	3 070	33 986	42 063	-1 481	40 582	1 873	342	1 531
	1 742	1 474	1 953	3 002	27 814	35 985	-1 725	34 260	6 670	0	6 670
	1 742	1 243	1 908	2 964	26 851	34 707	-2 015	32 692	6 460	0	6 460
	1 742	1 187	1 880	2 642	26 402	33 854	-2 066	31 788	6 460	0	6 460
	1 742	1 186	1 909	2 613	27 139	34 590	-2 588	32 002	6 297	-	6 297
	1 742	1 412	1 928	2 614	27 619	35 315	-1 774	33 541	5 998	-	5 998
	1 742	1 017	1 915	2 519	29 510	36 703	-1 863	34 840	5 982	-	5 982
	1 742	1 044	1 945	2 541	29 713	36 985	-2 088	34 897	5 987	-	5 987

End of period	Domestic financial sector				Corporate sector				
	Term claims on deposit banks, net	Reserve deposits of deposit banks <sup>1</sup>	Other claims on financial institutions, net	Net claims (12+13+14)	Claims in the form of special financing	Special deposits and other items, net	Net claims (16+17)	Notes and coin in circulation	Out-standing CDs issued by the Bank of Finland
	12	13	14	15	16	17	18	19	20
	11 882	-10 361	3 325	4 846	1 086	-6 854	-5 768	14 528	8 880
	3 738	-13 165	4 022	-5 405	747	-2 651	-1 904	14 508	4 880
	7 337	-6 398	-463	476	496	720	1 216	14 994	14 837
	1 480	-6 526	-347	-5 392	316	1 285	1 601	14 315	35 236
	7 076	-15 676	655	-7 945	185	1 706	1 891	15 611	27 090
	5 409	-7 011	711	-891	192	1 631	1 823	14 321	38 082
	7 076	-15 676	655	-7 945	185	1 706	1 891	15 611	27 090
	3 182	-18 155	624	-14 349	170	1 756	1 926	14 293	16 743
	2 095	-8 092	2 046	-3 951	159	1 808	1 968	14 428	28 325
	2 244	-6 564	598	-3 722	153	1 825	1 978	14 448	25 426
	3 430	-8 831	304	-5 097	138	1 628	1 767	14 759	20 350
	10 237	-8 790	527	1 974	129	1 541	1 670	14 967	20 700
	7 887	-4 191	498	4 194	124	1 560	1 685	15 275	21 420
	6 540	-7 203	487	-176	117	1 581	1 698	15 251	16 445
	9 988	-5 400	472	5 060	108	1 592	1 700	15 201	21 920
	10 147	-3 676	443	6 914	102	1 630	1 732	15 331	24 650
	10 683	-5 131	394	5 946	92	1 662	1 754	15 296	24 920
	7 041	-4 145	1 100	3 996	74	1 591	1 665	15 449	22 160

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

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

	Reserve requirement			Required reserves <sup>1</sup> , mill. FIM	Excess reserves, mill. FIM	Total reserves, mill. FIM (4+5)	Liquidity credits, mill. FIM
	On deposits payable on demand, %	On other deposits, %	On other items, %				
	1	2	3	4	5	6	7
	2.0	1.5	1.0	6 398	.	.	440
	2.0	1.5	1.0	6 526	.	.	14
I-IX	2.0	1.5	1.0	6 557	.	.	123
X-XII	2.0	1.5	1.0	6 530	616	7 146	37
	2.0	1.5	1.0	6 545	196	6 741	112
	2.0	1.5	1.0	6 487	1 512	7 999	-
	2.0	1.5	1.0	6 541	217	6 758	-
	2.0	1.5	1.0	6 681	251	6 932	50
	2.0	1.5	1.0	6 699	240	6 939	278
	2.0	1.5	1.0	6 672	148	6 821	153
	2.0	1.5	1.0	6 624	105	6 730	-
	2.0	1.5	1.0	6 689	481	7 171	-
	2.0	1.5	1.0	6 728	139	6 868	-
	2.0	1.5	1.0	6 672	308	6 981	544
	2.0	1.5	1.0	6 636	1 634	8 270	-
	2.0	1.5	1.0	6 703	631	7 334	-
	2.0	1.5	1.0	6 596	136	6 732	233

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

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

During period	Purchases of money market instruments	Sales of money market instruments	Matured money market instruments, net	Money market transactions, net (1-2-3)
	1	2	3	4
	109 568	30 380	81 969	-2 781
	76 230	137 940	-60 417	-1 293
	86 521	146 899	-50 486	-9 892
	35 540	351 820	-295 165	-21 115
	50 435	434 810	-393 930	9 555
	4 680	38 080	-30 380	-3 020
	5 100	31 240	-37 290	11 150
	3 250	26 000	-22 850	100
	2 100	27 420	-24 080	-1 240
	2 280	24 350	-21 300	-770
	3 500	16 320	-26 040	13 220
	10 500	20 060	-12 880	3 320
	7 900	14 020	-2 390	-3 730
	6 700	16 450	-13 510	3 760
	14 800	21 920	-9 892	2 772
	11 900	24 650	-15 530	2 780
	10 600	24 920	-12 030	-2 290
	7 900	19 340	-23 630	12 190



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

During period	Intervention in the foreign exchange market			Spot transactions related to forward contracts, net	Central government's foreign exchange transactions, net
	Spot purchases	Spot sales	Forward exchange intervention = change in forward exchange position		
	1	2	3	4	5
	35 120	-69 940	-14 820	12 820	12 260
	20 050	-70 640	-1 650	390	45 060
	25 120	-45 080	7 460	-6 910	33 240
	20 930	-12 900	9 060	-8 930	24 660
	4 910	-5 960	-6 170	9 170	-9 645
	-	-180	-830	860	-330
	60	-	-2 580	2 570	120
	-	-820	-	-	-2 310
	-	-3 970	-	-	-1 150
	-	-1 330	-	-	2 440
	-	-440	-	-	-1 970
	-	-1 100	-	-	-1 710
	1 200	-	-	-	-6 230
	240	-	-	-	-720
	60	-	-	-	-50
	1 350	-	-	-	-658
	2 310	-	-	-	-2 210
	2 200	-	-	-	-690

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

Stock at end of period	Finnish banks' forward contracts						Total	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				Net	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		
	33 004	36 352	-3 348	40 056	37 505	2 550	-798	1 404	645	759	8 953	
	39 195	32 939	6 256	21 142	32 339	-11 197	-4 941	1 614	1 929	-315	7 133	
	38 373	23 721	14 652	14 346	21 895	-7 548	7 104	11 632	2 173	9 459	1 939	
	51 096	22 093	29 003	19 236	32 791	-13 555	15 448	18 372	4 780	13 592	-6 080	
	60 280	19 095	41 185	31 837	48 906	-17 069	24 116	12 829	6 871	5 957	-	
	56 689	20 187	36 503	25 509	39 525	-14 015	22 488	14 986	6 228	8 758	-2 572	
	58 789	21 279	37 510	29 384	45 295	-15 911	21 599	15 154	6 539	8 615	-	
	60 280	19 095	41 185	31 837	48 906	-17 069	24 116	12 829	6 871	5 957	-	
	62 881	24 416	38 465	38 155	61 008	-22 854	15 611	15 426	9 221	6 205	-	
	69 329	29 225	40 105	44 599	67 131	-22 532	17 573	16 168	9 036	7 132	-	
	69 288	29 810	39 478	47 057	66 398	-19 341	20 137	15 413	8 400	7 013	-	
	65 120	29 781	35 340	42 328	63 860	-21 532	13 808	15 326	8 836	6 490	-	
	63 924	29 718	34 206	43 553	66 290	-22 737	11 469	17 851	8 327	9 525	-	
	60 709	27 714	32 995	43 406	61 302	-17 896	15 099	16 731	8 494	8 237	-	
	57 388	27 873	29 514	42 949	62 681	-19 733	9 781	16 977	8 127	8 849	-	
	56 042	26 638	29 404	43 992	68 884	-24 891	4 513	17 407	7 513	9 894	-	
	54 160	23 422	30 738	46 476	69 507	-23 031	7 707	18 761	7 536	11 225	-	
	54 587	24 466	30 120	50 823	73 163	-22 341	7 779	18 988	6 902	12 085	-	

### 3. Rates of interest

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

Average of daily observations	Interbank overnight rate	HELIBOR					Bank of Finland rates		
		1 month	3 months	6 months	12 months	Liquidity credit rate <sup>1</sup>	Excess-reserve rate <sup>2</sup>	Base rate	
	1	2	3	4	5	6	7	8	
1992	14.89	13.64	13.07	12.69	12.53	15.48	4.00	8.50	
1993	13.32	13.49	13.27	13.08	12.96	14.90	7.41	9.17	
1994	7.71	7.85	7.73	7.59	7.47	8.95	4.95	6.85	
1995	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	
1995									
Nov	4.90	4.90	4.93	4.99	5.11	6.90	2.90	5.00	
Dec	4.60	4.56	4.54	4.57	4.66	6.56	2.56	4.86	
1996									
Jan	4.30	4.21	4.20	4.24	4.41	6.25	2.25	4.75	
Feb	4.05	4.27	4.28	4.33	4.58	6.25	2.25	4.50	
March	3.83	3.95	4.01	4.12	4.36	5.94	1.94	4.50	
April	3.91	3.77	3.82	3.95	4.21	5.75	1.75	4.50	
May	4.01	3.75	3.76	3.86	4.16	5.75	1.75	4.50	
June	3.38	3.67	3.72	3.84	4.11	5.67	1.67	4.50	
July	3.48	3.54	3.63	3.78	4.07	5.52	1.52	4.50	
Aug	3.94	3.45	3.54	3.70	4.00	5.43	1.43	4.50	
Sept	3.16	3.19	3.28	3.43	3.67	5.19	1.19	4.25	
Oct	3.11	3.04	3.10	3.20	3.40	5.03	1.03	4.00	
Nov	3.29	3.02	3.08	3.21	3.46	5.00	1.00	4.00	

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

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

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

	The Bank of Finland's tender rate, %	Liquidity credit: interest rate margin, %-points	Liquidity credit: maturity, days	Call money deposits: interest rate margin, %-points	Excess-reserve rate
	1	2	3	4	5
1992	13.85				
1993	7.87	+1.00	7	-3.00	.
1994	5.11	+2.00	7	-2.00	.
1995	5.63	+2.00	7	.	2.25
1995					
Nov	4.90	+2.00	7	.	2.75
Dec	4.56	+2.00	7	.	2.25
1996					
Jan	4.25	+2.00	7	.	2.25
Feb	4.25	+2.00	7	.	2.25
March	3.94	+2.00	7	.	1.75
April	3.75	+2.00	7	.	1.75
May	3.75	+2.00	7	.	1.75
June	3.67	+2.00	7	.	1.60
July	3.52	+2.00	7	.	1.50
Aug	3.43	+2.00	7	.	1.25
Sept	3.19	+2.00	7	.	1.10
Oct	3.03	+2.00	7	.	1.00
Nov	3.00	+2.00	7	.	1.00
13.3.1996	3.75				1.75
14.6.1996	3.60				1.60
5.7.1996	3.50				1.50
23.8.1996	3.25				1.25
18.9.1996	3.10				1.10
9.10.1996	3.00				1.00

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

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

Average of daily observations	ECU	3 currencies	Commercial ECU
	3 months		
	1	2	3
1991	10.1	8.5	9.9
1992	10.4	7.8	10.6
1993	8.0	5.9	8.1
1994	5.9	5.2	6.1
1995	5.9	5.2	6.0
1995			
Nov	5.5	4.8	5.5
Dec	5.3	4.7	5.3
1996			
Jan	4.8	4.5	4.9
Feb	4.6	4.2	4.7
March	4.6	4.3	4.7
April	4.4	4.2	4.5
May	4.3	4.3	4.4
June	4.4	4.3	4.5
July	4.3	4.3	4.5
Aug	4.3	4.2	4.4
Sept	4.2	4.1	4.3
Oct	4.1	4.1	4.2
Nov	4.1	4.2	4.2

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

Average for period	Lending					Markka deposits and other markka funding						
	New credits				Average lending rate	Of which: Commercial banks	24-month tax-exempt deposits <sup>1</sup>	36-month tax-exempt deposits <sup>1</sup>	Other tax-exempt deposits, max. rate of interest <sup>1</sup>	Average rate of interest on deposits	Average rate of interest on other funding	Average rate of interest on markka funding
	Cheque account and postal giro credits	Bills of exchange	Loans	New lending, total								
1	2	3	4	5	6	7	8	9	10	11	12	
13.63	15.88	13.40	13.84	12.08	11.80	7.50		4.50	7.10	13.22	8.97	
14.04	15.86	13.32	13.75	12.46	12.13	7.50	8.50	4.50	7.41	12.84	9.14	
9.69	13.55	9.40	9.75	10.20	9.92	3.50	4.50	2.00	4.78	8.86	6.15	
7.32	11.55	7.13	7.35	8.18	7.91	3.25	4.25	2.00	2.99	5.96	4.01	
7.85	11.33	7.30	7.46	8.04	7.75	2.75	3.75	2.00	3.13	6.29	4.08	
7.73	11.56	7.28	7.43	7.98	7.68	3.25	4.25	2.00	3.09	6.19	4.03	
6.86	11.48	6.80	6.92	7.78	7.45	3.00	4.00	2.00	2.92	6.04	3.81	
6.53	9.30	6.10	6.21	7.46	7.13	2.75	3.75	2.00	2.69	5.27	3.38	
6.30	11.05	5.81	5.94	7.18	6.88	2.75	3.75	2.00	2.55	5.17	3.29	
5.79	9.32	6.04	6.08	6.99	6.70	2.50	3.50	2.00	2.44	4.98	3.15	
5.13	10.78	5.93	5.99	6.88	6.57	2.50	3.50	2.00	2.37	4.63	3.00	
4.83	8.19	5.71	5.75	6.77	6.43	2.50	3.50	2.00	2.32	4.71	2.99	
5.96	9.19	5.59	5.73	6.64	6.30	2.50	3.50	2.00	2.27	4.59	2.97	
5.31	10.66	5.35	5.44	6.55	6.20	2.50	3.50	2.00	2.23	4.10	2.79	
6.26	9.78	5.48	5.63	6.48	6.12	2.50	3.50	2.00	2.21	4.29	2.81	
6.19	9.74	5.51	5.66	6.42	6.04	2.50	3.50	2.00	2.07	4.09	2.71	
6.24	9.95	4.92	5.06	6.23	5.87	2.00	3.00	2.00	1.93	3.92	2.52	
5.63	9.75	4.90	5.04	5.99	5.67	2.00	3.00	2.00	1.84	3.72	2.39	

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

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

Period	Bonds				Shares
	Reference rates calculated by the Bank of Finland		Taxable government bonds		Share yield
	3 years	5 years	5 years	10 years	
1	2	3	4	5	
	12.3	12.2	11.8		3.9
	13.1	13.0	12.0	11.5 <sup>1</sup>	3.1
	8.5	8.9	8.2	8.8	1.8
	8.5	9.3	8.4	9.1	1.4
	8.2	8.9	7.9	8.8	2.6
	7.4	8.0	7.5	7.9	2.6
	6.7	7.5	7.0	7.5	3.1
	6.5	7.3	6.7	7.4	3.5
	6.1	6.9	6.3	7.0	2.2
	6.4	7.3	6.9	7.7	2.1
	6.4	7.5	6.8	7.7	3.0
	6.1	7.2	6.5	7.5	3.0
	6.1	7.4	6.5	7.4	2.4
	6.0	7.2	6.3	7.2	2.4
	5.9	6.9	6.2	7.1	2.4
	5.8	6.9	6.1	7.2	2.3
	5.4	6.5	5.6	6.9	2.8
	5.0	5.9	5.1	6.5	2.8

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

## 4. Rates of exchange

### 4.1 Middle rates, FIM

Average of daily quotations	New York 1 USD	Montreal 1 CAD	London 1 GBP	Dublin 1 IEP	Stockholm 1 SEK	Oslo 1 NOK	Copenhagen 1 DKK	Reykjavik 1 ISK	Frankfurt am Main 1 DEM	Amsterdam 1 NLG	Brussels 1 BEF	Zurich 1 CHF
	1	2	3	4	5	6	7	8	9	10	11	12
	4.0457	3.534	7.131	6.511	0.6684	0.6236	0.6322	0.0684	2.4380	2.1634	0.1184	2.8208
	4.4835	3.706	7.875	7.636	0.7714	0.7222	0.7444	0.0778	2.8769	2.5552	0.1397	3.2000
	5.7189	4.434	8.582	8.371	0.7350	0.8059	0.8822	0.0846	3.4584	3.0787	0.1655	3.8706
	5.2184	3.824	7.982	7.799	0.6758	0.7393	0.8207	0.0745	3.2169	2.8684	0.1561	3.8179
	4.3658	3.181	6.891	6.999	0.6123	0.6889	0.7790	0.0674	3.0471	2.7202	0.1481	3.6941
	4.2400	3.134	6.629	6.814	0.6427	0.6785	0.7724	0.0656	2.9934	2.6724	0.1456	3.7109
	4.3351	3.165	6.669	6.893	0.6531	0.6822	0.7766	0.0663	3.0083	2.6866	0.1464	3.7246
	4.4425	3.251	6.797	7.032	0.6608	0.6923	0.7859	0.0673	3.0398	2.7145	0.1479	3.7670
	4.5520	3.309	6.991	7.200	0.6611	0.7107	0.8026	0.0687	3.1048	2.7725	0.1510	3.8076
	4.6019	3.370	7.026	7.234	0.6836	0.7158	0.8062	0.0694	3.1140	2.7818	0.1515	3.8459
	4.7313	3.482	7.169	7.402	0.7040	0.7285	0.8147	0.0709	3.1434	2.8109	0.1530	3.8805
	4.7568	3.475	7.207	7.437	0.6996	0.7233	0.8038	0.0706	3.1028	2.7755	0.1509	3.7924
	4.6713	3.420	7.204	7.398	0.6991	0.7153	0.7933	0.0695	3.0590	2.7310	0.1487	3.7172
	4.5888	3.352	7.128	7.354	0.6909	0.7113	0.7910	0.0687	3.0495	2.7171	0.1480	3.7178
	4.4777	3.263	6.941	7.215	0.6765	0.6986	0.7816	0.0676	3.0210	2.6932	0.1466	3.7227
	4.5383	3.313	7.075	7.309	0.6834	0.7029	0.7826	0.0680	3.0145	2.6889	0.1464	3.6860
	4.5714	3.383	7.245	7.352	0.6925	0.7049	0.7803	0.0681	2.9918	2.6669	0.1452	3.6337
	4.5500	3.400	7.571	7.576	0.6869	0.7162	0.7839	0.0982	3.0106	2.6843	0.1461	3.5703

Average of daily quotations	Paris 1 FRF	Rome 1 ITL	Vienna 1 ATS	Lisbon 1 PTE	Madrid 1 ESP	Athens 1 GRD	Tallinn 1 EEK	Tokyo 1 JPY	Melbourne 1 AUD	ECU Commercial 1 XEU	SDR 1 XDR
	13	14	15	16	17	18	19	20	21	22	23
	0.7169	0.00326	0.3464	0.0280	0.0389	0.022		0.03008	3.152	5.003	5.52771
	0.8486	0.00364	0.4088	0.0332	0.0438	0.024	0.4060	0.03546	3.289	5.798	6.31546
	1.0096	0.00364	0.4916	0.0356	0.0451	0.025	0.4323	0.05168	3.885	6.685	7.98641
	0.9406	0.00324	0.4573	0.0314	0.0390	0.0215	0.4021	0.05106	3.814	6.175	7.46629
	0.8748	0.00268	0.4331	0.0291	0.0350	0.0189	0.3809	0.04663	3.238	5.644	6.61879
	0.8677	0.00266	0.4255	0.0285	0.0348	0.0181	0.3742	0.04162	3.160	5.496	6.33703
	0.8733	0.00272	0.4276	0.0287	0.0354	0.0182	0.3760	0.04258	3.213	5.530	6.43793
	0.8878	0.00281	0.4323	0.0293	0.0361	0.0185	0.3800	0.04206	3.293	5.609	6.51994
	0.9028	0.00289	0.4414	0.0299	0.0368	0.0188	0.3881	0.04305	3.439	5.704	6.67427
	0.9095	0.00294	0.4427	0.0301	0.0370	0.0190	0.3892	0.04346	3.549	5.772	6.72716
	0.9262	0.00302	0.4470	0.0306	0.0377	0.0195	0.3929	0.04411	3.719	5.882	6.86087
	0.9170	0.00306	0.4412	0.0302	0.0372	0.0196	0.3878	0.04474	3.790	5.844	6.87179
	0.9026	0.00303	0.4348	0.0297	0.0363	0.0193	0.3824	0.04292	3.698	5.787	6.74035
	0.9006	0.00301	0.4334	0.0297	0.0361	0.0193	0.3812	0.04200	3.622	5.762	6.65070
	0.8848	0.00295	0.4293	0.0294	0.0356	0.0189	0.3776	0.04153	3.506	5.683	6.52988
	0.8854	0.00299	0.4284	0.0295	0.0358	0.0190	0.3768	0.04132	3.598	5.714	6.57191
	0.8846	0.00300	0.4253	0.0296	0.0355	0.0191	0.3740	0.04071	3.620	5.731	6.58126
	0.8898	0.00301	0.4279	0.0298	0.0358	0.0191	0.3763	0.04052	3.625	5.782	6.60942

#### 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
	5.00580	101.4	101.4
	5.80140	116.4	115.7
	6.69420	132.4	136.0
	6.19108	123.2	125.5
	5.70936	111.6	111.6
	5.61404	110.0	109.5
	5.65470	111.2	111.0
	5.73809	112.7	112.9
	5.86385	115.0	115.3
	5.89568	116.2	116.4
	5.98143	118.3	118.8
	5.93160	117.8	118.5
	5.85380	116.3	116.8
	5.82763	115.3	115.6
	5.74674	113.5	113.5
	5.76093	114.0	114.3
	5.75237	114.3	114.6
	5.81220	115.1	115.0

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

Average of daily observations	ECU	DEM	FRF	NLG	DKK	BEF	ESP	ATS	PTE	IEP	ITL
Central rate as of 25 Nov. 1996	5.85424	3.04000	0.906422	2.69806	0.796976	0.147391	0.0357345	0.432094	0.029657	7.32960	3.07071
	1	2	3	4	5	6	7	8	9	10	11
	-1.69	0.23	-3.48	0.82	-2.25	0.49	-2.02	0.24	-1.84	-4.52	..
	-3.32	-1.53	-4.27	-0.95	-3.08	-1.18	-2.56	-1.54	-3.76	-7.03	..
	-2.62	-1.04	-3.65	-0.42	-2.56	-0.68	-1.00	-1.04	-3.15	-5.96	..
	-1.18	-0.01	-2.06	0.61	-1.39	0.35	0.92	0.04	-1.16	-4.06	-8.64
	0.99	2.13	-0.40	2.76	0.71	2.43	3.07	2.16	0.69	-1.77	-5.78
	1.53	2.43	0.34	3.10	1.15	2.79	3.50	2.46	1.46	-1.30	-4.13
	3.01	3.40	2.19	4.18	2.23	3.81	5.44	3.45	3.20	0.98	-1.57
	2.15	2.07	1.16	2.87	0.85	2.41	4.03	2.10	1.83	1.46	-0.50
	0.81	0.62	-0.42	1.22	-0.47	0.90	1.46	0.62	0.16	0.94	-1.31
	0.36	0.31	-0.64	0.71	-0.76	0.42	1.05	0.31	0.01	0.34	-2.08
	-1.03	-0.63	-2.38	-0.18	-1.93	-0.53	-0.34	-0.64	-0.79	-1.56	-3.83
	-0.79	-0.84	-2.32	-0.34	-1.80	-0.66	0.10	-0.85	-0.48	-0.28	-2.75
	-0.93	-1.58	-2.40	-1.16	-2.09	-1.46	-0.56	-1.58	-0.18	0.31	-2.35
	-0.10	-0.97	-1.84	-0.51	-1.64	-0.87	0.10	-0.98	0.43	3.36	-2.10

## 5. Other domestic financing

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

End of period	Cheque and giro deposits	Transaction deposits	Time deposits	Other deposits	Markka deposits, total (1+2+3+4)	Foreign currency deposits	Total deposits (5+6)	Other funding	Total funding (7+8)
	1	2	3	4	5	6	7	8	9
1992	33 619	86 442	122 126	19 615	261 802	13 151	274 953	52 760	327 713
1993	34 832	88 526	114 771	21 218	259 347	14 626	273 973	65 557	339 530
1994	36 379	92 357	112 413	21 766	262 915	14 883	277 798	63 173	340 971
1995	41 200	99 691	108 922	19 838	269 650	12 774	282 424	44 228	326 651
1996	52 496	110 455	103 573	22 166	288 689	13 679	302 369	37 851	340 220
1997	46 983	105 397	108 792	20 795	281 966	12 488	294 454	62 337	356 791
1998	44 089	105 789	108 047	20 852	278 776	12 165	290 941	57 174	348 115
1999	47 040	104 602	105 406	21 553	278 602	12 247	290 849	64 497	355 346
2000	48 730	107 047	104 174	21 797	281 748	13 250	294 998	50 785	345 784
2001	52 496	110 455	103 573	22 166	288 689	13 679	302 369	37 851	340 220
2002	50 193	112 802	95 502	24 819	283 316	13 011	296 327	50 008	346 335
2003	51 099	114 843	92 250	23 683	281 875	14 184	296 059	38 431	334 490
2004	47 991	117 400	88 821	24 714	278 925	13 951	292 876	41 906	334 782
2005	49 678	118 933	85 792	24 883	279 285	14 896	294 181	43 472	337 653
2006	50 828	120 374	82 945	25 001	279 148	15 399	294 547	46 802	341 349
2007	51 768	123 948	77 415	27 669	280 800	13 816	294 617	43 867	338 483
2008	52 124	123 834	74 292	28 971	279 221	13 735	292 955	42 524	335 479
2009	51 620	124 989	71 620	30 631	278 859	12 857	291 717	47 258	338 975

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

End of period	Cheque account and postal giro credits	Bills of exchange	Loans	Markka lending, total (1+2+3)	Foreign currency credits	Total lending (4+5)
	1	2	3	4	5	6
1992	18 037	4 712	262 859	285 609	107 714	393 323
1993	16 045	3 335	252 163	271 544	95 168	366 712
1994	14 217	2 223	248 406	264 846	66 931	331 777
1995	13 241	1 301	242 417	256 958	45 138	302 096
1996	12 348	901	235 074	248 323	32 252	280 575
1997	11 860	1 058	242 323	255 242	36 230	291 472
1998	12 317	1 004	241 909	255 230	35 166	290 396
1999	12 180	992	241 103	254 275	34 006	288 281
2000	12 283	943	240 332	253 558	32 926	286 484
2001	12 348	901	235 074	248 323	32 252	280 575
2002	12 013	792	234 240	247 046	32 406	279 452
2003	12 114	853	235 279	248 246	31 240	279 486
2004	12 189	835	235 696	248 720	30 734	279 453
2005	12 042	834	235 129	248 005	31 704	279 709
2006	12 053	763	235 370	248 187	29 035	277 221
2007	11 720	747	237 581	250 049	29 206	279 255
2008	11 626	698	236 030	248 354	27 122	275 476
2009	11 784	685	237 978	250 447	26 540	276 987

### 5.3 Money supply, mill. FIM

End of period	Foreign assets, net	Domestic credit			Other items, net	Monetary aggregates		
		Claims on the central government	Claims on the public	Total (2+3)		M <sub>1</sub>	M <sub>2</sub> (1+4+5)	M <sub>3</sub>
	1	2	3	4	5	6	7	8
	-86 555	-6 516	470 852	464 336	-102 540	130 644	275 241	310 924
	-68 099	81	439 937	440 018	-97 909	134 829	274 011	310 733
	-25 989	1 848	403 742	405 589	-100 006	141 759	279 595	322 408
	12 844	6 092	365 712	371 804	-97 953	154 357	286 696	328 509
	25 481	19 837	353 340	373 177	-94 870	175 921	303 788	329 820
	28 085	20 208	365 657	385 865	-121 619	163 287	292 331	334 378
	26 219	16 770	363 830	380 600	-110 948	167 812	295 871	328 102
	25 481	19 837	353 340	373 177	-94 870	175 921	303 788	329 820
	21 471	12 339	350 717	363 056	-87 920	175 684	296 607	331 664
	29 249	11 358	350 755	362 114	-96 312	178 534	295 050	326 921
	29 809	12 658	350 873	363 531	-100 364	178 909	292 976	335 117
	25 644	18 817	351 511	370 329	-103 109	181 799	292 864	327 546
	24 810	19 008	349 775	368 783	-100 462	184 749	293 131	325 511
	28 625	23 209	351 923	375 131	-108 995	189 332	294 761	328 990
	36 492	24 318	349 162	373 481	-118 138	188 023	291 834	327 935
	34 402	25 936	349 733	375 669	-117 973	189 264	292 098	325 671
	33 218	15 590	349 521	365 111	-107 315	190 753	291 014	330 027
	..	..	..	..	..	195 592	293 160	332 373

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

End of period	Foreign currency-denominated debt			Markka-denominated debt				Total central government debt (3+8)	Out-standing lending	Cash funds	
	Bonds	Other debt	Total (1+2)	Public bonds	Other long-term liabilities	Treasury notes and bills	Miscellaneous items				Total (4+5+6+7)
	1	2	3	4	5	6	7	8	9	10	11
	38 703	4 943	43 646	31 018	12 208	5 180	.	48 406	92 052	55 320	15 956
	100 244	6 143	106 387	40 578	13 555	14 762	.	68 895	175 282	63 517	19 781
	142 824	12 753	155 577	71 082	16 060	22 824	.	109 966	265 543	64 233	36 487
	160 587	15 975	176 562	93 008	17 100	33 153	-5 945	137 316	313 878	66 851	43 012
	158 545	13 756	172 301	143 948	17 492	37 864	-5 609	193 695	365 996	66 855	41 878
	158 207	14 100	172 307	134 673	17 530	34 287	-5 692	180 798	353 105	69 390	32 117
	156 263	14 145	170 408	139 244	17 503	38 769	-5 675	189 841	360 249	67 749	45 082
	158 545	13 756	172 301	143 948	17 492	37 864	-5 609	193 695	365 996	66 855	41 878
	159 917	13 867	173 784	148 462	17 437	40 160	-5 670	200 389	374 173	67 194	38 351
	167 905	14 099	182 004	150 312	17 437	42 259	-5 682	204 326	386 330	67 257	53 668
	168 150	14 304	182 454	150 650	17 909	45 136	-5 697	207 998	390 452	67 471	45 117
	172 009	15 082	187 091	158 510	17 369	44 143	-5 298	214 724	401 815	67 576	48 628
	162 738	14 670	177 408	163 861	17 369	46 246	-5 294	222 182	399 590	67 077	48 909
	159 874	15 192	175 066	166 921	17 359	46 220	-5 324	225 176	400 242	66 754	48 626
	158 676	15 699	174 375	171 787	17 220	44 786	-5 367	228 426	402 801	66 824	50 441
	156 801	15 491	172 292	177 586	17 220	45 835	-5 405	235 236	407 528	67 027	55 516
	156 467	15 694	172 161	167 234	17 219	46 806	-5 408	225 851	398 012	64 300	44 278
	157 132	15 908	173 040	172 555	17 219	40 346	-5 454	224 666	397 706	..	38 903

## 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
	7 277	25 737	11 073	1 320	-	45 407
	6 984	15 043	12 965	2 674	4	37 671
	11 691	10 481	36 512	2 235	63	60 981
	4 053	9 899	31 553	593	-	46 099
	643	4 881	66 557	26	-	72 107
	-	150	5 020	-	-	5 170
	-	204	4 761	-	-	4 965
	-	410	4 717	-	-	5 126
	-	-	6 405	-	-	6 405
	-	157	1 899	-	-	2 056
	-	467	2 661	-	-	3 128
	850	-	7 887	-	-	8 737
	540	3 130	6 351	-	-	10 020
	-	522	3 847	20	-	4 390
	-	-	4 876	-	-	4 876
	-	360	9 671	-	-	10 031
	-	900	5 373	-	-	6 273
	-	600	6 976	-	-	7 576

### 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
	26 632	76 701	35 195	2 766	3 726	76 346	18 096	50 578	145 020
	26 624	82 153	44 005	5 238	3 358	89 382	13 918	58 078	161 378
	32 459	73 893	73 682	6 884	2 009	119 552	10 391	58 984	188 927
	30 179	66 467	94 865	6 981	953	141 935	7 581	49 929	199 445
	26 468	55 166	145 177	6 914	357	187 830	5 034	41 218	234 082
	27 602	59 561	135 897	7 463	363	181 435	5 058	44 393	230 886
	27 233	57 647	140 404	7 462	359	184 619	4 976	43 510	233 105
	26 468	55 166	145 177	6 914	357	187 830	5 034	41 218	234 082
	26 039	53 393	149 692	5 814	357	190 594	4 521	40 180	235 295
	25 942	52 432	151 541	5 679	357	191 827	4 290	39 834	235 951
	25 636	51 545	152 376	5 619	355	191 745	3 910	39 876	235 531
	26 394	50 933	159 728	5 612	355	200 101	3 899	39 022	243 022
	25 973	52 631	165 080	5 558	150	207 717	3 636	38 039	249 392
	25 534	50 500	168 139	4 647	149	209 827	3 622	35 520	248 969
	25 016	49 621	173 505	4 646	148	213 851	3 617	35 468	252 936
	24 756	49 370	179 304	4 638	148	219 536	3 360	35 320	258 216
	24 649	48 651	168 951	4 632	148	208 881	3 113	35 037	247 031
	24 834	47 427	174 273	4 642	145	214 135	2 974	34 212	251 321



### C) Turnover, mill. FIM

During period	Interbank transactions	Transactions between banks and customers	Primary dealers' transactions in benchmark government bonds		
			Purchases from other primary dealers	Purchases from others	Sales to others
	1	2	3	4	5
1991	3 343	29 134			
Jan	18 383	58 757	10 744	12 156	13 354
Feb	47 803	246 104	42 945	95 647	117 489
Mar	184 599	359 697	173 096	150 908	176 647
Apr	147 037	436 052	133 357	190 069	215 879
May					
Jun					
Jul					
Aug					
Sep					
Oct					
Nov					
Dec					
1992	10 782	40 739	10 060	18 386	21 090
Jan	11 970	44 723	11 387	21 621	21 833
Feb					
Mar					
Apr					
May					
Jun					
Jul					
Aug					
Sep					
Oct					
Nov					
Dec					
1993	22 987	59 858	22 069	26 431	29 781
Jan	28 639	49 337	28 117	23 641	24 870
Feb	21 686	47 221	21 298	22 895	23 603
Mar	12 424	35 405	12 336	15 989	15 769
Apr	13 809	27 849	13 505	12 223	11 995
May	10 679	23 361	9 499	8 982	10 037
Jun	13 411	26 745	12 763	10 069	12 616
Jul	13 452	50 597	12 908	22 320	22 356
Aug	20 933	58 941	20 680	26 345	29 739
Sep	26 602	52 158	26 298	25 293	26 064
Oct	13 084	37 331	12 545	16 312	20 612
Nov					
Dec					

### 5.6 Helsinki Stock Exchange

Average of daily observations	Share prices							Turnover <sup>1</sup> , mill. FIM		
	HEX index (28 Dec., 1990=1000)							Shares and sub- scrip- tion rights	Bonds and debentures	Total
	All-share index	By industry								
		Banks and finance	Insurance and investment	Manu- facturing	Of which:					
				Forest industries	Metal and engineering	Conglom- erates				
	1	2	3	4	5	6	7	8	9	10
1991	962	901	898	1 003	1 075	1 076	1 021	6 339	1 315	7 655
Jan	772	425	467	943	1 123	1 206	890	10 277	15 377	25 654
Feb	1 240	608	644	1 601	1 695	1 749	1 751	46 337	59 977	106 314
Mar	1 847	719	802	2 464	2 284	2 675	3 068	68 671	2 147	70 818
Apr	1 918	500	638	2 741	2 062	2 255	4 251	83 019	1 075	84 094
May										
Jun										
Jul										
Aug										
Sep										
Oct										
Nov										
Dec										
1992	1 887	417	657	2 708	1 807	2 105	4 478	6 942	132	7 074
Jan	1 769	437	635	2 496	1 740	2 109	4 448	7 515	126	7 641
Feb										
Mar										
Apr										
May										
Jun										
Jul										
Aug										
Sep										
Oct										
Nov										
Dec										
1993	1 710	476	671	2 363	1 686	2 116	4 452	7 241	62	7 302
Jan	1 810	472	735	2 507	1 796	2 267	4 798	8 238	51	8 289
Feb	1 851	458	776	2 568	1 951	2 330	5 051	7 758	54	7 812
Mar	1 867	412	747	2 618	2 040	2 399	5 188	7 940	32	7 972
Apr	1 995	418	754	2 820	2 095	2 622	5 532	10 860	42	10 902
May	2 019	408	787	2 851	2 079	2 616	5 627	7 681	36	7 717
Jun	2 002	400	779	2 819	2 174	2 588	5 815	5 885	17	5 902
Jul	2 082	407	805	2 945	2 240	2 732	6 175	6 995	44	7 039
Aug	2 131	401	862	3 012	2 188	2 778	6 125	7 204	49	7 253
Sep	2 217	520	967	3 084	2 087	2 764	6 367	10 410	53	10 463
Oct	2 317	573	977	3 226	2 017	2 744	6 442	10 676	39	10 715
Nov										
Dec										

<sup>1</sup> During period.

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

### 6.1 Current account, mill. FIM

During period	Exports of goods, fob	Transport receipts	Travel receipts	Other services receipts	Services receipts, total (2+3+4)	Exports of goods and services (1+5)	Investment income	Transfers and other income	Current account receipts (8+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
1989	91 100	7 508	5 044	5 636	18 189	109 289	10 003	5 336	124 628	86 348	3 974	11 089	11 011
1990	105 809	8 643	6 089	7 730	22 462	128 272	6 423	5 920	140 614	93 187	4 360	10 962	13 369
1991	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
1992	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
1993	174 629	11 616	7 536	15 366	34 519	209 148	13 729	8 420	231 297	126 738	6 716	10 450	19 150
1994	34 382	2 663	1 524	2 839	7 026	41 408	1 764	1 289	44 462	24 767	1 295	1 998	4 213
1995	38 486	2 902	1 860	2 649	7 411	45 897	2 802	1 190	49 889	29 458	1 455	2 151	3 967
1996	37 322	3 092	2 230	2 960	8 282	45 604	2 027	1 180	48 811	28 743	1 549	2 256	3 899
1997	41 832	2 728	1 700	3 360	7 788	49 620	3 025	1 260	53 905	35 716	1 563	2 291	4 721
1998	41 583	2 901	1 499	3 956	8 356	49 939	3 285	1 499	54 724	30 223	1 635	2 326	5 039
1999	46 371	2 917	1 891	3 654	8 462	54 833	3 446	1 505	59 784	32 083	1 720	2 639	4 825
2000	40 069	2 926	2 243	3 802	8 970	49 039	2 907	2 099	54 045	30 190	1 753	2 707	4 349
2001	46 606	2 873	1 903	3 954	8 730	55 336	4 092	3 316	62 744	34 242	1 609	2 779	4 937
2002	42 342	2 862	1 679	3 539	8 079	50 421	3 856	1 634	55 912	33 242	1 670	2 590	4 314
2003	47 049	3 099	1 983	3 535	8 617	55 666	3 288	1 846	60 801	34 448	1 718	2 834	3 935
2004	41 331	3 000	2 108	4 237	9 345	50 676	2 909	1 715	55 301	31 036	1 759	2 620	4 048

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
1989	26 074	112 421	28 674	10 229	151 325	4 752	3 534	-6 044	-5 374	-7 885	-3 132	-18 671	-4 893	-26 696
1990	28 690	121 878	30 424	10 347	162 649	12 622	4 283	-4 873	-5 639	-6 228	6 394	-24 001	-4 428	-22 035
1991	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
1992	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
1993	36 316	163 054	32 529	12 606	208 190	47 891	4 900	-2 914	-3 784	-1 797	46 094	-18 800	-4 186	23 107
1994	7 506	32 274	9 423	2 683	44 380	9 614	1 368	-474	-1 374	-480	9 134	-7 659	-1 393	82
1995	7 573	37 031	8 733	1 959	47 722	9 028	1 447	-291	-1 318	-162	8 866	-5 930	-769	2 167
1996	7 704	36 447	6 246	1 971	44 664	8 580	1 542	-26	-939	578	9 157	-4 220	-791	4 147
1997	8 575	44 291	7 399	1 984	53 673	6 117	1 166	-591	-1 361	-787	5 330	-4 375	-724	231
1998	8 999	39 222	9 295	2 814	51 331	11 360	1 266	-827	-1 082	-643	10 717	-6 009	-1 316	3 393
1999	9 184	41 267	10 067	3 180	54 514	14 288	1 197	-748	-1 171	-722	13 566	-6 622	-1 675	5 269
2000	8 809	38 999	6 630	3 194	48 823	9 879	1 173	-464	-548	161	10 040	-3 723	-1 095	5 222
2001	9 324	43 566	6 538	3 417	53 521	12 364	1 264	-875	-983	-594	11 770	-2 446	-101	9 223
2002	8 574	41 815	8 084	4 204	54 103	9 101	1 192	-911	-776	-494	8 606	-4 227	-2 570	1 809
2003	8 487	42 934	10 354	4 093	57 381	12 602	1 381	-851	-400	130	12 731	-7 066	-2 246	3 420
2004	8 428	39 464	6 830	2 971	49 265	10 295	1 241	-512	189	918	11 213	-3 920	-1 256	6 036

## 6.2 Capital and financial account, mill. FIM

During period	Capital account, imports of capital	Financial account											Total (2+8+12)
		Direct investment in Finland	Portfolio investment in Finland					Other investment in Finland					
			Shares	Bonds	Of which: marka denominated bonds	Money market instruments	Financial derivatives	Total (3+4+6+7)	Trade credits	Loans	Other capital	Total (9+10+11)	
1	2	3	4	5	6	7	8	9	10	11	12	13	
1989	0	-997	47	38 751	11 786	-4 511	..	34 287	-3 987	7 496	-9 606	-6 098	27 192
1990	0	1 822	397	39 309	-5 312	-1 791	..	37 915	3 639	2	-15 725	-12 084	27 653
1991	0	4 945	12 748	30 353	3 616	-4 382	..	38 719	4 467	5 457	-29 801	-19 877	23 787
1992	0	8 240	13 400	21 977	-5 783	-2 134	59	33 302	3 107	647	-1 392	2 361	43 903
1993	487	4 642	8 734	-17 868	-3 634	1 421	2 345	-5 369	-1 216	-6 985	8 376	176	-551
1994	0	3 844	4 389	4 669	526	-1 665	31	7 423	-616	-3 980	7 459	2 864	14 131
1995	0	3 029	2 404	5 341	-3 808	3 264	482	11 492	-848	1 312	-4 826	-4 362	10 159
1996	0	2 372	5 181	16 528	783	-2 119	-474	19 116	204	-1 363	-4 571	-5 729	15 759
1997	0	-1 005	1 426	-4 562	-3 283	-1 614	20	-4 729	4 366	4 678	545	9 589	3 855
1998	0	2 625	392	150	-1 423	-1 889	146	-1 200	-2 601	-333	8 549	5 615	7 040
1999	0	-1 243	3 482	-9 335	-3 501	-974	523	-6 303	865	-3 206	-2 136	-4 477	-12 023
2000	0	151	2 940	-2 503	933	1 618	1 079	3 134	-1 089	-3 192	-744	-5 025	-1 740
2001	487	3 109	1 920	-6 181	358	2 666	596	-1 000	1 609	-254	2 707	4 063	6 173
2002	0	1 837	1 216	2 635	1 155	502	974	5 327	-3 502	4 697	-552	644	7 807
2003	0	1 011	6 143	-5 152	2 554	363	754	2 108	-720	4 595	-3 119	756	3 875
2004	0	2 689	374	-4 841	277	-229	-168	-4 865	-78	2 540	4 371	6 833	4 657

During period	Capital account, exports of capital	Financial account											Errors and omissions	Change in central bank's reserve assets (increase -)
		Direct investment abroad	Portfolio investment abroad					Other investment abroad				Total (15+20+24)		
			Shares	Bonds	Money market instruments	Financial derivatives	Total (16+17+18+19)	Trade credits	Loans	Other capital	Total (21+22+23)			
14	15	16	17	18	19	20	21	22	23	24	25	26	27	
1991	299	-501	-369	-3	1 499	..	1 128	-726	2 341	7 570	9 184	9 810	2 239	7 375
1992	0	-3 372	46	321	2 748	..	3 115	3 634	3 409	7 720	14 763	14 506	-293	9 180
1993	0	8 050	873	767	1 932	..	3 571	1 923	-839	9 576	10 660	22 282	6 055	-1 219
1994	0	22 447	434	-4 294	-855	-279	-4 994	1 213	-7 460	9 762	3 516	20 968	-4 058	-25 504
1995	206	7 339	892	3 685	-5 492	-168	-1 084	3 839	-2 712	11 750	12 877	19 132	-5 186	1 480
1996	0	5 401	356	-558	215	-202	-188	-1 958	-1 849	-2 327	-6 135	-922	-4 856	-10 279
1997	0	4 808	100	-3 337	-4 448	-27	-7 713	1 600	-2 625	6 080	5 055	2 150	-3	-10 172
1998	0	4 897	-41	-1 166	422	-53	-839	-153	-251	9 532	9 127	13 186	-2 799	-3 921
1999	0	7 341	19	768	2 956	2	3 745	1 724	-2 734	-3 522	-4 532	6 555	3 600	-1 132
2000	0	2 212	-128	1 757	-2 249	-48	-668	660	-1 234	9 695	9 121	10 665	1 924	-1 691
2001	104	1 490	375	104	-2 798	31	-2 288	2 379	-150	-7 809	-5 580	-6 377	-808	1 288
2002	0	1 027	461	28	521	-37	973	-132	1 044	3 431	4 343	6 343	1 269	1 592
2003	102	2 610	184	1 797	-967	-115	899	933	-2 373	6 433	4 993	8 502	-7 570	291
2004	0	4 964	577	4 019	2 424	-26	6 993	-605	2 416	6 397	8 208	20 166	3 295	7 254
2005	0	6 461	1 041	3 041	162	71	4 315	718	-2 030	4 832	3 520	14 297	-1 455	8 457
2006	0	3 852	591	3 921	-2 391	-51	2 069	-819	1 574	1 872	2 626	8 547	-1 017	-1 129

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

Position at end of period	Liabilities												Total liabilities (1+7+12)
	Direct investment in Finland	Portfolio investment					Other investment						
		Shares	Bonds	Of which: marka denominated bonds	Money market instruments	Financial derivatives	Total (2+3+5+6)	Trade credits	Loans	Currency and deposits	Other	Total (8+9+10+11)	
1	2	3	4	5	6	7	8	9	10	11	12	13	
17 443	4 149	141 055	19 036	22 079	..	167 283	9 532	68 892	8 555	84 036	171 015	355 741	
19 348	5 138	211 361	14 366	19 391	..	235 889	13 305	78 330	11 881	78 804	182 320	437 557	
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	
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	
36 894	63 746	228 676	19 638	10 099	1 355	303 877	18 540	69 249	2 568	53 557	143 914	484 684	
27 918	39 079	269 077	30 065	12 245	-7 239	313 162	16 274	85 196	4 724	58 746	164 939	506 019	
30 846	42 719	272 094	23 945	15 286	-6 937	323 162	15 411	86 412	2 964	55 420	160 208	514 216	
33 010	56 036	272 306	26 009	11 864	-5 704	334 501	15 539	79 730	3 752	47 152	146 174	513 685	
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	
34 509	53 488	254 534	21 434	7 065	-5 996	309 092	17 218	79 143	3 369	53 433	153 163	496 764	
33 386	79 430	243 399	18 054	5 577	-6 768	321 638	18 049	75 411	2 580	51 169	147 208	502 233	
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	
36 894	63 746	228 676	19 638	10 099	1 355	303 877	18 540	69 249	2 568	53 557	143 914	484 684	
38 795	68 674	241 179	20 771	11 192	2 115	323 160	14 975	77 998	1 518	55 412	149 902	511 857	
39 810	80 962	234 480	24 003	11 126	2 812	329 380	14 326	81 788	1 939	51 588	149 640	518 831	
42 463	91 198	225 343	23 676	11 312	2 665	330 517	14 014	82 338	1 742	55 621	153 715	526 696	

Position at end of period	Assets											Total assets (14+19+24)
	Direct investment abroad	Portfolio investment					Other investment					
		Shares	Bonds	Money market instruments	Financial derivatives	Total (15+16+17+18)	Trade credits	Loans	Currency and deposits	Other	Total (20+21+22+23)	
14	15	16	17	18	19	20	21	22	23	24	25	
44 823	426	7 004	4 154	..	11 584	16 388	28 504	7 647	73 392	125 931	182 338	
44 921	469	8 697	7 917	..	17 083	21 389	35 251	12 665	78 257	147 562	209 565	
53 090	1 783	10 709	11 030	447	23 968	26 256	35 981	5 799	91 127	159 162	236 221	
59 451	1 984	5 109	9 115	488	16 696	25 500	24 847	8 257	109 847	168 451	244 598	
66 150	3 216	9 619	2 736	177	15 748	28 358	20 381	7 290	115 543	171 571	253 469	
54 424	2 047	9 576	10 911	622	23 156	23 989	32 788	8 842	93 378	158 996	236 575	
58 238	2 109	5 961	6 339	550	14 960	25 551	29 981	8 300	108 953	172 785	245 983	
58 314	1 991	4 319	6 087	561	12 959	24 158	28 350	7 493	115 752	175 753	247 025	
59 451	1 984	5 109	9 115	488	16 696	25 500	24 847	8 257	109 847	168 451	244 598	
60 274	1 751	6 557	5 835	157	14 300	25 254	22 668	6 352	118 897	173 172	247 746	
61 007	2 158	6 930	2 977	115	12 180	27 440	22 142	5 915	108 686	164 183	237 370	
61 479	2 661	6 870	3 503	200	13 233	27 092	22 978	6 397	108 057	164 524	239 236	
66 150	3 216	9 619	2 736	177	15 748	28 358	20 381	7 290	115 543	171 571	253 469	
73 847	3 994	14 063	5 670	169	23 896	28 205	23 594	5 435	121 238	178 472	276 215	
79 193	5 009	16 834	5 842	93	27 778	29 055	21 533	5 525	118 005	174 118	281 090	
81 456	5 694	20 370	3 242	48	29 354	28 034	22 944	6 435	119 256	176 668	287 479	

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
	31 277	-2 794	107 434	-34 046	18 960	51 854	719	173 403	15 671	12.6
	33 761	-3 260	82 343	-27 546	28 283	112 064	2 347	227 992	19 011	13.5
	54 315	-3 436	45 658	-33 279	29 737	164 892	3 062	260 949	21 897	12.7
	82 428	-3 503	33 800	-52 606	21 931	179 113	3 093	264 257	20 296	10.3
	71 574	-2 293	18 970	-47 708	13 107	174 481	3 085	231 215	17 490	7.6
	64 980	-3 692	52 014	-42 504	28 987	166 321	3 339	269 444	7 187	16.2
	65 677	-3 781	51 328	-52 617	26 127	178 145	3 354	268 233	5 458	10.9
	77 901	-3 564	34 039	-52 998	24 992	183 115	3 175	266 659	3 748	7.7
	82 428	-3 503	33 800	-52 606	21 931	179 113	3 093	264 257	3 903	7.2
	73 872	-3 359	23 396	-53 298	19 524	185 724	3 159	249 018	5 681	10.4
	94 745	-3 495	27 092	-50 742	18 024	175 932	3 305	264 861	6 295	10.5
	103 212	-3 599	20 558	-47 488	17 173	172 368	3 227	265 451	3 396	6.3
	71 574	-2 293	18 970	-47 708	13 107	174 481	3 085	231 215	2 118	3.4
	75 557	-2 507	4 716	-42 679	9 197	188 188	3 169	235 642	3 732	6.7
	85 227	-2 601	-4 362	-33 647	4 752	185 254	3 118	237 741	6 571	10.8
	94 399	-1 109	-5 699	-34 479	1 156	182 405	2 545	239 217	3 425	6.2

## 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
	92 842	87 744	5 098
	107 463	94 947	12 516
	134 114	103 165	30 949
	154 164	120 612	33 552
	176 021	128 556	47 465
	15 616	11 806	3 810
	16 007	11 815	4 192
	15 331	11 080	4 251
	13 094	10 305	2 789
	15 058	11 507	3 551
	14 676	11 893	2 783
	15 044	11 667	3 377
	15 745	11 793	3 952
	16 746	11 451	5 295
	12 910	9 771	3 139
	13 745	10 274	3 471
	15 000	11 300	3 700
	16 300	12 400	3 900

### 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	
	93.0	84.3	98.5	100.9	97.6
	102.7	84.7	103.1	108.6	95.0
	120.6	83.6	109.7	119.6	91.7
	136.6	98.0	111.4	119.3	93.3
	145.7	104.6	119.2	119.2	100.0
	143.5	110.2	122.6	118.4	103.5
	147.6	110.4	122.7	118.1	103.9
	144.2	105.3	123.0	118.2	104.1
	127.8	108.1	123.2	119.1	103.4
	150.4	115.8	122.4	119.3	102.6
	138.8	109.8	123.2	120.4	102.3
	145.2	107.8	122.5	122.2	100.2
	150.8	109.1	121.8	121.8	100.0
	164.9	111.4	121.3	121.6	99.8
	133.2	102.7	119.6	121.8	98.2
	147.6	103.3	118.2	120.9	97.8
	150.3	109.7	117.6	121.6	96.7
	156.2	111.9	118.0	122.3	96.5

<sup>1</sup> See Notes and explanations to the statistical section.

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

During period	Exports by industries, fob					Imports by use of goods, cif				
	Wood industry products	Paper industry products	Chemical industry products	Metal and engineering industry products	Other goods	Raw materials (excl. crude oil)	Crude oil, fuels and lubricants	Finished goods		Other goods
								Investment goods	Consumer goods	
	1	2	3	4	5	6	7	8	9	10
	6 984	29 695	10 539	29 188	16 436	42 505	9 399	13 973	21 195	672
	7 892	32 587	12 172	35 741	19 071	49 514	9 745	13 348	20 826	1 514
	10 910	37 430	14 205	48 158	23 411	54 792	10 904	15 396	21 066	1 007
	14 198	41 249	15 725	55 895	27 097	66 156	11 687	17 227	24 684	858
	13 451	48 754	15 877	69 336	28 603	71 397	9 685	19 660	25 514	2 300
	898	4 315	1 231	4 625	2 456	5 846	849	1 404	2 073	172
	1 081	4 342	1 311	5 740	2 652	6 083	725	1 487	2 205	214
	1 129	3 991	1 386	6 594	2 516	6 228	849	2 101	2 414	214
	1 190	3 987	1 268	6 871	2 691	5 948	898	2 503	2 197	269
	918	3 666	1 245	7 256	2 246	5 660	1 011	2 118	2 012	279
	960	3 564	1 283	4 767	2 520	5 672	694	1 462	2 219	258
	940	3 619	1 238	6 636	2 625	5 734	876	2 008	2 623	266
	1 012	4 137	1 469	5 432	2 626	6 270	700	1 863	2 782	278
	1 127	3 777	1 515	6 104	2 521	5 955	1 059	1 780	2 603	270
	1 192	3 765	1 866	5 761	3 161	6 315	1 058	1 675	2 415	330
	1 073	3 538	1 473	8 060	2 602	6 136	816	1 910	2 224	365
	820	3 524	1 418	4 877	2 271	4 805	1 199	1 126	2 260	381
	870	3 599	1 598	5 132	2 546	5 474	900	1 397	2 296	207

## 7.4 Foreign trade by regions and countries

Region and country	Exports, fob				Imports, cif			
	1995*		August 1995–July 1996*		1995*		August 1995–July 1996*	
	Mill. FIM	Percentage share	Mill. FIM	12-month change calculated from 12-month moving total	Mill. FIM	Percentage share	Mill. FIM	12-month change calculated from 12-month moving total
	1	2	3	4	5	6	7	8
<b>European Union <sup>1</sup></b>	101 538	57.7	100 396	2.5	76 435	59.5	80 187	8.4
Austria	1 524	0.9	1 434	-13.0	1 629	1.3	1 574	1.1
Belgium and Luxembourg	5 196	3.0	4 830	4.4	3 754	2.9	3 851	3.0
Denmark	5 609	3.2	5 550	1.4	4 126	3.2	4 496	10.3
France	7 989	4.5	7 656	-6.8	5 198	4.0	5 625	7.9
Germany	23 639	13.4	23 101	3.1	19 967	15.5	19 827	-0.4
Greece	950	0.5	927	2.7	342	0.3	364	2.9
Ireland	894	0.5	1 009	29.3	1 081	0.8	1 206	25.8
Italy	5 219	3.0	4 819	-7.8	5 111	4.0	5 441	7.5
Netherlands	7 423	4.2	7 222	-7.1	4 916	3.8	4 782	-3.0
Portugal	879	0.5	795	-12.4	1 053	0.8	1 067	-0.6
Spain	4 398	2.5	3 936	-5.7	1 669	1.3	1 789	11.5
Sweden	17 985	10.2	19 166	8.9	14 874	11.6	15 674	11.1
United Kingdom	18 276	10.4	18 435	5.6	10 608	8.3	12 041	15.7
<b>Rest of Europe</b>	27 829	15.8	30 043	9.3	21 879	17.0	21 701	-8.0
Of which:								
Estonia	4 125	2.3	4 528	18.6	1 561	1.2	1 536	7.1
Norway	5 279	3.0	5 129	-3.3	5 357	4.2	5 352	-8.0
Poland	2 256	1.8	2 252	-11.1	1 374	1.1	1 369	-4.1
Russia	8 450	4.8	9 959	25.3	9 314	7.2	9 011	-14.1
Switzerland	2 291	1.3	2 164	-8.6	2 176	1.7	2 346	7.2
<b>Non-European industrialized countries <sup>2</sup></b>	20 020	11.4	20 996	11.2	19 253	15.0	20 118	5.4
Of which:								
Australia	2 330	1.3	2 086	-8.0	931	0.7	1 083	21.3
Japan	4 509	2.6	5 121	35.9	8 170	6.4	7 531	-10.4
U.S.A.	11 683	6.6	12 363	8.4	9 268	7.2	10 591	19.2
<b>Dynamic Asian economies <sup>3</sup></b>	12 878	7.3	13 218	12.0	5 850	4.6	6 139	-3.1
Of which:								
China	2 605	1.5	2 310	-10.6	1 722	1.3	1 887	1.4
Hong Kong	2 438	1.4	2 571	17.6	714	0.6	604	-31.5
South Korea	2 272	1.3	2 461	13.0	991	0.8	853	-13.8
<b>Other countries</b>	13 756	7.8	14 225	24.7	5 139	4.0	6 002	0.0
<b>TOTAL</b>	176 021	100.0	178 878	6.8	128 556	100.0	134 146	4.0
Of which:								
Africa	2 778	1.6	2 581	-2.3	625	0.5	716	-5.4
Asia	23 884	13.6	26 043	26.7	16 062	12.5	15 559	-8.8
Central and South America	4 468	2.5	3 446	-21.1	2 406	1.9	2 619	-23.6
North America	12 910	7.3	13 498	7.3	10 103	7.9	11 450	17.5
Europe	129 367	73.5	130 439	4.0	98 315	76.5	101 887	4.4
Oceania	2 615	1.5	2 497	-1.6	1 044	0.8	1 264	25.8

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

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

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

## 8. Domestic economic developments

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

Period	Consumption expenditure		Fixed investment		Change in stocks, incl. statistical discrepancy	Domestic demand (1+2+3+4+5)	Exports	Imports	GDP (6+7-8)
	Private	Public	Private	Public					
	1	2	3	4	5	6	7	8	9
	260 031	111 256	93 722	17 243	-2 451	479 801	110 965	111 755	479 011
	247 363	108 799	75 338	16 899	4 534	452 933	122 059	112 989	462 003
	240 177	103 028	60 638	13 890	10 221	427 954	142 459	113 842	456 571
	244 761	102 728	60 543	14 107	21 555	443 694	161 376	128 411	476 659
	254 112	104 059	67 120	13 253	20 109	458 653	174 773	136 520	496 906
	61 019	25 591	14 411	3 491	1 445	105 957	38 021	28 428	115 550
	60 358	25 628	14 724	3 540	6 086	110 336	39 666	31 252	118 750
	61 236	25 577	15 445	3 526	6 277	112 061	41 282	32 785	120 558
	62 148	25 932	15 963	3 550	7 747	115 340	42 407	35 946	121 801
	62 861	25 524	16 930	3 369	4 655	113 339	44 033	33 547	123 825
	63 722	26 039	16 511	3 342	4 322	113 936	44 613	34 357	124 192
	63 485	26 071	17 544	3 258	6 286	116 644	42 100	34 163	124 581
	64 044	26 425	16 135	3 284	4 846	114 734	44 027	34 453	124 308
	64 908	26 065	17 021	3 523	7 808	119 325	41 308	35 029	125 604
	64 650	26 278	16 737	3 506	3 104	114 275	44 313	32 610	125 978

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

Period	Total industry	Mining and quarrying	Manufacturing	Wood and paper industries	Metal and engineering industries	Other manufacturing	Energy and water supply
	(100.0)	(1.3)	(89.8)	(16.8)	(31.3)	(41.5)	(9.1)
	1	2	3	4	5	6	7
	91.2	91.3	89.9	91.5	85.6	92.6	103.6
	92.4	88.4	91.4	94.6	91.1	90.2	103.0
	97.4	86.1	96.4	104.5	99.7	90.8	107.9
	108.5	96.2	108.1	117.0	119.5	95.8	114.3
	116.6	95.7	117.5	118.0	143.8	97.4	111.1
	117.0	91.8	117.9	116.1	147.4	96.5	107.0
	116.2	86.5	117.3	112.2	147.4	97.0	107.2
	117.4	90.7	118.4	109.9	151.5	96.5	110.1
	117.7	81.5	118.5	102.6	153.8	96.6	114.6
	116.0	90.5	116.3	110.4	146.8	97.4	119.1
	116.0	81.0	115.9	109.2	145.7	97.4	127.3
	118.4	84.1	118.8	110.3	148.7	98.6	120.4
	118.0	92.7	118.3	111.7	148.1	99.3	120.0
	119.9	81.4	120.3	111.0	151.7	99.5	124.0
	121.6	83.6	122.2	111.5	154.2	101.0	119.9
	120.4	63.0	121.1	115.6	149.6	101.3	118.0
	120.2	163.9	120.1	116.4	150.8	100.4	116.9
	124.0	93.9	123.9	119.5	155.6	101.4	124.2



### 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 indicator of GDP
				Residential buildings	Industrial buildings	Other buildings		
	1	2	3	4	5	6	7	8
	82.9	92.7	81.6	75.6	79.0	90.0	86.1	93.9
	72.7	83.2	62.5	59.1	47.1	71.7	78.1	91.1
	68.8	78.4	46.7	48.5	32.7	48.9	72.9	89.8
	73.0	79.9	42.0	45.5	35.4	39.8	84.4	93.7
	76.2	82.6	39.9	39.7	52.6	36.1	85.2	97.7
	80.7	75.2	42.4	43.5	43.9	40.2	97.4	95.7
	83.4	75.4	..	..	..	..	..	97.6
	82.1	77.5	..	..	..	..	..	97.9
	84.0	78.5	..	..	..	..	..	98.5
	84.8	77.4	..	..	..	..	..	97.9
	82.3	75.4	41.0	44.1	47.9	35.3	83.8	97.7
	82.6	75.2	41.3	42.6	57.4	36.4	83.9	97.3
	82.0	76.6	39.5	37.9	53.3	37.4	84.2	97.5
	83.6	77.8	37.9	34.1	51.6	35.4	88.9	98.1
	86.4	80.0	..	..	..	..	..	98.6
	85.0	79.7	..	..	..	..	..	98.3
	82.9	74.0	..	..	..	..	..	97.6
	85.1	79.8	..	..	..	..	..	98.7
	85.6	77.1	..	..	..	..	..	99.8
	82.1	72.3	..	..	..	..	..	99.6
	88.1	81.1	..	..	..	..	..	100.4
	87.1	74.5	..	..	..	..	..	100.3
	84.1	76.1	..	..	..	..	..	101.9

## 8.4 Wages and prices, 1990=100

Period	Index of wage and salary earnings	By sectors			Consumer price index	Indicator of underlying inflation	Basic price index for domestic supply	By origin		Producer price index for manufacturing	By marketing area		Building cost index
		Private	Of which: Manufacturing (SIC 3)	Public				Domestic goods	Imported goods		Exported goods	Home market goods	
	1	2	3	4	5	6	7	8	9	10	11	12	13
1991	106.4	106.4	106.1	106.4	104.3	104.1	100.0	99.8	100.8	99.4	98.5	99.8	102.2
1992	108.4	108.1	108.3	109.0	107.4	107.1	101.4	99.5	108.5	101.6	102.7	101.1	100.4
1993	109.2	108.8	110.0	110.1	109.7	109.9	104.8	100.8	119.3	105.5	109.2	103.9	100.7
1994	111.4	111.6	115.0	111.1	110.9	111.4	106.2	102.8	118.7	107.1	110.2	105.8	102.2
1995	116.6	117.5	123.1	114.7	112.0	111.3	106.9	103.8	118.5	110.8	118.0	107.7	103.5
1996	..	..	..	..	112.2	111.4	105.9	102.7	117.7	112.1	121.3	108.1	103.4
1997	..	..	..	..	111.9	111.1	105.7	102.5	117.4	111.9	121.4	107.9	103.2
1998	..	..	..	..	111.8	111.0	105.7	102.5	117.4	112.1	121.5	108.1	103.2
1999	116.7	117.5	123.2	114.9	112.2	111.3	106.5	103.3	118.5	111.3	119.3	107.8	103.6
2000	119.1	119.9	125.4	117.3	112.0	111.2	105.8	102.6	117.5	112.0	121.4	108.0	103.3
2001	..	..	..	..	112.0	110.8	106.2	102.0	118.4	112.4	121.6	108.5	102.1
2002	..	..	..	..	112.4	111.4	106.1	102.7	118.6	112.3	120.7	108.7	101.9
2003	..	..	..	..	112.5	111.6	106.0	102.2	119.7	112.0	121.3	108.0	102.0
2004	..	..	..	..	112.7	111.6	106.1	102.0	121.5	111.7	120.6	107.9	102.1
2005	..	..	..	..	112.9	111.7	105.9	101.7	121.0	111.4	120.0	107.7	102.4
2006	..	..	..	..	112.9	111.7	105.5	101.4	120.9	110.8	119.5	107.1	102.7
2007	..	..	..	..	112.8	111.5	105.5	101.2	121.0	110.2	117.8	106.9	102.8
2008	..	..	..	..	112.6	111.1	105.4	101.3	120.2	109.7	116.4	106.8	103.1
2009	..	..	..	..	112.8	111.5	105.9	101.9	120.8	109.8	115.8	107.2	103.0
2010	..	..	..	..	113.0	..	106.4	102.5	120.8	110.2	116.2	107.6	103.1
2011	120.3	121.1	126.7	118.3	112.3	111.3	106.1	102.3	118.9	112.2	121.2	108.4	102.0
2012	120.5	121.3	127.1	118.5	112.8	111.6	105.8	101.7	121.1	111.3	120.0	107.6	102.4
2013	120.6	121.3	126.8	118.8	112.7	111.3	105.6	101.5	120.7	109.9	116.7	107.0	103.0

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



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

mill FIM, cash flow basis

During period	Revenue						Expenditure				
	Direct taxes	Indirect taxes	Other taxes and similar revenue	Other revenue	Revenue before financial transactions (1+2+3+4)	Redemptions of loans granted by the state	Revenue before borrowing (5+6)	Consumption	Transfers and subsidies	Of which:	
										Local government	Other domestic sectors
	1	2	3	4	5	6	7	8	9	10	11
	41 054	73 251	1 136	19 182	134 624	4 442	139 069	45 085	101 220	42 297	55 160
	34 312	69 541	1 512	21 251	126 616	5 054	131 669	49 291	105 184	42 990	59 180
	31 667	67 291	1 443	28 823	129 224	7 366	136 593	46 880	108 608	42 720	63 535
	34 588	68 124	1 792	24 095	128 599	7 308	135 900	48 750	108 155	40 388	65 519
	40 092	66 902	1 720	35 837	144 550	7 923	152 473	51 446	113 644	39 481	67 514
	3 015	5 826	63	3 228	12 131	299	12 431	3 732	8 566	3 104	4 942
	3 237	5 825	51	2 752	11 865	405	12 270	4 090	8 265	3 110	4 484
	4 994	5 973	74	2 838	13 879	2 165	16 044	4 514	9 696	2 768	6 481
	5 347	5 549	60	5 700	16 657	598	17 254	5 846	10 189	3 292	6 954
	3 735	7 182	110	3 792	14 818	165	14 983	3 930	12 283	2 974	7 880
	3 693	7 341	1 089	3 784	15 907	233	16 141	4 064	7 922	2 839	4 692
	5 458	5 992	150	1 841	13 441	137	13 578	4 486	9 261	3 475	5 194
	3 590	5 237	58	4 006	12 891	3 469	16 360	4 154	9 517	2 945	5 752
	3 016	5 805	75	2 979	11 876	843	12 719	4 095	8 753	2 996	5 189
	3 435	5 863	72	5 222	14 592	850	15 443	5 032	8 952	2 863	5 459
	3 817	6 187	59	2 003	12 067	323	12 390	5 036	8 707	2 891	5 151
	3 766	6 125	59	2 483	12 433	219	12 652	3 913	6 090	1 476	4 505
	3 481	6 391	57	2 526	12 455	3 261	15 716	4 579	8 030	2 747	4 913

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)
	5 370	6 368	158 044	13 328	171 372	-23 420	-32 304	25 659	-6 645
	5 042	8 499	168 016	35 501	203 516	-41 400	-71 847	70 691	-1 155
	4 306	18 076	177 870	19 753	197 623	-48 646	-61 030	84 036	23 009
	3 737	22 281	182 923	17 886	200 760	-54 324	-64 860	73 193	8 336
	3 208	26 336	194 635	16 765	211 399	-50 085	-58 926	54 071	-4 854
	227	3 574	16 100	813	16 913	-3 968	-4 483	1 450	-3 033
	332	1 755	14 442	613	15 056	-2 578	-2 786	2 191	-595
	315	1 113	15 638	590	16 228	-1 759	-184	8 689	8 505
	603	2 089	18 726	-159	18 567	-2 070	-1 313	1 905	593
	151	5 235	21 599	623	22 221	-6 781	-7 238	6 755	-484
	260	1 544	13 790	454	14 243	2 118	1 897	10 359	12 256
	185	4 560	18 491	393	18 884	-5 050	-5 306	760	-4 546
	175	2 759	16 605	3 605	20 210	-3 714	-3 850	6 544	2 694
	207	1 291	14 346	770	15 117	-2 470	-2 398	2 496	98
	219	3 060	17 262	2 075	19 338	-2 670	-3 895	3 503	-392
	316	1 154	15 214	437	15 651	-3 147	-3 261	3 900	639
	334	1 090	11 427	457	11 884	1 006	768	6 829	7 597
	290	4 787	17 686	586	18 272	-5 231	-2 556	-10 228	-12 784

# Notes and explanations to the statistical section

## General

### Source

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

### Symbols used

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

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

## Notes and explanations to tables

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

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

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

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

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

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

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

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

## 3 Rates of interest

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

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

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

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

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

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

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

#### 4 Rates of exchange

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

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

#### 5 Other domestic financing

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

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

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

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

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

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

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

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

## 6 Balance of payments, foreign liabilities and assets

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

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

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

most important sub-item under the item 'other capital' comprises banks' other short-term assets and liabilities (in practice interbank deposits). The central bank's reserve assets (Column 27) comprise gold, special drawing rights (SDRs), the reserve position in the IMF and convertible currency claims. A negative figure implies an increase in reserves.

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

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

## 7 Foreign trade

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

**Table 7.1** The trade figures for September–October 1996 have been estimated on the basis of a survey of firms carried out by the Bank of Finland. The official foreign trade statistics published by the Board of Customs are delayed owing to changes in statistical systems caused by Finland's entry into the EU.

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

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

## 8 Domestic economic developments

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

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

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

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

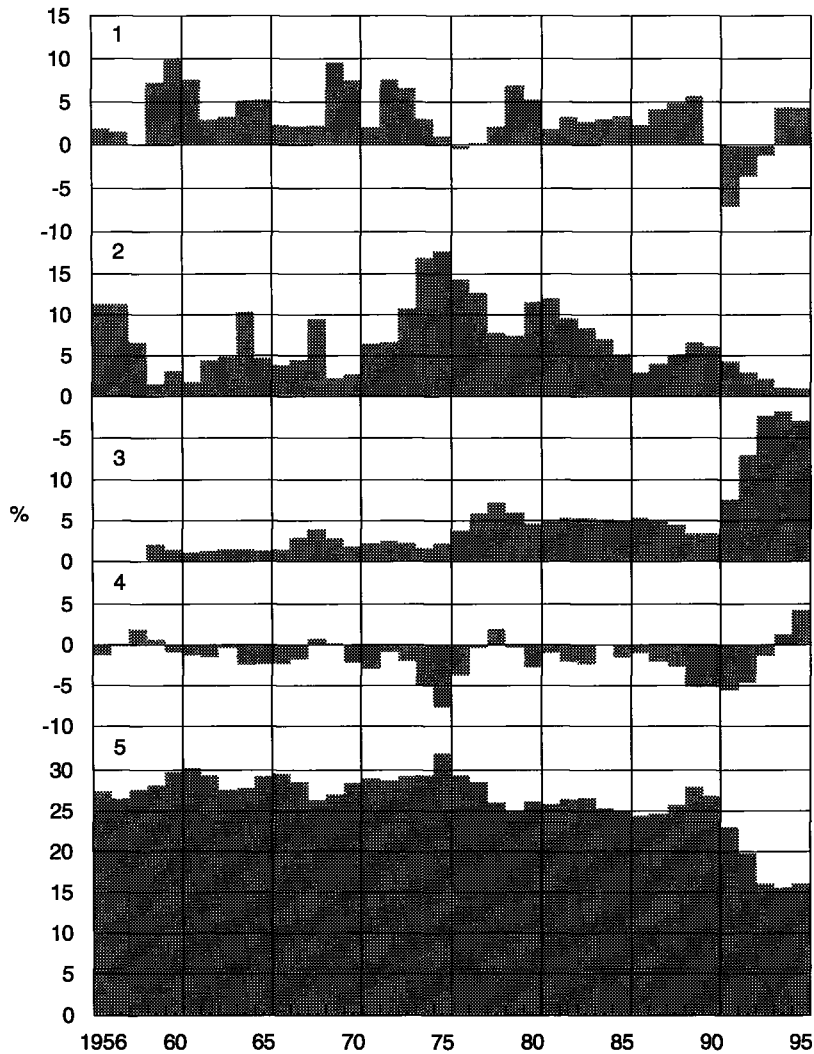
**Table 8.6** Source: Ministry of Finance.





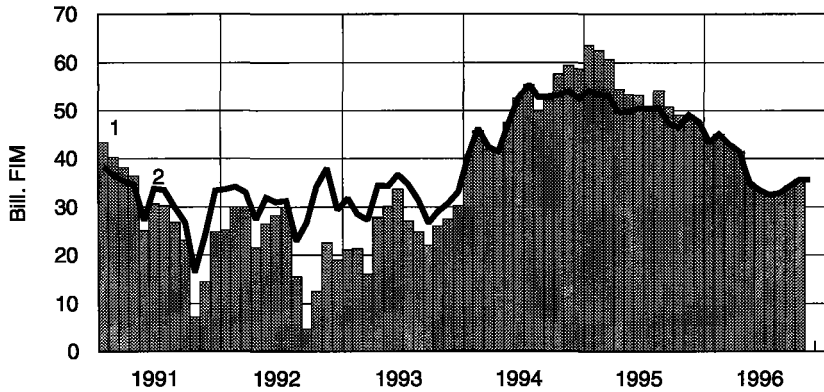
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## 1. Long-term indicators



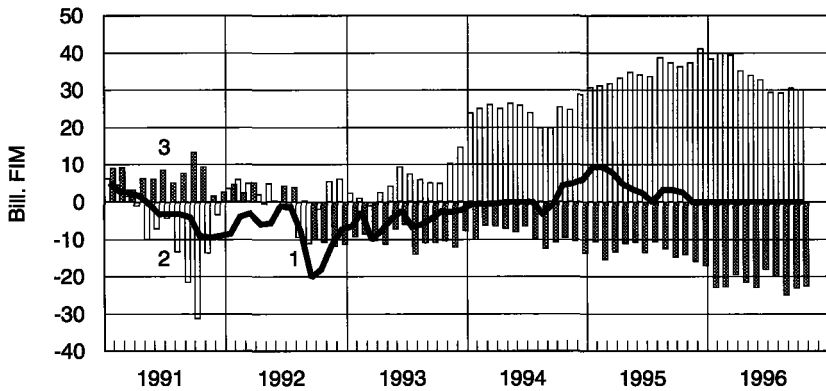
1. GDP, change in volume from the previous year, per cent
2. Consumer prices, change from the previous year, per cent
3. Unemployment rate, per cent
4. Current account, as a percentage of GDP
5. Fixed investment, as a percentage of GDP

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



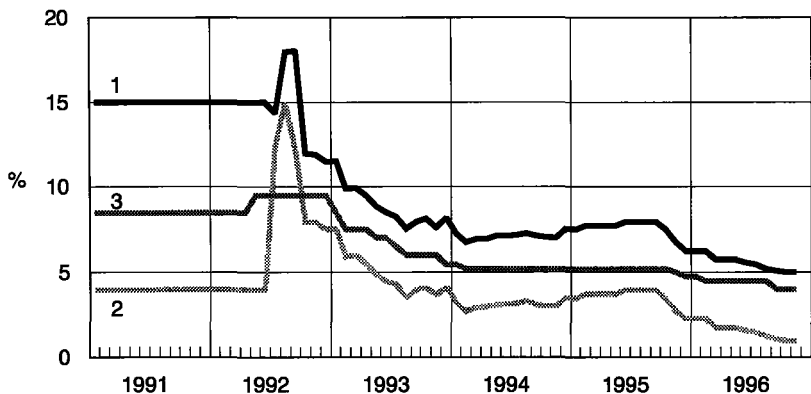
1. Foreign exchange reserves plus forward position
2. Foreign exchange reserves

## 3. Forward market



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

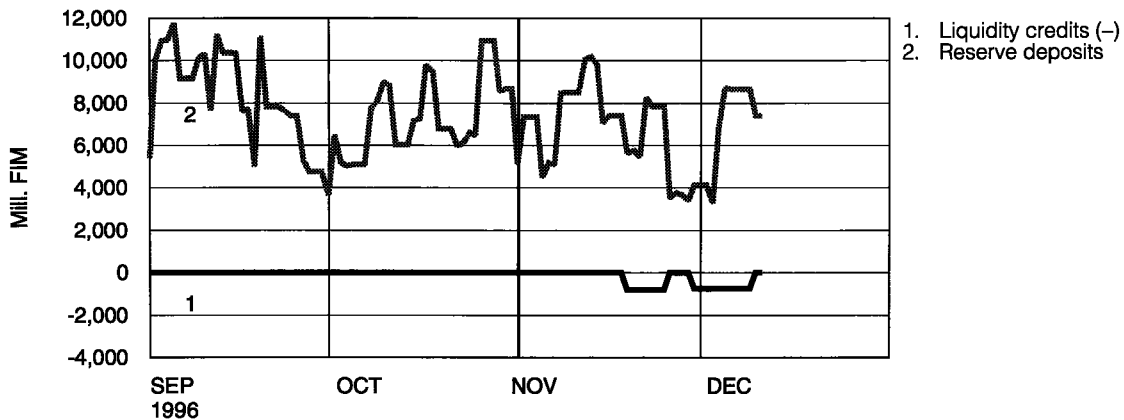
## 4. Rates of interest set by the Bank of Finland



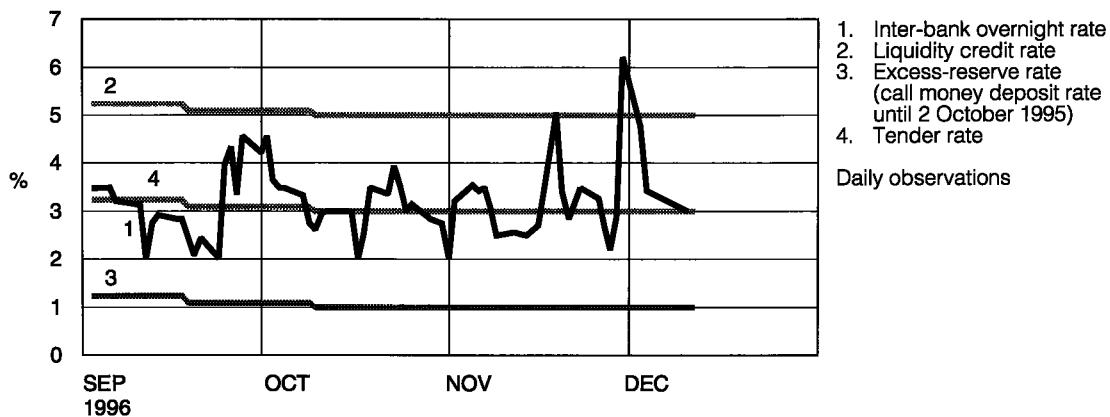
1. Liquidity credit rate (up to 2 July 1992 call money credit rate)
2. Excess-reserve rate (call money deposit rate until 2 October 1995)
3. Base rate

End-of-month observations

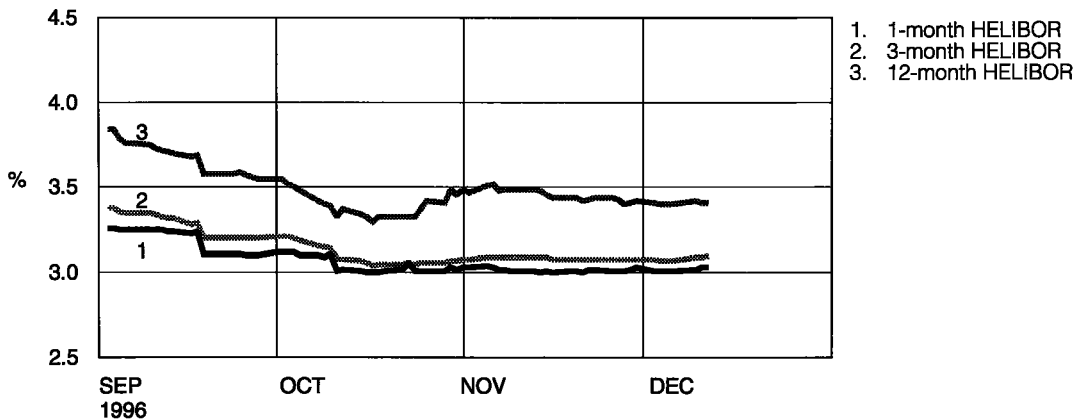
### 5. Banks' liquidity position at the Bank of Finland



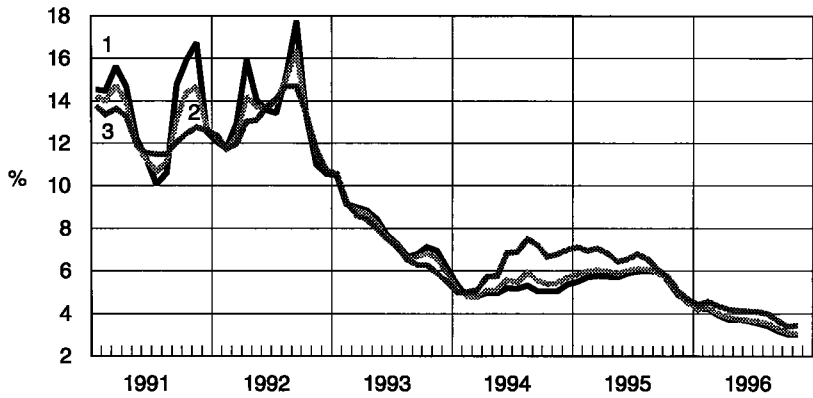
### 6. Liquidity management interest rates



### 7. HELIBOR rates of interest, daily

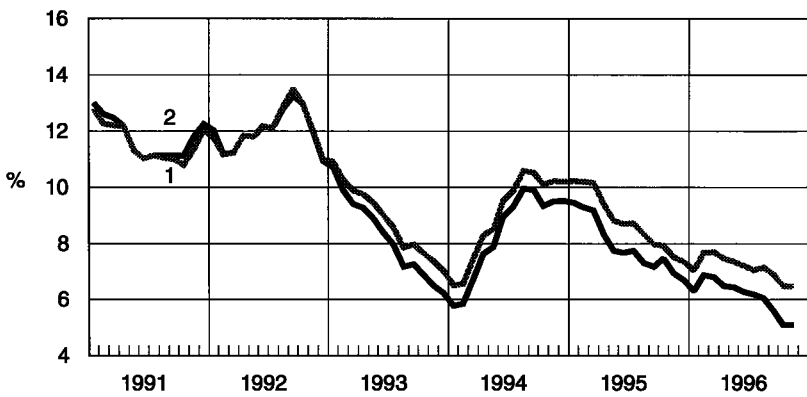


## 8. HELIBOR interest rates, monthly



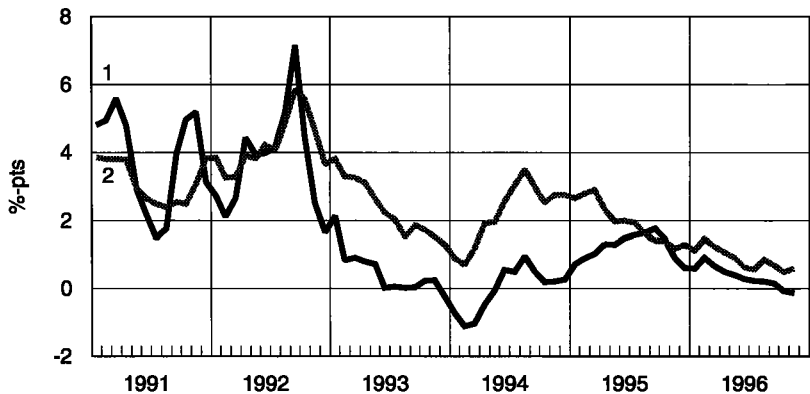
1. 1-month HELIBOR
2. 3-month HELIBOR
3. 12-month HELIBOR

## 9. Bond yields



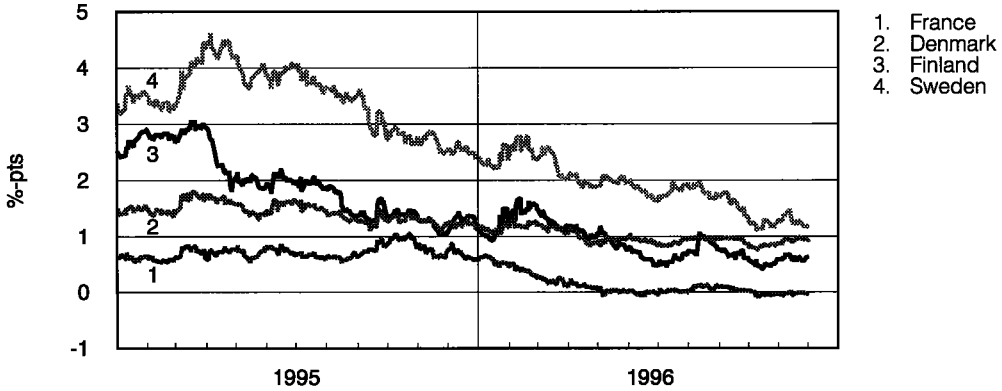
1. Yield on 5-year government bonds
2. Yield on 10-year government bonds

## 10. Differential between Finnish and German interest rates

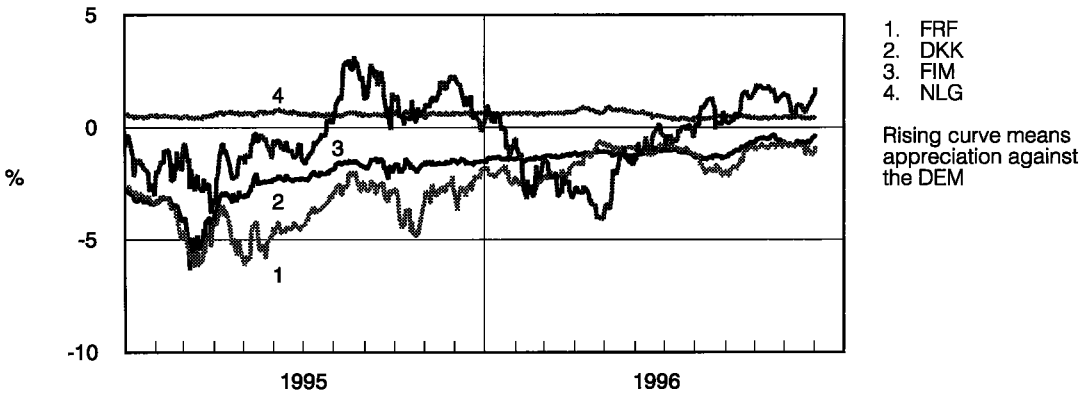


1. 3-month HELIBOR minus 3-month DEM eurorate
2. 10-year Finnish government bond yield minus 10-year German government bond yield

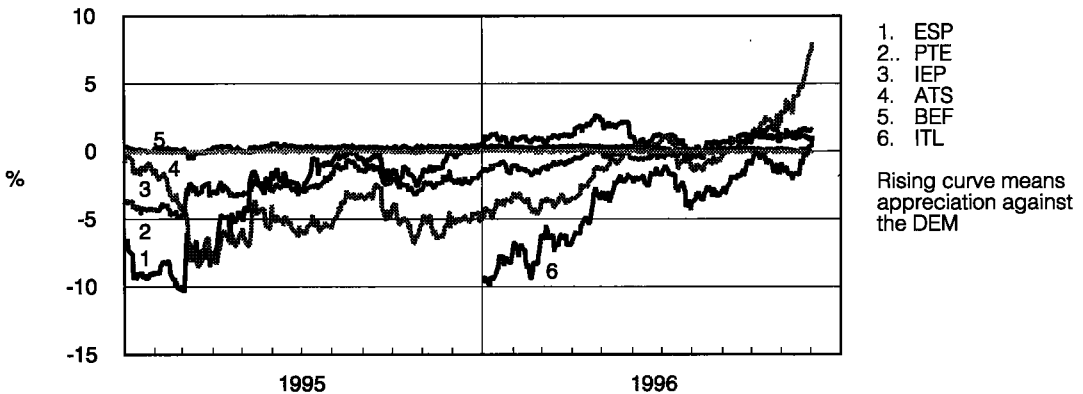
**11. Differential between German and selected EU-countries' 10-year interest rates**



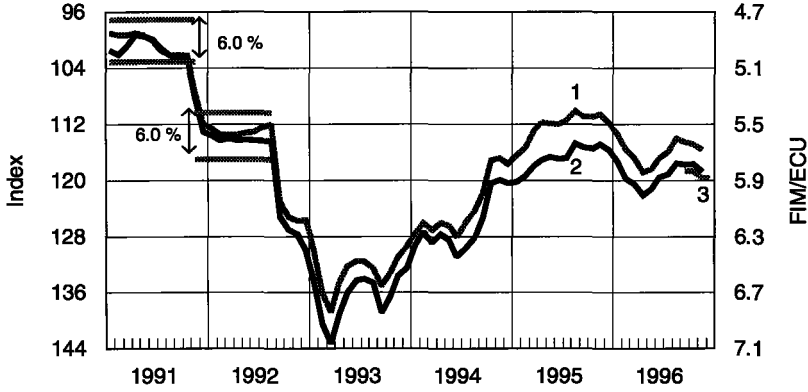
**12. ERM exchange rates: deviation from DEM central parity**



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

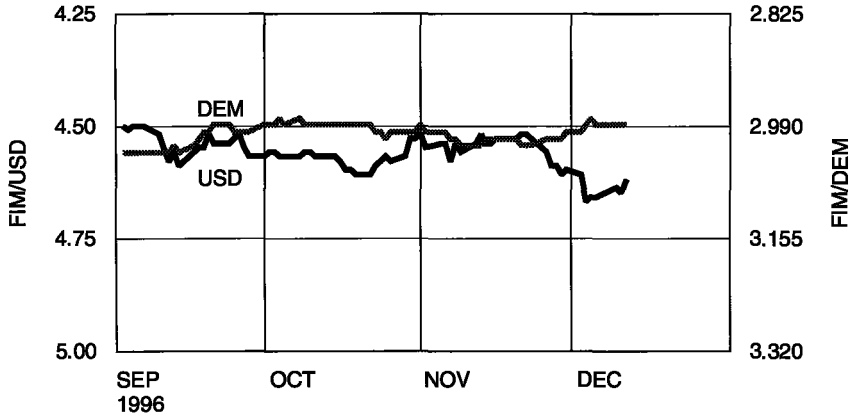


**14. Bank of Finland currency index and markka value of the ECU**



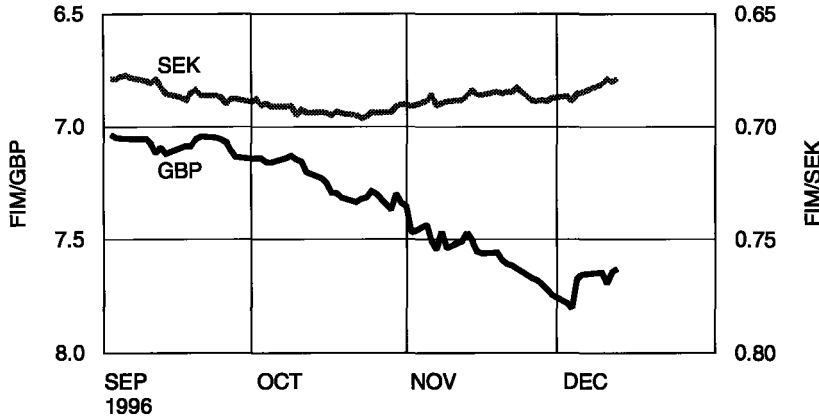
1. Bank of Finland currency index, 1982 = 100 (left scale)
2. Markka value of the ECU from 7 June 1991 (right scale)
3. ECU central rate from 14 October 1996 (right scale)

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



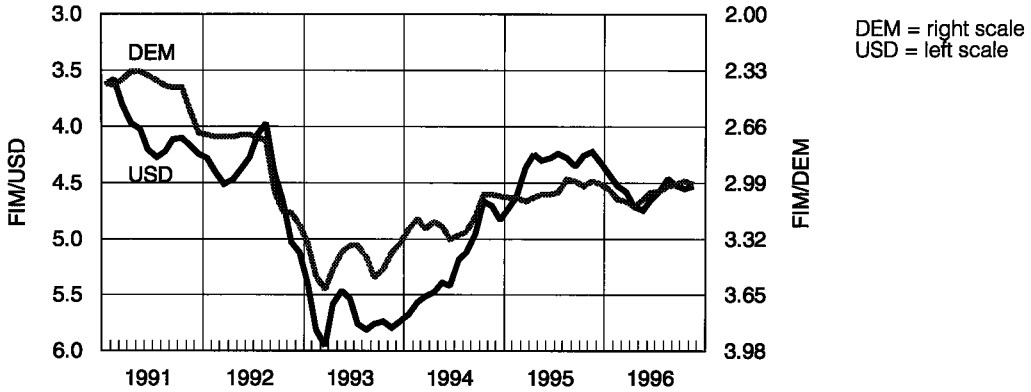
- Middle rates  
DEM = right scale  
USD = left scale

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

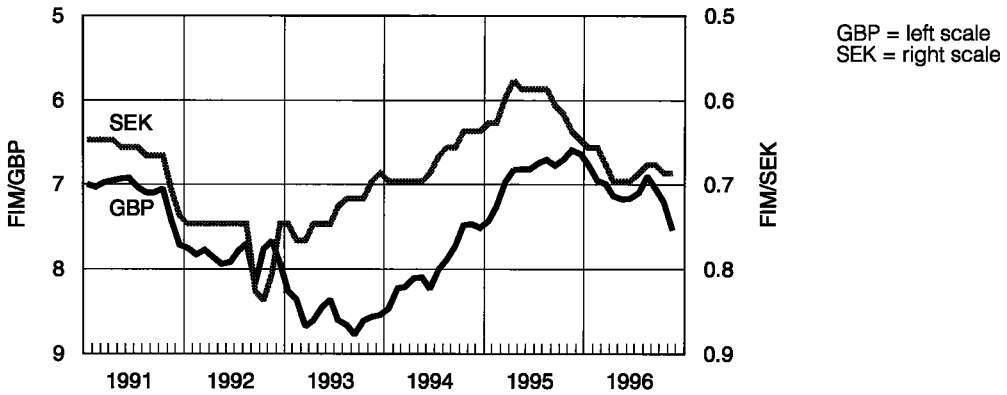


- Middle rates  
GBP = left scale  
SEK = right scale

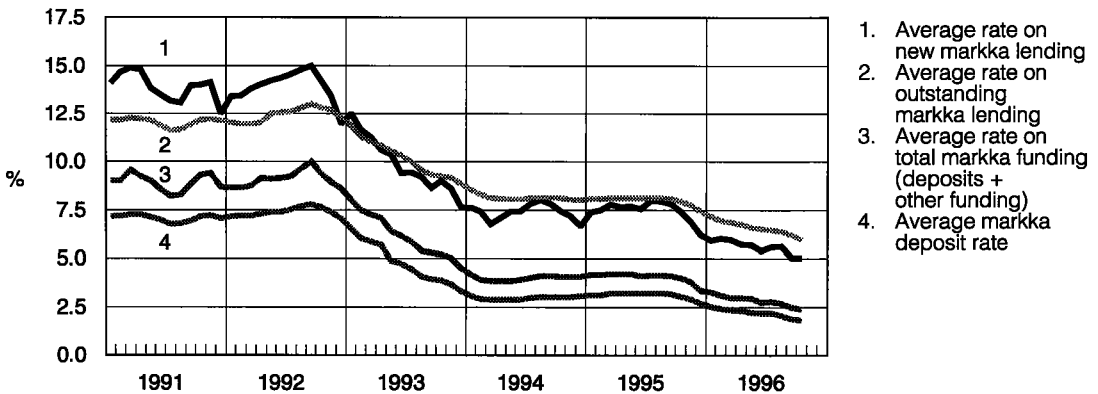
**17. Monthly spot rates for the markka against the Deutschmark and US dollar**



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

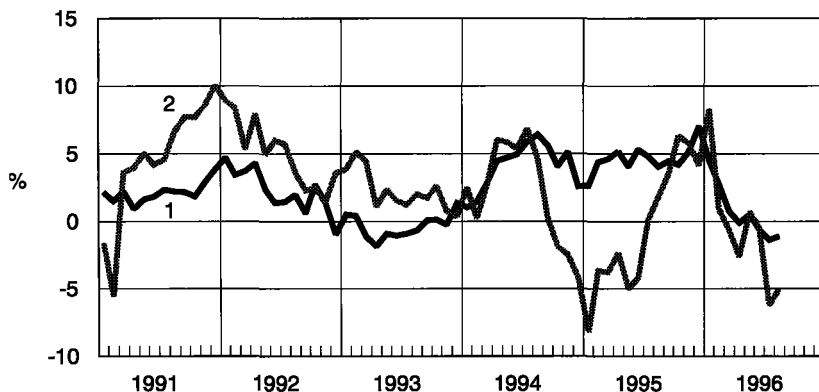


**19. Banks' markka lending rates and markka funding rates**





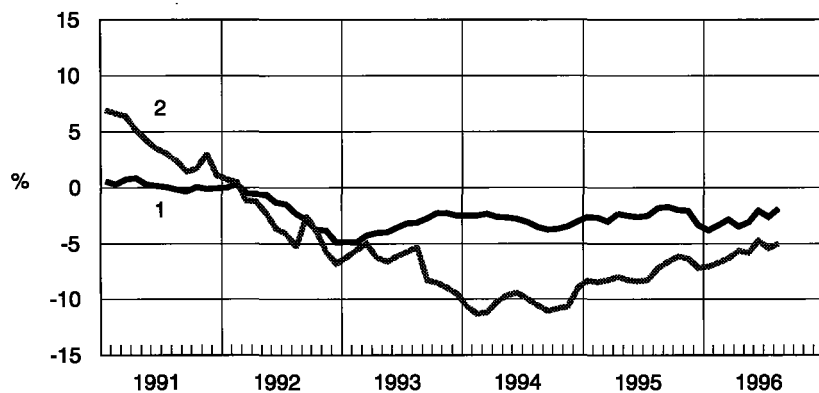
## 20. Bank funding from the public



1. Markka deposits
2. Total funding

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

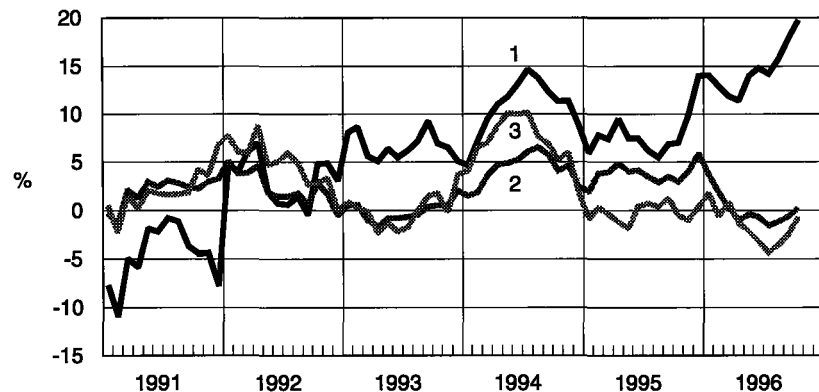
## 21. Bank lending to the public



1. Markka lending
2. Total lending

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

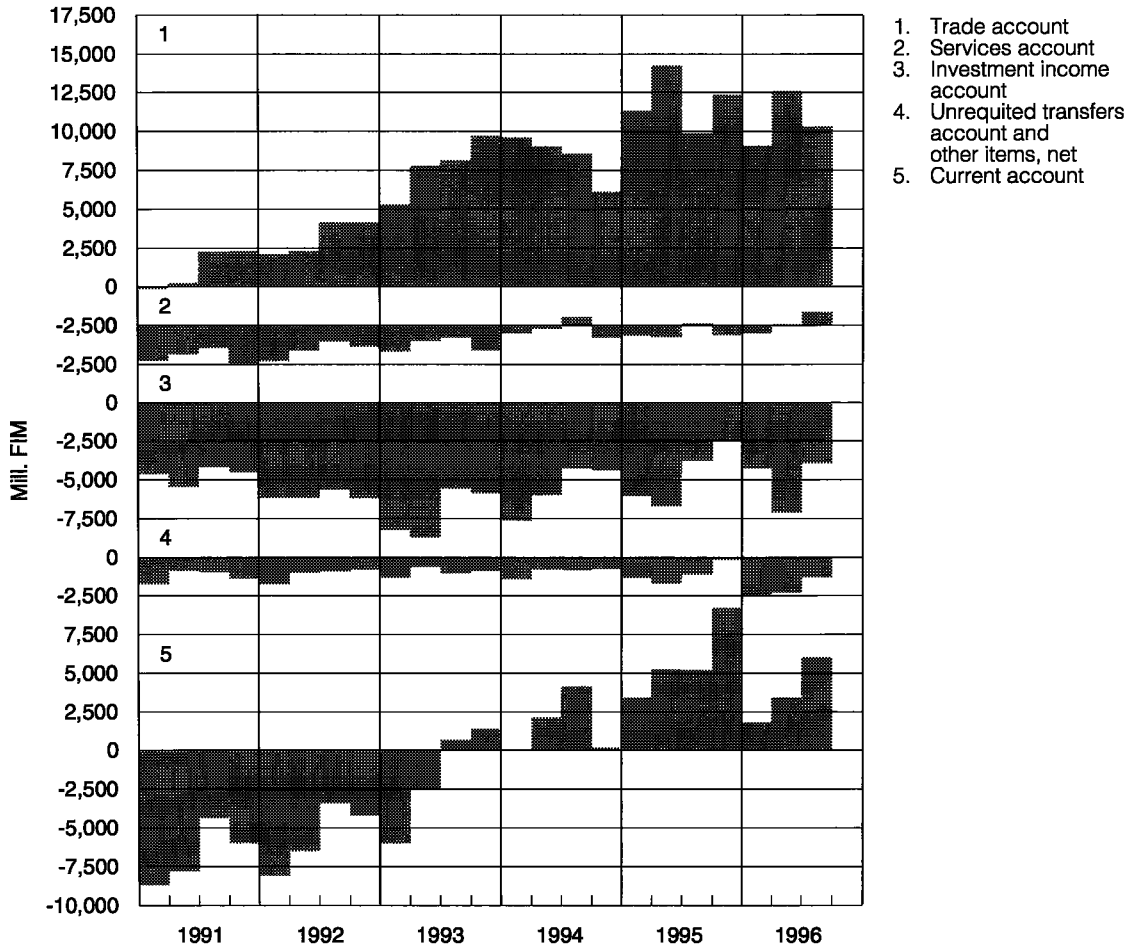
## 22. Money supply



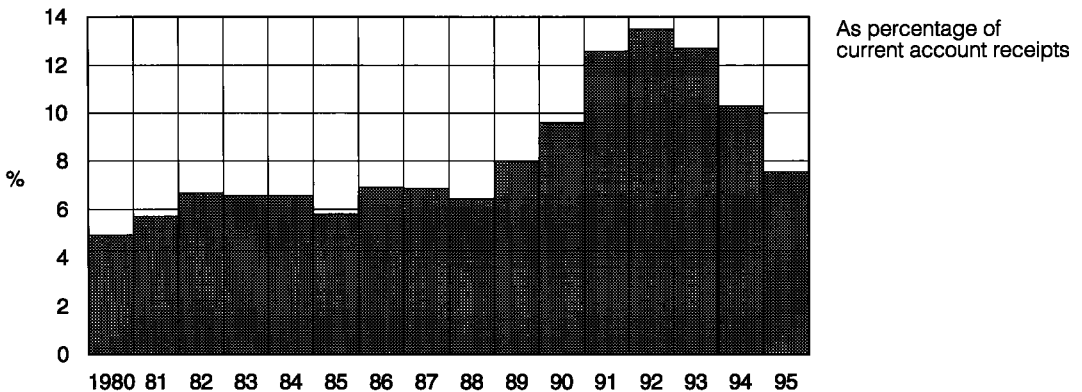
1. Narrow money (M1)
2. Broad money (M2)
3. M2 + bank CDs held by the public (M3)

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

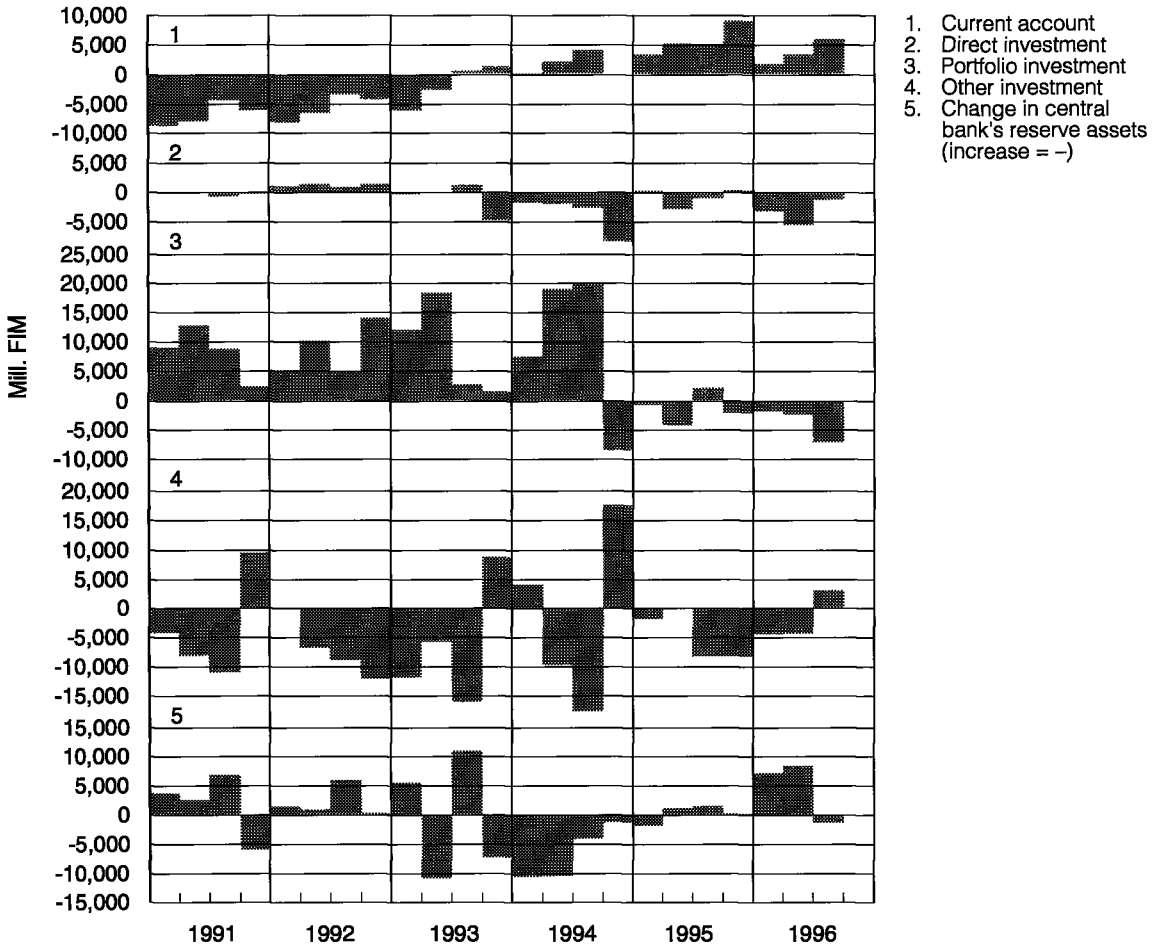
### 23. Current account



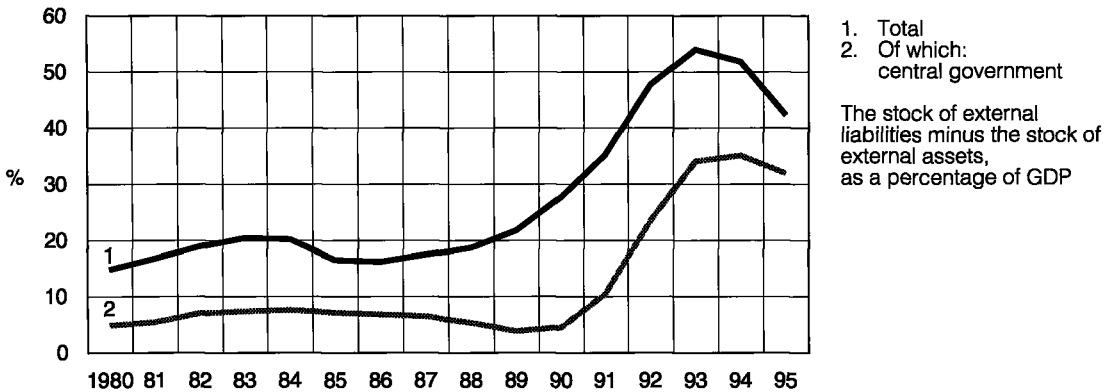
### 24. Net interest and dividend expenditure



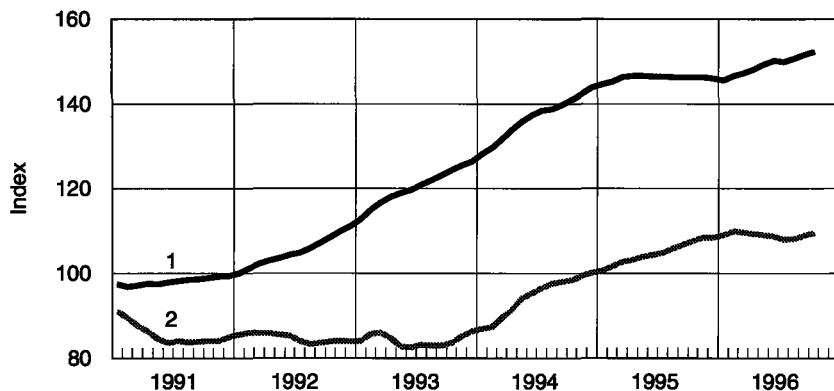
## 25. Balance of payments



## 26. Finland's net international investment position



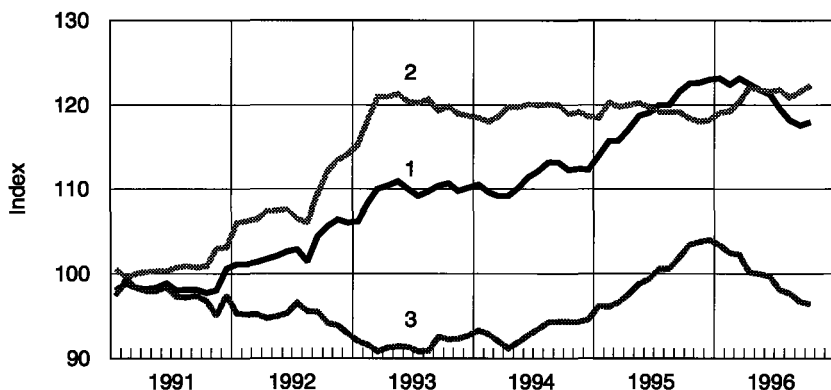
## 27. Foreign trade



1. Exports of goods
2. Imports of goods

Volume index, 1990 = 100, trend

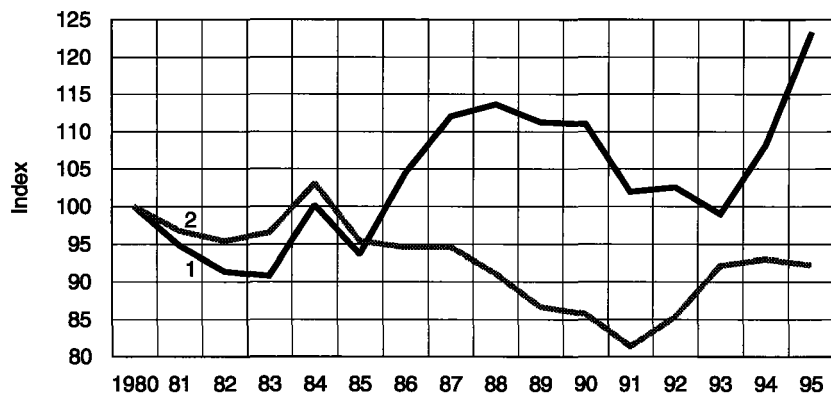
## 28. Foreign trade: prices and terms of trade



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

Index 1990 = 100

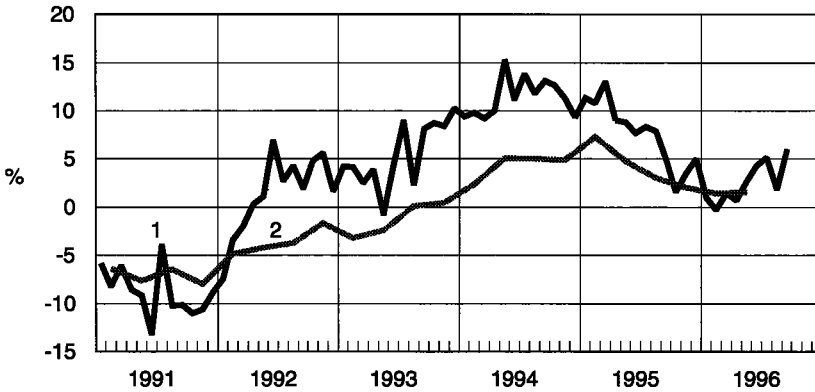
## 29. Finland's export performance



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

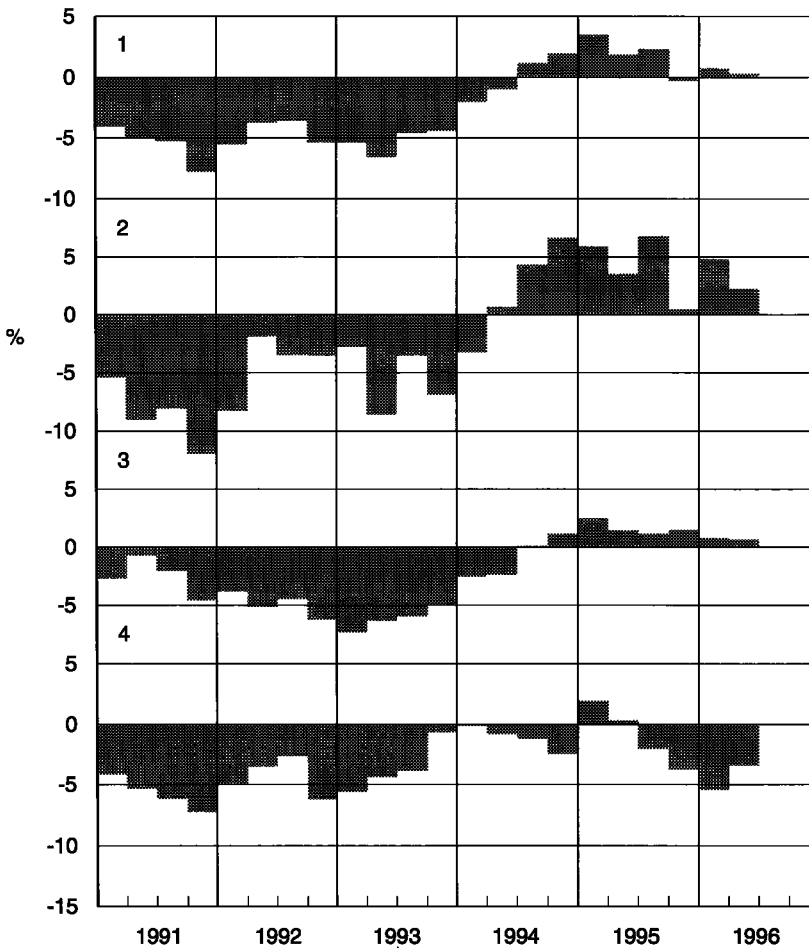
1980 = 100

### 30. Production



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

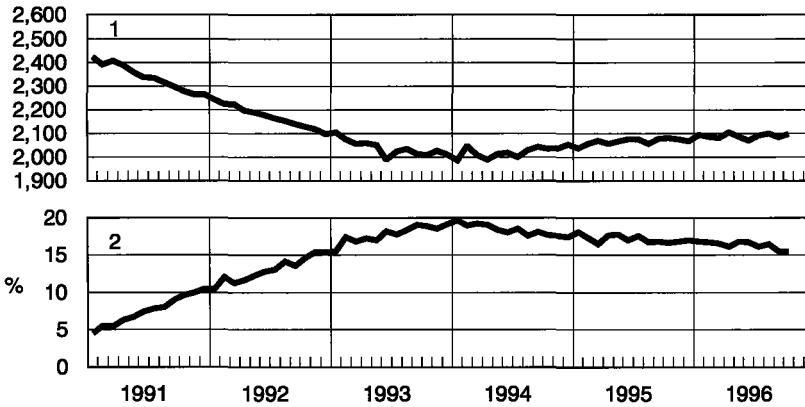
### 31. Fixed investment



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

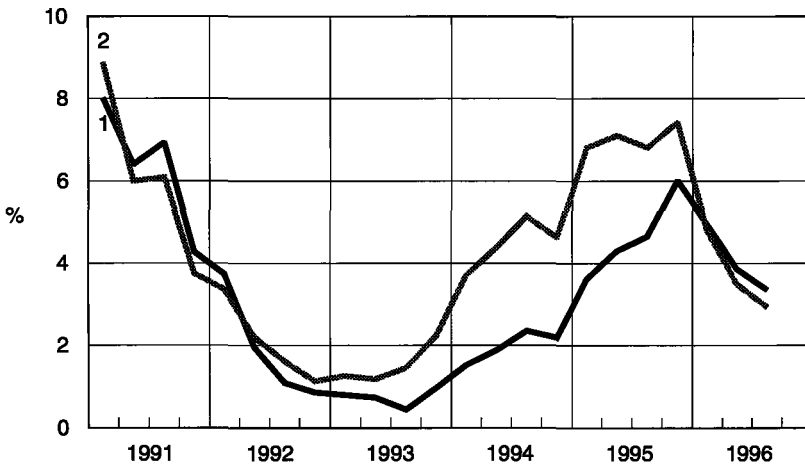
Volume changes calculated from four-quarter moving totals and plotted at the last quarter, per cent

### 32. Employment and the unemployment rate



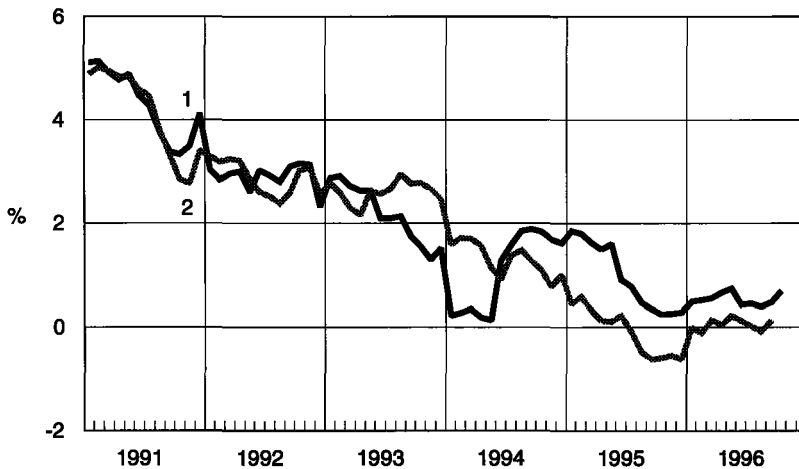
1. Employment, 1000 persons
2. Unemployment rate, per cent

### 33. Prices and wages



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

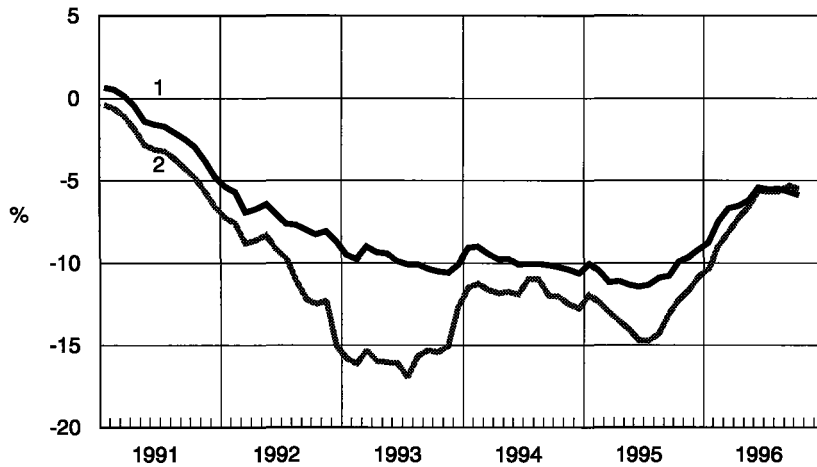
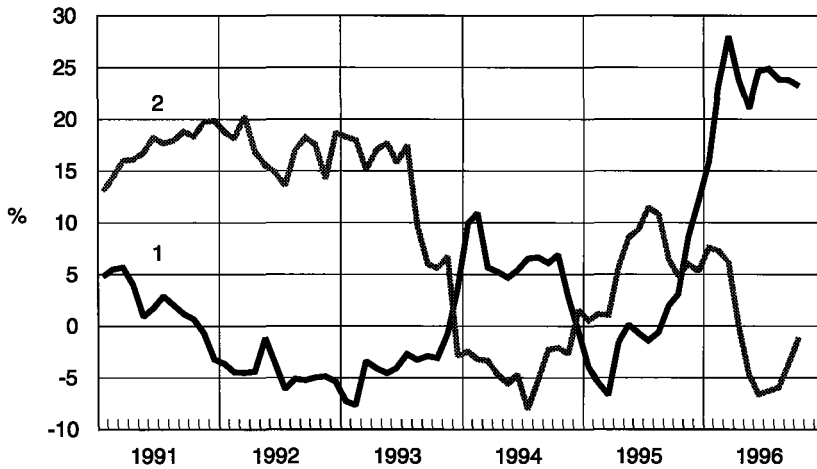
Change from the corresponding quarter of the previous year, per cent



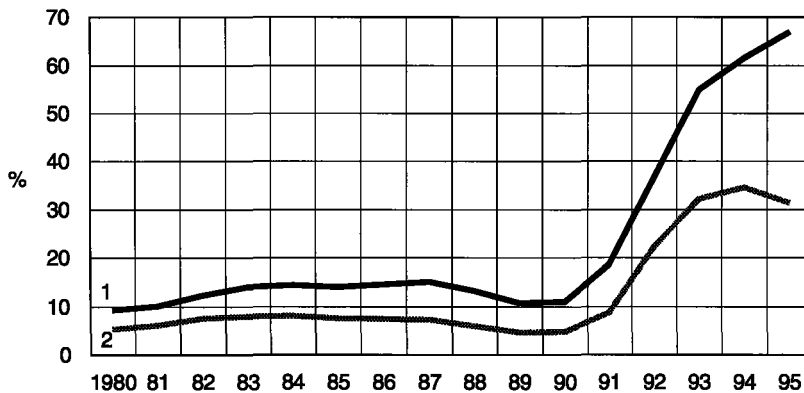
1. Consumer price index
2. Indicator of underlying inflation

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

### 34. Central government finances



### 35. Central government debt



# BANK OF FINLAND

22 November 1996

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## THE PARLIAMENTARY SUPERVISORY BOARD

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ILKKA KANERVA, Chairman  
JOHANNES KOSKINEN, Vice Chairman  
OLAVI ALA-NISSILÄ

KIMMO SASI  
TUULIKKI HÄMÄLÄINEN  
MAURI PEKKARINEN

VIRPA PUJISTO  
MARTTI KORHONEN  
ANNELI JÄÄTTEENMÄKI

ANTON MÄKELÄ, Secretary to the Parliamentary Supervisory Board

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## THE BOARD

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SIRKKA HÄMÄLÄINEN, Chairman  
HARRI HOLKERI  
ESKO OLLILA

MATTI VANHALA  
MATTI LOUEKOSKI

HEIKKI T. HÄMÄLÄINEN, Secretary to the Board

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## DIRECTOR

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PENTTI KOIVIKKO

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## DEPARTMENTS AND OTHER UNITS

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Accounting OSSI LEPPÄNEN

Management Secretarial Staff HEIKKI T. HÄMÄLÄINEN

Administration URPO LEVO

Market Operations MARKUS FOGELHOLM

Eastern European Economies KARI PEKONEN,  
Adviser to the Board: PEKKA SUTELA

Monetary Policy PENTTI PIKKARAINEN

Economics ANTTI SUVANTO

Organization and Management Development  
ESA OJANEN

Financial Markets HEIKKI KOSKENKYLÄ,  
Adviser to the Board: RALF PAULI

Payment Instruments ANTTI HEINONEN

Information ANTTI JUUSELA

Payments and Settlement RAIMO HYVÄRINEN

Information Services JORMA HILPINEN, ad int

Personnel AURA LAENTO,  
Adviser to the Board: ANTON MÄKELÄ

Information Technology PERTTI SIMOLA

Internal Audit TIMO MÄNNISTÖ

Publication and Language Services ANTERO ARIMO

International Secretariat KJELL PETER SÖDERLUND,  
Adviser to the Board: PETER NYBERG

Research JUHA TARKKA,  
Adviser to the Board: KARI PUUMANEN

Legal Affairs ARNO LINDGREN

Security JYRKI AHVONEN

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## BRANCH OFFICES

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Kuopio, Oulu, Tampere, Turku

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**SETEC OY** (security printing house fully owned by the Bank of Finland)

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VELI TARVAINEN, Managing Director

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**FINANCIAL SUPERVISION AUTHORITY** (functions as an independent body in connection with the Bank of Finland; it has its own organization chart)

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KAARLO JÄNNÄRI, Director General

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