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Financial Markets in Finland

CONTENTS

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Preface

by **Markku Malkamäki,** Head of Office
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In 1991 the Bank of Finland published a special issue of the Bank of Finland Bulletin titled 'Financial Markets in Finland'. Since then, significant developments have taken place, ie the financial markets have integrated on a worldwide basis due to deregulation, financial innovation and technological advance. This provides the motivation for a new special issue. Furthermore, unification of the European financial markets has been profound. Stage Three of EMU will deepen that unification even further for the participating countries. This will imply tighter competition among financial entities and national markets. Thus, a restructuring of the credit institutions, securities markets and infrastructures of the European financial markets as a whole is a likely scenario for the coming years.

There are two country-specific phenomena that have affected financial market developments in Finland since 1991. First, due to the severe banking crisis in Finland, the structure of the banking sector has changed substantially. There are now considerably less domestic banks and branches, whereas foreign banks have entered the market by opening branches in Finland. Second, the volume of money and bond market issues as well as trading activity in these instruments and their derivatives has increased greatly, mainly because of the government´s financing needs and infrastructural improvements.

30 October 1996

Finnish financial markets: major trends and international comparisons

by **Markku Malkamäki,** Head of Office
and **Jukka Vesala,** Project Supervisor
Financial Markets Department
Bank of Finland

Rapid growth and diversification of the money and capital markets

The Finnish financial markets have developed rapidly over the past decade. As late as the mid-1980s, the markets were small and undiversified, and interest rates and capital movements were tightly regulated. Financial activities consisted mainly of intermediation by banks, deposits accounted for the bulk of saving and investment, and the stock of capital market instruments was modest (Chart 1).

Abolition of official regulation and financial and technical innovation have significantly increased the range of financial assets and market participants. This has resulted in a considerable expansion of financial and investment activities in Finland, in accord with global trends. Measured by the ratio of nominal value of financial assets to GDP (Table 1), the size of financial markets has grown more rapidly in Finland than in the other OECD countries studied over the period from the beginning of the 1980s to the early 1990s. In part, this reflects the fact that the Finnish financial markets were deregulated later than those of the other countries. In addition, the Finnish economy expanded at a distinctly faster rate than the OECD average.

Nevertheless, the Finnish securities markets remain rather thin compared to the more developed financial markets. This is due to the small numbers of investors, financial institutions and issuers and the late establishment of many market segments. In addition, the insurance companies' practice of lending pension insurance payments back to insured companies (TEL-relending) has reduced insurance companies' investments in tradable instruments. There has however been a significant structural change in the last couple of years: the share of bonds in particular has grown rapidly in insurance companies' portfolios at the expense of relending.[1] Another factor hampering the development of the securities market has been the continued paucity, by international standards, of investment in mutual funds.[2]

Table 1. Financial market size indicator[1]

	1983	1993
Finland	2.30	4.26
France	4.40	7.95
Germany	3.60	4.40
Italy	2.90	4.27
Spain	3.48	4.38
Sweden	3.74	4.97
United States	4.83	6.20
Japan	5.72	7.68

[1] Size indicator = total value of financial assets.

Data source: OECD, Financial Accounts of OECD Countries (various issues); OECD, National Accounts 1960–1994.

Solidification of the money market

A well-functioning money market for short-term maturities emerged in Finland in 1987 when the Bank of Finland freed bank CDs from the cash reserve requirement and started to use open market operations in the conduct of monetary policy. Since the start, bank CDs have accounted for a dominant share of money market assets, a feature which distinguishes the Finnish money market from those of many other countries. It was not until just recent years that the stock of Treasury bills started to grow. On the other hand, the market for commercial paper has recently contracted sharply, although it should be noted that commercial paper has never accounted for a very significant share of corporate financing in Finland.[3]

At present, the Bank of Finland accepts Treasury bills and Bank of Finland CDs in its outright money market operations. In addition to these, deposit bank CDs and notes issued by Asset Management Company Arsenal are eligible for use in repo transactions. Because of the structure of the money market, bank CDs have played a central role in the conduct of Finnish monetary policy.[4]

[1] See the article 'Investment activities of insurance companies' by Pylkkönen in this publication.

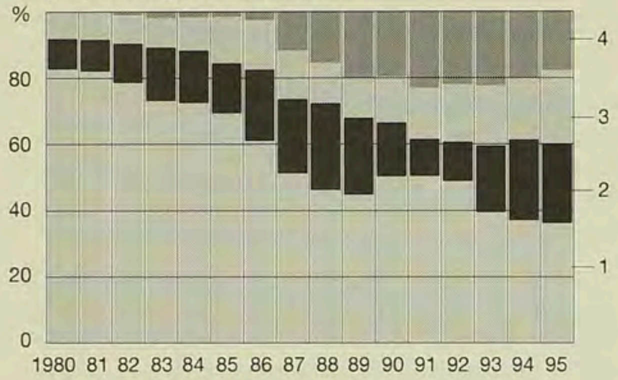
[2] See the article 'Mutual funds' by Pylkkönen in this publication.

[3] See the article 'The money and foreign exchange markets' by Niskanen in this publication.

[4] See the article 'Instruments of monetary policy' by Hasko in this publication.

Chart 1.

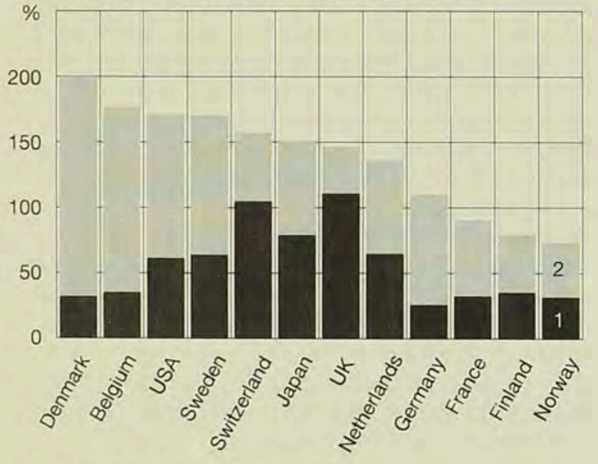
Financial assets, percentage breakdown



1. Bank deposits
2. Shares, market capitalization
3. Bonds, nominal value
4. Money market instruments

Chart 2.

Stock and bond markets relative to GDP in selected countries, end-1994



1. Shares (market capitalization)
2. Bonds (nominal value)

Sources: Fédération Internationale des Bourses de Valeurs, Annual report and statistics 1994, OECD, Salomon Brothers, Stock Exchanges

Rapid growth of the bond market

The Finnish bond market, which is small by international standards relative to the size of the economy (Chart 2), is growing rapidly. At the end of 1994 the nominal value of publicly issued bonds outstanding amounted to 44 per cent of GDP while the corresponding figure for reference countries in Chart 2 was 83 per cent on average. The stock of Finnish bonds continued to grow vigorously in 1995 as a result of central government issues (Chart 3). In relative terms, the largest bond markets are in Denmark, Sweden and the USA, where their size is influenced particularly by the housing finance sector, and in Belgium, where the central government's high level of debt is a more significant factor.

In Finland the share of central government bonds in the total stock of bonds has grown considerably in recent years. The central government has run up its debt rapidly, placing its new debt in the domestic market. At the same time, private issue activity has diminished. In the last three years, issues by the central government have accounted for over 60 per cent of total domestic issues denominated in markkaa. In 1995 the central government accounted for as much as 92 per cent of domestic markka issues, which increased the share of central government bonds to over 60 per cent of the total stock of bonds (Chart 3).

Domestically issued corporate bonds have accounted for about the same share of the Finnish bond market as the international average. The degree of securitization of corporate debt has been correspondingly low in Finland. Particularly small and medium-sized companies have been highly dependent on financing intermediated by financial institutions, in particular by deposit banks.

Several factors have contributed to the diminished volume of corporate debt issues in recent years. First, changes in taxation in 1991–1994, eg introduction of the avoir fiscal system for corporate taxes and the harmonization of the withholding tax rate on interest earnings and other capital income, have reduced the tax advantage of debt financing and thus the incentive for new debt issues. Secondly, manufacturing companies' retained earnings have improved markedly, and these companies have made determined efforts to pay down their debt levels. In addition, the credit risk premium for large Finnish companies has diminished recently. These companies have concluded a large number of new international loan and credit line agreements, which amounted to as much as FIM 30 billion in the first half of 1996. Competitiveness of markka-denominated bank loans has also been fairly good recently because of the declining interest rate level and tighter banking competition.

Finnish financial institutions have been active debt issuers, particularly in the late 1980s and early 1990s. Subsequently, they have significantly reduced their debt issue activity, mainly because of weak credit demand and abundant bank liquidity (Chart 3).

The primary dealer system, which was established in 1992 for the benefit of the government debt market, has rapidly boosted the volume of trade in central government paper. This has notably increased liquidity and active participation in the Finnish bond markets. The market infrastructure has been enhanced also in other ways, and the secondary market has become competitive and open to new market makers.

Owing to improvements in the infrastructure, the Finnish markets could accommodate more corporate issues. The environment for these issues has also improved because the risk-free yield curve has been extended to include long maturities. Thus it is to be expected that the issuance activity of private enterprises will increase over the long run and that the importance of intermediated financing will diminish. The market for government bonds is likely to continue its rapid growth as the central government concentrates its borrowing on the domestic markets.

Notable pickup in the stock market

As measured by the ratio of stock market capitalization to GDP as at end-1994 (Chart 2), the size of the Finnish stock market is similar to that of many other small industrialized economies.

In the last four years, equity financing has clearly increased in importance in corporate financing. The number of share issues has increased notably whereas companies' debt financing, and bank loans in particular, have decreased in net terms (Chart 4). In the last three years, share turnover on the Helsinki Stock Exchange has increased substantially, which has enhanced the possibilities for new issues. In 1995 share turnover was some 45 per cent of total market capitalization.[5]

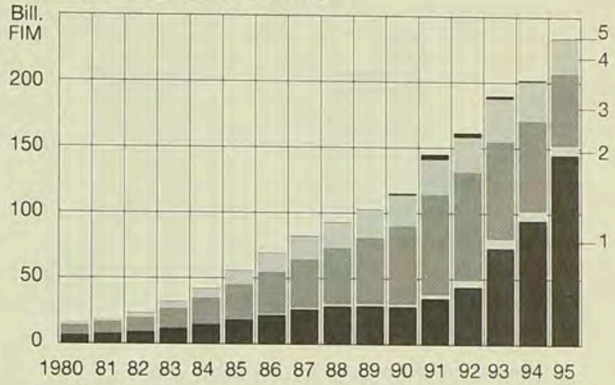
Issue activity was particularly brisk in 1993 and 1994 with issues placed abroad accounting for a significant share of the total. In 1994 about 50 per cent of all new risk capital raised by listed companies was supplied by foreign investors. However, there was a notable decline in share issues in 1995 and this year issue activity has again been relatively sluggish (Chart 5).

An underlying factor for the increase in equity financing has been companies' determined efforts to reduce their high debt levels. Capital ratios have been increased by share issues and especially by paying down foreign currency-denominated loans, which has been made possible by the large amount of retained earnings. The often high debt ratios of Finnish companies stem from the very low real interest rates that prevailed during the era of financial market regulation and the considerable tax advantages accorded to debt financing, which often resulted in negative real after-tax debt servicing costs. Financial market liberalization together

[5] See the article 'The stock market' by Kauko and Saukkonen in this publication.

Chart 3.

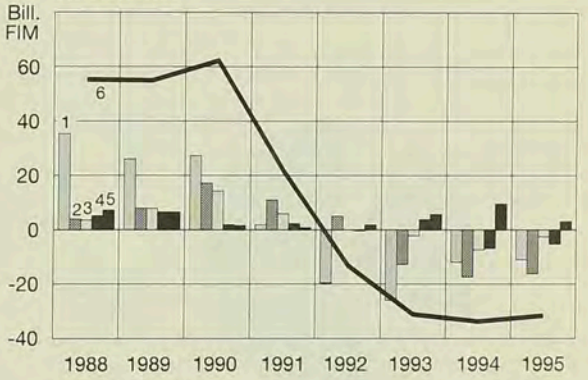
Markka-denominated bonds, stock by issuer sector



1. Central government
2. Local authorities
3. Financial institutions
4. Corporate sector
5. Nonprofit institutions

Chart 4.

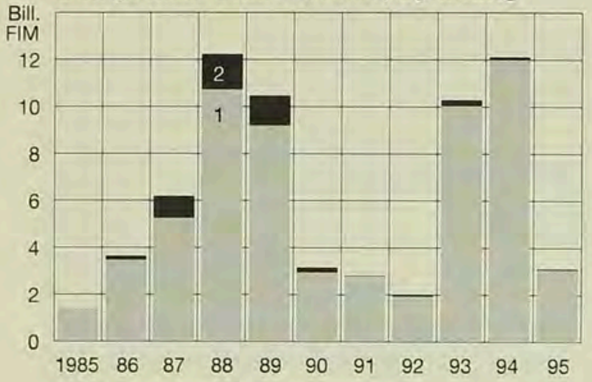
Companies' external financing sources, net flows



1. Banks' lending
2. Other financial institutions' lending (incl. insurance companies)
3. Borrowing from abroad
4. Bonds and commercial paper
5. Share issues
6. Total net flow

Chart 5.

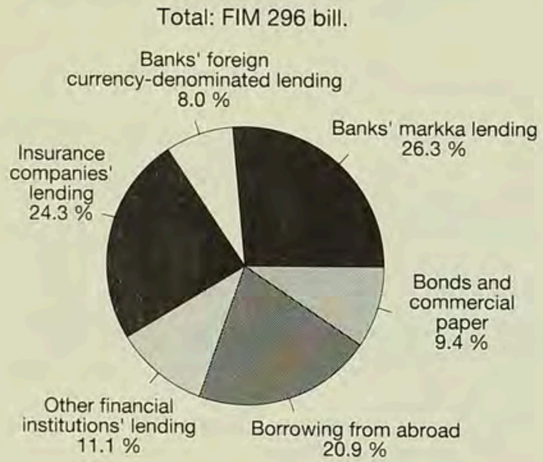
Companies' share issues, by listing



1. Official list (Helsinki Stock Exchange)
2. OTC and brokers' lists

Chart 6.

Companies' interest-bearing debts, stock at 31 Dec 1995



with the above-mentioned tax reforms have changed the situation completely, and corporate financing strategies appear to have changed significantly.

Growth in the derivatives markets

In Finland OTC derivatives, mainly FRAs, currency forwards and interest rate swaps, have accounted for some 90 per cent of the total stock of outstanding contracts. Trade in Finland in interest rate and currency derivatives is still mainly concentrated on the OTC market. The FRA market started to develop rapidly at the end of the 1980s along with the CD market. Trade in interest rate options and swaps has expanded mainly in the 1990s. Trade in bond forwards started in 1994.[6]

Particularly in the 1990s banks' off-balance sheet activities have increased substantially. This has been largely attributable to derivatives trade. The stock of banks' foreign currency and interest rate derivative contracts has increased by some 65 per cent in the last couple years.

Turnover in the Finnish derivatives exchanges, ie SOM Ltd, Securities and Derivatives Exchange, Clearing House (SOM) and Finnish Options Exchange (FOEX), has increased substantially in the last couple years, and the underlying assets for derivatives have become more diversified.[7] Turnover on the SOM is notably higher than on the FOEX. In the early 1990s the SOM concentrated on stock and stock index derivatives and the FOEX on foreign currency and interest rate derivatives. The launching of clearing and settlement of government bond forwards in 1994 rapidly increased turnover on the SOM. It appears that clearing and settlement of markka-denominated interest rate derivatives are becoming concentrated on the SOM.

Less dominance of the financial markets by domestic banks

In Finland companies' debt financing is largely based on the intermediation of financial institutions; only about 9 per cent of debt financing was accounted for by domestic bonds and commercial paper at the end of 1995 (Chart 6). Loans intermediated by deposit banks accounted for about a third of companies' debt financing. The importance of banks is however magnified by the fact that all but two mortgage credit institutions belong to deposit bank groups just as do the major finance companies. The largest special credit institutions are state-owned. At the end of 1995 the stock of loans granted by these institutions slightly exceeded the combined total for mortgage credit institutions and finance companies.

A larger share of corporate sector credit risk is accounted for by banks than the above-mentioned

[6] See the articles 'The money and foreign exchange markets' and 'The bond market' by Niskanen in this publication.

[7] See the article 'The derivatives market' by Virolainen in this publication.

market shares would imply, because 43 per cent of the end-1995 stock of corporate loans granted by all insurance companies was guaranteed by banks.

About two-thirds of the stock of household loans consisted of bank loans and the rest was largely from the public sector.

A special feature of Finnish financial intermediation is that reference rates are for the most part short-term rates, even for housing loans. Moreover, the share of market rates and prime rates as reference rates for bank lending has recently expanded substantially.[8]

Finance companies expanded vigorously after the mid-1980s, but their growth has subsequently slowed as a result of the diversification of financial markets and deregulation of banking because there is now less incentive to separate lending from deposit banking by establishing nonbank subsidiaries. However, since finance companies require less real collateral, their popularity has increased recently, particularly among service companies, which normally have less real collateral available than industrial companies. About two-thirds of mortgage credit institutions' lending has been to companies, mainly for construction, and the rest has gone to public sector corporations and households. Special credit institutions grant both subsidized and market-determined loans eg for export and risk financing and in support of developing areas. In addition, public credit institutions are important guarantors in Finland.

In recent years, the total amount of loans raised abroad by major companies, which are often syndicated loans, has diminished clearly less than the total amount of loans granted by banks operating in Finland (Chart 4). The share of such loans in companies' debt financing is currently about 20 per cent.

Bank loans have been the most volatile component of companies' external financing. The fastest growth in companies' bank loans coincided with a strong economic boom at the end of the 1980s, whereas during the recession and after it the share of bank loans has decreased notably, though this has been largely attributable to banks' large loan write-offs. Volatility has concerned mainly foreign currency-denominated loans intermediated by domestic banks. The stock of markka-denominated corporate loans has remained fairly stable.

As measured by the financial intermediation ratio, ie the ratio of financial institutions' claims to total financial claims, Finland, along with Germany and Sweden, recorded the largest share of intermediated financing in 1993 of the countries included in Table 2. According to this indicator, the financial systems of France, Italy and the USA are the most securitized. In Finland the share of financial institutions' aggregate claims accounted for by banks (bank intermediation ratio), which indicates

[8] See the article 'Credit institutions' by Tuori in this publication.

Table 2. Significance of financial intermediation

	Financial intermediation ratio[1]		Bank intermediation ratio[2]	
	1983	1993	1983	1993
Finland	0.50	0.52	0.67	0.64
France	0.49	0.39	0.92	0.75
Germany	0.49	0.52	0.87	0.84
Italy	0.42	0.37	0.78	0.63
Spain	0.43	0.49	0.87	0.77
Sweden	0.48	0.52	0.47	0.35
United States	0.38	0.45	0.46	0.29
Japan	0.43	0.47	0.35	0.36

[1] Financial intermediation ratio = financial institutions' claims/total value of all financial claims.
[2] Bank intermediation ratio = total value of banks' financial claims/total value of financial institutions' claims.

Data source: OECD, Financial Accounts of OECD Countries (various issues).

the degree of concentration of intermediation in banks, appears to be on the average level. The figure for Sweden is quite low, which is accounted for by the large number of mortgage credit institutions.

Foreign banks and securities houses intensify competition

Competition in the banking sector in Finland has intensified in recent years. This is attributable to a significant degree to the increased activity of foreign – mainly Swedish – banks with establishments in Finland in the area of lending to large and medium-sized companies. According to company surveys, one-fourth of large industrial enterprises have already used lending, deposit or guarantee services of foreign banks operating in Finland; this has forced Finnish banks to improve their lending terms and conditions. Service companies report clearly less usage of foreign banks' services. Nonetheless, foreign banks established in Finland currently account for a small share of the stock of corporate lending by deposit banks operating in Finland, ie about 2 per cent as at the end of April 1996.

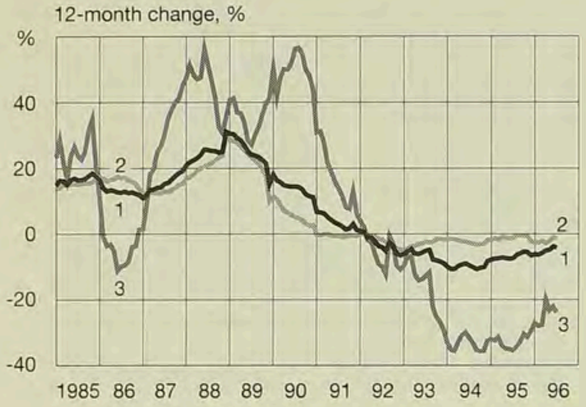
As in other countries, foreign banking business in Finland concentrated initially on wholesale banking and currency trading. Swedish banks have subsequently expanded their activities in intermediation and derivatives trade. Foreign banks have indeed had a greater impact on these activities than on lending. Foreign banks' largest market share is still in currency trade, where they accounted for 44 per cent of the volume in April 1996. In the period January–May 1996, foreign banks accounted for some 15 per cent of brokerage turnover on the Helsinki Stock Exchange.

An expansion of the activities of securities houses not belonging to Finnish deposit bank groups has also reduced Finnish banks' market share in

Chart 7.

Deposit banks' markka and foreign currency lending

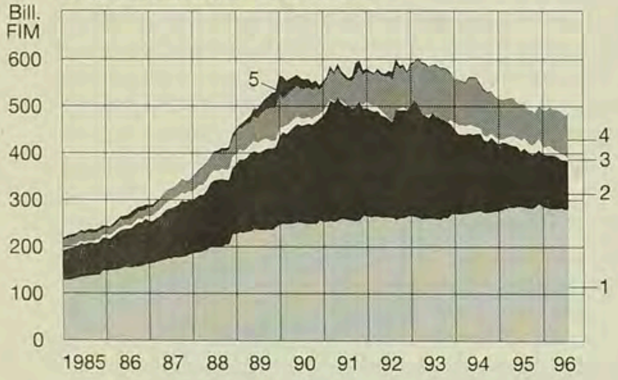
12-month change, %



1. Total lending to the public
2. Markka lending
3. Foreign currency-denominated lending

Chart 8.

Deposit banks' liabilities*



1. Markka deposits by the public
2. Foreign borrowing
3. Markka forward exchange liabilities
4. Certificates of deposit
5. Liabilities to the central bank

* Excluding own funds items.

securities intermediation. Their total market share of stock exchange turnover is currently some 70 per cent. Securities houses (Evli and Alfred Berg Pankkiiriliike) and foreign banks (Svenska Handelsbanken, Skandinaviska Enskilda Banken and Unibank and Goldman Sachs) have also started to act as primary dealers in the government bond market.

The expansion of foreign banks' operations in Finland is expected to continue. One indication of this is the recent substantial increase in notifications on the launching of remote access business from financial institutions in the EU area.

Banks' profits are recovering from the crisis

Financial market deregulation[9] in the mid-1980s triggered a massive boom in bank lending (Chart 7). This resulted from the fact that regulations had previously in effect rationed credit, and in the face of the boom the economic policy response was insufficient to curb the expansionary effects of liberalization. In particular, companies' foreign currency-denominated debt grew rapidly because the interest rates were notably lower than those on markka loans. Finnish banks channelled the bulk of this lending through their balance sheets and thus increased their indebtedness in foreign currencies (Chart 8). It is likely that the credit boom was one of the key factors in the overheating of the economy and the asset price bubble.

The credit boom took place against a backdrop of heated interbank competition for market share, in which banks tended to downplay credit risks. Banks had apparently not adapted to operating in financial markets that were market-determined, open and competitive.

The collapse of trade with the Soviet Union started a period of protracted recession in the Finnish economy. Total output declined by as much as 7 per cent in 1991 and the contraction continued the following year. A large deficit accumulated on the current account and exports lost their competitiveness. These factors led to a devaluation of the markka in November 1991 and later, in autumn 1992, to a change in exchange rate regime from fixed to floating. The high level of interest rates (Chart 9), the recession, collapse of asset prices and the markka's depreciation together substantially lessened the ability of many companies to service their debts, and banks' nonperforming loans and credit losses burgeoned (Table 3).

The losses of savings banks, which had grown most, ended up being considerably larger than those of other banks, and savings banks had to undergo major reorganization. In September 1991 the Bank of Finland was obliged to assume control of Skopbank because other banks had lost confidence in it. The healthy businesses of Skopbank, which had been the savings banks' central financial institution, were eventually sold to Svenska Handelsbanken in June 1995. In June 1992, 41 local savings banks were merged to form the Savings Bank of Finland (SBF) when several large savings banks met with increasing problems[10]. In October 1993 SBF was sold in equal parts to its four main domestic competitors, after which the savings bank sector comprised only small savings banks which had remained outside the SBF. At the same time, Asset Management Company Arsenal Ltd was set up to manage SBF's low-yielding assets (incl. loans and real estate) amounting to about FIM 30 billion, which actually accounted for some 60 per cent of the balance sheet assets that were transferred to the buyers of SBF.

Another significant change that can be considered part of the banking crisis-related restructuring was the 1995 merger of Union Bank and Kansallis-Osake-Pankki to form Merita Bank.[11]

Bank subsidies were granted mainly to the savings bank sector

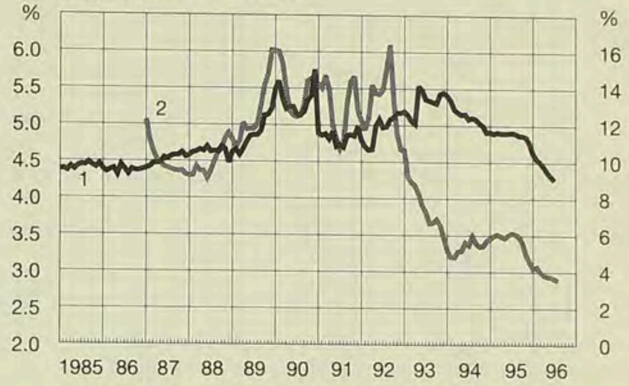
The Government Guarantee Fund, established in summer 1992 to manage the banking crisis, and the Council of State have granted a total of some FIM 46 billion in capital support to banks. When the funds used by the Bank of Finland in the takeover of Skopbank are included, the total capital used for the banking crisis comes to FIM 55 billion, which amounts to about 11 per cent of Finnish GDP. Government support has been needed to ensure the stability and functionality of the banking system and to maintain Finland's international creditworthiness.

Banks other than savings banks have been granted support only to alleviate the effects of the so-called credit crunch of 1992, which currently amounts to some FIM 6.6 billion for operating deposit banks. Neither have other banks made much use of government guarantees granted as part of the bank support programme.

Because of the banking sector disturbance and the need to maintain Finland's creditworthiness abroad, Parliament passed a resolution in February 1993 by which the government guaranteed that Finnish banks would meet all their commitments. The resolution is still in effect.

Chart 9.

Deposit banks' interest rate margin and 3-month HELIBOR



1. Interest rate margin (average markka lending minus deposit rate, left scale)
2. 3-month HELIBOR (right scale)

Table 3. Profitability of Finnish deposit banks* in billion FIM

	1992**	1993**	1994**	1995**	1996** 1-6/
Net income from financial operations	10.7	13.0	13.7	12.4	5.5
Other income	9.5	9.7	8.6	8.2	5.4
Total income	20.2	22.7	22.3	20.6	10.9
Total expenses (incl. depreciation)	16.8	17.2	17.9	17.2	8.1
PROFIT BEFORE LOAN AND GUARANTEE LOSSES	3.4	5.5	4.4	3.4	2.8
Loan and guarantee losses	14.0	14.7	11.2	6.2	1.7
OPERATING PROFIT/LOSS	–10.6	–9.2	–6.8	–2.8	1.1
Balance sheet total	688.9	726.8	667.8	612.8	600.6
Nonperforming assets, net	38.1	35.9	25.4	19.6	17.5
(BIS) risk-weighted assets and liabilities	404.7	488.5	419.5	371.7	372.1
Solvency, % (BIS)	10.7	10.7	11.7	11.9	12.4

* Commercial banks as groups, Okobank and each of the cooperative banks as separate entities (compensation by the mutual insurance company of cooperative banks is entered as a decrease in loan losses and reimbursements by the security fund of cooperative banks as extraordinary income, which does not show up in the operating profit/loss).

** Excl. Siltapankki, Savings Bank of Finland (SBF) and Asset Management Company Arsenal Ltd.

Source: Financial Supervision Authority and Bank of Finland.

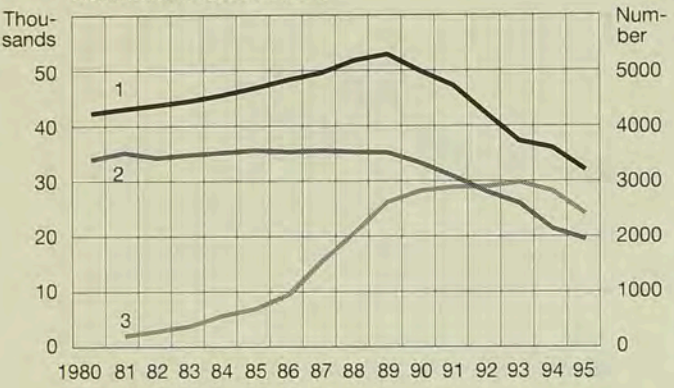
[9] The regulation of banks' average lending rates was gradually abolished in Finland in 1983–1986 and the use of market and prime rates as reference rates was permitted at the end of the 1980s. Companies' foreign currency-denominated borrowing was gradually deregulated in 1986–1990 (cf Bank of Finland E:1, 'Testing for Competition in Banking, Behavioral Evidence from Finland', Vesala 1995, Appendix 1, where the key deregulation phases are listed).

[10] For further background on the Finnish banking crisis and savings bank merger, see 'The Finnish Banking Crisis and its Handling', Bank of Finland Discussion Papers 7/94, Nyberg and Vihriälä.

[11] See the article 'Credit institutions' by Tuori in this publication.

Chart 10.

Deposit banks' staff, branches and ATMs



1. Staff (left scale)
2. Branches (right scale)
3. ATMs (right scale)

Banks' have begun to show profits

The Finnish economy recovered in 1993 after a rapid expansion of exports starting in the latter half of 1991. Total output continued to grow at a rate of over 5 per cent until the beginning of 1995 after which it has slowed somewhat. At the same time, inflation has been subdued. These positive developments have been clouded by a persistently high rate of unemployment.

Banks' profits have recovered slowly from crisis levels (Table 3). Banks' credit and guarantee losses have been substantially reduced but their income from financial operations has weakened because of smaller balance sheet totals, weak credit demand up until 1996, relatively slow reduction of nonperforming assets and narrower lending-borrowing margins (Chart 9). Profitability was also weakened in 1995 because of some unfortunate transactions in securities trade, which were not connected to the banking crisis as such.

Banks' cost savings from restructuring are being realized gradually. Large reductions in operating expenses were achieved in the first half of 1996. Banks' staff and branch networks have been substantially downsized in the restructuring process (Chart 10). There are plans for further restructuring so that banks' costs are likely to be further reduced in the near future and profitability will clearly improve. Banks' operating profits are likely to improve in the future also because credit losses will be reduced to normal levels. Banks' aggregate profits for the first half of 1996 were significantly positive for the first time in several years due to reduced expenses and credit write-offs as well as good trading results.[12]

The aggregate BIS-defined capital ratio for all domestic banks was a satisfactory 12.4 per cent at the end of June 1996 (Table 3). The fact that bank capital remained at a reasonable level during the period of heavy losses was attributable to a distinct contraction in BIS risk-weighted claims and to capital support from the central government.

Banks' profitability: international comparisons

Table 4 shows that the ratio of Finnish banks' net interest income to balance sheet total has been among the lowest in Europe. This reflects narrower financial intermediation margins than in many other countries. By contrast, the ratio of banks' net non-interest income to balance sheet total in Finland has been higher and accordingly the ratio of banks' total income (net interest income + net non-interest income) to balance sheet total has been on the average level.

International comparison reveals that the Finnish banks' problem is high costs rather than low income. Because of higher costs, the operating margin (income minus costs) has been clearly narrower than the average. However, Finnish banks' highly automated payment transfer systems and reductions in capacity have paved the way for future improvements in cost efficiency.

Finnish banks have recovered from the crisis more slowly than banks in other Nordic countries, and the largest banks' profitability in 1995 was still below that of large banks in many other countries (Table 5). Large Finnish banks do better in solvency comparisons.

Banks' relative net interest income has decreased in many countries (Table 4), which reflects intensified competition between banks and other financial institutions as a result of liberalization and changes in financial markets. With further EU integration, these developments are likely to become stronger and therefore cost efficiency, successful risk management and choice of corporate strategies become increasingly significant for banks' profitability.

Finnish financial markets become more integrated internationally

The key factors promoting the internationalization of Finnish financial markets have been deregulation, financial innovation and rapid advances in information technology. Internationalization of financial institutions and investment activity has been further facilitated by actions taken in accord with binding OECD liberalization codes and with EU directives. With the onset of the Act on Investment Service Firms, which relates to the directive on investment services in the securities field, competition will this year affect more directly the exchanges and their securities intermediaries. When the EU changes over to a single currency, competition will intensify significantly in the countries that join Stage Three of EMU. Intense competition will concern eg the location of marketplaces.

Investors and those in need of financing will benefit most from the intensification of competition because financial services will diversify and improve in quality. As far as Finnish investors are concerned, investment alternatives without currency risk will increase manyfold, ie risk diversification will become easier, if Finland changes over to the single currency. As far as foreign investors are concerned, the volatility of Finnish securities prices will be reduced because expected changes in the markka's value will no longer be discounted in the expected yield, which is likely to increase the attractiveness of these securities to foreign investors. These factors may increase the liquidity of Finnish securities issues.

Pressure for increased concentration of marketplaces

Competition has also intensified for Finnish exchanges, which must compete for company listings and securities and derivatives trade with other European marketplaces already now and to an even greater extent in the coming years, ie before Stage Three of EMU. Changeover to a single currency will rapidly increase the pressure for increased concentration of the markets for long-term debt and derivatives as well as the stock markets, to some extent. The way the European central bank payment system, TARGET, is implemented, may have an impact on the structuring of these markets under monetary union.

[12] See the article 'Credit institutions' by Tuori in this publication.

Table 4. Banks' income / cost structure and profitability, average ratios, per cent of BST

	Net interest income (intermediation margin)			Net non-interest income			Net banking income (overall gross margin)		
	80–84	85–89	90–94	80–84	85–89	90–94	80–84	85–89	90–94
Belgium	1.65	1.61	1.39	0.32	0.44	0.43	1.98	2.05	1.82
France	2.50	2.25	1.59	0.46	0.41	0.70	2.96	2.66	2.30
Germany	2.25	2.13	1.96	0.51	0.57	0.60	2.76	2.69	2.57
Italy	2.91	3.06	3.22	1.09	1.18	1.15	4.00	4.24	4.37
Netherlands	2.17	2.16	1.73	0.71	0.78	0.70	2.88	2.94	2.44
United Kingdom	3.10	3.03	2.57	1.42	1.74	1.85	4.53	4.76	4.42
Spain	3.90	3.87	3.39	0.67	0.81	0.89	4.57	4.67	4.28
Portugal	2.04	3.01	3.69	1.07	0.69	1.10	3.12	3.70	4.79
Denmark	3.13	2.49	3.44	2.20	1.09	0.17	5.33	3.58	3.60
Finland	**2.52**	**1.94**	**1.61**	**1.65**	**1.81**	**1.78**	**4.16**	**3.75**	**3.39**
Norway	3.63	3.16	3.48	0.93	1.07	0.93	4.56	4.23	4.40
Sweden	2.24	2.68	2.69	0.78	1.04	1.79	3.02	3.73	4.48
Switzerland	1.25	1.32	1.54	1.08	1.29	1.58	2.33	2.61	3.12
Mean	**2.56**	**2.52**	**2.48**	**0.99**	**0.99**	**1.05**	**3.55**	**3.51**	**3.54**

	Total operating expenses			Operating margin			Pre-tax profit		
	80–84	85–89	90–94	80–84	85–89	90–94	80–84	85–89	90–94
Belgium	1.43	1.37	1.26	0.54	0.68	0.56	0.28	0.31	0.30
France	2.01	1.80	1.52	0.95	0.86	0.77	0.37	0.32	0.24
Germany	1.69	1.73	1.63	1.07	0.96	0.94	0.63	0.59	0.52
Italy	2.57	2.73	2.66	1.43	1.51	1.71	0.62	0.94	1.09
Netherlands	1.84	1.94	1.65	1.04	1.00	0.78	0.39	0.67	0.50
United Kingdom	3.18	3.10	2.87	1.35	1.67	1.55	0.88	0.81	0.64
Spain	3.06	2.98	2.56	1.51	1.69	1.72	0.69	1.02	0.93
Portugal	1.87	2.08	2.35	1.25	1.62	2.45	0.47	0.55	1.07
Denmark	2.80	2.05	2.38	2.54	1.53	1.23	1.48	0.81	–0.19
Finland	**3.42**	**2.85**	**3.00**	**0.75**	**0.90**	**0.39**	**0.30**	**0.37**	**–1.14**
Norway	3.17	2.90	2.88	1.38	1.33	1.52	0.83	0.23	–0.33
Sweden	1.74	2.06	2.42	1.28	1.67	2.06	0.29	0.56	1.12
Switzerland	1.33	1.44	1.65	1.01	1.17	1.47	0.62	0.68	0.58
Mean	**2.32**	**2.23**	**2.28**	**1.24**	**1.28**	**1.26**	**0.60**	**0.60**	**0.41**

Notes: BST = Balance sheet total, Net banking income = Net interest income + net non-interest income,
Pre-tax profit = Net banking income – total operating expenses – provisions (net)
The most recent figures for Italy are from period 1990–1993.
Data sources: OECD Bank Profitability Statistics, Bank of Finland (Finland and Sweden).

Table 5. International comparison of major banks, 31 December 1995

		Balance sheet total		Return on assets 1995	Solvency (BIS), %
		FIM million	USD million		
Finland	Merita-Bank	278 683	63 939	–0.05	10.3
	Postipankki	115 519	26 504	–0.43	10.2
	Okobank	54 426	13 969	–0.26	21.4
Norway	Christiania Bank	82 380	19 003	1.67	12.0
	Den Norske Bank	109 431	25 243	2.32	13.2
Sweden	Handelsbanken	310 124	71 538	1.04	14.2
	S-E Banken	285 683	65 900	0.60	15.2
	Swedbank	304 289	70 192	0.94	14.0
Denmark	Den Danske Bank	304 840	70 319	1.30	10.4
	Bikuben	116 749	26 931	1.17	12.5
Germany	Commerzbank	1 219 832	281 385	0.30	–
	Deutsche Bank	2 182 415	503 429	0.50	10.1
	Dresdner Bank	1 443 194	332 909	0.40	9.7
France	BNP	1 409 991	325 250	0.19	9.1
	Crédit Agricole	1 596 999	368 388	0.65	10.5
	Crédit Lyonnais	1 471 307	339 394	0.12	8.5
	Société Générale	1 415 440	326 507	0.35	9.2
UK	Barclays	1 134 517	261 705	1.23	10.9
	HSBC Holdings	1 519 890	350 601	1.62	14.7
	NatWest	1 130 793	260 846	1.04	10.7
Switzerland	Crédit Suisse Holding	1 555 148	358 734	0.51	–
	Swiss Bank	1 086 229	250 566	0.47	12.2
	Union Bank of Switzerland	1 457 409	336 188	0.52	11.8
Japan	Dai-Ichi Kangyo Bank	2 161 589	498 625	0.32	9.4
	Sumitomo Bank	2 167 260	499 933	0.05	9.2
	Sanwa Bank	2 173 632	501 403	–0.42	9.1
USA	BankAmerica	1 007 677	232 446	1.96	11.8
	Chemical*	793 003	182 926	1.63	12.4
	Citicorp	1 113 483	256 853	2.18	12.2

* Chemical Banking and Chase Manhattan Bank merged at the beginning of 1996.

Source: The Banker.

With the changeover to a single currency, trading in the wholesale market for short- and long-term debt instruments and derivatives is likely to become more concentrated in European financial centres. Factors which could to some extent impede this development are slow integration of Europe-wide payment and settlement systems and decentralized conduct of monetary policy. As far as shares and stock derivatives are concerned, competition arising from foreign co-listing is likely to apply only to shares of major companies. The conduct of business in Finland by foreign intermediaries, ie provision of remote intermediation services, and increased awareness of Finnish companies may in turn increase liquidity in the Finnish stock market, so that the overall effect is difficult to assess.

As regards the competitiveness of Finnish exchanges and money and bond markets, it is crucial that an efficient, low-cost registration and clearing and settlement system be developed, which could establish the required international connections

with other clearing and settlement systems. This means in practice that the Finnish Central Securities Depository, a centralized clearing and settlement centre which will start operations at the beginning of 1997, will need to be competitive by international standards.

Success in the new competitive environment also requires that marketplaces offer a choice of services and operations that meet international standards. Abundant capital and highly professional staff are needed for on-going product and systems development and for creating or purchasing the required international network. This will be expensive and may require closer cooperation with present competitors in eg information technology and product development.

Harmonized securities pricing

The single currency will eliminate currency risk from the mutual transactions of countries joining Stage Three of EMU. This will increase the number of non-currency risk investment alternatives manyfold so that risk diversification will become easier. Similarly, it will increase investors' interest in Finnish issues.

Expectations concerning the value of the Finnish markka affect the pricing of Finnish securities. The single currency, the euro, is likely to be more stable than the markka so that it can be assumed that the volatility of markets for long-term debt and for most shares will diminish.

In the markets for the long-term debt of those countries which join EMU, the common home currency will be the euro. Short-term interest rates are likely to be virtually identical in all countries in the euro area. By contrast, interest rates on longer-term government paper may vary somewhat from country to country because of differences in countries' credit ratings and in the liquidity of the paper. Municipalities and companies are naturally required to pay a premium compared with government paper so that the euro interest rate markets are likely to develop into American-style diversified markets, in which an investor may choose different instruments according to his own risk preferences.

As far as shares are concerned, the more internationalized pricing may be affected by factors other than those directly concerning the single currency. Because the euro area will be extensive, it will be possible to change the emphasis in the allocation of investment funds from country-specific to industry-specific allocation. Certain industries have not been represented at all – or an industry may have been represented by just a single company – on the Helsinki Stock Exchange and thus it has been impossible to diversify risk within a single sector without encountering exchange rate risk.

The P/E ratios of Finnish listed companies have been modest by international standards. The single currency will require reformation of operating modes in Finnish society and companies, which at best will improve the predictability of companies' activities and operating environments. This may have a beneficial effect on the pricing of Finnish listed companies' shares.

Benefits for financial service users

The entire economy will benefit from the reduced costs and improved quality of financial services. This will pave the way for lower financing costs, more diversified outlets for savings and eventually a higher standard of living. Banks and securities intermediaries will face the strongest pressures for adjustment but stock exchanges will also face major challenges. Small local banks and stock exchanges can survive in the future if they are able to satisfy local, or otherwise specialized, financing or investment needs at a competitive price.

Large investors and borrowers, who can make better use of improved and cost-effective services, stand to benefit most from European economic integration and monetary union. Nonetheless, even small investors will find it easier and cheaper to diversify their risks at the international level once Europe has a single currency.

30 October 1996

• Key words: securities markets, financial intermediation, bank profitability, EMU

The money and foreign exchange markets

by **Mikko Niskanen**, Economist
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The money market was Finland's first important market for negotiable debt instruments. It was not until the early 1990s, with a burgeoning of the central government debt, that a viable bond market developed.

The money market refers to the market for instruments with maturities ranging from one day to twelve months. The main market sectors in these maturities are those for certificates of deposit (CDs) issued by banks and the Bank of Finland, Treasury bills, commercial paper, forward rate agreements (FRAs), as well as the interbank market for short-term deposits (Table)[1].

Compared to money markets in other countries, a special feature of the Finnish money market has been the dominance of negotiable instruments. Interbank liquidity balancing operations have been conducted mainly on the basis of CDs issued by banks and the Bank of Finland rather than in fixed-term deposits. The relative importance of CDs has however diminished recently, as interbank trade (especially when based on a view of interest rates rather than liquidity management) has increasingly shifted from outright transactions to FRAs.

Table. Finnish money market, 1995

	Stock at yearend, bill. FIM	Est avg daily turnover, bill. FIM
Certificates of deposit	98.3	5.9*
Treasury bills	37.9	2.3*
Asset management company notes	13.0	N.A.
Commercial paper	5.9	N.A.
Local authority paper	0.2	N.A.
FRAs**	475.4	5.5

* Includes all book-entry securities transactions in Finland.
** Includes only FRAs reported by banks to the Bank of Finland.

Source: Helsinki Money Market Center.

[1] For further discussion of the FRA market, see the article 'The derivatives market' by Virolainen in this publication.

The emergence of the Finnish money market

The Finnish money market, having emerged as recently as 1986–1987, is fairly new as compared with those of many other countries. The late start was largely due to the relatively late start (in the 1980s) for financial market deregulation in Finland.[2]

The money market started to grow vigorously in early 1987. At that time the corporate and banking sectors had an abundance of liquidity because the economy was expanding and restrictions on capital inflows had recently been abolished. Bank lending was also surging (as much as 20–30 per cent p.a.) and thus banks had large funding needs. Financial market deregulation was also proceeding at the same time. The Bank of Finland had inter alia freed bank CDs from the cash reserve requirement in early 1987 and later in the year started to use these instruments in the conduct of monetary policy. This induced banks to start using their CDs also in interbank trade.[3]

By contrast, the market for government issued money market instruments remained undeveloped in the 1980s because of the strong financial position of the central government. Thus at the outset the development of the Finnish money market was linked to the market for bank CDs. This reliance on bank-issued securities in monetary policy operations made the Finnish case quite unique by international standards.

Another feature which distinguished the Finnish situation was that both the interbank market and the customer market were largely dependent on negotiable instruments rather than on account-based investments, such as deposits. This focus on negotiable instruments was partly due to banks' desire for tax reasons to find a flexible means of shrinking their balance sheets when necessary. Pricing was also considered to be more efficient in the secondary market than in deposit trading.

When the money market was launched in 1987 Finnish banks agreed to apply standardized pric-

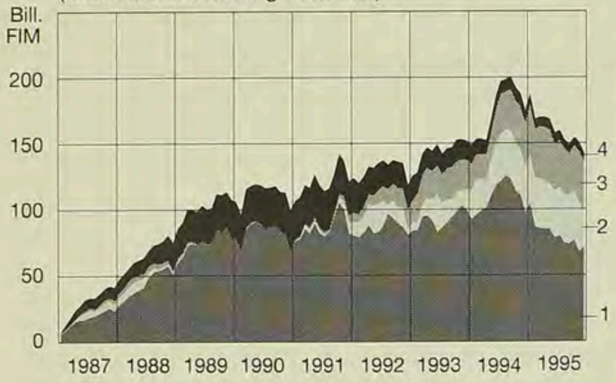
[2] The history of the Finnish money market is dealt with in detail eg by Harri Lahdenperä in 'The Finnish money market from the mid-1980s to the present day', Bank of Finland Bulletin, February 1995 Vol. 69 No. 2.

[3] See also the article 'Instruments of monetary policy' by Hasko in this publication.

Chart 1.

Money market instruments, stock outstanding

(excl. forward rate agreements)

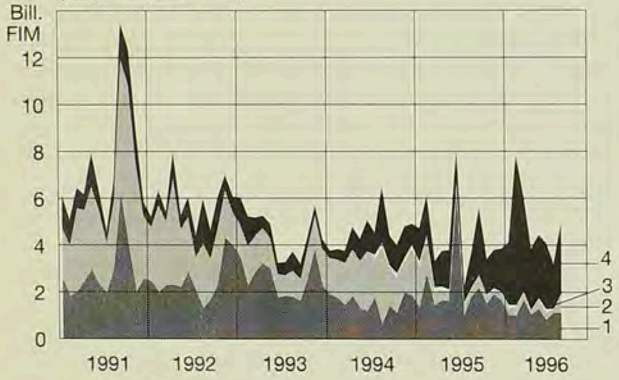


1. CDs issued by deposit banks
2. CDs issued by the Bank of Finland
3. Treasury bills
4. Other

Chart 2.

Interbank money market transactions

(avg daily volume)



1. Account-based
2. CDs
3. Treasury bills
4. FRAs

ing on CDs issued by all the banks. In the absence of risk-free Finnish government paper at that time, the agreement provided a reference framework for interest rates that was sufficiently coherent for the conduct of monetary policy. This indeed was yet another special feature of the Finnish money market.

The application of a single price to different banks' CDs of the same maturity was quite generally adhered to until the problems of the Finnish banking sector began to surface in the early 1990s. In 1990–1991 public pricing became more differentiated and the banks started to quote each others' CDs in terms of margins against their own paper. However, the situation was resolved in September 1991 when the Bank of Finland took over Skopbank, which turned out to be the worst of the problem banks. Banks resumed standardized pricing of CDs fairly soon afterwards, spurred by a parliamentary resolution in 1992 according to which the government undertook to guarantee Finnish banks' ability to meet their commitments.

Foreign investors have never shown a high degree of interest in the Finnish money market. Likewise, foreign banks did not enter the market on a comprehensive scale until only recently. The main reason for this is the markka's relative insignificance as compared to the major currencies. Because of restrictions on short-term capital movements, it was not even possible before 1991 for nonresidents to operate directly in the Finnish short-term financial markets, except for the forward exchange market. Foreigners' enthusiasm continues to be muted by the lack of a viable repo market in Finland, in which markka investments could be financed without exposure to exchange risk. However, measures have recently been taken by the Finnish authorities in an effort to make the money market more attractive to foreign investors.

The Finnish money market today

In the 1990s, at least until very recently, growth in the market for short-term securities has concentrated on Treasury bills and Bank of Finland CDs (Chart 1). This has been partly attributable to the rapid buildup of central government debt and partly to the small-scale funding needs of banks and other private sector entities. The government did in fact initially rely on long-term paper for its markka funding, but more recently the amount of outstanding Treasury bills has also started to expand. The stock of Bank of Finland CDs has grown because in recent years the central bank, in its liquidity tightening operations, has resorted primarily to issuing CDs.

Turnover on the Finnish money market peaked in autumn 1991 prior to the devaluation of the markka (Chart 2). An important influencing factor was the Bank of Finland's outright money market operations in support of the markka's external value. Subsequently – in particular while the markka has been floating – there has been much less need for

money market interventions and thus turnover has not returned to peak levels.

Since the record turnover of the early 1990s, the money market has embarked on a path of steady growth. The focus has however gradually shifted to the FRA market.

Right from the outset, the regulation of the Finnish money market has been based on the principle of agreement, in particular as regards interbank trade. The first agreements were concluded as early as 1987 when rules for ethical conduct in the money market were approved. In 1990 the Bank of Finland and the then Banking Supervision Office mutually agreed that the Bank of Finland would supervise trading in the interbank market and the Banking Supervision Office would supervise customer trade. In collaboration with the Bank of Finland, a code of conduct was drafted for the interbank market in 1991 and it is still in effect. However, trading with customers is now subject to the provisions on securities marketing as laid down in the Securities Markets Act. Under the 1996 Act on Investment Services Firms, market making in the money market became an investment service activity, which is legislatively defined and subject to authorization.

The size of the CD market remains considerable

Although bank CDs are no longer heavily traded in the secondary market and Treasury bills and FRAs have grown in relative importance, bank CDs still play an important role in banks' short-term funding. Other types of financing (deposits, marketable liabilities and repos) do not account for more than about a fourth of the total.

It may well be because the CD market had already gained a foothold before the emergence of a viable government debt market that CDs have remained an important bank funding instrument. The share of CDs has subsequently also been bolstered by the resolution of Parliament guaranteeing Finnish banks' ability to meet their debt commitments.

A Finnish certificate of deposit is a discount instrument, which the issuer redeems at nominal value on the maturity date. The original maturity may be as long as 5 years, but in practice CDs are almost always issued in maturities of less than twelve months. Bank CDs are issued continually according to banks' funding needs.

On the basis of banks' quotations on CDs the Bank of Finland calculates and publishes HELIBOR (Helsinki Interbank Offered Rate) rates, which are the most important reference rates in the money market for the cost of interbank funding.

Banks and the State Treasury have been the main investors in CDs. The fact that banks also act as investors in the CD market reflects the importance of this market for evening out banks' liquidity and risks. The government's large investments in CDs stem from the State Treasury's obligation, due to budget and other considerations, to maintain a considerable cash reserve as well as from a statutory lack of access to the government's own debt issues.

In recent years, however, banks' client companies have made increasing use of Treasury bills in their cash management operations and thus the importance of CDs in this area has started to diminish.

Accordingly, the turnover of CDs has fallen considerably in the past few years. In the course of 1996 the average daily turnover for interbank trading has only been less than a fifth of the level of a few years ago. A major reason for this has been the shift in focus of money market trading to the FRA market. The stock of bank CDs has decreased, and changes in ownership in the banking sector – especially via Finnish bank mergers – have also contributed to a slowdown in CD trading.

Furthermore, the monetary policy environment has undergone a thorough change. Interest rate steering diminished considerably in importance after the markka was allowed to float in autumn 1992. In recent years, the Bank of Finland's most important type of market operation has been the draining of accumulated bank liquidity by issuing one-month CDs via tenders. Apart from the one-month tender rate, the Bank of Finland has not actually sought to affect interest rates.

The market for Treasury bills

The central government relies primarily on long-term borrowing to finance its budget deficits and thus has tended to issue markka-denominated debt in the longer maturities. Up until recent years, only a minor portion of the borrowing requirement has been covered by issues of short-term Treasury bills.

In the last few years, however, the volume of Treasury bills has gradually increased. Since the beginning of 1995 the outstanding stock of bills has increased from FIM 30 billion to about FIM 46 billion as of the end of August 1996.

Like a CD, a Treasury bill is a short-term discount instrument. The government redeems a bill at its nominal value on the maturity date. Original maturities are limited to 1–12 months.

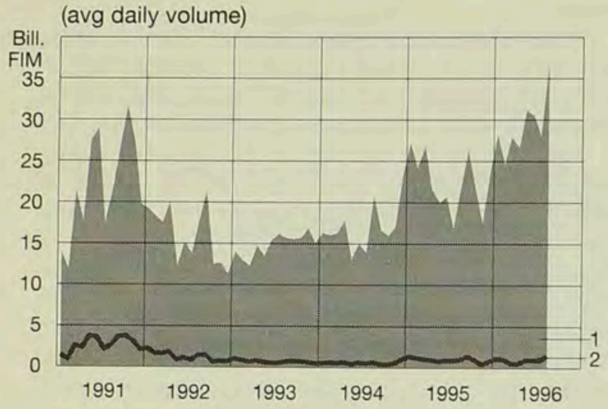
Treasury bills are issued in weekly (Tuesday) auctions organized by the State Treasury. These are competitive, multiple-price auctions in which the participants are institutions that have been designated by the State Treasury. Presently, these comprise 11 banks and securities houses. The standard maturities are one, three, six and twelve months. The primary dealer system for benchmark government bonds does not apply to Treasury bills. Upon request, the State Treasury can also sell Treasury bills outside the auctions.

There are twelve maturity dates a year for Treasury bills, each falling on a weekday in the middle of the month. Thus Treasury bills have relatively

Chart 3.

Authorized banks' reported foreign exchange trades involving the markka

(avg daily volume)



1. Total transactions
2. Transactions between domestic banks

few maturity dates compared with CDs, which are issued on a continuous basis.

Nowadays, about half of Treasury bills, in value terms, end up in the hands of final investors and are used mainly by firms for cash management purposes. Banks also generally hold a certain amount of Treasury bills in their portfolios. In addition, foreign investors have recently become somewhat more active in the Treasury bill market; they presently hold some FIM 3–4 billion worth of Treasury bills in their portfolios, which is just under 10 per cent of the total amount outstanding.

Treasury bills are expected to gradually become an important instrument in the Finnish money market. One indication of this is that, despite the considerably smaller stock of Treasury bills, their average daily turnover has recently risen to close to that of bank CDs.

Companies in particular appear to be finding Treasury bills more and more attractive because of their minimal risk. The popularity of Treasury bills is likely to grow further in the near future because legislative changes are making it easier for money market funds to offer their services in Finland. Another factor that will in the future inevitably enhance the relative attractiveness of Treasury bills is the revocation of the parliamentary resolution protecting the banking system.

Corporate-issue money market paper

A market for commercial paper was launched in Finland as early as 1986. The aggregate size of commercial paper programmes and the outstanding stock of commercial paper grew vigorously in the late 1980s and reached a peak in 1990–1991. At best, the aggregate agreed maximum amounts exceeded FIM 70 billion and the total stock of paper exceeded FIM 30 billion.

However, since 1992 commercial paper has waned in importance. At the end of 1995, the total amount of outstanding paper was only FIM 6 billion, although the aggregate size of agreed programmes was still close to FIM 40 billion. The main reason for the loss of popularity has been improved corporate liquidity. Companies' efforts to pay down their debt levels have also had an impact on the commercial paper market. Nonetheless, recent commercial paper issues have been favourably received by investors.

In the last couple of years a totally new type of negotiable corporate instrument has come on the market. It is referred to as an asset management company note. These notes are issued by the state-owned Asset Management Company Arsenal Ltd, which was established in November 1993 to manage assets acquired in connection with the banking crisis. The notes, which are issued by competitive auction, are fully government guaranteed and technically similar to bank CDs and Treasury bills. The outstanding stock stood at some FIM 8 billion in August 1996. The notes have become increasingly popular among banks and large investors as an alternative cash management instrument.

The foreign exchange market in Finland

Like the money market, Finland's foreign exchange market did not actually get started until the 1980s, when exchange controls were removed. Because the markka is not a reserve currency and does not otherwise play a significant role in international currency trade, most market players do not view the Finnish market as a major segment of the currency markets. A large share of currency transactions involving the markka are commercially based.

According to a BIS survey, in 1995 daily volume of foreign exchange transactions in the Finnish market averaged USD 5.3 billion (about FIM 25 billion)[4]. Of the global daily turnover of USD 1 571 billion, the Finnish market thus accounts for 0.3 per cent. The markka was involved in trades accounting for 39 per cent of total turnover on the Finnish foreign exchange market; the rest involved only foreign currencies. The US dollar and the Deutschemark were the key countercurrencies in markka trading.

[4] Bank for International Settlements: Central Bank Survey of Foreign Exchange and Derivatives Market Activity. Basle. May 1996.

The four or five largest banks account for over 75 per cent of all trading in the Finnish foreign exchange market. According to data reported by authorized banks to the Financial Supervision Authority, currency transactions between domestic banks only amounted to less than 10 per cent of their total currency trading (Chart 3).

Future prospects for the Finnish money and foreign exchange markets

In recent years, the Finnish money and foreign exchange markets have undergone major reforms and have become more integrated with the European financial markets. In the coming years the Finnish money market can be expected to become even more versatile, in particular as the repo market has begun to develop and new domestic and foreign participants and instruments are continuously coming on the market. A major test will be provided by European Economic and Monetary Union, which will certainly intensify competition, both within the Finnish market and vis-à-vis other European financial centres, regardless of whether Finland is an 'in' or an 'out'.

13 September 1996

• Key words: securities, money market, banks, government finance, foreign exchange

The bond market

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It was not until the 1990s that the Finnish bond market was transformed into a market of significant size with a relatively high degree of liquidity and transparency (Chart 1). The major thrust behind the change was a sharp increase in central government debt. At the same time, the major market makers and authorities have cooperated in efforts to develop the market for markka bonds. The present market infrastructure and turnover for Finnish government paper are relatively good, even by international standards (Table 1).

Development of the Finnish bond market

The Finnish bond market was virtually nonexistent until the early 1980s. This was largely due to the country's bank-dominated financial system and tight regulation of the financial markets. Nonetheless, bonds did begin to gradually attract more and more Finnish investors. The most popular instruments at first were widely issued tax-exempt bonds of the central government and mortgage banks as well as corporate issues, often privately placed with banks. Nevertheless, a real secondary market did not develop for these instruments.

In the mid-1980s, high yields drew foreign investors into the market for long-term markka bonds and temporarily increased their general popularity. Bonds were sold abroad to the value of FIM 5–6 billion, until the Bank of Finland prohibited sales abroad of markka bonds in June 1985. The ban remained in place until 1991.

Table 1. Finnish bond market, 1995

	Stock at yearend, bill. FIM	Est avg daily turnover**, bill. FIM
Benchmark government bonds	98.7	2.2
Other government bonds	46.5	} 0.2
Other bonds*	47.7	
Bond forwards**	22.6	0.5

* Excl. private placements.
** Includes only trades reported by the primary dealers to the Bank of Finland.

After the (short-term) money market had started to develop in 1986–1987, interest in market-priced markka financing began to focus on this particular market. While the money market was rapidly taking in a substantial amount of liquidity, long-term bonds continued to be largely ignored.

Finns' own interest in market-priced bonds has been constrained by a number of factors, such as the availability of tax-exempt bank deposits and tax-exempt bonds issued by the central government. The lack of institutional investors has also been an obvious restraining factor, especially in light of the fact that considerable amounts of the contributions to Finland's employment pension scheme have previously gone back to payer companies under an administered loanback arrangement.

Central government indebtedness sparked the development of a secondary market for bonds

The Finnish bond market began to expand rapidly only after the central government, as a result of the country's economic difficulties, started to borrow heavily at the beginning of the 1990s. Sound public finances in the 1980s had kept the debt small, and there was little need for a wholesale market for markka instruments. Later in the 1990s, the central government also started gradually shifting the focus of its financing programme from international issues to the domestic market (Chart 2).

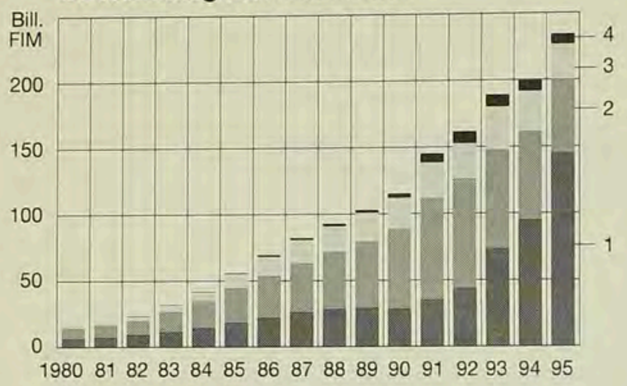
In recent years, the most important instruments in central government markka borrowing have been central government serial bonds aimed at the wholesale market. The aggregate outstanding amount of these bonds, covering a total of 11 issues with maturities of up to 14 years, was FIM 134 billion at the end of August 1996. The stock of yield bonds, which are aimed at households, was FIM 29 billion.

Serial bonds are bullet-type coupon instruments, on which interest is paid once a year. Interest is calculated by the 30/360 method. In Finland market quotations are expressed in terms of yields. The value date for trades is three banking days after the deal (T+3).

Thus far in 1996 new issues of central government markka debt have been divided between serial bonds, Treasury bills and yield bonds. The net

Chart 1.

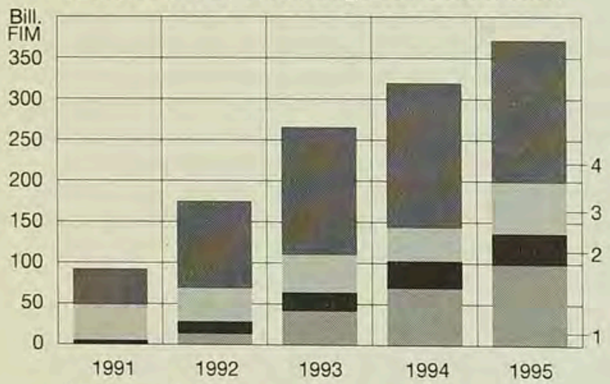
Outstanding markka bonds



1. Central government
2. Local authorities and others
3. Financial institutions
4. Corporate sector

Chart 2.

Breakdown of central government debt



1. Benchmark bonds
2. Treasury bills
3. Other markka-denominated
4. Foreign-currency-denominated

borrowing requirement for 1996 is estimated at approximately FIM 40 billion. As indebtedness will not disappear for some years to come, the market for markka bonds can be expected to grow over the next few years, albeit at a slowing pace.

Benchmark government bonds

In order to increase the efficiency of its financing operation, the central government has been working with the Bank of Finland and the market makers to develop the market for benchmark government bonds. Benchmark bonds are the most heavily traded government bonds. There are currently five benchmark bonds, of which four are serial bonds and one an issue of the Finnish Housing Fund (Table 2).

Although its name is different, the above Finnish Housing Fund bond is comparable evidence of central government borrowing and does not require separate government guarantee. The pricing of the Finnish Housing Fund bond has also been roughly in line with that of other benchmark bonds, although its trading volume has been substantially lower owing to the small amount of outstanding stock.

The aim of granting the bond benchmark status is to make potential investors aware of its high liquidity and at the same time to increase interest in the markka bond market. The State Treasury decides on benchmark status after consulting with the primary dealers. Such status is granted after a bond's outstanding stock and turnover have reached adequate levels.

Primary dealer system

Besides developing the spectrum of available issues, the authorities have been working with market participants in the 1990s to further develop the issue mechanism and secondary market for these bonds. The primary dealer system for benchmark government bonds, which was introduced in August 1992, has come to play a highly crucial role in this context.

The five largest Finnish banks comprised the initial participants in the primary dealer system.

Table 2. Benchmark government bonds, 31 August 1996

Benchmark bond	Loan period	Coupon	Outstanding amount, mill. FIM
Serial bond 1/92	15.1.1992–1999	11.0 % p.a.	31 715
Serial bond 1/94	15.9.1994–2001	10.0 % p.a.	24 173
Housing bond 1/92	15.3.1992–2002	10.75 % p.a.	9 201
Serial bond 1/93	15.3.1993–2004	9.5 % p.a.	34 813
Serial bond 1/96	18.4.1996–2006	7.25 % p.a.	12 537
		Total	112 439

Subsequently, two domestic securities houses, two foreign banks' branches in Finland and two market makers operating from abroad on a remote access basis have joined the system. Since two primary dealers have withdrawn as a result of banking mergers, the total number of primary dealers was nine as of August 1996 (Table 3).

Primary dealers' key responsibilities include active participation in benchmark bond (primary market) auctions organized by the State Treasury and maintenance of a viable secondary market under all circumstances via a continuous obligation to quote. Primary dealers also agree to adhere to the money market rules and code of conduct, which set out the main principles for interbank dealing.

The State Treasury arranges auctions for benchmark bonds at regular intervals, normally on Thursdays, in accordance with a preannounced schedule. The procedure followed is the so-called Dutch (uniform price) auction, in which the lowest accepted bid price serves as the uniform price for all successful bidders. An individual primary dealer is obliged to maintain a market share of at least 5 per cent in these bonds.

The auctions are normally held for the purpose of increasing the stock of existing issues. The idea is to have a fairly limited number of debt instruments in circulation and thus to increase the stock of individual issues and improve their liquidity. Unusual characteristics (such as call features) are generally avoided.

The obligation to maintain a secondary market means in practice that primary dealers must be able in all market conditions to quote timely and indicative bids and offers via public market information channels. Moreover, a primary dealer must at any time upon request and without delay provide another primary dealer with both a binding bid and offer for a round lot of benchmark bonds, which has been agreed to be FIM 10 million. It has been the intention that bid-offer spreads on round lots should be at most five basis points. Most primary dealers actually give indicative quotes for spreads of three basis points. A primary dealer must also be prepared at any time to give a customer a timely and binding bid or offer on a round lot. A customer here refers to any party other than a primary dealer. Prices are regularly available for larger lots also.

Primary dealers have undertaken to report their trades daily to the Bank of Finland, which on the following trading day publishes via market information channels summary information on the previous day's trading volumes and average prices. In Finland benchmark bond transactions are not generally reported to the stock exchange.

With a view to promoting benchmark bond liquidity and preventing unnecessary price volatility in bottleneck situations, primary dealers have also been granted access to the State Treasury's special lending facility to cover their securities borrowing needs. The facility can also be used in reverse, ie by engaging in repo transactions with the State Treasury, in which case the facility provides primary dealers with an alternative means of financing their trading portfolios.

The primary dealer committee, which convenes on a regular basis and is presided over by the Bank of Finland, is charged with the maintenance and development of the market for benchmark bonds and the primary dealer system. The committee agrees on market practices and other trading-related issues. The Ministry of Finance and the State Treasury also invite primary dealers from time to time to discuss inter alia the launch of new instruments or the granting of benchmark status to a particular serial bond.

Volume of trade in benchmark bonds

Trade in benchmark bonds has been continually increasing. Typical daily turnover has recently been fluctuating in the region of FIM 2–5 billion (Chart 3). More than half of the turnover is accounted for by customer trades.

In Finland benchmark bonds are highly dominant in terms of turnover. In recent years the share of benchmark bonds in all bond trades reported by primary dealers to the Bank of Finland has consistently been over 95 per cent.

Major government bond investors are domestic insurance companies and employment pension insurance institutions, which hold more than half of the total of all serial bonds in their portfolios. Up to the present, nonresidents have accounted for about 10 per cent of all domestic government bond investments. Before long-term interest rates started to rise in early 1994, the share of nonresidents peaked at more than 15 per cent (Charts 4 and 6).

The rather limited interest that foreigners have continued to show in Finnish government paper is explained primarily by the small (by international standards) size of the market. Because the repo market has failed to achieve an adequate level of activity, due largely to administrative hindrances, it has been difficult to finance benchmark bond portfolios from markka sources.

The markets are however developing rapidly. The government debt market has already grown to

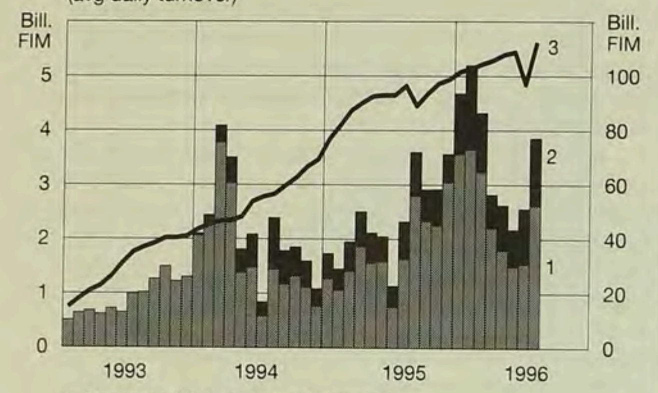
Table 3. Primary dealers, 31 August 1996

- Merita Bank
- Okobank
- Postipankki
- Pankkiiriliike Evli Oy (from 1 May 1993)
- Unibank A/S (from 1 October 1993)
- Svenska Handelsbanken, Helsinki Branch Branch Operation in Finland (from 1 August 1994)
- Goldman Sachs International (from 5 September 1994)
- Alfred Berg Pankkiiriliike Oy (from 10 October 1994)
- Skandinaviska Enskilda Banken, Helsinki Branch (from 15 June 1995)

Chart 3.

Benchmark bonds and bond forwards

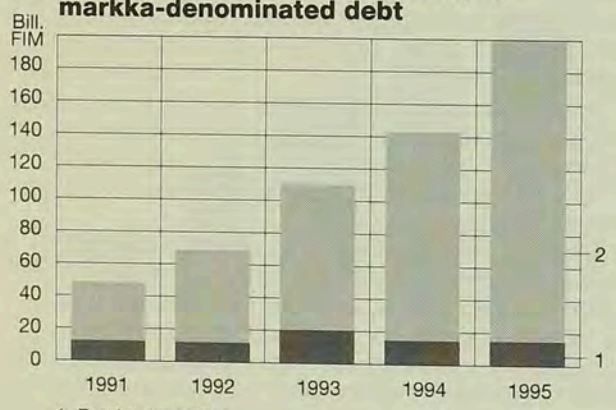
(avg daily turnover)



1. Benchmark bond trades (left scale)
2. Bond forwards (left scale)
3. Stock of government benchmark bonds (right scale)

Chart 4.

Investment in central government markka-denominated debt



1. Foreign investors
2. Domestic investors

where it qualifies for inclusion in international bond indices. Finnish government paper was included in the Salomon Brothers index in July 1996, and JP Morgan has indicated its intent to follow suit.

Much work has also been devoted recently to the establishment of a repo market. An act which has been approved by Parliament and which abolishes the stamp duty on repo transactions is likely to foster the emergence of a repo market. In addition, efforts have been made to ease restrictions on the investments of domestic insurance companies and employment pension insurance institutions so that they can more effectively lend their portfolio holdings in the repo market.

The bond forwards market

With a view to boosting secondary market activity for benchmark bonds, the primary dealers and the Bank of Finland agreed in early 1994 to launch a market for standardized bond forward contracts based on benchmark government bonds.

The value dates applied to bond forwards are the third Wednesday of March, June, September and December. Trading is always conducted in contracts for the next two value dates. The underlying assets for these contracts are presently in a change-over phase. Of the contracts currently being traded, the December 1996 contracts are based on benchmark bonds maturing in 1999 and 2004 and the March 1997 contracts are based on 2001 and 2006 maturities. A round lot has been agreed to be FIM 10 million.

The Bank of Finland confirms the fixing rate on a bond forward on the fixing date of the contract, which like the settlement date for benchmark bonds, is three banking days prior to the value date. Bond forwards are settled on a net value basis.

As a rule, trading in bond forwards takes place in the wholesale market. Nonetheless, both domestic options exchanges, the SOM Ltd, Securities and Derivatives Exchange, Clearing House (SOM) and the Finnish Options Exchange, have included equivalent contracts in their product ranges. A major part of bond forward deals effected in the wholesale market – approximately 90 per cent in 1995 – were cleared and settled via the SOM system. This has made it possible to reduce counterparty risk associated with ordinary wholesale trading.

During the first two years of operation, turnover in bond forwards was at a substantially lower level than corresponding cash market turnover. Turnover has however improved appreciably in the course of 1996. In the first half of the year the number of bond forward contracts agreed approximately doubled on the year-earlier period, and typical daily turnover is now in the region of FIM 1 billion (Chart 3).

The private sector bond market

In 1991–1995 the central government issued a (nominal) total of FIM 159 billion worth of bonds in the domestic market. Bonds floated by all other

sectors amounted to FIM 104 billion. The bulk of the latter, FIM 66 billion, represented bonds issued by financial institutions, notably mortgage banks (Chart 5).

The volume of new nonfinancial corporate issues has been very low in recent years, mostly due to recent attempts by Finnish corporations to reduce their dependence on external financing. However, most corporate issues have met with a favourable response by investors. Small issue volumes, however, have so far constrained the emergence of a liquid secondary market for corporate issues.

In 1996 a slight recovery has been discernible in issue activity for private sector bonds. In the first half of the year, issues to the value of more than FIM 5 billion have already been floated, which is roughly as much as in all of 1995. But issue activity continues to depend primarily on financial institutions, while corporate issues continue at a subdued level.

Local authority paper has accounted for a rather modest share of bond issue volumes in Finland.

Regulation of the bond market

Provisions governing bonds are laid down in the Promissory Notes Act. The Securities Markets Act contains provisions on issuers' obligations to provide information and on the trading procedures of market makers. Bond trading on the stock exchange or in some other officially approved framework is subject to the rules and regulations issued on the basis of relevant laws by the stock exchange or other body responsible for public trading. Trading between primary dealers in benchmark bonds is governed by the rules and codes of conduct applied in the money market as agreed.

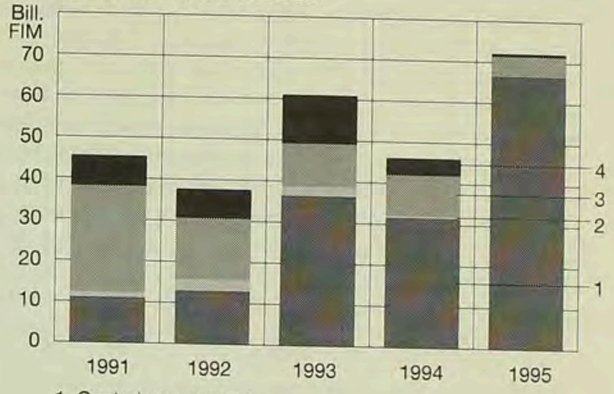
Development of long-term interest rates in Finland

Finnish long-term interest rates have developed very favourably in recent years. Since the rise in international interest rates in spring 1994, markka interest rates have already been trending downward for a couple of years. At the same time, interest rate differentials have narrowed for both short-term markka interest rates and long-term interest rates vis-à-vis key countries of comparison. The differential for long-term Finnish government bond yields against corresponding German rates have recently varied between 50 and 80 basis points, having been 3–4 percentage points just two years earlier (Chart 6).

With the Finnish economy experiencing a turn for the better and central government indebtedness under control, the interest rate gap vis-à-vis countries of comparison can at least be expected to stay within the present limits. The Finnish market can thus be considered an increasingly stable and attractive market for investors, which offers a potential return premium at reasonable risk.

Chart 5.

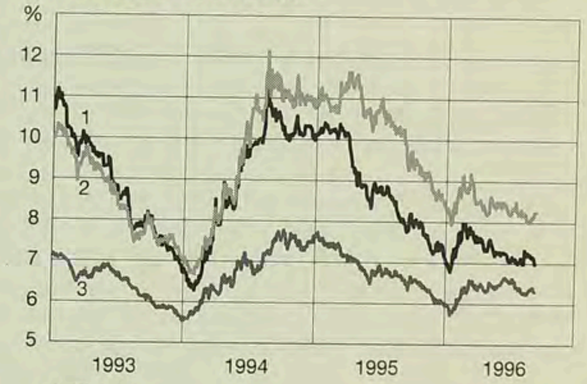
Markka bond issues



1. Central government
2. Local authorities and others
3. Financial institutions
4. Corporate sector

Chart 6.

Ten-year government bond yields in selected countries



1. Finland
2. Sweden
3. Germany

Outlook for the Finnish bond market

In recent years the Finnish bond market has taken great strides to move forward, which have increased the market's attraction among different types of investors. Notably, market liquidity has been improved by increasing the stock of central government paper and further developing the market. Many recent measures, such as the conversion of physical securities into book-entry form[1], the launch of bond forwards and the start-up of the repo market as well as new, longer maturities will further enhance the attraction of the market for the government paper. The coming changeover to the euro environment will certainly be a major touchstone. As the pricing of different countries' debt instruments becomes more and more unified, competition between the different bond markets will correspondingly increase. Another big challenge for Finland lies in making use of the new market infrastructure for government debt so as to accommodate private sector issues and upgrade the secondary market for private sector bonds.

13 September 1996

[1] See the article 'Securities settlement systems' by Virolainen in this publication.

• Key words: securities, bond market, government debt, primary dealer system

The stock market

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The trading of shares in Finland is concentrated on the Helsinki Stock Exchange. Shares are also quoted on OTC and brokers' lists (also managed by the Stock Exchange), but the turnover on these lists is very small compared to that of the Official List of the Stock Exchange. Market capitalization and turnover on the Helsinki Stock Exchange relative to the size of the Finnish economy are similar in magnitude to the averages for the other main stock exchanges in the EU countries. Market capitalization of the Helsinki Stock Exchange amounted to about 35 per cent of GDP at the end of 1995. Finland being one of the smaller EU countries, its stock market is quite thin in absolute terms. The all-share index of the Helsinki Stock Exchange has recently been one of the most volatile indices in Europe, but Finnish shares provide international investors with the opportunity to gain significant benefits from portfolio diversification.

The Helsinki Stock Exchange

The Helsinki Stock Exchange was founded in 1912 and has subsequently operated virtually without interruption. The Exchange was previously organized as a nonprofit cooperative but was reorganized in November 1995 as a limited liability company engaged in business. Of the Exchange's share capital, 40 per cent is held by officially listed nonbank firms, 23 per cent by banks and bank-owned brokerage firms, 34 per cent by nonbank-owned securities houses and 3 per cent by others. At a general meeting of the Exchange, a single shareholder can exercise voting rights amounting to no more than 5 per cent of shareholders' total voting rights.

Like other stock exchanges, the Helsinki Stock Exchange has numerous sources of income. Of total income in 1995, 45 per cent comprised fees paid by brokerages, 25 per cent fees paid by issuers, 13 per cent clearing fees and 17 per cent proceeds from the sale of data.

OTC and brokers' lists

In Finland shares are traded off the stock exchange on two lists: the OTC list and the brokers' list. Trading on both the OTC and brokers' list is conducted via the Helsinki Stock Exchange Automated Trading and Information Systems (HETI). The OTC and brokers' lists differ from the Official List inter alia in respect of share liquidity and more relaxed listing requirements. A requirement for OTC listing is FIM 2 million in own funds and a market making agreement with an OTC broker. Admission to the brokers' list can be granted when it is judged that there is sufficient supply and demand for the share in question.

The OTC and brokers' lists are of importance mainly as equity financing vehicles for new and small and medium-sized companies, offering a marketplace for trading their shares prior to listing on the Helsinki Stock Exchange. Compared to the Exchange, turnover on the OTC and brokers' lists is very small. Their aggregate portion of all reported share transactions has been in the region of a few per cent (1.6 per cent in 1995, 4.1 per cent in 1994). In the early 1990s there were more companies on the OTC and brokers' lists than on the Official List, but their number has been diminishing in recent years. At the end of 1995 the OTC list included 32 companies and the brokers' list 15. The only foreign companies currently quoted in Finland, two Estonian banks, are included on the brokers' list.

Regulation of stock trading

The Securities Markets Act, which has been in effect since 1989, provides the basic legal framework for securities market regulation and thus for share trading. The key objective of stock market regulation is to protect the small investor. The Securities Markets Act prescribes rules relating to securities trade and supervision only in general terms while authorizing the Ministry of Finance and Financial Supervision Authority to issue more specific guidelines and regulations on stock exchange activity and share trading.

The Rules and Regulations of the Helsinki Stock Exchange constitute the primary means of regulating the stock market. When confirmed by the Ministry of Finance, these rules and regulations comprise the statutory precondition for stock exchange activity. The Exchange's rules and regulations presently constitute the most detailed set of rules that are binding on listed companies and securities intermediaries. Among other things, the rules and regulations include exact instructions on admission to the Official List, on executing buy and sell orders on the stock exchange, on issuers' obligation to provide information, on solvency requirements for securities intermediaries, on professional requirements for brokers, and on clearing and settlement of transactions.

Compliance with existing rules and regulations is overseen by the Financial Supervision Authority. As a licensing authority, the Ministry of Finance is also empowered to revoke a licence to operate a stock exchange or to suspend trade on a stock exchange if the exchange has acted in contravention of the rules and regulations.

No stamp duty is levied on trades in shares quoted on the Official List, OTC list or brokers' list, but share transactions made outside these lists are subject to a 1.6 per cent duty, which is normally shared equally by buyer and seller. Services provided by the Helsinki Stock Exchange are subject to value added tax.

Trading on the Helsinki Stock Exchange

Trading on the Helsinki Stock Exchange is conducted via the HETI system, which is an automated continuous auction trading system similar to those employed by several other stock exchanges in continental Europe. Brokers arrange deals, without normally owning shares at any stage of the trading process. During trading hours, they enter bids and offers into the HETI system, which tries to match them. In an attempt to upgrade the market for certain relatively illiquid shares, a market making arrangement has been set up by which a broker provides continuous bid and offer quotes for a particular share via the HETI system. At present, there are such market makers for three different shares.

The Helsinki Stock Exchange is open for business from Monday to Friday, except for public holidays. Trades can be effected in three different stages of trading.

1) The trading day begins with the opening stage from 8.30 to 10.30 am local time (GMT+2). During the opening, brokers enter bids and offers into the HETI system, without seeing each other's bids or offers. After all bids and offers have been recorded, the HETI system compares the quotations given and matches suitable bids and offers into transactions. The matching takes place during the last ten minutes of the opening. If there are two equally favourable bids or offers, of which only one can be executed, the HETI system chooses one randomly for execution. Trades can also take place between customers of the same broker, as the broker can enter bids and offers for execution at the same price level.

2) Most transactions are agreed during the free trading stage, from 10.30 am to 5.00 pm. In free trading, brokers may freely enter bids and offers into the HETI system or remove them. The system compares bids and offers and when a suitable match occurs effects a transaction. Trades carried out via the HETI system are transferred automatically to the Stock Exchange KATI clearing system[1]. If there are two valid bids or offers at the same price and only one order can be executed, the bid or offer first registered in the system will be executed. Trades may also be negotiated between a broker's customers, as the broker can simultaneously enter a bid and an offer for execution at the same price. Executed trades are announced immediately, with details reported on the brokers, types of shares, transaction amounts and prices.

The stock exchange adheres to a fluctuation range of ±15 per cent for a share price. If the price of a share changes from the closing quotation of the preceding trading day so as to approach the 15 per cent limit, the stock exchange can at its discretion temporarily suspend trade or adjust the fluctuation range. A change in the fluctuation range is reported via the HETI system. The stock exchange will proceed to analyse the cause of the price volatility and, if the cause appears to be sound, trading will be resumed.

3) The after-market trading stage is composed of two sessions. The first session takes place from 5.05 to 5.30 pm and the second from 9.00 to 9.25 am on the morning of the following trading day. In after-market trading, prices are not determined freely by supply and demand; instead the price level established in the free trading is applied.

As a rule, a bid or offer is made for one or more round lots. Trades in smaller quantities are also executed, but it may prove difficult to find a counterparty for amounts smaller than round lots, particularly in connection with the less liquid shares. A round lot is a number of units of a particular share specified by the stock exchange; the stock exchange management may change the definition at its discretion. Round lots vary in number of units but normally comprise shares worth FIM 5 000–20 000. Share price developments in the immediate past decisively influence the size of a round lot in markka terms: the round lot of a sharply depressed share is usually small.

Brokers may also negotiate deals outside the stock exchange, but these too must be reported to the stock exchange. A bid or an offer given by a customer for stock exchange execution must not be executed off the stock exchange. If trading in a listed security is suspended, brokers are not allowed to continue trading in that security off the stock exchange.

Listed companies

The market capitalization of listed companies amounted to FIM 217 billion in May 1996. Of this, the electronics company Nokia accounted for 24 per cent and UPM-Kymmene, the largest wood-processing group in Europe, for 11 per cent. There were 69 companies on the Official List.

Virtually all of Finland's largest companies are listed. Of the big companies, there are only a few nearly wholly state-owned companies and some family-owned firms that are unlisted. More than ten

[1] See the article 'Securities settlement systems' by Virolainen in this publication.

Finnish companies are both listed on the Helsinki Stock Exchange and quoted on the SEAQ (Stock Exchange Automated Quotations) in London. A few Finnish companies are listed in Stockholm, Frankfurt, Paris and New York.

Listing on the Helsinki Stock Exchange requires a minimum share capital of FIM 20 million. A registration fee is charged upon admission to listing and each year the Exchange sets an annual listing fee. Even though at present only Finnish companies are quoted on the Helsinki Stock Exchange, foreign companies may apply for listing. A company registered in the European Economic Area may apply for listing even if it does not meet Finnish listing requirements, provided that it meets its home country requirements.

One pecularity of Finnish listed companies is that many of them maintain two series of shares, one or both of which may be officially listed. The shares are typically classified as either ordinary or preference shares. An ordinary share carries more voting power than a preference share at the annual general meeting; often the ratio is as high as twenty to one. In contrast, many companies' articles of association grant preferred dividend rights to preference shareholders. In some cases, no dividend can be paid on ordinary shares unless at least the minimum dividend prescribed in the articles of association is also paid on preference shares in the same year.

The Helsinki Stock Exchange maintains a surveillance list. Shares on this list are traded in the normal manner but the exchange is able by this means to call investors' attention to a particular company-specific circumstance, such as a decision on removal from the official list, corporate restructuring or recurrent breaches of rules. All companies presently on the surveillance list are undergoing restructuring proceedings.

Investors

A review of investors by type reveals that the most significant domestic investor groups have been households, financial institutions and other companies. Each of these three groups has been of roughly equal importance in recent years, even though their relative portions of total holdings have varied somewhat over the years. Mutual funds play a less significant role in Finland than in many other countries. Investment holdings of equity funds amount to only FIM 2.6 billion, and balanced funds are estimated to hold several hundred million markkaa worth of shares.[1]

Since January 1993 foreigners have been allowed to invest freely in Finnish securities, and in recent years their holdings have grown faster than those of any other shareholder group. At present, about a third of Finnish shares are held by foreigners. The number of foreigners with shareholdings in Finnish companies has recently grown as a result of several initial public offerings launched abroad by newly listed companies.

Authorized brokerage firms

On the whole, financial intermediation in Finland continues to be highly bank-dominated. The liberalization of the capital markets is clearly evident in securities intermediation, which has undergone a complete revamping in the last ten years. Provisions on the status of brokerage firms are laid down in the Securities Markets Act and Securities Broking Firms Act. Upon entry into force of the new investment services legislation, the Securities Broking Firms Act will be abrogated and provisions on securities intermediaries will be for the most part lumped together within the scope of the Investment Firms Act. The Rules and Regulations of the Helsinki Stock Exchange also provide essential guidelines for brokerage firms.

At present, there are 21 securities intermediaries in Finland and one remote access broker without an office in Finland. Of these, seven are foreign-owned banks or securities houses, five are domestic banks or their brokerage subsidiaries and nine are other domestic brokerage firms (Table 1).

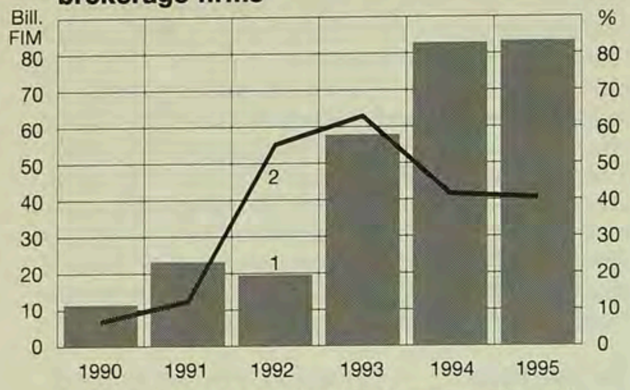
[1] See also the article 'Mutual funds' by Pylkkönen in this publication.

Table 1. Helsinki Stock Exchange authorized brokerage firms at October 1996

Foreign-owned brokerage firms	Domestic banks and their subsidiaries	Other domestic brokerage firms	Remote access brokers
Aros Pankkiiriliike Oy	Aktia Säästöpankki Oy	AG Pankkiiriliike	Den Danske Bank
Alfred Berg Pankkiiriliike Oy	Interbank Osakepankki	Pankkiiriliike Arctos Securities Oy	
Pankkiiriliike Carnegie Suomi	Merita Pankkiiriliike	Pankkiiriliike Evli Oy	
Protos Pankkiiriliike Oy	Opstock Pankkiiriliike Oy	FIM Pankkiiriliike Oy	
Skandinaviska Enskilda Banken, Helsinki Branch	Postipankki Oy	Pankkiiriliike L. Hiisi Oy	
Svenska Handelsbanken, Helsinki Branch		Pankkiiriliike Sofi Oy	
Williams de Broë Pankkiiriliike Oy		Pankkiiriliike Oy Erik Selin Ab Bankirfirma	
		Suomen FSB Oy Pankkiiriliike	
		United Bankers Pankkiiriliike, Fondkommission Ab	

Chart 1.

Securities held by foreigners and market share of foreign-owned brokerage firms

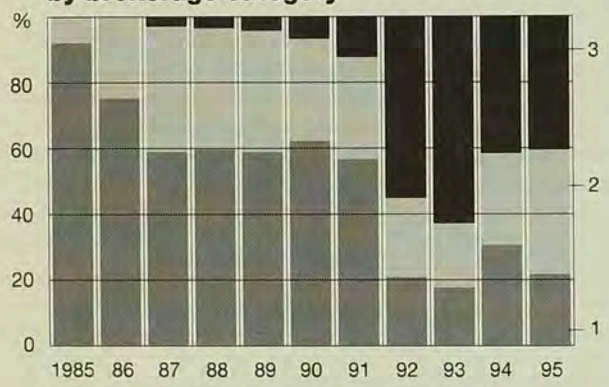


1. Shares and markka bonds held by foreigners (left scale)
2. Market share of foreign and foreign-owned brokerage firms, Helsinki Stock Exchange (right scale)

Source: The Helsinki Stock Exchange, Bank of Finland

Chart 2.

Turnover on the Helsinki Stock Exchange by brokerage category



1. Domestic banks and their brokerage subsidiaries
2. Other domestic brokerage firms
3. Foreign or foreign-owned brokerage firms

Source: The Helsinki Stock Exchange

Over the past ten years, the number of brokerages has fluctuated on both sides of twenty. Historically, the number peaked after independence (1917), when in 1919 the Helsinki Stock Exchange fixed their maximum number at 66. The number of brokerage firms thereafter decreased gradually: in 1939 there were 18 brokerages authorized by the Helsinki Stock Exchange and after World War II in 1945 only 12. Subsequently, no new brokerage firms were seen until towards the end of the 1980s, in connection with the deregulation of the capital markets. In 1985–1995 almost 30 brokerage firms were established while more than 20 ceased operations.

Foreign brokerage firms have been moving into the Finnish market at a rapid pace. In 1985 there were 16 brokerages authorized by the Helsinki Stock Exchange, none of which were foreign. The first foreign brokerage opened for business in 1986. Foreign investors gradually began to show increasing interest in the Finnish market after Parliament eased restrictions on share ownership by foreigners in 1987 by raising the maximum foreign ownership of a limited company from 20 to 40 per cent (subject to permission). A significant step in the deregulation of the capital markets was taken in 1993 with the complete removal of restrictions governing foreign share ownership. This was reflected in an immediate upsurge in the number of Finnish shares held by foreigners (Chart 1). Until as late as 1991, foreign brokerage firms played a minor role in the intermediation of shares, accounting for less than 10 per cent of turnover on the Helsinki Stock Exchange. The aggregate market share of foreign-owned brokerages peaked at 63 per cent in 1993, after which it has remained at roughly 40 per cent.

With competition tightening, domestic banks and their subsidiary brokerage firms have lost the most market share. In 1985 domestic banks accounted for 92 per cent of turnover on the Helsinki Stock Exchange and in 1995 only 22 per cent (Chart 2). The sharpest drop occurred in 1992, when foreign-owned brokerage firms experienced their largest increase in market share.

The earnings of brokerage firms have been largely based on their broking commissions, whereas earnings on their own portfolios have been rather limited. In recent years, broking has represented some 90 per cent of brokerage firms' total income, with profit performance varying strongly according to trading volumes on the stock exchange. So far in the 1990s, the lowest aggregate operating profit for brokerages has been FIM 4 million (1991); the best result was more than FIM 200 million (1994) and was due to a pickup in trading volume. Recently, increasingly tight competition, in particular, has resulted in a decrease in brokerage firms' operating profits despite volume growth in share transactions. At present, commissions are estimated to be in the region of 0.1–0.5 per cent for large transactions.

Stock exchange indices

The Helsinki Stock Exchange calculates several indices that track share prices. The HEX all-share index reflects changes in the values of all shares quoted on the stock exchange; each share is weighted by its market value at the close of the previous trading day. In other words, the index weights are recalculated at the close of each trading day.

Since autumn 1995, the Helsinki Stock Exchange has also reported its HEX Portfolio index, in which no single company's weight exceeds 10 per cent. This index was introduced because Nokia had come to account for some 30–40 per cent of the total capitalization of the stock market.

Listed companies have been categorized into seven sectors: banks and finance, insurance and investment, other services, metal and engineering, forest industries, other industry, and conglomerates. There are also separate HEX indices for each of these sectors. The sectoral breakdown will be changed as from the beginning of 1997, when there will be 16 sectors for listed companies.

Besides the indices calculated by the Helsinki Stock Exchange, an important index reflecting performance on the Exchange is the FOX index calculated by the SOM Ltd, Securities and Derivatives Exchange, Clearing House. This index covers the price developments of the 25 most actively traded shares on the Helsinki Stock Exchange. These 25 companies account for approximately 90 per cent of stock exchange turnover. Stock index derivatives are based on the FOX index.

Trends in share turnover and prices

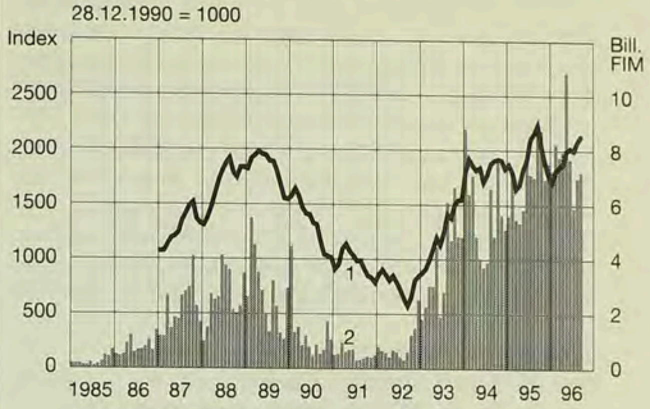
For several decades following World War II, stock exchange activity played an insignificant part in the Finnish economy. However, in the late 1970s this activity began to grow in importance. At first the growth was slow, but since the mid-1980s total turnover on the Helsinki Stock Exchange has been rising rapidly. Chart 3 shows the monthly turnover on the Helsinki Stock Exchange as well as the path of the all-share index over the years 1985–1996.

In recent years, both the market capitalization and trading volumes for the Helsinki Stock Exchange have been highly concentrated in the large electronics company Nokia. Of total turnover for 1995 (FIM 83 billion), for example, Nokia accounted for nearly 50 per cent (FIM 40.5 billion). The next four most traded companies combined represented 20 per cent of total turnover. At the end of 1995 Nokia's share of listed companies' market capitalization amounted to 27 per cent, having peaked in September 1995 at more than 40 per cent.

Chart 3.

Turnover on the Helsinki Stock Exchange and the HEX all-share index

28.12.1990 = 1000



1. HEX all-share index (left scale)
2. Share and subscription rights turnover on the Helsinki Stock Exchange (right scale)

Finnish shares in an international portfolio – correlation coefficients

The Helsinki Stock Exchange all-share index has been among the most volatile in Europe in recent years. For a foreign investor, however, this market offers opportunities for diversification. To help clarify this point, a few simple correlation coefficients are presented below. The coefficients were calculated on the basis of nearly 600 daily observations over the period January 1994 – April 1996.

Table 2 shows the correlation coefficients for daily returns on each of several Helsinki Stock

Table 2. Correlation coefficients for daily returns on Helsinki Stock Exchange sectoral indices vis-à-vis broad indices of selected foreign stock exchanges

	Helsinki / forest industries	Helsinki / metal and engineering	Helsinki / other services	Helsinki / insurance and investment	Helsinki / Hex all-share index
New York / Dow Jones	0.191	0.218	0.148	0.138	0.240
Frankfurt / Dax	0.428	0.484	0.920	0.405	0.542
Tokyo / Nikkei	0.165	0.237	0.132	0.122	0.135
Volatility	0.015	0.012	0.009	0.017	0.013

Exchange sectoral indices as against several broad indices of foreign stock exchanges. For purposes of comparison, the returns on the Helsinki Stock Exchange have been converted into the respective domestic currencies of the foreign stock exchanges. The figures indicate that the Helsinki Stock Exchange provides opportunities for portfolio diversification, especially to investors with large holdings of Japanese and US shares.

The last row of Table 2 gives the average daily volatility of each sectoral index in markka terms. Volatility calculated in US dollars, Japanese yen or Deutschemarks would be only marginally higher. The most stable of these sectors has been 'other services', the most volatile insurance and investment.

The outlook for the Finnish stock market

The Finnish securities market has undergone fundamental changes over the past ten years. During this period, financial market regulations were dismantled and share prices experienced an exceptionally strong rise followed by a swift plunge as the economy fell into a deep recession. Foreigners have rapidly captured market share in securities intermediation. In the future, the pressure for change in the stock market will come primarily from increasingly tight international competition. Competition will tighten further as national laws based on the Investment Services Directive have just recently come into force and currency areas are soon to be unified with the onset of Stage Three of Economic and Monetary Union. Finland-based marketplaces and brokerage firms operating in the Finnish stock market are facing increasing competition inter alia from foreign stock exchanges and remote brokerage firms based abroad. A growing number of large Finnish companies are likely to apply for listing on the larger European stock exchanges, which attract major international investors.

1 October 1996

• Key words: Finland, stock exchange, stock market, brokerage firms

The derivatives market

by **Kimmo Virolainen**, Economist
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The use of derivative instruments has increased considerably over the last ten years, in both the international and Finnish financial markets. With the exception of forward exchange contracts, trading in derivative instruments started relatively late in Finland. These markets have also grown somewhat more slowly here than in many countries with more highly developed financial markets. Developments in derivatives trading have generally followed market developments in the underlying cash instruments.

Derivatives trading takes place on derivatives exchanges and in the OTC market, which is maintained by banks and other financial institutions. In the international markets, the volume of trade on derivatives exchanges is huge, and the exchanges also play an important role in providing reference prices for OTC derivatives. In Finland the role of derivatives exchanges has remained exceptionally modest up until a few years ago. In the regulated financial market environment, which continued all the way up to the mid-1980s, derivatives trading in Finland was generally limited to OTC-traded forward exchange contracts offered by banks. Trading in stock-related derivatives started in 1987 in response to the rapid development of the stock market and the commencement of operations by the Finnish derivatives exchanges. OTC trade in forward rate agreements (FRAs) was also launched in 1987.

In Finland trading in foreign exchange and interest rate derivatives continues to be concentrated on the OTC market. On the other hand, most stock and stock index derivatives are exchange-traded, but they account for a very small portion of total derivatives trading volume. The traditional breakdown of the derivatives market into exchange-traded and OTC contracts is however becoming blurred. An increasingly large part of OTC derivatives contracts have standardized terms, and derivatives exchanges have begun to offer investors more flexible instruments. Markka-denominated interest rate derivatives in particular have been standardized and are largely centrally cleared and settled via derivatives exchanges.

Derivatives trade on the exchanges

In Finland there are two registered derivatives exchanges in operation: SOM Ltd, Securities and Derivatives Exchange, Clearing House (SOM) and the Finnish Options Exchange (FOEX). These are overseen by the Financial Supervision Authority. Derivatives trading and clearing are regulated inter alia in accord with the Act on Trading in Standardized Options and Futures, the Securities Markets Act, the rules and regulations of the derivatives exchanges as approved by the Ministry of Finance, as well as guidelines and regulations issued by the Financial Supervision Authority. The derivatives exchanges differ from each other primarily in terms of ownership structure, size and traded instruments. SOM is the more important of the two economically. Trade, clearing and settlement are organized in essentially the same way on both exchanges.

The SOM was established in 1987. The majority of its ownership is held by banks, securities houses and insurance companies as well as the Swedish OM Gruppen AB. The FOEX opened for business in 1986. It is owned mainly by securities houses that act as exchange brokerages and by the exchange's own management staff.

Products

Both derivatives exchanges started operations by offering stock index derivatives. With the collapse of share prices and economic recession, the demand for these products dried up at the start of the 1990s. Low trading volumes led to a market split-up with trade in stock-related derivatives being concentrated on the SOM and foreign exchange derivatives on the FOEX. During the last couple years there have also been signs of concentration in the SOM of the clearing and settlement of markka-denominated interest rate derivatives; first for bond forwards in 1994 and then for short-term FRAs from the start of 1996.

Trade on the SOM involves stock index options and futures, stock options and futures, interest rate futures, currency options and futures as well as share lending agreements. Stock index derivatives have been traded on the SOM since its establishment. Index derivatives are based on its FOX index, which tracks the price performance of the 25 most traded shares on the Helsinki Stock Exchange. After Nokia had come to account for nearly 50 per cent of the total index, a 20 per cent weight limit was applied to the FOX index formula from the start of November 1995. SOM trade in stock futures began in autumn 1990 and in stock options in autumn 1993. Stock futures were quoted at the end of 1995 for 24 share series of Finnish listed companies and stock options for ten share series. Trading has been most active in derivatives based on shares of Nokia and UPM-Kymmene (Repola and Kymmene separately up to 1995). Share lending was launched by the SOM in spring 1995. At the end of 1995 there were 42 share series from the Helsinki Stock Exchange's official list that were used as underlying assets for share lending agreements. Currency derivatives have been included in the SOM product range since autumn 1992, but trading has not been highly active.

The SOM operates as a centralized clearing house for bond forwards and FRAs. Trading is conducted by telephone between banks, securities brokerage firms and customers, and agreements are reported to the SOM for clearing and settlement. The parties can also enter their bids or offers in the SOM telephone trading system. The underlying asset for short-term FRAs is a FIM 1 million three-month certificate of deposit issued by a HELIBOR bank (ie a bank whose quotations are used in the calculation of HELIBOR rates). These agreements were included in the product range of the SOM as early as spring 1993. Clearing and settlement in connection with HELIBOR FRAs however continued at low levels until the latter part of 1995, after which clearing and settlement volumes turned sharply upward. In December 1995 the SOM and the HELIBOR banks operating in the short-maturity debt market agreed on the centralized clearing and settlement of standardized short-term FRAs at the SOM.

The trading and clearing of long-term bond forwards was started on the SOM in April 1994. The contracts are based on two benchmark government bonds, each with FIM 1 million nominal value, as agreed within the framework of the primary dealer system for government bond forwards.[1] Clearing and settlement of these contracts on the SOM has been brisk from the start. Since the acquisition of the interest rate derivatives clearing and settlement business from the Helsinki Money Market Center in 1995, the clearing and settlement of bond forwards has been centralized at the SOM.

The SOM set up a subsidiary, EL-EX Sähköpörssi Oy, which commenced operations in August 1996. The new subsidiary functions as a Finnish electricity exchange in which participants can trade in electricity forwards, which are cleared and settled via the SOM.

The FOEX currently houses trade in interest rate options and futures as well as in currency options and futures. Trading in three-month HELIBOR futures was started on the FOEX in 1992 and in related interest rate options in autumn 1995. Trade in government bond futures was initiated on the FOEX in 1994. These contracts are also based on the two FIM 1 million benchmark government bonds as agreed within the framework of the primary dealer system. The FOEX added options on bond futures to its product range in early 1996, but thus far trading activity has been light.

Trading in foreign currency derivatives started on the FOEX in 1989. So-called rolling spot currency options and futures, which have been traded since 1994, presently constitute the main products of the FOEX. A rolling spot currency future resembles an OTC currency swap, in which the contracting parties exchange streams of interest payments in two different currencies over the contract period and at maturity conclude a foreign exchange transaction in the amount of the original principal at a rate of exchange agreed in advance. Rolling spot currency options are based on rolling spot currency futures. In 1995 currency derivatives trade on the FOEX involved 17 different currency pairs.

The FOEX is also planning to launch trade in derivative contracts based on chemical pulp sometime in 1996.

Trading, clearing and settlement

Market makers and member brokerage firms can act as parties to trades on the derivatives exchanges.[2] Investors' derivatives transactions are always made through brokerage firms. Trading takes place by telephone and via electronic trading systems. Trading particularly in stock-related derivatives on the SOM is done electronically. All trades are entered for clearing and settlement into the exchange's own system. The derivatives exchanges act as clearing and settlement counterparties to originating parties in all exchange transactions, ie as buyer (seller) for originating seller (buyer).

Except for options purchases, every transaction accepted for clearing and settlement is subject to a margin (collateral) requirement, the amount of which is determined daily according to market developments. In Finland margin requirements also apply to individual customers; however, the brokerage firms acting as clearing members are ultimately responsible also for their customers' obligations to the derivatives exchange.

Assets accepted by the derivatives exchanges as margin for stock and foreign exchange derivatives include cash deposits, bank guarantees, government debt instruments, listed shares, bonds, certificates of deposit issued by the Bank of Finland or commercial banks, and sight deposits in the major currencies. The collateral value of these instruments ranges from 40 to 100 per cent of market value. Interest rate derivatives can be secured only by securities or obligations that are issued or guaranteed by the central government or by cash deposits. For this reason bond forwards and FRAs that are cleared and settled via a derivatives exchange qualify as counterparty-risk-free assets in the calculation of credit institutions' capital adequacy.

Since summer 1995 the SOM has been cooperating with the Swedish derivatives exchange OM Stockholm in an international clearing and settlement operation. This has made it possible for Swedish market participants to enter into forward agreements based on Finnish benchmark government bonds with Finnish counterparties. Clearing and settlement are handled by OM Stockholm's clearing house, which in turn acts as the clearing party on the SOM. Initially, the cooperative effort entails only the clearing and settlement of Finnish government bond forwards, but the aim is to extend the coverage to other underlying instruments.

Moreover, the SOM in 1995 accepted its first remote member operating from abroad, the Danish Unibank. The number of remote members has grown in 1996.

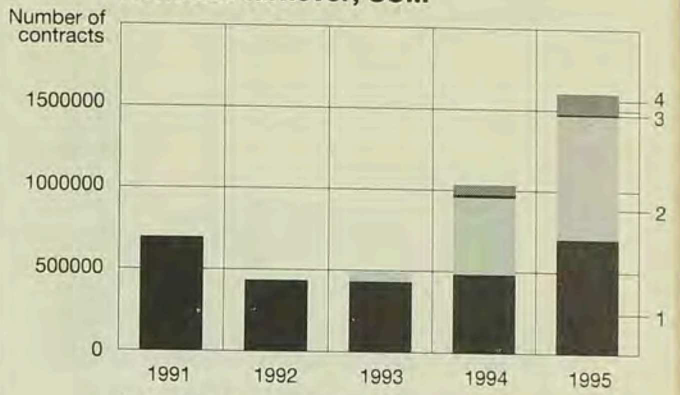
Trading volumes

Following a period of thin activity in the early 1990s, trading, clearing and settlement volumes on the derivatives exchanges have grown substantially over the last three years (Charts 1 and 2). The SOM enjoyed its busiest year in history in 1995, when contract turnover actually increased by 55 per cent from the preceding year. Of the total number of contracts traded on the SOM, some 91 per cent consisted of stock and stock index derivatives. In terms of numbers of contracts, the clearing and settlement of interest rate derivatives is overshadowed by stock and stock index derivatives. On the FOEX, foreign exchange derivatives accounted for approximately 88 per cent of the total number of contracts traded in 1995.

Markka volumes calculated on the basis of notional principal amounts of underlying assets for trades cleared and settled via the derivatives exchanges are shown in Charts 3 and 4. Turnover figures based on notional principal amounts of contracts allow for comparison with the cash market in respect of the volume of risk reallocation by means of derivatives contracts. In 1995 the notional principal amount of contracts cleared and settled through the SOM was about FIM 191 billion, of which bond forwards accounted for some FIM 125 billion. Turnover on the FOEX, in terms of notional principal amounts of contracts, was in the region of FIM 51 billion in 1995. The SOM's share of trades cleared and settled via the derivatives exchanges was about 79 per cent in 1995, as calculated on the basis of notional principal amounts of contracts. In markka terms, interest rate derivatives have since 1994 accounted for the bulk of trades cleared and

Chart 1.

Contract turnover, SOM

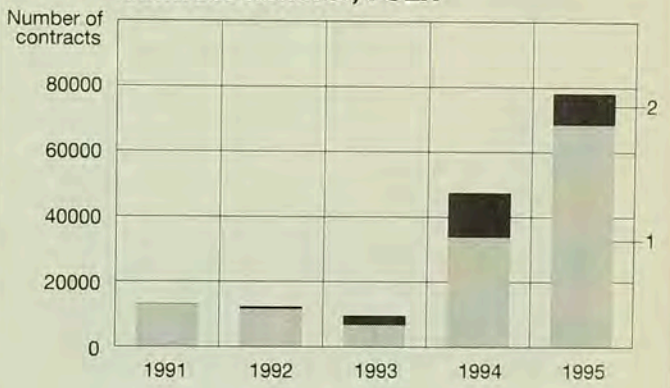


1. Stock index derivatives
2. Stock derivatives
3. Foreign exchange derivatives
4. Interest rate derivatives

Source: SOM Ltd, Securities and Derivatives Exchange, Clearing House

Chart 2.

Contract turnover, FOEX



1. Foreign exchange derivatives
2. Interest rate derivatives

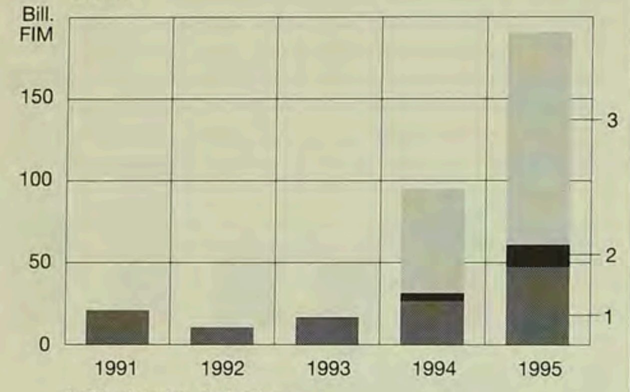
Source: Finnish Options Exchange

[1] The primary dealer system for government bond forwards is discussed below in the section 'OTC trade in derivative contracts'.

[2] As regards electricity and chemical pulp derivatives, commodity market participants trade directly on the derivatives exchanges.

Chart 3.

Clearing and settlement volumes in FIM, SOM

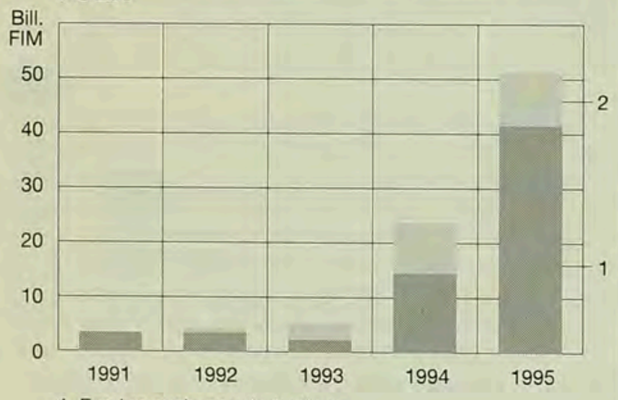


1. Stock index derivatives
2. Stock derivatives
3. Interest rate derivatives

Source: SOM

Chart 4.

Clearing and settlement volumes in FIM, FOEX



1. Foreign exchange derivatives
2. Interest rate derivatives

Source: Finnish Options Exchange

settled via the derivatives exchanges. It should also be noted that the volume of clearing and settlement of HELIBOR forwards via the SOM grew vigorously in the early months of 1996. In January–June the average monthly volume, based on notional principal amounts of underlying assets, was about FIM 84 billion.

OTC trade in derivative contracts

Products

OTC trade in derivative contracts includes forward and options contracts which depend primarily on an exchange rate, interest rate level, share price, commodity price or a combination thereof. Trading in Finland in commodity derivatives is currently limited to nonfinancial corporations.

One characteristic feature of the Finnish derivatives market is the concentration of trade in interest rate derivatives in the OTC market, up until very recent years. Trading in FRAs started in Finland in 1987 on the basis of bank-issued certificates of deposit. The outstanding amount of Treasury bills has traditionally been small in Finland. As a result, the bulk of markka-denominated FRAs continue to be based on bank CDs (ie on HELIBOR rates).

The Finnish derivatives market took a significant step forward in January 1994 when trading was launched in long-rate bond forward contracts. The Bank of Finland and the primary dealers for benchmark government bonds also came to an agreement on the maintenance of a bond forwards market. Initially, these contracts were based only on the benchmark government bond maturing in 1997; now benchmark government bonds maturing in 2001 and 2006 serve as underlying securities.[3] Standardized value dates have been agreed for bond forwards: the third Wednesday of March, June, September and December. The Bank of Finland determines the fixing rates on bond forwards on each contract fixing date, which is three banking days prior to the respective value date. Quotes are always made for two forward periods, and a round lot is FIM 10 million. At present, there are eight primary dealers in bond forwards: Merita Bank, Okobank, Postipankki, Svenska Handelsbanken, Skandinaviska Enskilda Banken, Alfred Berg, Evli and Unibank.

Foreign exchange derivative contracts today constitute a significant part of the overall turnover on international foreign exchange markets. Trade in these instruments is also concentrated in OTC markets. Finland's highly cyclical export sectors have created a demand for foreign exchange derivatives, of which the most important are outright forwards, foreign exchange swaps and currency swaps.[4]

[3] The underlying assets have recently been changed. These benchmark bonds will be taken into use as underlying assets for contracts maturing in March 1997. The underlying assets for contracts maturing in December 1996 are still the bonds maturing in 1999 and 2004.

Trading, clearing and settlement

In the OTC market, major intermediaries operate as market makers or as dealers, doing business with final customers and other intermediaries on their own account. Trading is mainly conducted by telephone. Bids and offers for standardized contracts are also quoted on electronic information systems. The intermediaries are mainly banks, as well as a few securities brokerage firms. In the Finnish OTC derivatives market, a relatively small number of dealers account for the bulk of trade intermediation.

Clearing and settlement of OTC derivative contracts is largely done on a bilateral basis between the trading parties. The clearing and settlement of markka-denominated interest rate derivatives has since 1994 been handled to an increasing extent by the SOM. In 1994 the SOM cleared and settled 56 per cent of total turnover in markka-denominated bond forwards; by 1995 this share had grown to about 89 per cent. In addition, roughly half of the trade in short-term HELIBOR forwards in January–June 1996 was centrally cleared and settled by the SOM. Bond forwards and FRAs that are reported to the SOM are cleared and settled in the same manner as transactions effected via the SOM's own trading system. In other words, the SOM acts as counterparty also for trades reported to it for clearing and settlement purposes and is responsible for enforcing the contractual rights of the trading parties.

Trading volumes

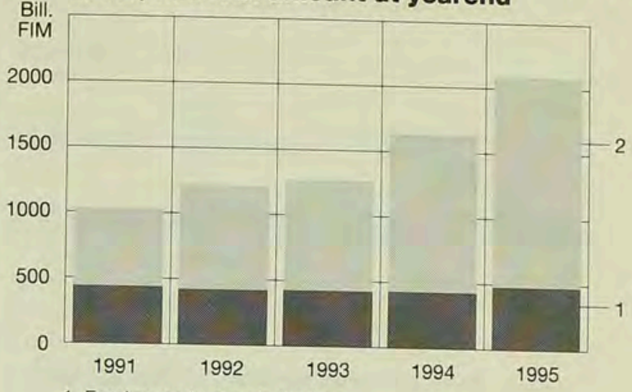
The aggregate outstanding amount of derivatives contracts entered into by banks operating in Finland, in terms of nominal value of underlying assets, was FIM 2 101 billion at the end of 1995 (Charts 5 and 6).[5] There was thus a 27 per cent increase over the year-earlier period. The stock of OTC derivative contracts grew at an average annual rate of some 20 per cent during the period 1991–1995. The fastest growth in this period was recorded by interest rate derivatives. At the end of 1995 interest rate derivatives accounted for about 77 per cent of the total stock of contracts, in terms of nominal amounts, and foreign exchange derivatives for about 23 per cent, while the share of stock derivatives remained clearly below one per cent. A

[4] A foreign exchange swap is a combination purchase/sale for a specific value date and sale/purchase for a later value date of a given amount of some currency. In the case of a currency swap, the parties are committed to exchanging both the interest streams denominated in two currencies and, at maturity, the contracted nominal principal amounts in the corresponding currencies at an agreed exchange rate.

[5] Calculated according to the BIS Common Minimum Framework; includes contracts entered into by Finnish banks (incl. foreign branches) and foreign banks' branches in Finland. The data is subject to the double counting (of reporting entities' mutual trades) problem .

Chart 5.

Banks' derivative contracts by underlying asset, notional amount at yearend

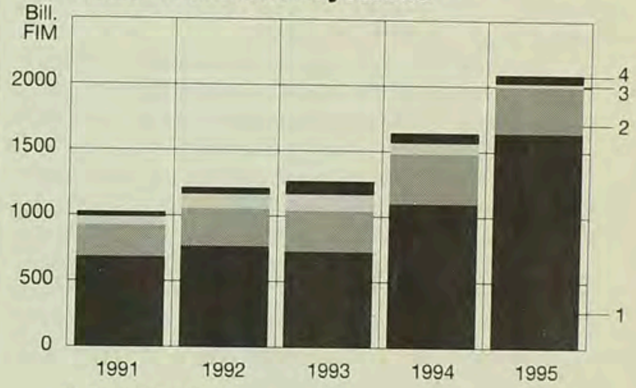


1. Foreign exchange derivatives
2. Interest rate derivatives

Source: Financial Supervision Authority

Chart 6.

Banks' derivative contracts by instrument, notional amount at yearend



1. Forward contracts
2. Swaps
3. Futures
4. Options

Source: Financial Supervision Authority

Table 1. Average daily turnover in foreign exchange derivative contracts entered into by financial institutions operating in Finland (April 1995)

	Mill. FIM	Share,%
Outright forward	967	8
Foreign exchange swaps	11 091	87
Currency swaps	19	0
Currency futures	50	0
Currency options	578	5
Total	12 705	100

Table 2. Average daily turnover in interest rate derivative contracts entered into by financial institutions operating in Finland (April 1995)

	Mill. FIM	Share,%
Forward rate agreements	6 454	51
Interest rate swaps	613	5
Interest rate futures	4 366	35
Interest rate options	1 145	9
Total	12 577	100

breakdown by instrument reveals that by far the most common product in the Finnish derivatives market is the forward contract, which accounts for about 78 per cent of the total.

The relatively high degree of maturity standardization means that the stock of outstanding markka-denominated FRAs depends to a substantial extent on the stage of the forward period. The stock of markka-denominated forward rate agreements based on short-term interest rates fluctuated in the region of FIM 250–600 billion in 1995, and in the same year the average stock of markka-denominated bond forward contracts totalled about FIM 30 billion. Transactions between primary dealers accounted for a good third of the roughly FIM 133 billion total turnover in the bond forwards.

Developments in the stock of derivative contracts do not necessarily give an accurate picture of trading volumes, as there are considerable differences in the average maturities of various types of contracts. Tables 1 and 2 give the results of a Bank of Finland survey conducted in spring 1995 concerning foreign exchange and derivatives trades of financial institutions operating in Finland.[6]

The figures reflect average daily turnover in financial institutions' derivatives transactions in April 1995, as measured by nominal values of underlying assets. Aggregate daily turnover in spring 1995 in both foreign exchange and interest rate derivatives was just under FIM 13 billion on average. Foreign exchange swaps are clearly the most traded derivative contracts. Their average maturity is however rather short: less than one week, whereas outright foreign exchange forwards have an average maturity of more than one week but less than one year.

OTC-traded FRAs account for the bulk of turnover in interest rate derivatives of financial institutions operating in Finland, although interest rate futures traded on derivatives exchanges also account for a substantial share. Daily turnover in exchange-traded interest rate futures, as reported by financial institutions operating in Finland, exceeds manyfold the daily turnover in FRAs entered into or cleared and settled via Finnish derivatives exchanges during this same period. This result shows that Finnish banks actively trade interest rate futures on foreign derivatives exchanges.

The survey also revealed that 73 per cent of foreign exchange derivative contracts entered into by resident financial institutions were with nonresident financial institutions, 8 per cent with other resident financial institutions and 17 per cent with resident nonfinancial companies. By contrast, 65 per cent of their OTC interest rate derivative contracts were with nonresident financial institutions, 26 per cent with other resident financial institutions and only 9 per cent with resident nonfinancial companies.

Final remarks

During the last five years, developments in the Finnish derivatives market have been characterized in particular by rapid growth in trading volumes in both the OTC markets and the derivatives exchanges, the emergence of a markka-denominated bond forwards market based on long-term interest rates and the increasing concentration of clearing and settlement of markka-denominated interest rate derivatives in the SOM.

Volumes in derivative instruments trading are likely to continue expanding in the near future. Derivative instruments based on government paper will probably increase in relative share of markka-denominated interest rate derivatives trading as activity declines in the bank CD market and as the government borrowing requirement persists at a high level for the next few years. It appears that the clearing and settlement of markka-denominated interest rate derivatives will become generally concentrated in the SOM. A contributing factor in this development is the inclusion of interest rate derivatives cleared and settled via derivatives exchanges in the 'zero' counterparty risk category in respect of credit institutions' capital requirements, which eliminates the related effects of these instruments on bank solvency.

Competition in the provision of financial services will continue to stiffen in the next few years, notably in the EU single market area. Stage Three of Economic and Monetary Union will bring major changes not only in the foreign exchange derivatives market but also in interest rate derivatives trading. Pending the decision on EMU, the number of intermediaries participating in the Finnish derivatives market is likely to grow in line with the expanding Finnish operations of new foreign banks and both resident and nonresident securities brokerage firms. The growing number of remote members of the SOM is a reflection of these developments.

2 October 1996

• Key words: derivatives, exchanges, OTC market

[6] BIS Survey of foreign exchange and derivatives market activity 1995. Unlike data collected by the Financial Supervision Authority, these figures do not include derivatives trades by Finnish banks' foreign branches. In addition, the double counting problem has been eliminated.

MONEY AND CAPITAL MARKETS

Securities settlement systems

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Presently, the Finnish equity, money, bond and derivatives markets all have separate arrangements for clearing and settlement. Equity trades are settled in the KATI settlement system of the Helsinki Stock Exchange Ltd. Clearing and settlement of transactions in book-entry debt securities are carried out in the Helsinki Money Market Center Ltd. Clearing and settlement of trades in standardized options and futures are carried out on two official derivatives exchanges, SOM Ltd, Securities and Derivatives Exchange, Clearing House (SOM) and the Finnish Options Exchange Ltd (FOEX).

A paperless book-entry system was introduced in the Finnish securities markets in spring 1992. The Finnish book-entry securities system is decentralized in that book-entry registers may be kept by a number of organizations licensed for this purpose by the Ministry of Finance. For book-entry equity instruments, there are seven legally separate book-entry registers (end-1995). They are to some extent located in separate computer and communications environments. In the system for book-entry debt instruments, which is maintained by the Helsinki Money Market Center, legally separate book-entry registers (which numbered 12 at end-1995) exist in a single computer environment.

The Securities Association acts as the central organization and coordinator for the Finnish book-entry securities system. It is responsible for the development of the system and for ensuring that the system functions properly. All book-entry registrars are members of the Securities Association.

The Central Share Register of Finland Co-operative maintains shareholder registers for equity instruments and for combination debt-equity instruments. It is also required to maintain a non-commercial book-entry register at issuers' expense. Central Share Register members are corporate entities that have issued book-entry securities for which shareholder registers must be maintained.

The Finnish Central Securities Depository Ltd

As a result of a preliminary agreement between the state, the Bank of Finland and private sector market participants to establish a new institution, the Finnish Central Securities Depository Ltd (FCSD), significant reforms will take place in the Finnish securities market infrastructure in the near future. In the first stage of the reform, the FCSD will combine the activities of the Helsinki Money Market Center, the Central Share Register of Finland, the clearing and settlement activities of the Helsinki Stock Exchange, and part of the activities of the Securities Association. Thus the FCSD will handle the safekeeping of all securities issued in book-entry form as well as the clearing and settlement of all trades in book-entry equity and debt securities. The FCSD is scheduled to commence operations on 1 January 1997, initially on the basis of the existing infrastructure. As a longer-term objective, the FCSD will integrate both technically and legally the separate book-entry registers into one organization.

At present, there is no legislation governing securities settlement systems in Finland, with the exception of the derivatives market. However, as part of the reform package, provisions on the clearing and settlement of securities trades are to be included in the Securities Markets Act by the end of 1996. Under these provisions, clearing and settlement would in the future be subject to authorization by the Ministry of Finance and supervised by the Financial Supervision Authority.

The KATI settlement system for equity trades

The KATI settlement system, which was launched in 1992, handles book-entry equity trades made in the HETI (Helsinki Stock Exchange Automated Trade and Infomation) system. Off-exchange trades, deliveries of stock derivatives and share lending agreements can also be cleared and settled via the KATI system. Trades in physical shares are cleared through a separate system maintained by the Helsinki Stock Exchange.

Details of the trades approved for settlement are transferred from the Stock Exchange to the Central Share Register. Funds transfers related to the settlement of book-entry equity transactions are effected through the Bank of Finland Interbank Funds Transfer System (BOF system[1]). The Stock

[1] On the BOF system, see also 'The Bank of Finland real-time gross settlement system' by Jyri Marviala and Marianne Palva, Bank of Finland Bulletin, Vol. 69 No. 5, May 1995.

Exchange has an account at the Bank of Finland, and each clearing party must either have its own account or agree on the handling of its payments by another party having an account at the central bank.

In principle, all financial institutions which are subject to supervision by the Financial Supervision Authority may become clearing parties of the Stock Exchange. They must also meet certain requirements specified in the rules of the Exchange and be approved by the Supervisory Board of the Exchange. At the end of 1995, there were 25 clearing parties, of which 21 were also trading members of the Stock Exchange. Other clearing parties include the SOM and banks' asset management units acting as custodians for foreign investors.

The KATI settlement system operates according to the delivery versus payment (DVP) principle. To achieve DVP, the model 2 approach as defined in the Parkinson report[2] is employed, ie the book-entry securities are delivered gross but payments are netted on a multilateral basis. There is one processing cycle per settlement day, from 11.30 am to 1.30 pm. On 1 January 1996 the settlement period was shortened from four days to three days (T+3). At the joint request of the counterparties, a trade can be transferred outside the system for bilateral gross settlement between the parties.

At 10.00 am on the settlement day, the clearing parties that have payment obligations post collateral for their payments with the Stock Exchange on the basis of a preliminary net calculation so that DVP can be ascertained. At 11.00 am the Stock Exchange makes a final net calculation for each clearing party on the basis of cleared transactions. A clearing party which, according to this calculation, has a net payment obligation is obliged to effect the payment by 11.30 am from its own account to the account of the Stock Exchange in the BOF system.

By 12.00 noon on the settlement day, the Stock Exchange provides the book-entry registers with information via the Central Share Register on those trades which have been confirmed for settlement. The Central Share Register requests all registers at the same time to finalize securities transfer registrations. The technical procedure is that the Central Share Register transmits to the registers an electronic impulse which initiates a delivery registration run. After this, the registrars inform the Stock Exchange and the clearing parties by 1.00 pm that the entries have been effected. The Stock Exchange is obliged to settle via the BOF system the sums due to clearing parties with a net credit position by 1.30 pm.

At the end of 1995 the market capitalization of listed companies amounted to FIM 192 billion (see Table 3). In 1995 the total volume of cleared and settled trades in the Helsinki Stock Exchange clearing centre was 373 070 and the value of trades settled in the KATI system was FIM 83 billion (see Tables 1 and 2). In 1995 a total of 99 per cent of the cleared trades involved shares in book-entry form.

Table 1. Transfer instructions handled by securities settlement systems, number of transactions

Securities Settlement System	1991	1992	1993	1994	1995
Helsinki Money Market Center[1]					
– government securities	–	208	5 387	7 479	11 922
– CDs	–	14 161	37 681	36 986	29 128
Helsinki Stock Exchange[2]					
– shares	42 300	91 200	240 214	339 264	373 070
SOM, Securities and Derivatives Exchange					
– futures	61 588	38 441	76 838	358 160	538 705
– options	635 909	397 919	414 867	676 473	1 068 873
Finnish Options Exchange					
– futures	6 976	6 041	3 374	22 357	21 066
– options	6 149	6 277	6 209	25 081	57 197

[1] The clearing and settlement system was launched in April 1992.
[2] Physical shares cleared and settled since 1991. KATI system operating since 1992.

The HMMC settlement system for trades in money market instruments and bonds

The HMMC settlement system handles book-entry securities issues and account transfers. The HMMC system also provides repo and securities lending facilities. The instruments currently handled in the system include CDs issued by the banks and the Bank of Finland, Treasury bills, government bonds and local authority paper. The HMMC system was launched in April 1992.

Organizations using the HMMC system may be members or other users. To act as a clearing party does not require HMMC membership. Membership can be obtained by buying HMMC shares or by paying an annual membership fee. Clearing parties in the HMMC system include the Bank of Finland, the State Treasury, authorized money market banks, insurance companies and special credit institutions. At the end of 1995 there were 16 clearing parties in the HMMC settlement system, of which ten were banks.

Trades are entered for settlement into the HMMC system by the parties to a trade via their workstations or through their trading systems. Funds transfers connected with the transactions are effected through the BOF system. The HMMC has an account at the Bank of Finland, and each clearing party must either have its own account or

[2] 'Delivery versus Payment in Securities Settlement Systems', BIS 1992.

agree to have its payments handled by another party which has an account at the central bank.

The HMMC system offers a number of settlement procedures. Trades can be settled in guaranteed net settlement, in continuous real-time trade-for-trade settlement, or as internal trades within a book-entry register. The DVP principle is strictly adhered to in the first two settlement procedures, which involve payments between clearing parties. Guaranteed net settlement employs the model 3 approach for achieving DVP (net funds and net securities settlement) while trade-for-trade settlement employs the model 1 approach (gross funds and gross securities settlement), as defined in the Parkinson report. Normally, money market trades are settled two days after the trade date (T+2) and bond trades three days after the trade date (T+3). The HMMC also accepts trades for same day settlement (T+0) or settlement on the following day (T+1), or for any future date.

In guaranteed net settlement, the HMMC confirms a trade immediately the system has checked that the terms entered by both parties are identical. For trades made at least one day prior to the settlement date, the system verifies that the seller holds the instruments or will receive them in time. All trades approved in this way are released for clearing. At the same time, the instruments that have been sold are set aside for delivery and are not available for resale. At the close of the day preceding settlement, the system executes a clearing run, in which net obligations are calculated. Clearing is based on multilateral netting between parties, and the HMMC guarantees delivery and payment in respect of cleared trades. This guarantee is based on collateral pledged to the HMMC by the clearing parties.

The HMMC accepts as collateral the underlying book-entry securities of the trading parties, other pledged book-entry securities or deposited funds. If a party is unable to meet its net payment obligation, the HMMC makes the payment on behalf of the party. The HMMC's ability to pay is in turn guaranteed by the Bank of Finland, which can lend funds against adequate collateral to the HMMC as a last resort. Any final losses by the HMMC are distributed between the shareholders in proportion to their holdings. Trades failing to pass clearing may be transferred to trade-for-trade settlement until all the necessary clearing conditions have been met.

Each clearing party in the HMMC system that is liable to pay (has a net payment obligation for the day) transfers the required sum to the HMMC's current account in the BOF system not later than 1.00 pm. At the same time, after verifying the inflow of payments, the HMMC transfers book-entry securities from the seller parties' commission accounts to the purchaser parties' commission accounts and transfers funds to those clearing parties that have a net claim for the day.

In rolling real-time trade-for-trade settlement, transfers of funds and securities are executed on a gross basis immediately the conditions for the completion of the trade are met. This means that the buyer has sufficient funds in his account for settlement and the seller has the necessary securities in his account for the delivery or will receive them in time from a chain of trades that are all settled at the same point in time. The DVP principle is observed and a failed trade must wait until all conditions are met.

If a trade is settled as an internal trade in the registrar's own subregister, it is not included in the normal clearing and settlement process and the underlying security is not pledged to the HMMC.

CDs issued by the banks and the Bank of Finland continued to dominate the money market in 1995. At the end of 1995, the outstanding amount of CDs was FIM 95.3 billion (see Table 3). The value of trades cleared and settled in the Helsinki Money Market Center in 1995 was FIM 2 040 billion and the number of trades 41 050 (see Tables 1 and 2). Book-entry government bonds have been cleared and settled in the HMMC system since December 1995.

The SOM and FOEX settlement systems for derivatives trades[3]

The SOM handles options and futures on stock indices and shares, futures on interest rates, and to a limited extent currency options and futures. In addition, the SOM provides a centralized clearing and settlement facility for markka-denominated bond forwards and FRAs and a securities lending facility. The FOEX handles interest rate and currency options

Table 2. Transfer instructions handled by securities settlement systems, value of transactions in billion FIM

Securities Settlement System	1991	1992	1993	1994	1995
Helsinki Money Market Center[1]					
– government securities	–	11.6	230.8	333.3	570.3
– CDs	–	425.1	1 172.5	1 600.5	1 469.2
Helsinki Stock Exchange					
– shares[2]	6.3	10.3	45.2	68.4	83.0
SOM, Securities and Derivatives Exchange					
– futures	1.0	0.8	1.7	63.7	144.9
– options	20.0	9.8	14.3	27.9	45.7
Finnish Options Exchange					
– futures	1.4	2.1	3.0	11.2	13.4
– options	2.1[3]	2.1[3]	2.1	12.6	37.8

[1] The clearing and settlement system was launched in April 1992.
[2] Does not include off-exchange trades settled in the system.
[3] Estimate.

[3] See also the previous article 'The derivatives markets' by the same author in this publication.

Table 3. Nominal values registered by the system at the end of December, billion FIM

Securities Settlement System	1991	1992	1993	1994	1995
Helsinki Money Market Center[1]					
– government securities	–	4.9	24.3	34.3	40.9
– CDs	–	60.7	107.0	129.2	95.3
Helsinki Stock Exchange					
– shares[2]	59.0	64.0	136.3	181.6	191.7
SOM, Securities and Derivatives Exchange					
– futures and options[3]	0.2	0.2	0.6	2.4	4.0
Finnish Options Exchange					
– futures and options[3]	0.01	0.01	0.6	1.2	0.6

[1] The clearing and settlement system was launched in April 1992.
[2] Market value of listed shares.
[3] Open risk (calculated according to guidelines issued by the Financial Supervision Authority).

and futures. Clearing and settlement take place centrally in the information systems of the exchanges. The FOEX opened in autumn 1987 and the SOM in spring 1988.

In principle, all securities brokers licensed by the Ministry of Finance are permitted to act as intermediaries on an options exchange. They must also meet certain requirements specified in the rules of the exchange and be approved by the supervisory board of the exchange. At the end of 1995 there were 26 clearing parties in the SOM and 15 clearing parties in the FOEX. In 1995 two foreign companies commenced operations as clearing parties on the SOM on a remote access basis.

Trades are executed in electronic trading systems or by telephone. The settlement of payments and delivery of underlying securities or the equivalent cash transaction are effected according to the practices of the underlying cash market. Option premiums and fees and charges for trades are paid to the exchange on either the third day (T+3 for the SOM) or the second day (T+2 for the FOEX) after the trade date.

Funds transfers as well as the safekeeping of collateral are arranged in cooperation with custodial banks. The exchanges themselves also act as custodians for the holding of collateral. Deliveries related to equity derivatives traded on the SOM are settled through the KATI system of the Helsinki Stock Exchange and thus satisfy the same criteria as spot share trades settled through this system. In the case of other derivatives, the delivery of the underlying security is normally replaced by a cash transaction based on the net liability or claim position.

The options exchange, in its clearing-house role, acts as the central counterparty to all trades.

Table 4. Features of Securities Settlement Systems in Finland, 1995

Name of the system	KATI	HMMC	SOM	FOEX
Type of securities	Shares Other	Treasury bills CDs Bonds Other	Options Futures Other	Options Futures
Ownership	Banks Securities brokerages Other	Central bank State Treasury Banks Other	Banks Securities brokerages Other	Banks Securities brokerages Other
No. of participants	25	16	26	15
Funds settlement	Net	Real-time gross Net	Net	Net
Securities settlement	Gross	Real-time gross Net	Net Gross	Net Gross
DVP mechanism*	DVP2	DVP1 DVP3	–	–
Settlement lag	T+3	T+2 (Tbills, CDs) T+3 (Bonds)	T+3	T+2
Funds settlement agent	Central bank	Central bank	Banks	Banks

* As defined in 'Delivery versus payment in securities settlement systems', BIS 1992:
DVP1 = continuous trade-by-trade gross settlement
DVP2 = net funds settlement, gross securities settlement
DVP3 = net funds and net securities settlement

Funds transfers between the exchange and the clearing parties are settled on the basis of multilateral netting. On each payment day by 12.00 noon (SOM) or by 1.00 pm (FOEX), the clearing parties either receive or submit a payment vis-à-vis the exchange. Payments are effected by funds transfers between current accounts of counterparties in different banks.

Since the options exchanges act as central counterparties to all trades, they bear the aggregate credit risk. The management of risk is carried out on several levels. The legally mandated capital adequacy regulations and restrictions on activities, licensing requirements and supervision by the authorities ensure that an options exchange has a certain minimum financial status and a reliable clearing system.

The reliability of the clearing house is guaranteed in the first place by the collateral (margin) required from the clearing account holders. The options exchanges daily determine the collateral requirement for each clearing account using their own risk management models. The collateral must be deposited in the custodial bank at 11.00 am on the next business day. For some derivatives transactions, collateral is required in advance. As the clearing parties are responsible for both their own and their customers' transactions, the financial soundness of the clearing parties ultimately ensures the reliability of the settlement system.

In 1995 the total number of derivative contracts cleared and settled on the Finnish options exchanges was 1 685 841, and the value in terms of notional principal some FIM 242 billion (see Tables 1 and 2). Options and futures on stock indices and shares accounted for the largest share of turnover. Trades in markka-denominated bond forwards were cleared and settled on the SOM to the value of some FIM 125 billion in terms of notional principal amounts.

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• Key words: settlement, book-entry securities, derivatives

MONEY AND CAPITAL MARKETS

Instruments of monetary policy[1]

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The objectives of monetary policy

During the entire post-war era, except for the past couple of years, Finland has pursued a foreign exchange policy aimed at keeping the external value of the markka stable. From 1977 to 1991 Finland's exchange rate regime was based on a trade-weighted currency index.

In an effort to further integrate the Finnish economy into Europe, the markka was unilaterally linked to the European Currency Unit (ECU) on June 1991. The choice of the new regime was also aimed at strengthening the credibility of monetary policy, which had come under pressure during Finland's economic recession in the early 1990s. The ECU-link however provided only a temporary respite from exchange pressures. Rapidly deteriorating economic conditions and a heavy capital outflow forced a devaluation of the markka in November 1991. The currency unrest continued during the following year, and in connection with widespread turbulence in the European currency markets, the markka was floated in September 1992 (Chart 1).

The dismantling of interest rate controls and deregulation of capital movements, which in Finland took place during the 1980s, meant that with a fixed exchange rate regime the Bank of Finland's ability to influence liquidity in the financial markets diminished considerably.

For example, when the Bank of Finland tried to drain liquidity from the banking system, domestic interest rates rose relative to international levels. This attracted foreign capital into the domestic financial markets which in turn put upward pressure on the external value of the markka. In order to keep the value within the currency band, the Bank of Finland was obliged to purchase foreign exchange, which increased liquidity in the domestic financial markets and led to lower interest rates. Thus the fixed exchange rate target substantially reduced the Bank of Finland's ability to affect interest rates and bank funding and lending.

[1] This is an updated and slightly shortened version of an article in Olga Radzyner and Peter Havlik (eds.) 'Monetary Policy in Central and Eastern Europe: Challenges of EU Integration', published by the Österreichische Nationalbank and Vienna Institute for Comparative Economic Studies, Vienna, 1996.

The floating exchange rate regime gave the Bank of Finland a much freer hand in conducting monetary policy. In order to give monetary policy a firm anchor, the Bank announced in February 1993 that the primary objective of monetary policy was to bring the inflation rate down to 2 per cent by 1995 (Chart 2).

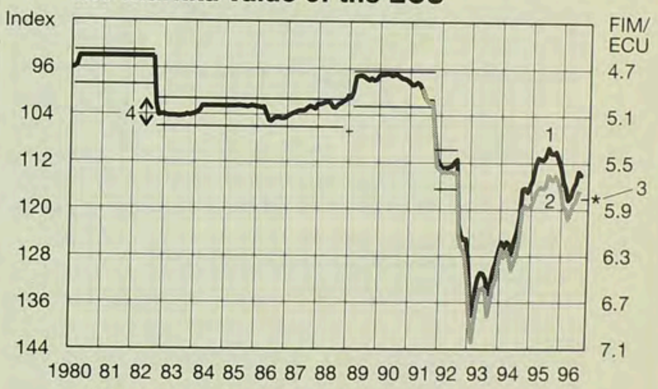
This inflation target does not refer to consumer prices as such but to the indicator of underlying inflation. This indicator is arrived at by eliminating from the consumer price index the effects of indirect taxes, subsidies and capital expenditure on housing (housing prices and mortgage interest).

Instead of setting explicit intermediate targets, the Bank of Finland preferred to rely on monetary policy indicators in the context of a floating exchange rate. These indicators included foreign exchange rates, monetary and credit aggregates, and long-term interest rates.

On 14 October 1996 Finland joined the EU Exchange Rate Mechanism (ERM). According to the

Chart 1.

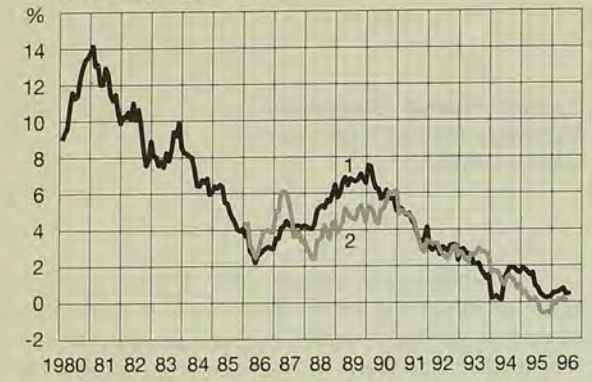
Bank of Finland currency index and the markka value of the ECU



1. Bank of Finland currency index (left scale)
2. Markka value of the ECU from 7 June 1991 (right scale)
3. * ECU central rate from 14 October 1996
4. Currency index limits

Chart 2.

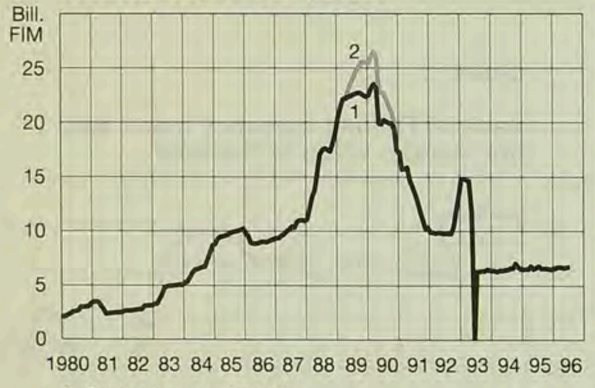
Consumer price inflation and underlying inflation



1. Consumer price index
2. Indicator of underlying inflation

Chart 3.

Minimum reserve system



1. Banks' reserve deposits
(cash reserve deposits until 1 July 1993)
2. Supplementary reserves

text of Maastricht Treaty, participation in the ERM is one of the necessary conditions for participation in the European Monetary Union (EMU). By joining the ERM, Finland strengthens its exchange rate policy cooperation with the other member states. Finland's essential monetary policy stance will however remain unchanged, since the 2 per cent inflation target corresponds to the price stability objectives of the major ERM countries, although the entry does underline the importance of exchange rate stability.

Monetary policy instruments

The main operational target of the Bank of Finland's monetary policy is the level of short-term interest rates. The operational tools by which monetary policy is implemented in the present environment are the minimum reserve requirements, the liquidity credit system (a standing facility) and open market operations.

Reserve requirements

The Bank of Finland has been collecting cash reserve deposits from the banks since 1979, although since the introduction of open market operations the significance of this instrument in liquidity management has diminished considerably. Despite these limitations, the cash reserve requirement, which until 1993 was based on agreements between banks and the Bank of Finland, has been used as a supplementary tool for monetary control.

For example, during the monetary expansion that followed the dismantling of foreign exchange controls in the late 1980s, the deposit requirement was progressively raised until it reached 12 per cent in 1989 (Chart 3). Although it was not possible to halt the massive growth in bank lending, the active cash reserve policy did hasten the end of the credit boom.

In summer 1993 the Bank of Finland refunded banks' cash reserve deposits and terminated the cash reserve agreement. The reason for the action was that the agreement called for the payment of interest on cash reserve deposits at a rate of at least 8 per cent. When short-term market rates fell below this minimum, the system began to function in a manner contrary to the original aims.

Termination of the old agreement soon led to statutory reserve requirements, in line with international practice. The statutory minimum reserve system was introduced in July 1993. Under the new reserve regime, deposit banks are required to hold certain amounts of funds at the Bank of Finland as non-interest-bearing reserves. The minimum reserve is calculated on the basis of the reserve base as at the last day of each calendar month. The lag between the calculation of the reserve requirement and the end of the maintainance period is 60 days.

The requirement, which altogether cannot exceed 5 per cent of a mandatory reserve holder's total liabilities, is composed of parts graduated according to the monetary aggregates; the more liquid the funding item the higher the required reserve ratio. The reserve requirements applied to different liability items are as follows:

- 2 per cent for deposits payable on demand
- 1.5 per cent for other deposits
- 1 per cent for other domestic liabilities.

From October 1995 the Bank of Finland began to apply averaging provisions to the fulfilment of monthly reserve requirements. Averaging means that banks hold their minimum reserve deposits in their current accounts at the central bank. The monthly average of daily balances in a bank's current account must be at least equal to the amount of the minimum reserve requirement. The main purpose of this change was to stabilize movements in the overnight interest rate, to facilitate the management of bank liquidity, and to reduce the need for active central bank management of bank reserves.

Liquidity Credit System (standing facility)

The main purpose of the Bank of Finland's liquidity credit system is to satisfy individual banks' temporary liquidity needs. From the monetary policy standpoint, the interest rates on liquidity credit and banks' excess reserves serve to limit the fluctuation range for the shortest-term market rates (Chart 4). A bank is allowed to borrow from the central bank if it faces a debit balance in its current account at the end of the day. A bank can also use liquidity credit to meet its reserve requirement.

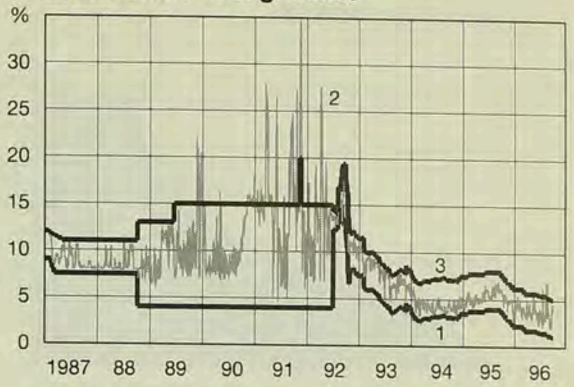
The terms of the liquidity system are aimed at minimizing banks' indebtedness to the central bank. This is why the interest rate on liquidity credit is higher than market rates and the maturity may be longer than one day. The interest rate on liquidity credit is linked to the Bank of Finland's tender rate, and the maturity may vary from one day to one month, as decided by the Bank. At present, the rate on credits is the tender rate plus 2 percentage points and the maturity is one week. The interest rate on excess reserves is presently the tender rate minus 2 percentage points.

Traditionally, Finnish banks have relied on the central bank as a source of liquidity and, accordingly, held only small amounts of free reserves in their central bank accounts. In addition to this, reserves have been unevenly distributed among the rather small number of money market banks. As a consequence, the overnight money market has not functioned ideally under all conditions and the Finnish overnight rate has been among the most volatile in the EU countries.

However, the situation has somewhat changed since the adoption of averaging provisions. Under the new reserve system, banks' minimum reserves are deposited in their current accounts at the Bank and can be used for settling interbank payments. Accordingly, the liquidity in the interbank market

Chart 4.

Standing facility interest rates and interbank overnight rate



1. Excess reserve rate
(call money deposit rate until 1 Oct 1995)
2. Interbank overnight rate
3. Liquidity credit rate
(call money credit rate until 1 July 1992)

has increased by the aggregate amount of the required reserves, ie by FIM 6.5 billion. This has improved the functioning of the interbank market.

Banks have also been able to reduce their intraday overdraft limits on current accounts because of the increased liquidity. As a consequence, it has been easier for the banks to meet the full collateral requirements for overdraft limits, which have been imposed by the Bank of Finland since the start of 1996.

Open market operations

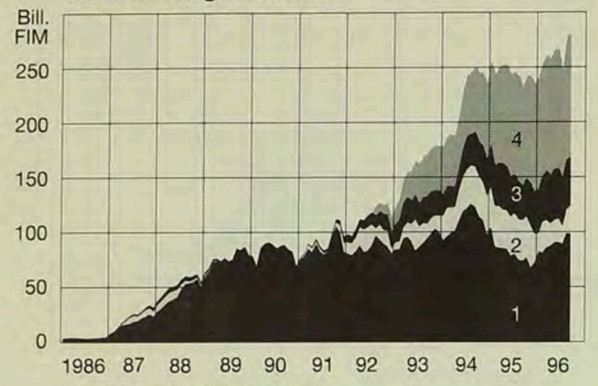
A true interbank money market did not emerge in Finland until 1986, when the Bank of Finland introduced a spread between borrowing and deposit rates in the call money market. Another major impetus to the rapid growth of the money market was provided by the exemption of certificates of deposits from the cash reserve requirement in January 1987.

When it was agreed at the same time that all CDs with a maturity of less than a year issued by the five biggest banks – the HELIBOR banks – would henceforth be treated as being homogeneous, the market for bank CDs started to expand rapidly. The government also issued short-term Treasury bills, but because central government finances were roughly in balance, the amount of these instruments remained small throughout the 1980s.

The emergence of an organized money market also paved the way for the development of bank

Chart 5.

Securities accepted by the Bank of Finland in its open market operations, outstanding amounts



1. Bank certificates of deposit
2. Bank of Finland certificates of deposit
3. Treasury bills
4. Benchmark government bonds

CDs into an instrument suitable for open market operations by the Bank of Finland. These were first undertaken in 1987, and in the same year the Bank of Finland began to issue its own CDs.

This historical development has resulted in a situation in which CDs issued by the largest banks have served as benchmarks for the Finnish money market. Yet the amount of Treasury bills and government bonds on the market has grown substantially during the last four years along with the government's increasing borrowing requirements due to the recession. An active government securities market has emerged and the Treasury bill is becoming a major money market instrument alongside the CDs (Chart 5).

Tenders have become the main procedure by which the Bank of Finland conducts its market operations. Whereas repos are used to increase liquidity, the Bank of Finland issues its own CDs when it wants to absorb liquidity. The Bank of Finland is active in the money market throughout the week. The maturity of the operations is usually one month. The current practice is to conduct volume tenders in which the Bank of Finland sets the acceptable interest (tender) rate.

The situation facing the Bank of Finland differs from that of central banks in many other countries because the Bank of Finland is generally indebted to the banks and has a constant need to absorb liquidity. The problem derives from the Bank's balance sheet structure. The non-interest-bearing liability items, ie notes, equity capital and minimum reserve deposits, are small compared to total assets.

Counterparties in monetary policy operations

From the viewpoint of monetary policy, credit institutions subject to minimum reserve requirement are the key market participants since they are involved in the credit expansion process. Consequently, the Bank of Finland accepts as counterparties in monetary policy operations all credit institutions that are subject to reserve requirements.

Counterparties are also required to have adequate technical facilities, including a current account at the central bank and a link to the Helsinki Money Market Center, and to actively engage on a significant scale in money market transactions. In addition, counterparties to outright bilateral transactions must observe the rules and code of conduct for the money market. Whether an institution is subject to the minimum reserve requirement has also been used as a key criterion for granting access to a current account at the central bank and to the liquidity credit facility.

Debt instruments eligible for use in money market operations

Securities used in money market operations are selected on the basis of monetary policy effectiveness and risk management. Therefore, eligible debt instruments must meet high standards as regards their collateral value and liquidity.

Since bank CDs were for a long time the sole major money market instrument, they were also the main debt instrument used by the Bank of Finland in its open market operations. However, because of the fall in the collateral value of bank CDs during the banking crisis, the Bank started to prepare changes in the collateral requirements.

The aim is to ensure that government securities become the main debt instrument employed in money market operations. The Bank normally accepts Treasury bills and its own CDs for use in outright money market transactions. The securities eligible for use in repo transactions are benchmark government bonds, Bank of Finland CDs, bank CDs and Treasury bills.

The haircut was introduced for repo transactions, and it amounts to 5 per cent on bank CDs and government bonds with maturities longer than one year. The value of outstanding securities eligible for use in money market operations currently amounts to some FIM 250 billion.[1]

Looking ahead

The Finnish financial markets have undergone radical changes during the past decade. The most important of these have been the emergence of a money market, the extension of the range of available financial instruments and vigorous growth of financial activity. There has also been a consequent shift towards a more market-oriented conduct of monetary policy.

[1] Finnish GDP was FIM 550 billion in 1995.

Finland joined the European Union in 1995 and, accordingly, has agreed to move toward economic and monetary union (EMU). Consequently, preparations for the European Central Bank will have an effect on the design of the Bank of Finland's monetary policy instruments and procedures in the near future. However, as regards monetary policy instruments, the changes will probably only be on a minor scale, since the Bank of Finland already has available the main instruments prescribed by the European Monetary Institute as a basis for an overall monetary policy framework within the European System of Central Banks. Adoption of the present procedures has clearly been hastened by the European integration process.

8 October 1996

• Key words: monetary policy, instruments, market operations, reserve requirements

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Supervision of the financial markets

by **Esa Helakallio**, Legal Adviser
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Finland became a member of the EU at the beginning of 1995, a year after entry into force of the agreement on the European Economic Area whereby Finland undertook to harmonize its legislation in compliance with EU legislation.

The directives concerning undertakings operating in the financial markets have to a great extent laid the structural foundation for the operation of the single market in Western Europe. The purpose of the directives has been to harmonize member states' legislation on financial market undertakings, such as credit institutions and investment firms, as regards their establishment and pursuit of business, to the extent required to ensure mutual recognition of member states' authorization and supervision activities. As a result, a single authorization is recognized throughout the EU area and financial supervision is carried out by home country supervisors.

The internationalization of the financial markets brings an ever increasing need to intensify cooperation both between national authorities supervising the financial markets and between the competent supervisory authorities in different member states. This is necessary in order to harmonize supervisory practices as far as possible and to take into account the requirements of the financial markets as a whole.

Reorganization of supervision

The Bank Inspectorate (predecessor of the Financial Supervision Authority) was established in Finland in 1922. Except for the last few years of its operations, the Bank Inspectorate (later renamed the Banking Supervision Office) supervised only banks. In more recent times, the list of supervised entities was gradually extended: the Mortgage Society and the representative offices of foreign banks became subject to supervision in 1979, management companies in 1987, Postipankki Ltd and the derivative markets in 1988, the securities markets in 1989, and finance companies and certain credit card companies in 1992.

The Financial Supervision Authority commenced its operations on 1 October 1993 when a special law on it came into force. The Authority took over the duties of the Banking Supervision Office, which was abolished at the same time. The reason for establishing the Financial Supervision Authority was to strengthen the financial markets and ensure that the recently experienced banking crisis would not be repeated.

When the Financial Supervision Authority was established, financial market supervision, formerly under the Government (Ministry of Finance), was reorganized and linked with the Bank of Finland, which is an independent institution subordinate to Parliament. Resources were also transferred from the central bank to the Financial Supervision Authority in order to upgrade the economic monitoring function and particularly the supervision of banks' risk management.

In a legal/administrative sense, the Financial Supervision Authority forms a part of the Bank of Finland, but in its actual supervisory work, ie in performing its own statutory duties, the Financial Supervision Authority acts as an independent administrative unit exercising public authority. The independence of its supervisory function is underlined for instance by the fact that the Financial Supervision Authority has its own administrative structure, including its own director general and board.

Principle of legality

Like its predecessor Banking Supervision Office, the Financial Supervision Authority is an executive administrative authority whose duties and responsibilities are fully prescribed by law. According to the principle of the conformity of administration to law, the Financial Supervision Authority must act in strict compliance with the law. In other words, its powers (rights and responsibilities) must always be based on legal norms that define power.

This rigid concept of power, ie that actions must always be based on the law, is justified by the ideology of a constitutional state. The concept is also rational from the standpoint of economic efficiency, as it makes it easier for economic agents to predict how the authority will act (how it is entitled to act) in its supervisory role in the financial markets.

Main duties of the Financial Supervision Authority

Laws governing the financial markets are aimed at guiding the business activities of participant corporate entities in such a way that the public can be confident that claims will be paid and that the public interest will be taken into account in the operation of the financial markets. In this context the public interest may be equated with financial market stability, ie a regular supply of financing, a safeguarded position for users of financial services and a state of confidence in the financial markets. The significance of these objectives has been emphasized in the laws governing the financial markets that have been enacted in the past few years. These laws impose upon the Financial Supervision Authority the duty to supervise compliance with the law (eg the Credit Institutions Act). Originally, the duties of the Financial Supervision Authority were limited to general supervision of the activities of supervised entities.

The primary duty of the Financial Supervision Authority is nonetheless to supervise credit institutions and other corporate undertakings operating in the financial markets. Credit institutions and undertakings operating in the securities markets constitute by far the largest group of supervised entities.

The Financial Supervision Authority monitors its supervised entities' compliance with acts and decrees, with regulations and guidelines issued by authorities, and with the supervised entities' own articles of association, bylaws and rules. The Authority issues regulations and guidelines and inspects supervised entities as often and as thoroughly as required for supervisory purposes.

There is a legal distinction between the regulations and guidelines issued by the Financial Supervision Authority. Regulations are legally binding on the supervised entities. If a supervised entity or a party acting by order of a supervised entity infringes a regulation issued by the Financial Supervision Authority, the latter may order the supervised entity, under penalty of fine, to fulfil its obligations under the regulation.

By contrast, guidelines issued by the Financial Supervision Authority are not legally binding on supervised entities; legal consequences cannot be imposed for violating them. But because supervised entities generally act in strict compliance with guidelines, they are virtually de facto binding.

The right to issue a regulation must always be based on the law; in each case there must therefore be a specific provision of law authorizing the issue of a regulation. For instance, the legal provision concerning the liquidity of credit institutions includes a section authorizing the Financial Supervision Authority to issue more detailed regulations on the safeguarding of credit institutions' liquidity. Owing to the difference in the legal nature of guidelines, it has not been necessary to specify their scope of application as strictly as that of regulations; it suffices that a guideline be considered necessary for supervisory purposes.

Another duty of the Financial Supervision Authority is to ensure that parties authorized to operate in the financial markets have sufficient financial and other resources to carry on their operations and that their administrative and decisionmaking procedures be adequate. The Financial Supervision Authority also regulates the activities of the inspectorates of the savings banks and cooperative banks. Furthermore, it is charged with monitoring conditions in the financial markets and proposing measures as necessary. Under international agreements binding on Finland, the Financial Supervision Authority is obliged to cooperate with the supervisory authorities of other countries.

The Financial Supervision Authority has extensive rights to inspect and to obtain information. It is entitled for instance to obtain for inspection all documents and other records concerning supervised entities or their customers which it considers necessary for the performance of its duties. The Financial Supervision Authority may also prohibit the execution of a decision of a decisionmaking or administrative body of a supervised entity if such decision does not comply with regulations applying to the supervised entity.

The Financial Supervision Authority may also appoint an attorney to oversee the activities of a supervised entity if there is evidence of incompetence, carelessness or misuse in the management of its affairs. The Financial Supervision Authority has the right to amend the conditions of an authorization that it has granted or to withdraw the authorization if the supervised entity has essentially violated the conditions of the authorization or there has been a fundamental change in circumstances from those prevailing at the time the authorization was granted. On corresponding grounds, the Financial Supervision Authority may also propose to the Ministry of Finance that an authorization granted by the Ministry should be withdrawn.

Supervision of credit institutions

The Finnish Credit Institutions Act (1607/93) entered into force on 1 January 1994. The Act complies with directives issued by the European Community on credit institutions, such as the First and Second Banking Co-ordination Directives (77/780/EEC and 89/646/EEC), the directive on a solvency ratio for credit institutions (89/647/EEC), the directive on the supervision of credit institutions on a consolidated basis (92/30/EEC) and the directive on large exposures (92/121/EEC). There are altogether 14 directives that directly concern credit institutions. This autumn, the directive on the capital adequacy of investment firms and credit institutions (93/6/EEC) was also implemented into Finnish legislation.

The Credit Institutions Act combined the previous Deposit Banks Act and Financial Services Act. Credit institutions are undertakings which take deposits or other repayable funds from the public and offer loans and other comparable financing on their own account. Comparable financing includes credit card financing, financing of hire purchase sales, factoring and forfaiting.

Credit institutions are authorized by the Ministry of Finance. A credit institution must be granted an authorization if, on the basis of information on the reliability and suitability of its owners and the administrative staff, it can be ascertained that the credit institution will be managed with professional skill and in compliance with sound and prudent business principles. It is therefore not within the Ministry's discretion to refuse authorization on the grounds of current market conditions or financial needs.

Credit institutions form a very heterogeneous group. They consist, on the one hand, of deposit banks (commercial banks, savings and cooperative banks and Postipankki Ltd), which are characterized by their exclusive right to take deposits from the public. On the other hand, credit institutions include undertakings that engage in other forms of professional financing activities, namely mortgage banks, the Mortgage Society and finance companies.

There are also specific laws dealing with the different types of credit institutions. Deposit banks are governed by collective laws: the Commercial Banks Act (1269/90), the Savings Banks Act (1270/90), the Cooperative Banks Act (1271/90) and the Act on Postipankki Ltd (972/87). Other collective laws include the Act on Mortgage Societies (936/78). The Companies Act, Cooperative Societies Act and Accounting Act apply to the whole group.

Supervision of the securities markets

In the securities markets (incl. the derivatives market), the following participants are supervised by the Financial Supervision Authority: management companies, securities broking firms, the Helsinki Stock Exchange, associations of securities intermediaries referred to in the Securities Markets Act (495/89), options undertakings, market makers operating in the derivatives market, brokers, the Central Share Register of Finland Cooperative and the Book-Entry Securities Association and authorized book-entry registrars.

The Financial Supervision Authority also supervises compliance with the disclosure requirement imposed on issuers of securities, even if the issuers themselves are not subject to supervision by the Financial Supervision Authority. According to the Securities Markets Act, anyone who offers securities to the public or applies for the official listing of a security on a stock exchange is required to publish a prospectus or listing particulars before the the offer takes effect and to make them available to the public as long as the offer is in effect. The Act also provides that listing particulars and prospectuses may not be published until they have been approved by the Financial Supervision Authority.

Following the enactment of the Securities Markets Act in 1989, the securities markets came under the supervision by the Financial Supervision Authority. Before that, these markets had been exclusively self-regulated. The structure of the Securities Markets Act is largely based on the earlier self-regulation practices. The Act relies heavily on self-regulation, providing only a broad framework for the operations of the securities markets, within which codes of conduct for public trade in securities are mutually determined by the market participants. For instance, the Stock Exchange, which organizes public trade in securities, is required to have rules which supplement the Securities Markets Act, but it may itself decide on part of the content of the rules, for instance on such matters as the procedure to be followed in the trade of listed shares. The Stock Exchange rules are approved by the Ministry of Finance.

After the EEA Agreement entered into force at the beginning of 1992, the Securities Markets Act had to be amended considerably in order to conform with EU directives. The following directives inter alia have been implemented in the Securities Markets Act: the directive coordinating the conditions for the admission of securities to official stock exchange listing (79/279/EEC), the directive on the information to be published when a major holding in a listed company is acquired or disposed of (88/627/EEC), the directive on the prospectus to be published when transferable securities are offered to the public (89/298/EEC), and the directive coordinating regulations on insider dealing (89/592/EEC).

The scope of securities market supervision was extended considerably in 1996 following entry into force of the Act on Investment Firms, which implements the directive on investment services in the securities field (93/22/EEC) and the above-mentioned directive on the capital adequacy of investment firms and credit institutions (93/6/EEC).

In addition to securities broking, which was already previously subject to authorization, authorization is now required for the professional provision of other investment services, such as dealing, market making and underwriting. Among the criteria for determining if these services are of a professional nature is whether they are provided in a systematic, regular and continuous manner. The activities of an investment firm may be considered professional even if they do not include marketing or other active provision of investment services to customers.

In addition to providing investment services, an investment firm may also provide auxiliary services such as investment and financial advice concerning investment instruments, within the limits of its authorization.

The Securities Markets Act (495/89) was also amended to correspond more closely with actual market structures. The most important change in this respect is the redefinition of public trade in securities.

The previous definition of public trade in securities in the Securities Markets Act included a list of various established practices for securities trading. Since the Act was based on the structure of the Finnish stock market in the mid-1980s, the definition may have been well suited to the stock market but not for instance to the bond market. Another 'weakness' of the definition was that it did not take into account the needs of the wholesale market; the stock market structures and trading methods are dominated by the idea of protecting the traditional small investor. Finland's wholesale market for shares is still underdeveloped. For example, the market still lacks a functioning market maker system as well as other procedures that would allow for the operation of a wholesale market. It is interesting to note that as regards bonds the situation is quite the reverse. There is a relatively well developed wholesale market for bonds, but the retail market is underdeveloped.

The amendment to the Securities Markets Act simplifies the definition of public trade in securities and widens its scope in order to ensure that the definition will not prevent or slow the flexible (self-regulation based) development of the practices followed in different sectors of the securities markets. The Act as amended defines a framework for public trade within which the markets may use their own discretion in organizing their own activities, however depending on whether they engage in stock exchange operations or other public trade in securities. Stock exchange activities are regulated more strictly and thoroughly than other public trade in securities, the aim being to protect the small investor. This need for investor protection does not exist as regards other public trade in securities (eg in the wholesale market) and it is therefore not reasonable to regulate it with equal intensity. The revised definition of public trade in securities corresponds to the concept of 'regulated market' in the directive on investment services in the securities field.

Differences and similarities in the supervision of different entities

The supervision of the securities markets differs from the supervision of credit institutions in several ways. Firstly, the supervision of the securities markets has focused on oversight of procedures related to public trade in securities, such as marketing and issuance of securities, disclosure requirements (eg the publication of prospectuses and listing particulars on securities), stock exchange activities and insider dealing. By contrast, the supervision of credit institutions has focused mainly on the oversight of credit institutions' business structures, especially their risk management, solvency and liquidity.

One reason for the difference has been the clearly larger size of credit institutions and the different nature of their operations compared for instance with securities intermediaries and marketplaces. On the other hand, the slide of the banking sector into a crisis in the 1990s shifted the main focus in banking supervision to matters related to the financial performance of the banks.

It is however obvious that the supervision of credit institutions is also moving toward a 'code of conduct' approach. The 'code of conduct' provisions in the directive on investment services in the securities field (Article 11) also apply to credit institutions, which must observe them in their provision of investment services to their customers. It is obvious that the provision of other services by credit institutions will also come under similar regulation in the future.

On the other hand, we can see the opposite trend in the supervision of the securities markets: the focus of supervision is shifting from market activities to institutions. This tendency was already implied in the capital adequacy directive, which includes detailed provisions on risk management. It can thus be said that the supervision of credit institutions and the supervision of securities markets are converging.

This change is reflected in the fact that the principles of single authorization and home country supervision, previously applied only to credit institutions, will also be applied to investment firms. The credit institutions and investment firms which have been granted authorization in a state belonging to the European Economic Area are entitled, within the limits of their authorization, to establish branches or otherwise provide investment and financial services in another EEA state. The directives include fairly detailed provisions on how the competent supervisory authorities of both the home country and the host country should proceed in case an undertaking commences to provide services in another EEA state. The same provisions are applied to both credit institutions and investment firms.

The minimum requirements for the financial performance of credit institutions will be tightened by the capital adequacy directive; besides credit risk, also risks associated with investment activities must be taken into consideration in calculating the capital adequacy of credit institutions. The same requirements are also applied to investment firms. Statutory regulation of market risks is for the most part a new phenomenon in Finland as well as in many other countries.

Final remarks

A clear trend can be seen in the evolution of the financial markets. Traditional boundaries between different sectors of the financial markets (such as banking and insurance) are disappearing. The properties of the various investment instruments offered in the markets are virtually identical regardless of whether they are offered by a credit institution, insurance company or investment firm. For instance, the traditional banking operation is evolving into a less distinct activity involving a variety of financial services.

This development requires more effective supervision by the authorities and coordination between different supervisory authorities. European integration is increasing the need to coordinate supervision, as it nurtures an expanding supply of financial services. This will in turn increase the need for more and more detailed harmonization of financial services.

The profusion of EU legislation stemming from the extensive and rapid changes that are taking place in the financial markets, as well as the changes this is causing in national legislation, though necessary, may have negative consequences for official supervision. Supervisors' statutory powers could prove inadequate in an environment of rapidly changing markets, and the legislative process may prove to be too slow in forging statutory powers that will meet the practical needs of the markets. However, we can take some comfort in the fact that by and large the laws governing the financial markets do meet the demands that have been placed on them, especially when we consider that the change now in progress in the financial markets of Europe and all around the globe is nothing less than a revolution.

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• Key words: financial markets, Financial Supervision Authority, financial institutions

Credit institutions

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The Finnish banking system is highly centralized. The bank reorganizations which have resulted from recession and overcapacity in the banking sector have further increased the degree of centralization, reducing the number of major banking groups to three: Merita, the cooperative banks and Postipankki. In recent years, a new feature of the Finnish banking system has been the increased participation of foreign banks. Swedish banks, in particular, appear to be increasingly viewing Finland as a natural market area.

This article focuses on the banking sector and the major banking groups. Credit institutions outside the major banking groups are relatively insignificant in financial intermediation, with the exception of public credit institutions.[1] Public credit institutions are not covered in this article. Credit institutions specialized in housing finance are dealt with in the article on housing finance in this publication.

Major banking groups

Merita Ltd

Merita Ltd came into being in 1995 as a result of the merger of Kansallis-Osake-Pankki and Unitas. Merita Ltd is the parent company of the Merita Group and is listed on the Helsinki Stock Exchange. Its major subsidiaries are the Merita Bank Group, Merita Life Assurance Ltd, Partita Ltd, Merita Real Estate Ltd and the real estate agencies Huoneistomarkkinointi Oy and Huoneistokeskus Oy.

Merita Bank, a subsidiary in the Merita Group, is Finland's largest bank measured both in terms of balance sheet total and market share. It is also one of the largest banks in the Nordic countries. Merita Bank is a universal bank offering all types of banking services. Merita is in an especially strong position as regards Finnish corporate sector financing, but it also has the largest market share in banking services for households.

An extensive restructuring programme has been under way at Merita Bank to remove post-merger overlapping, streamline cost structures and remove banking sector overcapacity. At the end of 1994, the combined banking staff of Kansallis-Osake-Pankki and Unitas numbered about 18 000. By June 1996 Merita Bank's staff had already been reduced to 13 400 and further cuts were planned amounting to at least 1 500 by the end of 1997. A corresponding reduction has also taken place in the number of branches: from 775 in 1994 to 499 in 1996. Further major downsizing of the branch network is not expected over the next few years. The restructuring effects on the cost structure will not be clearly visible until 1997.

Besides the universal Merita Bank, the Merita Bank Group includes several special credit institutions. Merita Finance Ltd provides corporate customers with finance company services, such as leasing and factoring services. Merita Customer Finance Ltd offers finance company services for private customers. Industrial Bank of Finland Ltd specializes in long-term financing for companies and public sector entities, and it obtains its funding mainly by issuing bonds.

At the beginning of 1996 Merita Bank announced that it will integrate its investment banking activities into a separate unit which will include Merita Corporate Finance Ltd (Prospectus Limited), Merita Securities Ltd, Merita Fund Management Ltd as well as the trading and capital market operations of Merita Bank. In this arrangement, the operating managements of the components of the new investment bank receive holdings in the companies they manage, which is expected to increase their incentives and commitment.

The insurance companies belonging to the Merita Group, Merita Life Assurance Ltd and Partita Ltd, have rapidly increased their premium income and have achieved positive financial results. In 1995 the real estate agency subsidiaries were reorganized so that Huoneistomarkkinointi Oy focuses on corporate customers and Huoneistokeskus Oy on private customers. Both real estate agencies are the largest in their field in Finland. Merita Real Estate Ltd was founded in 1995 to manage the Group's real estate holdings. The value of the Group's holdings in real estate is about FIM 23 billion, of which 6.5 billion worth is categorized as assets acquired as security for claims.

Throughout the first half of the 1990s, the financial results of Kansallis-Osake-Pankki and Unitas

[1] For more detail, see the Finnish Bankers' Association publication 'Finnish Financial Markets'.

were negative. However, Merita's first annual accounts, for the year 1995, showed a small operating profit, excluding Kansallis-Osake-Pankki's operating loss for the first half of the year. Merita has continued to improve its financial results in 1996, primarily on the basis of securities trading profits.

Okobank Group

The Okobank Group consists of 301 independent, local cooperative banks and their central financial institution, Okobank. In addition, the Group includes the Okobank Group Security Fund and the Okobank Group Mutual Insurance Company; the latter provides credit insurance for cooperative banks.

The operations of cooperative banks focus on households and small and medium-sized enterprises. The market position of Okobank Group is very strong especially in the provision of financial services for the agriculture and forestry sector. The aggregate balance sheet total of the Okobank Group is about FIM 160 billion. The central financial institution, Okobank, has large corporate customers for which it provides related services. Okobank Consolidated includes the parent bank Okobank, which is a commercial bank, OKO Mortgage Bank Ltd, OP-Finance Ltd and OP-Kotipankki Oy. A new retail bank, Okopankki, was established as part of Okobank Consolidated. The new unit took over the retail banking activities of Okobank as well as the healthy parts of the retail banking activities of Suur-Helsingin Osuuspankki, a financially stressed cooperative bank.

The 915 branches of Okobank Group comprise a very extensive network for large-scale collection of deposit funds. This branch network will be scaled down but probably to a lesser extent than in the case of Merita Bank. Okobank Group's profitability has been largely in line with that of the banking sector as a whole; financial results for the first half of 1996 have been clearly positive.

A law concerning the solvency of cooperative banks was passed by Parliament in June 1996. The law makes it possible to consider the Okobank Group as a single bank for the purpose of calculating solvency ratios and large exposures, provided that the cooperative banks commit themselves more firmly to mutual responsibility for their liabilities. However, as each cooperative bank decides for itself whether it will join the envisaged central body of cooperative banks, passage of the law has not led to the immediate commencement of operations of the central body.

Postipankki Group

Postipankki Group is owned by the Republic of Finland. Postipankki handles the central government's payment transactions, but it is not in a privileged position regarding the financial and payment services required by the public sector. The Group is comprised of the parent company Postipankki Ltd, which is a commercial bank, and four special credit institutions: PSP-Municipality Bank, PSP-Finance Ltd, MB Corporate Finance Ltd and the credit card company Suomen Tililuotto Oy.

The balance sheet total of the Postipankki Group amounted to more than FIM 115 billion at the end of 1995. Postipankki focuses on large corporate customers and payment services as well as retail banking services for households. Postipankki has had only a minor market share in the SME sector.

Postipankki has provided most of its retail banking services through post offices. Owing to overcapacity in the banking sector and a decrease in the number of post offices, Postipankki's banking service network has contracted rapidly. On the basis of an agreement between Postipankki and Finland Post Ltd, reductions in the service network and related cost burden will continue in the coming years.

Postipankki's annual accounts for 1995 showed a loss, primarily due to losses on securities trade at the bank's New York branch. For the first half of 1996, Postipankki recorded a clear profit, which was attributable mainly to the good results in securities trading. In addition, the bank's loan loss development has been favourable.

Table. Key facts on the major banking groups (31 December 1995)

	Bill. FIM		
	Merita	Okobank Group	Postipankki
Net income from financial operations	3.8	4.6	2.2
Other income	4.3	2.2	0.8
Expenses	6.0	4.2	2.9
Loan losses	2.1	2.2	0.6
Operating profit/loss	0.5	0.25	–0.5
Nonperforming assets	7.3	5.6	1.5
Balance sheet total	278.7	159.0	115.5
Own funds	20.0	9.7	6.3
Solvency ratio, %	10.3	10.7	10.2
Number of staff	15 488	11 141	5 943
Number of branches	619	960	81+938*

* Own branches and post offices offering Postipankki services.

Other banking groups

At present, the savings bank group consists of 40 independent savings banks. There was a significant reduction in the size of the group in 1993, when Savings Bank of Finland was split up among four rival banking groups as part of a restructuring in connection with the banking crisis. The healthy parts of the business operations of Skopbank, which had acted as the central financial institution of the savings banks, were sold to the Swedish bank Svenska Handelsbanken in 1995, after which Aktia Oy became the central financial institution of the remaining savings banks. SKOP Corporate

Chart 1.

Markka deposits by market share

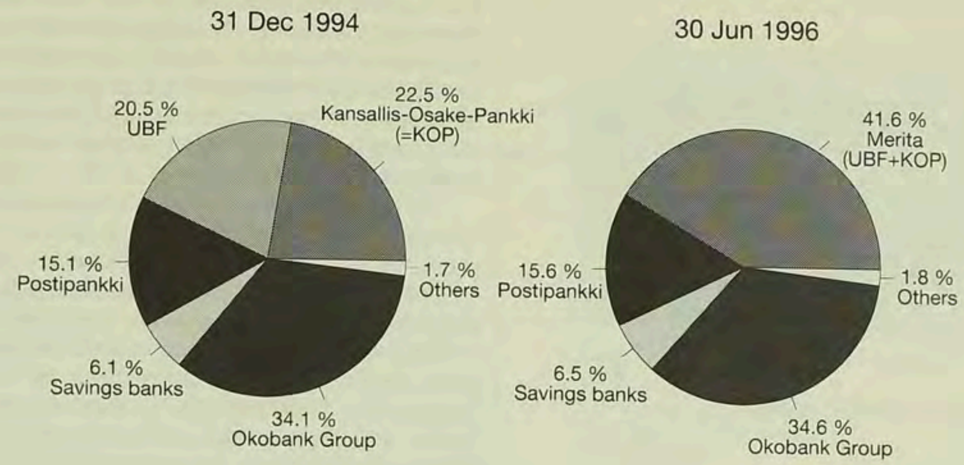
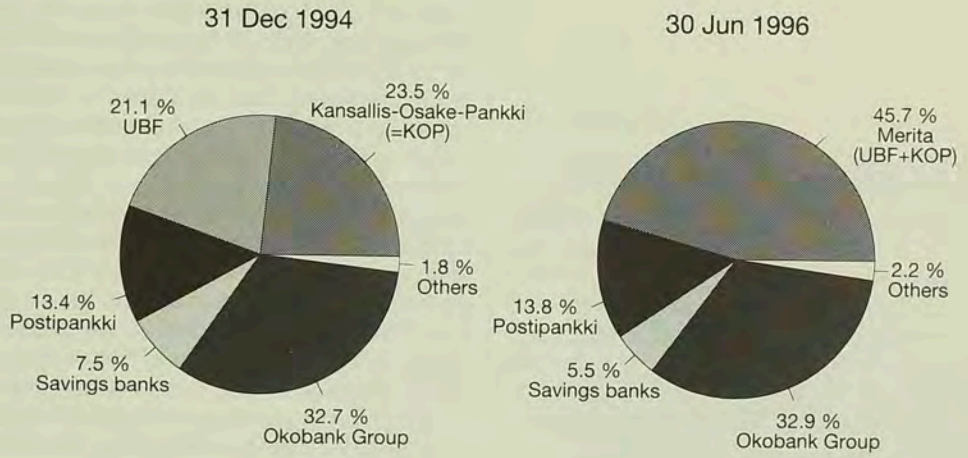


Chart 2.

Markka lending by market share



Banking, which is owned by the State Guarantee Fund, is continuing to operate in connection with the management of problem loans.

Svenska Handelsbanken has considerably expanded its operations in Finland. In 1995 Svenska Handelsbanken purchased the sound parts of the business operations of Skopbank as well as Finnish Real Estate Bank Ltd, SKOP Finance Ltd and Industrialization Fund of Finland Ltd. Svenska Handelsbanken is also the first foreign-owned bank operating in Finland to offer services to households.

Interbank Ltd is a small commercial bank which has recently expanded its ownership basis. Interbank's B shares are quoted on the Helsinki Stock Exchange. Ålandsbanken is a universal bank which has concentrated its operations in the Åland area, in addition to which it has branches mainly in coastal cities. Ålandsbanken is listed on the stock exchange.

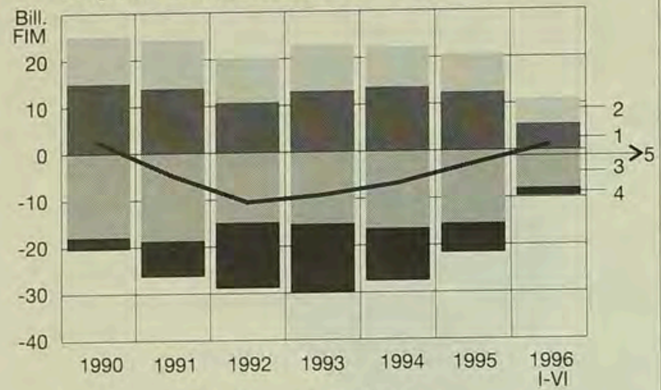
In addition to these, a number of foreign banks, such as Citibank, Skandinaviska Enskilda Banken, Den Danske Bank and Banque Indosuez, have branches in Finland. Foreign banks focus on corporate and wholesale banking activities and their importance has been growing rapidly, especially in the provision of financial services for large companies.

Market shares

Charts 1 and 2 show how the banking sector in Finland is centralized around three large groups. However, the deposit banks do not have similar market shares in both deposits and lending. Merita's market share in markka deposits has de-

Chart 3.

Deposit banks' financial results



1. Net income from financial operations
2. Other income
3. Other expenses
4. Loan and guarantee losses
5. Operating profit/loss

creased from its earlier level to 41.6 per cent in June 1996. Correspondingly, the market share of Okobank Group has grown to 34.6 per cent. Market shares were 15.6 per cent for Postipankki and 6.5 per cent for the savings banks.

In markka lending, Merita's market share is slightly larger than in deposits. However, both Merita's and Postipankki's market shares in corporate loans are clearly larger than in household loans. On the other hand, lending by cooperative banks and savings banks is directed more toward households.

Profitability of the banking sector

The profitability of the banking sector as a whole is shown in Chart 3. The expansion of banks' lending stock towards the end of the 1980s led to an explosive increase in loan losses when economic conditions deteriorated rapidly in the early 1990s[2]. The performances of individual banks corresponded with the development of the banking sector as a whole. The savings bank group, which had expanded its lending stock the most rapidly, recorded particularly heavy losses. This led to intervention by the public sector in the group's operations and reorganization.

[2] See the article 'Finnish financial markets: major trends and international comparisons' by Malkamäki and Vesala in this publication.

After 1992 the profitability of the banking sector started to improve slowly. The losses incurred have nevertheless been very large relative to the size of the banks' business operations and own funds. However, the banks' solvency has been maintained at a reasonable level, primarily by government support in the form of preferred capital certificates. The reduction in lending stock, and thus in the risk-weighted assets on the balance sheet, has improved solvency ratios.

The performance of the banking sector is strengthening; all major banking groups showed a profit for the first half of 1996. However, weak credit demand together with low-yield assets on banks' balance sheets continue to slow the banks' recovery.

Chart 3 shows the components of banks' operating profits. The weakening of banks' profitability in the early 1990s and the subsequent sluggish improvement have largely followed developments in loan losses. Loan losses are expected to approach 'normal' levels in 1996.

The development of net income from financial operations is the main cause of anxiety for the banking sector. Tighter competition and weak credit demand have squeezed interest margins. This is directly reflected in net income from financial operations, which is a key component in banks' profitability. There are currently no signs of a significant strengthening of net income from financial operations.

The development of banks' other income depends on several factors. A large part of various commissions and fees are connected to loans whose volumes fluctuate according to changes in credit demand. Other income also includes income from bank services that are subject to charge; of these, exchange commissions in particular are affected by heightening competition as new agents enter the market. Net income from securities trade and foreign exchange dealing is dependent on general market conditions and banks' trading performance.

Cost-cutting programmes are being implemented in every major banking group. Merita, at least in the initial stage, has been subject to the most extensive cuts. The shedding of personnel and branches, in particular, will improve performance only after a lag. In the initial phases, restructuring measures may even increase expenses. The measures that have already been decided will have a pronounced effect on banks' profitability in1997–1998.

Nonperforming assets

Assets must be classified as nonperforming if interest or principal payments have been in arrears for at least three months. The development of nonperforming assets reflects the banks' problems, which relate largely to forgone interest income, and predicts the future development of loan losses.

The amount of nonperforming assets has continued to decrease during the last few years (Chart 4). The figures for 1995, however, indicate a slowing of the rate of decrease. This is mainly due to the fact that a large portion of the remaining nonperforming assets originated from companies that operate in the domestic market where the business pickup has been slower than in the export industries.

In the corporate sector, the largest volumes of nonperforming assets are found in the construction, commerce and catering industries as well as in real estate and investment activities. Recently, households' share of nonperforming assets has grown while the share for manufacturing has almost shrunk to nil.

Lending

The development of the lending stock is shown in Chart 5. After the quantitative and interest rate restrictions on lending were dismantled starting in the mid-1980s, banks' lending stock started to grow rapidly. Deposit banks' domestic lending increased from FIM 150 billion at the beginning of 1985 to almost FIM 400 billion by the end of 1990. At the end of 1991 the aggregate lending stock momentarily exceeded the FIM 400 billion level, after which it declined rapidly. In real terms, the decline in lending stock has been even more rapid than the increase that took place in the late 1980s.

The decline has been more moderate in markka lending than in foreign-currency-denominated lending. However, the markka lending stock has also decreased, owing particularly to the reduction in outstanding household loans. During the boom, foreign currency loans accounted for the major part of the growth of corporate lending.

Corporate loans

At the end of the 1980s, the growth rate for the stock of corporate loans exceeded that of lending as a whole. In this context, it is useful to discuss markka and foreign currency loans separately.

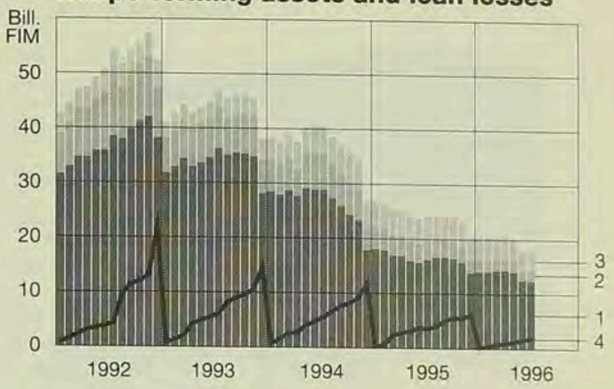
The volume of markka-denominated corporate loans has grown at a distinctly more moderate pace than the other credit aggregates. This is due to the fact that during the period of rapid credit expansion, the bulk of corporate loans were denominated in foreign currencies, which were considered more advantageous in the context of the fixed exchange rate regime in effect at the time. The subsequent decline in the lending stock was also concentrated in foreign currency loans.

In recent years, Finnish banks' lending to the corporate sector has been mainly denominated in markka. Some of the new loans are former foreign currency loans that have been converted into markka loans. The amount of new loans has remained smaller than the banks had estimated, as companies have worked hard to reduce the debt-intensiveness of their financial structures. In addition, changes in corporate taxation have put the choice between equity and debt financing on a more even playing field.

Until the end of 1986 foreign currency loans mediated by Finnish banks represented a minuscule

Chart 4.

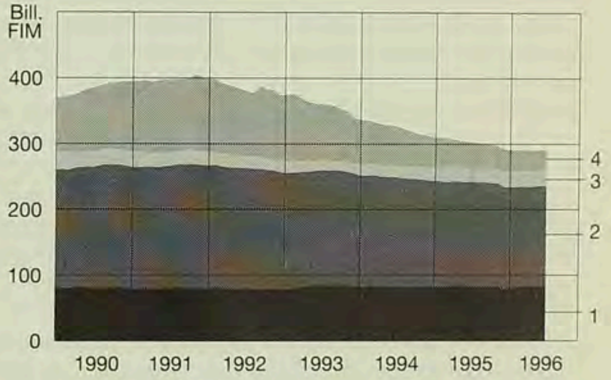
Nonperforming assets and loan losses



1. Nonperforming loans
2. Nonperforming receivables on guarantees
3. Other zero-interest loans
4. Loan losses

Chart 5.

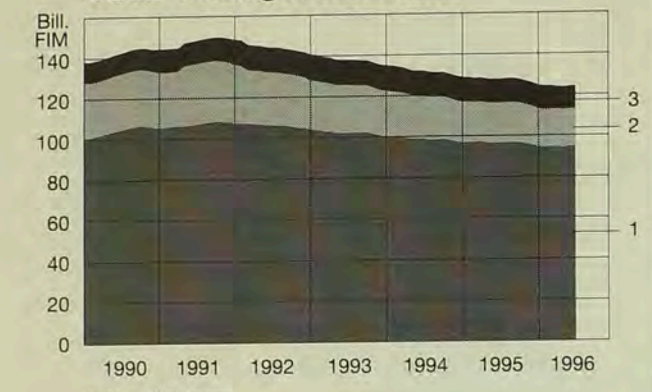
Deposit banks' outstanding lending



1. Corporate lending
2. Household loans
3. Other
4. Foreign-currency-denominated lending

Chart 6.

Banks' lending to households



1. Housing loans
2. Consumer loans
3. Study loans

part of the total lending stock. At that time, the foreign-currency-denominated lending stock amounted to about FIM 25 billion. After deregulation, the stock and relative share of foreign-currency-denominated lending increased rapidly up until the end of 1991 (Chart 5), at which time the stock temporarily exceeded the FIM 110 billion mark.

Foreign currency loans were taken up exclusively by the corporate sector. Within the corporate sector, even companies serving the domestic market and having no foreign currency income raised large amounts of foreign currency loans. These companies' loans resulted in large loan losses for the banks later on when the economy deteriorated and the markka-measured loan burden increased rapidly owing to substantial exchange rate losses that resulted from the weakening of the markka.

After 1991 the stock of foreign currency loans started to decline rapidly. At the end of 1995 the stock of foreign currency loans mediated by Finnish banks was only FIM 32 billion, and it is expected to decrease further. The use of foreign currency loans is nowadays more definitely confined to companies with foreign currency income. Furthermore, in many cases these companies are not dependent on banks for the mediation of foreign currency-denominated financing.

Household loans

Changes in outstanding household loans reflect, besides overall economic developments, also tax treatment. Traditionally, the bulk of household loans has consisted of housing loans. Compared to other countries, owner-occupancy has been very common in Finland. This has resulted from tax advantages associated with owner-occupancy, low real interest rates on housing loans during the period of interest rate control, as well as a shortage of rental housing. The tax treatment of housing loans was changed substantially at the beginning of 1993 when the scope for deducting interest payments was reduced.

Housing loans are of great importance to Finnish banks. At present, these loans account for more than a third of banks' lending, and for an even larger share of their net income from financial operations. Over the last five years, the amount of outstanding housing loans has decreased continuously (Chart 6). This declining trend has however bottomed out recently, but so far no distinct upward trend is visible.

Finnish housing loans are generally of short maturity. Recently typical maturities have ranged from 8 to 15 years; previously the maturities were even shorter. Owing to the short maturities, the loan repayments have been substantial and this has placed a heavy annual financial burden on indebted households. The growth of housing loans continues to be curbed by prolonged high unemployment, scanty production of new housing and households' negative experiences with indebtedness stemming from the recession.

Consumer loans to households have declined continuously over the last five years. At present, the stock of consumer loans is less than FIM 20 billion (Chart). The tax treatment of these loans has been tightened as well, which has also contributed to their weak demand. Consumer loans typically have short maturities and the loan amounts are usually fairly small.

Study loans are state-guaranteed loans at market interest rates. Persons studying at officially approved institutions may take out study loans within prescribed limits to finance their studies. The amount of outstanding study loans has remained very stable, at slightly above FIM 10 billion.

Deposits

Deposits are the principal form of funding for Finnish banks. The development of deposits in the 1990s is shown in Chart 7. Outstanding deposits grew steadily from the beginning of the 1980s to the end of 1988. After that, a succession of changes in taxation and pronounced economic fluctuations made it more difficult to predict the course of the deposit stock. Taxation has played an important role in the development of deposits and in their breakdown by type of account. In the following, the breakdown of deposits is based on tax treatment.

Of the bank accounts intended for natural persons, transaction accounts and certain fixed-term deposits are currently tax-exempt. Provisions on the tax-exempt status of transaction accounts are contained in the Income Tax Act. The current tax-exempt interest rate ceiling is 2 per cent. The popularity of tax-exempt transaction accounts has continued to increase (Chart 7). This has resulted mainly from a decline in the overall level of interest rates and the tax treatment of alternative accounts.

At the moment, deposits in tax-exempt accounts amount to over FIM 120 billion. This sum is many times the amount of funds required strictly for transaction purposes. The average interest rate on tax-exempt accounts is about 1.4 per cent, and thus they are very important to banks' profitability. However, because the fall in the interest rate level has had only a marginal effect on interest rates on transaction accounts, banks' profitability has not improved rapidly.

The opening of special tax-exempt fixed-term deposit accounts was allowed up until the end of 1995. The maximum interest rate on these accounts was two percentage points less than the Bank of Finland's base rate and the maximum term was 24 months. At the moment, tax-exempt fixed-term deposits amount to about FIM 40 billion. This amount is however declining rapidly because since the end of 1995 it has not been possible to open new accounts. Consequently, all tax-exempt fixed-term deposits will have matured by the end of 1997. Thus far the bulk of the funds released from these maturing accounts has been shifted mainly into tax-exempt transaction accounts, which has sharply increased the amount of the latter.

Taxable bank accounts held by natural persons are subject to the withholding tax. The tax rate is currently 28 per cent, ie the same as the capital income tax rate. Accounts subject to withholding tax comprise both transaction accounts and fixed-term accounts.

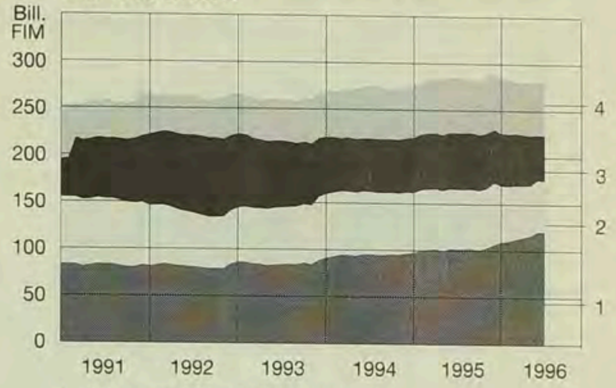
The stock of deposits in transaction accounts subject to withholding tax has remained at slightly more than FIM 10 billion. The average interest rate on these accounts is 2.1 per cent, which means that the after-tax interest income on taxable accounts does not exceed the maximum yield on tax-exempt accounts.

The stock of term deposits subject to withholding tax has fluctuated considerably depending on the level of interest rates and tax rates. At its peak, in 1991 and 1992, the stock of these deposits amounted to over FIM 60 billion. Subsequently, lower interest rates and tightening taxation have squeezed the yield on these deposits, which has been reflected as a gradual reduction in the deposit stock. Even the funds released from matured tax-exempt fixed-term deposits have not caused an upturn in the stock of fixed-term deposits subject to withholding tax.

Deposits held by corporate entities are neither tax-exempt nor subject to withholding tax. The income on these accounts is regarded as regular taxable income. Developments in the stock of deposits held by corporate entities largely reflect overall economic activity; consequently, the stock is fairly stable over the short run. During the last few years, the stock has remained in the region of FIM 50–60 billion (Chart 7, other taxable accounts).

Chart 7.

Markka deposits from the public by tax treatment



1. Tax-exempt transaction accounts
2. Other tax-exempt accounts
3. Accounts subject to withholding tax
4. Other taxable accounts

Interest linkages of lending and deposits

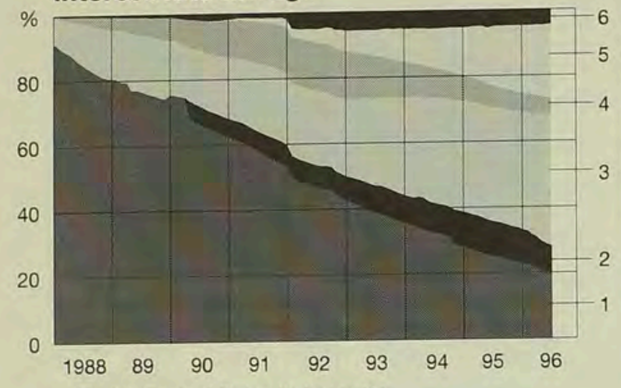
Presently, the amount of markka deposits held in deposit banks exceeds the stock of loans and thus bank liquidity is very high. This is mostly due to the slackness of credit demand. There has recently also been a slight decline in the total amount of outstanding deposits, but the decrease has been smaller than the decline in lending stock. In the following, interest linkages of deposit banks' lending and deposits are examined by type of interest rate.

The significance of the base rate, which is set by the Bank of Finland, continues to diminish. Of new loans, only certain administered loans are tied to the base rate. Similarly, it is virtually impossible to make new deposits tied to the base rate.

The amount of base-rate-tied deposits exceeds the amount of loans (Charts 8 and 9). However, this situation will change when tax-exempt fixed-term deposits mature by the end of 1997. The decrease in the stock of base-rate-tied lending will be much slower than that of the deposits; consequently, a year from now the amount of base-rate-tied loans will exceed the amount of base-rate-tied deposits. This will not however cause significant interest rate

Chart 8.

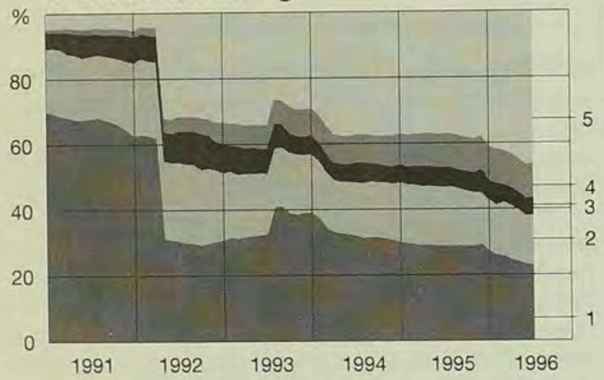
Banks' markka lending by interest rate linkage



1. Tied to Bank of Finland's base rate
2. Fixed rate
3. Tied to HELIBOR rates
4. Tied to 3- or 5-year reference rate
5. Tied to prime rates
6. Other

Chart 9.

Banks' markka deposits by interest rate linkage



1. Tied to Bank of Finland's base rate
2. Fixed-rate
3. Tied to HELIBOR rates
4. Tied to prime rates
5. Other

risks for the banks, because the base rate has followed movements in market rates, albeit with a lag.

All major banking groups publish their own prime rates. These rates follow market rates, again with a lag, but they are not generally strictly tied to market rates. Only the savings bank group has announced that its prime rate is tied to long-term and short-term market rates according to its own formula.

The amount of deposits tied to the prime rate is smaller than the amount of prime-rate-tied loans, which has grown steadily over the last few years. The main reason for this is the increased popularity of tax-exempt deposits, which has dampened the demand for other types of deposits. The low level of interest rates combined with the 28 per cent withholding tax rate have reduced the attractiveness of prime-rate-tied deposits.

A considerable part of lending is tied to market interest rates. The market rates used are HELIBOR rates, ie interest rate quotations on certificates of deposit traded in the interbank wholesale market. The maturities of CDs range from one to twelve months. The three-month HELIBOR is the most widely used reference rate. As in the case of prime-rate-tied loans and deposits, the lending stock tied to market rates is also higher than the stock of market-rate deposits, and generally for the same reasons.

22 October 1996

• Key words: banks, profitability, deposits and lending

Housing finance

by **Karlo Kauko**, Economist
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In Finland owner-occupancy is the most common form of home occupancy. According to Statistics Finland there were 2 352 000 dwellings in Finland on 31 December 1994; of these, 62 per cent were owner-occupied, 27 per cent rented, 3 per cent otherwise occupied, and 9 per cent not permanently occupied. Right-of-occupancy housing is common in other Nordic countries, but in Finland the number of right-of-occupancy homes was merely somewhat more than 10 000 at the beginning of 1996.

There are two types of owner-occupancy. In the simplest case, the occupant is the direct owner of the residential real estate. According to Statistics Finland owner-occupied dwellings of this type numbered 745 000 at the end of 1994, of which 99 per cent were single-family units. Another way to own one's home in Finland is to purchase a share certificate issued by a housing company. A housing company is a nonprofit corporation which owns residential real estate. A share certificate issued by a housing company entitles its owner to possess an apartment which is part of the real estate. According to Statistics Finland owner-occupied apartments belonging to housing companies totalled 701 000 at the end of 1994. Of these, apartments accounted for 64 per cent and row houses for 25 per cent. The terms of housing loans are usually the same regardless of whether the loan is granted for the purchase of residential real estate or a share certificate in a housing company.

In general, a single dwelling is not a sufficiently valuable asset to be subject to the property tax, but since 1993 owners of buildings and building sites have been subject to municipal real estate taxes, which have replaced certain other charges. For instance, the tax on imputed income from housing, ie on the economic value of owner-occupancy, was abolished in connection with the introduction of real estate taxes. The stamp duty continues to be levied in connection with the sale of real estate or shares in housing companies.

Like many other types of interest payments, interest on housing loans entitles the borrower to tax reliefs. Interest on housing loans can be deducted from capital income. If a borrower does not have capital income, he can offset his tax liability in accord with the capital income tax rate (currently 28 per cent). For example, interest payments amounting to FIM 10 000 would reduce one's tax liability by FIM 2 800. Owing to the tax-exemption of housing income and the tax reliefs on interest paid on housing loans, dwelling owners are in a favoured tax position relative to tenants.

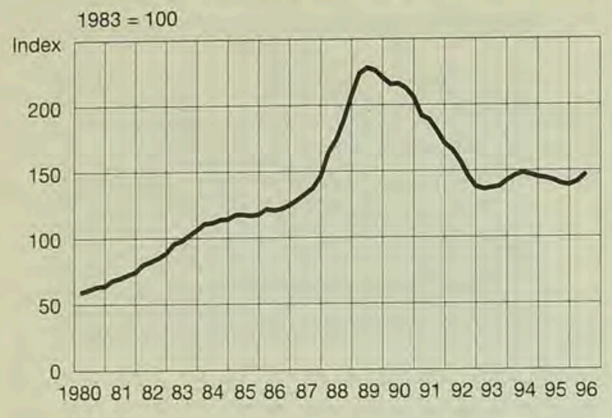
Besides favourable tax treatment, the dominant role of owner-occupancy may be the result of the regulations that were abolished in the 1980s and 1990s. Prior to that, during the era of interest rate control, real interest rates were often negative and real assets therefore afforded an attractive investment outlet. Housing rents were controlled for a long period of time; consequently, it was not considered worthwhile to invest in rental housing and thus there was a shortage of rental housing.

Owing to the predominance of owner-occupied homes in Finland, a large share of households have outstanding housing loans. Towards the end of the 1980s, the stock of housing loans grew very rapidly as the housing market was heating up. Housing prices increased by as much as 70 per cent between 1987 and 1989. In the 1990s the demand for housing has softened, and prices have practically collapsed. At present, housing prices in real terms are at the same level as in the early 1980s. These movements in housing prices are clearly seen in the chart. Repayments of old housing loans have exceeded the amount of new loans. Unemployment, the economic uncertainty that households are experiencing as well as a curtailment of tax relief on housing loan interest have worked decisively to reduce households' propensity to borrow. Furthermore, the supply of rental housing has increased since rent control was abandoned. It appears that during the first half of 1996 the demand for housing loans has picked up; in March the amount of new housing loans granted by banks was about 15 per cent higher than in March 1995.

Results from a survey on the situation regarding households' housing loans was published by the Finnish Bankers' Association in spring 1996. According to the survey, 27 per cent of households had housing loans compared with 33 per cent two years ago according to a similar survey conducted in 1994. The average outstanding amount of a housing loan was FIM 155 000, compared with FIM 198 000 two years ago. According to the survey,

Chart.

Index of nominal housing prices



6 per cent of households intended to take up new housing loans within the following twelve months.

In Finland, unlike in some other countries, housing loans carry personal liability, which is not limited to the dwelling pledged as collateral. When a dwelling is sold, the housing loan is not transferred to the buyer.

Deposit banks play a very important role in Finnish housing finance; certain other private institutions grant housing loans to some extent; and the public sector contributes to housing finance by granting interest subsidies and guarantees as well as loans. The following sections deal with the housing finance activities of each of these three sectors.

Banks

Deposit banks hold a key position in the Finnish housing loan market. At the end of September 1995, households' outstanding housing loans totalled FIM 102 billion, of which bank loans accounted for 86 per cent (Statistics Finland). In 1995 new housing loans granted by banks amounted to FIM 18.6 billion.

Housing loans are an important business activity also from the banks' point of view. Apart from a few subsidiaries and branches of foreign banks specializing in the wholesale market and large corporate customers, all large and medium-size banks operating in Finland grant housing loans. Housing loans are often actively marketed to the public. At the end of 1995, housing loans accounted for about 37 per cent of banks' aggregate loan stock.

Generally, banks grant housing loans only to customers with prior savings, unless the borrower can put up supplementary collateral or guarantees in addition to the dwelling he intends to purchase. Usually, the amount of a housing loan will cover only 60–80 per cent of the price of the dwelling, but in the late 1980s, some banks granted loans up to as much as the full purchase price without requiring supplementary collateral. Loan periods are somewhat shorter than in many other countries, often from 10 to 15 years. However, some time ago a bank did announce that it was offering housing loans with a maturity of 30 years. Until recently, the use of personal guarantees has been common practice in connection with housing loans.

In overall bank funding, long-term, fixed-rate funding is generally of secondary importance. Consequently, Finnish banks' loans to the public are usually variable-rate loans. Of total new housing loans granted by banks in 1995, 24 per cent were tied to HELIBOR rates, 7 per cent to the Bank of Finland's base rate and 58 per cent to banks' own prime rates. Fixed-rate and other loans accounted together for 10 per cent of new housing loans. Loans tied to long-term market rates accounted for 40 per cent of variable-rate loans in 1991, but since then their share has decreased considerably. The interest rate margin on housing loans is usually from 2 to 2½ percentage points above the reference rate, which is higher for example than the interest margin on corporate loans[1]. In addition to interest, banks usually charge a fixed commission in connection with the granting of a loan.

There are no accurate statistics on losses on housing loans. In recent years, the fall in housing prices and increasing unemployment have probably increased losses on housing loans. Of banks' aggregate loan losses in 1994, households accounted for only about 8 per cent, which is much less than households' share in total lending. As housing loans constitute the most important part of households' outstanding loans, the small amount of loan losses might also reflect the risk associated with housing loans.

So far, no Finnish banks have securitized their housing loans. While there are no actual legal barriers to securitization in Finland, the tax treatment of special purpose vehicles registered in Finland is not yet clear.

[1] Kosonen, Katri: 'Asuntorahoituksen riskit ja kehittämisen vaihtoehdot' (Risks and development alternatives in housing finance), Palkansaajien tutkimuslaitoksen tutkimuksia 60 (Studies of the Labour Institute for Economic Research), Helsinki 1995.

Other private suppliers of housing finance

In addition to deposit banks, there are only a few commercial suppliers of housing finance in Finland.

Mortgage banks and mortgage societies have a long tradition in Finland. The stock of housing loans granted to households by mortgage banks and the only mortgage society currently in operation amounted to nearly FIM 2 billion at the end of September 1995. Mortgage credit institutions issue bonds and maintain their own creditworthiness by granting loans only against first-class security. Most mortgage banks supply financing primarily to corporate sector or public sector entities. All Finnish mortgage banks are owned by deposit banks. The mortgage society operates largely in the same way as a mortgage bank although its articles of association are more akin to those of a cooperative society than to those of a limited company.

For decades, the tax system favoured bank deposits over bonds, because in practice, all bank deposits were taxfree while interest on bonds issued by mortgage banks was taxable. Legal provisions that had previously impeded the operations of mortgage banks have for the most part been removed since the mid-1980s, but mortgage banking has not expanded to nearly the level of importance enjoyed by mortgage credit institutions for instance in Denmark and Sweden.

Insurance companies also invest in housing loans. At the end of September 1995 the stock of loans granted by insurance companies for the purchase or construction of housing was FIM 9.2 billion, most of which was granted to corporate entities and only slightly more than 10 per cent to households.

Public sector support in the form of interest subsidies and guarantees

Under Finland's housing policy, certain loans granted by private financial institutions qualify for interest subsidies from the central government budget. The borrower pays part of the interest and the State pays the rest (the subsidy) directly to the lending financial institution. Interest subsidies have been granted both to private persons for the purchase of owner-occupied housing and to corporate entities for construction of rental housing.

Interest subsidies on loans for constructing new rental housing may be granted to municipalities, insurance companies or benevolent corporations. In special cases, interest subsidies may also be granted for the purchase of rental apartments in existing buildings. In 1995 interest subsidized loans were granted for the construction of 6 122 new dwellings, for the purchase of 139 existing dwellings and for the renovation of 2 803 existing dwellings. The total amount of new subsidized loans was almost FIM 3 billion, and interest subsidies paid amounted to FIM 440 million.

Interest subsidies paid to households totalled FIM 363 million in 1995. Private persons who intend to purchase or construct an owner-occupied dwelling may obtain an interest subsidy from government funds on two grounds:

1) On social grounds: The Government and the Ministry of the Environment determine the general principles to be applied in granting interest subsidies (eg income limits). Municipalities decide on the granting of interest subsidies to applicants on a case-by-case basis. The prescribed income limits take into account both the amount of income and number of children. In 1995 subsidized loans were granted for the acquisition of 2 737 owner-occupied dwellings: most of the loans were intended for the construction of single-family units. In recent years, overindebted households have constituted one of the most important recipient groups, though at the time of writing this type of lending has been discontinued for the time being. The granting of new interest subsidies is however still possible under the law.

2) First-home buyers may obtain an interest subsidy after having first accumulated in a bank account 15 per cent of the price of the home. The price must not exceed a prescribed limit, and the applicant must not be older than 31 when he or she starts to accumulate the required savings. From April 1996 a partial state guarantee has been available for subsidized loans for purchasing a first home. Throughout 1995 the stock of such first-home loans amounted to nearly FIM 11.5 billion, and 5 400 new loans were granted.

The newest type of subsidized loan for owner-occupied housing is the 'approved housing loan', which has been available since April 1996. If the borrower has saved at least 15 per cent of the price of a dwelling, the State will guarantee 20 per cent of the housing loan up to a maximum of FIM 150 000. The state guarantee is intended to reduce the use of personal guarantees. The granting of an 'approved housing loan' is not subject to income limits.

The public sector as lender

After deposit banks, public sector entities are the most important suppliers of housing loans to households. At the end of September 1995, households' outstanding housing loans granted by public sector entities amounted to FIM 13.5 billion, which was 10 per cent of the total amount of households' outstanding housing loans.

The Housing Fund of Finland is a state financial institution. It grants so-called ARAVA loans both for owner-occupied and rental housing. ARAVA loans for the construction of rental housing are mostly granted to municipalities, but the loans are also available to other institutions. Insurance companies, for instance, have constructed almost 6 000 rental apartments with the aid of ARAVA loans. The rental apartments financed by ARAVA loans are subject to rent control. For the moment, households with low incomes can obtain ARAVA loans for the purchase of owner-occupied dwellings, but according to preliminary decisions, such loans will no longer be granted after December 1996.

The Housing Fund of Finland obtains its funding from four sources:
1) Interest and principal payments on its loans
2) Funds allocated from the central government budget
3) Bond issues
4) Securitization

The State is liable for the bonds issued by the Housing Fund of Finland, since the Housing Fund does not have its own cash management operation. The State Treasury pays the interest and principal from general funds. One of the housing bonds is a benchmark bond.

In November 1995 the Housing Fund of Finland started to securitize old ARAVA loans. So far, the Housing Fund has carried out two securitization operations in which a total of more than FIM 3 billion worth of ARAVA loans were securitized via special purpose vehicles registered in Ireland. The first operation entailed the issue of US dollar-denominated bonds, and the associated exchange rate risk was hedged by derivate contracts. The second operation took place in early autumn 1996 and was denominated in markkaa. Because the interest on ARAVA loans is below the market rate, the State provides interest subsidies to the special purpose vehicle. The securitized loans are not guaranteed by the State.

In funding its housing finance activities, the Housing Fund of Finland has tapped the bond market to a greater extent than any other institution. Outstanding housing bonds total more than FIM 10 billion and securitized ARAVA loans more than FIM 3.8 billion (mainly in the form of USD-denominated bonds).

In Finland municipalities are important suppliers of rental housing. Municipal rental housing has been provided especially on social grounds but also as perks for municipal employees. In 1993 about 200 municipalities founded a joint venture finance company called Municipal Housing Finance Ltd. The company obtains funding from the bond market and uses it to finance municipalities' housing investments. Loans granted by Municipal Housing Finance Ltd usually bear a very low risk because the borrowers are public sector entities and the loans are secured by real estate mortgages. Bonds issued by Municipal Housing Finance Ltd do not have a credit rating, but the associated risk is so small that the Ministry of Social Affairs and Health, for instance, allows insurance companies to rank them in the same risk category as government bonds. The interest rate on bonds issued by Municipal Housing Finance Ltd has usually been some tens of basis points higher than that on benchmark government bonds, probably owing to the lack of a liquid secondary market. Municipal Housing Finance Ltd has not issued foreign currency-denominated bonds.

20 September 1996

• Key words: housing loans, interest subsidies, special purpose vehicle

Mutual funds

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Mutual funds were first established in Finland in autumn 1987, immediately after special legislation on their activities had come into force. The timing, just prior to the collapse of the stock market in October 1987, could hardly have been more ill-fated, and this is a major reason why mutual funds faltered at the start and why their growth remained sluggish for years.

This article looks at the operations and the significance of Finnish mutual funds. These funds, sometimes referred to as common funds, are not legal persons but instead are managed by management companies and owned jointly by the unit (share) holders.

A difficult start for mutual funds

Mutual funds were launched in Finland in autumn 1987 under the most unfavourable of conditions. Because the funds' initial investment portfolios focused on listed shares, the collapse of the stock market brought a corresponding drop in portfolio values.

For a long period thereafter, the flow of capital into mutual funds amounted to little more than a trickle. Besides the ill-fated timing of the launch, there have been several other factors that have restrained the growth of Finnish mutual funds. The bank-centredness of the domestic financial markets as well as tax advantages for holders of deposits and (earlier) bonds combined to induce households to keep the bulk of their savings in bank deposits and taxfree bonds. A further disincentive to the channelling of capital into mutual funds has been the fact that bank deposits have been fully guaranteed.

The flow of savings into pension funds has been channelled via the legally mandated employment pension scheme primarily into loans to contributing firms (TEL-relending) and, in recent years, also in large amounts into government bonds. Thus pension savings have not found their way into mutual funds.

The legislation applicable to mutual funds has also been considered a deterrent to their growth. This is due to the tight restrictions that have been placed on mutual funds' investment activity. For example, both pure fixed income funds and pure equity funds were effectively disallowed by the 1987 legislation and the use of derivative instruments, even for hedging purposes, was prohibited.

By the end of 1988 there were six domestic management companies managing a total of eleven mutual funds. The aggregate amount of the funds' capital was a meagre FIM 400 million.

Developments in the 1990s

By the end of 1991 only a couple of new management companies had entered the markets, nor had there been a significant change in the number of mutual funds. The operation of mutual funds had also been largely bank-centred for several years; it was 1990 before a securities house first established a mutual fund.

Finnish share prices turned sharply upward in autumn 1992, and this was reflected the next year in a pronounced increase in mutual fund activity. Numerous new funds, set up by both banks and securities houses, entered the markets, and the number of management companies increased.

The growth in mutual funds that began in 1993 was given a boost at the beginning of 1994 when certain changes in mutual fund legislation came into effect. The new legislation marked a significant easing of the restrictions on funds' investment activity. Under the new law, a mutual fund is free to invest in domestic and foreign securities that are publicly traded in Finland or in comparable trading systems abroad. New mutual funds were soon launched as the new legislation allowed the establishment of both equity and fixed income funds.

Legislation on mutual funds, which first came into force on 1 September 1987, has been amended in several phases. From the beginning of 1992 foreign investors were allowed to own Finnish mutual fund units. At the beginning of 1994 mutual fund legislation was revised in accord with the EU directive on UCITS. The new legislation allows mutual funds that are registered in EEA countries to sell their units to the public in Finland. Other mutual funds must obtain permission from the Ministry of Finance to market their units here.

Under Finnish law, a mutual fund is a fund composed primarily of securities and owned by the unit holders. The management company manages the mutual fund in the interests of the unit holders. Only a management company that has obtained a permit from the Ministry of Finance can engage in mutual fund activities. Such activities are supervised by the Financial Supervision Authority, which also maintains a public list of mutual funds and is responsible for approving funds' operating rules and amendments thereto. A fund's operating rules inter alia define the fund's investment policy and list the fees charged by the management company and custodial bank.

A management company can establish one or more mutual funds, gather funds from the public and invest them in securities and deposits.

The equity capital of a management company must be at least FIM 1 million and must amount to at least 1 per cent of the combined capital of the mutual funds that it manages. The management company's assets must be kept separate from the assets of its mutual funds; the latter are held together in custody in one or several custodial banks. Deposit banks and securities brokerage firms are eligible to function as custodial banks.

The assets of a mutual fund operating in Finland can be invested in securities that are either listed on stock exchanges in member countries of the European Economic Area or traded elsewhere in the EEA area in regulated market places that operate regularly and are open to the public.

A mutual fund can also invest in assets that are not securities, provided such assets do not comprise more than 10 per cent of the fund's value.

Securities issued by a single issuer may not account for more than 10 per cent a mutual fund's value, and the total of single-issuer investments each of which accounts for at least 5 per cent of the fund's value may not exceed 40 per cent of the value of the mutual fund.

A few fixed income funds have been established in Finland by special permission. They have been granted the right to invest exclusively in bonds issued by the Finnish government.

The investment activity of a mutual fund is still restricted so that its holdings of the shares of a single limited company may not amount to more than 10 per cent of the investee's total share capital or carry more than 5 per cent of its shareholders' voting rights.

A mutual fund may invest no more than 25 per cent of its assets in bonds issued by a single deposit bank or other credit institution which is registered in an EEA country and subject to public supervision.

Mutual funds are also allowed to invest in derivative instruments subject to conditions determined by the Financial Supervision Authority.

The present situation

At the end of 1995 there were 14 management companies registered and actively operating in Finland. These companies were managing a total of 50 mutual funds. In addition to these mutual funds, Finnish banks and securities houses have established several mutual funds abroad, mainly in Luxembourg, which are marketed in Finland.

The growth of fixed income funds has been relatively slow up to now. In December 1995 fixed income funds had fund capital amounting to somewhat more than FIM 1 billion. Other mutual funds have also invested in debt instruments; at the end of the year domestic funds were holding a combined total of FIM 1.8 billion in money market instruments and bonds, with the latter accounting for the bulk of these holdings. The combined fund capital of mutual funds registered in Finland amounted at the end of 1995 to some FIM 5 billion, which amounted to about 2 per cent of Finland's deposit stock.

During the first half of 1996 several new fixed income mutual funds were established in Finland, and the bulk of the new money flowing into mutual funds has gone into fixed income funds. Many of the new fixed income funds are so-called short-term funds, which focus their investments on money market instruments or bonds with short remaining maturity.

Finnish households hold over a half of the total fund capital of domestic mutual funds. Recently, many firms, insurance companies and public sector entities (especially municipalities) have also started to include mutual funds in their investment programmes.

At the end of 1995 there were about 150 000 holders of units in domestic mutual funds. Their average holdings were quite small, amounting to slightly over FIM 30 000.

The market share of bank-affiliated management companies has fallen in the last few years; at the end of 1995 it was just under 50 per cent. While securities houses manage many more mutual funds than do the banks, these funds are generally very small and have relatively few unit holders.

Traditionally, mutual funds registered in Finland have invested heavily in corporate (nonfinancial) securities. For example, at the end of 1993 such securities accounted for 86 per cent of funds' investment portfolios compared to less than 4 per cent for government bonds. As a result of the recent banking crisis, mutual funds have reduced their holdings of bank shares. At the end of 1993 issues of banks and other financial institutions accounted for less than 10 per cent of mutual funds' portfolio holdings. With the growth in fixed income funds, the share of government bonds in funds' portfolios accelerated sharply in 1995, and the trend continued in the first half of 1996 (Chart).

Under the new legislation, mutual funds are permitted, subject to conditions prescribed by the Financial Supervision Authority, to use derivative instruments that qualify as standardized derivative instruments (under the special law on the derivatives market) for the purpose of managing their portfolios. With permission from the Financial Supervision Authority, funds can also invest in OTC derivative instruments. Many funds have in fact revised their operating rules to allow for the use of derivative instruments.

In 1994 mutual funds were given more freedom in the application of their earnings. In particular, it is now possible to establish growth funds which do not distribute any of their earnings to unit holders. Previously, all mutual funds were income-type funds, which were required to distribute at least half of their unrestricted capital to unit holders as capital gains distributions.

In Finland mutual funds' earnings distributions to their unit holders are taxed as capital gains. A natural person pays the normal capital gains rate on such distributions, ie 28 per cent at present. Likewise, fund units are subject to wealth taxes.

Money market mutual funds

Money market mutual funds have expanded their activities in many countries. Their role has been to bring together economic units supplying and demanding short-term capital. These funds have also provided the public with an alternative to bank deposits. Units of money market mutual funds are easier to convert into cash than are fixed-term deposits and usually provide a higher rate of return, but they have traditionally been excluded from the deposit guarantee system.

Money market mutual funds have not thus far been permitted in Finland, largely because of the authorities' view that money market instruments do not constitute publicly traded securities. The money market mutual funds that presently invest in the Finnish money market and sell their units in Finland are for the most part registered in Luxembourg.

However, because of an amendment in the Mutual Funds Act, effective at the beginning of August 1996, the way is now clear for an expanded range of mutual funds in Finland. For example, it is now possible, with permission from the Council of State, to establish (money market) mutual funds which focus their investments on money market instruments.

It is difficult to estimate how readily money market mutual funds will be able to attract investment money in Finland. In some countries, such as France and the USA, mutual funds' growth in popularity has been to some extent based on the regulation of interest rates on bank deposits. In other countries, their popularity has derived from differences in the tax treatment of different investment objects.

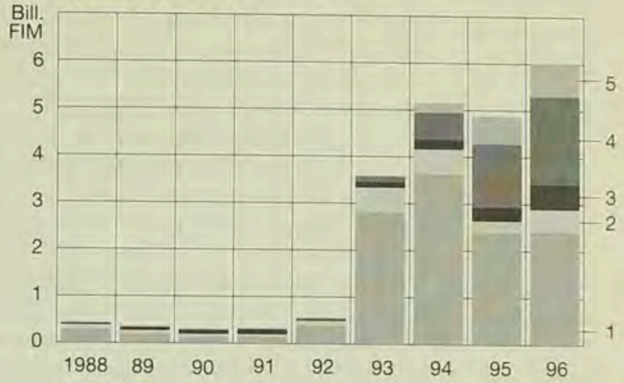
There are presently no factors at work in Finland which, like the above, could suddenly ignite an interest in money market mutual funds. The success of such funds will depend on how competitive an alternative they provide, especially vis-à-vis bank deposits. The coming change in Finland's full guarantee scheme for bank deposits, which is based on an EU directive, could promote a shift of funds from deposits into money market mutual funds if banks' profits and capital ratios remain weak.

The outlook for Finnish mutual funds

Mutual funds still play a very insignificant role in the Finnish financial markets as compared to other

Chart.

Mutual funds' investment capital by issuer sector



1. Corporate sector
2. Banks
3. Other financial institutions
4. Central government
5. Foreign sector

countries. Finnish funds' investment capital amounts to only about 2 per cent of bank deposits; equity funds' capital likewise amounts to about 2 per cent of the capitalized value of companies listed on the Helsinki Stock Exchange. Per capita holdings of mutual fund units is only slightly above FIM 1 000 as compared for example to ten times that amount in Sweden.

It is nonetheless anticipated that mutual funds will grow at some point in the future. As the protection of bank deposits is scaled down, mutual fund units will be seen by many investors as a competitive alternative investment outlet. For the small investor, mutual funds offer a low-cost, effective means of reducing risk through diversification, which could take the place of traditional share and other securities holdings. Correspondingly, the experiences of other countries indicate that mutual funds could also become attractive investment outlets for institutional investors.

A substantial increase in the flow of savings into mutual funds would bring about a significant change in the way Finnish securities markets work. Investment would become more professionalized and more dominated by inter-institutional business. Because mutual fund units can be quickly and easily converted into cash, mutual funds are likely to become a more important factor as regards the stability of the financial markets.

16 September 1996

• Key words: institutional investors, mutual funds, UCITS

Investment activities of insurance companies

by **Pertti Pylkkönen**, Economist
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At the end of 1995 there were 56 insurance companies operating in Finland, of which 50 were domestic companies. Despite the large number of companies, the Finnish insurance market is highly centralized: almost 90 per cent of total annual premiums is collected by the four largest insurance groups.

Finnish insurance companies' total premium income amounted to over FIM 41 billion in 1995. Of this sum, various types of statutory insurance accounted for two-thirds. Over the longer term, the Finnish insurance sector has grown more rapidly than GDP. By 1995 the ratio of premium income to GDP had reached about 7 per cent compared to about 2 per cent in the early 1960s. The main factor underlying the growth of premium income is the statutory employment pension system of the private sector (TEL), in which premium income has risen at a faster rate than in other insurance categories.

All types of statutory employment pension funds have accumulated assets totalling about FIM 200 billion, of which the private sector TEL system accounts for FIM 170 billion. Consequently, employment pension funds constitute the core of Finnish insurance companies' investment activities, and they play a major role in the domestic financial markets as both lenders and investors[1].

Changes that have occurred in the operating environment of Finnish insurance companies are reflected in many ways in the structure of their investment activities. As a result of improved profitability, the corporate sector is now generating a financial surplus. Owing to this and the sluggish growth in investment, companies' demand for debt financing has declined considerably from earlier levels. This development has been reflected in a significant weakening of the demand for TEL-relending and investment loans.

To offset the contraction in corporate lending, insurance companies have had to seek new investment outlets. It has not however been easy to find domestic investment outlets that are suitable for insurance companies. For example, the solvency margin (capital) requirements applied to pension insurance companies have prevented the companies from significantly increasing their share investments. And due to a prolonged slump in the real estate market, insurance companies have not been inclined to expand their real estate investments.

Owing to rapid growth of the public sector deficit, issues of government bonds increased sharply in the first half of the 1990s. As a result, government bonds have become practically the only available investment alternative for insurance companies. The shift of the current account to a surplus position contributed to an increased emphasis on domestic sources in the central government's financing operations. In recent years a substantial portion of the central government's new domestic financing has come from the insurance sector.

Lending

At the end of 1995, insurance institutions accounted for about a fourth of the economy's FIM 673 billion credit stock and for a third of the stock of lending to enterprises. The major portion of insurance companies' lending, about 90 per cent, is provided by institutions engaged in pension insurance. By the end of 1995 the share of negotiable instruments in the combined investment portfolio of insurance institutions had risen to about 60 per cent.

Up until recent years, pension insurance companies' investments were concentrated in TEL-relending and investment loans to enterprises. TEL-relending has been of particular importance.

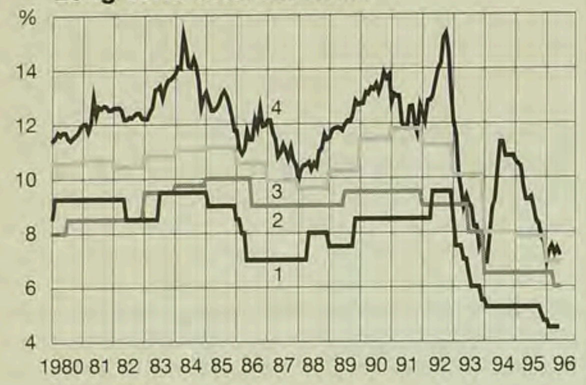
The TEL-relending rate is an administered interest rate that has generally been lower than long-term market rates (Chart 1). However, owing to guarantee costs or opportunity costs connected with relending, the effective cost to the borrower has not always been competitive compared with other long-term financing[2]. As regards the nominal interest rate, costs of loans under the TEL-relending system are the same for all borrowers. Borrower-related risks have not been reflected in the interest rate, as all borrowers have been required to post adequate collateral.

[1] See the article 'Insurance companies in the Finnish financial markets' by Tapani Myllymäki in the August 1995 issue of the Bulletin.

[2] One example of the opportunity cost of relending is the refunding of premiums to companies that do not use their right to borrow under the relending system. The amount of a refund depends on the pension insurance company's income from other investments.

Chart 1.

Long-term interest rates



1. Base rate
2. TEL-relending rate
3. Average rate on new loans granted by employment pension insurance companies
4. Effective yield on private sector bonds

The sectoral distribution of corporate loans granted by insurance companies has remained stable. About half of the volume of corporate loans has gone to manufacturing companies, especially to finance investments by the forest and metal industries; a third has gone into the financing of commerce, transportation and construction. In recent years, there has been a slight increase in lending to companies that provide services to the corporate sector.

TEL-relending volume has decreased rapidly since 1992, when the loan stock started to decline for the first time in the history of the employment pension system. As a consequence of the rigidity of the applied interest rate and the notable fall in both long-term interest rates and banks' corporate lending rates, the demand for corporate loans provided by insurance companies, especially pension insurance companies, has plummeted.

The maturity structure of insurance companies' new investment loans has fluctuated considerably over recent decades. Up until the mid-1970s the average maturity was about ten years. Towards the end of the 1970s the maturity structure shortened, and by the beginning of the 1980s the average maturity of new loans was less than 7 years. A rapid decrease in the share of long-term housing loans in the loan stock was one of the factors contributing to this development.

By contrast, the maturity structure of corporate loans started to lengthen after the liberalization of financial markets and capital movements. By the beginning of the 1990s, the average maturity of corporate loans had lengthened by a couple of years, as loans with a maturity of more than ten years already accounted for a third of total corporate lending.

The sectoral distribution of promissory note loans varies somewhat depending on the type of insurance company. Like pension insurance companies, life insurance companies extend most of their markka loans to their corporate clients. Of life insurance companies' lending stock of nearly FIM 4 billion, corporate loans accounted for almost 75 per cent at the end of 1995; other lending focused almost entirely on housing and real estate loans. In the last couple of years, life insurance companies have done virtually no lending to the central government or other public sector entities.

For non-life insurance companies, lending to the corporate sector is of considerably less importance than for life insurance companies. At the end of 1995 corporate loans accounted for about a half of combined lending by non-life insurance companies and amounted to FIM 4.5 billion. Unlike life insurance companies, non-life insurance companies have also granted loans to financial institutions. Housing and real estate loans accounted for about a fourth of total lending.

Insurance companies' lending rates have traditionally been tied to the so-called TEL-relending rate, which is administratively set by government authorities. In new loans, the share of market-tied fixed-rate loans is small. At present, practically no loans are tied to the Bank of Finland's base rate.

Investment in bonds

Bonds played a minor role in insurance companies' investment activities up until the early 1990s. In the 1970s and early 1980s, new bond investment focused almost entirely on government bonds, as the supply of private sector issues was small. The government bonds purchased by insurance companies were privately placed and were not quoted on the Helsinki Stock Exchange. When the supply of private sector bonds started to increase in the mid-1980s, insurance companies also increased their investments in corporate bonds. Nevertheless, the share of bonds in insurance company portfolios remained small while promissory note loans maintained a dominant position.

Starting in 1992 the relative share of bonds in insurance company portfolios began to increase rapidly. The bulk of new bond investment went into benchmark government bonds, but government housing bonds have also accounted for an appreciable share. Within a few years time, insurance companies have become the most important single investor category in the government bond markets.

By the end of 1995 bond investments by life, pension and non-life insurance companies had reached almost FIM 70 billion. Of this amount, government bonds accounted for FIM 57 billion.

Investment in markka-denominated government bonds by pension insurance companies amounted to FIM 41 billion at the end of 1995; of this, over FIM 6 billion consisted of government housing bonds. More than 10 per cent of total central government debt was held by pension insurance companies (Chart 2).

At the end of 1995 life insurance companies' investments in government bonds amounted to about FIM 10 billion; for non-life insurance companies the corresponding figure was some FIM 5 billion.

The table provides an estimated breakdown by investor category in holdings of long-term markka-denominated central government debt between 1993 and 1995. In the last few years different financial institutions have notably increased their investment in markka-denominated government bonds: by the end of 1995 financial institutions held about two-thirds of the stock of government bonds. Consequently, the relative shares of both foreign investors and the domestic nonfinancial sector have decreased.

Owing to the sluggish demand for credit, banks have also invested heavily in government bonds. The relative importance of foreign investors in the market for government markka bonds began to diminish in the first half of 1994 following a bout of interest rate turbulence in the international markets.

Investment in shares

Share investments are relatively unimportant (by international standards) in the portfolios of Finnish insurance companies. The pension insurance companies have always played an exceptionally modest role in the Finnish stock market; their combined investment portfolio accounts for only a few per cent of the market capitalization of the Helsinki Stock Exchange. At the end of 1995 pension insurance companies' share investments amounted to slightly more than FIM 6 billion, of which listed shares accounted for FIM 5 billion. The main reason for pension companies' relatively modest share investments is that their narrow solvency margins do not allow for large write-downs of share values.

The investment portfolios of life and non-life insurance companies are more heavily weighted with shares as compared to pension insurance company portfolios. All insurance companies combined own about 10 per cent of Finnish listed shares, which according to unofficial estimates is less than foreign insurance companies' and pension funds' holdings of shares listed on the Helsinki Stock Exchange.

Real estate investment

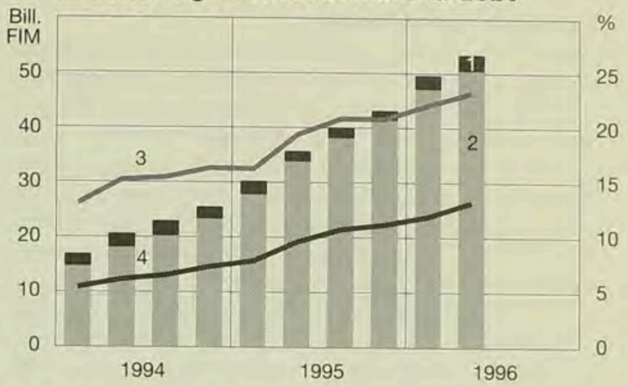
The total book value of real estate investments by insurance companies was nearly FIM 30 billion at the end of 1995. About half of their total real estate holdings were accounted for by pension insurance companies. Real estate investments by non-life insurance companies amounted to almost FIM 8 billion and those of life insurance companies to about FIM 6 billion.

The major part of insurance companies' real estate investments consists of industrial and business real estate. Residential real estate accounts for less than a fifth of total holdings. Pension insurance companies however have large residential holdings in their real estate portfolios.

The share of real estate investments in the portfolios of pension insurance companies is about the same as that of share investments, ie about 10 per

Chart 2.

Pension insurance companies' investments in central government markka debt



1. Treasury bills, bill. FIM
2. Total investments, bill. FIM
3. Share of central government markka debt, %
4. Share of total central government debt, %

Table. **Central government listed markka bonds by investor share, %**

	1993	1994	1995
Banks	14	15	22
Insurance institutions	29	44	46
Other credit institutions	2	2	2
Foreign investors	28	12	10
Mutual funds	0	1	1
Households	20	16	15
Other	7	9	4
Central government listed markka bonds, stock in bill. FIM	74	95	145

cent of total investments. In the portfolios of life and non-life insurance companies, the relative share of real estate is somewhat larger.

Foreign investment

Foreign investment by Finnish insurance companies has been modest by international standards; it was not until a couple of years ago, after lending to enterprises had started to decline, that these companies became actively involved in foreign investment. Pension insurance companies have invested in foreign bonds and shares to some extent. At the end of 1995 foreign investment by pension companies amounted to only about FIM 0.8 billion.

Foreign investment by life insurance companies amounted to nearly FIM 2 billion. Life insurance companies' international investments also consist mainly of bonds and shares.

Non-life insurance companies started earlier and have been more actively engaged in foreign investment. Over the last few years, foreign investment has accounted for more than 10 per cent of the aggregate investment activity of non-life insurance companies.

At the end of 1995 foreign investments of non-life insurance companies totalled about FIM 5 billion. These investments are concentrated in long-term interest-bearing instruments, but the companies have also invested in foreign shares.

Future prospects

The need to change the operational framework for Finnish pension insurance companies has been widely discussed in recent times. New approaches are being considered, among other things, for the management, ownership and investment activity of employment pension companies.

The need for changes has been discussed by several bodies appointed by the Ministry of Social Affairs and Health. Mr Matti Louekoski was assigned to prepare proposals for clarifying the legal provisions regarding the operating environment for employment pension companies. The resulting memorandum included a proposal that a separate law governing employment pension companies be enacted. The law should contain detailed provisions inter alia on the management of employment pension companies.

A working group headed by Mr Kari Puro, CEO of the pension insurance company Ilmarinen, was assigned the task of preparing the necessary proposals for structural reform of employment pension companies' investment activity, with the aim of upgrading it to meet the requirements of the market-based operating environment.

In addition to structural changes in domestic investment activity, Finnish insurance companies face the challenge of internationalizing their investment portfolios. The investment environment would change considerably with the onset of EMU. A wide single market area would add new exchange-rate-risk-free investment objects to the domestic offerings. The risks associated with securities investments would be easier to spread more widely than is possible in the Finnish capital markets alone.

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• Key words: institutional investors, insurance companies, pension funds

BANK OF FINLAND

15 October 1996

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