Heikki Koskenkylä (ed.)

Finnish financial markets 2002

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Abstract

The Finnish – and international – financial markets have been under enormous pressure for change in recent years. In the European Union, increasing progress has been made at integrating the financial markets. This progress have been abetted since the mid-1990s by harmonisation of financial legislation, dismantlement of regulation, new financial products, and technological progress. Cross-border trade in financial services has begun to surge, albeit growth rates differ for the various sectors. Introduction of the euro – first as account money, with notes and coins added at the start of 2002 – has spurred integration.
Competition has tightened, while the borders between different sectors – banking, securities markets, insurance – have narrowed.

Progress in integration, new products, technological progress, and sector crossovers have fomented considerably pressure for change in financial and insurance legislation and supervision. For the banking sector, cross-border supervision of financial institutions presents a huge challenge.

Investors and those in need of financing benefit from tighter competition because financial services become more diversified, quality improves, and prices fall. From the perspective of the Finish investor, the euro has brought a manifold increase in investment outlets free of exchange rate risk, which has facilitated the spreading of risks. In recent years, foreign investors have become much more active in the Finnish financial markets, due to the liquidity of Finnish debt instruments and availability of financing.

The structure of the Finnish banking sector has changed substantially, partly as a result of the banking crisis of the early 1990s and subsequent integration and technological advancement. The changes have been significant also in the insurance sector, and Finland has experienced the creation of 'financial conglomerates' that produce and sell a wide variety of financial services.

The financial infrastructure, ie payment and settlement systems and exchanges, has also been in a continual process of change since the mid-1990s. Finland's membership in the European System of Central Banks and introduction of the euro have accelerated the restructuring as well as technological progress.

Key words: financial markets, integration, euro, infrastructure, conglomeration, insurance markets, regulation and supervision

Tiivistelmä

Suomen rahoitusmarkkinat ovat olleet viime vuosien aikana suurten muutosten paineessa kuten rahoitusmarkkinat kansainvälisestikin. Euroopan unionissa rahoitusmarkkinat ovat integroituneet kiihtyvällä vauhdilla. Tätä kehitystä ovat edistäneet 1990-luvun puolivälistä lähtien rahoituslainsäädännön yhdenmukaistaminen, sääntelyn purkaminen, uudet rahoitustuotteet ja tekninen kehitys. Maiden välinen rahoituspalvelujen kauppa on alkanut kasvaa voimakkaasti, joskin varsin eri tahtia rahoitusmarkkinoiden eri lohkoilla. Euron käyttöönotto ensin tilirahana ja vuoden 2002 alusta käteisenä on vauhdittanut integraatiota. Kilpailu rahoitusmarkkinoilla on kiristynyt, ja eri toimialojen – pankkiala, arvopaperimarkkinat ja vakuutusala – väliset erot ovat kaventuneet.

Integraation eteneminen, uudet tuotteet, tekninen kehitys ja toimialaliukumat ovat aiheuttaneet huomattavia muutospaineita rahoitus- ja vakuutuslainsäädäntöön sekä rahoitus- ja vakuutusvalvontaan. Pankkisektorille erityisen suuri haaste on ollut rahoituslaitosten valvonta maiden välillä.

Sijoittajat ja rahoituksen tarvitsijat hyötyvät kilpailun kiristymisestä, koska rahoituspalvelut monipuolistuvat, laatu paranee ja hinnat alenevat. Suomalaisten sijoittajien kannalta valuuttariskittömät sijoituskohteet ovat moninkertaistuneet euron myötä, ja näin ollen riskien hajauttaminen on myös helpottunut. Ulkomaisten sijoittajien osuus Suomen rahoitusmarkkinoista on kasvanut merkittävästi viime vuosina. Tämä lisää suomalaisten liikkeeseenlaskijoiden papereiden likviditeettiä ja rahoituksen saatavuutta.

Suomen pankkisektorin rakenne on muuttunut voimakkaasti osin 1990-luvun alun pankkikriisin ja myöhemmin integraation sekä teknisen kehityksen seurauksena. Muutokset ovat olleet suuria myös vakuutussektorilla, ja Suomeen on syntynyt ns. finanssitavarataloja, jotka tuottavat ja myyvät kaikentyyppisiä rahoituspalveluja.

Myös rahoitusmarkkinoiden infrastruktuuri eli maksu- ja selvitysjärjestelmät sekä pörssi ovat olleet jatkuvassa muutoksessa 1990-luvun puolivälin jälkeen. Suomen EKPJ-jäsenyys ja euron käyttöönotto ovat kiihdyttäneet rakennemuutosta samoin kuin tekninen kehitys.

Asiasanat: rahoitusmarkkinat, integraatio, euro, infrastruktuuri, toimialaliukumat, vakuutusmarkkinat, sääntely ja valvonta

Forewords

This book extends the Bank of Finland's series of broad surveys of the Finnish financial markets. The series began in the early part of the 1970s, with new surveys appearing at about five-year intervals. The surveys initially appeared in special issues of the Bank of Finland Bulletin. Later they were published in both Finnish (Series A) and English (special Bulletin issues). The most recent past survey appeared in 1996.

Since 1996 sweeping changes have occurred in the Finnish financial markets. With the Bank of Finland's membership in the European System of Central Banks, rapid progress in European financial integration, and all the related structural changes, we have witnessed a sea change in the Finnish financial markets.

The book describes the key parts of the Finnish financial markets – credit and insurance institutions, securities markets and stock exchange, payment and settlement systems, and the major investment institutions. The book includes more comprehensive coverage of financial legislation and supervision, as compared to the previous survey. A new feature is the inclusion of insurance legislation and supervision.

Though the project was mainly the responsibility of the Bank's Financial Markets Department, contributions were made by the Legal Affairs unit and Market Operations Department. The chapter on financial supervision was produced by the Financial Supervision Authority. The Ministry of Finance's financial markets department contributed the chapter on financial legislation and the chapter on insurance legislation and supervision was the work of the Ministry of Social Affairs and Health's insurance department and the Insurance Supervision Authority.

The book's chief editor is Heikki Koskenkylä, assisted by the other members of the publication committee, Pentti Pikkarainen and Tuomas Takalo. Translation of the text was the joint effort of Glenn Harma, Ilkka Korhonen, Jaakko Koskentola, Ulla Lehto, Louise Park-Ahonen, Eija Puttonen, Taina Seitovirta, Eija Tervonen, and Minna Valkama. The technical publication work was handled by Päivi Nietosvaara, Kati Salminen, Petri Uusitalo, and Janne Villanen. Most of the sections were written in the spring and early summer of 2002.

Helsinki, October 2003
Matti Louekoski

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Chapter 1

Overall developments in the Finnish financial markets

Leena Mörttinen – Kimmo Virolainen
Financial Markets Department

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1 Overall developments in the Finnish financial markets

A well functioning financial system is a requisite for economic growth. The basic task of a financial system is to channel funds from economic units with surpluses to those with shortages. This process involves a number of important services.[1] Financial markets enable the allocation of business risks among the various system participants – investors and units seeking financing. In addition, they improve the efficiency of the economy by providing liquidity services and payment system infrastructure. Price information provided by the financial markets summarises a large amount and variety of information, which enables decentralised decision-making in the economy. The financial system also enables the combining of the resources of many individual economic units into a large whole according to the finance needs of shortage units or dividing large projects into small parts that are suitable for investors.

Until the early 1980s, the Finnish financial markets were tightly regulated and quite underdeveloped. The pace of development picked up in the 1980s as a process of deregulation gradually gained momentum. Some overshooting in the early stages of the process had negative consequences when the Finnish economy went into a deep recession and the banking sector suffered a serious crisis in the early 1990s.[2] Following the recession and banking crisis, the process of development and restructuring of the Finnish financial markets resumed apace in the latter half of the 1990s. The developmental process has been abetted by a number of global and EU-level forces for change but in part also by special domestic factors.

1.1 Forces for change in the financial markets

The key factor behind the pronounced changes in the financial markets over the past decade is *technological progress*. The reduction in costs associated with information and communications has enabled an accelerating process of financial innovation and implementation. The most significant effects of technological progress have been on the risk management and distribution channels of institutions

[1] Eg Merton – Bodie (1995).
[2] See eg Financial Markets in Finland (1996).

providing financial services and on the market infrastructure. These changes have not only reduced the costs of market entry and service production but have also increased network externalities and scope economies. Growing use of the Internet and technological advances in wireless communications are having dramatic impacts on production and provision of banking services.

Technological progress and financial innovation were significant underlying forces already in the early 1970s when the *liberalisation of international capital flows* got under way in the industrial countries.[3] Tight regulation was found to be ineffective, as financial innovations enabled avoidance of regulations. The skills of market participants and especially the development of risk management techniques led to a situation in the 1980s in which the industrial countries widely adopted more market-oriented approaches to financial regulation and supervision. This led to the *gradual dismantlement of national financial market regulation*. In the Finnish financial markets as well, the quantity and price regulation regime that had been in place until the start of the 1980s was dismantled step by step in the course of the 1980s.[4]

Finland's joining the European Economic Area in 1994 and the EU shortly thereafter, in 1995, brought significant changes. Finland had the urgent task of revamping its financial markets legislation in line with EU directives. A major aim of EU-level regulation is realisation of the *EU's internal market programme*. The idea of free movement of goods, people, services and capital was included in the Treaty of Rome agreed by the original six members of the European Community already in 1958, but the final push for the internal market came in 1985 when the Commission published a 'white paper' that set out the rules for eliminating barriers to internal trade and established a timetable for step-by-step realisation of the internal markets, to be completed at the end of 1992. Although not all parts of the ambitious programme were realised as scheduled, the EC's internal markets were to a large extent operating at the start of 1993.

The key regulations for the banking sector are the first (1977) and second (1989) banking directives, which cover the provision of banking services throughout the EU area. As regards the securities markets and investment services, the most important is the directive on investment services, which was approved in 1993 and had entered into effect in all member states' national legislation by 1996. The

[3] This was achieved by applying the OECD code of liberalisation of capital movements and current invisible operations, binding all OECD member states including Finland.
[4] See eg Financial Markets in Finland (1996, 1991) and Vihriälä (1997).

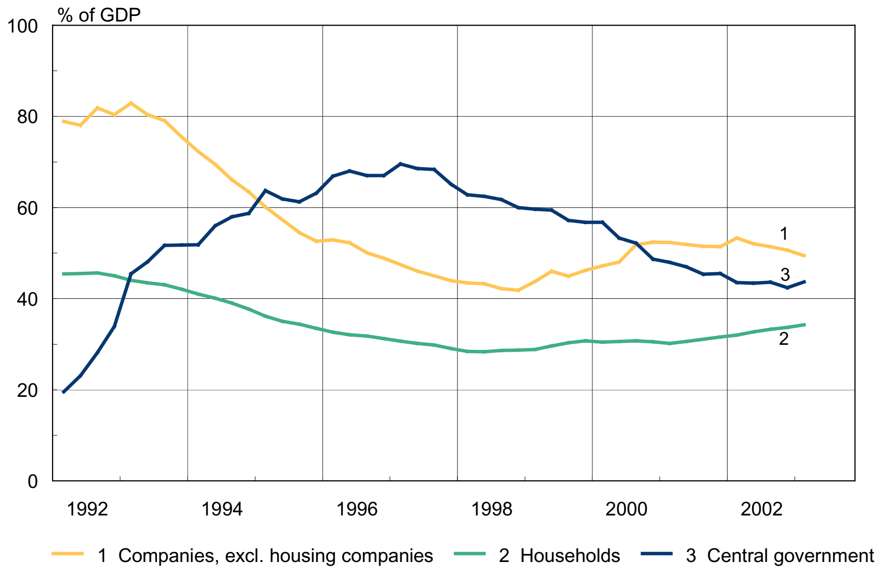
directive regulates the provision of investment services throughout the EU area, and its central idea is the 'single passport' principle, ie that an investment firm can offer its services in any EU country on the basis of approval in a single member state. This meant a fundamental change in the competitive environment in which investment firms operate.[5]

The commencement of stage 3 of EMU at the start of 1999 accelerated integration of the financial markets among the euro area countries. Adoption of the euro – initially as pure account money – eliminated exchange rate risk from cross-border transactions. As a result, the 'wholesale' financial markets are already largely integrated throughout the euro area. The introduction of euro cash at the start of 2002 has now spurred integration of the 'retail' financial markets.

The dismantlement of barriers to international competition has impacted not only the financial service sector but other areas of business as well. The changes have also had indirect effects on the financial service sector. The deep recession in the early 1990s, tax reform, and expectations of the heightening of competition that accompanied EU membership and possible subsequent monetary union membership forced Finnish companies to strengthen financial positions and structures. This was apparent in the tendency in the latter part of the 1990s to rely more on equity finance and to reduce indebtedness (figure 1). The demand shift forced financial service firms to adjust supplies and focus more on new products.

[5] For more details, see chapters 5 and 6.

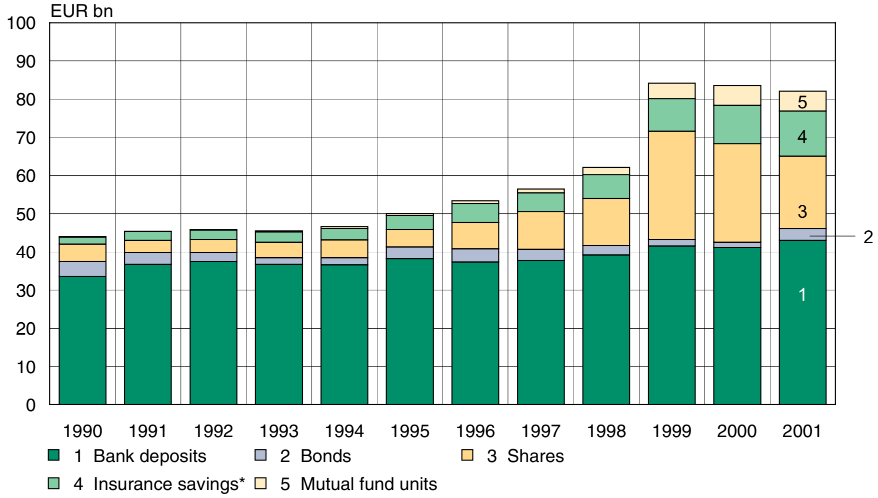
Figure 1. **Indebtedness of Finnish companies and households (debt/GDP), 1992–2002**



Sources: Statistics Finland, State Treasury and Bank of Finland.

At the same time, demographic factors – especially *population ageing and increasing affluence* – have had substantial effects on demands for different types of savings products. The individual-investor population has grown with the accumulation of wealth. The lowering of the birth rate has induced the rapidly ageing Finnish population to focus increasingly on securing a livelihood also for the retirement years. Banks began to expand customers' savings options beyond the deposit account. Non-deposit savings products began to trend upward toward the end of the 1990s (figure 2). From the investor's perspective, the expansion in the range of financial instruments is a welcome development, as it facilitates risk diversification. Even the average household has been able to benefit from further development of the financial markets. As financial markets develop, investors' become more demanding. This story goes hand in hand with changes occurring in the saving behaviour of ageing and increasingly affluent small investors. The shrinking of the relative size of the working population is forcing a search for new ways to cover future pension costs.

Figure 2. **Finnish households' financial assets, 1990–2001**



* Voluntary life and pension insurance savings.
Sources: Finnish Bankers' Association, Bank of Finland, Statistics Finland, Federation of Finnish Insurance Companies and Financial Supervision Authority.

The result of all of this is that the Finnish financial markets have undergone changes on a scale never seen before. The largest structural changes have occurred in the banking sector, but other segments of the financial markets have also seen substantial change. As financial markets have become more and more internationalised, the level of competition has risen. Institutions traditionally active in the markets face a situation in which regulatory protection has weakened while shareholders' return requirements and market discipline have increased and entry into the markets of new institutions has meant heightened competition. Moreover, the demand for services has begun to change. Wealthy investors are looking to supplement their portfolios with instruments that facilitate risk diversification. With new instruments and services coming on stream, margins are shrinking. In order to succeed in the new environment, financial service provision has to be efficient, which was not the norm when markets were underdeveloped and highly regulated and there was little or no competition. Because of the changed environment, institutions have begun to seek revenues from new financial service sectors and across national borders, eg via mergers and cooperative agreements. The walls between banking and insurance have been partly removed.

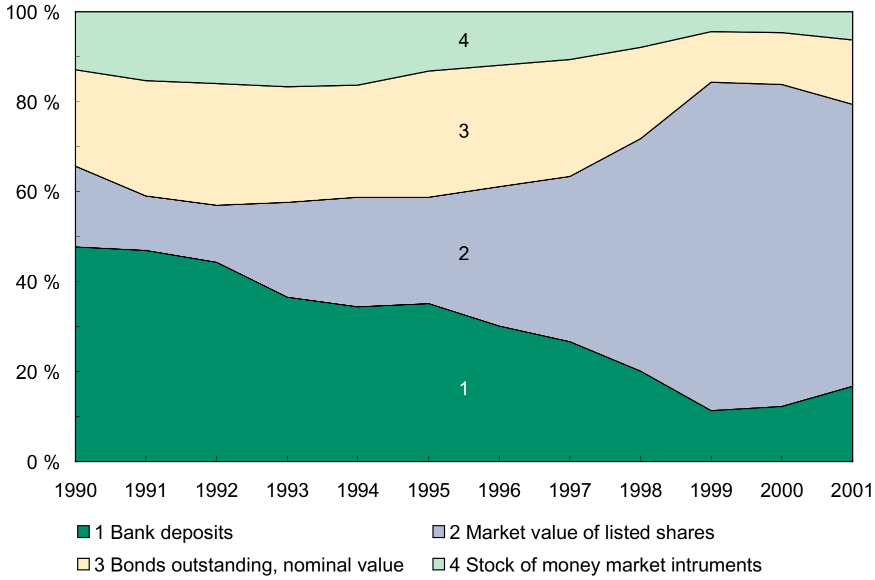
Financial intermediation in Finland has become more efficient with developments in the infrastructure for direct finance and in investment instruments. ICT innovations have significantly increased the availability of financing, and the financial markets have expanded and deepened. Thanks to EMU, the financial markets have become integrated Europe-wide and even worldwide, especially from the perspective of international Finnish companies and institutional investors.

1.2 Money and capital markets

Over the last few years, as the Finnish money and capital markets have expanded and deepened, they have begun to function as a more efficient whole. National markets are in many ways too small, so that integration has been beneficial for both finance-seeking units and investors. The large Finnish companies have looked to the international money and capital markets for financing. Likewise, the large Finnish institutional investors have diversified their portfolios by reaching across Finland's borders, mainly into the euro area.

On the whole, the relative importance of Finnish money and capital market instruments increased substantially in latter half of the 1990s (figure 3). However, this overall picture conceals the existence a number of widely differing trends.

Figure 3. **Financial instruments issued in Finland, relative shares, 1990–2001**



Sources: HEX, banks, Statistics Finland and State Treasury.

With the start of stage 3 of EMU, the Finnish money market underwent sweeping changes, the key ones being a monetary policy regime switch, a loss of importance for the CD market, an increase in the importance of the deposit markets, and elimination of the market for markka FRAs.[6] Present euro area monetary policy is the responsibility of the Eurosystem, which comprises the European Central Bank (ECB) and the national central banks of the EU countries included in stage 3 of EMU. The making of monetary policy is concentrated in the Eurosystem's key decision-making body, the Governing Council of the ECB, but monetary policy operations are carried out for the most part in a decentralised manner via the national central banks.

The changes in the CD and deposit markets reflected changes in interbank wholesale markets brought about by stage 3. Bank-issued CDs dominated the Finnish money market prior to 1999. Since then, the roles of the deposit and repo markets have grown. However, the key difference between the money markets of Finland and the rest of the euro area is still in the relative insignificance of the repo market in

[6] For details, see section 2.1.

the money market operations of banks operating in Finland. The markka FRA market disappeared with the independent currency itself. In the euro area there is only one short-term interest rate, and derivatives trade based on this rate is carried out in an area-wide OTC derivatives market and in the large euro area derivatives exchanges. Finnish market participants play a small role in these markets, which can be seen in the sharp decline in the stock of FRAs outstanding.

From the investor's viewpoint, stage 3 of EMU also meant a significantly more diversified collection of money market paper. Despite this, bank CDs continue to play an important role in the trading activity of domestic customers. The increased demand for central government debt instruments from elsewhere in the euro area has stimulated activity in the Treasury Bill markets, the corresponding secondary markets having previously been quite thin. The amount of outstanding Treasury Bills has remained fairly steady.

As anticipated, the euro launch was followed by a collapse of currency trading among banks operating in Finland. Another factor has been the increasing importance of electronic trading systems for currencies, which has led to concentration of trade in the hands of the big players. Finnish banks' currency trading is now confined to customer trades.

The Finnish bond markets, as regards domestic issuers, have not developed as hoped in stage 3.[7] The path of the outstanding stock of bonds has conformed to the borrowing needs of the central government, while domestic issuance in other sectors has remained modest. In stage 3 of EMU, the share of central government debt denominated in domestic currency has increased rapidly; about 85% is now euro-denominated. The euro era has however fundamentally changed the investor population for Finnish government debt, as well as the primary dealer system, which forms the backbone of the secondary market. Both have become internationalised. By 2001, foreign investors' share in holdings of Finnish government debt had climbed to over 50%. Moreover, of the present ten primary dealers, nine are foreign financial institutions or members of their groups.

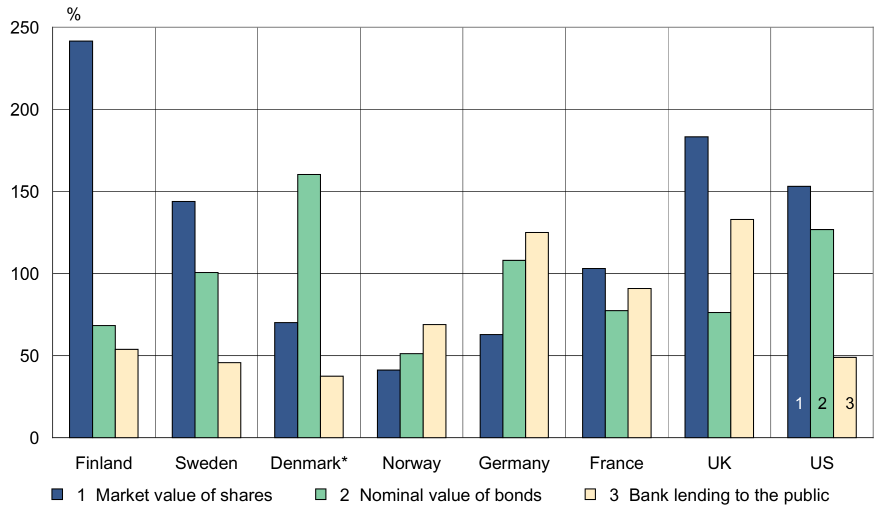
The dearth of domestic corporate issuance is explained by the strengthening of the corporate sector balance sheet in the latter half of the 1990s and the migration of big companies to the international bond markets. EMU has brought a notable efficiency upgrade in the functioning of euro area bond markets, which are important for the large companies, but effects on national markets have so far been

[7] See section 2.2.

limited. Future developments in EU-area bond markets are likely to be profoundly affected by the various methods of securitisation.

For the Finnish stock market, like those of many other countries, the latter half of the 1990s was a period of rapid change.[8] This was affected by numerous demand and supply factors. Investors' newly acquired affluence and an upsurge in share prices stimulated interest in risky investments just as saving for retirement increased. On the other hand, as competition increased, established companies found it necessary to fortify their financial structures at the same time as the Internet and mobile phone revolution generated new demand for risk capital. In Finland the new technologies' impact on the stock market was reinforced by Nokia's success at the international level. Finland's ratio of market value of listed shares to GDP rose to the ranks of world leaders in 2000 (figure 4).

Figure 4. **Bank lending and securities relative to GDP, 2000**



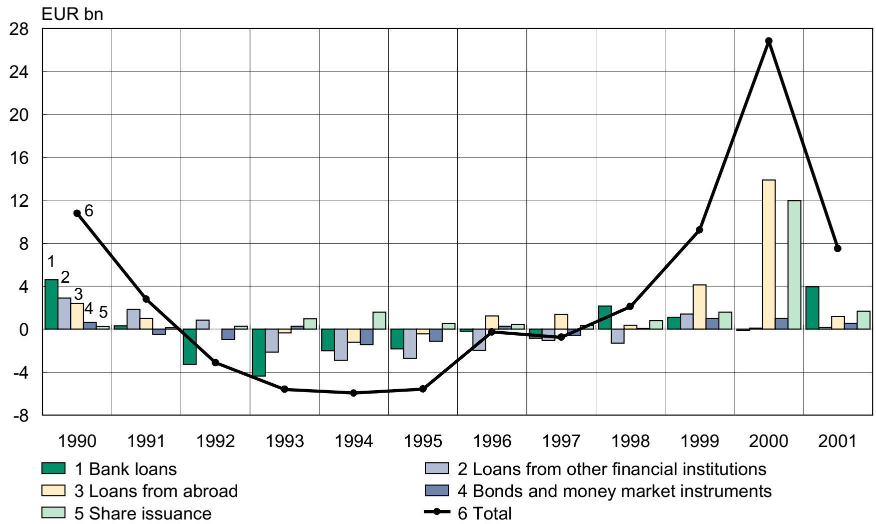
* Bank loans, 1999.
Sources: Bank of Finland, BIS, FIBV, Eurostat and IMF.

Stock market capitalisation has surged even though, for Finnish companies, the stock market is still relatively unimportant as a source of financing (figure 5). The restoration to health of companies' capital structures in the latter half of the 1990s was accomplished largely on

[8] See section 2.3.

the basis of retained earnings, nor was there a need for new share issuance, except for an abundance of listing-related issuance by 'new economy' companies.[9]

Figure 5. **Sources of companies' external finance[10]**



Sources: Bank of Finland, Statistics Finland and HEX.

The group of investors interested in shares of Finnish companies became much more internationalised during the latter half of the 1990s. At the start of 2002 nearly 70% of the market value of shares of Finnish companies was owned by foreigners (figure 6). Moreover, Finns are more actively investing in foreign shares.

Finnish share ownership increased rapidly in the 1990s, so that now the number of shareholders is substantial (about 880,000, ie 17% of total population at end-2001). However, ownership (in market-value terms) by individuals is highly concentrated.[11] Also noteworthy as regards households is the importance of direct ownership, as compared to investment in mutual fund units, in clear contrast to other developed countries. It is however noteworthy that a substantial part of the growth of Finnish households' direct shareholdings has been

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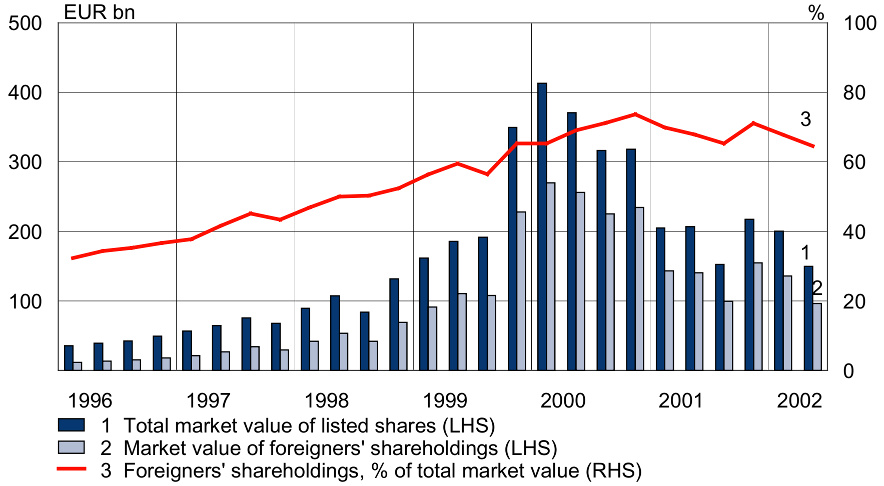
[9] Data for 2000, showing exceptionally large issuance can be explained largely by the EUR 8.6 bn share issue in connection with a merger between Stora Enso and the US company, Consolidated Papers.

[10] Share issuance data do not include listing issuance.

[11] Karhunen – Keloharju (2001).

passive and is attributable to the unusual rise in the price of Nokia shares in the late 1990s.

Figure 6. **Market value of listed shares and foreign ownership**



Source: HEX.

One international tendency in the latter half of the 1990s was for stock exchanges to convert from mutual to public-limited-company organisation. It has been hoped that separation of ownership from exchange membership would result in efficiency gains as international competition increased and more capital for large-scale system investments. The HEX Group also began to prepare for listing already in 2001, but the project has floundered because of the unfavourable market situation.

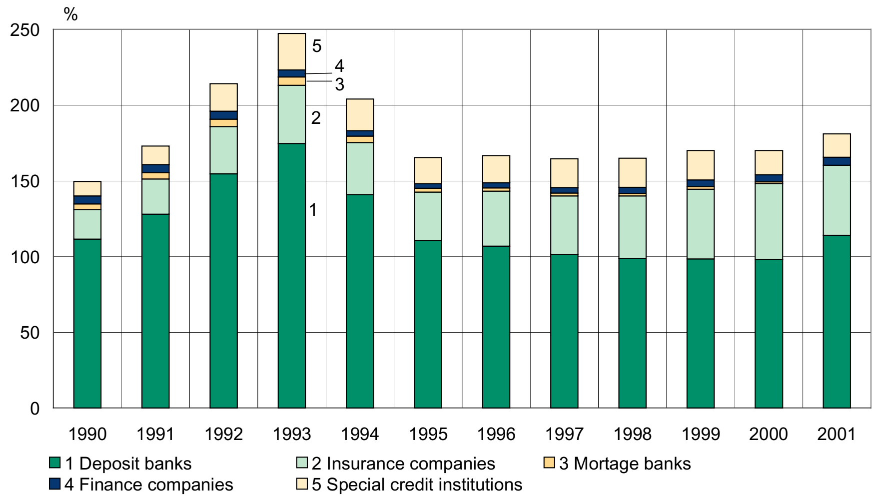
Stage 3 of EMU has meant big changes also in the derivatives markets.[12] Now that the OTC markets for derivatives have expanded across the euro area the role of Finnish players is quite small. Exchange trading in derivatives has become concentrated in the major derivatives exchanges. Today trading in derivatives based on the most popular Finnish shares also takes place on the German-Swiss derivatives exchange, Eurex; those based on Nokia shares are among the most heavily traded of these. A feature of this market segment in the last few years is the increasing importance of credit derivatives and shifting of credit risk from banks to other sectors.

[12] See sections 2.1 and 2.4.

1.3 Financial intermediation

The last ten years have been a period of tumultuous structural change for Finnish financial intermediation.[13] Although the banking crisis and insurance-sector upheaval have led to improved operational efficiency for the existing institutions, Finnish financial intermediation is now more centralised than before. Nonetheless, competition has tightened with the entry into the Finnish financial markets of foreign banks, insurance companies and other firms. At the same time, the 'national financial market' concept has become somewhat outmoded. Banks and insurance companies are nonetheless still the major financial intermediaries operating in Finland (figures 7 and 8).[14]

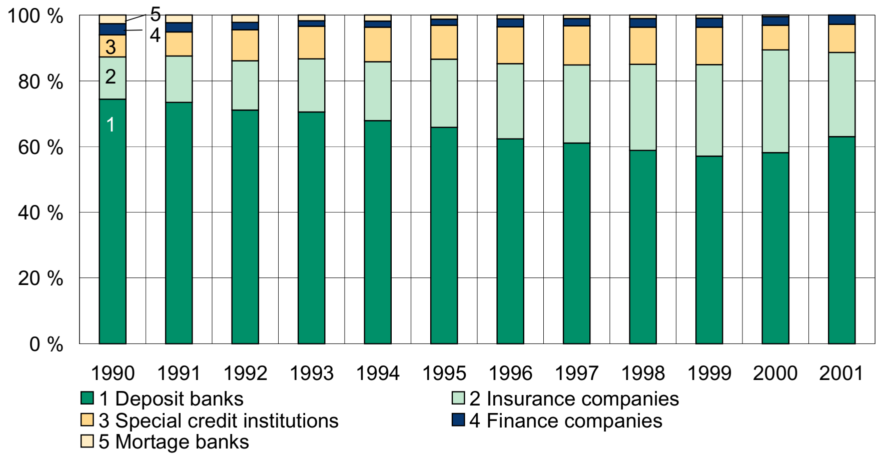
Figure 7. **Assets of financial intermediaries relative to GDP, Finland, 1990–2001**



Sources: Finnish Bankers' Association, HEX, Statistics Finland, State Treasury, Federation of Finnish Insurance Companies and Finnish Mortage Society.

[13] Structural developments are covered in more detail in chapter 3.
[14] Regarding international comparisons, see eg Putkuri (2001).

Figure 8. **Relative importance of financial intermediaries, Finland, 1990–2001**



Sources: Finnish Bankers' Association, HEX, Statistics Finland, State Treasury, Federation of Finnish Insurance Companies and Finnish Mortage Society.

In the early 1990s the Finnish banking crisis forced the banks to cut costs and improve operational efficiency. In the last ten years banks' capacity has been reduced to about half what it was at the start of the 1990s, before the crisis[15]. At the same time, banks' productivity has improved.[16] In order to reduce costs, a number of banks have merged, so that the Finnish banking market has become even more concentrated. Elimination of excess capacity led to downsizing of the bank branch network in the 1990s. Efforts have been made to expand service channels via the Internet, banking sector and cross-sector mergers, and cooperative arrangements. Recently, banks' numbers of employees and branches have once again increased slightly.

The banks' role in providing households with financing and saving instruments has so far remained virtually unshakeable. The banks also continue to provide finance to a significant segment of small and medium-size Finnish companies. The narrowness of the financial markets, dearth of investment instruments, and tax-free status of deposits largely explain why deposits continued to rank first among households' assets all the way up to 1999. Correspondingly, the lack of financing options, along with price regulation of bank finance, convinced many companies to finance their investments with bank

[15] For more information of the banking crisis, see 'Financial Markets in Finland 1996'.
[16] Mörttinen (2002).

loans, even to an unsustainable degree, as we saw in the early-1990s deep recession. And households were tempted to take on debt by the tax-deduction status of interest on banks' housing loans.

The situation has subsequently changed. Since recovering from the recession, companies have reduced the amount of debt capital in their balance sheets. In the latter part of the 1990s, a substantial portion of investment by small and medium-size companies was financed by retained earnings. The big companies have tried to diversify their financing sources as among different banks and bond markets. Households have continued to actively take out housing loans, but their indebtedness so far remains at reasonable levels (figure 1). The expansion and deepening of financial markets that followed deregulation have been beneficial to households, which have traditionally kept their savings in deposit accounts. We have recently seen shares, mutual funds, and voluntary life and pension insurance take their place alongside deposits as investment outlets. These changes have been abetted by the rescinding in 2000 of the tax-free status of interest on deposits.

All of these changes are expressions of a transition period in the financial markets. The banks' position is becoming more cyclical, as recent years' developments in bank deposits and bank loans seem to be more closely tracking business cycle movements. Households switch their investments to secure, nominally-valued deposits during downswings and then back into higher-return securities when the economy is in a recovery phase. Correspondingly, companies rely on bank finance when cash flows dry up and reduce their indebtedness when times are good. Companies needing large amounts of risk capital (eg new high-tech companies) seek financing from venture capital firms or directly from investors via share issuance.[17] Banks that focus on traditional banking are becoming financiers for small and medium-size companies and to a large extent liquidity-insurers for companies and households. Because this will probably not suffice to keep shareholders satisfied, the banks need to continue to expand and upgrade their efficiency.

The changes that have affected other financial intermediaries have been much in line with those experienced by banks, since these other intermediaries are often subsidiaries of banks. Finance companies, which are closely tied to banks, have undergone restructuring as changes have occurred in bank ownership. Many of the credit card companies are also owned by banks. In order to diversify financial

[17] See section 3.4.

intermediation in Finland, certain legislative efforts have aimed at improving the operational possibilities of non-bank intermediaries. The Finnish Mortgage Bank Act, which entered into effect in 2000, represented an effort to stimulate mortgage banking activity, which had previously been quite modest. So far, however, there has been no significant pick-up in activity, and it remains to be seen whether an active market for mortgage loans will develop in Finland. One purpose of special public sector institutions is to fill gaps in the private markets. These institutions finance projects that carry risks that private financiers do not want to, or cannot, bear. A key aspect of their operations is competitive neutrality and, as the financial markets develop, they would be expected to decline in importance.

Like the banking markets, the Finnish insurance markets are small and saturated.[18] Pressures on the insurance markets do not come from increasing domestic competition within the insurance sector but rather, as in the case of banks, from the new environment. Owners demand high returns on their investments even as competition for good investment outlets reduces financing margins. Banks and insurance companies have been forced into similar situations, and they have taken similar courses of action in recent times. Mergers have become commonplace among financial intermediaries. Because Finnish banks and insurance companies are already highly consolidated, large mergers within the Finnish banking or insurance sectors are hardly possible anymore and hence the focus has shifted to cross-sector and -border mergers. The phase in which financial groups were formed, via mergers and various alliances between Finnish institutions, for the purpose of engaging in traditional banking, investment banking and asset management, and insurance activity, is now virtually completed.

However, mergers can still be used to advantage, eg across borders, and in this area the Nordic countries have been at the forefront, along with the Benelux countries. The Nordea Group is a prime example of a European multinational financial group. Although interest in carrying out international mergers has definitely increased, practical realisation is not easy. Cultural and language differences between countries and companies may prevent the birth of a cooperative arrangement that looks very good in terms of the numbers. Finnish banks as well have had such experiences in seeking foreign – mainly Nordic – partners. It is nonetheless clear that potential size-related scale economies that come with new

[18] See section 3.3.

technologies and financial markets in flux will continue to induce banks to look outside of Finland for possible partners. There is good reason to expect the search to go beyond the Nordic area into the whole of Europe as integration proceeds and cultural differences become less daunting.

Market integration is also apparent in the number of companies offering financial services from outside of Finland. Previously, companies entering the markets had to establish a service outlet, subsidiary or branch in Finland if they wanted to operate in a full sense. With the increasing use of the Internet, cross-border service provision without physical presence has become considerably easier. However, the management of collateralised loans is still difficult without physical presence.

It has been attempted to rise to the challenge of change by means of new legislation on credit and insurance institutions.[19] The formation of financial groups via mergers is a source of some concern to the authorities. Because there are differences in regulations that apply to banks vs insurance companies, merging for the purpose of regulatory arbitrage, ie organising activities so as to minimise regulation, is in principle possible. Cooperation between banks and insurance companies has been tightened and facilitated through a number of legislative developments.

Technological progress has also changed the basis for regulation. At the level of EU regulation, it has been felt necessary to react eg to possible expansion of electronic payment means, ie e-money. Member states are required to incorporate into their national legislation on credit institutions the e-money directive, which defines a new type of credit institution. In Finland a proposal on legislative change was presented to Parliament in spring 2002. The proposal includes a definition of a new credit institution – payment organisation – and enables retail and wholesale companies to accept limited amounts of repayable-on-demand funds from the public. The legislative proposal also defines a bank's right to outsource its service provision. This is a significant clarification as compared to past legislation and will promote cooperation between banks and eg retail chains.

[19] See chapters 5, 6 and 7.

1.4 Infrastructure

In the latter half of the 1990s, there was especially acute pressure for changes in the financial infrastructure. The impact of technological advance is notable in respect of payment and settlement systems. Moreover, introduction of the single currency, the euro, has been a demanding and unique project for the euro area countries. The importance of the financial infrastructure has been spotlighted by the robust growth in volumes processed in the systems during the last ten years.[20]

The infrastructural project connected with stage 3 of EMU was the construction and implementation of a real-time gross settlement system, TARGET (Trans-European Automated Real-time Gross Settlement Express Transfer), which is used for large-value payments between EU area national central banks and the ECB. TARGET plays an important role in the successful conduct of the Eurosystem's single monetary policy, as it enables the evening out of liquidity between banks in real time throughout the euro area. This ensures that short-term money market rates are uniform throughout the euro area. TARGET forms an EU-wide interlinking mechanism through which all cross-border interbank funds transfers are executed. The EU area banks also have their own cooperative organisation, the Euro Banking Association (EBA), under whose aegis they have developed settlement systems (EURO 1, STEP 1 and 2) for cross-border euro-payment execution and netting. The funds transfers in this connection are also executed via TARGET.

The real-time and gross-payment features were spotlighted in the developmental work in the latter half of the 1990s. Risk control considerations, especially as regards systemic risks, have comprised the primary arguments in their favour. In 2001, the Committee on Payment and Settlement Systems (CPSS) of the G10, which functions in connection with the Bank for International Settlements (BIS), defined the Core Principles for Systemically Important Payment Systems.

As regards payment media, Finland is a forerunner in electronification. Relative to GDP, there is less currency in circulation in Finland than in the other EU countries. Giros and debit cards have long been popular payment media in Finland. Moreover, the use of Internet-based services has spread rapidly in the last few years. On the other hand, the use of e-money (or e-cash) has so far grown much

[20] See chapter 4.

more slowly than expected. The most probable explanation is the enormous popularity of the traditional bank debit card as a payment medium, thanks to a uniform and well functioning network of payment terminals.

The conversion of securities from paper to book-entry form has been crucial in raising the efficiency of securities settlement.[21] In Finland a book-entry system for both shares and money market paper was launched at the start of the 1990s.[22] Having securities in book-entry form enabled realisation of the delivery versus payment (DVP) principle and real-time gross settlement of trades. This development led naturally to establishment of a national central securities depository, in which book-entry securities trades are settled in a centralised manner. Besides efficiency improvements in settlement, these developments resulted in a concentration of risks and a highlighting of the importance of securities trading infrastructure for the stability and reliability of the whole financial system.

The rapid growth in share trading volumes that took place in Finland in the late 1990s gave rise to pronounced pressure on clearing and execution of trades. In terms of the systems technology, the situation was exacerbated by a few large ‘mass’ issuance (Sampo, Helsinki telephone company), which resulted in a huge increase in numbers of shareholders and book-entry accounts handled in the book-entry system. The system for clearing and settlement of share trades has in fact undergone continuous development over the last five years.

Securities settlement systems are important also for the Eurosystem. According to Eurosystem rules, all lending must be collateralised. Because banks pledge collateral for monetary-policy and intraday credits via the securities settlement system, the operability of these systems is key to implementation of Eurosystem monetary policy and reliability of payment systems. The European System of Central Banks has set out criteria for approving securities settlement systems for use in collateral management operations and annually evaluates all approved systems against those criteria.

As EU area integration has progressed, pressures have increased to eliminate structural and operational differences between the financial markets of Finland and the rest of the EU area. One important difference is the preponderance of direct share ownership in Finland vs indirect, or tiered, share ownership in the central markets of the EU

[21] See section 2.5.
[22] See ‘Financial Markets in Finland 1996’.

area. In practice, this difference is seen as due to the fact that all of Finnish investors' domestic shareholdings, in order to ensure legal consequence, must be registered at the highest level, ie in accounts maintained by the central securities depository, whereas generally in Europe it suffices to have them recorded in the accounting systems of asset managers (banks and investment firms). However, consideration is already being given to alternatives to enable tiered ownership structure in Finland.

In the context of stage 3, the notable scale economies associated with securities settlement have spurred the integration of national systems. The first phase of integration dealt with the notable increase in the number of 'remote members' and the building of links between national central securities depositories. Subsequently, integration has progressed via mergers and alliances between national systems. In this area, there are two competing models: the vertical (silo) model and the horizontal model. The best example of vertical integration is the Clearstream Group, led by Deutsche Börse, which includes the German and Luxembourg (Cedel Bank) marketplaces as well as settlement and registration operations. Horizontal integration is represented by the merger of the Amsterdam, Brussels and Paris stock exchanges at the end of 2000 to form the Euronext group, which later took in the Portuguese stock exchange, and the London International Financial Futures and Options Exchange (LIFFE). To be sure, there is a close link between the Euronext Group and Euroclear, which took in the central securities depositories of the Netherlands, Belgium and France, as well as the clearinghouses of these countries, which had combined to form Clearnet. Finland's HEX Group has a silo structure at national level but is horizontally integrated vis-à-vis the Baltic area.

1.5 Future developments

Technological advance and structural changes spurred by internationalisation will continue to have pronounced effects on the financial markets in the coming years. Much effort will go into finally achieving a genuine single market in financial services in the EU area, as the importance of well functioning financial markets as requisite for economic growth is now widely recognised. The EU's internal markets are in a constantly changing situation, and many challenges remain. The Commission's Financial Services Action Plan and Risk Capital Action Plan are aimed at coping with these challenges, and meeting the implementation timetables for these plans is crucial to achieving the goal of an internal market.

Initiations of cross-sector operations and mergers and other cross-border cooperative arrangements continue. The Nordic and Baltic countries form a focal region for all the large bank and insurance groups operating in Finland. The process of consolidation at EU level may move to a higher level of magnitude when the first EU area-wide financial service groups are formed in the coming years. Besides creating scale economies, technological progress improves operating possibilities for small and niche financial service providers, inter alia by lowering the entry barriers.[23]

The trend for marketplaces and securities market infrastructure is toward open competition between two competing models, and there is still no favoured model for Europe. One thing is certain: integration will continue. The Commission, issuers and investors all want better and cheaper securities trading services. Besides the problem of costly systems technology, the differing national legal practices tend to slow the process of integration. Integration is also slowed by the strong positions in national markets of providers of settlement and custody services, which have benefited from isolated markets.

As regards payment media, there is good reason to expect that electronic money will finally catch on and begin to gain in importance. A key factor in whether the take-off will happen is the ability to take advantage of mobile phone technology in the context of payment instruments.

The big structural changes taking place in the markets present formidable challenges also for financial regulation and supervision. On one hand, the trend toward more market-oriented regulation and supervision, which started already in the 1980s, is likely to continue but, on the other hand, increasingly sophisticated and challenging risk management techniques create a need for more detailed regulation.

As regards regulation, the parallel work by the Basel Committee on Banking Supervision and the Commission on the reform of capital adequacy requirements for credit institutions is noteworthy.[24] The project has been derailed several times due to the level of detail and complexity. Realisation – now set for 2006 – could have notable far-reaching effects on banks' activities and customers' access to finance.

Another key concern is for a more unified division of public authorities' responsibilities in financial supervision, regulation and crisis management, both globally and in the EU area. Cooperation among authorities is key to anticipating, preventing and managing

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[23] See eg Koskenkylä (2002).

[24] The European Commission's project also covers investment firms.

financial crises. In Finland responsibility for ensuring financial-system reliability and operability in all situations is shared by the Bank of Finland, Financial Supervision Authority, Ministry of Finance, Insurance Supervision Authority and Ministry of Social Affairs. One can envisage an increase and upgrading of cooperation and information exchange between public authorities of different countries, as cross-border mergers and alliances increase, as well as solutions based on newly created multi-national organisations.

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Chapter 2

Money and capital markets

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2 Money and capital markets

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2.1 Money and foreign exchange markets

The emergence of a large single euro area and the integration of the Finnish markets into the new operating environment have brought changes to both the infrastructure and the instruments traded in the Finnish money and foreign exchange markets.

With the establishment of the euro area and Eurosystem, a new monetary policy framework[1] was introduced with a new set of instruments and procedures. The main elements of this framework are open market operations, standing facilities and minimum reserves, which are implemented in a decentralised manner by the national central banks (NCBs) of the Eurosystem.

The first of these, open market operations, plays an important role in steering interest rates, managing market liquidity and signalling the stance of monetary policy. The operations are decided and initiated by the governing bodies of the ECB and implemented by the NCBs. The most important market operations are the weekly main refinancing operations conducted on the basis of collateralised loans. The other market operations include monthly longer-term refinancing operations, ad hoc fine-tuning operations, and structural operations.

The standing facilities, whose main purpose is to stabilise the Eurosystem overnight market, comprise the marginal lending facility, which enables counterparties to obtain overnight liquidity from NCBs against eligible assets, and the deposit facility, by which counterparties can make overnight deposits at NCBs. Interest rates on the marginal lending and deposit facilities serve as upper and lower limits on the overnight interbank interest rate.

The third element, the minimum reserve system, which applies to euro area credit institutions, helps stabilise money market interest rates by allowing credit institutions to smooth out liquidity fluctuations arising from temporary factors. It also helps to create or enlarge a structural liquidity shortage of central bank funds, which improves the efficiency of the Eurosystem's liquidity supply.

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[1] For more details on the framework, see 'The single monetary policy in the euro area: General documentation on Eurosystem monetary policy instruments and procedures' and 'The Monetary Policy of the ECB', both published by the ECB.

Instruments traded in the money market normally have maturities ranging from overnight to twelve months. Currently, the most important segments of the euro money market are the deposit and repo markets. In addition, banks' certificates of deposit, treasury bills, commercial paper and local authority paper are still important in the trading activities among Finnish players.

2.1.1 Changes in the money market since euro introduction

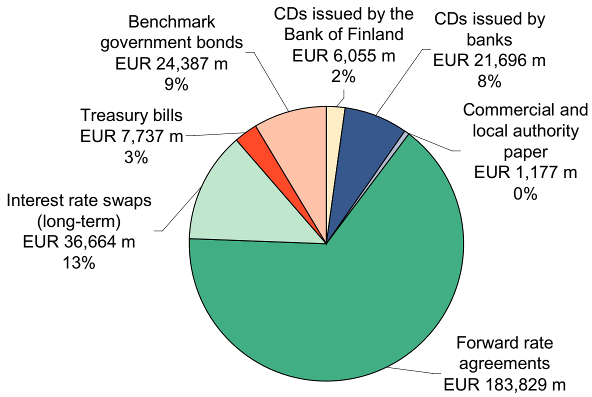
The emergence of the euro foreign exchange and money markets in early 1999 served as a catalyst for numerous changes in the markets. For many instruments, there has been a considerable increase in numbers of traders, counterparties and especialy final investors. At the same time, the Finnish money market has seen some instruments lose much of their earlier dominance and others completely disappear (figures 1A and 1B). These have made way for a number of new money market instruments which are, in some respects, still at an early stage of their life cycle.

Prior to euro introduction, trading in the Finnish money market – in both the wholesale interbank market and customer trading – was based largely on marketable CDs. The role of deposits, on the other hand, was almost insignificant in the wholesale interbank market, but more important in customer trades. The most liquid segment of the money market was the market for forward rate agreements (FRAs), based on notional discounted three-month CDs.

Of the three main changes affecting the Finnish money market, the most notable has been the shift in focus from CDs to deposits. The second most important change concerning money market instruments has been a decrease in volumes of FX swap transactions[2], especially for short periods of one week or less. The third definite change since euro introduction has been an increase in repo market activity. This is still at an early stage and the volume of repo transactions made by Finnish banks is still fairly modest.

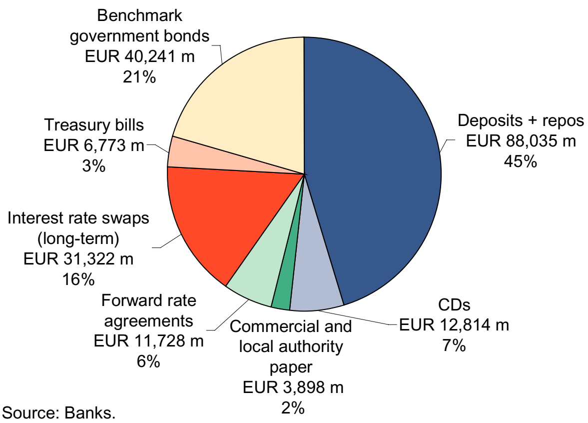
[2] A foreign exchange swap is an a agreement to exchange differently dated streams of currency payments of the same magnitude in toto.

Figure 1A. **Financial instruments, 1997**[3]



Source: Banks.

Figure 1B. **Financial instruments, 2001**



Source: Banks.

The introduction of electronic trading systems is also changing the way banks trade in both wholesale and retail markets, albeit not as rapidly as in the foreign exchange market. The euro area-wide platform for electronic trading in the money market introduced by the Italian company e-MID and incorporated in summer 1999, has gained a foothold among many euro area banks. The e-MID system covers

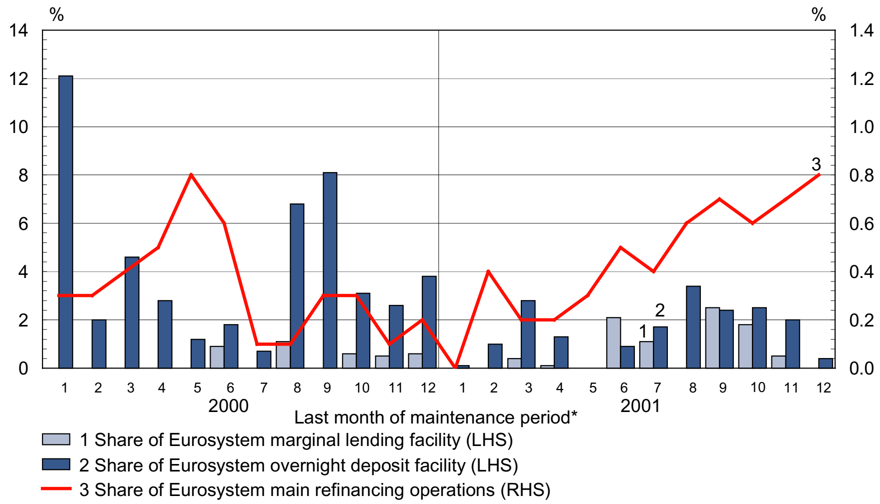
[3] Regarding figure 1A, it is worth noting that the market for FRAs was also based on the bank CD market. For figure 1B, stock data deficiencies necessitated use of transaction figures to approximate the stock for the shortest (overnight) maturity in 'Deposits + repos'. Repos account for about 5% of 'Deposits + repos'.

interbank deposits and certain other money market instruments. The members of the system include slightly over 200 banks, of which 20 are other than Italian banks, including one Finnish bank. Even though the system covers all money market maturities (up to 12 months), very short maturities (ie less than one week) account for around 90% of total trade volume. Domestic (Italian) transactions are settled via the national RTGS system and cross-border transactions via the TARGET.

Short-term deposit instruments are traded with customers via the Internet but the volumes are not comparable to those of Internet-based FX trades. Screen-based money market trading is hampered mainly by the necessity of tailoring products to meet specific needs as to maturity and transaction size and so does not offer the same advantages flowing from standardised solutions as does foreign exchange trading.

Since the adoption of the euro, money market activity in Finland and elsewhere in the euro area has focused on the shortest maturities. This is because Eurosystem monetary policy operations are based on the weekly main refinancing operations and one-month maintenance periods of the averaging-based minimum reserve system. The introduction of the euro has considerably changed the way Finnish banks participate in monetary policy operations. The Finnish banking sector has traditionally had a structural liquidity surplus vs the central bank, and so Finnish central bank operations were generally liquidity-absorbing. This also explains why Finnish banks have not been eager to participate in Eurosystem monetary policy operations. The number of Finnish banks actively participating in central bank operations has decreased notably during the euro era. Only the biggest Finnish banks take part and their activeness has varied somewhat over time. However, in 2001 Finnish banks' participation in the Eurosystem's monetary policy operations turned modestly upward compared with the previous year, despite continuously abundant liquidity. The Finnish banks' share of liquidity allotted in regular auctions in 2001 was 0.4%, up from 0.2% a year earlier (figure 2). In longer-term financing operations, their share increased even more over the same period: Finnish banks accounted for 0.7% of liquidity allotted in 2001 compared with 0.1% a year earlier. Finnish credit institutions' share of the minimum reserve requirement remained unchanged in the same period, at 1.4% on average.

Figure 2. **Finnish credit institutions' shares of Eurosystem main refinancing operations and standing facilities**



* Maintenance period starts on 24th calendar day of each month and ends on 23rd calendar day of following month.

Source: Bank of Finland.

2.1.2 Deposit and repo markets

The cash market of the euro money markets comprises three segments: unsecured deposit, repo and FX swap markets. Since euro launch, these segments have developed in somewhat divergent ways. The euro area repo market has grown rapidly, and volumes have also increased in the FX swap market since the decline in 1999. In contrast, volumes in the deposit market have remained nearly unchanged, with the focus shifting increasingly to the overnight maturity. The preference for short maturities is largely due to the need to manage counterparty risk and problems related to balance sheet structures. The Finnish deposit market shares the problems faced by other small and even some medium-size euro area banks in all segments of the cash market (small balance sheets, limit problems). Deposits play the key role whereas trading in repos and FX swaps is diminishing. The euro has also significantly changed banks' internal organisation of financial management. Finnish banks have centralised their funding operations in head offices in Finland while many foreign banks operating in Finland have likewise concentrated liquidity management in their own head offices. One foreign bank established in Finland has centralised the entire group's euro-denominated liquidity management in Finland.

Finnish banks are typically investors of excess euro liquidity and the usual deposit period is at most one week.

The Finnish repo market differs more from the euro area trend than does any other segment. In contrast to the other euro area countries, banks operating in Finland still participate only modestly in the repo market. Despite greater volumes in the repo market, Finnish banks have preferred to invest in deposits, which are easier to manage. One of the major problems facing the euro repo market is the lack of euro area-wide general collateral markets. However, the possibilities for developing such markets are likely to improve once a drafting-stage directive on financial collateral is (expectedly) adopted. It should be noted that the Finnish repo market is to a large extent a market for Finnish treasury bills.

2.1.3 Short-term money market securities

The short-term money market securities in the euro area include issues of central and local governments as well as private sector issues, with maturities generally up to twelve months. This sector of the euro area money market has remained relatively underdeveloped, despite notable integration in respect of many other instruments. Often trading is based solely on local markets, due eg to differences in national legislation and taxation. In Finland, the products traded in this market include bank CDs, commercial and local authority paper, and treasury bills.

Markets for CDs, ECP, local authority paper and commercial paper

Finnish CDs are discounted bearer instruments, redeemed by the issuer at nominal value on the maturity date. CDs are normally issued less than twelve months and occasionally longer maturities. CD turnover began to decline already prior to euro introduction but has stabilised in the past few years. In 2001 the outstanding stock of CDs was around half of the mid-1997 level (figures 1A and 1B). Nonetheless, CDs continue to play a significant role in banks' asset management. Although interbank trade in CDs had almost narrowed to transactions between Finnish banks before euro launch and has now virtually ended, CDs still play an important role in customer trading. Domestic investors in particular are attracted by the liquidity and flexibility offered by CDs. For example, maturity dates are flexible.

An investor can ask the bank to quote on the basis of a maturity date of his own choosing. Moreover, bank CDs have yielded slightly higher returns than treasury bills. Since CDs are typically used for managing liquidity, maturities are normally, like liquidity periods, one to three months.

Forward rate agreements based on CDs used to be the most liquid instrument in the Finnish money market. However, CD trading virtually ended already in the first quarter of 1999.

The market for Euro commercial paper (ECP) is still in an early stage in Finland. This is in contrast with many other euro area countries where the ECP market has already operated for several years and grown to considerable volumes. ECP and CDs are almost identical products except for the method of settlement: ECP transactions are settled at Euroclear and CDs at the Finnish Central Securities Depository. The price of ECP is strongly influenced by credit ratings. For issuers rated at least A2–B2, ECP yields are generally slightly below EURIBOR; for lower-rated issuers, the yields are higher. Because same-day-value settlement is problematic in Euroclear or Cedel, the value date for ECP transactions is usually t+2.

The Finnish market for commercial paper (CP) boomed during the period of rapid economic growth in the late 1980s and early 1990s. In the past decade this market lost steam as companies' liquidity improved. On the other hand, the stamp duty – another important negative for the CP market – was abolished already in the latter part of the 1990s. In recent years, active CP programmes have numbered 40–50.

Unlike in previous decades, CP programmes are nowadays often organised jointly by several financial institutions. In fact, all the major programmes, without exception, are joint programmes. CP is discounted and, unlike ECP, transactions are normally not settled in central securities depositories that specialise in book-entry securities but are instead traded in paper form. Trading is concentrated in short-term CP, which companies often use to balance cash holdings over the short term. Attractive pricing alone implies that CP programmes afford clear advantages to companies. Currently, the most common maturity is one month, and nearly all trading involves maturities between one and three months. Trading in maturities of six months or longer has almost completely ended. Maximum maturity for CP is twelve months, which enables a company to avoid the task of preparing an extensive prospectus, as required for bond-market products. Like the bank ECP market, the Finnish nonfinancial ECP market is clearly smaller than the market for corresponding domestic products. The volume of nonfinancial ECP amounts to less than 5% of total money market paper issued by nonfinancial companies. Yields on ECP issued by domestic nonfinancial companies have on average been 3–5 basis points higher than on CP. ECP programmes are multicurrency programmes, with the majority of issues dollar-denominated. In practise, issuers are required to have credit ratings, which limits them to the biggest companies in Finland. Investor bases, especially for the longest maturities, consist of foreign investors. Credit ratings are essential also in CP trading if it is desired to issue long series or attract foreign investors.

Compared to other European countries, local authority paper programmes have always been much less important in Finland, albeit their popularity has remained fairly stable over the years. The total number of local authority paper programmes is in the hundreds, over 50 of which are active. However only about ten of these programmes are large and active. Local authority paper is discount money market paper with maturities usually ranging from two weeks to about one month. Like CP, the maximum maturity for local authority paper is 365 days.

Treasury bill market

Treasury bills are short-term discounted securities that are redeemed by the government at nominal value on the maturity date. Issuance is handled by the State Treasury. The introduction of the euro has boosted market volumes as well as numbers of active counterparties and final investors[4]. Already during the first year of the euro, domestic banks lost much of their earlier dominant position as the share of foreign demand increased to 75%, and the share is still increasing.

Another change is related to the method of treasury bill issuance. Previously, the State Treasury held one or two auctions a month, in which bills were usually offered at two or three different maturities. Redemption dates were limited to one day per month. The State Treasury has subsequently replaced the auction method by tap issuance, ie continuous issuance as needed. The new method is considerably more flexible in that it enables same-day delivery even if redemption dates are for several different maturities. At the start of 2001, the State Treasury made further changes in its issuance method, specifically to improve market liquidity for treasury bills. Now there is only one redemption day per week whereas previously there was no

[4] Finnish Treasury Monthly Bulletin, April 2001.

restriction on redemption dates. In addition, the State Treasury now undertakes to repurchase – at predetermined prices – all bills offered and thus acts as liquidity provider of last resort.

Despite the decline in central government borrowing needs, the outstanding stock of treasury bills has remained fairly stable. The State Treasury can currently issue bills in larger amounts than before, ranging from EUR 200 million to EUR 400 million. The State Treasury uses bills for both cash management and funding purposes and has undertaken to keep the outstanding stock of Finnish treasury bills at a level sufficient to maintain investors' interest. At end-2001 the amount outstanding was about EUR 6.8 billion.

Since euro launch, there has been an increase in the demand for treasury bills and their yields have increased. While Finnish treasury bill yields were previously around 6–8 basis points below EURIBOR, they are now 10–15 basis points below, ie equal to yields on Belgian treasury bills. Most buyers of Finnish treasury bills are foreign ultimate investors. As banks have been reluctant to hold treasury bills in their trading portfolios, volumes in the secondary markets have been modest and trading in large lots has been somewhat problematic due to poor liquidity. Finnish banks announce prices on small amounts via electronic market information outlets, even though they are not obliged to do so.

2.1.4 Interest rate derivatives

Markets for interest rate swaps and futures

Analysis of both transaction maturities and activity of dominant players shows that the market for euro-denominated interest rate swaps quickly became quite highly integrated. The majority of market participants are 'end users' who use this market solely to hedge their own interest rate exposures and, unlike price makers, do not engage in active trading by quoting two-way prices for interest rate products.

As reported in the ECB's euro money market statistics, the EONIA swap market dominates the market for short-term swaps. EONIA has also replaced EURIBOR as the key reference rate for swaps trading.

EURIBOR was dominant at the start of 1999 when the euro was introduced.[5]

According to data published by derivatives exchanges, turnover in euro futures and options increased by over 50% in 2000 year-on-year. EURIBOR futures contracts are the most actively traded contracts in the short-term futures market in Europe. In 2000 they accounted for almost 70% of total volume on the London International Financial Futures and Options Exchange.

Volumes on the Finnish interest rate derivatives market have clearly not developed as strongly as on average in the euro area, according to the Triennial Central Bank Survey of the Bank for International Settlements (BIS). Daily turnover on the interest rate swap market actually contracted slightly, from around USD 0.38 billion in 1998 to USD 0.33 billion in 2001. By contrast, the volume of interest rate options in the OTC market increased considerably over the same period, from USD 8 million to USD 156 million. According to the BIS report, daily turnover on the Finnish interest rate derivatives market was around USD 0.5 billion in 2001 (table 1), with interest rate swaps accounting for 64% and interest rate options for 30%. The dominant currency in interest rate derivatives trading is the euro, with a share of 91%. The euro area accounts for nearly three-fourths of Finnish trading in interest rate derivatives (table 3). A breakdown by counterparty shows that financial institutions operating abroad are counterparties in 92% of trades in interest rate derivatives whereas the share of domestic financial institutions is 5%. The share accounted for by nonfinancial companies has been decreasing (table 2).

[5] The reference rates for the euro money market include the EONIA, the EURIBOR and the Eurepo. The EONIA (Euro Overnight Index Average) is calculated as a weighted average of the interest rates on unsecured overnight contracts of deposit denominated in euro, as reported by a panel of 49 prime banks, including 2 Nordic banks. The EONIA fixing is published on all TARGET operating days after the closing of the market. The EURIBOR (Euro Interbank Offered Rate) is the rate at which a prime bank is willing to lend funds in euro to another prime bank, currently with 15 different maturities ranging from one week to 12 months. The EURIBOR fixing is published daily at noon by the European Banking Federation and the ACI Financial Markets Association on the basis of banks' average prices by disregarding 15% of the lowest and highest prices. The Eurepo is the most recent reference rate for the euro money market, launched 4 March 2002. The Eurepo is the rate at which one prime banks offers funds in euro to another prime bank against general collateral, with 10 different maturities ranging from overnight to one year. It is published daily at noon.

Table 1. **Finnish interest rate derivatives market**

Average daily turnover, USD m	April 1995	April 1998	April 2001
Interest rate derivatives	1,656	2,120	513
Forward rate agreements	1,501	1,781	30
Interest rate swaps	143	331	328
OTC-traded interest rate options	13	8	156
Other	0	0	0

Source: BIS.

Table 2. **Average daily turnover in interest rate derivatives by counterparty, April 2001 and 1998, USD m**

	Financial institutions				Nonfinancial companies			
	Domestic		Foreign		Domestic		Foreign	
	2001	1998	2001	1998	2001	1998	2001	1998
Forward rate agreements	0	180	21	1,344	9	119	0	139
Interest rate swaps	27	9	297	317	1	1	3	4
OTC-traded interest rate options	0	0	153	2	2	6	0	0
Total	27	189	471	1,663	11	126	3	142
Percentage share	5	9	92	78	2	6	1	7

Source: BIS.

Table 3. **Average daily turnover in interest rate derivatives by currency, April 2001, USD m**

	Total	EUR	USD	GBP	Other
Total turnover	513	466	36	4	7
Percentage share	100	91	7	1	1
of which					
Forward rate agreements	30	26	0	0	3
Interest rate swaps	328	288	32	4	4
OTC-traded interest rate options	156	152	4	0	0

Source: BIS.

2.1.5 Foreign exchange market

The introduction of the euro had a significant impact on the Finnish FX market, not the least by reducing the volume of trade. Daily turnover on the interbank FX market in Finland contracted by 56% between 1998 and 2001. These data are from the BIS's triennial survey based on trading volumes in April of each year. In terms of nominal amounts, daily turnover on the FX market was slightly below USD 2 billion in April 2001, compared with slightly over USD 4 billion in April 1998. The volume of spot transactions in the Finnish FX market started to decline already a few years before euro introduction: the decline was almost 50% between 1997 and 1998. One of the reasons for the decline was concentration of the Finnish FX market following the merger of Kansallis-Osake-Pankki and Unitas. Other factors included Parliament's decision of May 1998 on Finland's adoption of the euro and fixing of irrevocable euro conversion rates. The market interpreted these as de facto introduction of the euro in Finland.

The end of trading in domestic currency is also clearly reflected in the counterparty breakdown for Finnish banks: trades with financial institutions operating abroad account for 60% of all FX contracts concluded by financial institutions established in Finland. Since 1998 the share of resident nonfinancial companies has increased by 12 percentage points to 35%.

There have also been changes in the currency pairs traded in the Finnish FX market. The changeover from markka to euro was evident in dollar-euro becoming the most traded currency pair. Dollar-euro accounted for 58% of turnover in the Finnish market in 2001 while euro-sterling accounted for 5% and dollar-sterling for 3%. The share of other euro trading was 21%.

Counterparties operating in the euro area accounted for 46% of Finnish banks' FX trading in spring 2001.

Besides euro launch, FX trading has changed in Finland as elsewhere due to increased use of electronic trading systems (EBS, Reuters) and Internet-based trading systems established by individual banks or banking groups (eg Fxall and Currenex).

Electronic trading systems are dominant in interbank FX trading. The most important of these are the spot trading system provided by Electronic Broking Services (EBS)[6] and Reuters' Dealing 3000 system. According to market assessments, up to 90% of total trading volumes were effected via electronic systems. The use of these

[6] BIS (2000).

systems is limited to banks that anonymously quote either one-way (bid or ask) or two-way prices for currencies via their own computer-based terminals. All users can monitor the system to search for the best price quotation (bank-specific limits restrict interbank trading). The system is linked to banks' internal systems and allows for straight-through processing (STP).

Internet-based trading systems provided by individual banks can function in two ways, either purely as a single bank's own system or as 'multiportal system' set up by several banks. Counterparties in such a multiportal system are the system market makers, ie the banks that established the system or certain of their customer banks. A multiportal system is not an interbank system but instead serves primarily nonfinancial companies and small banks. It enables banks to externalise their interbank trading and enables especially small and medium-size banks to downsize their organisations and cost structures. Competition between Internet-based multibank portals in markets where trading volumes have generally been decreasing in recent years has led to profitability problems and some of the systems have been closed down. The most recent decision to end operations was announced by Atriax – a joint venture of the three largest FX banks (Citibank, Deutsche Bank and JP Morgan Chase Bank) and Reuters. The system was closed down in April 2002, after operating for only a year. Banks that owned Atriax have announced that they will join the competing Fxall system as providers of liquidity and may become part of the joint ownership at a later stage.

Electronic trading systems have led to a concentration of FX trading and, at the same time, a considerable decrease in the number of market players. In Finland, this has significantly changed the way the wholesale markets function. Banks trading in the Finnish FX market now focus mainly on services for customers of financial institutions and have nearly ceased own-account position-taking and price quoting in the wholesale market. Banks either partly or wholly foreign owned have centralised their normal FX price-setting in units or head offices located outside Finland. On the other hand, the concentration of FX trading has resulted in Finnish banks closing down their foreign units. This leaves only one partly-Finnish-owned banking group with a unit located on another continent that is actively engaged in FX trading. Since the disappearance of local markets and the introduction of the euro, Finnish banks have also lost most of their trading with foreign customers (eg various types of fund investors) as they are no longer able to offer products based on their own special knowhow and information (tables 4, 5 and 6).

Table 4. **Finnish FX and derivatives markets**

Average daily turnover, USD m	April 1995	April 1998	April 2001
Traditional FX instruments	5,349	4,170	1,597
Spot transactions	2,545	1,156	503
Forward and currently swaps	2,804	3,015	1,093
Foreign exchange derivatives	118	242	60
Foreign exchange swaps	4	13	3
OTC-traded currency options	114	226	57
Other	0	0	0

Source: BIS.

Table 5. **Average daily turnover on FX market (incl. FX derivatives in Finnish OTC market) by counterparty, April 2001 and 1998, USD m**

	Financial institutions				Nonfinancial companies			
	Domestic		Foreign		Domestic		Foreign	
	2001	1998	2001	1998	2001	1998	2001	1998
Currency swaps	3	201	658	1,886	358	567	16	97
Spot transactions	36	35	300	878	159	207	8	35
Forwards	4	9	3	78	51	174	1	12
OTC-traded currency options	14	13	0	112	18	67	0	35
Foreign exchange swaps	0	0	0	13	0	0	0	0
Total	57	259	987	2,957	587	1,015	25	179
Percentage share	3	6	60	68	35	23	2	3

Source: BIS.

Table 6. **Average daily turnover on FX market (incl. FX derivatives) by currency pair, April 2001, USD m**

	Total	EUR[1]/ USD	EUR[1]/ GBP	EUR[1]/ Other	USD/ GBP	Other currency pairs
Total turnover	1,657	961	85	340	49	222
Percentage share	100	58	5	21	3	13
of which						
Currency swaps	1,034	652	38	106	46	193
Spot transactions	503	264	33	180	4	24
Forwards	59	33	4	20	0	2
OTC-traded currency options	57	12	11	34	0	0
Foreign exchange swaps	3	0	0	0	0	3

[1] Including the Finnish markka.
Source: BIS.

2.1.6 Future prospects for the Finnish money and FX markets

The process of integration as regards products is continuing in the euro area money markets. It is felt that development and deepening of a euro area-wide repo market based on general collateral will proceed apace. By contrast, trading in unsecured deposit products is expected to remain fairly static as market participants continue to focus on very short maturities, ie overnight trades.

Electronic trading continues to grow and is expected to become the dominant mode of trade over the years, thanks to the transparency, speed of processing trades and cost efficiency. According to some estimates[7], the use of electronic trading systems could increase the fragmentation of global liquidity because many participants prefer to use more than one portal for trading.

Another significant feature of the euro markets is the increased importance of reference rates, EONIA in particular, and the concentration of overnight trading volumes in the major euro area banks. The centralisation of trading, at least as regards treasury management activities, is expected to continue in the euro area, even

[7] ECB (2001).

though[8] the process may have reached its final stage for multinational banking groups.

These future visions will pose a challenge for Finnish banks. Experience so far has shown that Finnish banks operating in the money market are capable of adapting to changing market conditions. Further challenges to banks' money market trading will arise should the euro area expand to include the other Nordic countries.

As a result of changes brought about by the euro and especially by the emergence of electronic trading, the FX market has already contracted considerably. However, if eg Sweden and Denmark were to join the euro area, this would further shrink the Finnish market due to declines in trading volumes and number of trading units.

In the future, Finnish banks are likely to increasingly focus their foreign exchange trading on customer trades. The number of Finnish banks' interbank units declined following their closures of off-shore units in the 1990s. This trend is expected to continue as a result of opportunities to externalise interbank trading via multibank portals.

[8] ECB (2001).

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2.2 Bond markets

Bonds are debt instruments issued by governments, large companies and financial institutions. A public issuance must be large in order to ensure liquidity, which tends to limit the group of potential issuers. Because the bond markets are part of the capital markets, bonds are traded on both primary and secondary markets[1]. In the primary markets, bonds are sold to investors as a means of raising finance for the issuers. Trading in the secondary markets trading is in existing financial assets and does not directly involve financing.

An investor who makes the initial purchase of a bond is in essence making a loan to the issuer. In many cases, the issuer repays the loan in its entirety on the maturity date, making what is called a 'bullet payment'. Up until maturity, a bond earns interest, which may be payable one or several times a year. The interest rate applied – the 'coupon rate' – may be fixed or variable. Bonds are not backed by collateral.

A bond issuance may be public or may take the form of a private placement targeted at a selected group of investors. A public issuance involves much advance preparation, eg considerably more than does an ordinary bank loan to a customer. Bonds have varying maturities ranging from more than one year to several years, although typically the longest maturity will be around ten years.

Secondary markets exist for most bonds, but whether such a market develops depends very much on the size of the issue. Bonds are generally traded on both organised exchanges and OTC markets, but in Finland the secondary markets are all OTC markets. Because a bond is actually a loan to the issuer, its price will depend on market perception of issuer risk. Credit ratings represent an attempt to measure this risk. The poorer the issuer's credit rating, the more it will have to pay for the additional financing. Generally speaking, companies are considered riskier issuers than governments. But in any case credit ratings of both will have an impact on borrowing costs.

[1] Capital markets can be divided into primary and secondary markets. In primary markets, new securities are issued and sold to investors, and in secondary markets investors trade these with each other (Tarkka 1993).

2.2.1 Development of bond markets

Finland's bond markets long remained quite underdeveloped. It was not until the Finnish economy encountered economic difficulties in the 1990s and the central government began to slide rapidly into debt that increasing indebtedness spurred rapid development of the bond markets. Throughout the 1990s and still today, the central government has been the major issuer in the Finnish bond markets. The bulk of central government debt is accounted for by five benchmark bonds (see table 1). The international bond market underwent numerous structural changes in the 1990s. Europe saw the establishment of the single market, expansion of the range of debt instruments, and corporate bonds taking their place alongside traditional government bonds. In the United States, the use of corporate bonds had mushroomed earlier on.

These international developments have also impacted the Finnish bond markets. The launch of the euro led to market integration from the viewpoints of both seekers and providers of finance. The breadth of market area has increased. Corporate bonds have grown in popularity among financial instruments, albeit they continue to account for a fairly small portion of domestic bond markets. Innovative new debt instruments, however, have not yet caught on in Finland but are expected to gain wider usage in the future.

2.2.2 Benchmark government bonds

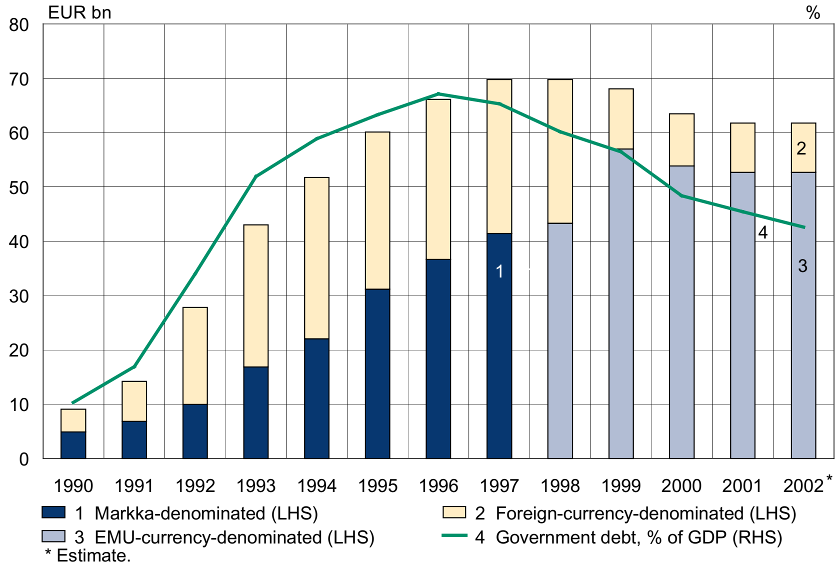
While elsewhere in Europe bonds have been issued by governments, companies and financial institutions, in Finland the central government has continued to be the major issuer. Liquid serial or benchmark bonds targeted at the wholesale market and institutional investors continue to be the most important debt instruments for the Finnish government. The central government has expended particular effort to create liquid secondary markets for its serial bonds, which is the reason its borrowing is presently dominated by five benchmark bonds. These five serial bonds account for the bulk of central government debt. Other borrowing instruments include 'yield bonds' targeted at households and treasury bills. The government has also occasionally resorted to syndicated loans to raise financing.

Table 1. **Breakdown of euro-denominated central government debt, 31 July 2002**

Benchmark government bonds					
		Coupon, %	Loan period		Stock outstanding (EUR m)
1998/III	Serial bond	3.75	12.11.2003		6,018
1993/I	Serial bond	9.50	15.3.2004		5,653
2001/I	Serial bond	5.00	4.7.2007		6,231
1998/III	Serial bond	5.00	25.4.2009		5,921
2000/I	Serial bond	5.75	23.2.2011		6,173
2002/II	Serial bond	5,375	4.7.2013		6,500
				Total	36,496
Other debt					
1996/1	Serial bond	7.25	18.4.2006		1,490
1997/I	Serial bond	6.00	25.4.2008		922
1995/I	Serial bond	8.25	15.10.2010		500
Yield bonds					1,005
Other euro-dominated debt					6,224
				Total	10,140
Treasury bills					4,815
Other debt					3,021
				Domestic debt	54,471
				Of which repurchase agreements	–2,206
				State pensionfund debt	–885
				Domestic debt	51,409

Source: State Treasury.

Figure 1. **Finnish government debt, 1990–2002**

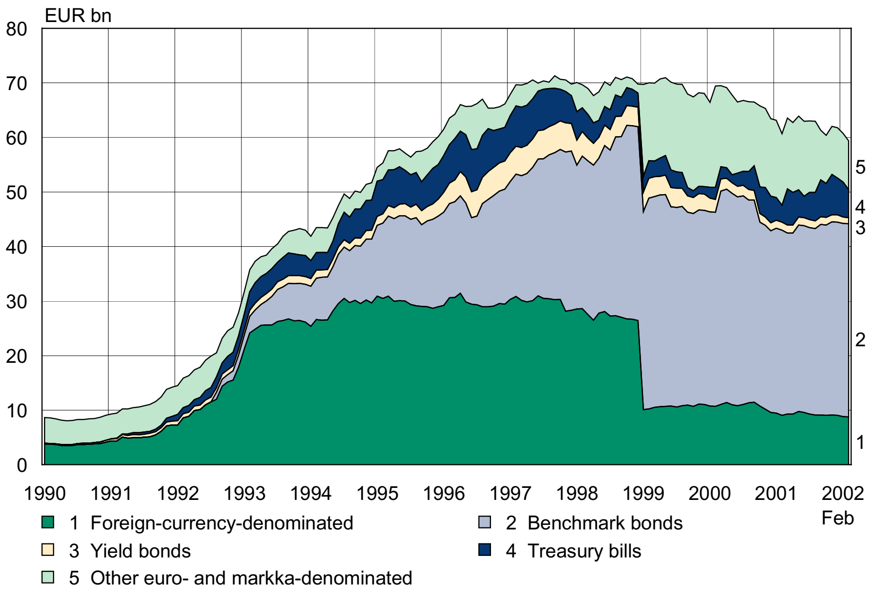


* Estimate.
Source: Bank of Finland.

Until 1999, a substantial part of central government debt was denominated in foreign currencies (figures 1 and 2). However, the relative share of this debt diminished substantially with the start of stage 3 of EMU in 1999. Euro-denominated debt currently accounts for about 85% of central government debt. The State Treasury has announced that it is willing to issue other foreign-currency-denominated bonds as well in order to broaden the investor base.

The key factor in future borrowing needs of the central government is economic growth. In 1999, net borrowing by the central government turned negative and, even if it should in future become slightly positive, the ratio of central government debt to GDP will remain much lower in Finland than the average for EU member states.

Figure 2. **Breakdown of Finnish government debt**



Source: State Treasury.

2.2.3 Primary dealers

In order to develop and maintain the secondary market for benchmark government bonds, a primary dealer system was established in 1992. A primary dealer is responsible for maintaining a viable secondary market for benchmark government bonds under all circumstances. This is achieved via an obligation to quote on a continuous basis. Primary dealers are also obliged to actively participate in benchmark bond auctions arranged by the State Treasury.

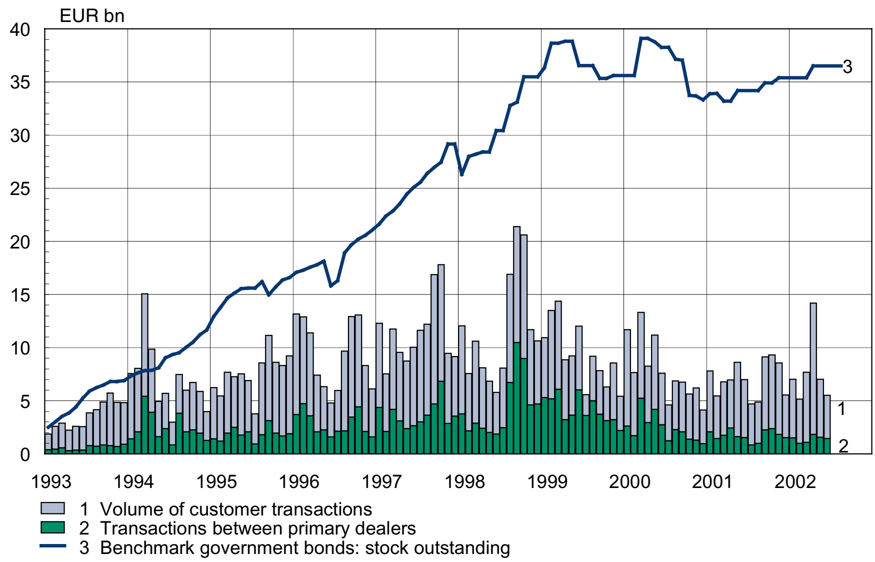
The group of primary dealers has changed substantially over the years. At the outset, the primary dealers were almost all Finnish. The situation gradually changed as foreign banks began to establish branches in Finland and remote brokers later gained the right to operate from abroad in the Finnish securities market. Currently, there are ten primary dealers – listed below.

Primary dealers:

Alfred Berg Finland (ABN Amro)
Barclays Capital
BNP Paribas
Deutsche Bank
Merrill Lynch International
Nordea
OKO Bank
Schroder Salomon Smith Barney
Skandinaviska Enskilda Banken
Svenska Handelsbanken

The effectiveness of the primary dealer system can be gauged from two perspectives. First, trading volumes should be large in order to ensure market liquidity. During 1992–1998, trading in benchmark government bonds trended upward. But starting in 1999, volumes began to decline slowly in respect of both customer transactions and transactions between primary dealers. Customer transactions continue to account for the greatest trading volumes (figure 3).

Figure 3. **Trading in Finnish benchmark government bonds**



Sources: HEX and State Treasury.

Fluctuations in volumes derive from numerous causes. Besides general economic conditions, one of the key factors as regards customer transactions was clearly the diversification of investments by pension and life insurance companies from Finland across the euro area after 1999, when exchange rate risk was eliminated. Investors then sold domestic benchmark bonds and reinvested the proceeds in foreign bonds.

Another gauge of market liquidity is the spread between bid and ask prices quoted by primary dealers for benchmark bonds. The smaller the spread, the more liquid the market. In the binding agreement with the primary dealers, spreads are defined in terms of basis points, and each primary dealer must observe the spread when making two-way (bid-ask) quotes for benchmark government bonds. Since the establishment of the primary dealer system in 1992, official spreads on benchmark bonds have continued to narrow. As the spreads have narrowed, trading volumes have not increased in step, although smaller spreads would normally imply larger volumes. This means that some other factor with the opposite effect must be at work in the market for benchmark government bonds. One possible such factor is that, after the introduction of the euro, insurance companies began to move more of their investment capital into other European countries. On the other hand, one could argue that, as investment portfolios have became less domestically oriented as a result of diversification, the outstanding share of benchmark government bonds in big institutional investors' portfolios has remained fairly stable, so that buying and selling needs have been muted.

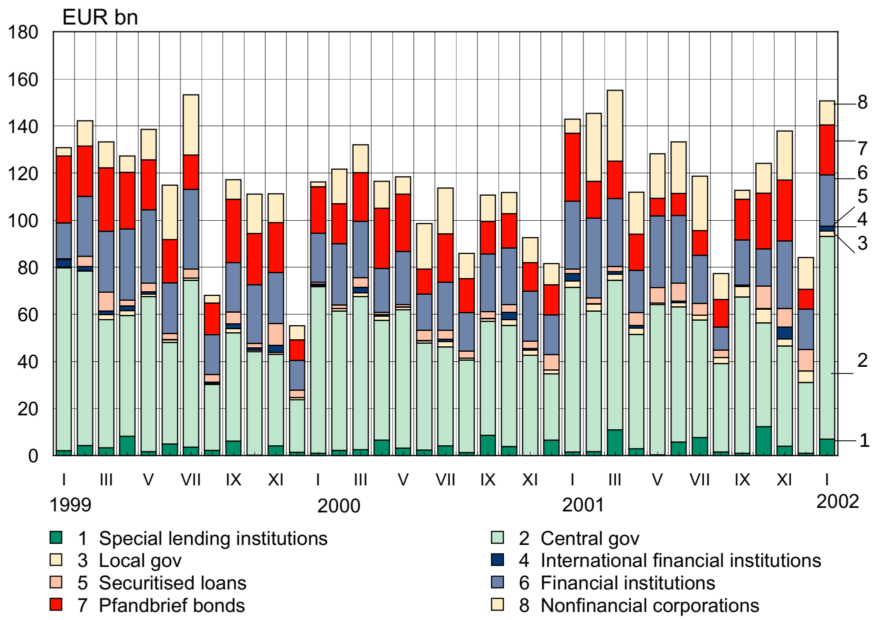
The most recent reform measure was a decision by the State Treasury to design an electronic trading system for benchmark government bonds. Operated by the primary dealers, the system replaces the primary dealers' telephone-based trading system. The new trading system makes use of the current electronic trading system and technology for Belgian benchmark bonds (MTS Belgium), which incorporates an independent segment – MTS Finland – for trade in Finnish benchmark bonds. Besides interbank trading in benchmark government bonds, the system can be used for benchmark-bond repurchase and repo operations. MTS Finland was started up on 8 April 2002.

2.2.4 Development of the corporate bond market

Corporate bonds have become an important financial instrument in the international markets. These have assumed a place alongside traditional bank loans as a financing tool for companies. Recent years have seen an expansion of corporate bond markets in the United States and – somewhat slower – in Europe. Corporate bond issues by Finnish companies have also increased moderately in recent years, but international comparison indicates that issuance is still quite modest in Finland. This is due to a number of factors. First, the dramatic rise in share prices in the late 1990s made share issuance an attractive means of financing. Second, only a small fraction of Finnish companies are big enough to ensure that their bonds are liquid. Small companies are obliged to compensate investors for the poor liquidity of their bonds, which explains why they often find this type of borrowing more costly than borrowing directly from a bank.

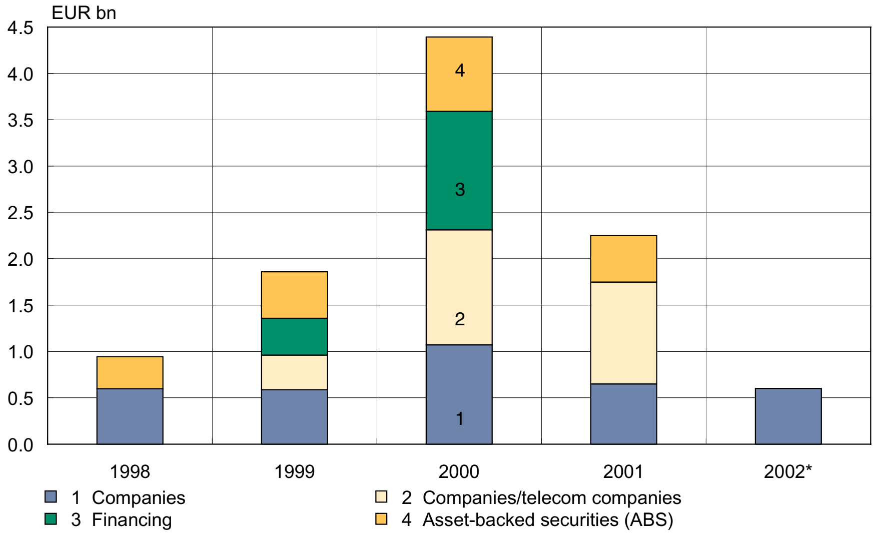
The introduction of the euro also broadened the range of financing sources for companies. However, the single currency also widened the gap between small and large companies' general access to financing. Big companies can now tap a large market created by the single currency, whereas small domestic companies have become increasingly dependent on the domestic market.

Figure 4. **Euro-denominated bond issuance**



Source: European Commission.

Figure 5. **Markka- and euro-dominated issuance by companies, 1998 – Mar 2002**

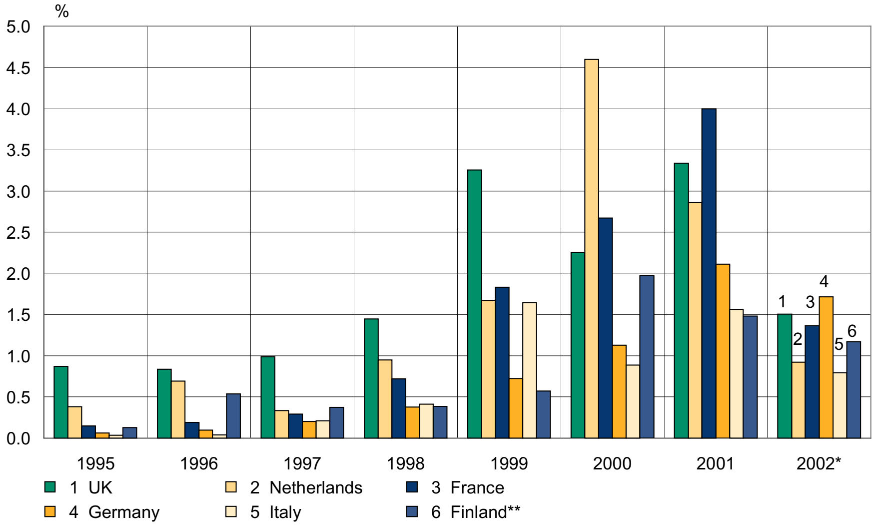


* March.
Source: Sampo Bank plc.

Corporate bond issuance by Finnish companies peaked in 2000 (figure 5). The increase was due mainly to strong growth in the financial and ICT sectors, which have also been major issuers of corporate bonds in other European countries. Some Finnish corporate bonds are issued via MTN (medium-term note) programmes. Using an MTN programme is much like tapping the commercial paper market, except that MTNs have much longer maturities than commercial paper. MTNs are not usually backed by collateral. The programme format used for MTNs offers a low-cost means of raising funds to issuers who plan to organise several issues within a short period. Costs are kept down, but bond maturity is usually limited to 15 years at most.

Comparing ratios of corporate bond issuance to GDP for Finnish and other European companies (figure 6), one notes that the United Kingdom, Netherlands and France are the European leaders in corporate bond issuance, with France showing particularly strong growth in recent years. Over the years, Finland has gradually caught up with the rest of Europe, albeit issuance was fairly subdued in Finland in 2001.

Figure 6. **Ratio of corporate bond issuance to GDP, 1995–2002**



* 2 Aug 2002. ** Data not available for 1996 – 1997.

Sources: Bank of Finland, Sampo Bank plc and Dealogic Bondware.

2.2.5 Securitisation

Securitisation, which refers to various financing techniques for converting fairly predictable cash flows into securities that are suitable for trading on secondary markets, is not as common in Finland as elsewhere in Europe and in the United States. The largest securitisation project involving Finnish assets (state-subsidised housing loans) was carried out as part of the Fennica programme[2]. Only a few Finnish companies have opted for securitisation, and issuance has not been public. However, it is anticipated that in future securitisation will increase also in Finland.

Other examples of new financing instruments are credit-linked notes (CLNs) issued by companies or institutions. A credit linked note is a security containing an embedded credit derivative. The note is linked to both the creditworthiness of the issuer and that of the underlying obligation under the credit derivative. CLNs are structural instruments, and only a few CLN deals have been arranged in Finland.

[2] ABS data in figure 5 are almost entirely due to Fennica issuance.

2.2.6 Credit ratings

Rating agencies play a central role in assessing credit risk. These agencies evaluate the ability of debt-issuing institutions to bear financial obligations. A published evaluation – credit rating – may be based on anything from a fairly mechanical procedure to a comprehensive company analysis. Among the best known international rating agencies are Standard and Poor's, Moody's and Fitch. There are currently several companies in Finland that prepare credit risk ratings, most done in a mechanical manner. So far, only a few ratings have been based on comprehensive company analyses in Finland. In assessing collateral used by the Eurosystem, the ECB takes into account, inter alia, ratings published by companies operating in local markets. Accordingly, in assessing national tier 2 collateral, the Bank of Finland can refer to the public credit ratings issued by domestic credit rating agencies. At the moment, only one Finnish rating agency, Fennorating, has been authorised for this purpose. The credit rating business in Finland is still in an early phase. Thus far only the biggest Finnish companies seeking financing from international capital markets have acquired credit ratings. All of these ratings have been done by large international rating agencies. The credit rating for the Finnish central government is currently the best possible.

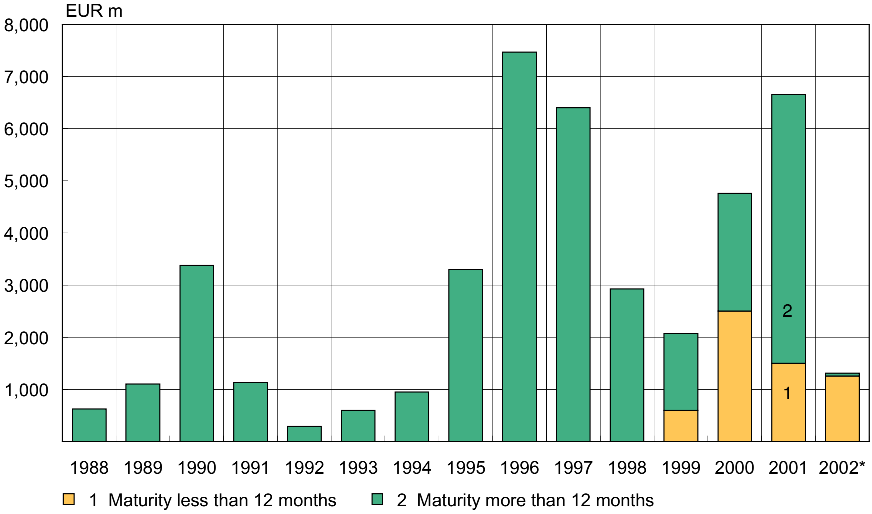
2.2.7 Syndicated loans

Due to globalisation of financial markets, the banking sector has come under numerous pressures. Banks have increasingly endeavoured to eliminate their large exposures. One of the means of doing this, in addition to securitisation, is syndicated loans. In principle, a syndicated loan is akin to an ordinary bank loan, except that it is granted by a group (syndicate) of several banks. The Finnish syndicated loan market has been growing, although volumes have varied widely (figure 7). Syndicated loans with longer maturities have recently been replaced by loans with shorter maturities of less than 12 months, and banks are expected to lean increasingly toward such short-term loans after implementation of the new Basel Capital Accord[3]. Finnish banks are more and more often teaming up with foreign banks to form syndicates. However, Finnish banks' know-how

[3] The new Basel Accord on banks' capital requirements, known as Basel II, is scheduled to be implemented in 2006. The present Basel Accord was signed in 1988.

and knowledge of local companies will continue in future to give them a strong position in forming loan syndicates. Outside Fin-land, many banks have withdrawn completely from the syndicated loan market and are concentrating eg on investment banking.

Figure 7. **Syndicated loans of Finnish companies, 1998–Mar 2002**



* Preliminary data.
Source: Sampo Bank plc.

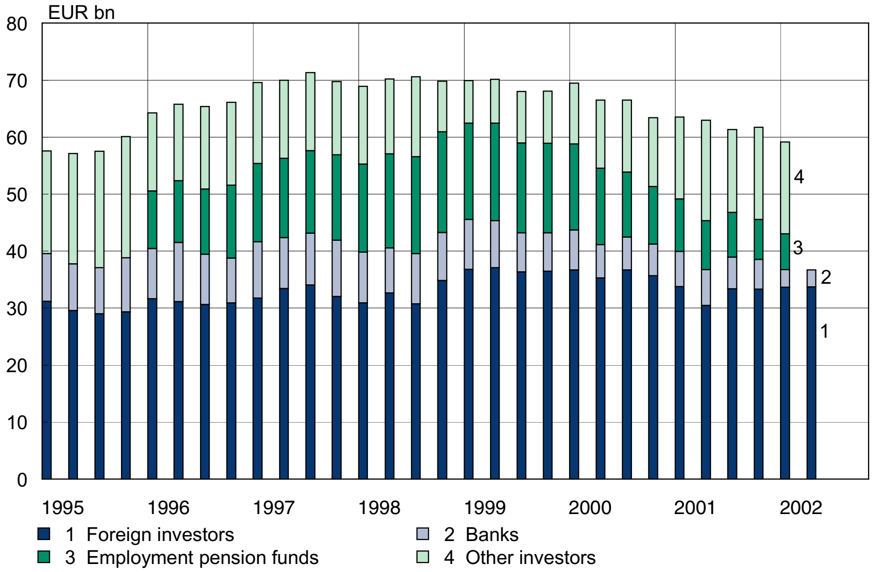
2.2.8 Development of the investor base

Introduction of the single currency in the euro area, regulatory changes concerning domestic investors, and the internationalisation of the primary dealer system have been key factors in the development of the domestic benchmark government bond market and overall expansion of the investor base for Finnish bonds. An overarching factor in the development has been the trend toward internationalisation.

The overall impact of the euro launch on the bond market was an upturn in the demand for bonds issued in core countries of Europe, even as the demand for issues of smaller countries often declined. On the other hand, after euro launch, Finnish investments were no longer exposed to exchange rate risk, and this spurred especially European investors' interest in the Finnish bond market. This is not so surprising in view of the fact that Finnish benchmark bonds are high-grade investment objects for foreign investors seeking to portfolio diversification. With increasing internationalisation of the primary dealers, the investor base has become more international and Finnish benchmark government bonds have attracted an increasingly global investor base. This is reflected in the fact that although total central government debt has shrunk since 2000, the share of this debt held by foreign investors has remained close to previous years' levels or even increased somewhat. Accordingly, the role of foreign investors in the Finnish investor base has increased (figure 8).

An important change for domestic investors was the decision in 1996 to upgrade the investment operations of employment pension funds, which led to a substantial increase in the demand for domestic bonds. However, this effect was only temporary because, after introduction of the euro in 1999, domestic investors began to spread their investments abroad. As a result, pension funds' investments in euro-denominated Finnish government bonds dropped back to 1996 levels already in 2000, and the decline has continued since then.

Figure 8. **Central government debt by investor group**



Sources: banks, Statistics Finland and Bank of Finland.

2.2.9 Electronic trading systems

E-commerce and electronic trading systems have developed rapidly in recent years while usage has become increasingly widespread. Progress has been made simultaneously on two fronts. Electronic trading systems specifically for market makers have become common and new systems open to all traders have been developed.

In European open-access electronic trading systems, bond trading was initially dominated by highly liquid bonds – for the most part benchmark government bonds and Pfandbrief bonds[4]. As facilities became more sophisticated and investors more interested, electronic trading quickly spread from benchmark government bonds to corporate bonds. Plans are currently underway to extend elec-tronic trading to short-term Euro commercial paper (ECP).

Many brokers currently offer their own trading systems for investors' use eg via Bloomberg, but there are also many multi-broker facilities, such as Tradeweb and Market Access. For investors, electronic trading systems enable rapid and efficient trade execution, since access to price information and to a highly competitive market is crucial for investors.

2.2.10 Repo market

Under a repurchase agreement (repo) one party sells securities and commits to repurchase them at an agreed and pre-determined date and price. Repo agreements can also be applied to government benchmark loans, when they are traded on the secondary market.

Repos are usually agreements between a primary dealer and the State Treasury. Primary dealers can borrow needed securities from a special loan portfolio of the State Treasury, a facility that works both ways. Operations between the State Treasury and primary dealers are aimed at preventing unnecessary price fluctuations and promoting market liquidity.

In Finland agreements quite similar to repo agreements, ie sale-repurchase agreements, can also be made between brokers and investors. Under such an agreement, the broker borrows benchmark government bonds from an investor, who is compensated by the difference between buying and selling prices.

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[4] Pfandbrief bonds are issued by German banks and governed by specific Pfrandbriefe legislation. There are two types of Pfandbriefe depending on the collateral used. Öffentliche Pfandbriefe are collateralised by public sector loans or bonds.

The Finnish repo market has not developed as expected; volumes are still fairly small.

2.2.11 Outlook for Finnish bond markets

The European common currency – the euro – and Finland's excellent credit rating should ensure the competitiveness of Finnish benchmark government bonds in the international bond markets. It seems that international investors will continue to diversify portfolios via Finnish instruments. In addition to benchmark government bonds, there will probably be increasing foreign demand for other Finnish issues. Issues under the Fennica programme have played a pioneering role here. Their success in the bond markets is indicated by the fact that the securities were virtually sold out.

Corporate bond issuance can be expected to grow as share prices lose their steam. In this environment it will not be as easy obtain financing via share issuance as it has been in some previous years. Now that the common currency has linked Finland more closely to European economic performance, it is likely that developments in different forms of financ-ing and debt structures in Finland will mimic fairly closely European trends, and the domestic bond market will continue to become increasingly internationalised.

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Jukka Topi
Financial Markets Department

2.3 Stock markets and the stock exchange

2.3.1 Stock markets as an integral part of the economy

Stock markets aid in channelling investors' funds to companies, in the form of equity finance. Equity finance is only one of the alternative financing sources used by companies. Hence, issuance of shares by companies in the stock market depends on the cost of equity finance relative to debt and other finance. Viewed from an investor's perspective, shares are one of the investment opportunities available, and stock markets make it possible for him to buy and sell these investments. Shares also give investors decision-making power at companies. A company may raise equity finance by either issuing quoted shares through public stock markets or placing unquoted shares or other venture capital instruments with a restricted group of investors.[1]

In efficient markets, share prices reflect all available information that is relevant for determining the valuation of shares. In terms of maturity, shares are in principle perpetual, ie the issuers of shares do not repay the share capital to shareholders. Instead, companies may pay dividends to shareholders.[2] In this case, share valuation is in principle determined by the discounted present value of expected dividends, while the rate of return that an investor demands (used as the discount factor) is based on returns on alternative investments and on possible share-specific risk premia. Investors' share valuations are reflected in buy and sell offers placed in the stock market and thereby in share prices.

Well functioning stock markets improve the economy's allocation of resources and risks. Although liquid stock markets provide a long-term financing source for companies, for investors, they may offer short-term investment options. Liquid, public stock markets also offer venture capitalists and entrepreneurs an advantageous means of getting out of their investments and thereby may enhance the attractiveness of venture capitalism and entrepreneurship in the

[1] This section focuses on public stock markets. Venture capital investments are dealt with in section 3.4.

[2] Companies may also repurchase their own shares in the secondary market, which, in economic terms, is comparable to a dividend distribution.

economy. Effective stock markets also improve the flow of information from corporate management to shareholders, thereby enhancing overall financial intermediation. In fact, empirical evidence has shown that countries with the most liquid stock markets achieve higher real economic growth in the long run.[3]

Public stock markets can be classed as primary and secondary markets. The primary market involves the initial listing of shares on the stock exchange and initial public sales to investors. The secondary market is where investors trade with each other in shares listed on the stock exchange. The primary and secondary markets are closely interrelated, since the primary market is a prerequisite for the emergence of the secondary market and activity in the secondary market is strongly reflected in the opportunities and incentives for companies to sell shares to investors in the primary market. In addition to investors and issuers of shares, active participants in the primary market include those who advise issuers and also organise share issues, and the stock exchange, which traditionally sets listing requirements for companies and performs other tasks in connection with listing. Those operating in the secondary market include, besides investors, the stock exchange, which inter alia maintains a trading system, and brokers, who enter investors' share trades into the trading system.

The stock market in Finland, as elsewhere in Europe, has developed fairly quickly in the past ten years. Shares have become increasingly important to companies as a source of finance at the same time as share trading has picked up and the stock market has undergone a revamping of the infrastructure. Several international trends have changed the nature of the stock market in Finland, while certain domestic phenomena have also contributed to stock market developments. International factors include globalisation and the resulting internationalisation of companies, population ageing and a change in attitudes towards share investment, as well as growth in private wealth, which have all increased interest in the stock market.[4] Changeover to Stage Three of Economic and Monetary Union (EMU) has, on the one hand, reinforced the effects of international trends on the stock market and, on the other hand, eliminated foreign exchange risk inside the euro area. The disappearance of foreign exchange risk has increased investors' willingness to diversify investments not only inside but also outside the euro area. Empirical studies indicate that

[3] For instance, Rousseau – Wachtel (2000).
[4] For further details on international trends in the stock market, see eg ECB (2001).

protection provided to share investors by the legal system and legislation has strengthened in Finland over the last decades, which has also been seen as conducive to shifting the orientation of the financial system more towards the stock market.[5] Another contributory factor in the expansion of stock market activity is deregulation, of which the abolition of foreign ownership restrictions in 1992 can be cited as an example.

A factor that increased the importance of stock markets, especially in Europe and the United States, was the strong rise in share prices in the latter half of the 1990s (Figure 1). Conversely, the decline in share prices in the last few years has led to a fall in the market capitalisation of listed shares and has reduced companies' financing in the stock market. On the Finnish stock market – which is concentrated on the HEX Helsinki Exchanges maintained by the HEX Group – price fluctuations have on average been wider than globally. By international standards, the stock market continues to be quite important to the Finnish economy, as measured by market capitalisation of listed shares relative to GDP (Figure 2). By contrast, the ratio of share turnover to market capitalisation of shares shows that activity in the Finnish stock market lags behind that of corresponding markets in many other countries (Figure 3).[6] In addition to providing trading and issuance services, the HEX Group performs several tasks in the Finnish stock market, relating to information and securities services as well as market supervision. HEX activities also include post-trading services and certain services concerning the derivatives market.[7]

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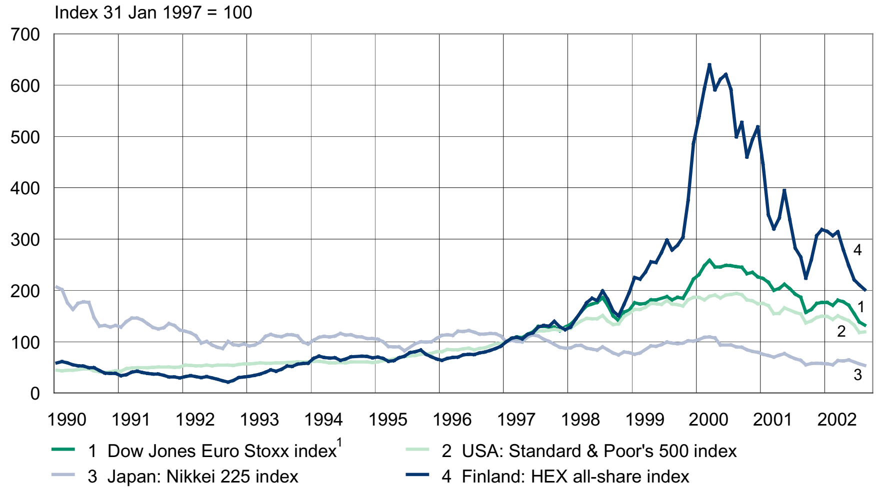
[5] Hyytinen – Kuosa – Takalo (2001).

[6] On the macroeconomic importance of the stock market, see Hyytinen – Kauppi (2001).

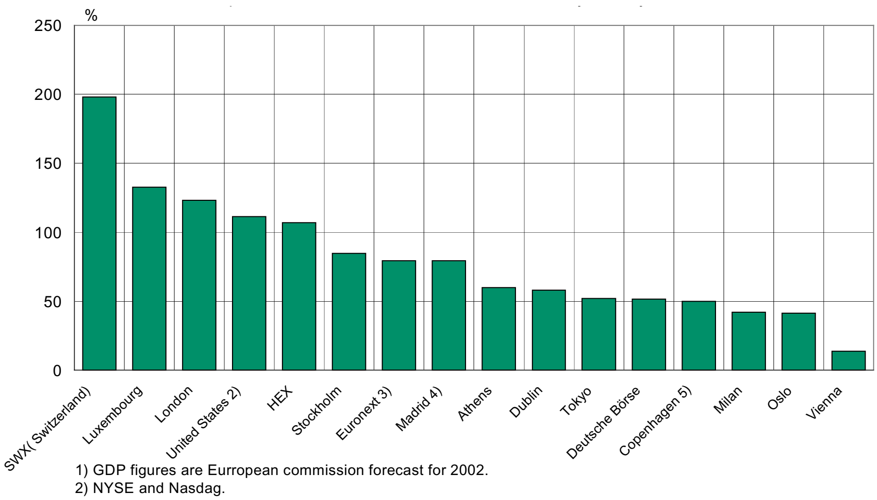
[7] Clearing, settlement and registration are discussed separately in section 2.5 and the derivatives market in section 2.4.

Figure 1. **Stock indices in Europe, the United States, Japan and Finland, 1990–2002**



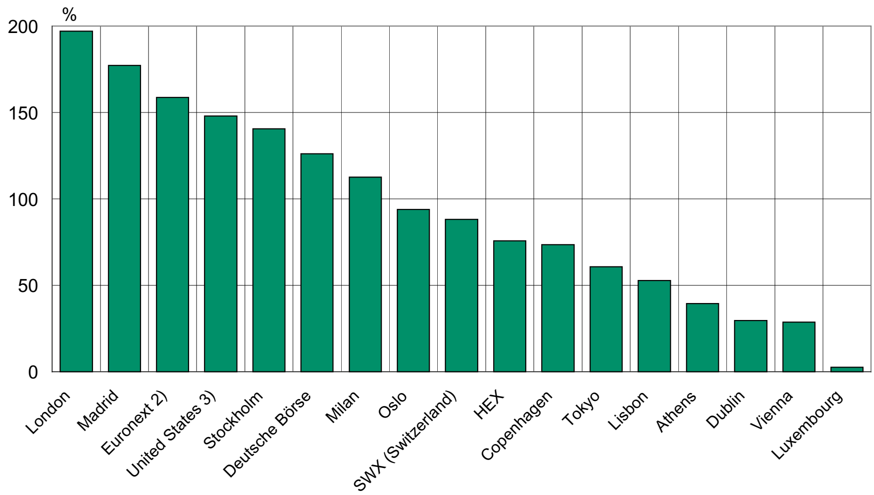
1) Observations since 1997.
Source: Bloomberg.

Figure 2. **Market capitalisation of listed shares relative to GDP[1], by country, 30 June 2002**



1) GDP figures are Europeann commission forecast for 2002.
2) NYSE and Nasdag.
3) Market capitalisation of Euronext in relation to combined GDP of Belgium, the Netherlands, France and Portugal.
4) Market capitalisation at 30 April 2002.
5) Market capitalisation at 31 May 2002.
Sources: FIBV, Eurostat and Bank of Finland.

Figure 3. **Share turnover / market capitalisation of shares[1], 2001**



1) Mean of latest market capitalisations for current and preceding years.
2) Belgium, Netherlands and France.
3) NYSE and Nasdaq.
Sources: FIBV and HEX.

Some of the pronounced changes in stock markets are also reflected in the infrastructure of share trading. For instance, investors' increased need for cross-border share trading following the introduction of the single currency, technological advances and the resultant expansion in network externalities as well as financial deregulation have been seen as factors that add pressure for more cooperation but also tighten competition between stock exchanges.[8] An indication of this new competitive environment is the appearance of alternative trading systems that have challenged traditional stock exchanges, especially in the United States.[9] According to empirical evidence, stock exchange activity entails certain economies of scale[10] that tend to strengthen the trend towards increasingly larger units. On the other hand, there are pressures for a clearer separation of ownership from membership of stock exchanges that maintain stock markets. This is evident from the fact that several cooperative stock exchanges have been converted into

[8] For instance, Hasan – Malkamäki – Schmiedel (2002), Di Noia (2001), and Malkamäki – Topi (1999).
[9] For instance, Korhonen (2001).
[10] For instance, Hasan – Malkamäki (2001) and Malkamäki (1999).

limited companies.[11] Many of these development trends have also been visible in the Finnish stock market, as illustrated below in connection with the review of the development of the HEX Helsinki Exchanges.

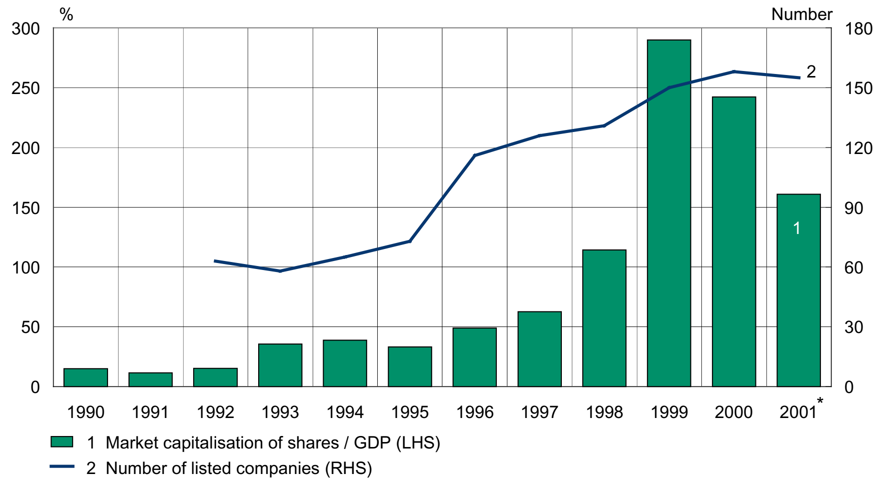
The following deals first with the Finnish stock market and its development from the viewpoint of shares, issuers, investors and brokers. It then examines the development of the HEX Group, its stock market operations, and the future outlook for the stock market.

2.3.2 Shares and companies in the Finnish stock market

The importance of the stock market as a source of finance for Finnish companies has clearly increased in the last decade. This is reflected in both the rapid growth of the market capitalisation of shares listed on the HEX in relation to GDP and the higher number of listed companies (Figure 4). Developments in the market capitalisation of shares have been essentially linked with a rapid rise in share prices during the last few years of the 1990s and a subsequent decline (Figure 1), leading to a downward trend in market capitalisation of listed shares since spring 2000.

[11] For instance, Steil (2001).

Figure 4. **Market capitalisation of shares relative to GDP and number of companies listed on HEX**



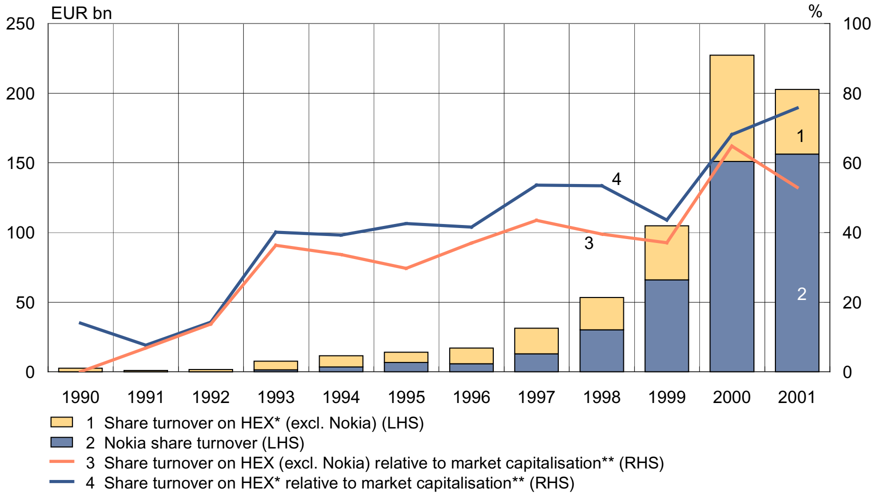
* GDP estimated by the European Commission.
Sources: HEX and Eurostat.

The number of companies listed on the HEX increased in the latter part of the 1990s, but started to decrease gradually in 2000. However, the number of listed companies was still in March 2002 more than twice that at the beginning of the 1990s. It should be noted that the most important single factor underlying the growth in the number of listed companies was the takeover in August 1996 by the stock exchange of OTC and Brokers' Lists traded previously off the exchange. Otherwise, corporate listings picked up in line with the overall economic recovery and the appearance of high-tech companies in the latter part of the 1990s. Companies have also been delisted from the HEX in recent years due eg to corporate reorganisations and low share liquidity. Corporate listings, related share issues and delistings have in turn affected the development of the market capitalisation of listed shares. In addition, listed companies have implemented share capital increases via share issuance to shareholders, bonus issues and issues not aimed at current shareholders. On the other hand, the course of market capitalisation is also determined by corporate actions, such as distribution of dividends and repurchase of own shares.

The HEX has witnessed very rapid growth in share turnover since the beginning of the last decade. Turnover value has declined only very recently (Figure 5), but turnover in numbers has continued to grow. In 2001, the number of traded shares increased by almost 80%

from the previous year and, in the first quarter of 2002, by some 17%. Turnover growth can be partly explained by the higher market capitalisation of listed shares, but it also mirrors active share trading and thereby market liquidity. In fact, share turnover on the HEX has gradually expanded, also in relation to market capitalisation of listed shares (Figure 5). Considering the ratio of share turnover to market capitalisation, it should be noted that many shares that are important from the perspective of turnover on the HEX are also listed on foreign stock exchanges. Consequently, the ratio of share turnover to market capitalisation also indicates the breakdown of trading in shares listed on several stock exchanges.

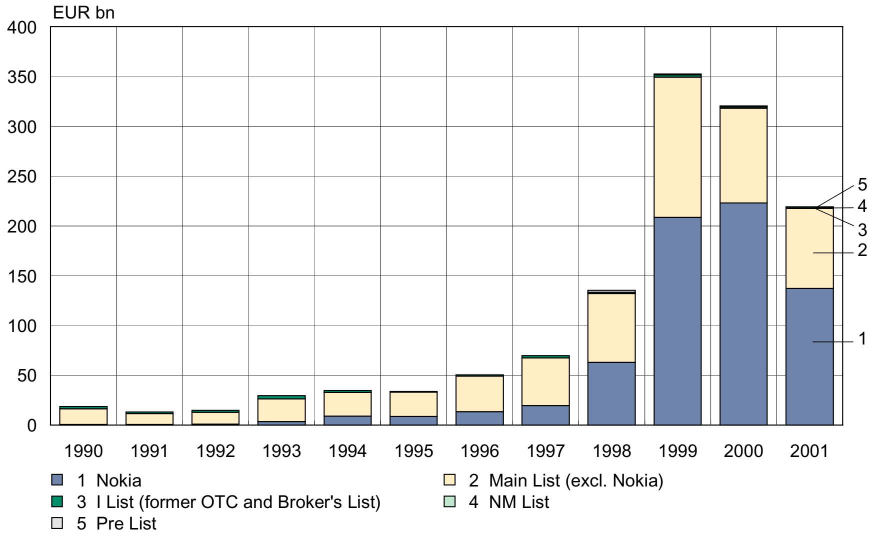
Figure 5. **Share turnover on HEX, 1990–2001**



* Incl. subscription rights.
** Mean of latest market capitalisations for current and preceding years.
Source: HEX.

From the viewpoint of issuers, the stock market is highly centralised, measured on the basis of both market capitalisation and turnover of shares listed on the HEX. At the end of March 2002, about 57% of total market capitalisation was accounted for by the shares of a single company, Nokia, and the five largest companies – in terms of market capitalisation – accounted for around 75% of total market capitalisation. The behaviour of Nokia shares has been a dominant factor in explaining the rise in the market capitalisation of shares listed on the HEX (Figure 6). It should be noted, however, that the market capitalisation of listed shares increased manyfold towards the end of the 1990s even if one excludes Nokia. Concentration of share turnover has been even more pronounced: during the first quarter of 2002, Nokia accounted for about 71% and the five most traded companies for about 88% of total HEX turnover.

Figure 6. **Market capitalisation of shares on HEX, 1990–2001**



Source: HEX.

The HEX currently has three lists for share trading: the Main List, I List and NM List. The most important is the Main List, which is intended for blue-chip companies with long track records. For inclusion on the Main List, a company must, inter alia, have estimated market capitalisation of at least EUR 35 million and must meet standards for profitability, capital adequacy and ability to pay dividends. As at the end of March 2002, the Main List included 109 companies representing EUR 199.8 billion, ie more than 99% of total market capitalisation of listed shares. The most important large Finnish companies are posted on the Main List, except for some state-owned or family companies. The I List, established in 1998 through a combination of OTC and Brokers' Lists, is targeted at medium-size companies (market capitalisation at least EUR 4 million). At the end of March 2002, the I List comprised 30 companies with market capitalisation of some EUR 524 million. The NM List, established in 1998, is for growth companies (market capitalisation at least EUR 2 million) and included 17 companies with market capitalisation of EUR 412 million at the end of March 2002. The HEX also maintains a

Pre List for short-term listing before meeting the preconditions for actual listing. There is also a 'watch list' to which a company's shares may be transferred. Shares on the watch list can be traded normally, but the list is intended to draw investors' attention to essential circumstances or actions concerning the issuer (for instance, a delisting decision, corporate restructuring or recurrent violation of rules). In September 2002, the HEX introduced a brokers' list to aid investors operating on a professional basis.

Finnish limited companies may maintain several share series that differ from each other in respect of rights attached to shares. Some listed companies have two share series, one of which carries greater voting rights at annual general meetings and the other carrying better dividend rights. One or more of the share series of a company may be listed on the stock exchange. Finnish legislation also allows for 'preference shares' that have priority over ordinary shares in dividend distributions and in the event of bankruptcy but carry voting rights only for certain types of decisions at annual general meetings.

In addition to shares of Finnish companies, the HEX also lists foreign shares through links and Finnish Depository Receipts (FDRs), which enable holders to own shares of companies listed on foreign stock exchanges. Shares of Finnish companies listed on the HEX may also be traded on foreign exchanges or other trading systems via similar arrangements. For instance, Nokia shares are traded on five other stock exchanges[12].

Developments in share prices and returns are described by various stock indices, calculated on the basis of weighted prices of listed shares. For the HEX, share price developments are described by capitalisation-weighted HEX indices: the HEX All-Share index depicting price movements for shares on the Main List, the HEX Portfolio index, the HEX industry group indices and indices reflecting developments on other lists, such as the HEX I List and HEX NM List indices. These indices are calculated as both price indices, based on share price developments, and return indices, which also take account of dividend payments. The HEX All-Share index includes all share series of the Main List, the weight of each series being determined by market capitalisation, while in the HEX Portfolio index the weight of a single company is limited to a maximum of 10%. The HEX industry group indices are calculated for the 16 industries of the Main List, and a company is included in these industries on the basis of its turnover

[12] The Stockholm, London, Frankfurt (Deutsche Börse), Paris (Euronext) and New York stock exchanges.

breakdown. In addition to indices combining several share series, a price index is calculated daily for each listed share series. Moreover, the HEX calculates, eg for derivatives trading purposes, the HEX25 index, consisting of the 25 most traded shares, and the HEXTech index, consisting of the 10 most traded high-tech shares. The HEX25 index is used as a basis for an index fund, the shares of which are listed on the HEX. The shares of certain companies listed on the HEX are not only included in domestic but also in foreign and certain international, especially Europe-wide, indices because of their co-listings. Nokia shares, for example, are part of an important index depicting European stock market developments, the Dow Jones Euro Stoxx 50 index, which is also widely used as a benchmark index in the derivatives market and for index fund investment.

2.3.3 Investors in the stock market

Investors operating in the Finnish stock market are mainly households, companies and institutional investors, such as mutual funds, life insurance and pension insurance companies, as well as other entities that channel private investors' funds. In the last few years, the stock market has undergone a significant change towards increasingly international ownership structure. This is reflected in the fact that, at the end of February 2002, about 69% of the market capitalisation of shares of companies registered in the Finnish book-entry system was in foreign ownership, either directly or via nominee registration[13], compared with about 30% at the beginning of 1995. But Finnish investors have also been more active abroad than earlier, which has in turn increased the importance of institutional investors. For instance, about 77% of the investments of Finnish equity funds were placed abroad at the end of 2001, compared with only 10% at the end of 1995.[14]

Because holdings of foreign investors are mainly based on nominee registration, information collected on the institutional or other composition of investors is imperfect. For instance, Karhunen and Keloharju (2000) have examined developments in the ownership

[13] Companies participating in the Finnish book-entry system are almost the same as those listed on the HEX. According to the Act on the book-entry system, only book-entry securities held by foreigners or foreign entities or foundations may be entered in nominee-registered custody accounts maintained under the book-entry system. Information on the owner(s) of book entries registered in such a custody account is not disclosed.

[14] Statistics Finland, Monthly Financial Markets, 2002:4 and 1996:4.

base of shares registered in the Finnish book-entry system from the mid-1990s until June 2000. The domestic public sector held in June 2000 around 10% of the market capitalisation of all shares and a good 35% of directly registered domestic holdings of shares. At the same time, households accounted for about 25% of domestic holdings, non-financial corporations for some 17% and financial and insurance institutions for about 10%. A prominent feature is the large state and other public-sector ownership, explained primarily by HEX listings of several partly privatised state-owned companies. The significant state ownership has also helped to explain the low (by international standards) share turnover on the HEX in relation to the market capitalisation of shares (Figure 3). Assuming that institutional investors are classified as financial and insurance institutions, their share investments remain limited on the basis of information on domestic holdings. It should be noted, however, that institutional investors play a more prominent role in particular in international share investments, both inward and outward vis-à-vis Finland.

The number of investors in the Finnish stock market grew considerably in the latter half of the 1990s, notably reflecting listings of telecommunication companies on the HEX. At the end of April 2002, there was a total of some 892,000 registered shareholders for companies participating in the book-entry system. Of these, three companies each accounted for more than 100,000 shareholders: Elisa Communications (ca 297,000), Sonera (ca 143,000) and Nokia (ca 133,000). Thirty-eight companies in the book-entry system each had more than 10,000 registered holders. In numerical terms, households constitute the most important investor group. At the end of 2001, about 794,000 households owned shares registered under the book-entry system, compared with some 478,000 at the end of 1996.

2.3.4 Stock brokers

In the secondary market for shares, brokers play an important role in entering the buy and sell orders of investors into trading systems.[15] HEX stock brokers are domestic and foreign banks and investment firms approved by the board of the HEX.

Developments in share trading and the arrival of Internet-based systems have changed the services demanded of brokers in the stock market. These services are more concerned with international share

[15] Stock broking is discussed in more detail in section 3.2 on investment firms.

trading and provision of flexible links for an enlarged circle of small investors by means of the new technologies and network facilities. An increasingly important part of services provided by brokers consists of functions in connection with the settlement of share trades and related depository services.

Internationalisation of stock broking is also apparent on the HEX where, by April 2002, the number of brokers (42) had doubled since the end of 1995 (21). The increase in the number of brokers is explained by the entry into the Finnish market of remote brokers operating from abroad. The first remote broker started operations on the HEX in 1996, and in the autumn of 2001 the number of remote brokers exceeded for the first time the number of domestic brokers. In April 2002, there were 24 remote brokers based on Amsterdam, London, Paris and Stockholm. During the first quarter of 2002, remote brokers accounted for about 33% of the number of exchange-traded transactions and for around 44% of total turnover[16]. Thus, remote brokers handle, on average, larger trades than domestic brokers.

In general, HEX brokers seem to have concentrated on either wholesale trade in shares or provision of services to small investors. If one considers eg the five largest brokers, in terms of either share turnover or number of share trades, one finds that the lists of the largest brokers differ from each other, except for one broker. The largest brokers, in terms of share turnover, focus on large share transactions. Most of these brokers operate either in Finland or are foreign-owned or remote brokers. By contrast, the largest brokers in terms of the number of share trades, who handle mainly small investors' trades, are usually domestically owned and operated.

2.3.5 Stock exchange operations

The HEX group

Stock exchange operations commenced in Helsinki in 1912 with the establishment of the Helsinki stock exchange. The stock exchange acted as an informal economic association until its conversion to a non-profit cooperative society in 1984. The open outcry procedure on the floor that had been in use for decades was abandoned in 1990, when all stock exchange trading in Helsinki was taken into the HETI trading system. Structural change in the Finnish stock market

[16] Including index shares and warrants.

continued in the 1990s in several phases. The Cooperative Helsinki Stock Exchange became a joint stock company in 1995, and two years later in December 1997 the Helsinki Stock Exchange Ltd and the derivatives exchange SOM Ltd merged. In the following spring, the Helsinki Book-entry Securities Centre Ltd was taken over by the stock exchange and the derivatives operations of the other derivatives marketplace, the Finnish Option Exchange Ltd, were transferred to the stock exchange. In 1998, the HEX Helsinki Exchanges and the Finnish Central Securities Depository Ltd (APK) merged to form the new HEX Group (Helsinki Exchanges Group Plc).[17]

At present, the HEX Group consists of the parent company, HEX, and six subsidiaries owned by HEX. At the end of 2001, the largest owners of HEX were the Swedish OM (15.6% of shares and votes), Sampo Group (11.7%), Nordea Bank Finland (11.2%), OKO Group (8.9%) and the Bank of Finland (7.0%). The Finnish government is also an owner with a stake of 4.5%. The provisions of the Security Markets Act and other securities legislation define restrictions on the rights to exercise control. The legislation imposes an obligation to disclose to the Financial Supervision Authority (FSA) the intention to obtain shares or voting rights in a company above certain, set limits (1/20, 1/10, 1/5, 1/3 or 1/2). The FSA then retains the right to oppose the acquisition of those shares or voting rights. HEX has been exploring the possibilities for its own public listing, but by end-June 2002 no decision had been made.

Although the HEX Group is currently the only stock exchange operating in Finland, the internationalisation of the stock market has brought new competitive challenges. Foreign ownership of Finnish companies' shares has created pressures for development, and in order to respond to these demands HEX has increased its international cooperation in the stock markets in recent years. In autumn 2001, HEX agreed with Euronext – an exchange that maintains four European stock markets – on arrangements that facilitate cross-memberships of brokers and technical access to marketplaces. HEX has also designated Baltic operations as one of its business areas. The Estonian TSE Group, which maintains the Tallinn stock exchange, became part of the HEX Group in spring 2001. In January 2002, trading in shares listed on the Tallinn stock exchange was transferred to the HEX trading system. Moreover, HEX announced in August 2002 its acquisition of a majority holding in the Latvian Riga stock

[17] For more information on the history of the HEX Helsinki Exchanges, see, for instance, the website of the HEX Group (www.hex.fi).

exchange, which is also the principal owner of the Latvian central securities depository. HEX has also negotiated on cooperation with the Vilnius stock exchange.[18]

Stock exchange trading

Share trading on the HEX is automated wholesale trade between brokers. It is based on the HETI share trading system, which is maintained by the stock exchange and operates according to the principle of continuous auction. Trades are mainly based on orders received by brokers from customers, but brokers may also trade on their own accounts.

Daily trading on the HEX is roughly divided into three phases: opening session, continuous trading and after-market trading. In the opening session (9.00 – 9.40 am) brokers enter their bids and offers in the HETI system, which is followed by automatic matching as trades (9.40 – 10.00 am). The matching procedure also determines the opening (bid and ask) prices for each share. Continuous trading (10.00 am – 18.00 pm and 18.03 – 20.00 pm 'evening trading') allows trading by round lots, odd lots and negotiated deals. The most important form of trading is by round lots, where the HETI system matches compatible bids and offers as trades on a real time basis. Price and trading levels may vary during continuous trading. In odd lot trading, bids and offers are matched automatically, but the price level is determined by the price quoted for the last round lot transaction. In negotiated deals, the buyer and seller agree on the deal between themselves and it is entered in the HETI system. The price of the deal is determined by that in effect at the time. At the end of the first stage of continuous trading (18.00 pm), the official closing prices for each share series and the closing HEX indices are confirmed, after which continuous trading is resumed as evening trading. After-market trading (18.03 – 18.30 pm and 8.30 – 9.00 am on the following business day) is based on negotiated deals.

[18] Further information on the HEX Group's international cooperation in derivatives market and settlement operations is provided in sections 2.4 and 2.5, respectively.

Other stock market operations

Trading services include the provision by the stock exchange of market information on stock market indices, prices and share turnover. HEX provides market information directly to end-users with a lag, but information is transmitted primarily via vendors, either lagged or in real time. At the end of 2001, there were around 100 vendors of market information, most of them operating internationally.

For companies seeking to raise funds in the stock market, the key operations of the HEX are listing of shares, registration of shares in the book-entry system and other equity capital-related arrangements. Exchange rules and guidelines serving as a basis for decisions on approval of shares for listing, as well as disclosure and other obligations imposed on issuers and listed companies, are of prime importance for the integrity of stock exchange operations. The stock exchange also performs tasks related to shareholders' meetings, shareholders' lists and insider registers, and offers consultancy and information services for investors.

At present, the HEX also provides securities services in support of share trading. These services are mainly for institutional investors, but outsourced back-office services are also offered to brokers and other market participants. The securities services of the stock exchange expanded in autumn 2001 via acquisition of a Sampo Bank subsidiary, including its authorised settlement and depository business.

An important element of stock exchange operations is market supervision, which is aimed at ensuring that stock exchange and central securities depository participants (members, individual brokers, issuers, clearing parties and account operators) abide by issued regulations and good practices. The purpose is to support the efficiency and security of the marketplace for shares. Market supervision mainly concerns provision of information by issuers, but also trading and settlement. Sanctions imposed for breaches of rules are part of market supervision. Sanctions may include eg a reminder, a warning, a disciplinary fee and temporary suspension or permanent annulment of rights to operate as a stock exchange member or broker. For market supervision purposes, the HEX maintains a separate disciplinary board whose secretary is responsible for sanction procedures.

2.3.6 Outlook for the stock market

The public stock market is likely to develop gradually into an increasingly important part of the Finnish financial system, but the stock market will probably grow more slowly in size than in the late 1990s. However, international trends continue to support stock market growth, and more Finnish companies will presumably tap the stock market for financing.

Looking ahead, it seems that internationalisation will continue to be the most important trend for the stock market. Companies in need of equity finance and investors offering it increasingly operate in different countries, which necessitates a higher level of frequent and efficient international connections. Internationalisation reduces the independent role of domestic stock markets, which become more clearly integral parts of the international financial system.

In Finland too, integration of stock markets will continue to put increasing competitive pressure on market participants and stock exchanges to further improve their operations. International cooperation and structural reorganisation will go on in Europe, and will assume an increasingly wider global dimension. New technological solutions will reduce the dependency of stock markets on the physical location of the infrastructure.

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2.4 Derivatives markets

A derivative instrument is a financial contract whose value depends on another security's price and characteristics. The basis for a derivative instrument can also be the price of a commodity or even weather conditions in a specified area. Derivatives can be flexibly used to hedge against various kinds of risk, change the form of a risk, or even increase risks. Thus derivatives are tools that are available in modern financial markets for risk control or position taking vis-à-vis movements in market variables.

Derivatives can be classed as exchange-traded standardised instruments or instruments that are traded on OTC markets maintained by financial institutions, which may be tailored to the needs of contracting parties. In Finland OTC trading began in the 1980s and was focused on contracts based on exchange rates and interest rates. Derivatives exchanges first began to operate in the latter part of the 1980s. The more durable of the products traded have been based on shares and stock indices. In Finland, up until last year, OTC trading has been much more active than trade in standardised instruments, which has at times been very modest. This is reflected in the fact that, as regards especially the operations of financial institutions and companies, the control of exchange rate and interest rate risks – or formation of the corresponding expectations – provided the incentive for active use of derivatives. The situation has however changed within the context of monetary union. As regards stock derivatives, Nokia's rise to the status of leading global company has been a key factor in the jump of trading activity to a new level.

During the latter half of the 1990s and into the new millennium, derivatives trade on exchanges has undergone various kinds of restructuring. Monetary union and preparations for integration of euro area markets for financial services have been the prime movers in these developments. From the perspective also of Finnish derivatives investors, the availability of services has already been to an extent internationalised since cooperative efforts began between HEX and the German-Swiss Eurex derivatives exchange.

Notable changes have also occurred in OTC markets focusing on currency and interest rate derivatives, due to the elimination of exchange rate risk and reduction of interest rate risk in the euro area. According to a recent study,[1] the growth of global OTC markets for currency and interest rate derivatives slowed considerably during the last three years, compared to the previous three-year period. This was a result of reduced use of currency derivatives, even while the use of interest rate derivatives continued to surge, led in particular by US markets. Total trading volume on the Finnish OTC markets has fallen sharply since the government benchmark bond market dried up toward the end of 2000.

This article describes the current situation and recent years' developments in the Finnish derivatives markets and looks briefly at what might be in the offing. As regards service providers and marketplaces, the focus will be not only on institutions operating in Finland but also on trade elsewhere in derivatives with Finnish underlyings. Descriptions of OTC contracts will focus on the activities of regulated institutions. Also included is a brief look at commodity derivatives.

2.4.1 Exchange trade in derivatives

Restructuring of derivatives exchanges commenced in December 1997, when the Helsinki stock exchange and the SOM Ltd, Securities and Derivatives Exchange, Clearinghouse merged to form Helsinki Exchanges (HEX). In spring 1998 derivatives trade on the originally smaller derivatives exchange, Finnish Options Exchange (FOEX), was also combined with that of HEX, and in 1999 HEX began joint operations with the world's largest derivatives exchange, the German-Swiss Eurex. Today, the most heavily traded options based on Finnish shares are traded on the Eurex. Largely as a result of the popularity of Nokia stock options, total trade in Finnish stock options has grown rapidly since the start of cooperation with Eurex. In March-April 2002, Nokia stock options became the most actively traded on the Eurex. In contrast, trade in interest rate and currency derivatives has virtually disappeared from the HEX.

[1] BIS (2002).

Products

Finnish standardised derivatives include those traded on the Eurex and those still traded on the HEX. A contract can be moved back to the HEX if its trading volume on the Eurex is not sufficiently high, and a new HEX-traded contract that gains popularity may be moved to the Eurex. The contract-types traded on the Eurex are HEX 25 index options and index futures (previously known as FOX index derivatives[2]) and Eurex stock options[3]. HEX trading is in HEX stock options and stock futures, HEX Tech index options and index futures, as well as LEX share lending agreements. Also available are 'warrants', which are issued by certain financial institutions, primarily for small investors[4]. The underlyings for warrants are generally the same Finnish shares used in Eurex stock options.

The index used for HEX 25 index derivatives reflects price developments for the 25 most actively traded shares on the HEX. HEX 25 index options are 'European options', which can be exercised only on the maturity (exercise) date, and contracts are available with maturity dates at the third Friday of each calendar month. HEX 25 index products have been important in the menu of derivatives products ever since SOM commenced operations. Because weighting of shares in the HEX 25 index is by market value, Nokia's importance in the market value of all HEX-quoted shares soon became problematic. As from 1 November 1995, a maximum relative weight in the index was set at 20%, and since 1 August 2001 the maximum has been 10%. The reduction in maximum weight would have reduced the historical volatility of the HEX 25 index.

At the start of 2002, Eurex stock options were available on the following Finnish shares: Elisa Communications, Nokia, Sonera, Stora Enso, TietoEnator and UPM-Kymmene. These 'American options' can be exercised at any time up to maturity date, and settlement is based on delivery of the shares in question. The size of a contract is either 100 or 500 shares. Nokia options have been by far the most popular of these options.

A special type of Eurex stock option is the LEPO (low exercise price option). A feature of this option is a very low strike price

[2] The name of the index was changed form FOX to HEX 25 on 1 Sep 2001.
[3] Offically, these are referred to as 'Eurex equity options on Nordic Shares', but actually all the contracts traded so far have been based on Finnish shares.
[4] These Finnish 'warrants' are like stock options except that the writer (issuer) and market maker is always a financial institution. These should not be confused with warrants used as company financing instruments.

(EUR 1), which means that the price of the call closely follows the price of the underlying shares. The motivation behind the instrument could be a desire to offer a market indicator of the underlying's price even when trading in the shares is for any reason interrupted. LEPOs have however not yet played an important role.

The underlying for a HEX stock option or future can be any share on the Main list except (as regards options) shares used in Eurex stock options and certain shares on the I and NM lists[5]. For both options and futures, the size of a contract is 100 shares, and contracts are settled via delivery of shares. The options are American options. There is also trading on the HEX in European HEX(e) stock options, for which net value settlement is based on the value of 100 reference shares.

The stock index for HEX Tech index options and futures gives price developments for the ten most heavily traded shares in the high-tech sector, weighted by market value, except that the maximum weight for a single share is 20%. The shares are selected from the Main, I and NM lists. Trade in these derivatives commenced on 3 September 2001. Cash settlement of the notional options and futures are based on EUR 10 multiplied by the HEX Tech index number. The options are European options.

LEX share loan contracts are standardised derivatives that enable borrowing of shares from the HEX share loan pool for up to one year. These contracts have been available since 1995. At the start of 1998, their tax treatment was changed so that the transactions are no longer considered income realisations, which has generally increased investors' willingness to provide shares for the pool. From the standpoint of the derivatives markets, the primary economic aspect of share lending is that it improves risk protection possibilities for market makers in stock derivatives (see also section: Pricing of derivatives).

Since December 2000, warrants have been traded on the HEX. These have so far been based mainly on Finnish shares that also serve as underlyings for Eurex stock options. There are currently five financial institutions that issue warrants. The contracts are much smaller than for corresponding Eurex stock options and so are aimed primarily at small investors.

[5] Key definitions for these lists are given in Jukka Topi's article 'Stock markets and exchanges' in this publication.

Trade and settlement

Trade and settlement in respect of stock and stock index derivatives are organised on the HEX and Eurex largely according to the same principles. HEX's trading agreement with brokers will nonetheless have to be revised, to enable trade also on the Eurex.

On both exchanges, the customer's broker enters a buy or sell order into the electronic trading system, which processes it immediately. Offers and trades are public information but information on counterparties is not. When there is a match between buy and sell offers, a trade is effected in the system, in which the exchange's clearinghouse acts as counterparty to both buyer and seller. On Eurex, the clearinghouse subsidiary Eurex Clearing approves as counterparty only 'general clearinghouse members'. Thus the customers' rights and obligations are transferred to the trade intermediary, who in turn is linked to the clearinghouse counterparty. Correspondingly, it is only net deliverable amounts of claims and instruments that flow between the three levels.

Buyers and sellers of futures and writers of options are required to provide collateral, which necessitates a pledge agreement. On the HEX, collateral requirements are calculated daily using HEX's Optiva Plus collateral calculation system, which evaluates the collateral adequacy by assuming the most unfavourable (for the customer) changes in factors that influence instruments' values. Among the most important such factors are changes in the price of a derivative's underlying or in its imputed volatility. Assets that qualify as collateral on the HEX include money deposits, bank guarantees, Finnish government bonds, shares on HEX's Main list, units of Finnish mutual funds, bonds, debentures, certificates of deposit, and deposits denominated in major currencies. On the Eurex, collateral is managed via the same three-tier system as in trade settlements. The broker must therefore require collateral from the customer amounting to at least that generated by the Eurex Clearing collateral calculation system.

In April 2002 the HEX had 15 derivatives brokers, all of which had fixed locations in Finland. Of these brokers, seven are also market makers.

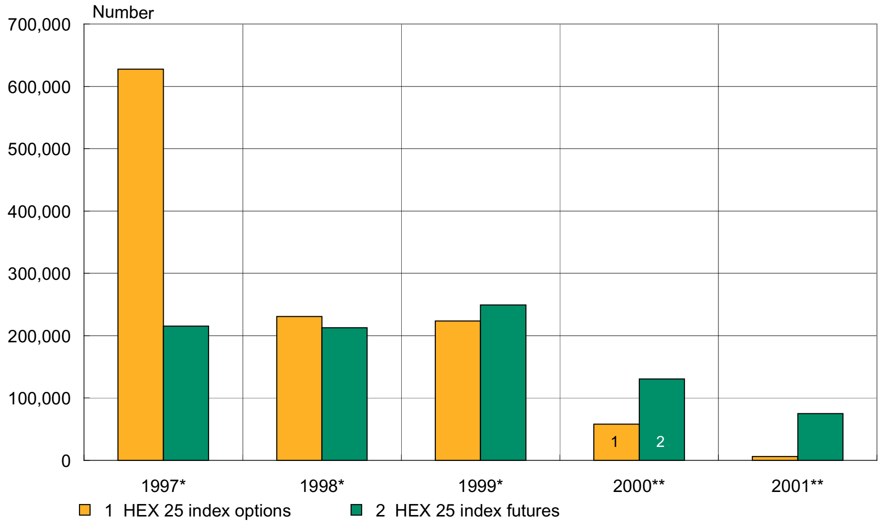
Trading volumes

As regards trading volumes (numbers of contracts) for Finnish stock and stock index derivatives, one can discern the following trends for the last few years (figures 1 and 2). Volumes for HEX 25 index derivatives have declined sharply. One reason for this may be the internationalisation of the share investment, which is the reason why national indices have been replaced by European and global indices for comparative purposes. The HEX 25 index option has to a large extent lost its popularity, and volumes have continued to declined since the switch of trading to Eurex.

On the other hand, trade in stock options involving large Finnish companies, which was switched to the Eurex, had by 2001 increased roughly fivefold compared to 1999, when trading took place mainly on the HEX. This development is dominated by Nokia stock options, whose turnover in December 2001 amounted to about 95% of total turnover for Finnish stock options. In terms of premiums, total turnover for Finnish Eurex stock options was about EUR 4.3 billion in 2001.

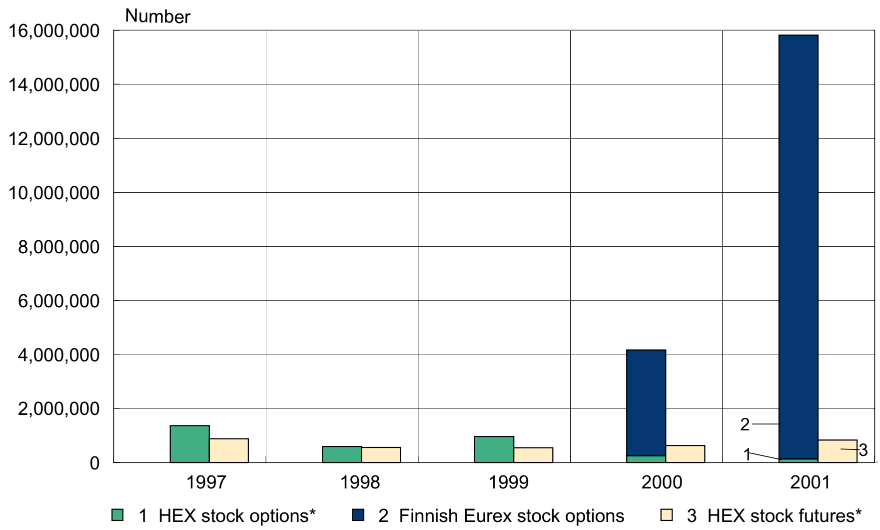
Since stock options for the large Finnish companies were switched to Eurex, trade in HEX stock options has declined. Recently, however, trading volumes for HEX products have exceeded the level reached before the leading option series were switched to the Eurex. The number of trades in HEX stock futures was about the same in 2001 as in 1997. Trade in LEX share loan contracts has continued to expand. In 2001 just over 2 million contracts were written, compared to about 860,000 in 2000. Between launch in autumn 2001 and year-end, some 3000 HEX Tech index derivatives were traded. Trading in warrants has been brisk: about 516 million were traded on the HEX in 2001. However, in comparing numbers of warrants and Eurex stock options traded (chart 2), one should note that one Eurex stock option is based on 100 shares whereas a single warrant is typically based on just a fraction of one share. For example, a warrant's underlying might be a tenth of a share and so its value would be only one-thousandth of the value of the corresponding underlying of a Eurex stock option. In this case, the warrant's trade volume should be divided by a thousand for comparative purposes.

Figure 1. **Trades in HEX index derivatives, 1997–2001**



* Approximate figures. ** Eurex turnover.
Sources: HEX and Eurex.

Figure 2. **Trade in Finnish stock derivatives on HEX and Eurex, 1997–2001**



* Approximate figures.
Sources: HEX and Eurex.

Pricing of derivatives

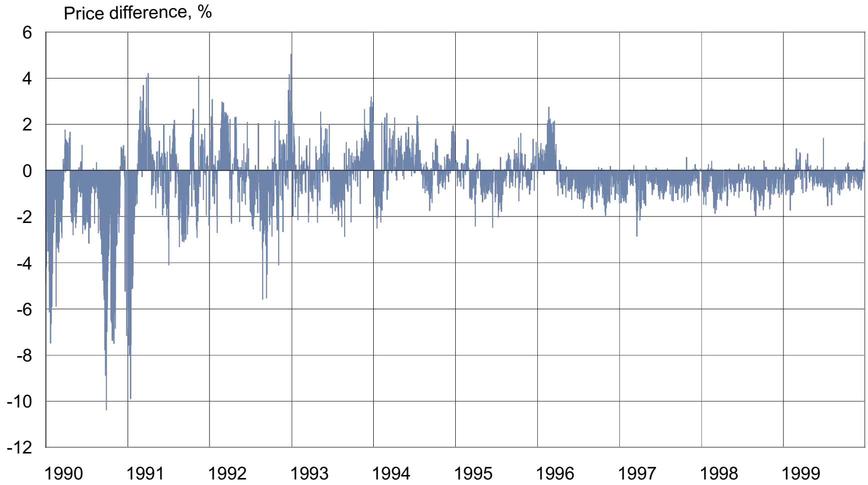
The market price of a derivative is closely tied to the underlying's market price. This is due to the fact that the derivative-based investment position is often achievable via an appropriate combination of underlying and a risk-free money market instrument or a trading strategy based on such combinations. If the market value of such a *synthetic* position differs from that of the derivative itself, there will be an opportunity for arbitrage, ie for risk-free returns via the price gap between synthetic position and derivative. Models used in valuing derivatives are based on the assumption that opportunities for systematic arbitrage in the markets do not exist. One can nonetheless benefit from these theoretical models when seeking arbitrage opportunities.

Derivatives market liquidity, and even the direct benefits to the customer, go largely hand in hand with market pricing efficiency as per the above principles. Thus it is important to examine price formation in derivatives markets from time to time. Factors that promote efficient pricing are low trading costs and, as regards stock options and stock index options, possibilities of borrowing shares for short-selling purposes. Looking at relative differences between market price and theoretical value for HEX 25 index futures over the period 27 May 1988 – 31 December1999[6], one notes a narrowing in the latter half of the 1990s, when LEX share lending commenced (figure 3)[7].

[6] This is the percentage gap between market price and price generated by the *cost-of-carry pricing* model for the future with the shortest time-to-maturity, taking into account dividends payable on shares included in the index while the future was outstanding. See Hietala – Jokivuolle – Koskinen (2000).

[7] A few large-negative-value observations in the early part of the period studied are noteworthy. Although it is difficult to pinpoint a single cause, it may be a question of a decline in stock market liquidity that affected arbitrage possibilities. For example, the bank employee strike in February 1990 had a pronounced impact on market liquidity (Puttonen 1993, p. 45).

Figure 3. **Relative differences between market price and theoretical value for HEX 25 stock index futures, 1990–1999**



Source: Hietala–Jokivuolle–Koskinen (2000).

2.4.2 OTC trade in derivatives[8]

OTC derivatives markets are maintained by the largest financial institutions, along with business firms, insurance companies and other financial institutions that use OTC derivatives. In Finland trade in interest rate and currency derivatives is concentrated in the OTC markets, albeit certain contracts are intermediary between OTC and exchange-traded, since the contract conditions have become standardised and trades are settled on the HEX.

The most important aspect of the development of the Finnish OTC derivatives markets has been the sharp decline in total volume since the start of stage 3 of EMU. This is mainly due to the fact that trade in dominant-till-1998 markka interest rate forwards (FRAs) and futures all but dried up. Although the Finnish OTC derivatives markets have thus dramatically subsided, we may to an extent be witnessing a return to normalcy following many years marked by change and crisis. The liberalisation of capital markets that began in the 1980s, the currency and banking crisis and rapid increase in public sector indebtedness that followed, the economic recovery, and the swiftly progressing

[8] See also Eija Salavirta's article 'Money and currency markets 2001' in this publication.

integration add up to a very exceptional period – historically speaking. The paths of markka interest rates and currency rates were also exceptional during this period. Such developments have required emphasis on risk management in the money, capital and currency markets, but may also have opened the floodgates to speculative activity by both Finnish and foreign investors.

Products, trade and settlement

The foundation for the derivatives OTC market is a market maker system. For the most part, the banks and the large brokerages act as both market maker and broker vis-à-vis the end customer. The products comprise mainly currency and interest rate derivatives and, for both of these categories, the contracts include forwards, futures, swaps, and options. Combination interest rate-currency swaps are included in the currency derivative category. Trades are settled mainly between counterparties, except for trades in forwards based on Finnish government benchmark bonds, which are settled on the HEX[9].

Trading volumes

The fall-off in trading on the OTC derivatives markets has been precipitous. The nominal-value of underlyings for outstanding interest rate and currency derivative contracts written by banks operating in Finland declined by a fifth between end-1997 (peak year) and end-2001. During the last three years, the stock outstanding has been fairly stable (charts 4 and 5), amounting to about EUR 150 billion at end-2001. These developments reflect the robust growth up to 1997 and subsequent collapse of the markka interest rate forwards and futures markets two years later with the launch of monetary union. In the peak year of 1997, these contracts accounted for about 70% of the whole market.

Less dramatic developments typified the other products. The stock of outstanding interest rate swaps has remained fairly steady over the last three years albeit posting a decline of about 40% for the period end-1997 to end-2001. Currency swaps are included in the statistics on currency forwards. Their combined stock began to decline in 1997 but has risen during the last three years. Combination interest-rate-

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[9] For more on bond forward markets and settlement, see Virolainen (1996).

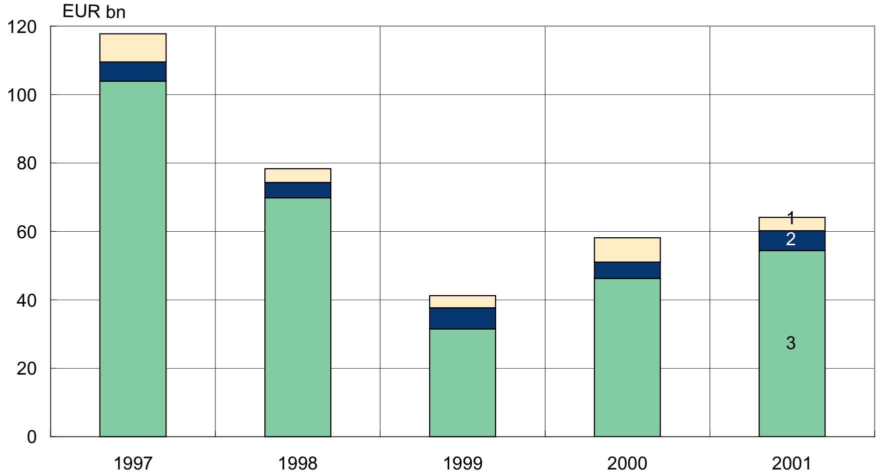
currency swaps and options have accounted for smaller shares of the total stock. However, in 2001 the stock of interest rate-options grew rapidly in relative terms. Standardised maturity dates affect intra-year movements in stocks of outstanding contracts. This was especially true for the FRA markets. Monthly fluctuations in the stocks of currency forwards and options and interest rate options have been substantial.

A complete picture of developments in the stock of derivatives is not necessarily afforded by trading volumes, because average maturity differs across the various types of contracts. Data on trading in OTC derivatives is obtained via the Bank of Finland's three-yearly surveys aimed at financial institutions. From these surveys, we obtain financial institutions' aggregate daily average trading in derivatives (measured by underlyings' nominal value) for April of the survey year (tables 1 and 2). Derivatives trading volumes – like stocks outstanding – reveal a dramatic shrinking of markets. Average daily trading for currency derivatives in April 2001 was down 65% compared to three years earlier; for interest rate derivatives, the corresponding drop was 76%. The drying up of the FRA market was also apparent in the 98% drop in daily trading between April 1998 and April 2001. The only product that posted a gain in trading volume was the interest rate option. The extreme growth rate – almost 1,900% – is largely explained by subdued trading in April 1998, the basis of comparison. The same level of growth is reflected in the stock of outstanding contracts (figure 5). There seems to be no obvious economic explanation for these developments, but the growing popularity of the more demanding options products could be a reflection of a general maturation of the Finnish markets. Another possible explanation is the seeking out of new business opportunities in the midst of tightening competition in the euro area.

The Bank's survey also shows that Finnish financial institutions' OTC derivatives can be separated by counterparty as follows (1995 survey figure in parentheses). For currency derivatives, the shares were foreign financial institutions 53% (73%), Finnish financial institutions 0% (8%), and Finnish end-users 47% (17%). Over the five-year period, the share of Finnish end-user counterparties in particular posted an increase. Correspondingly, for OTC interest rate derivatives, the shares were foreign financial institutions 92% (65%), Finnish financial institutions 5% (26%), and Finnish end-users only 3% (9%).

The decline in overall activity in OTC derivatives markets has been apparent also in reduced allocation of resources to trading activities, eg staff cuts, among Finnish banks.

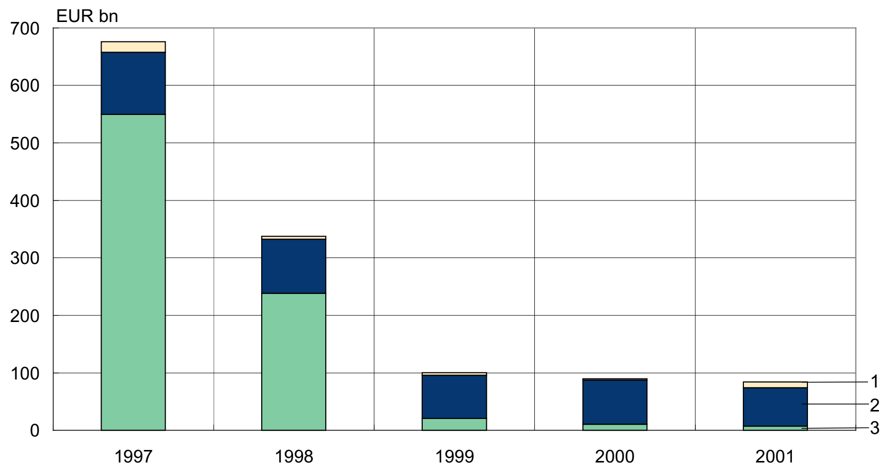
Figure 4. **Stock of currency derivatives of banks operating in Finland, 1997–2001, year-end**



1 Options
2 Combination interest rate - currency swaps
3 Forwards and currency swaps

Source: FSA.

Figure 5. **Stock of interest rate derivatives of banks operating in Finland, 1997–2001, year-end**



1 Options
2 Swaps
3 Forwards and futures

Source: FSA.

Table 1. **Finnish financial institutions' avg daily trading in currency derivatives**

	April 1998		April 2001		
	EUR m	%	EUR m	%	Change, %
Currency forwards	299	8	67	5	–78
Currency swaps	3,115	85	1,173	90	–62
Combination interest rate					
Currency swaps	15	0	3	0	–80
Currency swaps	256	7	65	5	–75
Total	3,686	100	1,308	100	–65

Source: BIS 2002.

Table 2. **Finnish financial institutions' avg daily trading in interest rate derivatives**

	April 1998		April 2001		
	EUR m	%	EUR m	%	Change, %
FRAs	2,017	84	34	6	–98
Interest rate waps	375	16	372	64	–1
Interest rate options	9	0	177	30	+1,867
Total	2,401	100	583	100	–76

Source: BIS 2002.

2.4.3 Commodity derivatives

Commodity derivatives are contracts whose underlyings are usually agricultural products, raw materials, gold or energy, but even something abstract such as the weather can serve as an underlying. In the Nordic countries and Finland, energy contracts play a central role, but active OTC markets have also developed for pulp-and-paper-based derivatives. Industrial companies are often the primary market makers for commodity derivatives, but a financial institution may also be active in these markets, as is presently the case in Finland, particularly in respect of pulp-and-paper-based contracts.

Liberalisation of the electricity markets has led to the formation of a single electricity market for the Nordic countries. The primary marketplace is Nord Pool, an energy exchange that operates in Norway. Besides the spot market, trading is carried out in electricity futures and options. Trading is done via an electronic system or by phone. The total number of transactions on the Nord Pool has been increasing. The region's largest energy companies serve as the primary market makers.

The Finnish Options Exchange, whose derivatives operations were combined with those of the HEX at the end of the 1990s, has continued to operate under the name FOEX Indexes Ltd and specialises in maintenance of pulp-and-paper price indices. These in turn form a single basis for comparison in the OTC markets for swap contracts based on pulp and paper. As the markets are global, other internationally calculated indices are also used for comparative purposes.

2.4.4 Outlook for derivatives markets in Finland

Monetary union has brought significant changes to the financial markets, the effects of which have become rapidly apparent in the Finnish derivatives markets. Currency risks have been eliminated from the euro area, which has resulted in a decline in volume on the global OTC currency derivatives markets. National reference interest rates have disappeared since the launch of monetary union, and thus in Finland activity eg on the OTC derivatives markets has shrunk dramatically since the peak years after the mid-1990s. With hindsight, one can say that in Finland the years that began with the currency and banking crises prior to monetary union comprised a very unusual time for the fixed-income and currency markets, which perhaps led to unusually animated activity in the corresponding derivatives markets. In this respect, the more recent decline in activity can be considered, to an extent, a simple return to normalcy.

Monetary union and development of the EU's internal market have begun to have an impact also on the expansion of financial services from country to country. The OTC derivatives markets have long been quite internationalised, and this is now the way of the derivatives exchanges. As marketplaces become more internationalised, local intermediaries' role in serving end-customers may nonetheless remain important for some time to come. The growth of the larger national financial institutions via mergers will make them more competitive – even internationally – as providers of services related to products for which they have special know-how. For financial institutions operating in Finland, the neighbouring emerging markets could afford growing opportunities also as regards derivatives-related services.

While monetary union has reduced exchange rate and interest rate risks, other risks may take on greater importance, which could boost the demand for new kinds of derivatives such as credit derivatives[10]. The use of these instruments in Finland is still hardly worth mentioning, but global markets for these have grown rapidly. And the future may also bring some surprising new products. As yet the individual has quite limited possibilities for protecting himself against many of his most feared risks, such as the risk of an abrupt drop in income eg because of unemployment. Thus developments in derivative instruments could at some stage focus also on retail products. Another possible path of development is toward more combining of derivative instruments and insurance products[11].

[10] A credit derivative is a contract whose value is tied to the credit risk of the underlying company or institution: eg a default event by the underlying company could trigger a payment obligation as per the derivative contract.
[11] For example, using weather derivatives and natural catastrophe-based derivatives, one might be able to get insurance-like protection.

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2.5 Securities clearing and settlement systems

2.5.1 Securities clearing and settlement as a process

Securities clearing and settlement systems refer to systems comprising the clearance and delivery (settlement) of securities transactions. Counterparties agree on trade details either bilaterally on OTC (over the counter) markets or on the stock exchange, after which the transaction has to be cleared. The transaction then proceeds to settlement, when the title to the security is transferred to the buyer and a corresponding transfer of funds to the seller takes place.

The clearing and settlement process comprises the following:

– matching and confirmation of trades
– issuance and matching of clearing instructions
– calculation of clearing parties' positions and possible netting
– possible guarantee of the transaction
– transfer of funds and securities
– registry entries (shares) relating to the transfer of ownership

The Finnish Central Securities Depository (APK), which is part of the HEX Group, is responsible for the centralised clearing and settlement of debt and equity instruments in Finland. Derivatives clearing and settlement is conducted on the Helsinki Exchanges.

2.5.2 Evolution of securities clearing and settlement systems in Finland

The paper-free book-entry system of securities was introduced to the Finnish securities market in spring 1992. Share transactions were cleared and settled on the KATI system of the Helsinki Stock Exchange. Book-entry securities were cleared and settled on the Helsinki Money Market Centre (HRmk). Standardised options and futures were cleared and settled on two option exchanges, which were the Securities and Derivatives Exchange, Clearing House (SOM) and the Finnish Options Exchange (FOEX).

Finland's book-entry system was a decentralised organisation in that several organisations authorised by the Ministry of Finance held their own book-entry registers. The central organisation and key coordinator was the Association of Book-entry Securities, whose members were all organisations running their own book-entry registers. Registers of share owners and of instruments entitling to the ownership of shares were held by the Central Share Register of Finland.

In early 1997, the Finnish state, Bank of Finland and major market participants decided to centralise the Finnish book-entry system and founded the Finnish Central Securities Depository (APK). HEX Ltd, which was formed at the beginning of 1998, became the parent company of APK at the end of the same year.[1] However, the decentralised book-entry system was employed for equities (OM system) up until October 2000, when all book-entry registers were centralised at APK. In contrast, the clearing and settlement system for bonds and money market instruments (RM) has been a centralised solution right from the beginning.[2]

Clearing and settlement of securities

Securities clearing involves calculation of positions prior to settlement. Settlement systems may operate on a gross or net settlement basis and can be real time or based on batch processing.

– In the gross settlement system, each clearing party has to deliver the payment corresponding to the trade and the amount of securities traded in gross terms.

– In the net settlement system, delivery obligations are only settled in net terms and normally via batch processing at a pre-agreed time. Netting can be applied to payments only or to settlement of each type of security.

– Systems based on batch processing may carry out one or more batch runs a day. If there are several daily batch runs, the system practically functions in real time.

In APK’s clearing for equities, clearing parties’ money transfers are netted on a multilateral basis, but securities are settled in gross terms.

[1] For more information about the structure of the HEX Group, see section ”Share markets and the stock exchange” in this book.
[2] ECB 2001.

In the clearing system for bonds and money market instruments trades are settled in gross terms.

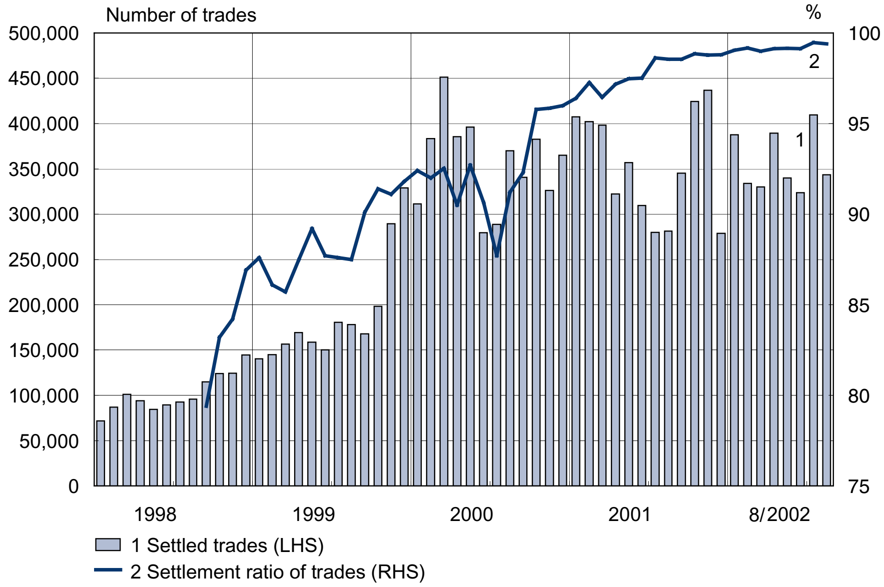
Clearing and settlement systems can also be categorised on the basis of whether they use central bank money or commercial bank money in settlement. In Finland, settlement is carried out with central bank money via the Bank of Finland's real-time gross settlement system known as BoF-RTGS.

Preparation of the settlement of book-entry securities begins in APK's KATI clearing and settlement system automatically as soon as the trade has been confirmed in the HETI trading system of HEX. Trades concluded outside HEX, which are cleared in the OM system, are entered for clearing separately in the KATI system. Exceptions excluding, the normal clearing period is three banking days (T+3). In other words, securities are entered in the buyer's book-entry account and the settlement sums are transferred on the 3rd day from the transaction. The actual settlement actions take place on settlement days between 9 am and 1 pm.[3]

In recent years, the number of trades has increased considerably in the OM system, operated in net terms and based on batch processing, particularly due to the large volume of trading in shares in Nokia and other IT companies. The clearing and settlement system for equities has been hampered by capacity problems and counterparty risks in recent years, but the centralisation of all book-entry registers at APK in October 2000 consolidated the system significantly and created the platform for major system reforms. This development also made it possible that the settlement ratio of share transactions (T+3) has improved considerably and has stabilised at over 99% (see Figure 1).

[3] ECB 2001.

Figure 1. **The number and settlement ratio of trades settled in APK during 1998–2002**



Source: HEX.

Fundamental system reforms are needed, however, in order to further develop the market place and reduce systemic risks. As a result, in late 2000 design work was commenced at HEX on a new HEXClear clearing and settlement system for equity and other book-entry securities traded in the OM system. HEXClear will be a real-time gross settlement (RTGS) system where trades will be settled individually as soon as clearing requirements are met. In addition, several trades can be settled in a single settlement cycle, thereby optimising the number of settled trades and reducing the amount of cash involved. Book-entry securities and their payments are delivered at the same time in line with the delivery-versus-payment (DVP) principle, and payments are made solely with central bank money. The system is scheduled for implementation in equity clearing gradually over the course of the early part of 2003, and is intended to be expanded later to include all equity and debt instruments.

Another significant project under way concerns the introduction of what is known as the multi-tiered ownership structure for book-entry securities in Finland. It would operate alongside the current system of direct ownership and would thereby have major implications for APK. At the moment, in legal terms the book-entry account of every Finnish investor is in APK's central register. This arrangement differs from the solutions operated in most European countries, where a multi-tiered ownership structure is allowed. Accordingly, there are structural and operational differences between the Finnish and other European systems. In a multi-tiered system there is no direct link between investors and the central securities depositories. Instead, retail investors manage their assets via investment firms or banks, which keep records in their own systems of their customers' assets and asset transfers. In Finland, the successful execution of equity settlement by intermediaries is dependent on the successful entry of registrations in the book-entry accounts of individual retail investors. In 2001, the Ministry of Finance called together a working group, whose task was to investigate ways in which Finland could allow for the introduction of the multi-tiered ownership structure. This solution would mean that the direct ownership of individual securities would be replaced by proportionate ownership, based on the number of assets on an omnibus account. At present this arrangement is only allowed for the custody of assets of foreign investors. An additional aim of the multi-tiered solution is to offer investors an alternative way of accounting so that the accounting of intermediaries would be on a stronger foundation in legal terms than it is now. The introduction of the multi-tiered system would bring the Finnish book-entry system closer to its Central European counterparts and open the door to foreign competition in Finnish custody services. The efforts of the working group are closely linked to APK's projects regarding the renewal of the clearing and settlement system, central counterparty clearing houses and the publicity principles concerning ownership.[4]

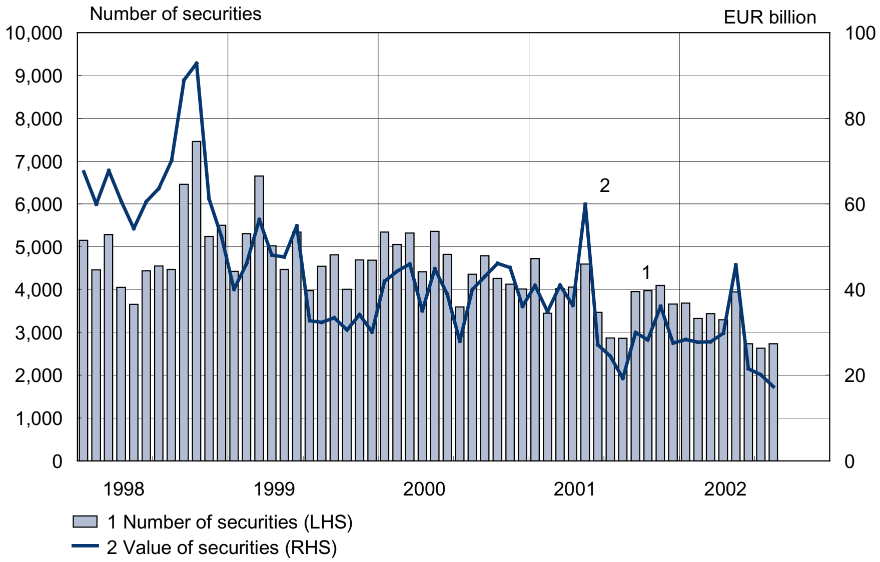
Money market instruments are cleared and kept in custody in APK's RTGS-based RM system. The trades cleared and settled in the RM system are bulk trades and the instruments traded are book-entry debt securities (bonds, certificates of deposit, commercial papers, Treasury bills and local authority papers). Trading is conducted mainly over the telephone and trades are entered in the clearing and settlement system. Exceptions excluding, the clearing period is two or three banking days (T+2 or T+3), depending on the instrument. If the parties so wish, the system enables execution of trades immediately after the transaction. The RM system also manages eligible Finnish assets approved by the ESCB and given as collateral to the Bank of

[4] The working group's final report does not propose adoption of the multi-tiered ownership system in Finland at this stage. The multi-tiered solution would require a fundamental change in the Finnish book-entry system of securities and entail major operative changes for all parties involved in the securities business. However, the EU may begin to draft regulations concerning securities.

Finland. RTGS clearing is enabled throughout the opening hours of the system, ie from 8 am to 7 pm. Settlement payments are transferred via APK's settlement account at the Bank of Finland.[5]

The RM system has been very reliable. However, the number of trades settled has reduced in recent years (see Figure 2). This is partly a reflection of the slow process of securitisation. In the wake of the introduction of the euro, trading in money market instruments has increasingly shifted to interbank deposits, in other words away from certificates of deposit.

Figure 2. **The monthly number and value of securities settled in APK's RM system during 1998–2002**



Source: HEX.

Clearing and settlement of standardised derivatives

All derivatives trades conducted on the Helsinki Exchanges are also cleared and settled on the Helsinki Exchanges. According to the cooperation agreement concluded by HEX and Eurex in 1999, trading in derivatives based on the most liquid underlying assets was centralised at Eurex. Nokia's share option is one of the main products

[5] ECB 2001.

of Eurex. However, HEX has also taken new derivatives on its domestic trading list.

As regards the clearing and settlement of derivatives listed on the Helsinki Exchanges, Helsinki Exchanges acts as the central counterparty vis-à-vis the end customer. In other words, the buyer and seller can operate independently of each other. The intention is to create an active secondary market for derivatives. The monetary transactions concerning derivatives clearing and margining between HEX and the intermediary as well as the eventual execution of trades is generally conducted with commercial bank money.

The trades conducted by Finnish intermediaries at Eurex are cleared directly with the clearing party. According to Eurex rules, intermediaries act as counterparties in customer transactions; in other words, they are clearing intermediaries towards Eurex. Eurex does not monitor customers' individual trades but keeps a register of trades and positions for each intermediary. That is why HEX provides a special risk management and clearing service known as HEXBos to Eurex's Finnish members. HEXBos enables sharing of Eurex trades and maintenance of positions for each customer in real time.[6]

Register functions and other services

At the end of 2001, there were a total of 199 companies, approximately 891 000 owners and 1.2 million book-entry accounts in the Finnish book-entry system. In addition to the actual book-entry accounts, APK also maintains the following registers:

– Issuer registers, where details of issuers and issued securities are entered (eg equity capital and the number of securities)
– Owner registers, where details of each book-entry security owner are entered
– Insider register.

In addition to the clearing of trades and ancillary register functions, APK also provides support services, eg the possibility for securities lending in the event of delivery problems. Delivery problems can be managed, for example, by security loans entered into the KATI clearing system, and the corresponding shares can be delivered from

[6] For further information about the derivatives market, see section "The derivatives markets" of this book.

the HEX lending pool. In 2001, the number of loans totalled 17 449. Recourse to securities lending in the event of delivery problems has become increasingly popular, which is partly reflected in an improved settlement ratio (see above).

In 2001, HEX bought from Sampo Bank Plc 95% of the share capital of Sampo Custody Services. The name of the company was subsequently changed into HEX Back Office and Custody Services (HBO), which operates as a subsidiary of the HEX Group. HBO handles all post-trade operations, and the service is mainly targeted at institutional investors, investment funds and other professional investors. The service aims at improving cost efficiency and enhancing the smooth functioning of the clearing and settlement process, thereby reducing risks.[7]

2.5.3 APK and international cooperation in the field of clearing and settlement systems

Clearing and settlement systems have been under increasing pressure to integrate in recent years. Clearing houses are often closely linked to a given marketplace. There are various forms of cooperation: clearing houses can be vertically integrated with, for example, a stock exchange (which is the case in Finland), or clearing houses are horizontally integrated with the clearing houses of other countries.

In integrating markets, links between securities depositories are an important part of the clearing and settlement process. APK has links to the following securities depositories:

– Clearstream Frankfurt in Germany, for all Finnish and German instruments and Swiss shares
– Euroclear France (formerly Sicovam), for all Finnish and French debt instruments[8]
– Necigef in the Netherlands, for Finnish and Dutch shares.
– VPC in Sweden, for Swedish shares. [9]

The two-way links from the RM system to the clearing and settlement systems of France and Germany have been approved for the transfer of collateral granted by the ESCB. It is via these links that Finnish investors or foreign investors keeping their assets in custody in

[7] HEX 2002.
[8] The link was closed in June 2002.
[9] The link has operated since 9 September 2002.

Finland can manage their assets in the Finnish book-entry system. Indeed, market participants have been very active in using these links for investment purposes.

Market participants operating from abroad can also clear and settle their trades by using the services provided by custodians.

In Europe it is increasingly common that trades are cleared with one central counterparty (CCP). Most European markets have a dedicated CCP, which nets the claims of the original counterparties after novation, in other words by itself becoming a counterparty to both parties. Large market makers and institutional investors are particularly interested in this kind of procedure, because the services offered by CCPs reduce their own capital requirements and free them from counterparty risk, which is always involved in each trade. The use of CCPs is also considered as cutting down clearing costs. On the other hand, there is a certain risk element involved in CCPs themselves, so they themselves become a major operator on the financial market from the point of view of systemic risk. It is for this reason that the ESCB, among others, is interested in the role of CCPs when it comes to the functioning of the financial market. So far CCP clearing and related services have been used in Finland only in derivatives clearing. However, HEX is exploring ways to introduce CCP clearing, and cooperation initiatives on the Nordic level are also under way. Nowadays Europe's largest CCPs also offer their services beyond their home markets.

2.5.4 Supervision and regulatory developments

APK is a self-regulatory organisation. The rules of APK are confirmed by the Ministry of Finance after consultation with the Bank of Finland and the Financial Supervision Authority (FSA). The Ministry of Finance also has the power to grant or withdraw APK's authorisation. APK bears part of the responsibility for the supervision and development of the book-entry system, and its decisions serve as instructions on using the system. In addition, APK grants the right to function as an account operator or as an agent for an account operator.

The Bank of Finland considers securities clearing and settlement from the point of view of oversight, a user and a service provider.

Through oversight the Bank of Finland aims to make sure that risks stay within reasonable limits so as to ensure the stability, reliability and efficiency of the financial system. Part of the oversight is then carried out by means of monthly supervisory meetings with the APK.[10]

As regards matters relating to the development of APK and the securities markets, the Bank of Finland works in cooperation with the FSA and the Ministry of Finance. The Bank also contributes to the preparation and drafting of legislation concerning clearing and settlement systems. Furthermore, the Bank has made an active contribution to supervisory cooperation with the FSA in securities clearing and settlement. In September 2001, the FSA called together a Clearing and Settlement System steering committee (SJO) as well as a working group of experts in settlement systems to work for the committee (SJA). Both authorities and market participants are represented in the new bodies. The objective is both to develop securities clearing and settlement operations in Finland in general and coordinate the respective development and risk management, as well as to promote the introduction of international minimum standards in Finland.

In connection with the planned listing of HEX, moves towards greater flexibility of self-regulation of HEX and APK have recently been some of the key projects requiring cooperation among authorities. The objective is to ensure that account operators and their agents comply with various regulations concerning the operation of APK, and that they operate in compliance with public information requirements.

The Bank of Finland uses clearing and settlement systems for the execution of its monetary policy operations. The Bank also offers a settlement account service, which enables holders to have access to central bank money in the clearing and settlement process.

The ECB had defined nine criteria which settlement systems must meet before they can be used for the management of the collateral accepted by the ESCB.[11] The Bank of Finland was involved in preparing these criteria.

The Committee on Payment and Settlement Systems (CPSS) of the G10 countries and the International Organization of Securities Commissions (IOSCO) have together drawn up recommendations on securities clearing and settlement systems.[12] The recommendations of the report have been divided into six groups that define the objectives for the following criteria:

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[10] For further information about oversight, see section “Oversight” of this book.
[11] EMI 1998.
[12] CPSS, IOSCO 2000.

- Legal risks
- Risks preceding the clearing stage
- Actual clearing risks
- Operational risks
- Custody risks
- Some other factors such as membership criteria, efficiency and supervision.

A significant innovation in the report is the functional approach, which has been used in an attempt to avoid problems arising from the vast global diversity in institutional circumstances. Such detailed recommendations therefore are not directed at any particular type of institution, rather at all participating institutions in each country providing a certain operation or service.

As clearing and settlement systems are increasingly under pressure to integrate, both supervisors and central banks have acknowledged their interdependence in ensuring a reasonable and efficient infrastructure in present conditions.

At the end of 2001, the joint committee of the ESCB and the Committee of European Securities Regulators (CESR) was established to develop regulations concerning the European securities clearing and settlement systems. The working group's mission is based on the 19 recommendations issued by the G10 countries in November 2001 (see above). The FSA and the Bank of Finland are both involved in this committee. The purpose of the group's work is to focus on the global recommendations, making them more binding and creating a uniform European regulatory environment for clearing and settlement systems, CCPs and possibly for custody banks.

The Giovannini Group, a working group supported by the market participants and working in cooperation with the European Commission, published its first report on securities clearing and settlement arrangements in November 2001.[13] The report revealed the barriers that exist and costliness of cross-border securities transactions within the EU. The group continued its work, and the second report was published in April 2003. The second report attempts to provide solutions to the problems identified in the first report. A clear and credible strategy for removing the barriers is likely to accelerate the process of consolidation in the EU clearing and settlement infrastructures. Accordingly, the report examines the public policy aspects of this process in the context of three possible consolidation

[13] The Giovannini Group 2001.

models.[14] The European Commission also published a communication on the clearing and settlement activities in the European Union in May 2002.[15] With this communication it aims to explore the present situation and investigate future challenges facing securities clearing and settlement. The communication supports the European Commission's progress report on financial services, which aims at imposing new basic provisions for the promotion of financial market integration by 2005.

All these and many other projects initiated by authorities or market participants partly contribute to the direction that the development, regulation and supervision of securities clearing and settlement systems will take in the immediate future, both in Finland and globally, without ignoring the impact that the projects will have on the attitudes of stock exchanges and post-trade operators concerning market integration. It is clear that the debate needs to be opened up in Finland concerning ways of ensuring that Finnish institutions and retail investors have adequate securities clearing and settlement functions as integration advances further.

[14] The Giovannini Group 2003.
[15] COM(2002)257.

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Chapter 3

Financial intermediation and financial and insurance institutions

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3 Financial intermediation and financial and insurance institutions

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3.1 Credit and other financial institutions

3.1.1 Structural changes in 1996–2001

The process of rapid structural change in Finnish credit and financial institutions initiated by the severe recession and banking crisis of the early 1990s has continued into the period of Finland's EU membership, which began in the mid-1990s. The post-banking-crisis restructuring of credit institutions has been redefined as preparation for coping with the heightened competition of the euro era.

These developments have led to pronounced internationalisation of financial and banking markets, to the point that, in the minds of many, domestic banking has disappeared. The many international forces for change have consequences in all countries, including financial and banking activities in Finland. Present and future forces for change include new ways of competing; changes in customer needs and standards; increasing average size of banks; attempts to improve operational efficiency and profitability; cross-sector business activities; and technological progress. For example, technological advance increases competitive pressures by lowering the barriers between business sectors and thus easing crossovers. Technological progress has been particularly apparent in the rapid development and increased utilisation of Internet applications in normal banking operations.

Among financial sector entities, banks continue to occupy a key position, due to their size and central role. Also interesting and noteworthy is the way banks are adjusting even as the winds of change are blowing. In Finland, as elsewhere, banks are facing tightening competition. At the time of writing, for example, Parliament is considering a long-prepared change in legislation on credit institutions, one aim of which is to raise the level of competition. If the changes are approved in their present form, this will mean eg that retail stores will have the right to accept repayable funds.

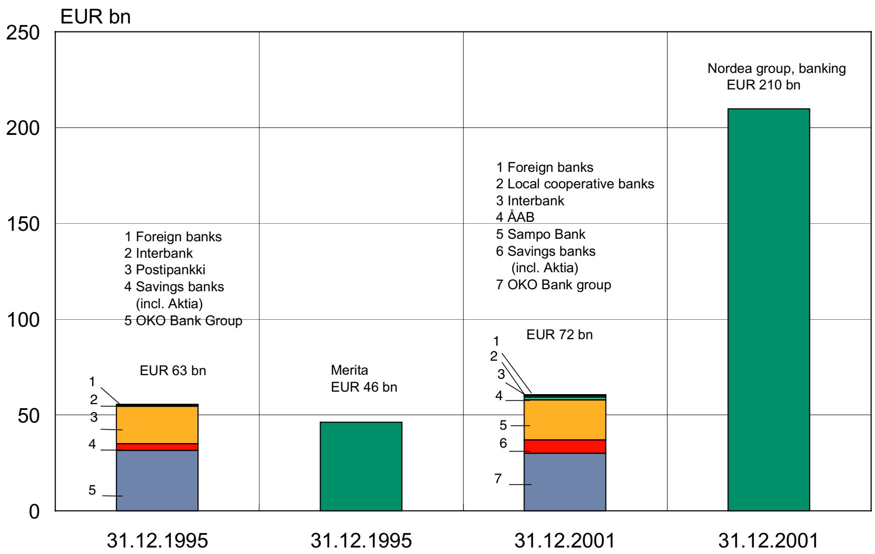
Deposit banks

Key developments since the mid-1990s

In examining the key changes in relationships between deposit banks and in the structure of the banking sector, one notes big changes among commercial banks over the five-year period 1996–2001 (annex 1). First, as a result of mergers and other alliances, the names of many banks have been changed and new financial groups have been formed. Moreover, some totally new banks have come on the scene.

The number of bank branches has fallen since the banking crisis in the 1990s, having apparently levelled off in recent years at about 1,500 (figure 12). One the other hand, the number of bank employees has increased slightly in this decade. Measured by balance sheet total, Nordea Group is by far the biggest financial group engaged in deposit banking in Finland (figure 1). Of the individual banks, Sampo Group is presently the biggest, albeit the OKO Bank Group is larger.

Figure 1. **Balance sheet totals of banks operating in Finland, 1995 and 2001**



Source: Financial Supervision Authority.

Also in terms of deposit market share, Nordea Bank (Merita) is the largest (table 1). The market shares of both Nordea and Sampo Bank have however declined slightly during the period studied. The OKO

Bank Group and other banks have correspondingly increased their shares of the deposit market.

Table 1. **Market shares of deposit banks operating in Finland, euro deposits[1], %**

	1995	1998	2001
Nordea Bank Finland	42	40	37
OKO Bank Group	34	30	32
Sampo Bank	16	15	15
Savings banks (incl. Aktia)	6	8	9
Local cooperative banks		3	3
Other banks	2	4	4
Total	100	100	100

Sources: Bank of Finland and banks' annual reports.

In spring 1995 Finland's two largest commercial banking groups, Unitas and Kansallis-Osake-Pankki, combined business operations to form Merita Bank Group. Annex 1 presents a detailed, time-sequence list of events since the mid-1990s. Merita-Nord-banken, formed via a merger between Merita Bank Group and the Swedish Nordbanken Group, commenced operations in 1998. The Danish banking group, Unidanmark, and MeritaNordbanken merged in spring 2000 and were joined by the Norwegian Christiania Bank og Kreditkasse at the end of the year. In July 2001 the group acquired the Swedish Postgirot Bank. The stated rationale was to maintain and improve profitability in the face of increasing competition eg via cost reductions and other synergy benefits.

In December 2001 the names of all retail banks in the group were changed to Nordea. Nordea's organisational structure is at present exceptional by European standards, since it is the only case in Europe in which a significant part of multinational banking and financial operations are combined in the same corporate entity in such a way that country-specific operations lose their significance.

The state-owned Postipankki group became the Leonia group in spring 1998. In this connection, Finnish Export Credit, which had operated as a special credit institution, became part of the group under the name Leonia Yrityspankki plc. Sampo-Leonia was formed via a merger between the insurance group Sampo and banking group

[1] The deposit concept includes those of the public but excludes central government deposits and money and capital market instruments.

Leonia at the start of 2000. Mandatum Bank was created in 1998, when the commercial bank Interbank Ltd and Mandatum & Co were merged. Sampo-Leonia and Mandatum Bank Group agreed to combine business operations in early 2001, to form Sampo. Sampo's non-life incusrance business was transferred to the Nordic insurance group, If-Holding Group in 2001. At present, Sampo Group is structured as a typical financial conglomerate. The stated rationale was similar to that for the formation of Nordea.

In summer 2001 the brokerage firm Evli became a commercial bank, and at the end of 2001 there were eight commercial banks in Finland: Evli Bank, Gyllenberg Private Bank, Nordea Bank Finland, OKO Bank Consolidated, Okopankki, OP-Kotipankki, Sampo Bank and Bank of Åland. More commercial banks were on the way in 2002, eg the insurance company Tapiola, Finnish Mortgage Society member banks and eQBank.

The savings banks suffered the most from the banking crisis and recession of the early 1990s. Savings Bank of Finland, after being in operation for about a year, was sold in 1993 to four competitor banks, which meant a reallocation of market shares amounting to just over 20% of the Finnish retail banking market. As part of the reorganisation, the asset management firm Arsenal was established and took over some FIM 40 billion (almost EUR 7 bn) of problem loans and assets. In connection with a capital injection, the state became majority owner of the savings banks' central financial institution, Skopbank. The central financial operations of the savings banks were transferred via a merger to Aktia Savings Bank, which was established in 1993 as a limited-company savings bank. Skopbank continued to operate under the Skopbank name until its banking licence was rescinded at the end of 2000. Since 1993, there have been no further mergers among savings banks, which presently number 40.

The cooperative banks reorganised as a group of cooperative banks in 1997, and member banks and their central financial institution became jointly responsible for each others' debts and commitments. The group comprises 244 member cooperative banks and the statutory central financial organisation, OKO Bank Group Central Cooperative. The OKO Bank Consolidated, which is listed on the stock exchange, functions as a commercial bank and the group's central financial institution. It is owned mainly by the member cooperative banks and OKO Bank Group Central Cooperative. The OKO Bank Group is not a group in terms of accounting law; its juridical organisation is based on separate legislation. There are similar banking organisations in other euro area countries. Since 1993 only a few small member cooperative banks have merged.

Some of the cooperative banks did not join the group. These 42 cooperative banks formes the group of local cooperative banks. Aktia Savings Bank serves as their central financial institution.

Many large international commercial banks have established branches in Finland.[2] Citibank International was the first foreign branch to operate in Finland. Other early starters were Suomen Indosuez Osakepankki and Svenska Handesbanken. The Swedish Skandinaviska Enskilda Banken established a Finnish branch in 1994, followed by two Danish banks, Den Danske Bank and Unibank, in early 1997. The most recent arrivals are the German Deutsche Bank and, commencing Finnish operations at the start of 2002, Norddeutsche Landesbank. In August 2002, there were 19 Finnish branches of foreign credit institutions (annex 2), of which Svenska Handelsbanken, SE-Banken, Danske Bank, Citibank International, Credit Acricole Indosuez, D. Carnegie, Deutsche Bank and Norddeutsche Landesbank Girozentrale are entitled to accept deposits.

The costs of the banking crisis of the early 1990s have so far been covered by one means or another, in connection with various post-crisis clean-up measures. Recent estimates suggest that net (of collateral realisations) crisis costs have come to about 7% of 1995 GDP (nearly EUR 7 bn). The estimates do not include interest on bank support. However, banks' efficiency and profitability strengthened notably over the period 1996–2001, thanks in part to these measures. Because of a fairly rapid restoration of health, abetted by export growth, Finnish banks have now a solid capital base.

Present structural phase and trends of deposit banks and consequences for supervision

Big changes in the banking sector cause problems not only for prudential supervision but also for macroprudental monitpring and analysis, which is concerned with the stability of the sector as a whole. For example, Limiting the analysis of Nordea's activities to Finland becomes extremely difficult. The structures and trends of the large banks and banking groups are examined below against this background.

Nordea Bank Finland, which operates in Finland, is owned by the holding company Nordea, which is registered in Sweden. The holding

[2] Because foreign banks could not establish branches in Finland before 1991, they set up subsidiaries instead.

company also owns large insurance companies and investment firms. The banking activities of the holding company Nordea, ie the Nordic Nordea banking group, are concentrated in Nordea Bank Finland Group, which has the subsidiaries Nordea Bank Danmark, Nordea Bank Norge and Nordea Bank Sverige.

From the viewpoint of the Finnish financial markets, the most useful data in attempting to estimate the size of activities of Nordea Bank Finland (NBF) would exclude foreign branches and subsidiaries, so that the data would accord with the MFI (code number 202) category. However, since such are not published, an indirect approach must be employed in order to get a rough picture of NBF's activities in Finland[3].

Some of the problems with this approach are that it involves estimates of numerous items, intragroup transfers etc. This means that the estimates may eg involve double counting or may be based on different assumptions in different countries. It may also be the case that credit extensions – subsidiary bank to Finland and vice versa – are overlooked in analysing the Finnish financial markets.

Also in respect to micro-level juridic-institutional bank supervision, the Nordea group presents big challenges. The primary supervisor of NBF is the FSA, which is thus reponsible for supervision of the three Nordic subsidiary banks. On the other hand, the Swedish supervisiory authority (Finansinspektionen) supervises Nordea as whole, which is registered in Sweden, and thus also has home authority responsibility for the group's internal operations in all countries. The Nordic supervisory authorities have in fact agreed on a cooperative arrangement. Adding to the complexity of the situation is the fact that the Nordea Group is engaged not only in banking but also in insurance activities, and supervision of such fianancial conglomerates is organised differently in different countries.

[3] Three different methods of estimating of the size of NBF's balance sheet are the following. 1) Deduct published data on bank subsidiaries in the three other Nordic countries from NBF's group-level data, to obtain Nordea's deposit bank group''s Finnish share, ie just over EUR 45 bn. The problem here is that items internal to the group are not known, eg the extent of involvement of the Finnish parent bank in acquiring finance for the whole group. 2) One could also use NBF's published data that include the parent bank, which operates in Finland, and foreign branches. When eg deductions are made for claims on credit institutions and shares and other equity in companies belonging to the same group, one obtains a Finnish share of the balance sheet amounting to about EUR 45 bn. The problem here is that, besides the branches of the the former Merita, NBF's parent operations now include the foreign branches of all three Nordic countries' subsidiaries. 3) Assume that NBF's balance sheet structure mimics the typical balance sheet structure for a commercial bank in that the bank's lending (EUR 22.5 bn) comprises about half of its balance sheet total. The total is thus about EUR 45 bn.

There are also formidable difficulties in separating the operative areas of the Sampo Group. The Group was founded in 2000 via the combination of the credit institution group Leonia and the insurance company Sampo. Sampo continued to operate in 2001 as three juridical units: Sampo Bank, Sampo Credit (export and project financing and large corporate customers) and Sampo Business Properties. In 2001 Sampo turned over its non-life insurance business to the Nordic If Group, partly in exchange for shares acquired from If.

Although it too is a financial conglomerate, Sampo's organisational structure is somewhat more clear-cut than that of Nordea. Sampo Bank's balance sheet data are published at both parent-bank[4] and group levels. Nonetheless, some of the group's internal transfers and other arrangements etc do raise questions about the effects on the data studied here. Supervision is affected by a new law on financial conglomerates (based on a Commission directive proposal) that was passed in December 2001, under which the main supervisory responsibility for a group engaged in both financial and insurance activities is determined to be either the FSA or ISA, depending on balance sheets and capital requirements (see chapter 6 for more details). Accordingly, the FSA is now the main supervisor for Sampo.

For the OKO Bank Group the biggest changes came in connection with a reorgainsation in 1997, when the local cooperative banks left to form their own group. There have been no big changes in recent years; growth has occurred organically. OKO Bank Group have become more active eg in the Greater Helsinki area. Like other banking groups, it have been seeking closer ties with insurance companies.

Generally speaking, Finnish deposit banking markets are now quite highly centralised in structure. The players include Nordea, the biggest bank; a large banking group that is part of a financial conglomerate; and another large banking group. These account for very large portions of all financial activities. For example, Nordea Group's market share in deposit banks' lending to nonfinancial companies is 45% and to households 31%. OKO Bank Group currently has roughly 32% market shares in both deposits and lending. For Sampo Group, the corresponding shares for both are 13–14%. Market shares of the other banks, though notably smaller, have grown faster since the start of 2000.

In winter and spring of 2002, decisions were made, eg by Tapiola and the Finnish Mortgage Society, on establishing new deposit banks.

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[4] Incl. foreign branches.

These new banks will be striving to gain substantial market shares in the coming years. Creation of new banks suggests that prospects are good for growing demand for financial services and that, in integrating financial markets, market structures change quickly as new actors arrive on the scene. One can be assured that market structures will continue to change in the future.

Other credit and financial institutions

Finance companies

The activities of finance companies differ from those of deposit banks in that the former do not include taking deposits from the public but instead funds are raised from the markets or from a deposit bank belonging to the same group. Finance company activities are governed by the Credit Institutions Act and include the following financial products:

- leasing
- investment finance
- factoring
- instalment credit
- consumer loans

All of the finance companies registered as companies in Finland at end-2001 were associated with banks (table 2). Developments concerning finance companies in the latter half of the 1990s and since have been closely linked to their parent-banks' structural and other changes. Since 1996, Merita's two finance companies, at the time, have been combined to form Nordea Finance Finland and the separate cooperatives banks' own (Greater Tampere and Turku) finance companies have disappeared.

The biggest change has been in connection with Sampo Group's finance companies. After the mid-1990s, certain changes internal to Sampo Group were made regarding Postipankki's two former finance companies. Sampo Credit, which was established in October 2001 when Sampo Bank was divided into three companies, engages in export and project finance and caters to large corporate customers. Postipankki's former MB Yritysrahoitus – Sampo MB Group – is now a venture capital firm (details in section 3.4).

Table 2. **Banks' finance companies, 31 Dec 2001, EUR m**

	Balance sheet total	Own funds	Net interest income	Operating profit	Ownership
Sampo Credit[5]	4,671	657	11	10	Sampo
Nordea Finance Finland	4,006	239	130	74	Nordea-Merita
OP-Finance	1,221	55	20	10	OKO Bank
Sampo Finance	835	57	11	6	Sampo
Handelsbanken Finance	512	240	25	18	Handelsbanken

Source: company register.

In April 2002 it was announced that OP-Finance would be joined to its parent company, OKO Bank, as the Corporate Banking Division. The aim of the reorganisation was to improve the efficiency of the operation.

Besides the various banking groups, importers and store chains often have their own finance companies.

Mortgage institutions

Finnish mortgage institutions include three mortgage banks and the Finnish Mortgage Society (table 3). The newest arrival, Aktia Hypoteksbank, was authorised in November 2001. The mortgage banks are members of the various deposit bank groups.

Mortgage banking operations are based on the raising of funds from the markets for intermediation to borrowers. In contrast to many other countries, this type of financing has been relatively unimportant in Finland. A new Mortgage Bank Act, which entered into effect in 2000, has improved the operating environment for these institutions. Under the act, only a mortgage bank can raise funds by issuing bonds secured by housing or real estate collateral or guarantee of a public sector entity. The Finnish Mortgage Society (Suomen Hypoteekki-yhdistys) operates under separate legislation.

[5] Accounting period 1 Nov – 31 Dec 2001.

Table 3. **Mortgage banks, 31 Dec 2001, EUR m**

	Balance sheet total	Own funds	Net interest income	Operating profit	Ownership
Suomen Hypoteekkiyhdistys	336	38	4	3.0	Members
Suomen Asuntoluottopankki	51	6	0.6	0.1	Sampo
OP-Asuntoluottopankki	49	19	0.7	0.3	OPK
Aktia Hypoteksbank[6]	6	6	0.02	0.00	Aktia

Source: company register.

Credit card companies

Companies that engage in credit and debit card activities (table 4) provide credit to card-holders, ie customers, subject to agreed credit lines. The customer decides how much credit he will use. A card-holder pays an annual fee, usually set in accord with the credit line, and separate interest payments determined by credit usage. A credit card company will usually also charge the sellers of products and services a fixed percentage of the value of purchases paid by card.

International cooperation is common among credit card companies, since acceptance over a wide geographic area is crucial for credit card operations.

Table 4. **Credit card companies, 31 Dec 2001 EUR m**

	Balance sheet total	Own funds	Net interest income	Operating profit	Ownership
Luottokunta	391	101	–3	12	Store and banks
Sampo Kortti	104	12	9	5	Sampo
Diners Club Finland	50	9	0.6	4	Diners Club
Eurocard	47	8	–0.7	2	Store and banks
K-luotto	34	6	1.6	1.2	Kesko

Source: company register.

Other firms providing credit card and consumer credit belong to international companies, retailers and wholesalers. Two of these are GE Capital and Independent-rahoitus.

[6] Accounting period 16 Nov – 31 Dec 2001.

Special public sector credit institutions

Publicly owned special credit institutions (table 5) fill out the markets by taking on financing risks that cannot be born by private financiers. For this reason, it is expected that public credit institutions and various support elements should be as neutral as possible.

Table 5. **Special credit institutions, 31 Dec 2001 EUR m**

	Balance sheet total	Own funds	Net interest income	Operating profit	Ownership
Finnvera	1,411	326	49	34	State
Municipality Finance	3,769	36	6.5	1.8	Municipalities
Nordic Investment Bank	15,024	1,440	147	133	Nordic countries
Finnish Export Credit Ltd	335	22	1.6	1.2	State

Source: financial statements.

Finnvera commenced its regular operations at the start of 1999. Its task is to develop Finnish companies' domestic operations and promote exports and internationalisation. Finnvera is also Finland's official export guarantee institution. Its subsidiary, Fide, handles interest equalisation for publicly supported export credits. An associated company, Finnfund, is a venture capital firm that promotes Finnish entrepreneurship by providing risk capital and consultant services (section 3.4).

At the initiative of the Ministry of Finance, a new company, Finnish Export Credit Ltd, was set up at the end of 2000. Re-establishment of the company was viewed as essential for competitive reasons, because a state-owned lender is often a condition for special tax treatment. A credit company with the same name operated under state ownership from the early 1960s until 1998, when it was merged with Postipankki to form the Leonia Group.

The Nordic Investment Bank (NIB), which was established in 1975, provides long-term credits and guarantees for Nordic projects (no geographical restrictions). NIB obtains funding from international capital markets.

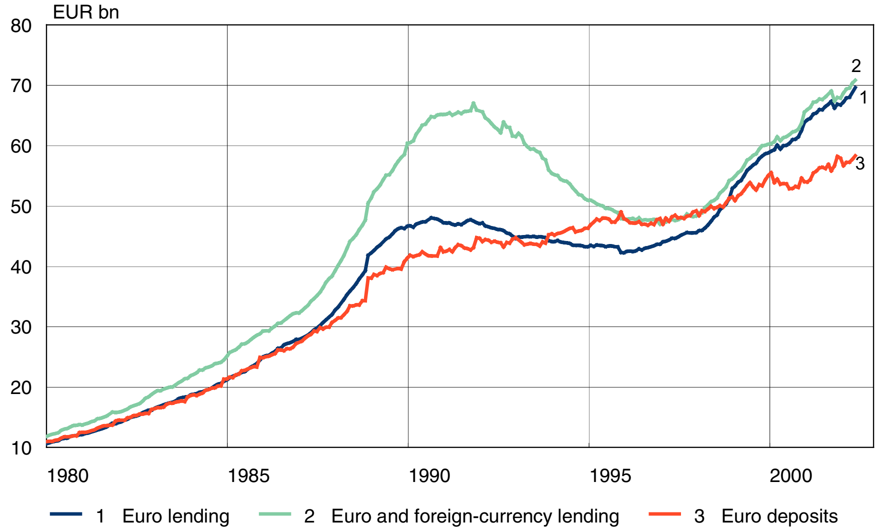
Other such entities, which generally provide risk capital, include Tekes, Sitra, Finnish Industry Investment and Municipal Guarantee

Board (section 3.4). The Housing Fund of Finland (ARA) grants ARAVA loans and approves subsidised-interest loans for construction, basic repairs and acquisition of rental and low-income housing. ARA also grants certain types of housing aid and oversees the state system for guaranteeing loans for owner-occupied housing.

3.1.2 Credit institutions' funding and investment activities

Deposit banks' funding and lending activities are affected by economic conditions as well as by structural changes in the financial markets. In the 1990s the banks' lending stock first declined because of the recession, write-offs for bad loans, high interest rates and weak demand for loans. Since 1996, banks' euro-denominated lending stock has been continually on the rise. Banks' deposits, while developing in a much steadier manner, have also increased continually (figure 2). As the financial markets have developed, deposits have eg declined as a portion of households' financial assets, even though euro-denominated deposits have increased.

Figure 2. **Deposit banks' lending and deposits, 1980 – Jun 2002**



Through 1998, markka lending and deposits.
Source: Bank of Finland.

Deposit banks' lending

Deposit banks' deposit taking from the public plays a central role in financial intermediation. Deposit banking is still to a large extent based on the collection from the public of usually small short-term deposits and transforming these into loans that are on average larger and of longer maturity. This process, referred to as maturity transformation, is the typical banking activity. At the end of June 2002, deposits of the public in deposit banks amounted to EUR 58.3 billion, ie about 43% of GDP. In the early part of 2002 households' deposits held in deposit banks amounted to just over EUR 8,100 per Finnish resident.

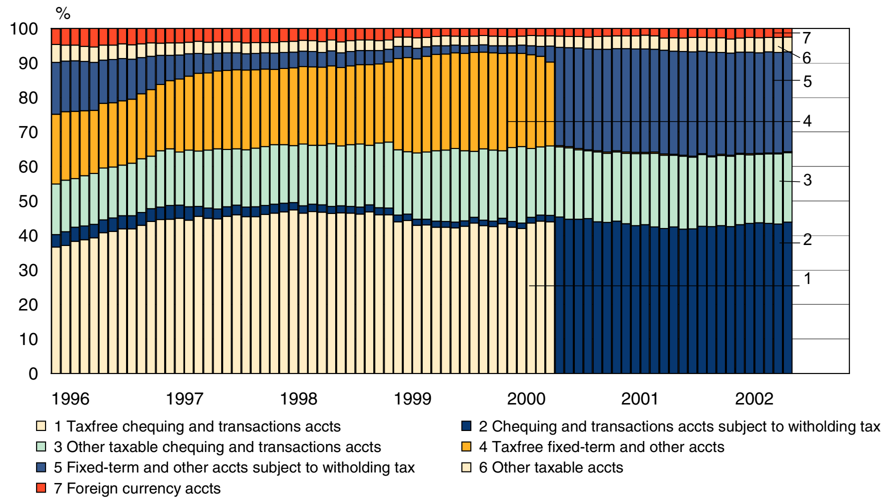
Deposits of the public are generally highly liquid, ie quickly convertible into cash when necessary. Moreover, the nominal value of a deposit does not decrease over time, albeit the interest payable may be low (possibly even negative in real terms) compared to other savings outlets.

Feelings of security associated with liquidity and preservation of nominal value are key to understanding why ordinary cheque, transactions and fixed-term accounts have remained popular with the public compared to other savings outlets such as shares, mutual funds, bonds, and voluntary pension savings.

Taxation of deposit interest was revised in summer 2000 so that all interest earnings on deposits is treated as capital income subject to withholding tax and taxfree status of deposits is rescinded. The rationale for the change was neutral treatment of savings outlets and greater competition. Ending the taxfree status of interest earnings did not have notable short-run effects on the public's use of deposits or banks' funding activities. Banks' funding costs, ie interest payments to the public, did not rise quickly nor were there significant money flows from deposits into other savings outlets (figure 3). Deposit taking was also affected in 1999–2001 by movements in share prices. When prices rose rapidly, growth of the deposit stock slowed and funds moved into other savings outlets, especially shares and mutual funds. Since summer 2000 falling share prices have resulted in faster growth of the deposit stock. A declining level of interest rates in 2001 also boosted deposit growth, since interest rates on deposit were close to those on other savings outlets.

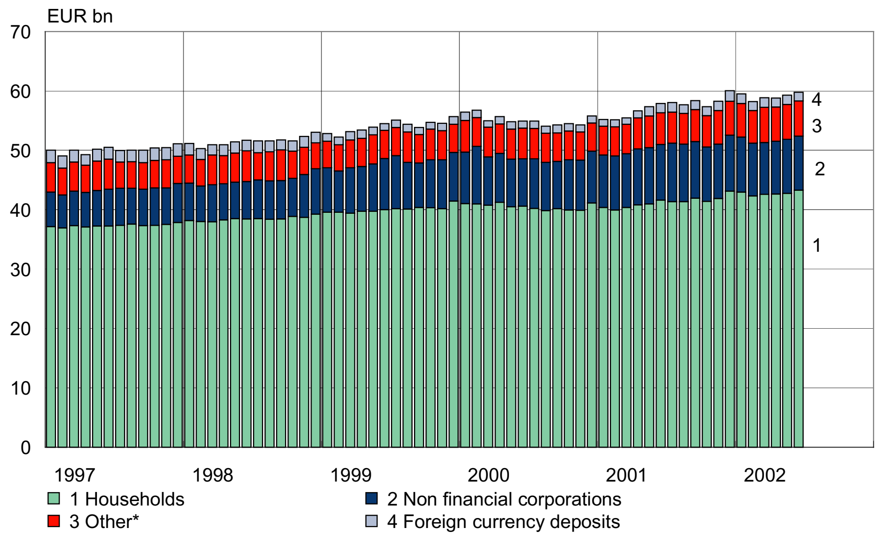
Sectoral analysis reveals that households' deposits account for three-fourths of bank deposits (figure 4). Nonfinancial corporations' share is ca 16% and that of the other sectors combined is only ca 9%.

Figure 3. **Deposits at Finnish banks by tax treatment, 1996–2002**



Taxation of deposits changed 1 Jun 2000.
Source: Bank of Finland.

Figure 4. **Public's euro bank deposits by sector, 1997–2002**



*Financial corporations (excl. banks), general government (excl. central gov), housing corporations, non-profit institutions serving households.

Source: Bank of Finland.

With ageing of the Finnish population and a continually rising average level of wealth, it is likely that the economic behaviour of the typical household is changing. This factor will in future have notable effects on the structure, adequacy and costs of bank funding. The search will be stepped up for alternatives to deposits that promise higher yields to investors. Today, the standard range of deposit bank services includes mutual fund services. Through his bank, the customer can invest eg in mutual fund shares or bonds.

Deposit banks have always had means of acquiring funds in addition to deposit-taking. Banks can participate in the money markets by issuing less-than-one-year CDs. Bond issuance is another important funding alternative for deposit banks. Formation of the euro area has expanded and harmonised the bond markets and thus improved banks' funding possibilities. The importance of funding options other than traditional deposits is certain to increase in the future.

Structure of the credit markets

In Finland credit and insurance institutions account for the bulk of lending to households and nonfinancial corporations. Households' housing finance has become increasingly concentrated in direct borrowing from deposit banks, even though legislation on mortgage lending enables mortgage banks to grant housing loans, as has been the practice for decades in many European countries. Corporate borrowing in Finland has also traditionally been mainly indirect and highly concentrated in deposit bank groups (figure 5).

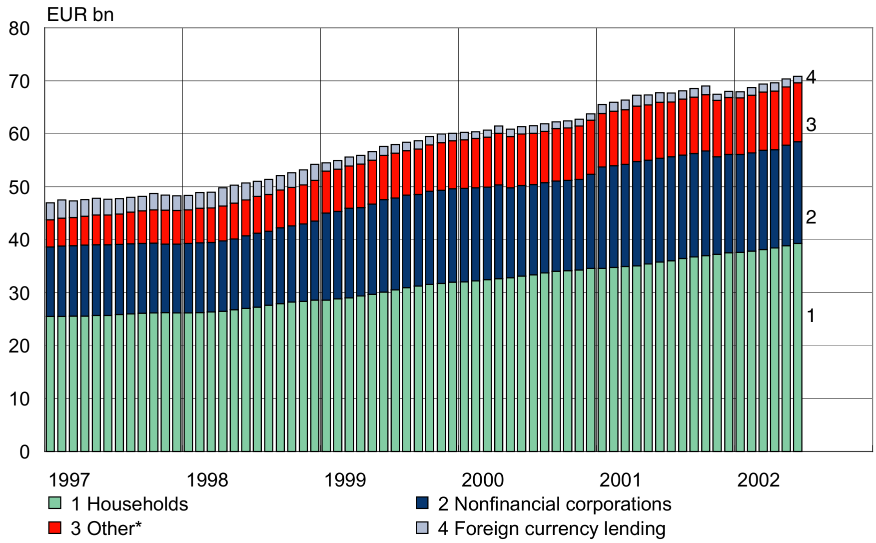
Of total household debt, nearly three-fourths is in housing loans. At end-June 2002 the stock of banks' housing loans was EUR 28.8 billion, having grown rapidly in recent years, eg by about 11.5% in 2001. Households' proclivity to borrow has been maintained by stable and lower-than-before interest rates as well as firm expectations of stable household income in the future. Brisk internal migration in Finland also buoys the demand for housing loans. Rapid growth of the stock of housing loans in recent years also reflects a lengthening of the average loan period. The rest of household debt comprises student loans (ca EUR 1.5 bn), consumer loans from deposit banks (ca EUR 3.2 bn) and household borrowing for business purposes (ca EUR 5.8 bn). The amounts of such credit have been quite stable in recent years.

Nonfinancial corporations' credit needs are attended to not only by deposit banks but also by many other credit institutions and insurance corporations. Deposit banks' corporate lending stock was ca EUR

18.5 billion in early 2002, which was two-thirds of total corporate borrowing in Finland. Finance companies also lend significant amounts to corporations. Many finance companies belong to banking groups. Foreign banks that have expanded their operations in Finland have gained importance specifically in the area of corporate finance in recent years (figure 6).

The demand for corporate loans is of course mainly affected by companies' expectations for the future, investment needs, and amounts of retained earnings. Tapping international sources of finance has also long been commonplace, especially among the larger companies. Banks and other corporate finance intermediators provide services in this connection that may include wide-ranging consultations or eg syndicated loans, in which several banks participate.

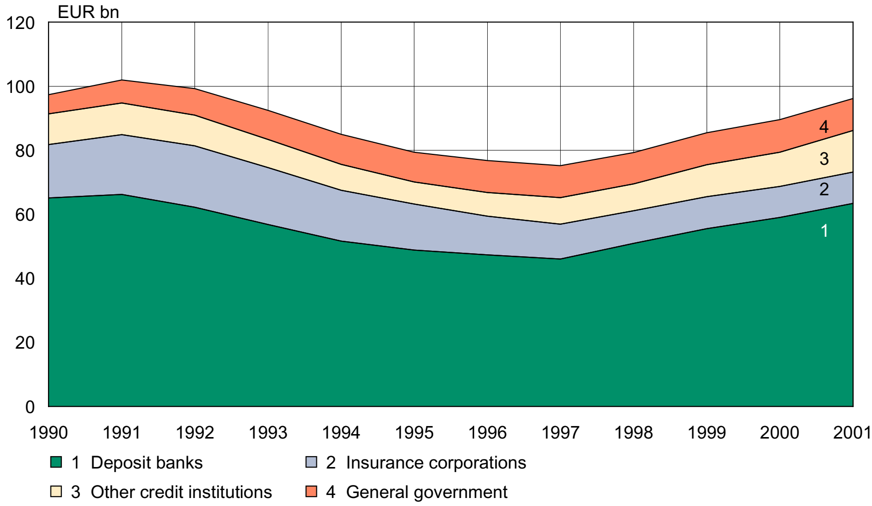
Figure 5. **Stock of banks' euro lending to the public by sector, 1997–2002**



* Financial corporations (excl. Banks), general government (excl. Central gov), housing corporations, non-profit institutions serving households.

Source: Bank of Finland.

Figure 6. **Stock of lending to domestic public, 1990–2001**

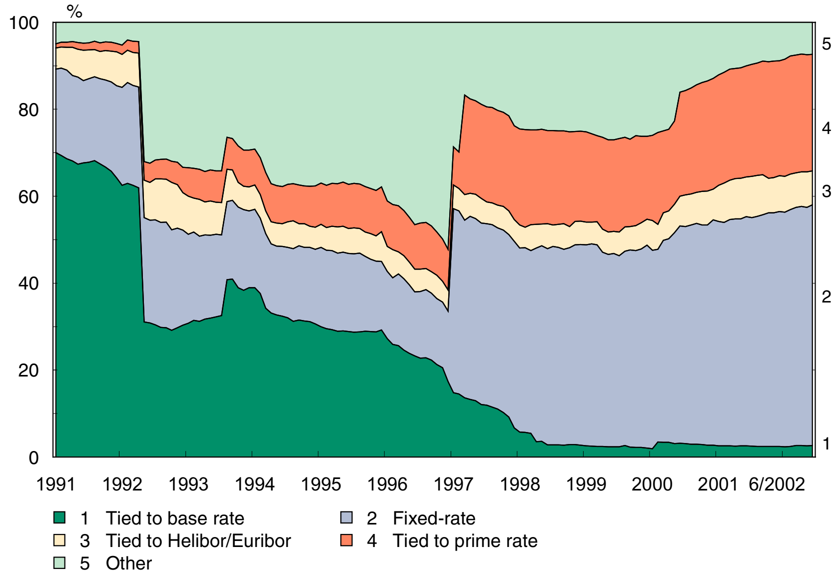


Source: Statistics Finland.

Interest rate linkages of lending and deposits

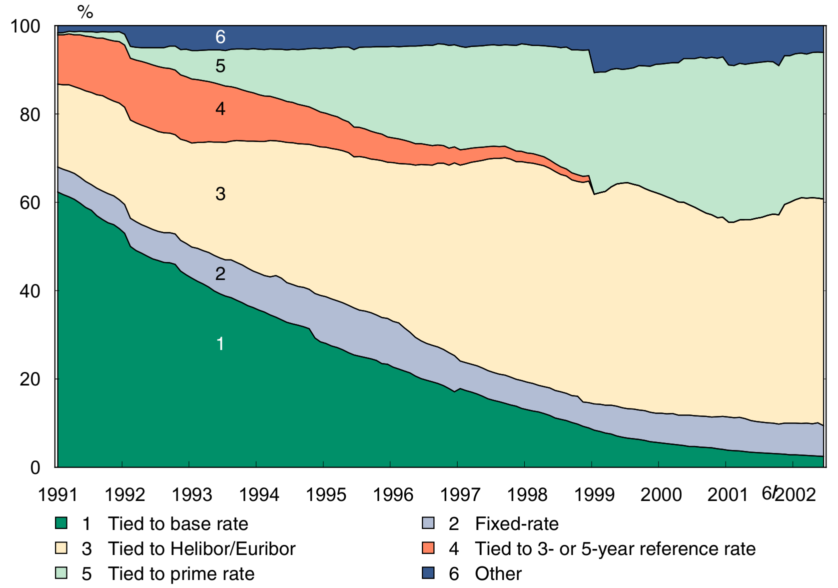
Interest rates paid on deposits and charged in lending, and changes in interest rates, are often tied to some other 'reference' interest rate. Nowadays, a reference rate may be set in accord with widely differing relationships between customer and bank. Euribors are widely used as reference rates but banks' own prime rates are also used. Deposits may also be taken or loans granted at fixed rates that are never adjusted.

Figure 7. **Interest rate linkages of deposit banks' euro deposits, 1991–2002**



Source: Bank of Finland.

Figure 8. **Interest rate linkages of deposit banks' euro lending stock, 1991–2002**



Source: Bank of Finland.

In recent years, interest rates on most deposits have been fixed or tied to prime rates. A large part of these are normal transactions accounts held by the public. Lending, in contrast, is for the most part tied to EURIBORs and prime rates (figures 7 and 8).

The important point is that in integrated financial markets customers are afforded a wide selection of interest rate linkages for both deposits and loans. The base rate, which had been a key reference rate for deposits and lending, lost its importance in the 1990s. The problem in using the base rate as a reference rate for deposits and lending was its inflexibility and lack of market orientation.

Interest rates and interest rate margin

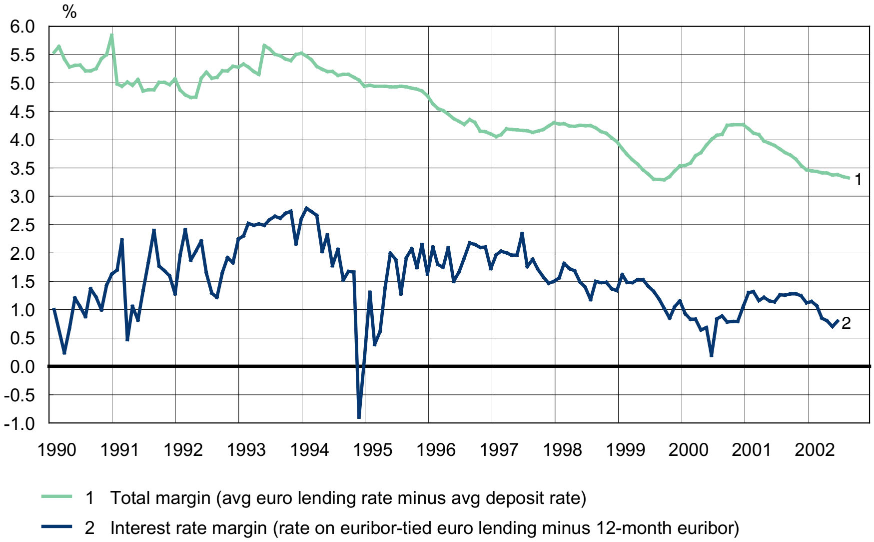
The interest rate margin, briefly defined, is the difference between the rates a bank charges on loans and pays on deposits, and it is measured in percentage points. In practice, the margin can be calculated in several different ways. In a slightly broader sense, it is overall rate of return on a bank's loans to the public and other financial market investments. A third possibility is to fix the bank's margin first and then add it to the price of funding (eg 3-month EURIBOR) so that the price to the customer is the market rate plus the bank's margin (excl. fees and commissions).

Deposit banks' interest rate margins change over time. Changes are most often due to changes in market rates, credit demand, or interest rate linkages, or to changes in the nature of price competition among banks.

The most commonly analysed interest rate margin is the difference between average rates on lending and deposit stocks. Since introduction of the euro at the start of 1999, deposit banks' interest rate margin first narrowed, then widened from early autumn 1999 till the start of 2001, when it began a narrowing trend. During 2002 the margin was at a level of 3.4 percentage points.

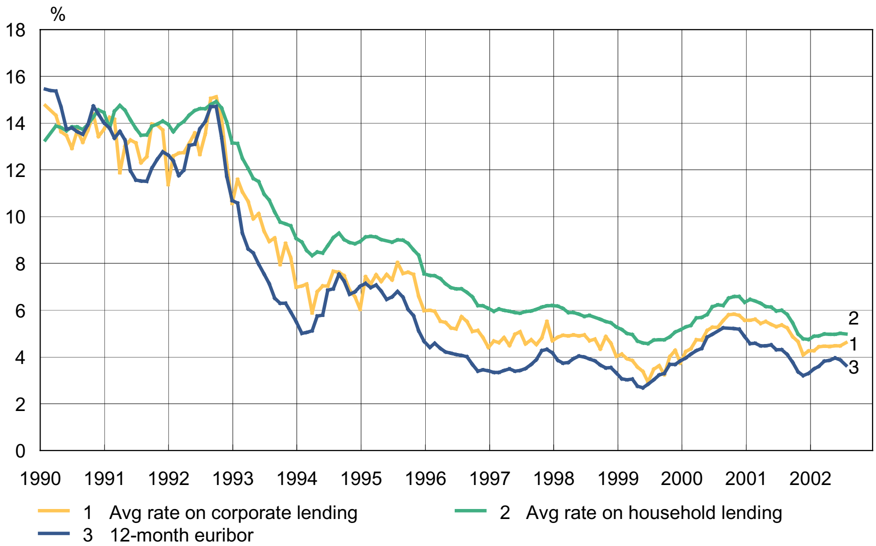
If we consider the margin as the difference between the rate on new lending tied to the EURIBOR and the corresponding EURIBOR, we see slightly different pattern of change. This margin narrowed for a year and a half, till mid-2000, after which it quickly widened until the start of 2001 and has since been fairly stable (figures 9 and 10).

Figure 9. **Interest rate margins, 1990–2002**



Source: Bank of Finland.

Figure 10. **Average interest rate on deposit banks' new euro lending and 12-month EURIBOR, 1990–2002**



Source: Bank of Finland.

Interest rate margins have generally tracked movements in market rates, because rates on new loans to households and nonfinancial corporations react quickly to changes in the level of market rates. For example, in the period summer 1999 to end-2000, the average rate on new lending tracked the market rate in rising by about 2.5 percentage points. And in early 2002 rates on new lending turned upward, again in line with market rates. The level of interest rates on deposits has been much more stable. At the start of 1999 the average interest rate on total euro deposits was 1.31%; two years later it was 1.95% and in summer 2002 1.51%.

Table 6. **Deposit banks' interest rate linkages, 30 Jun 2002**

	Deposits, EUR m	Avg rate on deposits, %	Lending stock, EUR m	Avg rate on lendig stock, %	Difference,* EUR m	Interest rate margin**, %-pts
Tied to EURIBOR	4,533	2.42	35,757	4.72	31,224	2.30
Tied to bank-specific reference or prime rates	15,629	1.27	23,070	5.26	7,441	3.99
Fixed-rate	32,320	1.47	4,847	4.75	-27,473	3.28
Tied to base rate	1,520	0.84	1,684	4.84	165	4.00
Other	4,324	1.96	4,240	4.63	-84	2.67
Total	**58,325**	**1.51**	**69,598**	**4.90**	**11,273**	**3.39**

* Lending minus deposits.
** Avg lending rate minusavg deposit rate.
Source: Bank of Finland's Financial Markets Statistical Review.

In table 6 the greatest differences between lending and deposits are for EURIBOR linkage and fixed-rates. Management of interest rate linkage for both lending and deposits, as well as in average interest rates, constitutes an essential part of banks' present-day risk management. The greater the lending relative to deposits, the greater the extent to which banks must find non-deposit financing for their lending (table 6).

3.1.3 Credit institutions' financial results

Banks and other financial institutions now operate much more efficiently in Finland than was the case five or ten years ago. Loan losses have been minimal in the last two or three years. Despite good profits and profitability, banks are forced by competition to work continually to improve their efficiency. Just as there are many ways to improve efficiency so there are many means of competing.

In terms of deposit banks' continuity and stability the importance of positive financial results and good profitability is that these bolster equity capital and hence generally strengthen banks' solvency. Losses are always a strong signal regarding banks' operations because they mean shrinking equity capital and weakening solvency. Excessively good profitability can also signal problems vis-à-vis continuity and stability. An excellent rate of return on capital may result from increased risk taking and, quite simply, a low level of capital – as measured in euro – relative to the level of activity and a low level of solvency.

The rapid and large-scale structural changes in deposit banks in Finland has meant the disappearance of national financial markets also in the sense that it is now almost impossible to calculate reliable financial results for purely domestic operations. Nordea Group includes a banking subgroup that has significant banking operations in four Nordic countries (as described above in section 3.1.1).

Income and costs

Banks' operating income can be divided into net interest income and other income. Net interest income is fundamentally affected by the scope of a bank's operations: amounts of deposits and lending and the applied interest rates. Narrow interest rate margins – between lending and deposit rates – are associated with low levels of net interest income and vice versa. Net interest income is the difference between a bank's interest income on lending and other investments and the interest it pays on deposits and other funding.

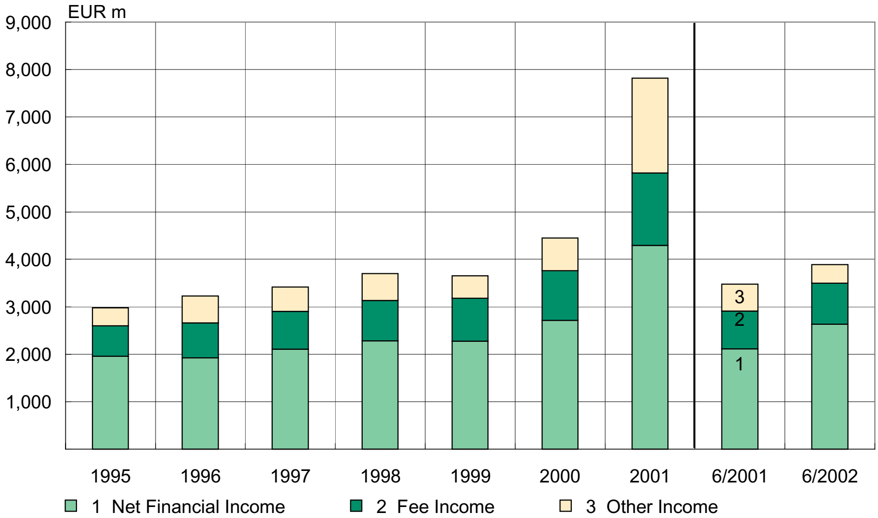
Deposit banks' other income comprises many items. One of the biggest is fee income: bank's charges for services connected eg with lending, payment services, or sales and administration vis-à-vis mutual funds. It is noteworthy that mutual fund activities per se do not appear on banks' balance sheets even though banks earn income from these. Banking groups typically have their own fund management companies. Other items included in other income are income from securities and currency operations, dividends from shareholdings, and some others, of which the biggest are rental and other income from real estate.

Because net interest income continues to account for a large part of banks' earnings, the traditional keys to deposit banking – funding, lending and interest rate margins – are still the critical factors (figure 11). It is likely that in the future net interest income will lose relative importance as consultation and asset management fees increase. If and when these services gain importance for banks and other financial corporations, they will boost the ‘other income’ item.

The biggest cost items are personnel-related, ie wages and salaries, fees, commissions, and social security and pension contributions, and these account for nearly half of all costs. The other half of banks’ costs comprise eg data processing, marketing, office, communication and real estate costs, and fees and depreciation. The magnitude of personnel-related costs in the cost structure reflects the fact that banking is a service industry. It also means that if banks need to improve efficiency or reorganise their operations, this cannot be accomplished without confronting personnel costs.

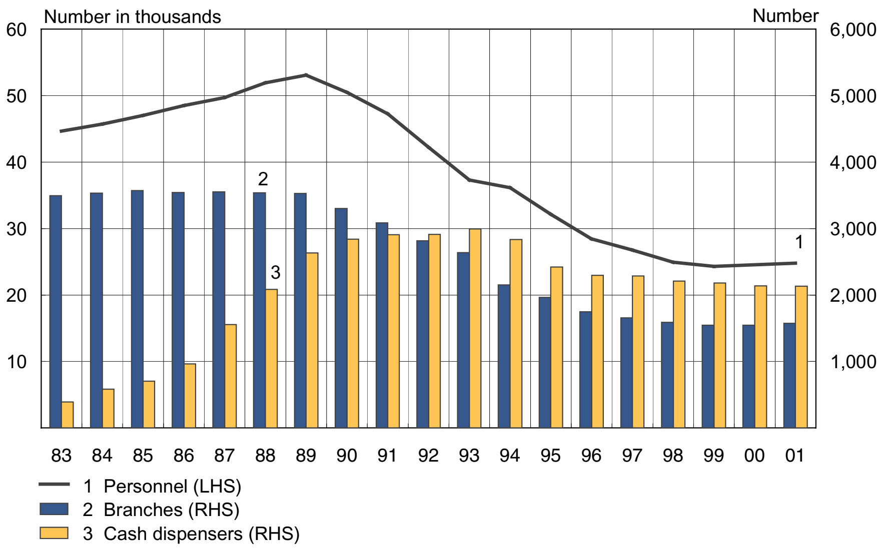
Developments in Finland as regards numbers of branches and employees have been profound since the start of the 1990s (figure 12). No other EU country has experienced such a decrease in physical outlets for financial services – as measured by numbers of branches and employees – as did Finland in the 1990s. This is an indicator of both the overcapacity that marked the 1980s and the severity of the early 1990s banking crisis. Other factors in the change in physical service capacity naturally include mergers and changes in customers’ use of services, ie increasing focus on self-service and Internet services. Banks’ pricing policies have encouraged these tendencies. During the last two years, the number of bank employees in Finland has turned moderately upward. This is partly explained by investment activity and reorganised operations that have resulted from good profits in the financial sector.

Figure 11. **Breakdown of deposit banks' income, 1995–2002**



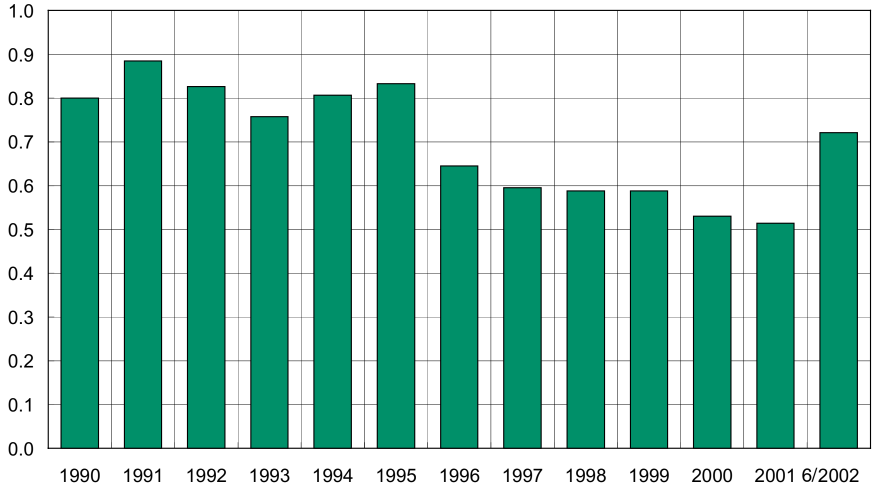
Data for 2001 and 2002 are not comparable with earlier data.
Nordea data covers the Nordea Group.
Sources: Financial Supervision Authority and Bank of Finland.

Figure 12. **Numbers of banks' personnel and branches, 1983–2001**



Source: Finnish Bankers' Association.

Figure 13. **Relationship between deposit bank groups' costs and income, 1990–2002**



Data for 2001 and 2002 are not comparable with earlier data.
Sources: Financial Supervision Authority and Bank of Finland.

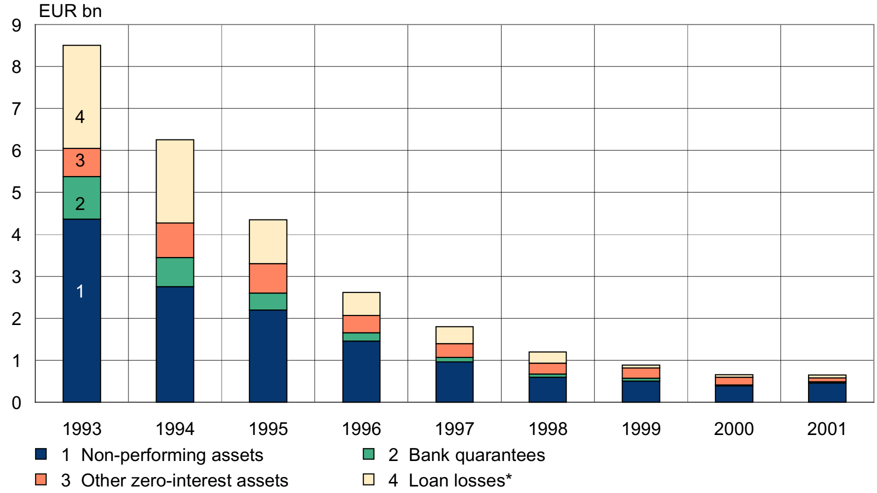
One figure often used to evaluate banks' cost efficiency is the ratio of costs to income. This key figure (like all other key figures) involves numerous problems of interpretation, but the ratio is used as an indicator of cost efficiency and changes therein. For Finland, the 1990s are clearly separable into two parts, as regards cost efficiency. Banks' cost efficiency was weaker in the first part of the decade than in the latter part. In 2000 banks' ratio of costs to income was slightly over 50%, which meant that banks on average earned nearly two euro of income for each euro of costs. Behind the latter-1990s' development was a stable income path and banks' efficiency enhancement measures. Developments in ICT have been a factor in the efficiency improvement. The healthy cost-to-income ratio in 2000 and 2001 is partly explained by exceptionally good income performance, which was affected eg by dividend earnings and gains on sales of shares. In the early part of 2002, the ratio of banks' costs to income weakened (figure 13).

Non-performing assets and loan losses

A loan or asset is classified as non-performing if an associated interest or principal payment is more than 90 days overdue. Banks also hold zero-interest assets. These are claims on customers that are having problems in meeting their obligations to banks.

Changes in non-performing and zero-interest assets indicate whether a bank's loan losses are expanding or shrinking. A loan is written off (booked as a loan loss) if the bank determines that it will not receive the associated payments and that the collateral is not sufficient to cover the original principal.

Figure 14. **Deposit bank groups' non-performing assets and loan losses at year-end, 1993–2001**



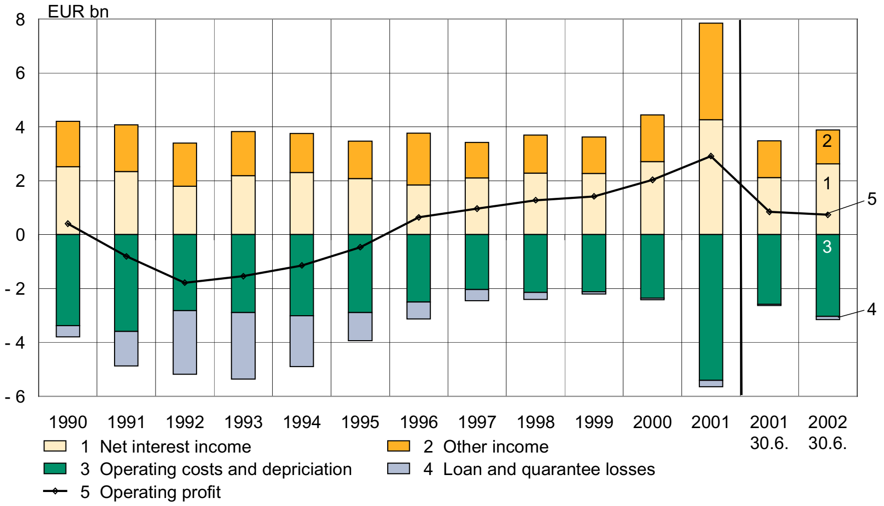
* Write-offs for the whole year.
Source: Financial Supervision Authority.

In terms of non-performing assets and loan losses, the 1990s can be divided into two parts. The banking crisis in the early 1990s resulted in a large stock of non-performing assets and large loan losses. Developments since the launch of the euro at the start of 1999 have probably been as good as one could expect (figure 14). Banks' loan losses and non-performing assets have been extremely small. The good results have been due mainly to two factors: a favourable economic environment and improved management of banks' credit risks.

Operating profits and profitability

A deposit bank's operating profit is the difference between income and the sum of costs and loans losses. The size of an operating profit in monetary terms does not necessarily say much about how profitable a bank's operations have been. In measuring a bank's profitability, the operating profit or some other measure of financial results is considered in relation to the bank's business volume. One measure of profitability is the ratio of operating profit after taxes to equity capital. Another measure is the ratio of operating profit to balance sheet total.

Figure 15. **Deposit bank groups' financial results, 1990–2002**



Data for 2001 and 2002 are not compareble with other years.
Nordea data covers the Nordea Group.
Sources: Financial Supervision Authority and Bank of Finland.

Banks' operating profits increased and profitability improved over the period 1996–2000 and declined in 2001 (figure 15). The main reason for the weakening of results was that results for 2000 were 'overstated' in that they included many one-off income items connected with large gains from trades in shares and other securities.

Table 7. **Banks' operating profits and capital adequacy, 2000–2002**

	Operating profits, EUR m			Capital adequacy, tier one capital as % of assets		
	1–6/2002	2001	2000	6/2002	12/2001	6/2001
Nordea Group	686	1,928	2,435	7.4	7.3	7.0
*Nordea Group, banking	873	1,968	2,316			
*Nordea Bank Finland Group	669	2,573	1,718	6.1	6.2	5.6
*Nordea Finland, retail banking	288	612	669			
Sampo Group	425	1,104				
*Sampo Group, credit institutions and investment services	151	296	430	16.7	15.6	15.3
*Sampo Bank Group	109	263	219	7.9		9.9
OKO Bank Group	232	504	664	13.1	13.0	12.1
*OKO Bank Consolidated	47	111	167	7.2	7.4	7.2
Savings Banks	42	103	104	16.4	14.3	16.2
*Aktia Savings Bank	12	32	42	9.6	9.7	10.4
Local cooperative banks	16	36	39	20.7	22.2	21.5
Bank of Åland	7	17	21	8.8	9.0	8.9
Evli Bank	-4	-3		79.1	67.7	122.7
eQ Bank	-1	-10		130.0	138.4	164.5

Source: Banks' financial statements.

In 2001 banks' income and operating profits declined and profitability weakened, following exceptionally good results in 2000 (table 7). The two years are not readily comparable due to numerous organisational changes in Nordea and Sampo Group. On the basis of results for all of 2001, one can characterise banks' profitability as good. Results for the first half of 2002 continued to weaken compared to the year-earlier period.

Capital adequacy and loss buffers

The capital adequacy ratio presents the banks' equity capital relative to risk-weighted assets. The higher the ratio, the more solvent the bank. Certain risk-weighting principles underlie the calculation of risk-weighted assets in the banks. The weights are related to the riskiness of loans and investments. Because lending to nonfinancial corporations is considered riskier than lending to other sectors, its risk weight is 100% in the capital adequacy calculation. Housing loans to households are less risky and so are weighted at just 50%. Lending to central and local governments is still less risky and is gets a smaller risk weight. Under current legislation, which is the same in all West European countries, the capital adequacy ratio can be no worse than 8%.

There are three ways a bank can affect its capital adequacy. If the aim is improve the capital adequacy, it should produce good financial results or acquire additional own funds eg by issuing shares. Results for the financial year are added to a bank’s own funds. The third method is to constrain the growth of assets and lending stock or even to reduce the lending stock by purposely selling it to get it off the balance sheet.

Capital adequacy is typically reported in terms of two different percentage figures. It is now paramount to monitor on the basis of the bank’s tier one capital. Tier one capital includes regular share capital, cooperative capital and foundation capital, as well as retained earnings, and excludes funding based on equity-type debentures (which is included in tier two capital).

Capital adequacy is closely linked to the concept of a loss buffer. This refers to the amount of own funds that the bank has without the capital adequacy ratio falling below 8%. Defined in this way, a loss buffer is an estimate of the extent to which a bank can withstand losses.

The capital adequacy of banks operating in Finland is good, inter alia, because of the notable improvement in banks’ financial performance in the latter part of the 1990s. To be sure, risk-weighted commitments have increased as bank lending has increased. Loss buffers amount to many billions of euro. The good capital adequacy ratios of individual banks indicate that loss buffers are large. The ability of banks operating in Finland to withstand losses and problems is presently rated high in terms of capital adequacy and loss buffers.

The Basel Committee on Banking Supervision, which operates in connection with the Bank for International Settlements, has proposed a new method of calculating capital adequacy. This is important, inter alia, because it would change the way an individual bank’s capital adequacy is calculated so that the risk associated with the original decision to grant a loan would be specifically taken into account (with the aid of credit ratings) in calculating capital adequacy. The Basel Committee’s proposal is now slated to enter into effect in 2006. The proposal contains numerous reforms aimed at improving banks’ management of credit and other risks, increasing the transparency of financial markets, and increasing the scope of market discipline.

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This list includes a few of the publications that discuss banking from several different perspectives.

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Annex 1.

Summary of changes affecting deposit banks since the mid-1990s

1995	March	–	Decision of February to merge KOP and SYP confirmed by annual general meetings.
	June	–	Merita Bank, formed by merger of Kansallis-Osake-Pankki and Union Bank of Finland, began operations.
		–	The healthy parts of Skopbank's lending stock and guarantees, as well as its key subsidiaries (Teollistamisrahasto, Skop-rahoitus, SKIP and Aktiiviraha) were sold to Svenska Handelsbanken.
	November	–	Savings Bank of Finland and Siltapankki became an asset management company and Siltapankki was transferred to Arsenal Group.
1996	February	–	Skopbank ceased to function as savings banks' central financial institution. Savings banks choose Aktia Savings Bank as their new central financial institution.
	May	–	Central gov bought all outstanding shares of Sponda from the Bank of Finland for FIM 1.2 bn.
	July	–	Act on the Municipal Guarantee Board entered into effect.
	Autumn	–	OKO Bank commenced operations in Greater Helsinki.
1997	January	–	The Act on Interest Equalisation of Officially Supported Export Credits entered into effect, after which such loans, via Finnish Export Credit Ltd, became available to EU-country credit institutions. The state interest equalisation company, Fide, was established to handle the interest equalisation system.
	February and June	–	Danish Den Danske Bank and Unibank opened branches in Finland.
	July	–	The OKO Bank Group Central Cooperative commenced operations. It became the know-how and service centre for 251 member cooperative banks, incl. OKO Bank. OKO Bank Group Central Cooperative and member banks ultimately back each others' debts and commitments.
		–	44 local cooperative banks opted out and established the Local Cooperative Banks. Aktia Savings Bank and Samlink provide their central financial services.
	December	–	MeritaNordbanken Holding Company was established. Its home cuntry country is Finland, and it is supervised by FSA. Merita, the Finnish owner, owns 40% and MeritaNordbanken 60% of the shares. Each has 50% voting power.
		–	Postipankki and Finnish Export Credit Ltd decided to join together to form PV Group.

1998	January	–	MeritaNordbanken Group commenced operations. The parent company, MeritaNordbanken, is owned by Merita (40% of shares) and Nordbanken Holding (60%). The parent company owns Merita Bank and its subsidiaries, as well as Nordbanken.
		–	Postipankki and Finnish Export Credit Ltd combined to form PV Group within a joint holding company.
		–	Investment bank Mandatum and commercial bank Interbank decided to merge to form Mandatum Bank.
	April	–	PV Group changed its name to Leonia and began to talk about a Leonia group. In June Postipankki's name was changed to Leonia Bank and Finnish Export Credit's to Leonia Yrityspankki (at year-end, Leonia Corporate Bank).
		–	The state-owned company Valtion erityisrahoitus was established and in October its name was changed to Finnvera.
	Autumn	–	The operations of Kera and Valtiontakuukeskus were merged into Finnvera.
	December	–	Merita Nordbanken established the real estate company Aleksia Ltd.
		–	The state established the real estate company Kapitaali Kiinteistöt Oy.
1999	January	–	Yrityspankki Skop entered into voluntary liquidation proceedings as per a decision made in November 1998.
	September	–	It was decided to discontinue Arsenal-Silta's operations.
		–	MeritaNordbanken began to clarify its ownership structure. Nordic Baltic Holding, registered in Stockholm, became a holding company, owner of MeritaNordbanken, the parent company of a banking group. Merita Bank and Nordbanken remained as subsidies of MeritaNordbanken. The arrangement was approved at Nordbanken's extraordinary general meeting in November.
	October	–	Leonia and insurance corportion Sampo agree to form a financial conglomerate, Sampo-Leonia.
		–	MeritaNordbanken joined its corporate finance and structured finance operations with the investment bank Maizels, Westerberg & Co, renamed Maizels, MeritaNordbanken Investment Banking.
	November	–	Leonia Bank began to offer a limited range of banking services at R-kiosks.
		–	Trevise Bank, a member of the Unibank group, commenced operations in Finland by offering mainly asset management services.

2000	February	–	The boards of Sampo and Leonia approved the merger plan. Parliament's approval followed March and the Insurance Supervision Authority's in May.
	April	–	MeritaNordbanken and Unidanmark merged in accord with the March agreement, after Unidanmark's shareholders' accepted an offer to exchange shares for Nordic Baltic Holding shares and Danish authorities approved the merger.
		–	Housing Loan Bank of Finland (Suomen Asuntoluottopankki, subsidiary of Leonia Bank) was authorised.
	July	–	OP-Asuntoluottopankki Oyj was authorised.
	November	–	Leonia Corporate Bank merged with Leonia Bank.
	December	–	Christiania Bank og Kreditkassen merged with Nordic Baltic Holding, following approval by the Norwegian Government. The group was renamed Nordea.
		–	Sampo Life Insurance Company and Leonia Life Insurance Company merged in accord with a March agreement, under the name Sampo Life Insurance Company.
		–	OKO Investment Bank merged with OKO Bank.
		–	Leonia Kuntapankki merged with Leonia Bank.
		–	Lehtimäen Osuuspankki rejoined the nationwide OKO Bank Group.

2001	January	–	Skopbank's authorisation was cancelled, at its own request.
		–	Leonia Bank's service provision via post offices ended, as per a decision announced in November 1999.
		–	Sampo-Leonia's board approved an offer to exchange shares with Mandatun Bank's shareholders, and the Financial Supervision Authority approved Sampo-Leonia's Mandatum deal, announced in December.
	February	–	Leonia Bank was renamed Sampo Bank.
	April	–	The name of the parent company of Sampo-Leonia group was changed to Sampo.
		–	Merita Real Estate merged with Merita Bank.
	May	–	The combined Municipality Housing Finance and Municipality Finance commenced operations under the name Municipality Finance (Kuntarahoitus).
	June	–	Ministry of Finance authorised as a bank Nordea Companies Finland (previously the holding company Nordea companies Finland and subsidiaries Merita Bank, Nordbanken and Christiania Bank og Kreditkassen).
	July	–	Nordea acquired the Swedish Postgirot Bankin.
	August	–	Pankkiiriliike Evli obtained outhorisation as Evli Bank.
	September	–	Merita Bank merged with its parent company, Nordea Companies Finland, under the name Merita Bank.
	October	–	Sampo's operations continued under three companaies: Sampo Bank, Sampo Credit and Sampo Business Properties.
	November	–	Unibank's ownership was transferred from a Danish holding company to became a subsidiary of Merita Bank and its name was changed to Nordea Bank Danmark.
		–	Sampo's non-life insurance business was taken over by the If-company. Sampo, Varma-Sampo, Skandia and Storebrand agreed with If on the new arrangement, after which Sampo owned over 38% of If. The combined voting power of Sampo and Varma-Sampo came to 50%. The agreement entered into effect in January 2002.
		–	The European Commission approved Nordea's purchase of Postgirot Bankin.
		–	Aktia Hypoteksbank obtained authorisation.
	December	–	Besides the earlier name change for Unibank, other banks in the Nordea Group were renamed: Nordea Bank Sverige, Nordea Bank Suomi ja Nordea Bank Norway.
		–	Mandatum Pankki merged with Sampo Bank.

2002	January	–	Landesbank Schleswig-Holstein Girozentrale entered its Finnish branch (established in 2001) in the company register. Under the second EU banking directive, a bank does not need authorisation for such activity; authorisation as a credit institution in a member state suffices for establishing branches in any member state.
	April	–	The Finnish Mortgage Society notified of its intention to apply for permission to establish its own deposit bank. The aim was to support its basic business – loans for housing and renovation.
		–	The insurance group Tapiola announced its decision to establish its own bank and eventually become a financial supermarket with a strong insurance profile.
		–	OP-Finance announced that it would join with its parent company, OKO Bank Central Cooperative, at year-end. OP-Finance' operations were to continue as a department within OKO Bank's Corporate Banking.
	May	–	eQ Bank was authorised and commenced operations as a deposit bank. Accepted for company registration, eQ Bank belongs to the listed group eQ Online.
		–	The banks, at the recommendation of the government, agreed to undertake to resolve the debt problems of those who became overly indebted during the recession in the early 1990s on the basis of a bank-debtor voluntary agreement.
		–	Nordea announced its purchase of 54.5% of outstanding shares of the Polish LG Petro Bank.

Annex 2.

Foreign credit institutions' branches in Finland, Aug 2002

BMW Financial Services Scandinavia

Caterpillar Financial Nordic Services

Citibank International

Credit Agricole Indosuez

D. Carnegie

Danske Bank

Deutsche Bank Aktiengesellschaft

eCredit

FCE Bank

Handelsbanken Finans Aktiebolag

KontoTjänst i Sverige Aktiebolag

Landesbank Schleswig-Holstein Girozentrale

Norddeutsche Landesbank Girozentrale

Scania Finans Aktiebolag

SEB Finans

SEB Kort

Skandinaviska Enskilda Banken

Svenska Handelsbanken

Telia Finans Finland

Source: Financial Supervision Authority.

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3.2 Mutual funds and investment firms in Finland

3.2.1 Mutual funds

Mutual funds got off a fairly late start in Finland. Special legislation on mutual fund activities entered into effect in September 1987. Finland was the last of the present EU member states to have a market for mutual funds. The roots of the mutual fund industry are in the United States, where such funds began to market their units already in the early 1920s. In Europe mutual funds came on the market first in the United Kingdom, at the start of the 1930s. In Continental Europe mutual funds were first extensively marketed in the 1950s, and in Sweden mutual fund activity began just over 30 years ago.

In Finland the initial efforts to launch a mutual funds industry were made already in the 1970s. The Bank of Finland proposed legislation on open-end investment funds at the start of the decade, and a Government bill on investment companies was presented to Parliament in March 1977. The bill, however, did not receive sufficient political support for passage. At the start of the 1980s the proposed investment company legislation was replaced by a new mutual fund model, which later became the basis for legislation that entered into effect in 1987. The Finnish-type of investment fund, in which a management company manages the actual mutual funds, is applied eg in Sweden, Germany and Austria. In many other EU countries the investment company model prevails.

One of the prime aims of the 1987 mutual funds legislation, in addition to financial market development, was effective protection of investors. For this reason, the law tightly restricted mutual funds' investment activities. For example, investment in derivative instruments was prohibited, even for hedging purposes, and tight restrictions were also placed on other types of investment activity. The Mutual Funds Act was amended in 1994 in line with the EU UCITS directive. Investment restrictions were eased so that eg mutual funds could invest in publicly traded securities – both domestic and foreign. It also became possible to invest in standardised and (with finance ministry approval) other derivative instruments. After the law was amended, mutual funds authorised the operate in other countries of the European Economic Area could also market their units in Finland. Further changes were made to the original law in 1996, which brought it more closely into accord with the EU directive, especially as regards investments and borrowing. Soon thereafter, work began on a more extensive revision of the Mutual Funds Act. A bill was presented to Parliament in autumn 1998, and a new law entered into force at the start of 1999. The oftamended law was made more precise and its scope and structure were clarified. The new law also honed the division of tasks between the various authorities. The reasons for the amendments include rapid development and internationalisation of both the financial markets and mutual fund activities, as well as changes that had become necessary in order to ensure progress in product development and competitiveness of domestic mutual funds[1].

Mutual fund activities

The activities of mutual funds include pooling investment capital from the public for the purpose of making collective investments, placing that capital primarily in statutory investment outlets, and managing mutual funds. Mutual funds can now invest not only in securities but also in other objects. A mutual fund can be either a 'common fund' as defined in the UCITS directive or a 'special mutual fund'. Funds as defined in the directive can market their units throughout the European Economic Area, whereas Finnish special mutual funds cannot market their units in the other EEA countries.

A mutual fund and its investments are managed by a management company set up for this purpose. A management company can manage the investments of one or more mutual funds. As a rule, Finnish mutual funds are open-end funds, meaning that investors can buy or sell fund units at any time. Finnish legislation does not permit establishment of closed-end funds in Finland. However, a few special mutual funds that operate as hedge funds restrict the buying and selling of units to specified periods.

There were nearly 300 different mutual funds registered in Finland at end-March 2002, of which just over 70 were special mutual funds. Since the more lenient legislation came into effect in 1999, the variety of mutual funds has increased notably (table 1). The number of mutual fund management companies has also increased steadily.

[1] For details on mutual fund legislation, see Harju, I. and Syyrilä, J. (2001).

Table 1. **Finnish mutual funds**

	1995	2000	31 Mar 2002
Number of management companies	14	25	23
Number of mutual funds	44	230	278
Number of unit holders	153,896	935,250	921,605
Funds' investment capital, EUR bn	0.9	14.3	15.9

Sources: HEX and Statistics Finland.

Mutual funds' investment policies are more precisely specified eg by industrial sector or by marketing or geographic area. Presently, a substantial portion of mutual funds are equity funds, which invest primarily in shares. The number of fixed income funds has also been increasing. Some of these are 'short-term funds', which invest primarily in money market paper. Adoption of the euro clearly enabled fixed income funds to expand their investment horizons from the thin Finnish fixed income market to the whole euro area. The enlargement of the investment market also made it possible to establish eg a mutual fund specialising in a particular market niche such as corporate bonds.

In connection with the legislative change, several special mutual funds have been set up in Finland since 1999. These funds are exempt from certain legal investment restrictions. For example, they may be funds that invest in stock indices or interest rate indices. Funds that invest in the units of other funds (funds of funds) are also classified as special funds. If a fund invests all the capital it collects from investors in a single fund, we have a 'master-feeder fund' situation, in which feeder fund invests in master fund. Thus a master fund is owned entirely by feeder funds.

Leverage funds, which make extensive use of derivative instruments, are classed as special funds, as are the high-risk 'hedge funds'. Hedge funds are often also referred to as 'absolute return funds'. A hedge fund's investment policy may differ substantially from that of the more traditional funds. Hedge funds aim at the highest possible returns on investments, regardless of general market conditions, ie they aim to be market-neutral. A hedge fund does not compare its returns eg to a specified stock index or interest rate. Other typical characteristics of a hedge fund's investments, compared to those of more traditional funds, are that they are not as highly risk-diversified and they make greater use of derivative instruments and short sales of securities. Finnish hedge funds, unlike hedge funds operating in the international arena, are not allowed to raise investment capital by borrowing.

A new feature of the Finnish mutual fund markets is the entry of funds that are listed on the stock exchange. These funds are index (and hence special) mutual funds. Mutual fund units were first offered for sale on the exchange in winter of 2002. The index funds listed on the HEX invest in the portfolio represented by the HEX 25 share index of the 25 most actively traded shares listed on the HEX.

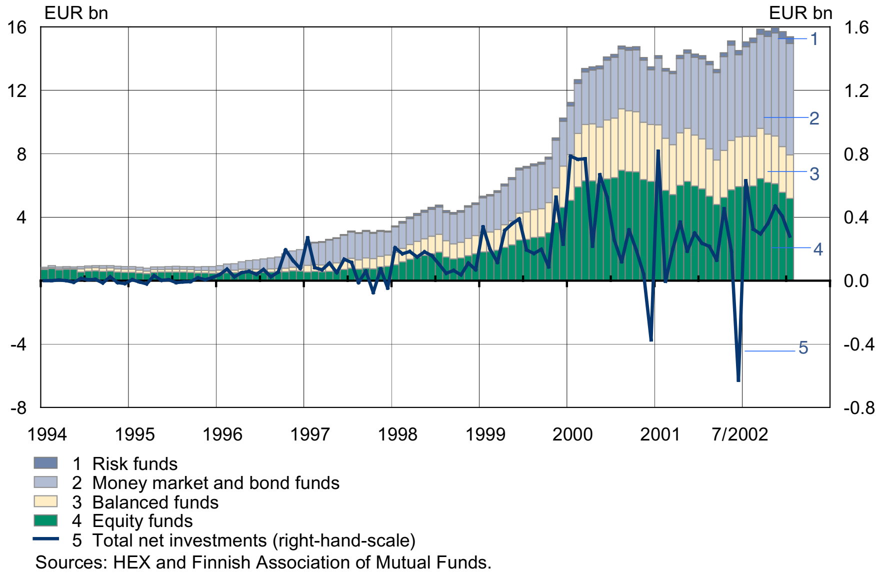
Development of mutual fund markets

Mutual fund activity began in Finland just before the stock market crash of October 1987. The few mutual funds already launched were for the most part domestic equity funds, whose value plummeted along with share prices. The ill-fated timing affected the industry for years. The precipitous fall in share prices dampened investors' interest in securities investment. Prior to the crash, the mutual funds managed to collect only just under EUR 100 million in investment capital, nor did much new investment money find its way into mutual funds after the crash. The growth of capital flows into mutual funds remained sluggish for many years thereafter.

The bank-dominance of the financial markets and tax-exemption of deposits kept households' savings in the banks. Bank deposits were fully insured, and so it was natural that in the early 1990s – a time of deep recession – households would not be interested in putting their savings in mutual funds. Fund growth was also constrained by the fact that in the early years the management companies were generally set up by banks, which did not actively promote mutual funds.

As households, companies and other economic units accumulated financial assets, interest in mutual fund investment began to slowly build up in the mid-1990s (figure 1). With a decline in deposit rates, a change in the tax treatment of deposits, and an increase in voluntary insurance savings, there was a gradual shift of Finnish households' investment capital into mutual funds, as was the case in other countries. For example, a large proportion of savings associated with voluntary life and pension insurance was invested in the markets via mutual funds. With the legislative change, insurance companies too could own management companies, and many have availed themselves of the opportunity by establishing their own mutual fund management companies, which the insurance companies market among their customers.

Figure 1. **Mutual funds registered in Finland, total and net subscriptions, 1994–2002**



Sources: HEX and Finnish Association of Mutual Funds.

Investors

Households comprise the largest single investor group in the Finnish mutual funds markets. Positive developments in households' incomes and asset prices have in recent years raised the amount of households' financial assets and improved their possibilities for investing in objects other than bank deposits. Households' investments in mutual funds have increased in recent years, both directly and in connection with the surge in voluntary insurance savings. Despite the growth in households' mutual fund investments, the relative importance of individual investors in the funds markets has declined since the mid-1990s. During the first half of the 1990s households consistently accounted for about 60% of mutual funds' domestic investment capital. As companies and other corporate entities placed more and more money in mutual funds, households' domestic investment share fell rapidly for a time and has since remained at about 40% for several years. The decline in households' ownership share has in fact been quite subdued, because their savings via voluntary life and pension insurance are often channelled ultimately into mutual funds. Insurance companies' ownership share in mutual fund units has been on the rise for a few years and amounted to about 15% at end-2001.

Households' ownership share has declined, particularly in equity funds. The decline began in the late 1990s when share prices were surging and other institutional investors were moving into the stock markets via mutual funds. A clearer change is apparent in the increase in investments in the insurance sector. Many small insurance companies invest in mutual funds because their investment capital is often too small to warrant establishment of their own entity for making investments. Insurance companies' ownership share in equity funds has in fact grown to just over 20%. Special public sector entities also invest in stock markets via mutual funds. Included in this type of investment are mandatory pension funds' investments in equity mutual funds.

Besides equity funds, households are the key investor group for balanced funds, in which they hold over half of the investment capital. Otherwise the distribution of unit holders is quite flat for balanced funds. Foreign investors generally do not invest at all in Finnish balanced mutual funds.

The breakdown of investors in fixed income funds differs notably from that of equity funds. For money market funds, companies account for some 40% and households for only a fourth. Public sector entities' share has fluctuated; eg local governments' financial situation is reflected in the investor breakdown for 'short-term funds'. Companies, whose investments in mutual funds tend to be highly liquid, are a much less important investor group for long-term funds vs money market funds. The key investor group in respect of long-term funds consists of various corporate entities and foundations that do not seek capital gains; these held about a third of the units of long-term funds at end-2001. Foreign investors' aggregate stake in long-term funds has been trending slightly upward.

Investment activity

A basic principle in the regulation of mutual funds' investment activity is sufficient portfolio diversification. For this reason, this investment activity is regulated in detail via legislation, and is in fact is now one of the most tightly regulated activities in the financial markets.

The investment capital of mutual funds operating in Finland can be invested primarily in securities that are traded publicly on stock exchanges or other organised and recognised marketplaces that are open to the public. In Finland such organised marketplaces in effect currently include the money market, which means eg that Finnish money market funds are mutual funds under the UCITS directive.

A fund can also invest in assets other than quoted securities, provided such assets do not comprise more than 10% of the fund's value. The fundamental rule for investments is that no more than 10% of a fund's assets can be in the securities of a single issuer. Moreover, the total of single-issuer investments, each accounting for at least 5% of the fund's value, may not exceed 40% of the value of the fund. The restrictions pertaining to investments in securities issued by public sector entities are not as tight. For example, securities issued by a Finnish central or local government, or the central government of another EEA country can amount to as much as 35% of a fund's value. With Government approval, a mutual fund can invest all of its capital in securities issued by a single legally-approved public sector entity, eg Finnish government bonds.

A mutual fund can invest up to 25% of its assets in bonds issued by a single credit institution that is registered in an EEA country and subject to public supervision. In practice, these are secured bonds issued by mortgage banks. As regards Finland, the rule refers to bonds issued by mortgage banks as defined by the Mortgage Bank Act of 1999. The best known bonds in this category are the German secured Pfandbriefe bonds and the mortgage bonds (pantebreve) issued by the Danish Mortgage Bank.

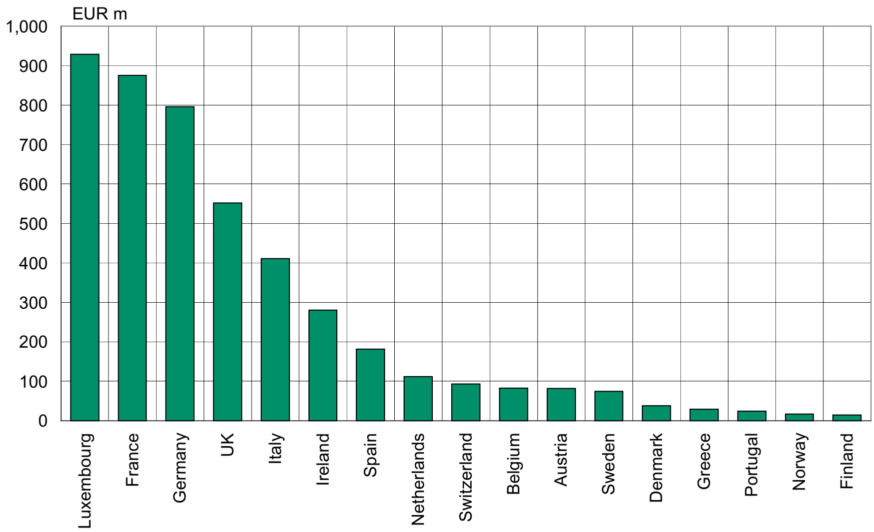
A mutual fund's capital is invested and managed by an approved management company. One requirement for obtaining such approval is that the company have at least EUR 168,000 in share capital. The share-capital requirement is tied to the amount of managed assets, but the effective maximum requirement is EUR 840,000. The capital position of an management company is considered important, inter alia, because mutual fund operations – unlike eg investment firms' operations – are not covered by the investor compensation fund. A management company can engage only in mutual fund (and related) activities. The assets of management company and mutual fund must be separated, nor are mutual fund investors liable for any obligations of the management company.

Mutual finds collect various fees from unit holders to cover their costs and finance their operations. Due to rapidly increasing competition, the management, subscription and other costs of Finnish mutual funds have fallen substantially in a period of a few years. Subscription fees amount on average to about 1% of subscription price. Subscription fees for investments in mutual funds effected via the Internet are generally somewhat smaller. For fixed income funds, especially short-term funds, the fee is usually less than for an equity fund. Some funds do not charge a fee at the subscription stage. These funds charge larger-than-normal redemption fees, albeit not generally more than 1%. Funds' yearly management and custodial fees may vary a great deal. For example, equity funds' fees vary from 0.5% to 3% of fund value. For fixed income funds, these fees too are considerably smaller. For some funds, eg hedge funds, a fee may be tied to return on investment.

Mutual funds: international comparisons

The smallness of markets and delayed start of mutual funds in Finland are still apparent in the mutual funds market, in that the nominal value of investment capital in mutual funds still ranked lowest among western European countries at end-2001 (figure 2). Besides the lateness and ill-fated timing of the launch, a number of other factors have long deterred the growth of mutual funds in Finland. For the 1990s, one can cite the deep recession of the early years, the long-lived taxfree status of deposits, and certain tax aspects of mutual funds, especially the stricter wealth-tax treatment of securities investments. In many other European countries, investment via mutual funds has been encouraged via lower taxes relative to direct investment.

Figure 2. **Mutual funds' investment capital, by European country, 2001**

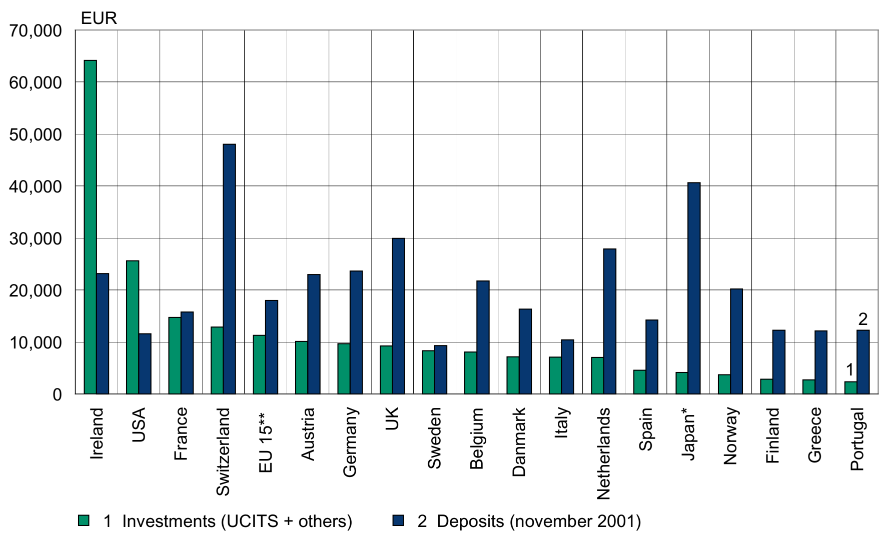


Source: FEFSI.

The statutory employment pension system, which covers the major part of the population, has also slowed the growth of mutual funds in Finland. Because earlier on voluntary pension savings was not considered necessary, this type of supplemental pension provision got started only in the late 1990s. This is apparent also in the recent growth pick-up in mutual funds. In size comparisons, one should also take into account the relative lack of foreign investors in Finnish registered funds. Moreover, some Finnish investment capital goes into foreign – especially Luxembourg – registered funds.

Finnish households' financial assets were long concentrated largely in taxfree bank deposits and, for a time, also in taxfree bonds. Investor behaviour did not change much until the 1990s, when share prices were surging and deposit rates declining. In cross-country comparisons, one finds that deposits per capita in Finland are not significantly different than in other countries. On the other hand, in mutual fund investments per capita Finland ranked last in the European list at end-2001 (figure 3).

Figure 3. **Mutual fund investments and deposits per capita in selected countries, end-2001**



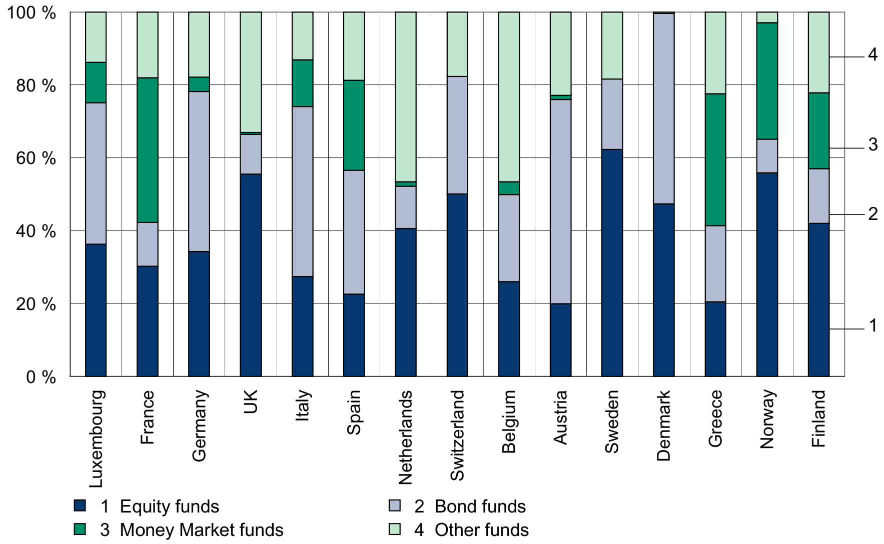
*September 2001. **Excluding Luxemburg.
Sources: FEFSI, IMF/IFS.

In household total wealth allocation, housing and real estate investments are also of prime importance. As wealth increases, a larger and larger share of investment capital flows into securities markets and mutual funds. This is the trend also in Finland. However, as regards investment in funds, the situation in Finland has changed rapidly in the last few years. The average annual growth rate for Finnish mutual funds has ranked at the top among the EU countries over the period from 1995 to end-2001. The only country in which fund growth has approached that in Finland is Ireland, where liberal laws and tax treatment have been used to spur the development of fund markets. In Ireland growth has been especially fast for special mutual funds, which are not subject to the UCITS directive. Although these funds are not marketed in other EEA countries, they have – thanks to tax advantages – become magnets for drawing foreign investors into the Irish markets.

Since 1999 Finnish mutual funds have become tightly integrated into the international – primarily euro area – investment markets. Of the flow of investment capital into Finnish funds, a notable portion is currently going into euro area equity and fixed income funds. The structure of funds' investment portfolios has changed not only as regards investment areas but also toward equities and more in line with older-vintage funds markets. The sharpest differences across countries relate to money market funds. The decline in short-term interest rates has to an extent reduced the attractiveness of money market funds across the whole euro area. However, in a number of these countries – eg Germany, United Kingdom, Austria and Netherlands – money market funds account for only a small portion of mutual fund markets as a whole. In Finland the market share for money market (short-term) funds has declined since the mid-1990s, but still amounts to a fifth.

In many European countries mutual funds are for the most part common funds under the UCITS directive, which are referred to 'UCITS funds'. A notable exception is Germany, where UCITS funds account for only a third of the mutual fund markets. In Ireland UCITS funds' share in just over a half of the markets, and the fastest growing markets are those of the special funds. In Finland also, special funds have posted robust growth in the last couple years and as at end-March 2002 accounted for almost 10% of the markets as a whole (figure 4).

Figure 4. **Mutual funds by type in selected countries, end-2001**



Source: FEFSI.

3.2.2 Investment firms

The services provided by investment firms include a) purchases, sales and exchanges, subscriptions, and intermediation of orders of various investment instruments in the firm's name on behalf of other entities, b) market making, c) issue underwriting, d) organisation of issuance and e) asset management. In addition, an investment firm may eg function as a book entry registrar, clearing counterparty, or custodian. In Finland investment firms' activities are regulated by the Investment Firms Act and the Act on Foreign Investment Firms' Right to Provide Investment Services in Finland, both of which entered into effect in 1996. In Finland, investment services can be provided to the public only by investment firms and EEA-licensed credit and financial institutions.

There are some 50 domestically registered and supervised investment firms operating in Finland, as well as three branches of foreign investment firms. About 180 EEA-licensed foreign investment firms providing cross-border services have made notification to the Finnish Financial Supervision Authority.

Investment firms' profitability has been good continually up until 2001, when it weakened considerably, with many firms actually posting losses in 2001. Domestic issuances, especially in the stock markets, virtually dried up. Also in the private bond markets, issuance activity was subdued, as has been the case for the last several years. Finnish intermediaries lost market shares with the rush of HEX remote brokers into the Finnish stock market. International investment banks have grabbed a notable market share of HEX trading. There were 24 remote brokers operating on the HEX at end-april 2002. Their market share of total turnover in the period Jan-Apr 2002 already amounted to 45%. Revenues from many other investment banking activities, eg corporate acquisitions, have also declined sharply.

The major growth areas for investment firms in recent years have been mutual fund business and asset management services. Even though the market share of non-bank mutual fund management companies has declined, the growth of mutual fund investment has ensured the growth of mutual funds, including those managed by investment firms. Like the banks, investment firms provide a broad range of asset management services, for both private individuals and various institutions such as small pension funds, local governments and foundations.

3.2.3 Looking ahead

Despite their robust growth, mutual funds do not, by international standards, weigh heavily in the Finnish financial and investment markets. Fund investments per capita amounted to less than EUR 3,000 at end-2001. This means that future prospects for growth of household investment in funds are still very good, provided the growth of households' investment in securities continues. Moreover, mutual funds could continue to capture a growing share of households' financial assets at the expense eg of direct bond investment. At the end of 2001 mutual fund units accounted for about 7% of households' total financial assets. The money market paper and bonds offered in the domestic markets are aimed primarily at wholesale markets, so that fixed income funds are practically the only investment option available to households seeking domestic investment outlets other than deposits.

Near-term growth prospects for funds are also supported by the fact that those funds included in the statutory pension system will continue to grow for several years. Small pension funds and foundations in particular invest their money in the securities markets – some of it via mutual funds. Voluntary life and pension savings could continue to grow, which would lend further support to the growth of mutual funds.

Changes to the UCITS directive that have been in the works for several years were approved around the end of 2001. These changes are part of the EU's operating plan for financial services, which was first approved in 1999. This will bring changes also to the operating environment for Finnish mutual funds. For example, regulations affecting investment activity will be liberalised so as to maintain the competitiveness of European mutual funds. In the context of the reform, many domestic funds now classified as special funds will become mutual funds in accord with the UCITS directive. For example, funds of funds can, if they choose, become mutual funds under the directive. A new type of mutual fund, which will invest in credit institution deposits, ie the 'cash fund', will also enter the markets. At present, the activities of management companies are limited to the management of mutual funds, but in the future management companies will be allowed to provide asset management services for their customers. They will also be able to offer services and establish branches throughout the EEA. The changes in EU countries' national legislation mandated by the new directive are to be in place by August 2003 and the new regulations in effect by February 2004.

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3.3 Insurance companies

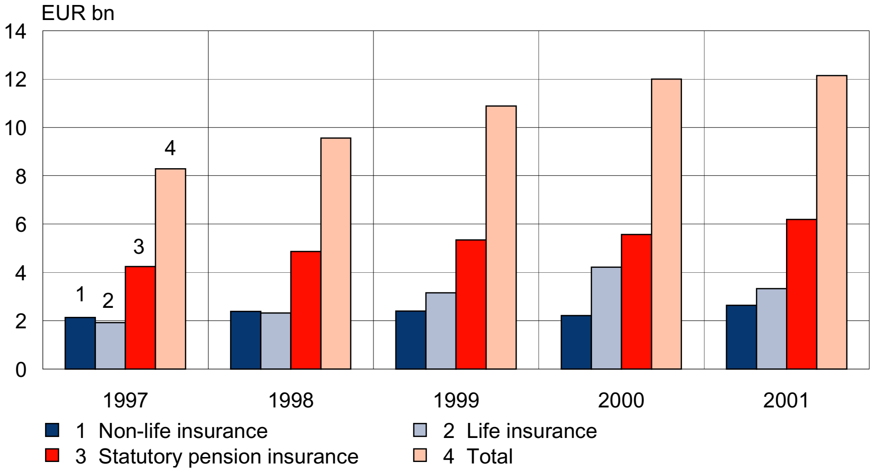
Consistent with the Nordic tradition, the Finnish insurance market has remained concentrated. At the end of 2001 there were 54 authorised insurance companies operating in Finland, of which 33 non-life and reinsurance, 15 life and 6 employee pension insurance companies. Insurance services are also provided by 340 foreign insurance companies, 17 operating through a representative office set up in Finland and 323 under the rules on the freedom to provide services across the European Economic Area. Only a few foreign insurance companies have been active players in the Finnish insurance market. Considering the lack of reliable data on the proportion accounted for by foreign insurance companies in the Finnish insurance market, the statistics below apply only to non-life, life and employee pension insurance companies authorised in Finland, as well as to local mutual insurance associations and the representative offices of third country insurers[1]. Institutions with insurance operations that are not covered here include pension funds, pension institutions established by law, the Local Government Pensions Institution and the State Pension Fund.

The Finnish insurance market has developed favourably in recent years. Premiums written have grown, and booked investment returns have been higher for periods of declining investment markets and lower for periods of rising investment markets than is indicated by changes in fair value of investments. This is attributable primarily to the accounting practices adopted. Income statements have shown good results and insurance companies' solvency has improved. The average annual growth rate of premiums written was around 7.9% for the years 1997–2001 (figure 1). Premiums written on non-life insurance have followed a traditionally moderate growth trend, whereas the volume of premiums written by life insurers has increased substantially, due to the great popularity of different types of single premium savings

[1] The designation *third country insurer* refers to foreign insurance companies the home member state of which is not situated within the European Economic Area. Although Switzerland also is a third country, there is a separate law governing operations of Swiss non-life insurers.

policies in recent years. Increases in premiums written by employee pension insurers have developed fairly much in line with payrolls, which have trended upward in the past few years. In 2001, premiums written by non-life insurers amounted to roughly EUR 2.6 billion, those written by life insurers to roughly EUR 3.3 billion and those written by employee pension insurers to roughly EUR 6.2 billion.

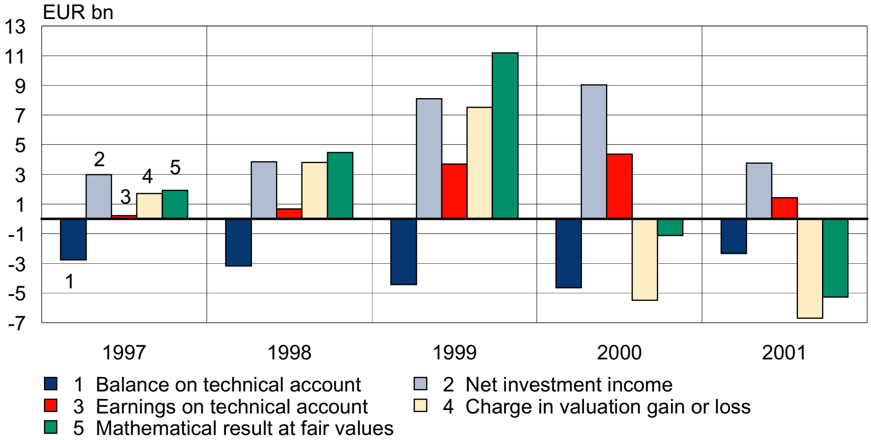
Figure 1. **Premiums written by insurers, 1997–2001**



Source: Insurance Supervision Authority.

On their balance sheets, insurance companies' investments are generally valued according to the lowest value principle, ie at the acquisition cost. A value adjustment is made later if the fair value of the investment falls below the acquisition cost. The value adjustment must, however, be reversed if the fair value recovers. If the fair value of the investment exceeds the acquisition cost permanently and substantially, a revaluation can be made. The difference between fair value and book value represents the valuation gain or loss, which is disclosed in the notes to the financial statements. The valuation gain or loss is included in the solvency margin, so that fluctuations in the market value of its investments are fully reflected in its solvency.

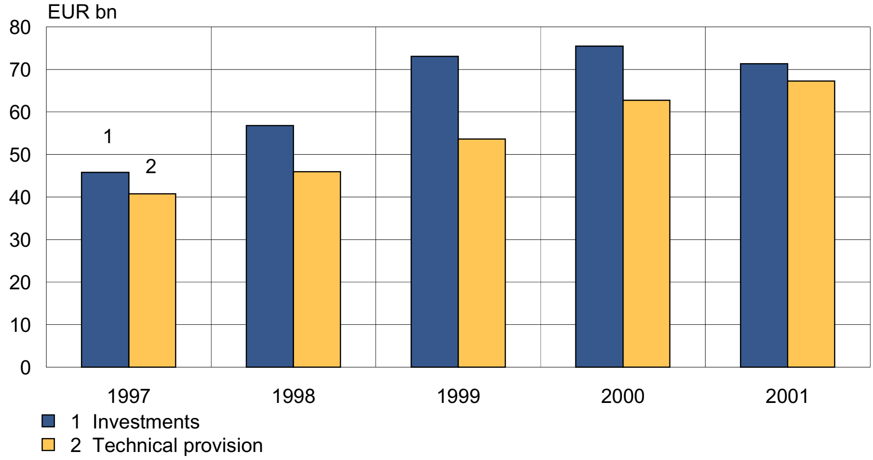
Figure 2. **Insurers' performance, 1997–2001**



Source: Insurance Supervision Authority.

Different accounting principles apply to the business results of non-life, life and employee pension insurers. To ensure comparability, earnings on technical account is defined here simply as the sum of the balance on technical account and net investment income as stated in the income statement. These accounting principles can be seen as complying with the restrictions set out in the Insurance Companies Act as regards the permissible business of insurance companies. Insurance companies may not, in their own name, undertake business other than insurance and related business, including investment business (figure 2). To get an idea of the calculated result based on fair value accounting of investments, the change in the valuation gain or loss can be added to the earnings on technical account.

Figure 3. **Insurers' investments and technical provisions, 1997–2001**



Source: Insurance Supervision Authority.

The liabilities arising out of an insurance company's insurance contracts are booked under technical provisions. Prudential rules must be applied in the calculation of technical provisions, and the company's assets must, at all times, be sufficient to cover them. The general rule governing the investment policy of insurance companies is that investment of funds covering technical provisions must reflect the nature of the insurance business and give due consideration to safety, yield and marketability as well as diversity and diversification. Risks in the insurance business are typically subject to stochastic variation. An insurance company is financially sound if its assets are sufficient to ride out periods of low earnings on technical account or low market values of investments. A financially sound insurance company therefore has investments in addition to those representing coverage for technical provisions. As these assets count towards the solvency margin, an insurance company's total investments generally exceed technical provisions (figure 3). The nature of the technical provisions and solvency requirements differ for non-life, life and employee pension insurers.

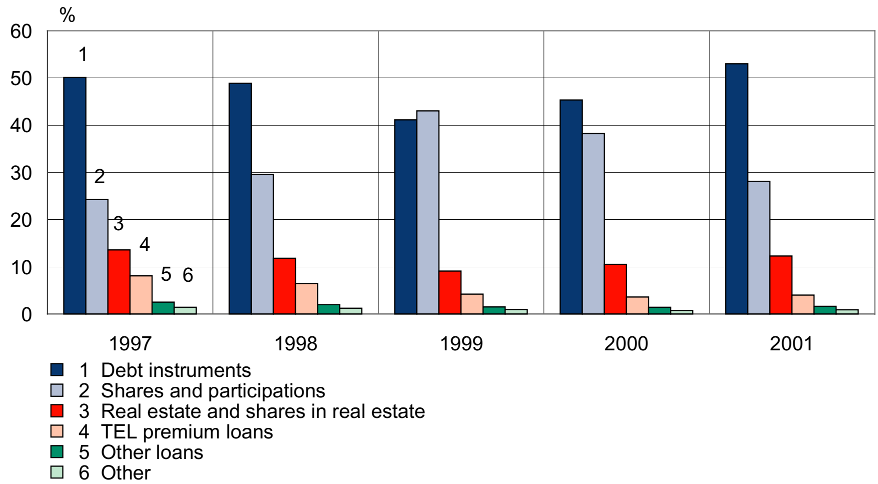
The Insurance Companies Act and the Employee Pension Insurance Companies Act set out provisions on assets qualifying as coverage for technical provisions. The major categories of eligible assets are:

– bonds and other debt instruments
– loans and other debt-based claims
– shares and other variable yield participations
– land, buildings and immovable property rights
– cash and due from banks.

The law sets out more detailed provisions on the safety, yield and marketability as well as appropriate diversity and diversification of the assets covering technical provisions. There is a separate decree with provisions on the maximum amount of eligible assets for each individual asset category, ie how much of the assets covering technical provisions can be invested in eg shares or real estate. Diversification into different asset categories is not sufficient. Legislated maximum amounts also apply to individual exposures, ie how much of the assets covering technical provisions can be invested in the shares of any one company. The liquidity risk has been addressed by setting a ceiling on investments in non-liquid assets that are not easily realisable. The majority of insurance companies' asset holdings are in bonds, equities and real estate.

The insurance company's board of directors must prepare and regularly update a detailed investment plan. The investment plan should take into consideration the current operating environment and future prospects of the insurance company, the risks in the company's investments in terms of return, prudence and exchange rate changes, the requirements arising from the nature of the technical provisions in terms of investment return and liquidity and the restrictions on investment activities following from the insurance company's risk bearing capacity, both short- and long-term. The investment plan must show that the assets covering technical provisions are invested in accordance with the requirements set out in laws and regulations.

Figure 4. **Breakdown of insurers' investments at fair values, 1997–2001**



Sources: Insurance Supervision Authority and Federation of Finnish Insurance.

With increasing share investment and rising share prices, the proportion accounted for by equities in insurance companies' asset portfolios has grown in recent years, in both relative and absolute terms (figure 4). The amount of equity holdings varies by line of insurance, reflecting differing solvency requirements and nature of technical provisions. Accordingly, non-life insurers record the largest, and employee pension insurers the smallest, equity holdings in relative terms. Outward investments by insurance companies have grown substantially in recent years, accounting roughly for 8% of total investments in late 1997, 12% in late 1998, 22% in late 1999 and 41% in late 2000, and slightly over 50% in late 2001.

Table 1. **Insurance companies' investments, 1997–2001**

EUR m	1997	1998	1999	2000	2001
Bonds					
Acquisitions	7,355	14,306	12,209	26,394	35,253
Disposals and amortisations	–4,702	–10,816	–9,600	–21,367	–33,356
Net	2,653	3,490	2,609	5,027	1,897
TEL premium loans					
Acquisitions	281	969	1,083	204	375
Amortisations	–1,533	–1,533	–1,642	–490	–525
Net	–1,252	–564	–559	–286	–150
Shares and participations					
Acquisitions	2,573	5,536	5,804	10,349	7,967
Disposals	–1,375	–3,259	–5,864	–11,630	–6,767
Net	1,198	2,277	–59	–1,281	1,200
Real estate and shares in real estate					
Acquisitions	395	810	378	1,937	709
Disposals	–302	–670	–249	–366	–260
Net	93	140	130	1,571	449

Source: Federation of Finnish Insurance Companies.

Over the years 1997–2000 the trend in Finnish insurers' net investments has mirrored overall financial market developments fairly closely (table 1). With rising share prices, insurance companies have actively increased the weight of equities in their asset portfolios, whereas falling share prices have caused a shift of net investments into bonds and real estate. Although share price developments in 2001 can be characterised as weak, net purchases of equities exceeded net sales.

The investment income of an insurance company as stated in the income statement comprises dividend income (dividends, interest on guarantee capital and other profits), interest income (receivables vis-à-vis loans, bonds and other debt instruments, premiums etc), other income (rent for land, exchange gains etc) value readjustments and capital gains. The investment charges entered in the income statement include those connected with investments in land and buildings, exchange rate losses, investment management, interest on loans, reinsurance etc, as well as value adjustments, scheduled depreciation on buildings and capital losses. The net investment income as stated in the income statement is the difference between investment income and investment charges plus unrealised gains and losses.

Table 2. **Breakdown of insurers' net investment income, 1997–2001**

EUR m	1997	1998	1999	2000	2001
Investment income					
Dividend income	280	447	831	3,076	1,315
Interest income	1,835	1,926	1,858	2,258	2,423
Other income	514	605	671	855	1,092
Value readjustments	136	57	270	81	297
Capital gains	752	2,054	3,680	5,722	2,437
Total income	3,517	5,089	7,310	11,992	7,565
Investment charges					
on land and buildings	–297	–301	–304	–327	–384
Other investment charges	–66	–184	–273	–352	–442
Interest charges and other equity-based charges	–39	–36	–25	–31	–47
Value adjustments	–177	–603	–391	–1,498	–1,986
Scheduled depreciation on buildings	–39	–48	–42	–36	–36
Capital losses	–42	–84	–219	–548	–714
Total charges	–660	–1,255	–1,253	–2,791	–3,608
Net investment income before unrealised gains	2,857	3,834	6,057	9,201	3,957
Unrealised gains	131	25	2,052	68	31
Unrealised losses	–6	–3	–8	–250	–227
Net investment income per income statement	2,981	3,855	8,101	9,019	3,761

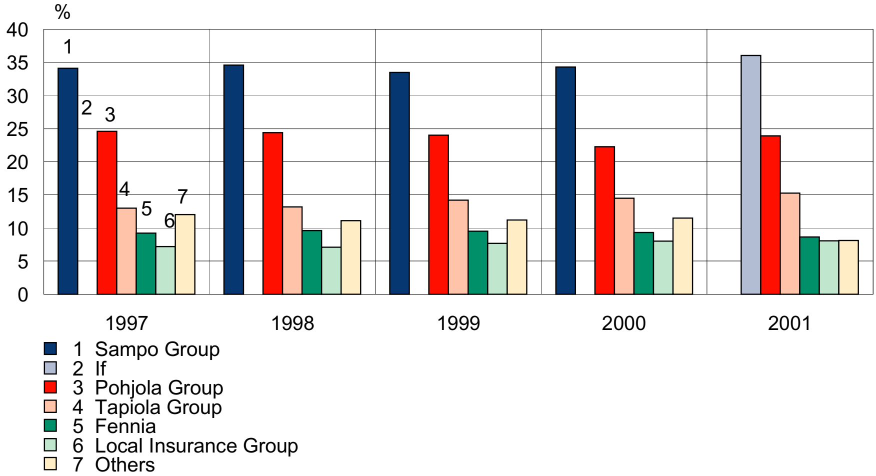
Source: Insurance Supervision Authority.

Insurers' net investment incomes at book value have been very high in recent years, mainly due to timely realisation of equity holdings (capital gains) and the high dividend earnings on these holdings (table 2). Another contributory factor to the excellent investment performance is the reorganisation of the Pohjola and Sampo groups and the exceptionally large dividends paid out by the two companies.

3.3.1 Non-life insurance

Non-life insurers provide products that cover risks that are especially stochastic in nature, in that they depend on the occurrence of a fire, industrial accident or road accident. Most non-life insurance contracts are annual policies with a deductible. The underwriting profitability of non-life insurers depends on the correct pricing of the insurance risks assumed. In other words, insurance premiums and investment income must exceed the expenses arising from the insurance contract in the period to which premiums and expenses refer.

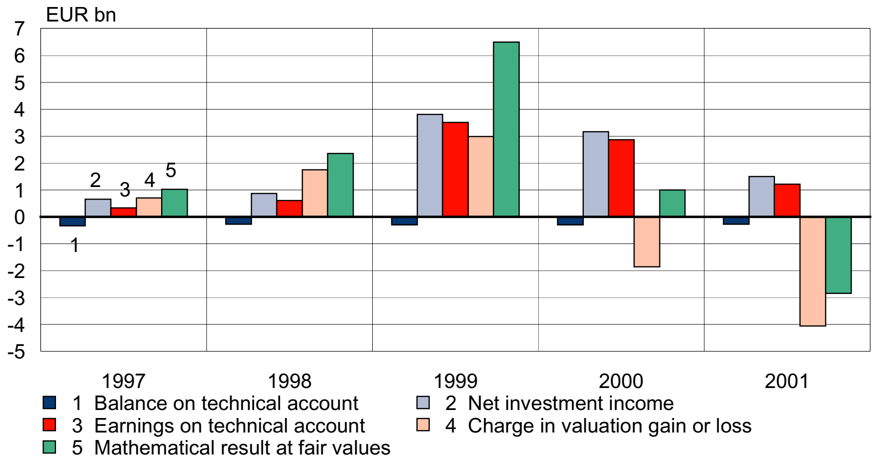
Figure 5. **Market shares of non-life insurers by premiums written, 1997–2001**



Source: Insurance Supervision Authority.

The Finnish non-life insurance market is relatively concentrated, with the five largest insurance groups controlling roughly 92% of the market (figure 5). The non-life insurance market is known to be fairly stable, and no major changes in market shares or volumes are to be expected in the future either. Measured by premiums written, the average annual rate of growth was approximately 4.4% in 1997–2001. As a rough generalisation one can say that growth of the non-life insurance market accords with average GDP growth rate.

Figure 6. **Non-life insurers' performance, 1997–2001**

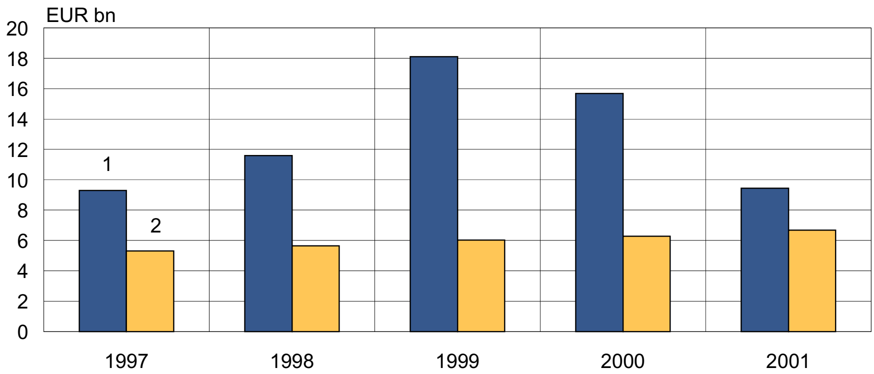


Source: Insurance Supervision Authority.

Non-life insurers' balances on technical account have been negative over the past few years (figure 6). The pricing of insurance products thus affects the required return on investments. Non-life insurers have increased their prices in recent years in an attempt to improve their profitability. These efforts have been partly successful, considering the buffer effect of the equalisation provision on the balance on technical account. In the period under review, net investment incomes entered in the income statement have exceeded deficits on technical account. The balances on technical account reported in 1999 and 2000 can be regarded as exceptional, given the corporate reorganisations in the insurance market.

The major proportion of the technical provisions of a non-life insurance company is made up of outstanding claims arising from insurance contracts, provisions for claims settlement expenses and the equalisation provision set aside for years of high claims experience. The technical provisions held by non-life insurers are traditionally perceived to be of short duration. Major exceptions are certain lines of insurance (eg statutory workers' compensation insurance, motor liability insurance, liability insurance and inward reinsurance) for which materialisation of the damage takes years and the insurance company may become liable to provide retirement benefits as compensation for damage. Provision for retirement benefits therefore accounts for a sizeable amount of the technical provisions held by non-life insurers engaging in statutory workers' compensation or motor liability insurance. The longer the duration of the technical provisions and the higher the amount of technical provisions attributable to retirement provision, the higher the required return on investments.

Figure 7. **Non-life insurers' investments and technical provisions, 1997–2001**

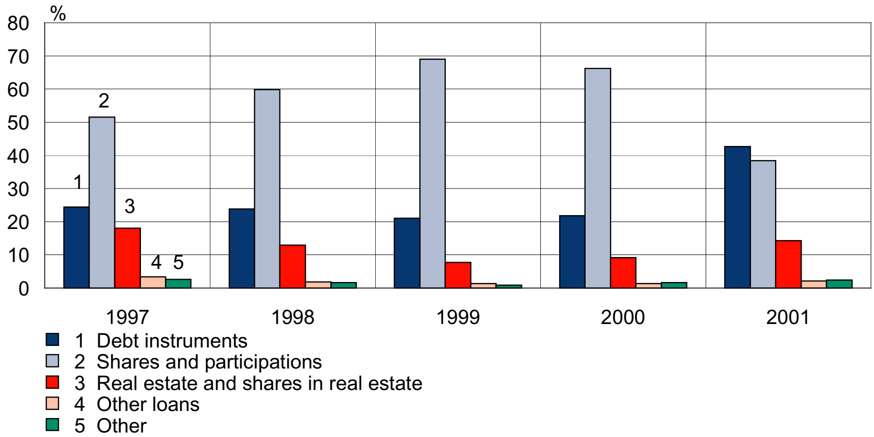


1 Investments
2 Technical provisions
Source: Insurance Supervisions Authority.

The minimum capital requirements imposed on non-life insurance companies in EU countries are generally less stringent than the statutory requirements under Finnish law. Because of the stricter capital requirements applicable to non-life insurers authorised in Finland, investments must exceed technical provisions by a considerable margin (figure 7). The solvency requirements under Finnish law take account of the conditions and risks of individual non-life insurers: the greater the risk, the larger the requirement. Experience has shown the long-standing effectiveness of such a scheme geared towards insurance risks.

Roughly 95% of non-life insurers' assets are invested in debt instruments, shares and participations and in real estate (figure 8). Finnish non-life insurers' equity holdings are significant in comparison to most other countries. Arguments in favour of a higher-risk investment policy include the good risk bearing capacity of Finnish non-life insurers, the much longer duration of their technical provisions and the better predictability of claims expenditure because of the relatively large provision for retirement benefits.

Figure 8. **Breakdown of non-life insurers' investment at fair values, 1997–2001**



Source: Insurance Supervision Authority.

Since 1998 non-life insurers' investments have shown a clear shift in focus towards bonds (table 3). Sparked by the strong rise in share prices, non-life insurers have disposed of a significant volume of shares, Nokia shares in particular, to balance the asset portfolio. It is also worth noting that, save for 2000, non-insurers' net investments in real estate have been negative.

Table 3. **Non-life insurers' investments, 1997–2001**

EUR m	1997	1998	1999	2000	2001
Bonds					
Acquisitions	463	1,290	1,633	1,384	2,470
Disposals and amortisations	–452	–1,053	–843	–1,329	–2,157
Net	11	237	790	55	313
Shares and participations					
Acquisitions	673	867	1,076	1,583	999
Disposals	–423	–790	–2,420	–3,813	–2,279
Net	250	77	–1,344	–2,231	–1,280
Real estate and shares in real estate					
Acquisitions	20	26	50	97	55
Disposals	–83	–63	–105	–75	–119
Net	–64	–37	–54	21	–64

Source: Federation of Finnish Insurance Companies.

Non-life insurers reported record-high net investment income for 1999 and 2000 (table 4). Most of the capital gains earned in 1999 were from sales of Nokia shares, with the Pohjola Group in particular disposing of a significant volume of Nokia shares. The exceptionally large amount of unrealised gains recorded for the same year relates to the reorganisation of the Pohjola Group. Towards the end of 1999, the Pohjola Group booked unrealised gains on its Nokia holdings, which were sold in early 2000. The proceeds of the sales were distributed as dividends to shareholders. Major shareholders in the Pohjola Group at the time were the non-life insurers of the Sampo Group, which recorded substantial dividend incomes for 2000.

Table 4. **Breakdown of non-life insurers' net investment income, 1997–2001**

EUR m	1997	1998	1999	2000	2001
Investment income					
Dividend income	143	244	455	1,847	523
Interest income	224	211	215	288	283
Other income	173	158	170	176	203
Value readjustments	58	16	75	28	59
Capital gains	253	573	1,663	1,349	941
Total income	851	1,201	2,578	3,687	2,009
Investment charges					
on land and buildings	–87	–83	–78	–73	–74
Other investment charges	–21	–50	–61	–62	–96
Interest charges and other equity-based charges	–15	–14	–6	–8	–12
Value adjustments	–44	–126	–123	–250	–213
Scheduled depreciation on buildings	–19	–21	–17	–13	–12
Capital losses	–5	–33	–53	–113	–110
Total charges	–191	–327	–339	–520	–517
Net investment income before unrealised gains	661	874	2,239	3,168	1,492
Unrealised gains	0	0	1,567	1	0
Unrealised losses	0	0	–2	–1	0
Net investment income per income statement	660	873	3,804	3,168	1,492

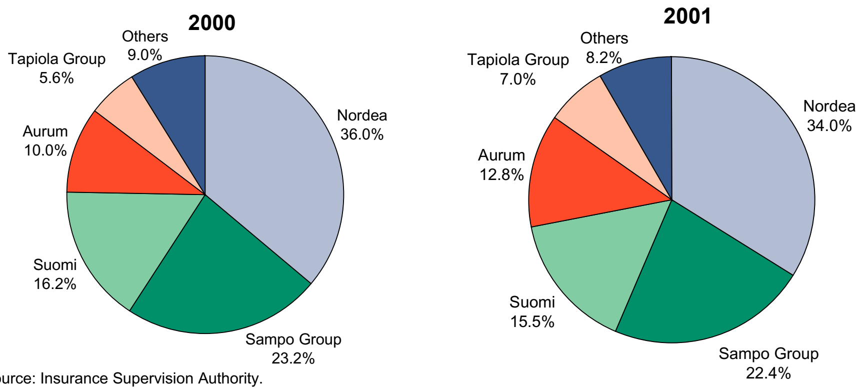
Source: Insurance Supervision Authority.

Investments by non-life insurers in recent years have been highlighted by reorganisations of the Pohjola and Sampo groups, involving either investment realisation and dividend payments to shareholders or portfolio transfers to newly established insurance companies, with assets remaining in the holding company. Thus, the tables here do not necessarily give an accurate picture of the typical investment activities of non-life insurance companies.

3.3.2 Life insurance

Life insurance companies provide coverage against the risks of death, illness or injury. Life insurance policies are generally pure endowment policies and so they include a long-term savings element. The major life products are insurance savings products, such as pension and single premium savings policies. With typical unit-linked policies, investment risk is borne by the policyholders. However, the best selling policies so far are the traditional guaranteed-return single premium savings policies providing for both a fixed guaranteed return and various bonuses based on insurance surpluses. The basic elements of these policies are theoretical risk expense calculated at the guaranteed rate of interest less actual risk expense (business of risk), the insurance company's realised net investment return less the return requirement calculated at the guaranteed rate of interest (business of interest) and the difference between operating expense items for the policies allocated to the fiscal year and actual operating expenses (business of operating expenses).

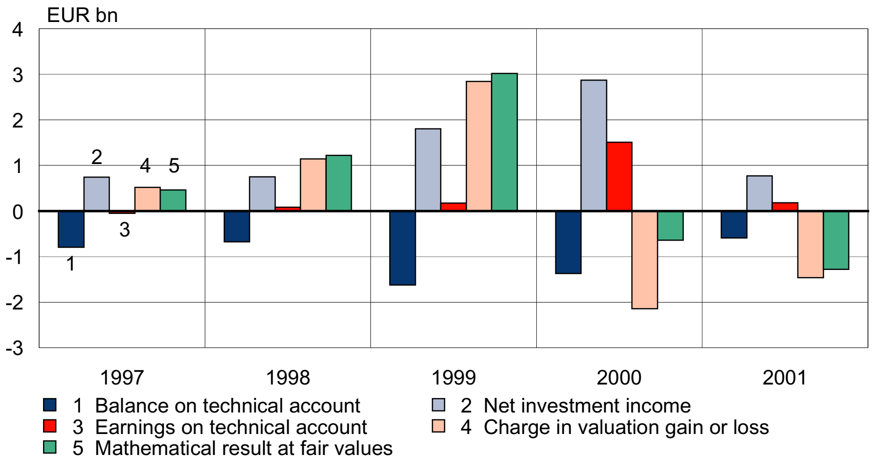
Figure 9. **Market shares of life insurers by premiums written, 2000–2001**



Source: Insurance Supervision Authority.

Like the market for non-life insurance, the Finnish life insurance market is relatively concentrated, with the five largest groups controlling about 92% of the market (figure 9). In contrast to the non-life market, the life insurance market has expanded strongly in recent years. Measured by premiums written, the average annual rate of growth was about 11.7% over the years 1997–2001. During the past few years, there has been a big increase in single premium savings policies, especially unit-linked policies, as a major savings and investment outlet, along with conventional savings vehicles, such as bank deposits, bonds, funds and equities. Similarly, the increasing provision for retirement made in recent years has boosted the sales of personal pension policies.

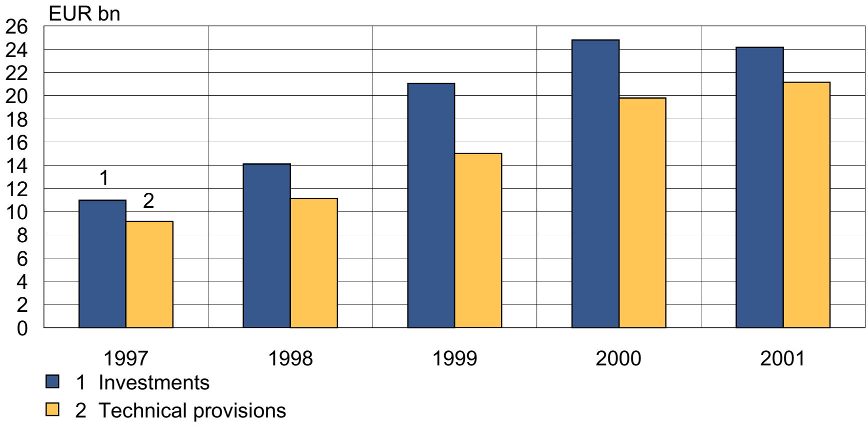
Figure 10. **Life insurers' performance, 1997–2001**



Source: Insurance Supervision Authority.

The Insurance Companies Act stipulates that the life insurance business must be subject to prudential and equity principles. According to the prudential rules, the basis of calculation applicable to life insurance premiums must be designed with consideration to the protection of policyholders' interests, so as to ensure that the insurance company will be able to meet its obligations under life insurance policies without having to use assets other than life insurance premiums and investment returns on them, which could jeopardise compliance with solvency requirements. Under the rules of equity, participating policies are entitled to benefit from bonuses payable out of the surplus. In the calculation of bonuses, reasonable consideration must be given both to total bonuses payable on these policies and, and vis-à-vis bonus distribution, to the amount and origin of the surplus generated by these policies. The provision of bonuses must not, however, jeopardise compliance with the company's solvency requirements or the continuity of bonus payment. In line with the equity principle, the aim must be a balanced provision of bonuses that avoids wide fluctuations in annual amounts of customer bonuses. Except for 2000, most of life insurers' profits was distributed as bonuses to customers, which is reflected in moderate earnings on technical account (figure 10).

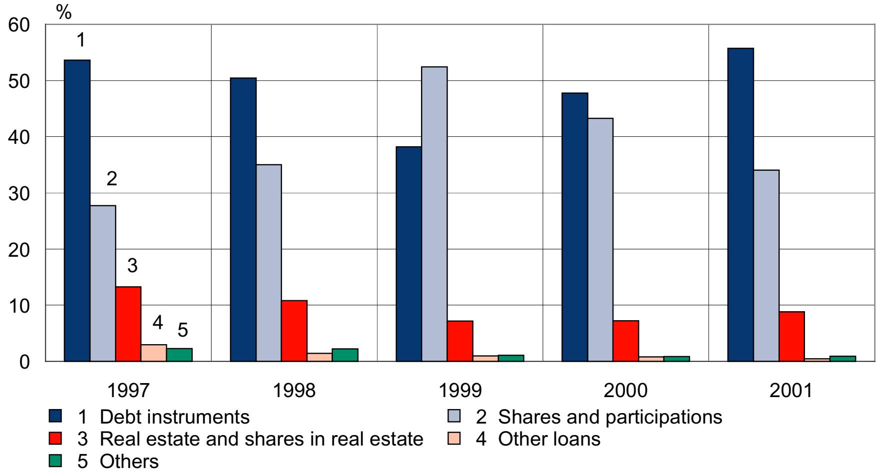
Figure 11. **Life insurers' investments and technical provisions, 1997–2001**



Source: Insurance Supervision Authority.

Given the significant contribution to sales of various savings policies (about 90% of annual premiums), margins between investments and technical provisions are generally smaller in life than in non-life insurance (figure 11). In the case of orthodox unit-linked policies, investments must always be sufficient to cover technical provisions, and, in keeping with the equity principle, a reasonable amount of the annual income on participating policies must be transferred to customers as bonuses. The remainder is either used to reinforce the life insurers' solvency or paid out as dividends to shareholders.

Figure 12. **Breakdown of life insurers' investments at fair values, 1997–2001**



Source: Insurance Supervision Authority.

As mentioned above, there is a built-in savings element in most life insurance products, which explains the relatively long duration of the technical provisions held by life insurers. Savings policies are generally taken out for 5–10 years and indemnities normally become payable as lump-sum benefits, eg expiration refund, surrender or payment of death benefit. Pension policies may be taken out for as long as 40 years and the indemnities payable generally constitute annuities or lump-sum death benefits. Adequate matching of investments and technical provisions is therefore a special concern to life insurers (figure 12). Matching of the cash flow of technical provisions payable as compensation with debt instruments and real estate holdings would in principle be possible, but competition encourages insurers to also channel investments into equities. Net investment income and ensuing customer bonuses are key competitive factors, especially as regards participating single premium savings policies.

Table 5. **Life insurers' investments, 1997–2001**

EUR m	1997	1998	1999	2000	2001
Bonds					
Acquisitions	2,605	3,468	4,240	5,390	8,300
Disposals and amortisations	–1,788	–2,149	–3,356	–3,626	–7,021
Net	818	1,319	883	1,764	1,279
Shares and participations					
Acquisitions	1,013	1,836	2,880	3,738	2,326
Disposals	–604	–747	–1,558	–3,736	–1,576
Net	408	1,090	1,322	2	750
Real estate and shares in real estate					
Acquisitions	175	40	65	324	214
Disposals	–155	–66	–62	–43	–93
Net	20	–26	3	281	121

Source: Federation of Finnish Insurance Companies.

In 1998 and 1999, the assets of life insurers were roughly equally divided between bonds and equities (table 5). The active sales of listed shares that started in late 1999 continued in the following year, as investment funds were shifted mainly into bonds. In 2000 and 2001 life insurers also invested in real estate to a greater-than-usual extent.

Table 6. **Breakdown of life insurers' net investment income, 1997–2001**

EUR m	1997	1998	1999	2000	2001
Investment income					
Dividend income	62	92	209	701	297
Interest income	371	432	447	617	697
Other income	138	208	224	352	469
Value readjustments	27	16	94	40	103
Capital gains	234	355	833	2,255	555
Total income	832	1,104	1,807	3,965	2,120
Investment charges					
on land and buildings	–75	–79	–83	–95	–103
Other investment charges	–25	–98	–184	–224	–250
Interest charges and other equity-based charges	–15	–12	–8	–16	–28
Value adjustments	–46	–148	–115	–450	–573
Scheduled depreciation on buildings	–6	–6	–7	–6	–6
Capital losses	–31	–30	–86	–116	–191
Total charges	–199	–373	–483	–907	–1,151
Net investment income before unrealised gains	634	731	1,324	3,058	969
Unrealised gains	114	25	485	67	28
Unrealised losses	–3	–2	–6	–250	–227
Net investment income per income statement	745	753	1,803	2,875	771

Source: Insurance Supervision Authority.

The net investment income of life insurers grew strongly in 1999 and 2000 (table 6). The modest net growth rate recorded for 1998 was mainly due to a substantial increase in investment charges, whereas the sharp increase in net investment income in 1999 and 2000 was attributable to higher capital gains and dividend income. Value adjustments on shares accounted for a significant part of the charges posted in 2000 and 2001, not to forget the large amounts of revaluations in 2000 and 2001 of previous years' revaluations. These were largely attributable to the fact that changes in the value of technical provisions covering unit-linked policies are fully reflected in the income statement. If the value of investments covering unit-linked policies rises, unrealised gains or value readjustments are entered; if the value decreases, unrealised losses or value adjustments are entered.

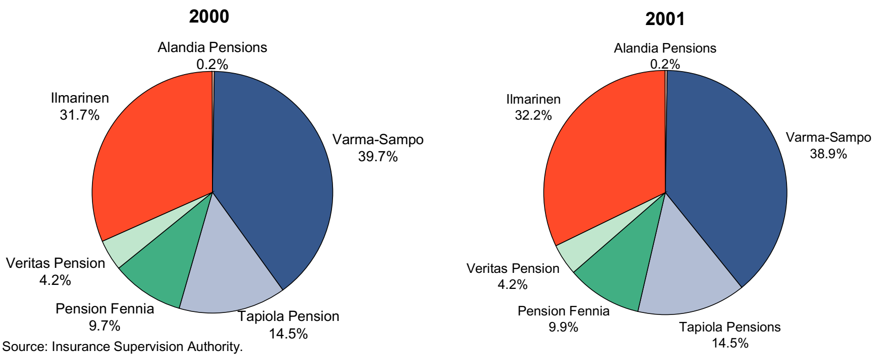
According to the Insurance Contracts Act, all single premium savings policies must provide for more or less unconditional entitlement to the surrender value of the policy. It is therefore of special importance to life insurers that they be able to award customer bonuses at financial market rates. On the one hand, insurers should aim at higher returns by investing in higher risk instruments in order to be able to award competitive bonuses, whereas on the other hand, in view of the surrender risk, they should invest with prudence, giving proper consideration to solvency requirements. Because of the tax deductibility of premiums, entitlement to the surrender value of personal pension policies only arises subject to certain conditions, such as unemployment or divorce. Considering the longer maturity and smaller risks of pension policies, pension assets may be invested in higher risk instruments, as long as the solvency requirements are met. Although net investment income has become the major competitive factor for life insurers, the company's solvency position is, of course, also a key consideration for investment decisions.

3.3.3 Statutory earnings-related pension scheme

As part of the Finnish social security system, the statutory earnings-related pension is designed to ensure that employment years' consumption levels of wage earners (insured under the Employees' Pension Scheme TEL) and self-employed persons (insured under the Self-employed Persons' Pension Scheme YEL) are fairly closely maintained when social risks such as old age, disability or long-term unemployment are realised. The administration of the statutory earnings-related pension scheme is based on the exercise of delegated public authority by a private insurance scheme. The method of financing applied to the TEL scheme is a combination of funded and pay-as-you-go schemes, so that the contributions collected are not sufficient for full funding. The remaining amount represents a claim on the pension scheme that ultimately becomes payable by the employers. Up until 1993 employers were solely responsible for financing retirement provision and paid the whole contribution themselves. Since 1994 employees have contributed to their pensions, and increases in the contribution rate have been divided between employer and employee. Pensionable earnings under the YEL scheme are calculated on the annual reported income of the self-employed person. The rate of contribution payable by self-employed persons is roughly equal to the rate under the TEL scheme. In contrast to the TEL pension scheme, the pension scheme for the self-employed is run as a pay-as-you-go scheme. If the contributions collected are not enough to meet pension expenditure, the State makes up the difference.

The technical risks associated with the pension scheme are of a somewhat different nature to those inherent in life insurance. Because of the statutory nature of the earnings-related pension scheme, advance confirmation of the basis of calculation applicable to contribution rates and technical provisions must be obtained from the Ministry of Social Affairs and Health. The possibility of annual adjustments in contribution rates ensures that the risks of the earnings-related pension scheme are substantially lower than eg life insurance risks. This is why scheme-wide measures can be initiated to address technical risks common to the whole statutory earnings-related pension scheme, whereas investment risks must be born by the individual pension providers themselves. There are six authorised pension insurance companies in Finland, with the three largest companies holding a total market share of around 86% (figure 13). Increases in the volume of contributions collected by employee pension insurers have traditionally been more or less consistent with payroll increases. Measured by premiums written, the average annual rate of growth was around 7.8% over the years 1997–2001.

Figure 13. **Market shares of employee pension insurers by premiums written, 2000–2001**



Source: Insurance Supervision Authority.

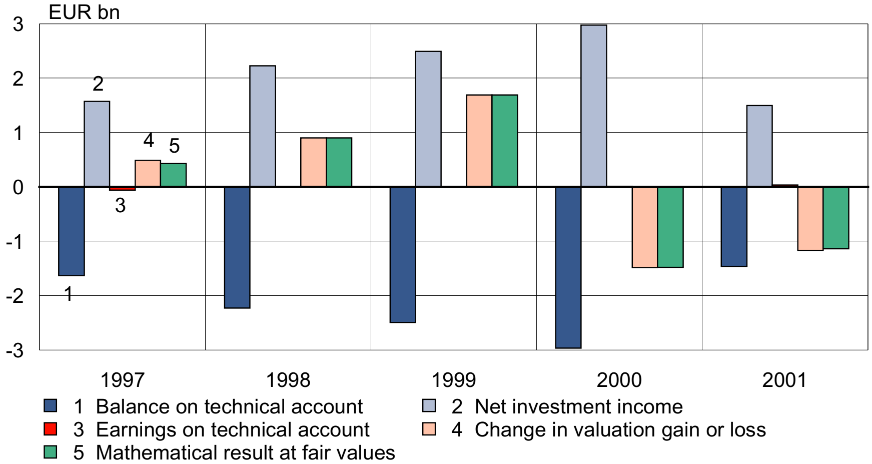
Investments of employee pension insurers have traditionally been designed to secure pension financing and protect invested assets, while securing as good a return on investments as possible. In response to the heavy indebtedness of the Finnish government, bonds were introduced as a major investment vehicle, attracting earlier nearly all new investments by authorised pension providers. Although this was not in line with the original objective of the statutory earnings-related pension scheme, ie to promote domestic economic conditions, the alternative investment vehicles were not as nearly risk-free as bonds and loans granted against secure collateral.

A Government bill to Parliament on new solvency requirements for authorised pension providers (GB 1996/241) was introduced to adjust the investment restrictions applied to employee pension insurers so as to permit them to operate in accord with the objectives of the statutory earnings-related pension scheme also under changed circumstances. Employee pension insurers were for instance to be given greater freedom to invest in equities and other higher risk instruments. The choice of investment vehicle was however considerably restricted by the small volume of the solvency buffers at the time. With the passing of the Government bill, the solvency margin requirements applicable to insurance companies operating an earnings-related pension scheme were so revised that the minimum solvency margin was raised and made dependent on the company's investment portfolio.

To ensure higher solvency margins, a new 'provision for future bonuses' was included in the technical provisions. The provision for future bonuses is set aside for bonuses payable to policyholders which, under certain conditions, may be used to cover investment losses. The funds represented by the provision for future bonuses therefore count towards the solvency margin. Over the years 1997–1999, part of the investment income (difference between the variable technical rate of interest and the fixed 3% discount rate) was assigned to the provision for future bonuses and not used for meeting current pension expenditure. From 2000 onwards, the assets included in this item have been used as actual technical provisions rather than the provision for future bonuses.

Efforts made by employee pension insurers in recent years to considerably strengthen their solvency margins have also highlighted the importance of asset breakdowns. Of an employee pension insurer's excess of assets over liabilities, holders of shares or guarantee shares are entitled to pro rata shares of the company's investments in equity capital and reasonable returns thereon. The remainder of the assets (incl. valuation gains or losses on investments) belong to the policyholders as part of the insurance portfolio. In the financial statements, shareholder income is, via the surplus, allocated to equity capital, from which dividends or interests can be paid. The shareholders' share of the company's total assets appears as equity capital in the balance sheet. The shareholders' share does not however include the revaluation reserve. Any reduction of the company's share capital will correspondingly reduce the shareholders' share of company assets. The restrictions applicable to holdings of shares and guarantee shares in employee pension insurance companies and the restricted right to returns are also reflected in the earnings on technical account reported by employee pension insurers (figure 14). It should also be noted that in 2001 around EUR 0.3 billion was withdrawn from the provision for future bonuses to cover investment losses.

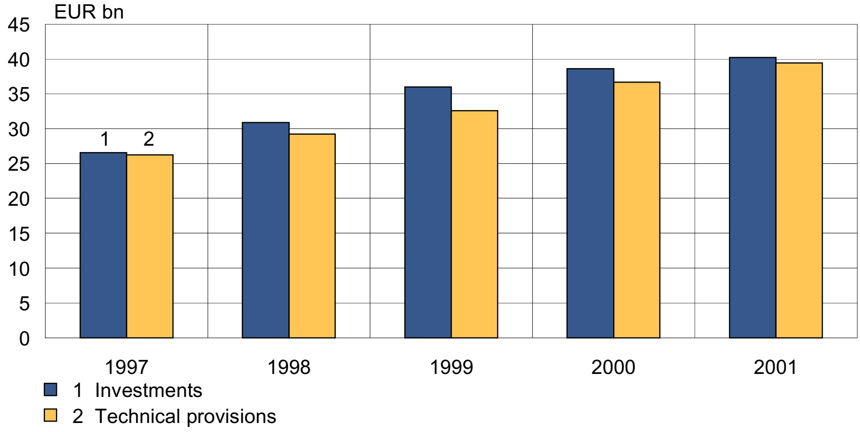
Figure 14. **Employee pension insurers' performance, 1997–2001**



Source: Insurance Supervision Authority.

Considering that most of the profits earned by employee pension insurers are allocated either to the provision for future bonuses or to the actual technical provisions, both of which are included in the technical provisions, it should be clear that the margin between investments and technical provisions is small (figure 15). The proportion accounted for by the provision for future bonuses, ie the buffer for investment losses, in the technical provisions represented about 3.7% in 1997, about 8.1% in 1998, about 11.9% in 1999, about 14.3% in 2000 and about 12.5% in 2001.

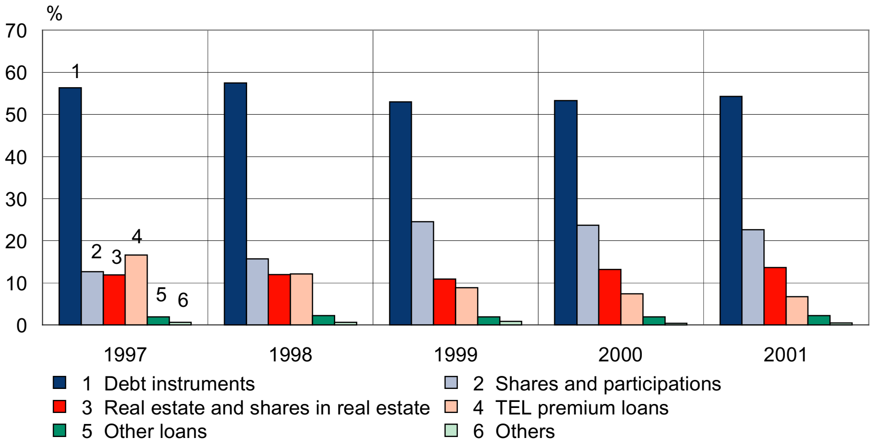
Figure 15. **Employee pension insurers' investments and technical provisions, 1997–2001**



Source: Insurance Supervision Authority.

The asset breakdown of employee pension insurers has changed considerably in recent years (figure 16). The demand for TEL premium loans has declined substantially, while investments in real estate have remained fairly constant. Higher solvency margins have enabled employee pension insurers to gradually reallocate their investments in a more market-oriented manner. In addition to permitting higher risk investments (such as equities) this also facilitates diversification of investments abroad.

Figure 16. **Breakdown of employee pension insurers' investments at fair values, 1997–2001**



Source: Insurance Supervision Authority.

Investments by employee pension insurers continue to focus on bonds (table 7), but their equity holdings have also grown significantly following the new legislation passed in 1996. Real estate investments in 2000 were considerable in comparison with previous years, with the net increase in real estate investments representing EUR 1.3 billion and new investments focusing mainly on business facilities.

Table 7. **Employee pension insurers' investments, 1997–2001**

EUR m	1997	1998	1999	2000	2001
Bonds					
Acquisitions	4,286	9,549	6,336	19,620	24,483
Disposals and amortisations	–2,462	–7,615	–5,400	–16,412	–24,178
Net	1,824	1,934	936	3,208	305
TEL premium loans					
Acquisitions	281	969	1,083	204	375
Amortisations	–1,533	–1,533	–1,642	–490	–525
Net	–1,252	–564	–559	–286	–150
Shares and participations					
Acquisitions	887	2,833	1,848	5,028	4,643
Disposals	–348	–1,723	–1,885	–4,081	–2,913
Net	539	1,110	–37	947	1,730
Real estate and shares in real estate					
Acquisitions	200	744	263	1,516	440
Disposals	–63	–541	–82	–248	–48
Net	137	204	181	1,268	392

Source: Federation of Finnish Insurance Companies.

The legislative reform also covered the TEL premium loan scheme, which was adjusted to allow for greater versatility and more market-oriented interest rates, but despite the changes, companies showed little interest in the loans. In response to efforts made to increase the popularity of the TEL premium loan scheme, demand for premium loans nevertheless grew in 1998 and 1999. However, in recent years cancellations have exceeded new business. The premium loan portfolio has contracted by approximately EUR 6 billion since 1992, which reflects the trend of the past few years.

Table 8. **Breakdown of employee pension insurers' net investment income, 1997–2001**

EUR m	1997	1998	1999	2000	2001
Investment income					
Dividend income	75	111	166	529	496
Interest income	1,240	1,283	1,196	1,353	1,443
Other income	203	239	278	328	421
Value readjustments	51	25	100	13	135
Capital gains	265	1,126	1,184	2,118	941
Total income	1,833	2,784	2,924	4,341	3,435
Investment charges					
on land and buildings	–135	–138	–144	–159	–207
Other investment charges	–20	–36	–28	–65	–95
Interest charges and other equity-based charges	–10	–10	–10	–7	–7
Value adjustments	–87	–329	–153	–797	–1,200
Scheduled depreciation on buildings	–14	–21	–17	–17	–18
Capital losses	–6	–21	–79	–319	–413
Total charges	–271	–555	–431	–1,365	–1,940
Net investment income before unrealised gains	1,562	2,229	2,493	2,976	1,495
Unrealised gains	17	0	0	0	3
Unrealised losses	–3	–1	0	0	0
Net investment income per income statement	1,576	2,228	2,493	2,976	1,498

Source: Insurance Supervision Authority.

Primarily in response to the favourable share price developments, pension insurers have recorded excellent investment returns, which has widened solvency margins and enabled larger bonus transfers and so reduced contributions (table 8). As of 1998, capital gains have made a significant contribution to the net investment income of employee pension insurers. Employee pension insurers, too, booked fairly high value adjustments in 2000 and 2001. However, in recent years employee pension insurers have not booked any unrealised gains, which might have had to be reversed in 2001 as unrealised losses on investments.

The risk taking capacity of employee pension insurers has improved overall. Following different asset allocations and improved solvency, the performance capacity and customer bonuses of individual companies differ, which has heightened competition between employee pension insurers.

3.3.4 Major insurance groups

In recent years the Finnish insurance market has witnessed several corporate reorganisations, causing significant structural changes among insurance groups. At the same time, insurance and banking groups have explored new forms of cooperation. Ownership reorganisations, cooperation agreements and the introduction of new operations have paved the way for full-service financial supermarkets providing investment and banking services in addition to traditional insurance services.

The term *insurance group* here refers to a group of undertakings providing insurance services in the fields of non-life, life and employee pension insurance. Non-life, life and employee pension insurance companies may be part of the same group but companies operating a statutory earnings-related pension scheme are not included in the consolidated financial statements of non-life and life insurance companies. There is specific legislation governing separation of the pension insurance business, especially as regards the investment activities of employee pension insurers. Cooperation within the group primarily concerns the sales and marketing of the group’s products through the same branch network. The following description of the major insurance groups operating in the Finnish insurance market focuses on key companies and ownerships only. Foreign operations are not addressed.

Sampo Group

The structure of the Sampo Group has undergone significant changes, especially over the years 2000–2002. In late 2000 the insurance company Sampo and Leonia merged to form the first Finnish full-service financial group, which was joined by Mandatum Bank in February 2001. The insurance business of the Sampo Group has also been subject to a major overhaul. Thus, in 2001 Leonia's life business (Leonia Life) was merged with Sampo Life Insurance Company Ltd (Sampo Life), and on 31 March 2001, with the Sampo Group’s adoption of the holding company structure, the non-life business was divided between two companies, wholly owned by the new holding company, Sampo plc. Of these two companies, Sampo Insurance Company Limited took on private and corporate customers, whereas Sampo Industrial Insurance Company Ltd focused on large corporate customers. In spring 2001 Sampo acquired from Varma-Sampo Mutual Pension Insurance Company (Varma Sampo) its 20.1%

holding in Sampo Life, which thus became the group's wholly-owned subsidiary. The Sampo Group also includes Kaleva Mutual Insurance Company, the guarantee capital of which is equally divided between the Sampo Group and the Varma-Sampo Group. In the course of 2001, Sampo announced its plan to combine forces with the Norwegian insurance company Storebrand. In this connection the transfer of Sampo's non-life business to the Swedish If P&C Insurance Group was brought up for the first time. Despite the failure of the Storebrand project, Sampo went ahead with the sale of the non-life business to If on 2 January 2002 and in return acquired a significant holding of approximately 38% in the parent If Holding. Following the transfer, the non-life insurance companies, which continue to be domiciled in Finland, changed their names to If P&C Insurance Company Ltd Finland (formerly Sampo Insurance Company Limited) and If Industrial Insurance Ltd Finland (formerly Sampo Industrial Insurance Company Ltd). The capital base of If was strengthened in connection with these reorganisations. Varma-Sampo acquired a 10% holding in If Holding, and Sampo and Varma-Sampo now together control 50% of the voting rights of If Holding.

The Sampo Group (including If's Finnish non-life business) is the leading Finnish insurance group in terms of market share of premiums written. In 2001 the market share of the non-life business transferred to If was around 36% and that of the life business of the Sampo Group (Sampo Life and Kaleva) around 27%, while Varma-Sampo controlled around 39% of the pension insurance market operated by Finnish employee pension insurers. The balance sheet total of the non-life business transferred from Sampo to If represented about EUR 2.3 billion, that of Sampo Life about EUR 5.1 billion and that of Varma Sampo about EUR 16.9 billion. The role of insurance companies in investment markets must be assessed in light of the fact that most of their investments are stated in the balance sheet at acquisition cost or at a lower fair value, with the exception of assets held to cover unit-linked life insurance policies, which are stated at fair value. Accordingly, the difference between fair value and book value (valuation gain or loss) does not appear in the balance sheet but represents an item in the solvency margin.

Ilmarinen–Suomi–Pohjola Group

The Pohjola Group has been undergoing some major reorganisations over the years 1997–2002. First in 1997 Pohjola Insurance Company Ltd (Pohjola) acquired the share stock of the then Salama Life

Insurance Company Ltd, which was renamed Pohjola Life Insurance Company Ltd. Then in 1998 Pohjola decided to spin off a significant amount of its businesses into new companies, which were named Pohjola Non-Life Insurance Company Ltd (Pohjola Non-Life), Pohjola Customer Service Ltd and Pohjola Systeemipalvelu, an IT services company, with Pohjola Non-Life assuming all of Pohjola's direct business, including related reinsurance. In the process, the Eurooppalainen Insurance Company Ltd became a wholly-owned subsidiary of Pohjola Non-Life and Pohjola Customer Service took over the group's entire branch network and closely related services. Following these reorganisations, the parent company was renamed Pohjola Group Insurance Corporation (Pohjola). In summer 1999 Pohjola declared its intention to transfer its non-life insurance business to the Nordic If company, whose other shareholders were Skandia and Storebrand. However, in response to ownership reorganisations and strategic reappraisals within Pohjola, the company decided to withdraw from the If project in early 2000. In this process, Ilmarinen Mutual Pension Insurance Company (Ilmarinen), Suomi Mutual Life Assurance Company (Suomi) and the Okobank Group became major shareholders in Pohjola. The objective of Pohjola and its major shareholders was to establish a new financial conglomerate in Finland, but the project miscarried with the withdrawal of the Okobank Group from the cooperation. Pohjola and Conventum combined their businesses in autumn 2001, and in February 2002 Pohjola announced that it held 100% of the shares in Conventum, as a consequence of which public trading of the shares of Conventum was suspended on the Main List of the Helsinki Exchanges. At the end of 2001, Pohjola's remaining insurance portfolio was transferred to Pohjola Non-Life, with Pohjola reorganised as a holding company named Pohjola Group (Pohjola) from the beginning of 2002. In March 2001 Suomi bought all the shares of Pohjola Life from Pohjola, and the company was renamed Suomi Life Assurance Company Ltd (Suomi Life). With this transaction, the group's entire life insurance business was concentrated in the Suomi Group. The non-life portfolio of A Mutual Insurance Company was transferred to Pohjola's wholly owned subsidiary A Insurance Ltd at the end of 2001.

The Ilmarinen-Suomi-Pohjola Group is the second largest insurance group in Finland in terms of market shares. The market share of Pohjola's non-life business (including A Insurance) amounted to roughly 23% in 2001 and that of the life business of the Suomi Group to roughly 16%, while Ilmarinen held 32% of the pension insurance market operated by Finnish employee pension insurers. The consolidated balance sheet total of the Pohjola Group amounted to about EUR 2.7 billion and that of the Suomi Group to about EUR 5.9 billion, while Ilmarinen's balance sheet total amounted to about EUR 13.8 billion.

Tapiola Group

The structural changes of the Tapiola Group have been moderate during the past few years. No major reorganisations have taken place; instead, developments have been marked more by intra-group organic changes. Starting in late 2000 the Tapiola Group has also taken determined steps towards becoming a full-service financial supermarket, with Tapiola Asset Management Ltd and its wholly owned subsidiary Tapiola Fund Management Company Ltd commencing operations in early 2001. Tapiola Asset Management Ltd is owned by the companies in the Tapiola Group, with Tapiola General Mutual Insurance Company (Tapiola General) holding 35%, Tapiola Mutual Life Assurance Company (Tapiola Life) 30% and its subsidiary Tapiola Corporate Life Insurance Company Ltd (Tapiola Corporate Life) 15% and Tapiola Mutual Pension Insurance Company (Tapiola Pension) 20% of the company. In April 2002 the Tapiola Group announced its intention to set up its own bank, the Tapiola Bank, which is scheduled to commence operations towards the end of 2003, and in June the group issued a letter of intent with Ålandsbanken on system deliveries to Tapiola Bank.

The Tapiola Group is Finland's third largest insurance group by market share. The market share of Tapiola General represented about 15% in 2001, that of Tapiola Life about 7% and that of Pension Tapiola about 15%. The consolidated balance sheet total of Tapiola General amounted to about EUR 1.5 billion at the end of 2001 and that of Tapiola Life to about EUR 1.9 billion, while the balance sheet total of Tapiola Pension amounted to about EUR 4.6 billion.

Fennia Group

The Fennia Group came into being in summer 1998 following a portfolio transfer from Pension-Varma Mutual Insurance Company (Pension Varma) to Sampo Pensions, covering the policies of the customers of Industrial Insurance Company Ltd. Sampo Pensions was subsequently renamed Varma-Sampo. The customers and portfolio of Enterprise-Fennia Mutual Insurance Company (Enterprise Fennia) remained with Varma Pensions, which was renamed Mutual Insurance

Company Pension-Fennia (Pension Fennia). Fennia Life Insurance Company Ltd (Fennia Life) was established towards the end of 1998, with 60% of the shares in the company held by Enterprise-Fennia and 40% by Pension Fennia. At the end of 1998 the new company took over the portfolio of the customers of Enterprise-Fennia insured with Nova Life Insurance Company Ltd (Nova). In late 2001 the Fennia Group announced that it had signed sales cooperation agreements with the Okobank Group and the Local Insurance Group, without any reorganisation of ownership. In December 2001 Enterprise-Fennia was renamed Fennia Mutual Insurance Company (Fennia Non-life).

The Fennia Group ranks fourth among the Finnish insurance groups in terms of market shares. Fennia's share of the non-life market was about 9% in 2001 and that of Fennia Life of the life market about 2.2%, while Pension Fennia held 10% of the pension insurance market operated by employee pension insurers. The balance sheet total of the parent company Fennia amounted to about EUR 0.8 billion at year-end 2001, that of Fennia Life to about EUR 0.4 billion and that of Pension Fennia to about EUR 3.7 billion.

Veritas Group

The Veritas Group was established in January 2001 by the Verdandi companies (Verdandi Pension Insurance Company Ltd, Verdandi Life Insurance Company Ltd and Veritas Reinsurance Company Ltd) and Svensk-Finland Mutual Insurance Company. The companies in the Veritas Group are Veritas Pension Insurance Company Ltd, Veritas Life Insurance Company Ltd and Veritas Mutual Non-Life Insurance Company (formerly Svensk-Finland). The Veritas Group has also expanded into asset management services through the ownership of Rahastotori Oy, which provides mutual fund brokerage services, and through the acquisition of majority ownership of the Hiisi Group, which provides asset management services.

The share of Veritas Mutual Non-Life Insurance Company in the Finnish non-life market was about 1.4% in 2001, that of Veritas Life Insurance Company in the life market about 2.2% and the share of Veritas Pension Insurance Company in the pension insurance market operated by employee pension insurers about 4.2%. The balance sheet total of Veritas Mutual Non-Life Insurance Company amounted to about EUR 0.1 billion at the end of 2001, that of Veritas Life Insurance Company to about EUR 0.5 billion and that of Veritas Pension Insurance Company to about EUR 1.0 billion.

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3.4 Venture capital investment in Finland

Venture capital investment has increased rapidly in recent years in Finland, as in many other European countries. Previously, until 1995, the growth of this type of investment was quite modest in Finland. Since the turning point, venture investment has begun to post notable growth – whether measured in terms of values or numbers – which has continued through 2001. One reason for the turnaround is a revision of pension funds' investment rules, effected after the mid-1990s.

At the end of 2001 there were over 40 venture capitalist entities. Most of these firms/funds are owned by private investors such as various types of insurance companies, banks, business firms, fund management companies and even private individuals. This type of organisation is also known as a 'captive firm' if it is established by a bank, business firm or insurance company but decides independently on investments. A venture capitalist may also be a semi-captive firm, whose investments may be included eg on a business firm's balance sheet. In addition to privately owned venture capital firms, there are a few public-sector venture capital firms in Finland, eg Finnfund, Sitra and Finnish Industry Investment.

3.4.1 What is venture capital investment?

Venture capital (also known as private capital) investment generally refers to investment in small or medium size companies whose shares are not publicly quoted but which are considered to be set for future growth and development. The purpose of such investment may be eg to provide a company with capital to promote growth, finance corporate buyouts, or develop new products or technologies. A venture capitalist may also provide financing in connection with a generation changeover. Besides financing and financial expertise, a venture capitalist may provide a company with expertise in the areas of management practices, leadership training, development of marketing techniques, or domestic or international connections[1].

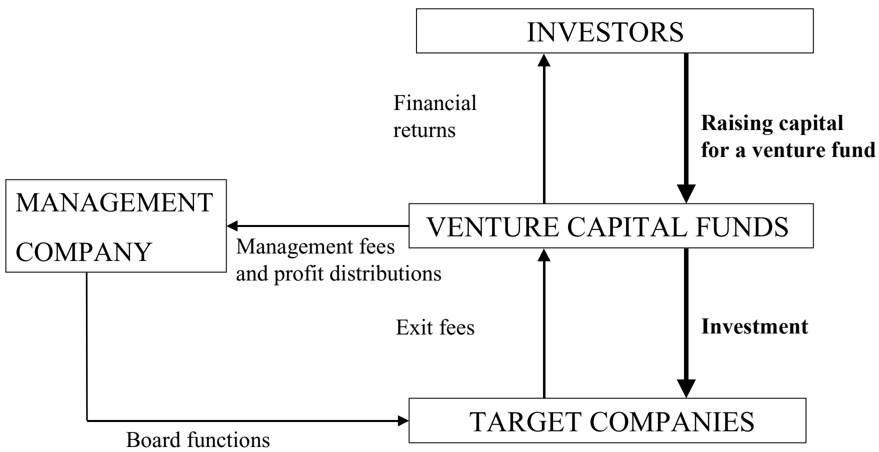
[1] See website of Finnish Venture Capital Association, venture capital/private equity (www.fvca.fi).

Venture capital investment is often accomplished by purchasing a company's shares. Equity financing is often used in conjunction with options, convertible bonds or other types of intermediate-rank (mezzanine) instruments to form combination equity-debt instruments. Venture investments are not usually backed by collateral. Venture investors do not generally own a company on a permanent basis. Normally investor and investee agree at the time of the investment on how and when the investor will withdraw. The term involved can vary greatly from sector to sector. The typical means of withdrawal are sale of the company to new owners or listing the shares on an exchange. The Helsinki Stock Exchange has in recent years listed several companies previously financed by venture capitalists.

Venture capitalists also invest in listed companies. In such a case, the long-run objective may be to acquire all the shares of the company and then delist them.

Venture capitalists in Finland are organised as either funds or limited companies. The former type comprises a limited-company management company, together with one or more (usually fixed-term) venture capital funds organised as limited partnerships. In such case, the management company is the fund's general partner and the other investors are limited partners. The management company also plans and implements the fund's investments. Limited company venture capitalists carry out their investments via the company's balance sheet (figure 1).

Figure 1. **Fund-type venture capitalist**



Source: Finnish Venture Capital Association.

Venture capital activities in Finland are not covered by special legislation. The limited companies are subject to the regular legislation on limited companies and venture capital funds, which are usually limited partnerships, fall under the legislation on partnerships.

3.4.2 Raising investment capital

During the period 1995–2001 Finnish venture capitalists raised a total of about FIM 13 billion in new risk capital. The bulk of this money was paid into funds only after appropriate investment objects had been found. Such an investment process can take several years.

The structure of venture capital investment has changed since the mid-1990s. For instance, banks previously accounted for a notable portion of venture capital investment, as in Europe as a whole. The public sector was, in relative terms, more important in the early 1990s than it is today. As a result of changes in the regulation of pension funds' investment activities after the mid-1990s, pension funds and foundations also began to make venture capital investments. In fact, in recent years pension funds and other insurance institutions in Finland have become important players in the venture capital market.

In 2000, however, the amount of new venture capital raised by pension funds declined compared to previous years. The banks' position as venture capitalists has weakened considerably since the mid-1990s: in 1995 banks supplied over half of all such capital; in 2000 only a few per cent. The proportion of new capital raised in the capital market amounted to only about 10% of the total capital raised. Companies' strong profitability led to an increase in their venture capital investment activity in the late 1990s, and even private individuals in the field – angel investors – have begun to appear in Finland. A new entry to the venture capital market is the venture capital mutual fund (table 1).

Table 1. **Sources of new capital, 1995–2001, EUR m**

	1995	1996	1997	1998	1999	2000	2001
Pension funds	28	25	75	140	180	100	72
Insurance companies	5	13	61	63	187	191	104
Banks	73	117	53	25	70	26	28
Special public finance institutions	16	20	54	21	78	89	40
Companies	0	5	9	19	5	31	17
Funds of funds	0	0	0	0	0	50	29
Capital market	0	0	38	17	92	35	0
Reinvested money	0	0	8	9	15	15	8
Other	6	14	7	34	28	26	113
Total	128	194	305	328	655	563	411

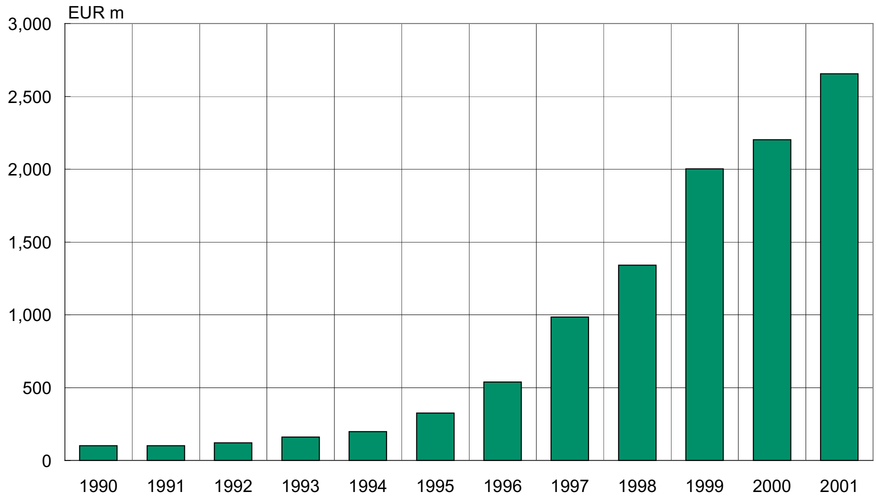
Source: Finnish Venture Capital Association.

3.4.3 Managed capital

The amount of managed capital flowing into the Finnish venture capital market has grown apace, from just over EUR 300 million in 1995 to EUR 2.7 billion in 2001 (figure 2). At the end of 2001 nearly 90% of total managed capital was supplied by private venture capitalists; the rest by public sector entities. The change in the nature of the Finnish venture capital market has been noteworthy in that private investors have been rapidly gaining importance since the mid-1990s. Private venture capitalists have begun to place increasingly large amounts of capital also in company start-ups, whereas previously public sector entities played a more notable role in this high risk area. The importance of public sector investors is nonetheless still key eg in the ‘seed’ stage of a company’s financing. When a company is growing rapidly, or in a company buyout (incl. MBO) situation, private investors are practically the only possible sources of financing.

Despite rapid growth, venture capital is still not a highly significant activity in the Finnish financial markets. At the end of 2001, financial capital managed by venture capital funds amounted to only about 1.6% of banks’ combined assets, albeit this capital had by then grown to nearly 7% of companies’ stock of domestic credit.

Figure 2. **Managed capital, 1990–2001**

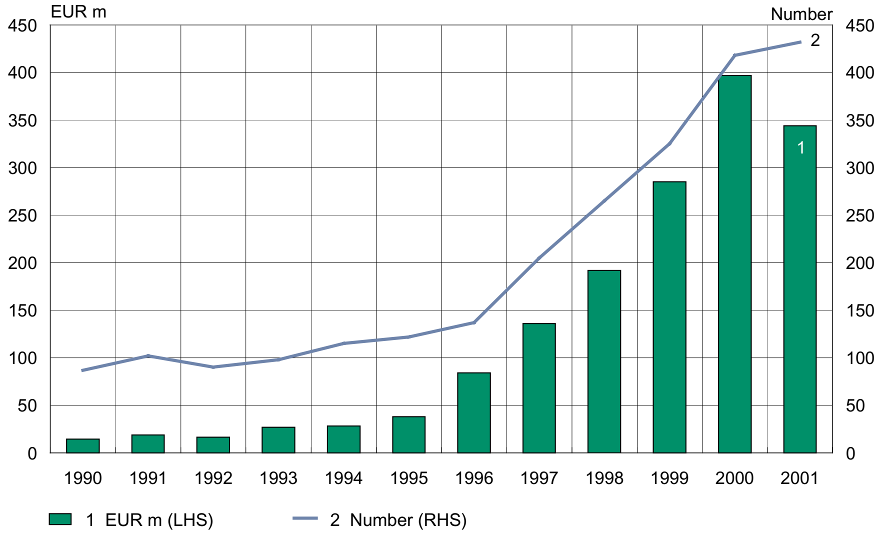


Source: Finnish Venture Capital Association.

3.4.4 Investments

The number and value of investments have been increasing steadily since the mid-1990s. In 1995–2001 over 1,800 capital investments were carried out, amounting to about EUR 1.5 billion. Already in 2001 the number of investments climbed to over 400 and amounted to EUR 344 million. Although investment numbers are still growing, the amount of money placed did decline somewhat compared to 2000, the first year-on-year decline in a decade. First-time investments accounted for just over 60% of total investments, whereas the average mature investment amounted to only about EUR 500,000.

Figure 3. **Risk capital investment in Finland, 1995–2001**



Source: Finnish Venture Capital Association.

These investments have been made in several different sectors. In recent years eg medical sciences, ICT and other high-tech companies have accounted for a rapidly growing share, at the expense of the more traditional sectors. Nonetheless, a great deal of investment money is still flowing into the traditional sectors such as the industrial and service sectors. Venture capital plays only a minor role in financing forest industry companies in Finland.

A notable proportion, 25–50%, of these investments goes into companies in the expansionary stage. Financing of company buyouts by present management (MBOs) comprises another key activity of venture capitalists. Investments for the purpose of financing start-ups and providing seed capital have in recent years accounted for another 5–10%.

The long-standing growth trend for venture capital investment is also apparent in that such capital is now flowing into companies in all stages of development. Companies in the start-up and seed stages, however, will continue to obtain a notable share of their capital from public sector venture capital firms. For example, since passage at the end of 1999 of legislation on the operations of start-up and seed-stage companies, Finnish Industry Investment has channelled increasing amounts of its investments into such companies. Little or no private capital flows into these risky outlets and none at all into MBOs.

A variety of financial instruments are used in venture capital operations. Share purchase is the most important single form of venture capital investment. For example, at the end of 2000 equity financing accounted for nearly 60% of total venture capital financing. However, these investments are often combination instruments, involving both equity and debt financing. In such cases, the debt financing part comprises convertible bonds or preferred capital certificates. Second in importance to equity financing is intermediate – mezzanine – financing. Mezzanine debt, which ranks between shares and collateralised debt, presently accounts for about 20% of total venture capital financing. Only about 10% of the total is accounted for by secured and unsecured promissory notes.

3.4.5 Withdrawing from venture capital investments

The expansion of venture capital activity from the start of the 1990s can also be seen in the gradually increasing numbers of withdrawals as fixed-term investments reached the stage of possible withdrawal. The increase in withdrawals has also been supported by stock market growth, increasing liquidity, and a long upward trend in share prices. The downturn in share prices was quickly reflected in declining withdrawals, due in part to listing difficulties.

Withdrawal from a venture capital investment can be done in full or in part. The most important form of withdrawal is a full withdrawal eg in a company buyout, in which the shares are turned over to new investors as they become listed, or in a full repayment of debt. In the case of a partial withdrawal, the investor sells some of his shares or the investee company repays part of the principal on the debt used in the financing deal. Bankruptcy is another common cause of withdrawal.

3.4.6 Prospects

Venture capital investment is still quite new in Finland. This is reflected in the rapid growth as well as in the fact that withdrawals only began to increase in the last few years. Because of the short history, the amount of money managed by venture capitalists is still quite small relative to the size of the economy – less than 2% of GDP in 2001. This key statistic is not large by European standards, as it puts Finland in the lower half of the list of EU countries ranked by amount of venture investment. Among the Nordic countries, Finland ranks second behind Sweden, based again on ratio of venture capital investment to GDP. Despite several years of robust growth, there is potential for more of the same. Realisation will however require continuation of a climate that is favourable to venture capitalists.

Continued growth of venture capital investment will require continued robust stock market activity and abundant liquidity. If stock market liquidity were to move from Finland to some other European marketplace, venture capitalists would find Finland a less attractive area for investment because withdrawal via listing would become considerably more difficult. For small and medium size Finnish companies, listing as a growth company in another European country could be more difficult than in Finland. Expansion of venture capital activity is also closely tied to the health of the economy. A slowing of GDP growth is quickly reflected in dampened venture investment (Hyytinen 2001). Existence of or increases in labour market rigidities also discourage venture capitalists from investing, especially in start-up and seed-stage companies. Greater foreign participation in venture investment in Finland is dampened by certain tax matters. Resolution of this problem would increase foreign venture capitalists- proclivity to invest in Finland. One possible focal area for future Finnish venture investment – at least from the employment perspective – would be how to boost the flow of venture capital into other regions of the country outside the southern region, which currently attracts the great bulk of venture capital.

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Chapter 4

Payment systems and instruments

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4 Payment systems and instruments

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4.1 Payment instruments available to the public

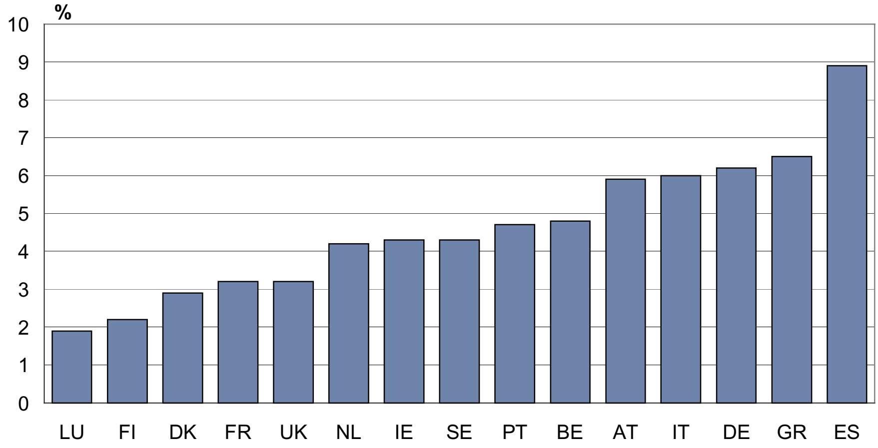
Finnish consumers make heavy use of electronic payment methods. Banks have benefited from the range of new technology available today and have worked in close cooperation to develop efficient payment systems. Almost every Finn has a bank account, and debit cards and credit transfers are popular payment methods. In recent years, banks have used pricing to induce their customers to utilise especially self-service-based Internet banking services, which are easy to use and do not bind the customer to a certain time or location. Although retail payments are electronified to a large extent, cash is still widely used in small payments. The introduction of euro cash at the beginning of 2002 ran smoothly. This section reviews the most common retail payment instruments in Finland.

4.1.1 Cash

The euro countries adopted the common cash on 1 January 2002. Prior to that, the euro had been used as scriptural money since 1 January 1999. Due to thorough preparation, the massive changeover project proceeded smoothly. In Finland, markka banknotes and coins ceased to be legal tender as of 1 March 2002, but the Bank of Finland will continue to redeem markkaa until 29 February 2012. In Finland, seven different euro notes and six coins are used. Unlike in other euro countries, final prices in cash payments are rounded to the nearest five cents, and hence there is no need for the one- and two-cent coins. However, one- and two-cent coins were offered to collectors in introductory packages, and they can still be bought at some commercial banks. In addition, some of the smallest coins will gradually drift to Finland from the other euro countries.

In Finland, the ratio of cash in circulation to GDP is among the lowest in the EU countries (Figure 1).

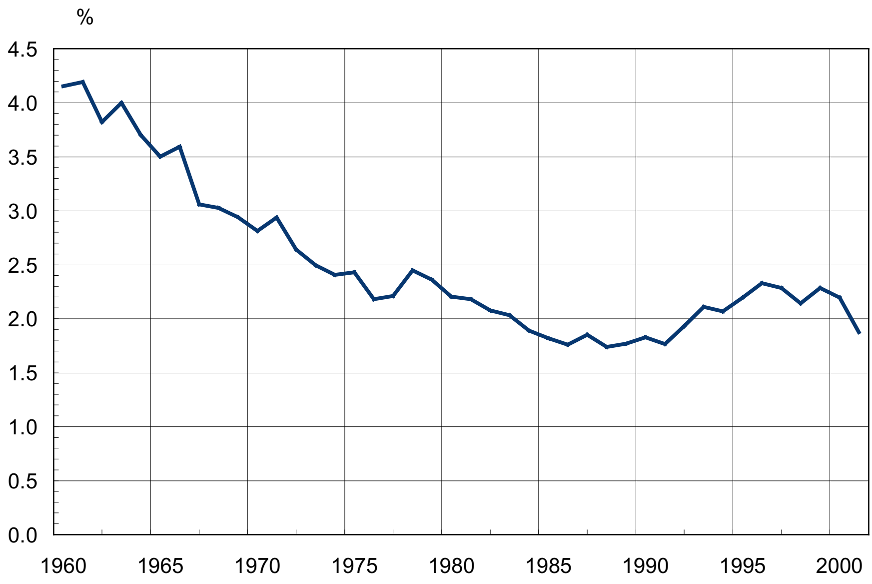
Figure 1. **Ratio of cash held by the public to GDP in EU countries, 2000**



Source: European Central Bank.

The ratio of cash held by the public to GDP in Finland was about 1.9% at the end of 2001. This ratio has remained low ever since the beginning of the 1970s (Figure 2).

Figure 2. **Ratio of cash held by the public to GDP, 1960–2001**



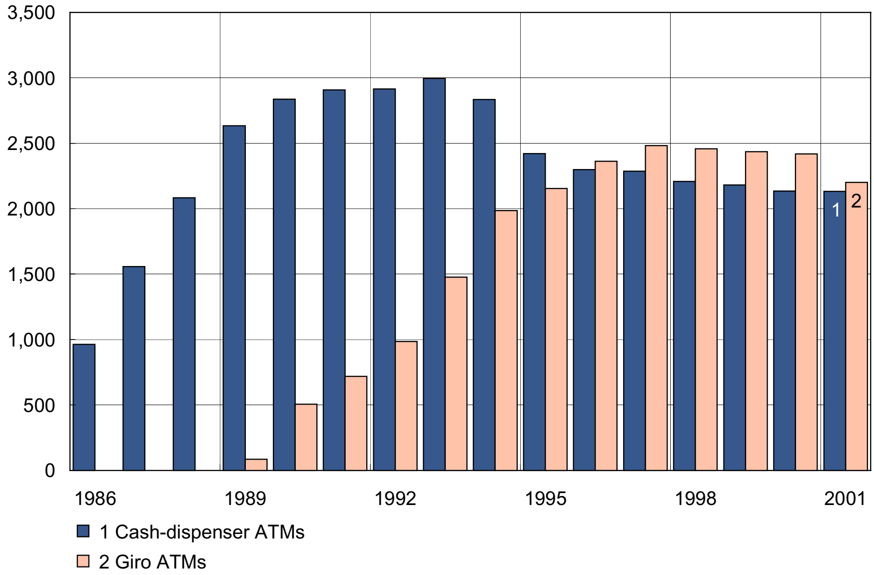
Sources: Bank of Finland and Statistics Finland.

A major reason behind the small cash stock is the rapid electronification of retail payments. Credit transfers and payment cards are popular payment methods and, for example, the price of paying bills in cash has been set much higher than that of a credit transfer. Also, the flow-through rate is high – 6.5 on average in 2001. The flow-through rate is the number of times notes in circulation flow back to the central bank during one year. The rate varies for the different notes. The use of cash is difficult to study, since cash is in open circulation, and it is a totally anonymous payment instrument. However, cash is still widely used, particularly in small payments. It has been estimated that about half of the value of point-of-sale transactions was paid in cash and the other half by payment cards in 2000.[1]

Most of the cash used in Finland is withdrawn from ATMs. The share of ATM withdrawals in all cash withdrawals is estimated at about 80–85%. In 2001, about 248 million ATM withdrawals, amounting to a total of EUR 17.4 billion, were made. The number of cash-dispenser ATMs rose steadily until 1993, after which it has decreased (Figure 3). In 1994, Automatia Pankkiautomaatit Oy started to prune overlapping networks of cash-dispenser ATMs, as previously all banking groups had had their own ATM networks. At the end of 2001, there was a total of 2,132 cash-dispenser ATMs. Also the number of giro ATMs increased until 1997, after which it began to decline. This was mostly due to the increase in the use of Internet banking services.

[1] Paunonen, H. – Jyrkönen, H. (2002).

Figure 3. **Number of cash-dispenser and giro ATMs, 1986–2001**

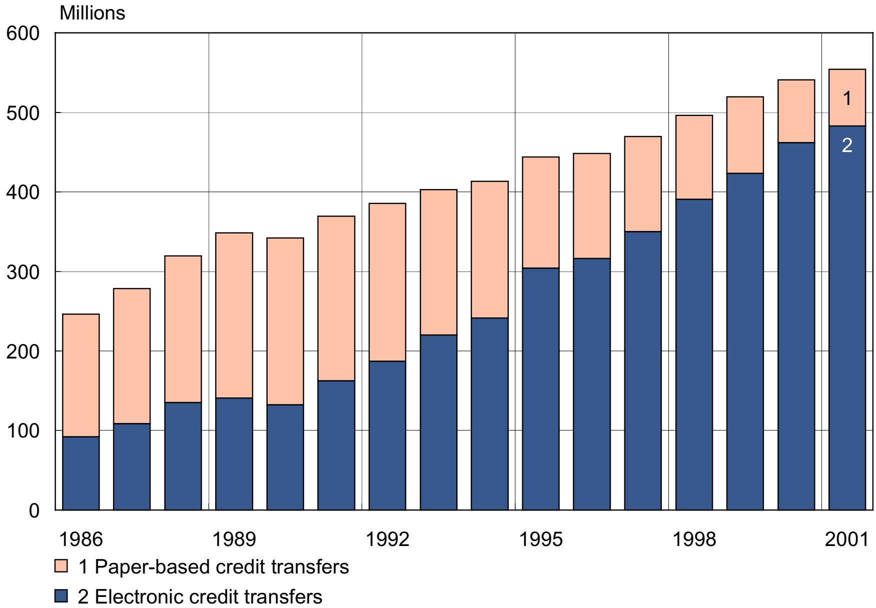


Source: Finnish Bankers' Association.

4.1.2 Credit transfers

Credit transfer is a highly popular payment method in Finland. In 2000, the number of credit transfers per capita in Finland was 105, while on average in the EU countries it was 42.

Figure 4. **Number of credit transfers, 1986–2001**



Source: Finnish Bankers' Association.

The total number of credit transfers and the electronic share thereof have risen steadily in Finland (Figure 4). The popularisation of credit transfers has been furthered by efficient bank giro and postal giro systems, which were unified in 1993.[2] Furthermore, Finns are experienced users of bank accounts, since wages and social benefits have been paid to bank accounts since as early as the 1960s and 1970s. At first, banks offered cheques to their customers, so that there would be no need to withdraw wages in cash. Later on debit cards replaced chequebooks. Banks have also actively encouraged their customers to use self-service. Particularly in the wake of the banking crisis of the early 1990s, banks closed down branches and reduced personnel, developing new self-service-based services as a replacement. In 1990–1998 the number of personnel working in deposit banks in Finland was cut in half. Credit transfers became electronified because of their cost-effectiveness, among other things. Finns are quick to adopt new technologies, and for example Internet-based services are easy to use and free the customers from the restraints of time and location. In addition, banks have worked in

[2] Hatakka, T. (1997).

close cooperation to develop efficient payment systems and used pricing, among other things, to induce their customers to use self-service.[3]

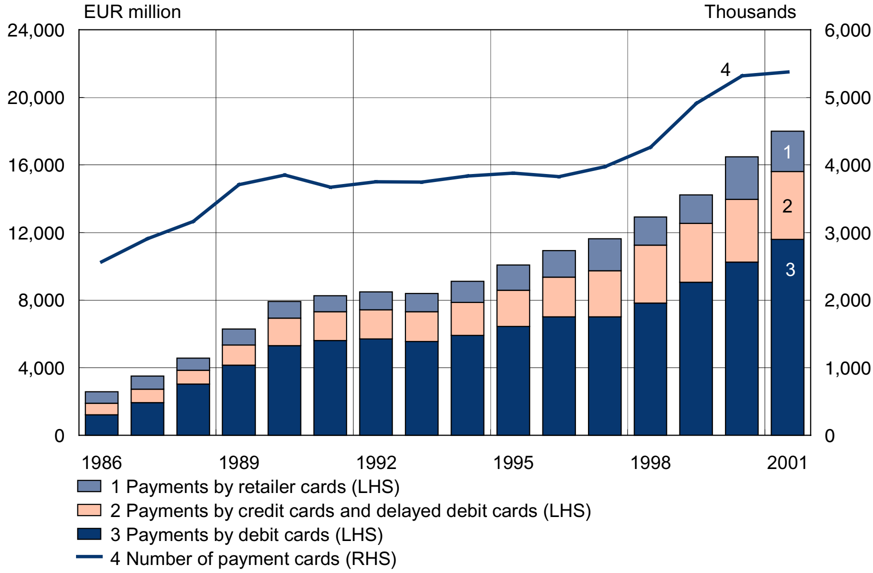
There are many ways to make a credit transfer. Customers may still pay their bills at the counter of a bank branch or send them in a payment envelope to their bank. Recurrent bills can be paid by direct debit. Also giro ATMs, telephone banking services and SMS-based GSM services are available to customers. It has been possible for a long time for customers to pay their bills through a modem connection and banking software, but especially in recent years, the popularity of Internet-based banking services has shown strong growth. At the end of 2001, the number of telebanking and Internet banking contracts between banks and customers was about 2.6 million. Also the use of e-banking services has grown significantly according to the banks in recent years. Some of the banking services are also available via WAP telephone and digital television. Recently banks have also launched an EBPP service, by which the customer can agree with the invoicer that a bill not be dispatched on paper to the customer's home, but directly in an electronic form to his bank. Using the EBPP service, the customer may choose either direct debit or direct payment. A direct debit order is debited automatically from the customer's bank account on the maturity date, while direct payment requires an acceptance by the customer on the Internet banking website before it can be debited. Banks offer also a so-called button payment service, whereby a customer shopping at an e-store can go momentarily to his Internet banking website to pay, and the vendor can get his money in real time. Today, both seller and customer still need to have an account in the same bank to use this service.

4.1.3 Payment cards

Like credit transfers, payment cards are widely used in Finland. In 2000 the number of debit and credit card payments per capita in Finland was 71, while the corresponding figure in the EU countries was 33 on average.

[3] Snellman, J. (2000).

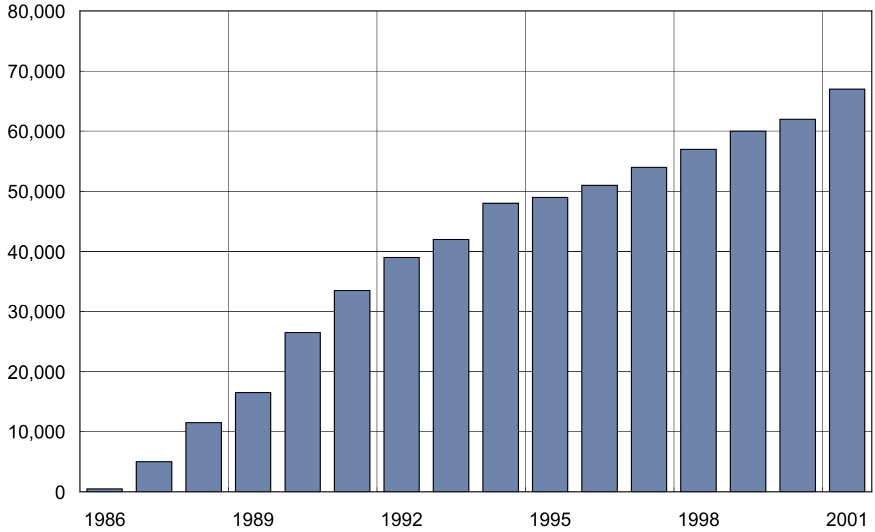
Figure 5. **Value of card payments by card type and number of payment cards, 1986–2001**



Source: Finnish Bankers' Association.

The total number of card payments in 2001 was about 394 million and the total value was about EUR 18 billion (Figure 5). Of these, the number of debit card payments was 275 million, amounting to EUR 11.6 billion. Payment by debit card is very popular, since the banks actively promoted their initial usage in the 1980s. Debit cards superseded cheque payments when the use of cheques became chargeable to the writers in 1988. Subsequently, customers made the switch to free debit cards. Nowadays cheques are used in Finland primarily for large payments, and they have disappeared from the retail payment market altogether. As the number of debit cards rose, vendors largely began to accept them as a payment instrument. Hence, consumers adopted card payment quickly. The network of EFTPOS terminals is also shared and comprehensive. (Figure 6).

Figure 6. **Number of EFTPOS terminals in Finland, 1986–2001**



Source: Finnish Bankers' Association.

Credit card payment has a long tradition, too, as the first cards issued by oil companies were taken into use in Finland as early as the 1950s. In 2001, credit cards were used 65 million times, for a total value of EUR 4 billion. In addition to general-purpose credit cards, there are plenty of different retailer cards in Finland. These include cards issued by retail chains and oil companies, which accounted for 55 million payments amounting to EUR 2.4 billion in 2001. Combination cards, incorporating eg a debit and credit card in the same card, are also popular. In recent years, especially the use of the new Visa Electron card has increased, since online debit cards can be used as debit cards not only domestically but also abroad.[4] In addition, every purchase is authorised in real time, so overdrafts cannot occur. Banks also offer pure ATM cards, which can be used to withdraw cash or pay bills but not to pay for purchases. The customer may also incorporate an Avant e-money card into a chip card issued by Nordea, OKO or Sampo. To increase safety, it is likely that all magnetic strip cards will be replaced by chip cards in the coming years.

[4] According to the Regulation No 2560/2001 of the European Parliament and of the Council on cross-border payments in euro, euro-denominated ATM withdrawals and card payments must as of 1 July 2002 have the same consumer price in the whole euro area as in the domestic market. As of 1 July 2003, the regulation applies also to credit transfers.

4.1.4 New payment solutions

New retail payment solutions are being developed all the time. However, the chip-card-based e-money systems that have been available for some time have so far failed to become highly popular. Electronic money, or e-money, refers to the monetary value that is electronically stored on a technical device. At present, only one multipurpose e-money scheme – Avant – is used in Finland. In addition to Avant, there are some e-money schemes intended for restricted use in Finland. Examples of such applications include UniCard, administered by the Student association of the University of Helsinki, and city card systems in a couple of cities. In recent years, different mobile phone applications for small payments have been developed and several applications are in the pilot phase. It is natural to have these kinds of experiments in Finland, since mobile phone penetration is among the highest in the world and Finns are enthusiastic about using new technology.

Numerous challenges lie ahead for new payment solutions. In order to succeed, a new application should be both secure and efficient and also offer added value to the customer in comparison to alternative payment methods. The pricing of a new payment solution should be attractive both for the customers and the suppliers in order for it to gain popularity. New payment solutions are received differently in different countries, depending eg on the previous development of and the national need for retail payment methods. New applications may also require adaptation of legislation. Indeed, it will be interesting to see whether some new retail payment solutions can succeed nationally or on a larger scale. A change in the pattern of consumption – eg a significant increase in Internet commerce – would probably also further the electronification of retail payments.

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4.2 Banks' domestic payment systems

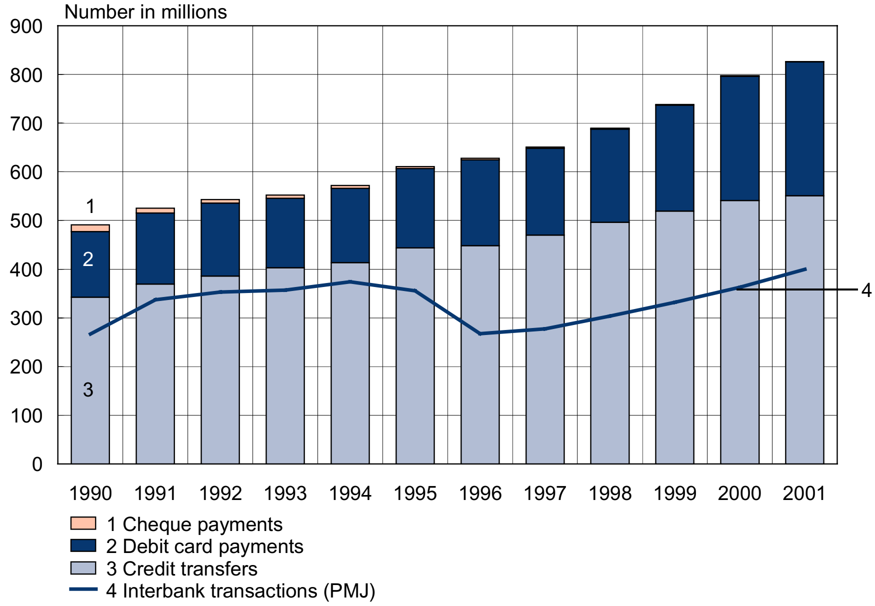
4.2.1 General

The Banks' domestic payment systems form an important part of the basic structure of Finland's economic life. They facilitate the efficiency of the financial system as payments are transferred swiftly and securely from sender to recipient. The banks' payment systems facilitate the secure and efficient transmission of payments both within the country and abroad. The payment systems in use in Finland today are the result of many years' development. Both historical factors and the users' varying needs influence the diversity of these payment systems.

The banks' payment systems can be roughly divided into two distinct groupings: customer payment systems and inter-bank payment systems. Payments handled through the inter-bank systems are similar to those effected through the customer payment systems, however the payer and recipient have accounts in different banks, where success transfer of the payment requires forwarding between banks.

There were 825 million domestic payments made via banks operating in Finland in 2001, approximately 159 transactions per person (Figure 1). The value of these transactions was approximately EUR 1.7 billion, two thirds of which were credit transfers, just under one third were debit card payments and less than one payment per million was the settlement of a cheque. A majority of domestic payments therefore, are based on credit and bank card transfers. In 2001 there were 400 million inter-bank transactions accounting for approximately half of all payments handled.

Figure 1. **Bank's domestic payment services, 1990–2001**



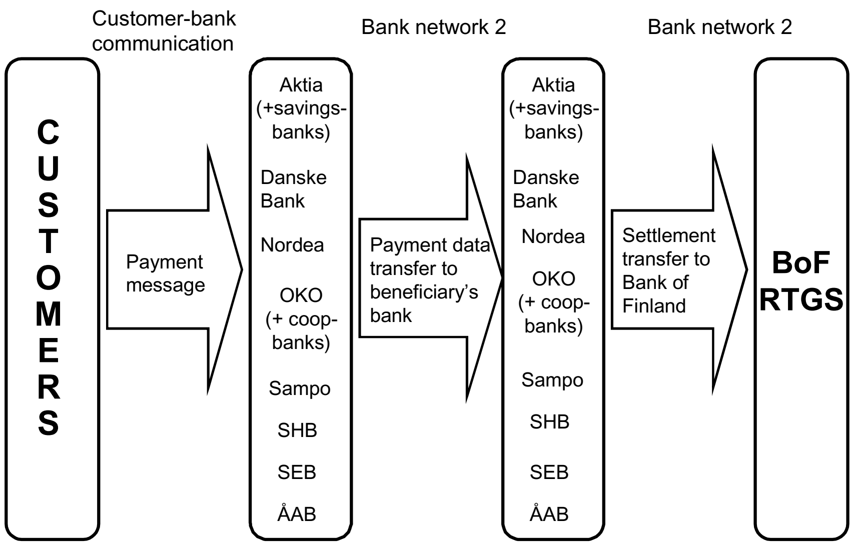
Sources: Finnish Bankers' Association and banks.

Payments made to a second banking group are made through the banks' interbank payment system. This has lead to the development of two complementary payment systems. The PMJ system has been created to handle retail inter-bank payments. Large-value payments and cheques are transferred by means of the POPS system (a name derived from the Finnish title *pankkien on line -pikasiirrot ja sekit*). In addition to which, the amalgamation of cooperative banks and the independent cooperative banks and savings banks' group Aktia transfer payments via their own inter-bank payment system. The central monetary institutions of these banks belong to the POPS and PMJ payment systems and have thus centralised the transfer of payments between the local cooperative and savings banks and other banks. There are two ATM networks operating in Finland, which are fully interoperable on the debit cards issued by both networks.

4.2.2 The PMJ retail interbank payment system

There are currently eight banks operating in Finland participating in the PMJ retail payment system. The system handles domestic customer payments and related data. The most important of which are payment transfers, recurrent payments, direct debits and various card-related payments. Use of the payment system is based on mutually established rules and agreements. The banks, together with the Finnish Bankers' Association, maintain the system they have created. The system allows for data on payment transfers effected through the system to be transmitted when the payer and payee have their accounts in different banking groups. Funds are transferred via the parties' BoF-RTGS accounts. The payment system is based on a bilateral data exchange and not on a centralised clearing centre as is generally the case in other European countries. This solution is possible due the small number of banking groups that all have highly sophisticated systems at their disposal.

Figure 2. **The retail interbank payment system**



Source: Finnish financial markets 1996.

Each bank in the PMJ system sorts the transactions related to customer accounts in other banks according to the respective banking group and issues the data on the payment transfers as batches, several times a day. Transfer of the data to the participating bank is achieved via the banks' joint computer centre and telecommunication network 'Bank network 2' tcp/ip technology. The banks debit and credit their own customers' accounts according to the detailed payment instructions received. However the payments are not settled until it has been confirmed that the covering transfer has been effected.

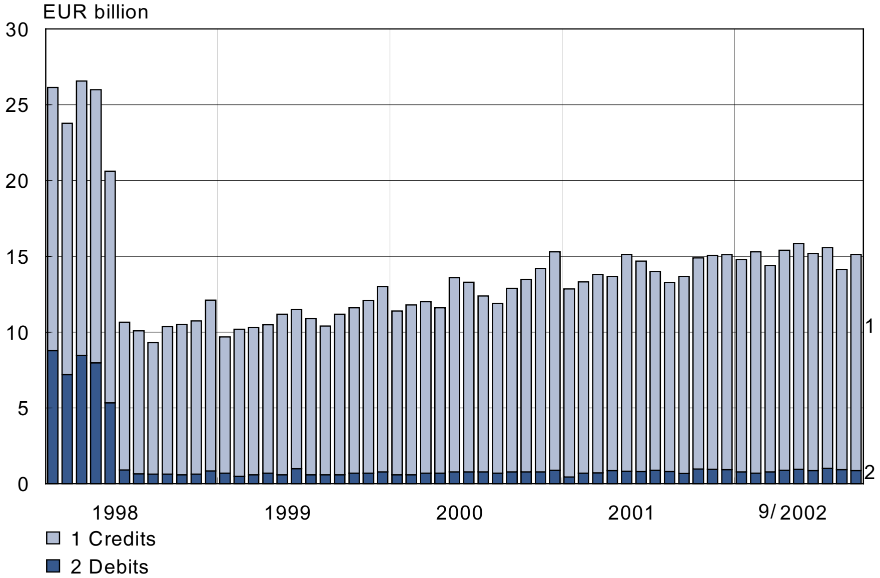
The transfer of funds required to effect the settlement, ie the covering transfer, to each of the banks in the system is calculated by the respective clearing banks as the net amount receivable or payable on the basis of the third-party payment instructions and is forwarded via the PMJ to the Bank of Finland's Real Time Gross Settlement system BoF-RTGS. Based on these calculations, in a clearing run initiated twice a day, the Bank of Finland makes the covering transfer, effecting the respective credits or debits to the banks' BoF-RTGS settlement accounts (night and day settlement). Night settlement is effected automatically in the early hours of the morning and the afternoon settlement is closer to the end of banking hours.

The funds are transferred simultaneously with the clearing run as long as all the banks participating in the particular clearing run have sufficient funds in their respective settlement accounts at the Bank of Finland. If a participant does not have sufficient funds, it is excluded from the settlement run and the transfer is made without it. If a participant is excluded from the night settlement run a further attempt is made in the morning. Thus the banks do not become a credit risk, as covering funds are always transferred between banks before the transaction is recorded in the customers' accounts. Confirmation is then made in the clearing process that all the banks participating in the clearing have the required means before the funds are transferred.

The finality of the payment made within the settlement and clearing system is established by the provisions of the Act on Certain conditions applicable to securities and foreign exchange trading and to payment systems (1084/1999), known as the 'Netting Act', under which the Ministry of Finance confirms the written rules of the PMJ. The European Commission wishes to know which payment systems fall within the scope of the legislation and that the rules of the meet the requirements laid down by the relevant Acts. It is for these reasons that the Ministry of Finance must make the notification on the PMJ to the European Commission. The payment is considered final and irrevocable when the payment has been debited from the account of the payer bank at the Bank of Finland.

The Bank of Finland has defined a PMJ interbank payment system that will meet the principles on systemic risk laid down by the G-10 central banks (core principles for systemically important payment systems). In spring 2001, the Bank of Finland evaluated the PMJ using these criteria. The conclusion was that the payment system fulfils the requirements of the principles. In spring 2001, the IMF, in association with the World Bank carried out an assessment of the Finnish financial sector's situation, under their Financial Sector Assessment Programme (FSAP). The assessment also examined the country's interbank payment systems. The PMJ and other Finnish payment systems cleared the assessment without comment.

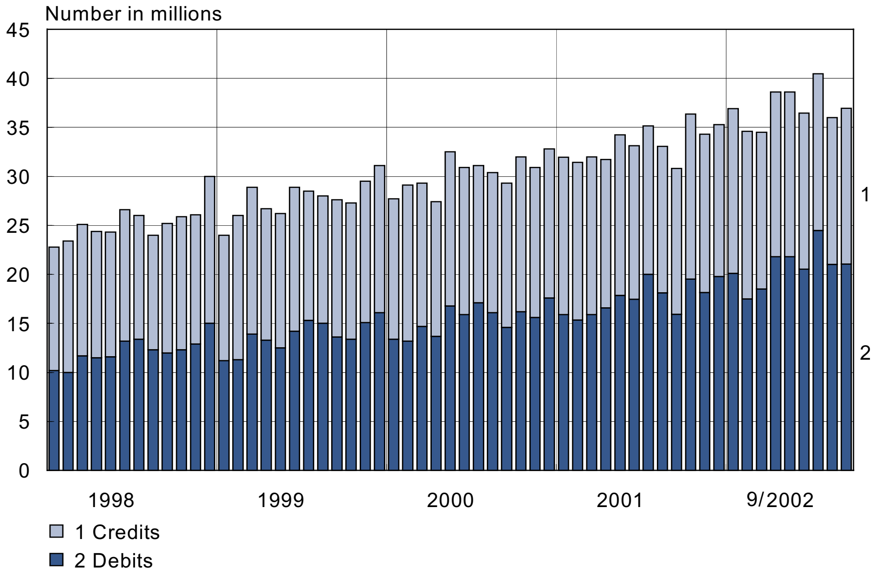
Figure 3. **PMJ: Monthly total debit and credit value, 1998–2002**



Source: Banks operating in Finland.

Currently the monthly value of credits and debits made through the PMJ interbank payment system remain fairly stable, at a little below EUR 15 billion (Figure 3). The most notable change happened in June 1998, when the POPS bilateral net clearing system was introduced. The newly introduced system took over the settlement of express transfers and cheques from the PMJ payment system. This led to a distinct drop in the value of transactions credited and debited through the PMJ interbank payment system (Figure 3). This was due to the removal of cheque payments (debits) and express transfers (credits) bilateral transfer payments away from the PMJ system and thus these transactions were no longer contained in the PMJ statistics, as they previously had been.

Figure 4. **PMJ: Number of monthly total debit and credit transactions, 1998–2002**



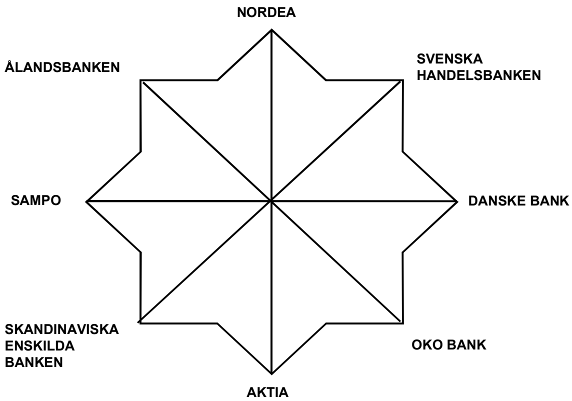
Source: Banks operating in Finland.

In 2001 the number of monthly transactions under the interbank payment system remained at the 30–36 million level. The adoption of the new express transfer and cheque payment system in 1998 did not affect the number of credits and debits transacted significantly. This is due to the small number and large value of the individual payments. Rather the number of payments settled through the PMJ system has, in fact increased somewhat since 1999.

4.2.3 Banks' online system for express transfers and cheques (POPS)

POPS (derived from the Finnish name) is the banks' large-value online interbank system through which customer transfers related to express transfers and cheques (including bank drafts) are handled. POPS is a real-time payment system operating on a decentralised basis through which the participating banks send payment messages bilaterally. The system has been developed by the participating banks in cooperation with the Finnish Bankers' Association. The participating banks also cooperate to maintain the POPS system. At the beginning of 2002 there were 8 clearing banks operating the system, of which 3 were the Finnish branches of foreign banks (Figure 5).

Figure 5. **Banks' express transfer and cheque payment transmission network**



Source: Finnish financial markets 1996.

Through the POPS payment system the participating banks send payment messages bilaterally to each other. Data on cheque payments are also sent directly between the banks concerned. The payer's bank sends the payment message details through the POPS system to the payee's bank. If the payer's transfer is being effected by cheque, this is redeemed at the beneficiary's bank, so that the covering funds are charged immediately from the issuing account. Should there be any kind of warning related to the cheque, or there are insufficient covering funds available, the relevant information is related via the POPS system and the cheque is not redeemed.

Funds for payment through the POPS large-value netting system via the banks' settlement account with the Bank of Finland. In order to reduce risk, the interbank position is restricted within the POPS system by the participants' bilaterally agreed limits. On top of which, interbank settlements combine both gross and net settlement payment transfers. The settlement method applied depends on the bilateral gross and net credit limit agreements between the banks involved. Payments exceeding the interbank bilateral limit – the RTGS limit – are settled on a gross basis in the BoF-RTGS system.

Smaller payments, below the limit, are netted bilaterally so that the banks' net positions vis-à-vis each other are updated constantly during the day by the exchange of payment clearing data. When an interbank bilateral net debit cap nears its POPS limit, the indebted bank is obliged to effect a covering transfer in the BoF-RTGS system to clear the limit. The banks are able to follow the net debit cap and relative net positions on a real time basis. This is, therefore, a question of some form of 'bucket' that – when full – is emptied in an interbank transfer of funds. At the end of the day funds transfers are effected to clear bilateral debt positions. The indebted bank sends a settlement transaction through the BoF-RTGS from its settlement account to the beneficiary's settlement account. In order to minimise the risks involved, the Bank of Finland has set a maximum limit for the RTGS of EUR 20 million. The POPS limit is equal to twice the bilateral limit of the RTGS limit.

The overall maximum credit risk accepted by any bank through the POPS system is the sum of granted bilateral limits. In practice the risks are much lower due to the continuous netting process throughout the day and that transactions are being made in both directions. Whenever the bilateral net position exceeds the signalling line of the RTGS limit, covering funds are transferred between the banks before the transaction is recorded in the customer's account, thus payments exceeding the RTGS limit do not pose a credit risk.

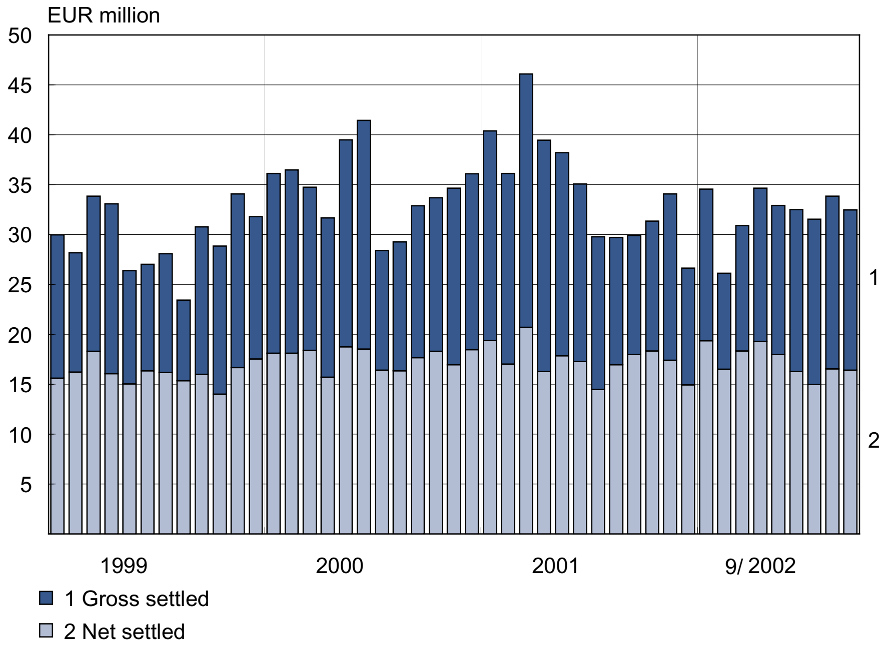
The finality of the payment made within the settlement and clearing system is established by the provisions of the Act on certain conditions applicable to securities and foreign exchange trading and to payment systems (1084/1999), known as the 'Netting Act', under which the Ministry of Finance confirms the written rules of the POPS system. The European Commission wishes to know which payment systems fall within the scope of the legislation and that the rules of the meet the requirements laid down by the relevant Acts. It is for these reasons that the Ministry of Finance must make the notification on the POPS system to the European Commission. According to the rules and procedures of the POPS interbank system, payments made in gross settlement are irrevocable and final when the payment has been debited from the payer's account at the Bank of Finland. In net settlement the payment becomes final and irrevocable when the payment has had affect on the bilateral net position.

The Bank of Finland has defined the POPS interbank payment system that will meet the principles on systemic risk laid down by the G-10 central banks (core principles for systemically important payment systems). In spring 2001, the Bank of Finland evaluated POPS using these criteria. The conclusion was that the payment system fulfils the requirements of the principles. An equivalent evaluation, based on slightly different principles, was undertaken immediately prior to the cash changeover to the euro. This evaluation applied the so-called Lamfalussy principles, against which the POPS settlement system was able to meet all criteria. In spring 2001, the IMF, in association with the World Bank carried out an assessment of the Finnish financial sector's situation, under their Financial Sector Assessment Programme (FSAP). The assessment also examined the country's interbank payment systems. The POPS system was also capable of passing the assessment without comment.

The data transfer between participating banks is executed using the POLT net (abbreviated from its Finnish name), based on x25 technology and also used for the Finnish ATM network.

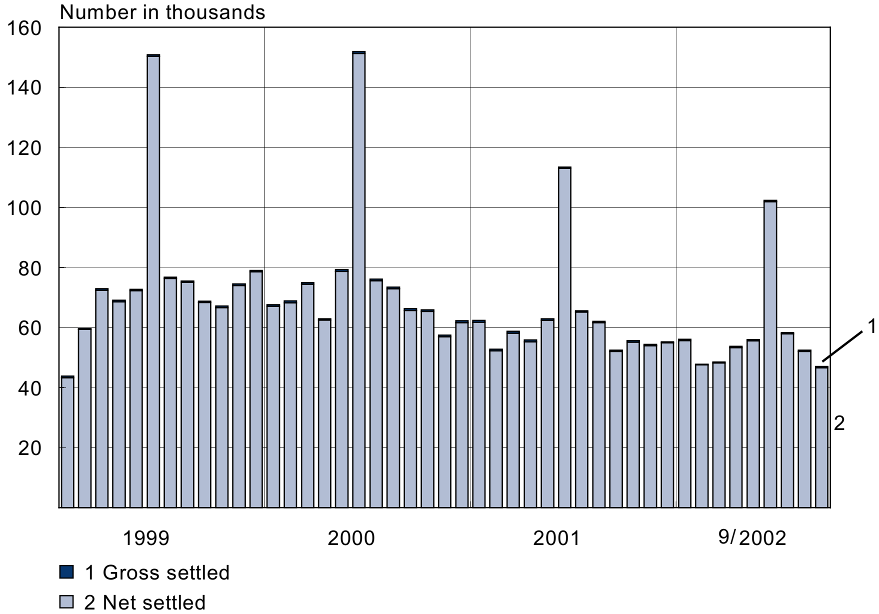
In 2001 the monthly value of interbank transactions processed in the POPS system had a value of EUR 35 billion (figure 6). The aggregate value of the express transfers and bank drafts effected as gross settlements through the POPS system was 50% of the whole. However in terms of actual numbers they accounted for less than 1%, (figure 7). The exceptional peak in POPS transactions in June is due to the increase in numbers of bank draft orders. Bank drafts are a traditional school graduation gift in Finland. However these don't actually show up in the POPS transaction values, due to their relatively moderate face value.

Figure 6. **Monthly total POPS transaction value, 1999–2002**



Source: Banks operating in Finland.

Figure 7. **Number of transactions within POPS system, monthly total 1999–2002**



Source: Banks operating in Finland.

4.2.4 OKO Bank group central SWIFT-based payment system

The OKO Bank Group runs its own centralised payment services for the use of its banking group members. The system is maintained by OKO Bank, the central bank of the OKO Bank Group. The other participants in the settlement system are the member credit institutions (cooperative banks) of the OKO Bank Group Central Cooperative as well as, for example, OP-Asuntoluottopankki, OP-Kotipankki and OP-Rahoitus banks.

The clearing system records the payment messages between participating parties and between their customers. Credit transfers and other payments are covered on an individual transaction basis and in their entirety. Payment transfers entered into the system are confirmed for parties and OKO provides finality. Credit transfers and other payments are binding on the parties once OKO has received the requisite data on the counterparty's liquidity and it has been debited from the sender's account. Payment is transferred by debiting the counterparty's account held with OKO and effecting the respective credit transfer to the beneficiary's or the appropriate cooperative bank's account.

Payments concerning internal transfers within a single cooperative bank are entered immediately. If the customer account is held with a different cooperative bank, the payment transfer is entered at the end of the day as part of the settlement made through the RTGS account held by the cooperative bank with OKO. For those transfers made between banking groups that happen on a real-time basis, there is the POPS system for interbank transfers, cheques and bank drafts. Other payments are made through the Interbank Payment System PMJ, either on the same day or the following banking day, regardless of what type of payment transaction it is.

The Ministry of Finance has confirmed the OKO Bank Group's interbank payment system's rules and has made the notification of the system to the European Commission. Through the procedures commonly applied, it has been established that the finality and irrevocability of the payments fulfil the requirements of the legislation governing payment systems.

4.2.5 Savings banks and local cooperative banks' payment system

The savings banks and local cooperative banks' payment system is maintained by Aktia Savings Bank plc. The systems participants are the Finnish savings banks and local cooperative banks who, in turn, have payment settlement accounts with Aktia. Aktia's responsibility is to enter the payment transactions into the respective parties' settlement accounts for clearing. Aktia also draws up the daily account statements for the account. Once the information on the payment transfer reaches Aktia the credit transfers and other payments are final.

All payments transfers arriving as credits to or entered as debits from these banks go through these settlement accounts. Each bank is responsible for seeing that the account has sufficient funds to execute the payment. Aktia runs the bank group's POPS system and credit and debit transactions handled through the PMJ interbank payment system via the BoF-RTGS settlement account held at the Bank of Finland. This means that Aktia handles payment service transfers between its own member banks and, on behalf of the member banks, to banks belonging to other groups.

For those transfers made between banking groups that happen on a real-time basis, there is the POPS system for interbank transfers, cheques and bank drafts. Other payments are made through the Interbank Payment System PMJ, either on the same day or the following banking day, regardless of what type of payment transaction it is.

The Ministry of Finance has confirmed the OKO Bank Group's interbank SWIFT-based payment system's rules and has made the notification of the system to the European Commission. Through the procedures commonly applied, it has been established that the finality and irrevocability of the payments fulfil the requirements of the legislation governing payment systems.

4.2.6 Automated Teller Machines joint access

In 1994, the cooperative banks, Nordea and Sampo Pankki established a fully interoperable ATM network company, Automatia Pankkiautomaatit Oy, to manage and maintain the owner-banking groups' ATM network, known as the OTTO network of ATM machines. These banks' ATM machines are in joint use, allowing the customer to access their account through any of the OTTO machines. The savings banks and local cooperative banks have their own ATM network. There is common access to the networks, meaning that it is possible to withdraw money from all bank ATMs regardless of which network the customer's account belongs, due to the interoperability offered by the POLT data transfer network, to which they are all connected. The POLT data transfer network (Banks' On Line Data Communication Network) links up the cash dispensers from the various banking groups on a real-time basis and allows for joint access and, in connection with the cash withdrawal, for the customer to access information on the balance of the account.

From 1993, a network of giro ATMs provided joint access for credit transfers, this universally accessible system changed however when, in 1996, Nordea (then Merita) reserved its giro ATMs for the exclusive use of its own account-holding customers. This lead to Sampo Bank (then Postipankki) and the cooperative banks agreed on the setting up of a mutually accessible giro ATM network. However, the broad introduction of banking via PC terminals and by telephone has clearly reduced the significance of giro ATMs.

4.2.7 Legislation governing payment transfers

There is not a legislative framework in Finland at the moment that covers the payment systems in their entirety. Instead, Finnish legislation contains several laws governing the various aspects of payment systems. Some of the Finnish legislative development is governed by the European Union, whose directives must be transposed into Finnish national law.

Moreover the majority of legal relationships regarding payment systems in Finland come under the auspices of contract law and the respective agreements drawn up by the contracting parties. Most significant of these are the agreements, made between the clearing banks and the Bank of Finland in its capacity as conduit for the settlement of credit and debit transfers in the RTGS system, as well as the payment transfer agreements between clearing banks, the agreement on membership of the POPS system; the agreement to send gross and net payment messages bilaterally without a centralised clearing house or clearing operator. Central, too, are the cooperative agreements relating to the POLT and ATM networks.

Following its membership with the European Union, Finland has amended its legislative framework to correspond to the relevant EU directives. Directive 97/5/EC of the European Parliament on cross-border credit transfers (of less than EUR 50,000) was implemented nationally with the entry into force of the Act on Credit Transfers (821/1999), in August 1999. The Act on Credit Transfers also includes regulations referring to payments within Finland. As the EUR 50,000 limit is not applied to domestic payments, the Act covers credit transfers of all sizes, within Finland. The Act contains regulations on the minimum obligations required of credit institutions, for example in terms of payment delivery times and compensation payable for neglect of these delivery obligations, as well as laying out other conditions regarding credit transfers.

The Directive on settlement finality in payment and securities settlement systems (98/26/EC) was transposed into national legislation in December 1999 as the Act on certain conditions of securities and currency trading as well as settlement systems (1084/1999). This Act contains provisions on the effects of netting and securities settlement in bankruptcy, company restructuring or in the insolvency proceedings of a credit institution. The Act also clarified the previous confusions regarding the finality in payment, netting and collateral security in connection to participation in the payment and securities settlement systems. The rules of the POPS and PMJ systems were altered to respond to the new Act and both the cooperative banks and the savings banks drew up rules for their own internal payment systems. The Finnish Ministry of finance has submitted all these payment systems to the European Commission’s list.

There is no legislation specifically concerning agreements between customers and banks regarding the various payment cards used.

Rather, these agreements are covered by clauses from legislation governing agreements. The Consumer Protection Act (38/1978, and the amendments of 1986) contains clauses concerning lost, stolen and misappropriated payment cards. The Act also contains provisions concerning the issuers' and users' responsibilities.

The Finnish Penal Code (Amendment 769/1990 Chapters 32–37) contains provisions on fraud involving payment media and money laundering. In addition there are several acts on the prevention of money laundering.

4.2.8 Development outlook

There are no significant changes in the in view for the near future of the banks payment systems. In comparison to equivalent systems, the Finnish payment systems are already both effective and reliable. This is partly due to the fact that Finland has access to the latest achievements in IT technology. The relatively small number of banks has also furthered the establishment of joint standards regarding payment systems. Application of the joint standards directly affects the effectiveness and reliability of the payment systems.

However, in the long term, changes may take place. Since introduction of the single currency, and as a result of the EU regulations on euro-denominated payments, banks within the euro area have found themselves faced with having to consider future solutions to enhancing cross-border payments systems within the area. The banks have established a new cooperative working group whose purpose is, over the next eight years, to gradually introduce new payment services to the market that would provide more reasonable and faster services than are currently being offered by foreign payment services. It is possible that, at a later date, this development could have some influence on Finland's domestic payment systems - in that the need to maintain separate systems serving banks that only operate within Finland will slowly diminish. Thus, by reducing the size of the systems they maintain, Finnish banks would be able to make savings in their operative expenditure. New forms of data communication (eg Internet) also serve to blur the national margins of the existing payment systems, further promoting these changes in the pan-Europeanisation and internationalisation of the systems.

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Kari Kemppainen
Financial Markets Department

4.3 Bank of Finland and payment transactions

4.3.1 Introduction

In addition to implementation of monetary policy decisions, one of the Bank of Finland's main tasks is to contribute to maintaining the reliability and efficiency of payment systems and to take part in the development of these systems. This task is laid out in the Act on the Bank of Finland, section 3. As a member of the ESCB, the Bank of Finland also has a responsibility to promote the smooth functioning of euro area payment and settlement systems and financial stability in general in the entire euro area. To fulfil these tasks the Bank oversees payment and settlement systems and provides payment system services. The Bank also participates in the development of payment and settlement systems and is involved in the preparation of related legislation. The Bank of Finland's oversight activities of both the payment and settlement systems and development of the related regulations are covered elsewhere in this publication[1], while this section concentrates on describing the Bank of Finland's duties in its provision of payment systems services.

Examined at the international level, the duties of the national central banks and their roles as providers of payment systems services have changed and will keep changing quite significantly.[2] In certain countries (eg Germany, France and the United States), the role of the central banks is multi-layered and the central bank itself is an active participant in the payment and settlement systems function in addition to its role in offering payment services. In some other countries (eg Great Britain) payment traffic is mainly maintained via privately owned organisations. The role of the central bank in Finland as provider of payment services is not as broad as that of, for example Germany or France, nor does the Bank of Finland offer payment services to companies or private persons. One of the key tasks of the central bank in Finland is that the Bank of Finland provides banks and clearing houses with payment and settlement services through its real-time gross settlement system. Through this service the Bank of

[1] For a description of the Bank of Finland's oversight activities, see section 6.2.2 and a description of the legislation related to regulation in section 5.2.
[2] For more detailed information see Karppinen – Kemppainen (1999).

Finland aims at safeguarding the reliability and security of the payment systems operations.

Partly for historical reasons (due to the small size of the Finnish market, the numbers of operators in the Finnish market as well as the cooperative body operating within the market [The Finnish Bankers' Association, www.pankkiyhdistys.fi]), Finland's payment systems have developed in such a manner that the so-called automated clearing houses have not even been established in the country. In their cooperation with the Finnish Bankers' Association, the banks have developed the payment systems[3] that are currently in use: Banks' online system for express transfers and cheques (POPS) and the retail intrabank payment system (PMJ). These systems handle the transfer of payments using the Bank of Finland's BoF-RTGS, thus providing for settlement of transactions with safe central bank money.

The Bank of Finland's role as provider of payment services culminates in the real-time gross settlement system BoF-RTGS that the Bank of Finland operates. The BoF-RTGS can be viewed from two perspectives. On the one hand, seen from above it forms the core of the domestic payment system. On the other hand, the real-time gross payment system has its international dimension, as it is an integral part of the European Union-wide TARGET system.[4] The Bank of Finland is responsible for the statutory duties with regard to the maintenance of the currency supply in Finland. The Bank of Finland's main task with regard to the maintenance of currency supply is to ensure the secure and efficient issue, handling and circulation of banknotes and coins.

4.3.2 Bank of Finland's Real-Time Gross Settlement System

The Bank of Finland provides banks and clearing houses with fast and safe payment and settlement services in central bank money. The abbreviation **BoF-RTGS** is derived from the system's English name **B**ank **o**f **F**inland **R**eal-**T**ime **G**ross **S**ettlement System. The BoF-RTGS operates on the principle expressed in its name, providing a real-time system under which each payment is handled individually. Under the system, payments are final and irrevocable, at the moment of entry into the system. A simplified structure of the BoF-RTGS is illustrated in Figure 1.

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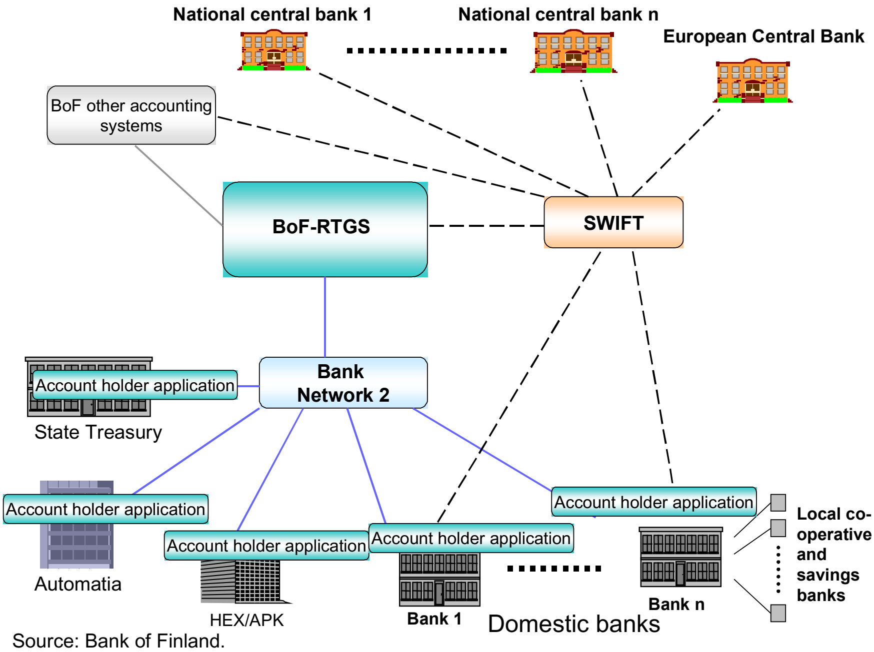
[3] See chapter 4.2, this publication.

[4] TARGET stands for Trans-European Automated Real-time Gross settlement Express System.

Figure 1. **Bank of Finland's Real-Time Gross Settlement System**



Source: Bank of Finland.

The operational principles for the BoF-RTGS are outlined in the *Bank of Finland rules for counterparties and account holders* binder (available in electronic form at www.bof.fi). These rules have taken into account the guidelines issued by the European Central Bank (*TARGET Guidelines*) concerning the Trans-European Real-time Gross Settlement Express Transfer System, to which the BoF-RTGS belongs. According to these rules credit institutions, subject to prudential supervision and licensed to operate in the European Economic Area (EEA) are eligible to become settlement account holders. In addition the Bank of Finland may, for special reasons, admit the following as account holders in the BoF-RTGS: (1) the State Treasury (2) investments firms, established in the EEA and supervised by a recognised authority, and (3) organisations providing clearing or settlement services that are subject to oversight by a competent authority and that have fully-paid-up capital of at least EUR 2.5 million. The majority of counterparties currently holding settlement accounts are domestic commercial banks and the Finnish branches of foreign banks. Additionally, settlement accounts are held with the Bank of Finland for the State Treasury, Automatia which is responsible for currency supply functions in Finland[5] and the HEX Group (including APK the Finnish Central Securities Depository Ltd). The local banks (cooperative banks, savings banks and local cooperative banks) jointly hold a settlement account through their own central financial institution (OKO, Aktia).

Transactions handled through the settlement account can be roughly broken down as follows: The account holder can

– send payments from the settlement account to other account holders and the Bank of Finland as well as receive payments from other account holders and the Bank of Finland (*domestic RTGS payments*)
– send payments from the settlement account to other RTGS systems and the ECB payment mechanism (EPM) belonging to the TARGET system as well as receive payments from the other RTGS systems and the EPM with TARGET (*TARGET payments*)
– send clearing calculations to the Bank of Finland for posting to settlement according to the conditions ruling PMJ system transfer payments concluded with the Bank of Finland and the other clearing participants.

On top of these, the RTGS accounts handle settlement of interbank transactions processed in the POPS system as well as payments for the Finnish Central Securities Depository (APK) settlement and registration systems for equities securities (OM system) and debt instruments (RM system).

The requirement for executing the payment order is that the counterparty's account holds sufficient funds (in other words the available assets, when the settlement account limit or intraday credit is also taken into account). The payment order is irrevocable from the moment of its entry into the system, after which it becomes final.

Account holders can interact with the settlement system using the SWIFT interface or account holder application. The account holder application can only be used for the transmission of domestic RTGS payments while the SWIFT interface can be used to execute both domestic and cross-border RTGS payments. The settlement system undertakes an authenticity check on the payment order, after which it is placed in a payment queue, as long as the order is in accordance with the payment standards. The payment orders that do not pass the

[5] For more information on the role of Automatia in currency supply, please see chapter 4.3.4.

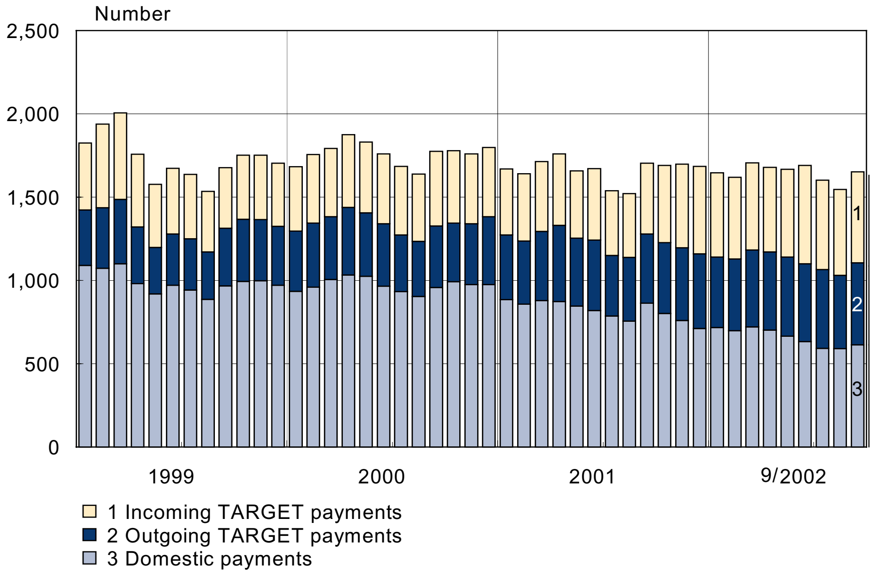
authenticity check are rejected. The decision over whether to use either the SWIFT interface or the account holder application, or whether both options are used, is based on the account holder's own payment transaction requirements. Banks participating in the PMJ interbank payment system are required to have an account holder application, which also enables the banks to follow their own liquidity positions themselves.

In order to facilitate the account holders' liquidity management, the Bank of Finland grants access to intraday credit on the settlement accounts to those credit institutions with a place of business in Finland and that are subject to public supervision and that are counterparties to the Eurosystem's monetary policy operations and have access to the marginal lending facility. The Bank of Finland is also able to grant intraday credit, under certain conditions, to the State Treasury and investment firms. Intraday credit is free of interest and has to be based on adequate collateral. The State Treasury's intraday credit may be granted without collateral if the Governing Council of the ECB approves the arrangement. In the case of Finland, the ECB's Governing Council has granted the State Treasury such a right.

The BoF-RTGS operating hours conform with those of the TARGET system, in other words the settlement system is open every day except Saturdays and Sundays and the following other days: New Year's Day, Good Friday, Easter Monday, May Day (1 May), Christmas Day and Boxing Day (26 December). The RTGS daily operating hours are long: the system is open from 08.00–19.00 local time. Customer payments are effected until 18.00 and between 18.00 and 19.00 only interbank payments are executed.

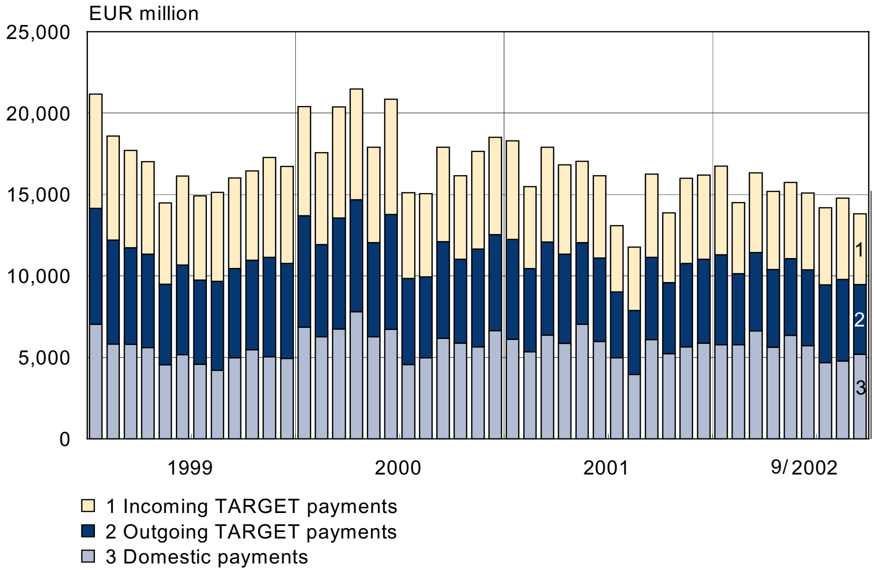
The overall volume of transactions through the system has been relatively stable over the years 1999–2002 (Figure 2). There has been an average of over 1,600 payment transactions a day. The number of domestic payments handled daily has dropped slightly, when compared with early 1999 whereas cross-border payments have risen slightly. When measured in terms of value, there has been greater fluctuation over the period (Figure 3). Between 1999 and 2002 the value of transactions handled by the settlement system on a daily basis has fluctuated from EUR 12 billion to EUR 21 billion with an average daily value of EUR 16 billion.

Figure 2. **Average daily number of transactions within BoF-RTGS system, monthly 1999–2002**



Source: Bank of Finland.

Figure 3. **Average daily value of transactions within BoF-RTGS system, monthly 1999–2002**

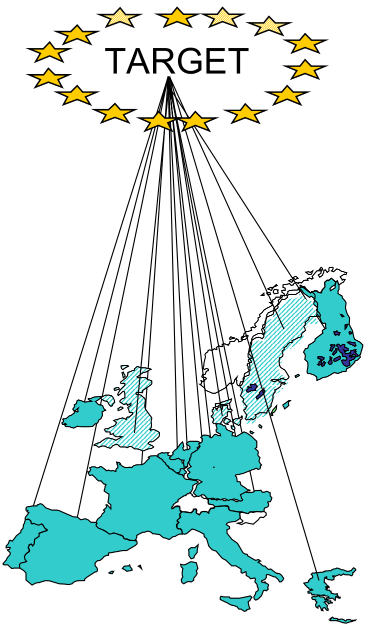


Source: Bank of Finland.

4.3.3 TARGET

The Bank of Finland's real-time gross settlement system has been an integral part of the EU countries' and the ECB's TARGET system since its establishment in early 1999. TARGET, which stands for Trans-European Automated Real-time Gross settlement Express System, is a European-wide automated payment system processing euro-denominated payments. The TARGET system enables safe payment transfers throughout the euro area (Figure 4), as it allows cross-border, euro-denominated transfers to and receipt of payments via the central banks within the European Union.[6]

Figure 4. **TARGET – Trans-European Automated Real-time Gross Settlement Express Transfer System**



- 12 euro area central banks + European Central Bank + three other EU central banks
- Over 5,000 account holders in the national RTGS systems
- Real-time gross payment system for euro-denominated credit transfers within the EU area
- System open from 8.00–19.00 Finnish time
- Possibility of reaching almost any EU credit institution
- 45,000 cross-border payments a day

Source: European Central Bank.

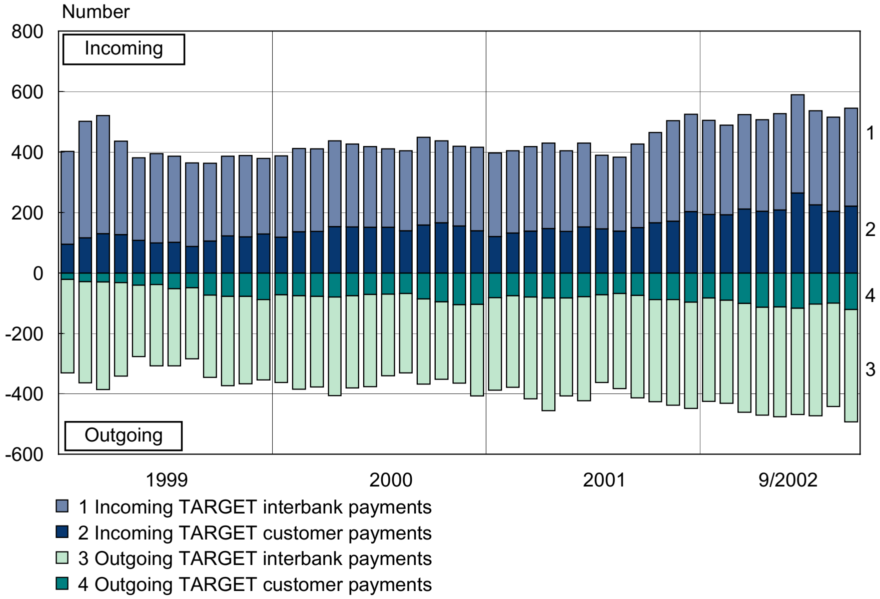
[6] For more detailed information on the TARGET system, see the European Central Bank's web pages (www.ecb.int). The ECB publishes, for example, a *TARGET Annual Report*, of which there has been three, to date: May 2001, April 2002 and April 2003. In addition to which the ECB Annual Report and the March, September and December Monthly Bulletins include reports on the TARGET system.

TARGET consists of the fifteen national Real-Time Gross Settlement (RTGS) systems and the ECB payment mechanism (EPM) which provide a uniform payment platform through a so-called interlinking mechanism. The TARGET system covers the euro area nations' central banks (Austria, Belgium, France, Germany, Greece, Ireland, Italy, Finland, Luxembourg, the Netherlands, Portugal and Spain), the European Central Bank and the central banks of the EU member states that have not yet adopted the euro (Denmark, Great Britain and Sweden). Through the system it is possible to transfer payments to over 5,000 account holders throughout the EU area participating in the RTGS systems. Thus it is possible to access almost every credit institution operating in the EU via the TARGET system and the system has handled an average of over 45,000 cross-border payments a day.

TARGET operates on a real-time basis and, under normal conditions, payments are credited to the account of the beneficiary participant within a couple of minutes on average, if not only a few seconds of debiting the sending participant's account. As TARGET is a gross settlement system in nature, where instead of netting payments each transaction is handled individually. Under this system each payment is also handled similarly, irrespective of the size of payment. TARGET payments become final within the same day, once the credit transfer has been made. The received assets are central bank funds, which can be reprocessed and made available several times during the day. Thus liquidity is only tied to the real-time execution limitations.

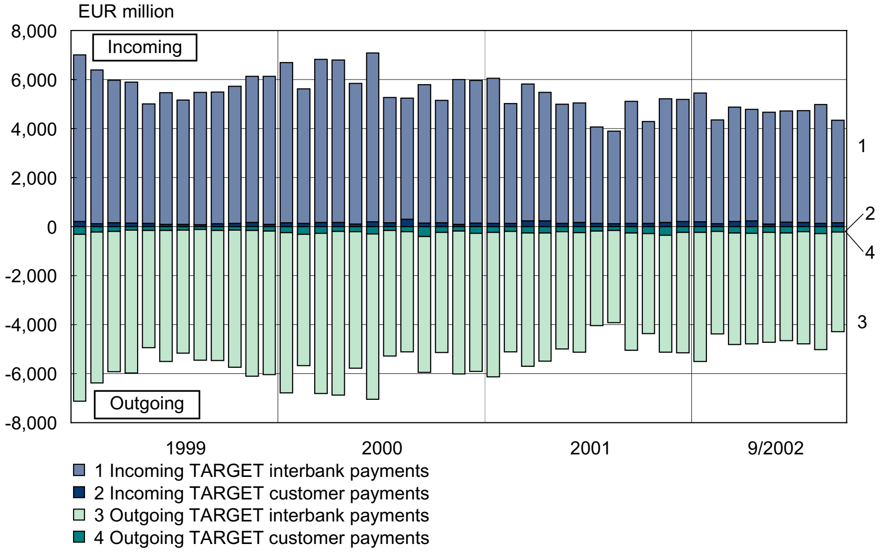
Examination of the volume of cross-border payments sent and received via the BoF-RTGS system and value of the transactions broken down by customer and interbank payments shows that customer payments represent a relatively significant proportion of the total numbers (Figure 5). In terms of value of transactions, customer payments are only a small proportion of the whole (Figure 6).

Figure 5. **Average daily number of cross-border transactions within the BoF-RTGS system, monthly 1999–2002**



Source: Bank of Finland.

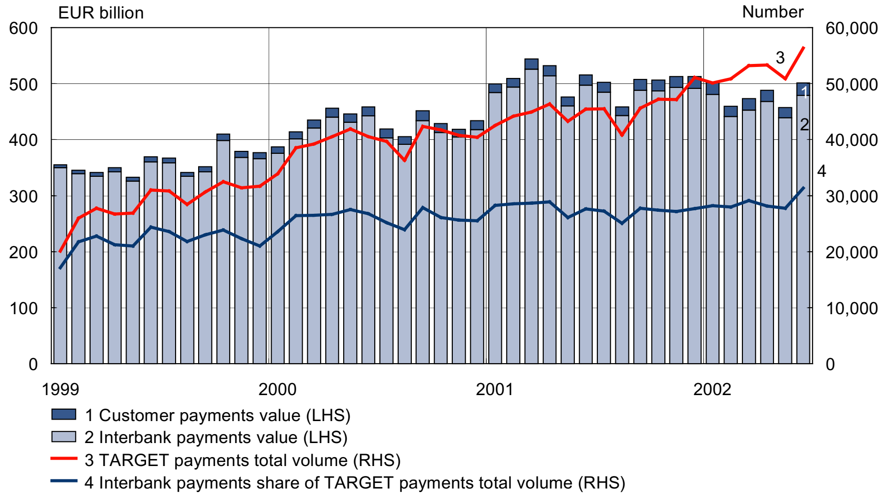
Figure 6. **Average daily value of cross-border transactions within BoF-RTGS system, monthly 1999–2002**



Source: Bank of Finland.

Examination of the overall TARGET system (Figure 7) shows that the total number and value of payments via the system have increased steadily since the system was taken into use. Figure 7 also clearly illustrates that the total value of interbank payments are substantially larger than those of customer payments, which has clearly been observed in the pattern of payments transacted through the BoF-RTGS (Figures 5 and 6). This has led to customer payments being significantly less in value than interbank payments in both Finland and the EU area as a whole.

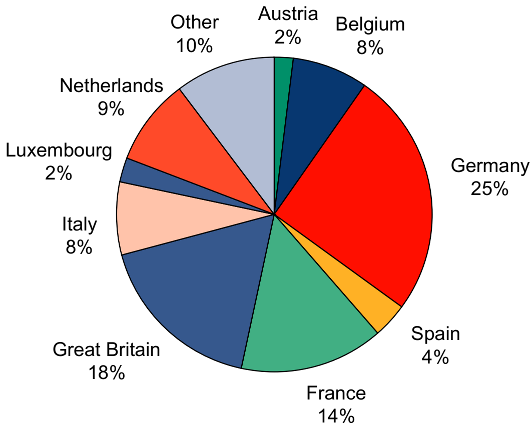
Figure 7. **Average daily number and values of cross-border transactions within TARGET system, monthly 1999–2002**



Source: European Central Bank.

Looking at TARGET payments by country clearly reveals that certain larger countries account for the majority of the payments (Figure 8). In terms of the value of payments Germany, Great Britain and France account for a 57% share of all the country-based transactions executed through TARGET in 2001. The share for Finland was approximately 1% of the total.

Figure 8. **Value of cross-border payments within TARGET, by country, in 2001**



Source: European Central Bank.

4.3.4 Maintenance of currency supply

The Bank of Finland's key responsibilities in regard of its statutory duties[7] concerning the maintenance of currency supply is to ensure the secure and efficient issue, handling and circulation of banknotes and coins. The Bank of Finland runs five offices from which it manages its currency supply operations. These are the regional offices of Helsinki-Vantaa and Turku as well as the Kuopio, Oulu and Tampere branches, all of which are all part of the Payment Instruments Department. With the approval of the ECB, the Bank issues banknotes and coins in Finland and ensures their quality, authenticity and availability throughout the country. The Bank is also responsible for providing an efficient and secure currency supply system in Finland in cooperation with banks and other parties. In addition, the Bank contributes to the ESCB's preparations and decision-making pertaining to banknote matters and is responsible for the implementation of the ESCB's harmonised decisions in Finland.

The Finnish currency supply system has been developed over the years to meet the requirements placed upon it. Most recently, Finland's currency supply system underwent a complete renewal during 2001 as part of the preparations for the euro changeover. In addition to this, Automatia's owner banks Nordea, the OKOBANK

[7] For further details see, for example, the sections on maintenance of currency supply and the euro cash changeover in the Bank of Finland's Annual Report, 2001.

Group Central Cooperative and Sampo Bank centralised the management and development of their currency distribution function in Automatia Pankkiautomaatit. Automatia was therefore granted access to a settlement account without an overdraft facility and signed a currency agreement with the Bank of Finland. In September 2001 the other parties to the 'RAHU' currency supply agreement[8], namely Paikallisosuuspankkiliitto (Association of Local Cooperative Banks), Säästöpankkiliitto (Savings Banks' Association), Svenska Handelsbanken and Ålandsbanken joined Automatia's currency distribution system. Thus the currency supply agreement for the markka was replaced from the beginning of October 2001 by an information system, established to conform to the Bank of Finland and Automatia's euro purchase and distribution system (ETT). The bank branches use the information system between Automatia and the banks in their basic currency distribution system. The result was a centralisation of functions, so that Automatia became the sole customer for the Bank of Finland in the currency distribution system, which then supplies the banks and their customers through its subcontractors.

4.3.5 Future prospects

Ensuring the reliability and security of the payment systems operations as part of safeguarding a stable financial system has traditionally been one of the key roles of any central bank. This central bank responsibility is unlikely to change in the future. The use of risk-free central bank funds in the settlement of the transaction (including the private sector's payment systems) to facilitate the transfer of payments in itself enhances the stability of the financial system, and the central banks' role in this function is also one that will remain in the future.

Within Finland, the Bank of Finland's operative role within the payment systems sector has been concentrated on the maintenance of the BoF-RTGS and the Bank does not provide payment services for companies or private individuals. The Bank's current central role is most likely to remain as operator of the settlement system, which will enable the banks and clearing houses to continue securely providing payments and settlement services using central bank funds. The

[8] 'RAHU' concerned arrangements between the Bank of Finland and banks for the ordering and returning of notes and coins, October 1998 to the end of September 2001.

TARGET system, of which the BoF-RTGS is a part, is also undergoing development to meet future challenges.

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European Central Bank web page: www.ecb.int

Finnish Bankers' Association: www.pankkiyhdistys.fi

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4.4 Payment transfers and payment systems in the EU

4.4.1 Banks' international payment transfers and payment systems

General

Finnish banks generally use the services of correspondent banks for cross-border customer payments, for which they usually have bilateral account arrangements with their foreign partners. Foreign correspondent banks provide banking services for Finnish customers, and Finnish banks provide similar services in Finland for their foreign partners. Payment messages conforming to cross-border payment orders are transferred via the SWIFT[1] network to the foreign partner banks, who debit the cover from the foreign account of the sender bank. The importance of correspondent banking has decreased in the euro area since the introduction of the euro.

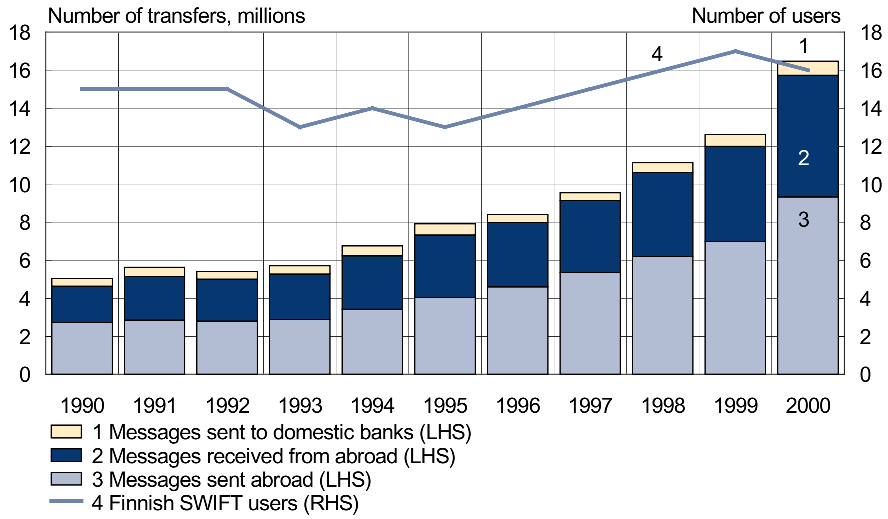
SWIFT and correspondent banking

Standards are a means of improving the efficiency of international payment transfers. However, adoption of standards has been slow owing to different national systems and practices. SWIFT was established in 1973 by 239 banks to facilitate interbank data transfers. The SWIFT payment messages are based on bank-specific BIC codes.[2] SWIFT has successfully operated since 1977, and it has a central role in developing banking practices and increasing the level of automation of payment transfers. For almost three decades SWIFT has called for strong commitment on the part of banks to improve message format in order to create an efficient and practical transfer system. Central banks have acknowledged the importance of the aims of SWIFT for the financial markets and so have joined it. The first central bank to join was that of Belgium. In 2000 there were 16 SWIFT users in Finland (figure 1). The number of SWIFT messages transmitted by Finnish users has increased steadily since the early

[1] Society for Worldwide Interbank Financial Telecommunication.
[2] www.swift.com.

1990s. In 2000 Finnish banks sent abroad 9.3 million payment messages via SWIFT and received 6.4 million cross-border messages. Domestic interbank SWIFT messages have increased only slightly during the past ten years. All told, there are presently over 7,000 SWIFT users in almost 200 countries. In 2000 a total of 1.3 billion SWIFT messages were sent in the world.[3]

Figure 1. **SWIFT message transfers by Finnish banks in 1990–2000**



Source: European Central Bank.

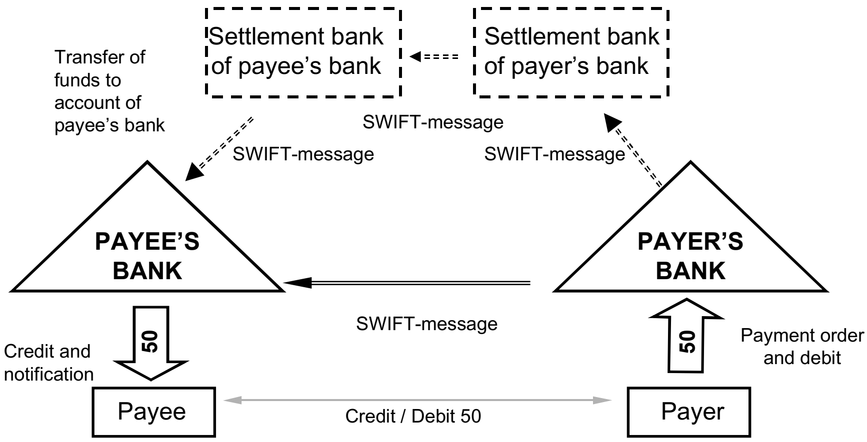
Payment orders may be based on an open credit line; ie a payment is made according to agreed payment terms and conditions, either in advance or after the arrival of goods. This refers to so-called *clean payments*, in which the payer's bank transfers the payment, in accordance with the information received from the payer, either directly to the payee's bank or an intermediary bank. Clean payment methods provided by Finnish banks include, inter alia, payment orders, which are executable manually or electronically via the Internet or special customer interfaces, and SWIFT cheques.

The complexity and length of the processing chain of a payment depends on, inter alia, the information included in the order and the cooperation network of the payer's bank. Routing a cross-border payment varies according to whether it is denominated in a domestic

[3] Data for 2001 is only available in 2003 owing to the ECB's statistical practices.

or foreign currency (figure 2). If the payment (50) is denominated in the domestic currency and the payee's bank and the settlement bank of the payer's bank are the same, a SWIFT message comprising payment details can be sent directly to the payee's bank. However, an outgoing payment is often denominated in foreign currency, in which case the payer's bank makes a foreign exchange transaction by selling the payer an amount of the specified currency equivalent to the payment (50) and debiting the payer's account for an equivalent sum in domestic currency. After the currency exchange the payer's bank sends a SWIFT message to the payee's bank and to the settlement bank. The payer's bank must also see to it that sufficient cover is available in its account with the settlement bank. The settlement bank of the payer's bank transfers the covering funds to the settlement bank of the payee's bank, which credits the account of the payee's bank. The payee's bank then acts on behalf of the payee and transfers the funds (50) to the payee's account or holds them readily available to the payee if the payee does not have an account with the bank in question.

Figure 2. **Routing of cross-border payments from payer to payee**



Source: Bank of Finland.

In addition to the above-mentioned clean payments, banks' cross-border payment services also include *documentary payments*. These include collections and letters of credit, which are used to ensure that delivery and transfer of and payment for goods are concluded according to the terms of the contract between buyer and seller, with the bank acting as an intermediary.

Cooperation between European banks

Market participants have developed alternative payment services that are cheaper than correspondent banking. These are aimed at households and small enterprises and are based on mutual cooperation and marketing. A case in point is Unico Banking Group, an association of eight European cooperative banking organisations established in 1977. Its key goals include facilitating the provision of common products of the member banks, such as payment transfers. Almost all Finnish cooperative banks belong to the UniCash system, an initiative established by Unico that facilitates provision of customer services. European postal banks founded the Eurogiro system in 1992. This system aims at decreasing costs of credit transfers and improving service quality via cooperation. Sampo Bank Plc is a member, even though it is now a commercial bank. The Eurogiro initiative was originally a cooperation network of European postal banks; however, it has expanded to become an international system. The Finnish savings banks belong to EUFISERV, an initiative of the European Savings Banks Group. EUFISERV provides its members with access to its Europe-wide ATM network. It has also made cooperation agreements with a number of credit card companies that provide facilities for cash withdrawals with these credit cards. Banks may also process cross-border payments through their own foreign offices.

Provision of payment transfer services

Commercial institutions have also been interested in providing payment transfer services (see section 4.3 for payment transfer services provided by the ECB). A significant share of euro-denominated large-value payments (at least EUR 50,000) is transferred via the EURO 1 system of the Euro Banking Association (EBA). EBA was founded by 18 commercial banks and the EIB in 1985 with the support of the European Commission and Bank for International Settlemens (BIS).[4] Before the euro was introduced as a unit of account in 1999, ECUs were used. The aim of EBA is to

[4] www.abe.org.

support and improve systems and services related to the use of euro. EBA Euro Clearing Company is owned by clearing banks participating in EBA. Its operating principles are approved by EBA. In this system, euro-denominated payments are transferred via the SWIFT network using straight through processing (STP) and on the basis on continuous netting. Net positions are settled at the end of the day via TARGET.

EBA Clearing centre transfers payments via the EURO 1 system on a continuous basis to the receiving banks, and the positions are netted multilaterally for settlement. Finnish EURO 1 participants are Nordea, OKO Bank and Sampo Bank.

In November 2000 EBA introduced STEP 1 for retail payments (at most EUR 50,000). It is also based on STP. The delivery time for a payment is one banking day. Banks wishing to participate in the STEP 1 system must make a settlement agreement with a bank participating in the EURO 1 system. Payments are settled in the EURO 1 system on their respective value dates. All banks participating in EURO 1 can also access STEP 1. Of Finnish banks Nordea, OKO Bank and Sampo Bank use STEP 1 by virtue of their participation in EURO 1. Aktia Savings Bank and Bank of Åland do not participate in EURO 1, and therefore have made a settlement agreement with a bank participating in the EURO 1 system in order to participate in STEP 1.

Systems for euro-denominated retail payments are currently under development. EBA is planning to introduce the STEP 2 system for bulk-processing large quantities of retail payments, such as pensions and salaries. After validation, payment files are sorted according to receiving banks. Bulk processing of payments may also affect other services provided by EBA. STEP 2 offers more sophisticated services than STEP 1. STEP 2 is currently being tested by 32 European pilot banks, and is slated for launch in the summer of 2003.

Improving the efficiency of payment transfers and measures taken by authorities

EU authorities have for a considerable time been following payment transfer practices within the single market with a view to creating well-functioning markets also for payment transfer services. The key objective is to increase the competitiveness of the euro area and to ensure that consumers within the EU receive equally efficient and reliable service both in individual EU member states and in the whole single market.

The Act on Credit Transfers based on an EU directive (97/5) came into force in Finland in August 1999. According to this Act, credit transfers within the EEA are to be credited to the account of the payee's institution at latest at the end of the fifth business day following the date of acceptance of the credit transfer order. The payee's institution is to credit the funds to the payee's account at latest on the business day following the date on which the account of the payee's institution is credited. Furthermore, the charges for a credit transfer are to be borne by the payer, unless otherwise agreed. On the whole, a credit transfer is to be executed as cost-efficiently, safely and effectively as possible.

European Commission has recently showed increasing interest in the transfer of retail payments, and it has intervened in the pricing of cross-border retail payment transfers, ATM withdrawals and debit card transactions. The Commission Regulation on cross-border payments was approved by the European Parliament in December 2001. Under this Regulation, charges levied for cross-border euro-denominated payments must be the same as those levied for corresponding domestic payments. This Regulation will enter into force in stages: for debit card and ATM transactions of less than EUR 12,500 on 1 July 2002 and for credit transfers on 1 July 2003. With effect from 1 January 2006 the Regulation will apply to all payments of less than EUR 50,000. The Commission proposal for this Regulation and its entry into force aroused heated discussion and opposition in the banking sector.

Transfer of cross-border payments is costly to banks owing to relatively large investments and high processing costs. Banks incur costs eg in connection with the low level of automation of cross-border payment transfers. The low volume of retail payments has not created sufficient cost pressure to improve the transfer systems and so unit costs of transferring retail payments are typically large. In many countries banks also incur costs concerning cross-border transactions in connection with balance of payments reporting. In Finland, these statistics are compiled on the basis of sampling. Under this EU Regulation, competition in the deposit markets and pricing of payment transfer services will be monitored.

The level of technical advancement and automation vary considerably from country to country. The largest Finnish banks provide low-cost service for cross-border payments within Europe. These payments are transferred in full, denominated in the currency of the recipient country, to the account of the payee, if two criteria are met: the payee's bank's contact information is stated using the BIC code[5], and the payee's account number is in IBAN[6] format. The maximum amount for such a payment is EUR 2,500.

European Committee for Banking Standards (ECBS) has created an international standard for bank account numbering, the IBAN. Since the start of 2002, Finnish banks and their customers have gradually begun to use this format. The ECBS has also developed a form for cross-border billing, the international payments instruction (IPI). Finnish banks have taken a critical stand on IPI, since these forms are processed manually; an electronic form based on a reference number would be preferable.

4.4.2 Settlement risk in foreign exchange transactions and risk management

International currency trade and the euro

International payments often involve currency trading. The major international currencies involved are the US dollar, euro and Japanese yen. According to the latest survey by BIS[7], the total daily volume of international currency trade in April 2001 was USD 1,200 billion. This has decreased by 19% since April 1998, due mainly to the start of the 3rd stage of EMU on 1 January 1999, when the euro replaced the national currencies of 11 European countries. The decrease in trading volume also reflects mergers in the banking sector, computerisation of interbank spot markets[8] and mergers of customers of international currency traders.[9] The euro has become a major currency in international currency trade; it was used on one side of 38% of all foreign exchange transactions. The share of euro in 2001 was larger than that of the Deutsche mark (30%) in the previous survey by BIS in 1998. However, it was smaller than the aggregate share of euro area national currencies (53%) in total currency trade in 1998.

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[5] Bank Identifier Code developed by SWIFT.
[6] International Banking Account Number.
[7] BIS 2002.
[8] Spot transactions refer to foreign exchange transactions in which currency transfers and settlement are executed no later than two banking days following the trade date.
[9] Galati Gabriele 2001.

Risk management and measures taken by authorities and market participants

Foreign exchange trade involves several risks:

– operational risks related to operational certainty
– market risk stemming from possible exchange rate losses
– settlement risk in foreign exchange transactions.

Settlement risk in foreign exchange transactions is realised when the underlying capital in a foreign exchange transaction cannot be collected from the counterparty, resulting in the loss of capital. In the worst case settlement risk may lead to failure of a party to the transaction as well as the bank managing its foreign currency accounts. Settlement risk may also have a systemic impact on payment systems, with losses spreading and multiplying. In this case, acquiring liquidity from the markets becomes more difficult and eventually impossible.

Central banks are especially concerned about settlement risks in foreign exchange transactions as well as the stability of international currency markets owing to the large and ever increasing trading volumes. The Governors of the G10 central banks have created and systematically maintained a strategy for monitoring and reducing settlement risks in foreign exchange transactions since 1974. This strategy is based on studies, recommendations and statements on minimising these risks, prepared by BIS on behalf of the G10 central banks. Finland's Financial Supervision Authority and the Bank of Finland monitor the situation in the Finnish banking sector. Settlement exposures have decreased considerably since 1997; however, there is still room for improvement. According to the BIS definition, settlement risk begins when the irrevocable payment instructions are issued for the currency and ends only when the purchased currency is known to have been received with finality. The settlement exposure arising from foreign exchange transactions in Finland lasted about two to three days at end-September 2000. In large foreign banks these exposures are measured in hours.[10]

Introduction of the single currency on 1 January 1999 eliminated foreign exchange trade among 11 European national currencies and the related settlement risks and exchange rate risks. In 2001, Finnish banks' daily foreign exchange trade with foreign banks totalled about

[10] Palva – Saarinen 2001.

EUR 1.3 billion, and in 1997–1998 they totalled about EUR 3–4 billion. Euro liquidity management has also become more efficient with the introduction of the ECB's real-time payment system, TARGET (section 4.3) and EBA's EURO 1 system. The TARGET operates on real-time gross basis using central bank money, whereby settlement risk is eliminated.

Large international banks established CLS Services Limited (CLSS) in 1997. CLSS is developing a centralised settlement system for foreign exchange trading.[11] The CLS system became operational in September 2002, and foreign exchange transactions in participating currencies are settled in phases via the Continuous Linked Settlement Bank (CLSB). The settlement members submit their foreign exchange transactions directly to the CLS Bank, which settles these transactions continuously during the settlement day. Matched transactions are queued for settlement. The CLS Bank checks the liquidity for each queued transaction and, if liquidity is insufficient, places the transaction at the end of the queue.

Each settlement member pays daily its net obligation for each currency with the CLS Bank and receives its net claim for each currency. This reduces liquidity needs. Each settlement member holds an account in the CLS Bank's settling system for each currency included the system. At the initial stage the participating currencies are the US dollar, Japanese yen, euro, UK pound, Swiss franc, Canadian dollar, Australian dollar, Norwegian krone, Swedish krona, Danish krone and Singapore dollar. Use of payment-versus-payment eliminates the settlement risk in foreign exchange transactions in the CLS system. This arrangement ensures that the final settlement is executed only if the final settlement of the other leg is also executed. It is important for liquidity management that CLS system participants pay in the net funds according to the submitted schedule. Of the Finnish banks, Nordea became a settlement member in the CLS system through Unibank, the Danish unit of the group.

4.4.3 Future prospects

Large-value payment systems have developed further than retail payment systems in the euro area. Introduction of the euro has not removed differences as regards the efficiency, quality and pricing of services for retail payment transfers, even though these systems are

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[11] www.cls-services.com.

highly developed and automated in Finland as well as some other euro area countries. Several factors have contributed to the relatively slow development of these services. There are large differences in viewpoints among banks, owing to heterogeneous domestic payment market practices, instruments and systems.

However, after some pressure from the authorities, European banks have taken measures to develop a retail payment infrastructure within the euro area (Single Euro Payment Area) and, together with European credit sector associations, established the European Payments Council (EPC) in June 2002. Finland is also represented in this council, whose aim is to simplify and harmonise payment practices as well as increase automatisation of payment processing. To achieve this goal, banks have decided that a pan-European automated clearing house for all European payments, open to all European banks, should be set up. Furthermore, straight through processing needs to be increased and developed further. Paper-based means of payment (eg cheques) should be abandoned in the medium-term in favour of more modern electronic end-to-end payment instruments.

Banks have underlined the importance of cooperation between and involvement and commitment of authorities, regulators and supervisors in harmonising market practices. The European Commission organised a consultation in summer 2002 concerning provision of retail payment services to promote a single payment area. All concerned parties have thereby been openly given an opportunity to consider the need for common, comprehensive and up-to-date legislative framework for the single payment area. This consultation was conducted in the interests of European consumers, industries and banks. The Bank of Finland, other national central banks and the ECB continue their active participation in the development of a European integrated payment infrastructure.

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Chapter 5

Financial market legislation

Hannu Karppinen – Katri Nuotio –Jarkko Karjalainen

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5 Financial market legislation

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Legal Affairs

Financial market legislation provides a foundation for the effective functioning of the financial market. At its best, it gives economic agents a clear picture of the scope of market activities, without unduly hindering their development. A sufficiently flexible body of legislation must however extend beyond the interests of individual economic agents and take into consideration aspects that are of national and international importance, such as customer and investor protection. In order to fulfil these requirements, Finnish financial market legislation covers both the various market functions and the various market participants, such as credit institutions and investment firms.

A central bank's role in the financial market is to maintain core payment systems and to participate in the supervision, regulation and development of the market. The constitutional status of the Bank of Finland is defined in the Constitution of Finland and the Act on the Bank of Finland. According to the latter, the Bank is, on one hand, an independent institution governed by public law, and on the other, a part of the European System of Central Banks (ESCB) in the manner laid down in the Treaty establishing the European Community, and in the Statute of the European System of Central Banks and of the European Central Bank (ECB).

The preparation of legislation begins either from initiatives submitted to ministries responsible for each field of legislation, or as a result of the monitoring performed by each ministry. The ministries responsible for the financial market sector are, in particular, the Ministry of Finance and the Ministry of Social Affairs and Health. The Ministry of Finance is responsible for legislation concerning the Bank of Finland and for other specific legislation concerning the financial markets, with the exception of the Act on the Book Entry Accounts (827/1991) and the Act on Certain Conditions Applicable to Trade in Securities and Foreign Exchange (1084/1999). For these Acts, as for most of the background legislation mentioned in the following, the competent ministry is the Ministry of Justice. The Ministry of Social Affairs and Health is responsible for legislation governing insurance companies.

As the ministry responsible for a large part of other legislation that forms a background for financial market legislation, the Ministry of

Trade and Industry is also important in this context. Besides the ministries, Parliament, different authorities and economic agents may submit legislative initiatives. However, since Finland joined the European Union, an increasing share of initiatives has originated from legislative processes at the EU level. This does not mean, however, that the ministries only implement EU directives or other EU legislation binding on the Member States at the national level. The ministries also draft initiatives and participate in the preparation of directives, for instance, both before and after the Commission issues its proposals for directives. EU legislation is the result of the work of different institutions of the European Union – the European Commission, European Parliament and Council of the European Union. The European Central Bank and European System of Central Banks also provide important input to the preparation of EU legislation.

5.1 Bank of Finland, European Central Bank and European System of Central Banks

Bank of Finland

The constitutional status of the Bank of Finland is defined in the Constitution of Finland (731/1999, section 91). The Bank operates under the guarantee and supervision of the Parliament, as laid down by law. The parliamentary 'guarantee' means that Parliament is ultimately liable for financial obligations of the Bank of Finland. The expression 'supervision of the Parliament', on the other hand, is meant to indicate the independent status of the Bank of Finland vis-à-vis the Government, and the fact that the Bank is separated from regular state administration. It also refers to the role of the parliamentary supervisors appointed by Parliament in the decision-making and supervision of the Bank of Finland.

The Bank of Finland's operations are governed by the Act on the Bank of Finland (214/1998). The Bank of Finland's governing bodies are the Parliamentary Supervisory Council and the Board. The tasks of the Parliamentary Supervisory Council, which are separately listed in the Act, consist of supervisory duties, important administrative duties and other duties. The Board, on the other hand, is responsible for the administration of the Bank of Finland and for ensuring that all tasks assigned to the Bank are duly executed, except for statutory administrative tasks of the Parliamentary Supervisory Council. The

Parliamentary Supervisory Council consists of nine members appointed by Parliament. The Board consists of the Chairman and a maximum of five other members, appointed by the President of the Republic.

The legislation concerning the Bank of Finland was revised in 1998 by incorporating provisions concerning the Bank's legal integration into the European System of Central Banks (ESCB). The provisions of the law thus reflect the main contents of the articles of the Statute of the European System of Central Banks and of the European Central Bank (ECB). According to section 1 of the Act on the Bank of Finland, the Bank is, on one hand, an independent institution governed by public law and the central bank of Finland and, on the other, a part of the European System of Central Banks (ESCB) in the manner laid down in the Treaty establishing the European Community, and the Statute of the European System of Central Banks and of the European Central Bank.

The Bank of Finland performs its ESCB-related tasks according to guidelines and instructions issued by the ECB. When carrying out its ESCB-related tasks, the Bank of Finland may not seek or take instructions from any body other than the European Central Bank. As regards its other duties, the Bank acts in cooperation with the Government and other relevant authorities, where necessary. Although the Bank of Finland is defined as a part of the ESCB, it may also have other, national tasks that are not connected with the ESCB. Such tasks are not considered as part of the tasks of the ESCB and are carried out by national central banks at their own risk and for their own account.

The Bank of Finland's tasks are laid down in section 3 of the Act on the Bank of Finland. The Bank's main task is to contribute to the execution of monetary policy as defined by the Governing Council of the European Central Bank. The Bank of Finland also contributes to the maintenance of the currency supply and issuance of banknotes, to holding and management of foreign reserve assets and to the compilation and publication of statistics as necessary for carrying out its tasks.

From the point of view of the financial market sector, the Bank's most important task is to participate in maintaining the reliability and efficiency of the payment system and overall financial system and to participate in their development. According to section 5, paragraph 1, item 6, of the Act on the Bank of Finland, the maintenance of the currency supply is the sole task in connection with which the Bank is empowered to issue rules and instructions, concerning the handling of notes and coins, to banks and other monetary institutions and to other similar entities.

The Bank of Finland's duties in the area of payment and settlement systems are mainly connected with the carrying out of the above-mentioned ESCB tasks on a national level. The ECB has significant regulatory powers in this area. An essential feature of this regulatory framework is that a national central bank must implement the regulations of the ECB in its own country. In some Member States, the legislation governing the national central bank has been amended so that it supports and promotes the implementation of legal instruments issued by the ECB.

The national tasks of the Bank of Finland include the right to give statements and to be consulted, and the right to participate in cooperation between Finnish authorities and in national development schemes concerning the financial system. Provisions concerning the tasks of the Bank of Finland are also included in special national legislation.

According to the Decree on the approval of Certain Amendments to the Articles of Agreement of the International Monetary Fund (Treaty Series 69/1977), the Bank of Finland maintains contacts with the International Monetary Fund on behalf of the Finnish government, and serves as depository for all Finnish currency-denominated funds held by the IMF. The Bank of Finland carries out all business activities required in the Articles of Agreement and is responsible for any notifications and commitments necessary for the application of the Articles. In recent years, the Bank of Finland has participated on behalf of the central government in some financing projects of the International Monetary Fund, together with other Member States or their central banks.

Another important Act connected with the operation of the Bank of Finland is the Emergency Powers Act (1080/1991), which was enacted in the order of procedure required for the enactment of constitutional legislation. The purpose of this Act is to secure the livelihood of the population and the national economy in emergency conditions. In such circumstances, the Act authorises the Government to issue orders concerning the tasks of the Bank of Finland as well as the operations of the Bank in the capacity of a regulatory authority. Sections 11 to 13 of the Act contain provisions on the Bank's regulatory powers as regards foreign currency transfers. For several years already an initiative has been under consideration whereby the regulatory powers defined by the Act would be extended to the financial market in a manner that takes into account the provisions of the Treaty establishing the European Community and Finland's participation in the euro area.

ECB and ESCB

The ESCB is composed of the ECB and of the national central banks, as stipulated in article 107(1) of the Treaty establishing the European Community (Treaty) and article 1 of the Statute of the ESCB and of the ECB (Statute of the ESCB). The ECB is owned by the national central banks participating in the Eurosystem[1].

The national central banks are legal persons, as provided by the national laws of the respective countries. According to article 107(2) of the Treaty, the ECB also has legal personality, whereas the ESCB is not a legal person. The ESCB is governed by the decision-making bodies of the ECB, ie the Governing Council and the Executive Board. Furthermore, according to article 45 of the Statute of the ESCB, the General Council acts as the third decision-making body of the ECB, however without prejudice to article 107(3) of the Treaty.

The Governing Council of the ECB consists of the six members of the Executive Board and the governors of the national central banks of the 12 countries participating in the euro area. Each member of the Governing Council has one vote, and the Council acts by a simple majority. Exceptions to this rule are decisions on certain issues related to the ECB's capital, for which the members' votes are weighted according to national central banks' shares in the subscribed capital of the ECB. In such cases, the weights of the votes of the members of the Executive Board are zero. The Governing Council adopts the guidelines for the operations of the ECB and Eurosystem, formulates euro area monetary policy and makes related decisions.

The Executive Board consists of the President and Vice-President of the ECB and four other members. The Executive Board is responsible for the operational tasks of the ECB. It implements monetary policy in accordance with the guidelines and decisions laid down by the Governing Council. The Executive Board gives the national central banks the instructions necessary for the implementation of monetary policy.

According to the Treaty, the ECB and national central banks, as well as the members of their decision-making bodies, are independent and will not take instructions from any body. This means that as a member of the Governing Council of the ECB, a governor of a national central bank has an independent status vis-à-vis the national central bank. Similarly, a member of the Executive Board of the ECB

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[1] The term 'Eurosystem' refers to the entity comprising the ECB and the central banks of the 12 Member States which have adopted the euro as their single currency.

is not dependent on any national central bank. According to the Treaty, the members of the Governing Council and the Executive Board do not represent any national body, but only 'themselves' (ie their professional experience in monetary or banking matters, as required by article 11.2 of the Statute of the ESCB).

The ESCB's decision-making is centralised, but the implementation of decisions is decentralised. According to article 12.1 of the Statute of the ESCB, the ECB has recourse to the national central banks to carry out the operations that form part of the tasks of the ESCB. This provision has been interpreted to provide a foundation for the decentralised operational model of the ESCB.

The national central banks of the euro are participate in the preparation of matters submitted to the Governing Council, together with the ECB, via the work of advisory committees which have been established in the various operational sectors of the ECB. The proposals of the committees are not binding on the Executive Board of the ECB, but the views of the Committees are nevertheless reported to the Governing Council in connection with the decision-making.

According to article 105(2) of the Treaty, the primary objective of the ESCB is to maintain price stability. The ESCB also supports the general economic policies of the Community. The basic tasks of the ESCB are:

– to define and implement the monetary policy of the Community;
– to conduct foreign exchange operations;
– to hold and manage the official foreign reserves of the Member States;
– to promote the smooth operation of payment systems.

According to article 105(4), the ECB shall be consulted:

– on any proposed Community act in its fields of competence;
– by national authorities regarding any draft legislative provision in its fields of competence, but within the limits and under the conditions set out by the Council in accordance with the procedure laid down in article 107(6). Provisions regarding this matter are included in Council Decision (98/415/EC), according to which the authorities of the Member States shall consult the ECB on any draft legislative provision within its field of competence pursuant to the Treaty an in particular on:
  – currency matters,
  – means of payment,
  – national central banks,

– the collection, compilation and distribution of monetary, financial, banking, payment systems and balance of payments statistics,
– payment and settlement systems, and rules applicable to financial institutions insofar as they materially influence the stability of financial institutions and markets.

In addition, the authorities of Member States not participating in the euro area must consult the ECB on any draft legislative provisions on the instruments of monetary policy.

The ECB may submit opinions to the appropriate Community institutions or bodies or to national authorities on matters in its fields of competence.

According to article 105(5) of the Treaty, the ESCB is to contribute to the smooth conduct of policies pursued by the competent authorities relating to the prudential supervision of credit institutions and the stability of the financial system. In addition, according to article 105(6) of the Treaty, the Council of the European Union may, acting unanimously on a proposal from the Commission and after consulting the ECB and after receiving the assent of the European Parliament, confer upon the ECB specific tasks concerning policies relating to the prudential supervision of credit institutions and other financial institutions with the exception of insurance undertakings.

According to article 106 of the Treaty, the ECB has the exclusive right to authorise the issue of banknotes within the Community. The ECB and national central banks may issue such notes. The banknotes issued by the ECB and national central banks are the only such notes to have the status of legal tender within the Community. Member States may issue coins subject to approval by the ECB of the volume of the issue.

As regards ESCB-related tasks, the national central banks operate under the regulatory powers of the ECB. Article 110 of the Treaty confers to the ECB regulatory powers that are specified in more detail in article 34 of the Statute of the ESCB. According to the Treaty and the Statute, the ECB may issue legal acts to the extent necessary for carrying out the tasks entrusted to the ESCB. The ECB may issue regulations that are binding in their entirety and directly applicable in all Member States. The regulations may concern the definition and implementation of the monetary policy of the Community (article 3.1 of the Statute of the ESCB), credit institutions' minimum reserves on accounts with the ECB and national central banks (article 19.1) and clearing and payment systems (article 22). The ECB may also take binding decisions and issue guidelines and instructions. The guidelines issued by the ECB are legal norms applicable within the ESCB. They are binding on the euro area national central banks. They may not be addressed to, or be directly binding on third parties, but require national implementation.

Payment systems and oversight duties

According to article 22 of the Statute of the ESCB, the ECB and national central banks may provide facilities, and the ECB may issue regulations, to ensure efficient and sound clearing and payment systems within the Community and with other countries. As institutions participating in the development of payment and settlement systems, the ECB and national central banks aim at ensuring the efficient implementation of monetary policy, to reduce the risk exposure of central banks and to promote the smooth execution of payments.

The activities of the ECB and the national central banks related to the oversight of payment systems are based on the ESCB's task to promote the smooth operation of payment systems. Oversight typically refers to the tasks appropriate for central banks, ie the broad oversight of payment and settlement systems, with the aim of ensuring the stability of the financial system and preventing systemic risks.

As a part of this oversight, the Bank of Finland participates indirectly in the prevention of money laundering. According to the ECB's decision of 1 October 2001, the Eurosystem will also support all measures aimed at preventing the use of the financial system for financing terrorism. To achieve this aim, the Eurosystem will cooperate with other competent international, European and national institutions and authorities.

In addition to national payment systems, euro area-wide private large-value payment systems are overseen by the ECB and the national central banks. In practice this means that at the development phase of the systems, the ECB and the national central banks ensure the soundness of their structure, operation and rules from the point of view of risk management.

The core principles of payment systems oversight are to ensure financial stability, to enhance efficiency and to secure the monetary policy transmission mechanism. The measures aimed at meeting these goals may be divided into four categories: definition of oversight policy, implementation of oversight policy, continuous oversight and the management of crisis and problem situations.

The Governing Council of the ECB defines the common oversight policy in respect of both domestic and cross-border payment systems. The ESCB's Payment and Settlement Systems Committee (PSSC) participates in the formulation of the policy as an assisting and advisory group. The common oversight policy comprises all issues related to the efficient implementation of monetary policy, stability of the financial markets and level playing field, as well as domestic payments and cross-border payments, both within the EU and to and from third countries. In matters where these issues are less relevant, the need to coordinate is smaller, which means, in accordance with the subsidiarity principle, that the national central banks will have more room to operate.

The ECB and the national central banks implement the common oversight policy adopted by the Governing Council of the ECB. The ECB may issue instructions or guidelines defining the general principles governing the implementation of the policy. Such instructions or guidelines have not been issued so far. The national central banks are responsible for the implementation of the common oversight policy as regards domestic payment systems. In a domestic system, all participants hold accounts with a single national central bank, and the system operates under one jurisdiction only. As regards international payment systems (cross-border, offshore and multi-currency systems), it has been agreed that the main responsibility for oversight rests with the national central bank of the country whose national legislation is applicable to the system, unless the features of the system give the Governing Council of the ECB reason to decide otherwise.

Macroprudential supervision

According to article 105(5) of the Treaty, the ESCB is to contribute to the smooth conduct of policies pursued by the competent authorities relating to the prudential supervision of credit institutions and the stability of the financial system. This task is binding not only on the ECB, but also on the ESCB as a whole. The contributory nature of the task should be emphasized: according to the subsidiarity principle, the ultimate responsibility for supervision lies with national authorities.

According to article 105(6) of the Treaty, the Council of the European Union may, acting unanimously on proposal by the Commission and after consulting the ECB and after receiving the assent of the European Parliament, confer upon the ECB specific tasks concerning policies relating to the prudential supervision of credit institutions and other financial institutions with the exception of insurance undertakings. The Eurosystem also has an advisory function in the regulatory process and in arrangements that are relevant as regards the achievement of financial stability.

The ESCB's Banking Supervision Committee (BSC), which comprises high-level representatives of the national central banks and financial supervisors of all 15 Member States, assists the Eurosystem in carrying out tasks related to financial stability and prudential supervision. The Banking Supervision Committee may also act as an international forum for discussion and cooperation between financial supervisors of EU countries in matters not related to the supervisory duties of the Eurosystem. The Banking Supervision Committee thus has an important role in matters related to cooperation between the Eurosystem and supervisory authorities. The committee studies macroprudential issues, assesses the development of banking and financial systems and promotes exchange of information between the Eurosystem and banking supervisors and other authorities.

Compared to the oversight of payment systems, which is the responsibility of national central banks, the legal framework governing the oversight of securities settlement systems is more ambiguous, and in several countries the relevant legislation is still being drafted. The duties of the ECB and the national central banks as 'overseers' of securities settlement systems are primarily based on the operation of central banks as key users of settlement systems and, in some Member States, also as providers of settlement services. In this field, oversight means primarily follow-up and analysis as well as setting of standards, but not regulation.

Securities settlement systems are very important for central banks, because the book-entry collateral received for central bank credit is settled in these systems. The tasks of the ESCB related to the oversight of securities settlement systems may be derived from the monetary policy-related tasks of the ESCB and from the linkage between securities settlement systems and payment systems overseen by the ESCB, and from the general task of maintaining financial stability. In addition, as a key user, the ESCB has defined nine criteria for these systems, and assesses their compliance with the criteria on an annual basis. The ESCB also assesses links between securities settlement systems. The ESCB has not yet adopted a basic document on settlement systems oversight, which it has done for payment systems oversight.

References

The Treaty establishing the European Community

The Statute of the European System of Central Banks and of the European Central Bank.

The Finnish Constitution (731/1999).

Act on the Bank of Finland (214/1998) and the Government Bill with a proposal for an Act on the Bank of Finland (HE6/1998).

Katri Nuotio
Ministry of Finance, financial markets department

5.2 Legislation on credit institutions

Deposit banks, mortgage banks and other credit institutions such as financial companies and credit card companies are the key entities governed by legislation on credit institutions. There are a number of laws specifically applicable to the activities of credit institutions including the Act on Credit Institutions (1607/1993), Act on Commercial Banks and Other Credit Institutions in the Form of a Limited Company (1501/2001), Savings Banks Act (1502/2001), Act on Cooperative Banks and Other Credit Institutions in the Form of a Cooperative (1504/2001), Act on Mortgage Credit Banks (1240/1999), Act on Mortgage Societies (936/1978) and the Act on the Temporary Interruption of the Operations of a Deposit Bank (1509/2001). The legislation specific to credit institutions is not the total collection of laws governing these institutions. Some of the other important laws that pertain to credit institutions are the Companies Act (734/1978), Cooperative Societies Act (1488/2001), Consumer Protection Act (38/1978), Act on the Adjustment of the Debts of a Private Individual, (57/1993), Corporate Reorganisation Act (47/1993) and Act on Guarantees and Third-Party Pledges (361/1999).

Act on Credit Institutions

Deposit banks and other credit institutions are governed by the Act on Credit Institutions (1607/1993), which entered into force in 1994. The Act covers such business activities (credit institution activities) as accepting deposits and other repayable funds from the public for the purpose of lending and providing other similar financing on own account, providing payment services, or issuing electronic money. Credit institution business activities do not, however, include internal financing of companies in the same group or seller-provided financing for the sole purpose of giving a buyer extra time to pay for goods or services.

A credit institution is a company authorised to take up and pursue credit institution business acitvities. Credit institutions include deposit banks, financing institutions and payment institutions. Deposit banks comprise commercial banks, savings banks, limited-company savings banks, cooperative banks and limited-company cooperative banks.

Unlike other credit institutions, deposit banks are legally authorised to accept deposits from the general public. They also have to belong to the statutory Deposit Guarantee Fund, which protects depositors' funds. Mortgage banks and the Finnish Mortgage Society are examples of financing institutions that are not authorised to accept deposits from the public.

Authorisation for a credit institution was granted by the Ministry of Finance till the end of June 2003. From the 1.7.2003 the Financial Supervision Authority grants the authorisations. An authorisation can be granted for a deposit bank, a financing institution or a payment institution. The authorisation shall be granted if, on the basis of the available information, it can be ascertained that on the basis of the realibility and suitability of the owners and the management personnel, the credit institution shall be managed with professional skill and in complience with sound and carefull business principles. . The close link between a credit institution and another legal or a natural person shall not prevent effective supervision of the institution. Nor shall the acts, decrees or administrative provisions of a State outside the European Economic Area that apply to a natural or legal person in a close link with the the credit institution prevent effective supervision of the credit institution. Moreover, the main office of a credit institution shall be located Finland.

The share capital, cooperative capital or basic capital of a deposit bank or financing institution shall be at least EUR 5 million. The share capital or cooperative capital of a payment institution shall be at least EUR 1 million. As prescribed in the Act on the Financial Supervision Authority (503/1993), credit institutions are supervised by the Financial Supervision Authority (FSA).

The Act on Credit Institutions specifies the kinds of business activities open to deposit banks, financing institutions and payment institutions. A credit institution can only engage in business activities referred to in the Act and ancillary thereto. Deposit banks can accept deposits and other repayable funds from the public, provide loans and other financing on its own account, provide general payment services, and issue electronic money.

In addition, deposit banks may carry out the following and related business activities:

1) acquisition of deposits and other repayable funds from the public
2) other acquisition of funds
3) granting of credits and other forms of financing and other facilitatory of financing
4) financial leasing

5) general payment transmission and other payment transactions
6) issuance of electronic money, related data processing and soring of data on a electronic device on behalf of another undertaking
7) collection of payments
8) currency exchange
9) trustee operations
10) securities trading in and other securities opertations
11) guarantee operations
12) credit reference activity
13) brokerage of shares and participations in housing corporations as well as of family-housing real estate relating to home saving activity
14) other activity comparable to activities referred in paragraphs 1–13.

The range of activities open to a financing institution is different than that for a deposit bank in that a financing institution cannot accept nor acquire deposits from the public. A financing institution may accept other repayable funds from the public only in connection with general payment transmission or issuance of electronic money. A financing institution may also engage in mortgage banking, provided it has the appropriate authorisation.

A payment institution may provide general payment transmission and other payment transactions, issue electronic money and engage in related data processing. It may accept other repayable funds from the public only in connection with general payment transmission or issuance of electronic money; it cannot grant credits or other financing.

Capital adequacy regulations are central to the Act on Credit Institutions. The own funds of a deposit bank or financing institution shall be adequate relative to the risks associated with its own funds and off-balance-sheet commitments. However, a credit institution's own funds must always amount to at least its initial capital. To cover credit risk, a credit institution's own funds must amount to at least 8% of its total of risk-weighted assets, investments, and off-balance-sheet commitments.

The Act on Credit Institutions also contains provisions on credit institutions' liquidity and risk management. A deposit bank shall have reserves amounting to at least 10% of its liabilities, excluding certain items. A credit institution cannot, in the conduct of business, take on risks so large as to materially jeopardise its solvency; it must limit its large customer exposures so that its combined exposure to one or more customers in a single consolidation group does not exceed 25%

of the credit institution's own funds. Separate provisions apply to payment institutions' liquidity: own funds of a payment institution must amount to at least 2% of funds accepted from the public for general payment transmission or issuance of electronic money.

To safeguard depositors' assets, a deposit bank must belong to the Deposit Guarantee Fund, the rules of which are confirmed by the Ministry of Finance. Contribution payments to the guarantee fund are levied annually on member banks. A bank's contribution consists of a fixed part and a part based on its consolidated capital position. The size of the contribution depends on the amount of claims covered by the deposit guarantee. In the event of an insolvency, each of the bank's depositors is paid up to EUR 25,000 in compensation for loss of savings and interest due to the insolvency. The guarantee fund also pays full compensation on a customer's loss of proceeds from sale of his dwelling, provided the funds were deposited at least six months prior to the bank's insolvency and are used to acquire a new dwelling.

Provisions on the business activities of foreign credit and financial institutions are contained in the Act on the Operation of a Foreign Credit Institution or Financial Institution in Finland.

Several directives on the financial markets are implemented into national law in the Act on Credit Institutions, including directive 2000/12/EC on the taking up and pursuit of the business of credit institutions, directive 94/19/EC on deposit-guarantee schemes and directive 2000/46/EC on the taking up, pursuit of and prudential supervision of the business of electronic money institutions (see annex on page 297).

So-called banking acts

Provisions on the operations of credit institutions are also contained in the so-called banking acts, ie the Act on Commercial Banks and Other Credit Institutions in the Form of a Limited Company, Savings Banks Act, and Act on Cooperative Banks and Other Credit Institutions in the Form of a Cooperative. These acts contain provisions that supplement general provisions of company law on establishment, administration, merger, division, dissolution and suspension of business of a properly organised credit institution.

Every credit institution, irrespective of its organisational form, is governed by merger principles that correspond to those set out in the Companies Act. A merger can be carried out as an absorption or combination. Two credit institutions of like form can merge with each other. A credit institution can also merge with a company of similar form that is not a credit institution. But, because of differences in the nature of the own funds, a merger between two credit institutions of different organisational form would be problematic and is thus not allowed. However, mergers of business operations pursued under different organisational forms are possible, subject to separate provisions on transfer of business. The FSA has the right to prohibit an intended merger if such merger is likely to jeopardise the acquiring credit institution's continued fulfilment of authorisation criteria.

A credit institution may be divided into two or more credit institutions of similar organisational form. A division can also be effected by transferring the entire business to two or more credit institutions or other previously established companies. The FSA has the statutory right to prohibit the division of a credit institution.

Merger, division and transfer of business vis-à-vis a credit institution are governed by the general principles on the hearing of creditors in the same manner as for limited companies and cooperatives. Depositors, as creditors, are not governed by such hearing principles nor, as regards their claims in excess of the EUR 25,000 deposit guarantee, by the general creditor protection principles.

Act on Mortgage Credit Banks

As per the Act on Credit Institutions, mortgage credit banks are financing institutions. Mortgage credit banks are authorised only to grant mortgage credits and public-sector credits and to carry on ancillary activities. There are certain legal restrictions on the right of a mortgage bank to own real estate, shares and participations.

A mortgage credit is a credit the collateral of which is a share in a housing corporation or a real-estate corporation or a mortgageable object referred to the Land Law Code. Here, a public-sector credit means a credit which has been granted to a public-sector organisation and which is collateralised by a guarantee of an organisation governed by public law or a claim on such organisation. A mortgage credit bank may issue collateralised bonds, which are collateralised by its mortgage credits orpublic-sector credits.

The Act mandates that details on collateralised bonds and the collaterals be entered in a special register. An entry in this register establishes security rights of the bond holder. The Act also specifies the minimum market value of the collateral of the bond relative to the nominal value of the bond.

Act on Mortgage Societies

A mortgage society is a special-purpose financing institution that grants long-term loans mainly against a mortgage or other safeguarding collateral. The members of a mortgage society, ie the borrowers, are not entitled to the society's property or its profits nor are they liable for the society's liabilities.

The decision-making power of the members of a mortgage society is exercised by the members who are present at the society's general meetings. A mortgage society is administered by a supervisory board and board of directors. If a mortgage society discontinues its operations, any surplus derived from its property must be used as specified in the society's bylaws.

Act on the Temporary Interruption of the Operations of a Deposit Bank

Grounds are defined in the Act by which a public authority has the right to order a deposit bank to temporarily interrupt its operations. The operations of a deposit bank may be interrupted for a period of not more than one month, if the financial position of the bank has deteriorated to such an extent that continuing operations would endanger the position of depositors or other creditors or the stability of the financial markets. The interruption may be extended for no longer than six months. The purpose of the interruption is to prevent a sudden deposit outflow of such magnitude that would endanger the overall stability of the financial markets.

A decision on temporary interruption of operations is made by the Ministry of Finance. Once operations have been interrupted, the FSA must appoint an attourney in the bank. The bank must prepare an action plan indicating the manner in which the bank intends to reorganise its financial position. During the interruption period the Ministry of Finance may apply that the corporate reorganisation procedure be commenced. While its operations are interrupted, a deposit bank may not accept deposits or other repayable funds nor repay any debt incurred prior to the interruption decision. As regards legal consequences of the interruption decision, the appropriate provisions in the Corporate Reorganisation Act apply.

The Act also contains provisions by which exceptions can be made, during a interruption period, to certain procedural provisions of company law, as a means of speeding up the restoration of the bank's financial condition.

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5.3 Securities and derivatives market legislation

The main participants in the Finnish securities and derivatives markets include the Bank of Finland and the credit institutions and, in particular, the stock exchange, the option corporation, the clearing organisation and the central securities depository. The Securities Markets Act (495/1989), which entered into force in 1989, contains provisions on the operation of the securities market in general, and specific provisions on the stock exchange, the option corporation, the clearing organisation and their participants. The derivatives market and the option corporation that corresponds to the stock exchange in that market (the derivatives exchange) as well as the participants in the option corporation are governed by the Act on Trading in Standardised Options and Futures (772/1988), later on referred to as the 'Options Trading Act', which entered into force in 1988. The Act on the Book-Entry System (826/1991) and the Act on the Book-Entry Accounts (827/1991) apply to an important element of securities trade and settlement, namely the keeping of securities in book-entry form in the central securities depository. They also include provisions on the participants in a central securities depository and on the book-entry accounts in a book-entry system. The Act on Certain Conditions of Securities and Currency Trading as well as Settlement Systems (1084/1999) is of particular importance for securities settlement activities.

Other important participants in the securities and derivatives market include intermediaries which comprise credit institutions, investment firms referred to in the Investment Firms Act (579/1996) and corresponding foreign firms. Intermediaries operate in the market on behalf of their customers, ie institutional investors such as insurance companies and private investors, and also on their own behalf. Mutual funds as referred to in the Mutual Funds Act (48/1999) are gaining importance as investment outlets.

The specific legislation governing the securities and derivatives markets does not form an independent whole. Other legislation of key importance for the operation of the markets includes corporate legislation, such as the Companies Act (734/1978), and the general law of property and contracts.

The Securities Markets Act

The Securities Markets Act applies to the public issuance of securities referred to in the Act, the transfer of such securities, securities settlement procedures and public trade in securities. Thus the Act applies to the operations defined in the Act involving the securities referred therein. The main provisions of the Act concern the disclosure obligation of the issuers of securities (such as limited companies) and of the issuers of securities traded on the stock exchange or via other organisers of public trade in securities, as well as the disclosure obligation of holders of such securities, operation of the stock exchange and the clearing organisation and their participants, and the supervision of the securities market.

The disclosure obligation of issuers of securities may be divided roughly into duties related to the primary and the secondary market. Issuers are subject to the prohibition of misleading and false marketing, and they are also obliged to prepare and publish a prospectus or listing particulars when securities are offered to the public or when admission to public trading as referred to in the Act, such as listed share trading, is sought for securities issued earlier. After the securities have been admitted to public trading, the issuer is bound by an ongoing disclosure obligation, which means that it must, without undue delay, publish all information likely to have a material impact on the value of securities that it issues. The issuer is also bound by a regular disclosure obligation, ie the duty to publish reports, such as interim reports, on a regular basis.

After securities have been admitted to public trade, the holders (owners) of the securities are also subject to disclosure obligations, the most important of which are the obligation to disclose major shareholdings, ie holdings that reach or exceed 5 per cent, or any of the progressively higher thresholds specified in the Act, and the duty of entities specified in the Act to keep a register of insider holdings and to enter declarations of insider holdings in it. Anyone making a public offer to buy shares subject to public trading must publish the offer documentation. The duty to publish offer documentation also applies to shareholders whose proportion of voting rights attached to the company shares exceeds two-thirds. Such shareholders have a statutory duty to offer to redeem the rest of the issued shares or securities carrying entitlement thereto under the Companies Act (duty of redemption). This duty is, however, separate from the right of the majority shareholder (90%) to redeem the shares of the minority shareholders (redemption right), as stipulated in the Companies Act.

Provisions on the establishment, operations and participants of a stock exchange are also key provisions as regards the organisation of public trading. The public trading referred to in the Act is divided into two categories: listed share trading and other public trading. Only the stock exchange may arrange for listed share trading, as provided for in the Act, in supplementary lower-level regulations and decisions and the Stock Exchange Rules and in possible other self-regulation of the stock exchange. Currently, listed share trading in Finland is limited to the Main List of Helsinki Securities and Derivatives Exchange, Clearing House Ltd (the Helsinki Exchanges). The other public trading referred to in the Act may be arranged by the stock exchange and the securities intermediaries referred to in the Act. Such intermediaries consist of credit institutions (banks) as referred to in the Credit Institutions Act, as well as investment firms (brokerage firms) and corresponding foreign firms. Currently, the other public trading in Finland is limited to trading on the I List, NM List and Pre List, which are maintained by the Helsinki Exchanges. The Helsinki Exchanges also maintain a Brokers' List Market[1] for other public trading. A stock exchange may not be operated without a licence granted by the Ministry of Finance, which may also limit or revoke the licence. The Ministry of Finance also approves the Stock Exchange Rules and the rules governing other public trading. The Securities Markets Act includes provisions on other professionally organised trading procedures that are available to the public but that do not constitute public trading as referred to in the Act. Such trading may be maintained by the stock exchange and by securities intermediaries. Issuers and holders of shares traded via such trading procedures are not subject to the disclosure obligations and other duties mentioned above.

Investors cannot participate directly in securities trading in the stock exchange, for example, but must use the services of securities intermediaries, credit institutions or investment firms. The same applies when securities traded eg on the stock exchange are cleared and settled in a clearing organisation by clearing parties acting on behalf of investors. Usually, the investors cannot participate in the clearing and settlement of their securities transactions, but special clearing parties act on their behalf. In the clearing and settlement, the obligations and claims of counterparties to a securities transaction are determined and the resultant delivery and payment obligations are

[1] The Ministry of Finance approved the rules of the Brokers' List Market on 3 June 2002, but trading on the list had not yet begun at the time this publication was written.

fulfilled. On certain conditions, securities intermediaries may also act as clearing parties. The Securities Markets Act contains the basic norms applicable to the operation of the stock exchange and the clearing organisation, such as provisions on licences and rules, and provisions on the safeguarding of the operation of a clearing organisation. In addition, the Act defines the basic norms concerning the granting, limitation and withdrawal of the rights of the parties, as well as the safeguarding of the position of the clearing parties. The licence for a clearing organisation is granted by the Ministry of Finance, which also approves its rules. The Finnish Central Securities Depository (APK) is the only clearing organisation operating in Finland. The Act also contains provisions on the rules of conduct to be observed in the securities market. The rules of conduct apply in particular to securities intermediaries acting on behalf of investors.

The supervision of the securities market is carried out in cooperation between the stock exchange, the clearing organisation, the authorities and, in part, the central securities depository referred to in the Act. The stock exchange and the clearing organisation supervise their own operations. In addition, the Financial Supervision Authority acts as the general supervisor of the market. In addition to the stock exchange and the clearing organisation, the Financial Supervision Authority has the duty to supervise eg issuers of securities and the holders of the securities issued by them. The scope of the supervision of the Financial Supervision Authority thus reaches beyond the supervision of compliance with issuers' disclosure obligation or provisions relating to insider holdings, which are two issues that are often discussed in public. The Financial Supervision Authority also issues statements on certain matters belonging to the competence of the Ministry of Finance. In addition to the supervising entities mentioned above, the Ministry of Finance and the Bank of Finland each has its own role in the supervision of the market. The role of the Ministry of Finance mainly consists of granting licences and approving rules. The influence of the Bank of Finland in the market is channelled via the Bank's opinions on issues regarding licences, and via the payment system which is closely linked with the securities market.

The Securities Markets Act also includes provisions on the application of some of its parts to derivatives contracts. Furthermore, the Act defines punishments for certain acts that are considered reprehensible in the securities market. However, provisions on the punishments for more serious offences are contained in the Penal Code (39/1889), in chapter 51 on securities market crimes.

The Securities Markets Act is supplemented by statutes issued by the Ministry of Finance as authorised by the Act, and by regulations issued by the Financial Supervision Authority that are binding on its supervised entities. The Ministry of Finance has issued statutes eg on prospectus and listing particulars and the regular disclosure obligation of issuers of securities. The regulations issued by the Financial Supervision Authority to its supervised entities concern eg the duty of securities intermediaries to report on their trades and registers and declarations of insider holdings.

The Securities Markets Act and related statutes and decisions of the Ministry of Finance implement several directives concerning the financial markets in national legislation. Such directives include the Public Offer Directive (89/298/EEC), the Listing Particulars Directive (80/390/EEC), the Admission to Trading Directive (79/279/EEC), the Regular Information Directive (82/121/EEC) and the Major Holdings Directive (88/627/EEC). In addition, the Investment Services Directive (93/22/EEC) and the Insider Dealing Directive (89/592/EEC) have been implemented in part in the Securities Markets Act. The above-mentioned directives 79/279/EEC, 80/390/EEC, 82/121/EEC and 88/627/EEC, as amended, have subsequently been compiled into directive 2001/34/EC.

Options Trading Act

The Options Trading Act is a general law governing the standardised derivatives market and is the closest analogue of the Securities Markets Act. It applies to the trading, clearing and settlement of standardised options and futures, as referred to in the Act, in an option corporation (an options exchange). The Act includes provisions on the establishment, operation and participants of an option corporation. The Ministry of Finance grants licences to option corporations and approves their rules. When trading in standardised derivatives, investors must normally use the services of intermediaries, as in the case of public trading in securities. An option corporation may grant intermediary rights in respect of operations it organises, subject to the same conditions that stock exchanges apply to intermediary rights. There is only one option corporation in Finland, and it is maintained by the Helsinki Exchanges.

Like the Securities Markets Act, the Options Trading Act contains provisions on the supervision of the operations of an option corporation. An option corporation supervises its operations and participants, and the Financial Supervision Authority supervises both the option corporation and its participants. In certain situations, the Ministry of Finance is obliged to request opinions from the Financial Supervision Authority, Bank of Finland or Energy Market Authority on matters in their respective areas of competence.

The Options Trading Act also includes provisions on derivatives market crimes and offences. However, as regards certain such acts, the provisions in chapter 51 of the Penal Code are applied.

The Options Trading Act has some points in common with the Investment Services Directive (93/22/EEC).

Act on the Book-Entry System and Act on the Book-Entry Accounts

In practice, all publicly traded securities, as referred to in the Securities Markets Act, are book entries as referred to in the Act on the Book-Entry System. Provisions on the inclusion of securities in a book-entry system are included in the general corporate law, such as the Companies Act, and in the Act on the Book-Entry System itself. No share certificate or other physical representation is issued in respect of a book entry security. The dematerialisation of physical securities serves especially the needs of wholesale-type trade in securities, such as securities trading on stock exchanges, as well as the needs of the clearing and settlement of such trades by the clearing organisation. The book-entry system consists of book-entry accounts and lists of the owners of book entry securities. A book-entry register contains book-entry accounts, the book entry securities recorded in these accounts, and the rights and obligations attached to the book entry securities. The book-entry register is kept by the central securities depository, which also performs certain other common tasks of the book-entry system. The Ministry of Finance grants the licence for a central securities depository. In Finland, the tasks of the central securities depository are performed by the Finnish Central Securities Depository (APK), which is also the only clearing organisation in Finland.

The main provisions of the Act on the Book-entry System concern the establishment, operation and participants of a central securities depository. In addition, the Act provides for a registration fund to cover the liability for damages of the participants in the central securities depository, ie the account operators. Through the joint and several liability system established by the registration fund, the participants in the central securities depository, ie the account operators, have subsidiary responsibility for damage resulting from the operations of individual account operators. Naturally, the primary liability lies with the account operator. The Ministry of Finance grants the licence for a central securities depository and approves its rules. The central securities depository grants the rights of account operators in accordance with the Act and its own rules. Account operators may also use agents. Normally, individual investors may not act as account operators or their agents.

While the Act on the Book-Entry System includes provisions on the book-entry system, the book-entry register, the central securities depository and various issues related thereto, the main provisions of the Act on the Book-Entry Accounts concern the various types of book-entry accounts in a book-entry register, the legal effects of the entries made in the accounts, and the liability for damages of the account operators and their agents. The Act also includes provisions on the competence to apply for a registration pertaining to a book-entry account. There are three types of book-entry accounts: individual investor accounts, custodial nominee accounts and commission accounts. An individual investor account is an account where an individual investor's (account holder) book entry securities are registered. Certain other entries such as pledges and levies of execution may also be registered in the account. A custodial nominee account is used for book entry securities owned by one or more foreign individuals or corporations such that a person or entity other than the owner is registered as the account holder. Custodial nominee accounts are usually registered administratively, ie the administrator (nominee) is entered as the owner of the book entry securities instead of the beneficial owner. Provisions on nominee registration are included in the Act on the Book-Entry System. Commission accounts are used to facilitate the clearing and settlement of securities transactions carried out by the clearing organisation. A commission account may also be administratively registered.

Supervision of the book-entry system is organised in the same manner as the supervision of the securities markets in general. The central securities depository supervises its own operations in accordance with its rules. In addition, the operations of the central securities depository and its participants are supervised by the Financial Supervision Authority. Although the Ministry of Finance grants a licence to a central securities depository and approves its rules, the Bank of Finland also has an important role in the operation of the book-entry system. The Bank sets the terms and conditions of central bank money, which is used in the settlement of securities transactions by the central securities depository. Furthermore, the Ministry of Finance must obtain the opinion of the Bank of Finland

and the Financial Supervision Authority in connection with decision-making on certain key issues concerning the book-entry system.

Act on Investment Firms

The Act on Investment Firms applies to the provision of investment services specified in the Act on a professional basis as a regular business. The investment services referred to in the Act are securities brokerage, market making, securities dealing, underwriting, issuance arrangements and asset management. Besides authorised investment firms, only credit institutions as referred to in the Credit Institutions Act (banks) and corresponding foreign institutions may provide investment services. The Act on Investment Firms applies in particular to undertakings established to provide investment services, and it corresponds closely to the Credit Institutions Act. The main provisions of the Act on Investment Firms concern the operation of an investment firm, the granting and withdrawal of its licence and restriction of its operations, and its solvency and risk management. The Act also includes provisions on the right of Finnish investment firms to provide investment services within the European Economic Area in accordance with the single passport principle as referred to in the Investment Services Directive 93/22/EEC. The provision of investment services by foreign investment firms in Finland is governed by the Act on the Right of a Foreign Investment Firm to Provide Investment Services in Finland (580/1996). A foreign investment firm authorised in a country belonging to the European Economic Area does not need an authorisation granted by Finnish authorities in order to operate in Finland, whereas investment firms from other countries must have Finnish authorisation.

The Act on Investment Firms also includes provisions on an investor compensation fund. Investment firms and credit institutions that provide investment services make contribution payments into an investor compensation fund. In some cases, the Finnish branches of foreign investment firms, credit institutions and financial institutions are also obliged to make contributions. The purpose of the investor compensation fund is to safeguard the clear and indisputable claims of non-professional investors held in custody or administered by an investment firm. Compensation to be paid to one investor cannot exceed nine-tenths of the claims of the investor from the same investment firm or credit institution. In addition, the maximum amount of the compensation is set at EUR 20,000. The Act on Investment Firms also determines which compensation fund is to be used in cases where compensation could also be paid out of other funds, such as the deposit guarantee fund referred to in the Credit Institutions Act.

The Ministry of Finance grants licences to investment firms. It also approves the rules of the investor compensation fund and the total amount of contribution payments to be paid to the fund each year. The annual contribution payment to be paid by each investment firm or credit institution is determined by the Board of Directors of the compensation fund.

The Act on Investment Firms is mainly based on the Investment Services Directive (93/22/EEC). The provisions on the investor compensation fund in the Act are partly based on the Compensation Fund Directive (97/9/EC).

Act on Mutual Funds

The Mutual Funds Act applies to the operations carried out by a management company and a custodian, as well as the marketing of units in certain types of foreign undertakings for collective investment in transferable securities to the public in Finland. According to the Act, only an authorised management company may engage in mutual fund activity. Mutual fund activity refers to the raising of funds from the public for their joint investment and the further investment of these funds mainly in investment objects referred to in the Act on Investment Firms, as well as management of mutual funds. A mutual fund refers to the assets acquired and invested as part of the mutual fund activity as well as any commitments resulting therefrom. In simpler terms, this means that collecting funds from the public in a mutual fund, managing the collected funds and other related operations constitute a business that requires a licence. A mutual fund is a collection of assets that are owned by the holders of mutual fund units. The management company does not own the assets collected in the fund. It can, however, make contracts on behalf of the mutual fund. The Ministry of Finance grants licences to management companies. It also grants licences to custodians as referred to in the Act. A custodian keeps the assets of the mutual fund and supervises, for its part, that the management company acts in compliance with the Act on Mutual Funds, the regulations issued thereunder by the authorities as well as the rules of the mutual fund. Credit institutions, investment firms and Finnish branches of corresponding entities authorised in countries belonging to the European Economic Area can also act as custodians. Units in mutual funds may be included in a book-entry system.

The main provisions of the Act on Mutual Funds concern the granting and withdrawal of management company licences, and activities, duties and rights of the owners (unit-holders) of the mutual fund, investment of fund assets, marketing of fund units, and the management company's disclosure obligation. For example, according to the Act, the management company must publish a fund prospectus, the contents of which are defined in more detail by a statute. The Act and the statutes issued by virtue thereof also include provisions on the annual accounts of management companies, mutual funds and custodians as referred to in the Act.

The Act on Mutual Funds is largely based on the UCITS Directive (85/611/EEC). However, the Act also includes provisions on mutual funds other than those referred to in the Directive, ie special mutual funds. The main differences between mutual funds and special mutual funds are related to the investment of fund assets and the information to be provided on the fund. The limits to investments referred to in the UCITS directive are to be observed by ordinary mutual funds, whereas special mutual funds may deviate from them. In addition to a prospectus and semi-annual reports, which must be published for ordinary mutual funds, the management company of a special mutual fund must also publish a simplified prospectus and quarterly reports. The Financial Supervision Authority approves the rules of an ordinary mutual fund, whereas the rules of a special mutual fund are approved by the Ministry of Finance.

Management companies that manage mutual funds as referred to in the UCITS directive may market the funds in countries of the European Economic Area without having to obtain marketing licences that may be required in each country. However, this does not apply to special mutual funds. The Act on Mutual Funds also includes provisions concerning the marketing in Finland of the units of a foreign mutual fund. Funds that fulfil the requirements of the UCITS directive and are authorised in countries belonging to the European Economic Area may be marketed in Finland without a marketing licence from Finnish authorities. A marketing licence is, however, required for the marketing of funds not fulfilling the requirements of the UCITS directive and for funds that are authorised in other countries. The marketing licence is granted by the Ministry of Finance. The UCITS directive has recently been amended by directives 2001/107/EC and 2001/108/EC. These directives introduce changes in the regulation on mutual funds and the scope of activities open to management companies. However, the directives have not yet been implemented in national legislation.

The Financial Supervision Authority supervises the operations of management companies and custodians as well as the marketing of foreign mutual funds in Finland.

5.4 Outlook for financial markets legislation – Financial Services Action Plan

Several initiatives on national financial legislation are under way in the European Union, as part of the Financial Services Action Plan (FSAP).[2] The FSAP, which was approved by the European Council in Cologne in summer 1999, had been prepared by the Commission on the basis of a proposal by the European Council made in Cardiff in summer 1998. At the Cardiff meeting, the European Council took the view that the Commission should prepare an action plan as soon as possible to improve the operation of the single market as regards financial services. At that time it was felt that, despite many years of work, the EU financial markets were still quite dispersed. The introduction of the euro was seen as an opportunity to create a modern financial system for the European Union, in which both capital costs and financial intermediation would be minimal.

Every six months, a progress report is produced on the FSAP[3], which presents measures that the Commission takes on the basis of current circumstances. The FSAP has been confirmed by the European Parliament and ECOFIN Council, which is comprised of ministers of the member states.

The strategic objectives of the FSAP include a new directive on prospectuses, updating of regulations concerning transparency obligations of securities issuers, directive on market abuse to replace the current directive on insider dealing and continuous duty of disclosure and the directive to upgrade the investment services directive. In addition, the strategic objectives include directives on accounting standards, financial collateral arrangements and take over bids.

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[2] Financial services: Implementing the framework for financial markets. Action plan. COM(1999)232, 11.05.1999.

[3] European Commission's sixth report on the progress of the Financial Services Action Plan. COM(2002)267.

The directive on financial collateral arrangements has already been adopted. This European Parliament and Council directive 2002/47/EC must be implemented in Finland by December 2003. Preparation of the directive on market abuse is almost finished, the intent being to publish it in the Official Journal of the European Communities by the end of 2002 and have it implemented in member states within the following 18 months. According to the revised timetable, the proposed new directive on prospectuses[4] presented on 30 May 2001 at the same time as the proposed directive on market abuse[5] is to be adopted early in 2003. The proposed upgrades regarding modernisation of the accounting provisions of the 4th and 7th Company Law Directives were presented in summer 2002[6]. The Commission presented the proposed directive on take-over bids on 2 October 2002[7]. The proposed new directives on transparency obligations and investment services will probably be presented around the end of 2002.

Issuers of securities subject to public trading and certain other companies are affected by Parliament and Council regulation No 2002/3626 on the application of international accounting standards (IAS). According to the regulation, listed companies and certain other companies must prepare their consolidated financial statements in compliance with the IAS with effect from 2005, subject to certain exceptions. Member states may also require that companies other than those mentioned in the regulation prepare financial statements according to the IAS, and may apply the regulation to individual companies', as well as consolidated, financial statements.

The European Union is preparing a directive on the supervision of financial conglomerates, which should be published in the Official Journal in 2003, for implementation in member states within 18 months from publication. The most significant change effected by the directive is in the regulations on capital adequacy, which are to be incorporated into the act on the supervision of financial and insurance conglomerates.

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[4] Proposal: European Parliament and Council directive on prospectuses published in conjunction with the issue of securities to the public or upon commencement of trading. COM(2001) 281, 30.5.2001.

[5] Proposal: European Parliament and Council directive on insider trading and market manipulation (market abuse). COM(2001) 280, 30.5.2001.

[6] Proposal: European Parliament and Council directive on amendments to the Council directives 78/660/EEC, 83/349/EEC and 91/674/EEC on the financial statements and consolidated financial statements of certain types of companies and insurance companies. COM(2002) 259/2, 9.7.2002 (replaces proposal COM(2002) 259, 28.5.2002).

[7] Proposal: European Parliament and Council directive on take-over bids COM(2002) 534, 2.10.2002.

Annex

Finnish legislation on the financial market

Act on the Bank of Finland (214/1998)
Act on the Financial Supervision Authority (503/1993)
Act on the Insurance Supervisory Authority (78/1999)
Act on the Supervision of Financial and Insurance Conglomerates (44/2002)
Act on Credit Institutions (1607/1993)
Act on Commercial Banks and Other Credit Institutions in the Form of a Limited Company (1501/2001)
Savings Bank Act (1502/2001)
Act on Cooperative Banks and Other Credit Institutions in the Form of a Cooperative (1504/2001)
Act on the Operation of a Foreign Credit Institution or Financial Institution in Finland (1608/1993)
Act on Mortgage Credit Banks (1240/1999)
Act on Mortgage Societies (936/1978)
Pawnshops Act (1353/1992)
Act on Government Guarantee Fund (379/1992)
Act on the Temporary Interruption of the Operations of a Deposit Bank (1509/2001)
The Securities Markets Act (495/1989)
Act on Common funds (48/1999)
Act on Real-Estate Funds (1173/1997)
Act on Investment Firms (579/1996)
Act on the Right of a Foreign Investment Firm to Provide Investment Services in Finland (580/1996)
Act on the Book-Entry System (826/1991)
Act on Book-Entry Accounts (827/1991)
Act on Certain Conditions of Securities and Currency Trading and of the Payment System (1084/1999)
The Limited Liability Companies Act (734/1978)
Cooperatives Act (1488/2001)
Trade Register Act (129/1979)
Accounting Act (1336/1997)
Audit Act (936/1994)
Consumer Protection Act (38/1978)
Promissory Notes Act (622/1947)
Act on Guaranties and Third-Party Pledges (361/1999)
Bills of Exchange Act (242/1932)

Cheque Act (244/1932)
Interest Act (633/1982)
Act on Credit Transfers (821/1999)
Act on the collection of claims (513/1999)
Act on the Adjustment of the Debts of a Private Individual (57/1993)
Act on business reorganisation (47/1993)
Bankruptcy Act (9.11.1868)

EC legislation concerning the financial market

Directive 2000/12/EC of the European Parliament and of the Council of 20 March 2000 relating to the taking up and pursuit of the business of credit institutions

Directive 2001/24/EEC of the European Parliament and of the Council of 4 April 2001 on the reorganisation and winding up of credit institutions

Directive 97/5/EEC of the European Parliament and of the Council of 27 January 1997 on cross-border credit transfers

Directive 2000/46/EC of the European Parliament and of the Council of 18 September 2000 on the taking up, pursuit and prudential supervision of the business of electronic money institutions

Directive 98/26/EC of the European Parliament and of the Council of 19 May 1998 on settlement finality in payment and securities settlement systems

Directive 94/19/EC of the European Parliament and of the Council of 30 May 1994 on deposit-guarantee schemes

Council Directive 86/635/EEC of 8 December 1986 on the annual accounts and consolidated accounts of banks and other financial institutions

Council Directive 91/308/EEC of 10 June 1991 on prevention of the use of the financial system for the purpose of money laundering

Directive 2001/34/EC of the European Parliament and of the Council of 28 May 2001 on the admission of securities to official stock exchange listing and on information to be published on those securities

Council Directive 89/298/EEC of 17 April 1989 coordinating the requirements for the drawing-up, scrutiny and distribution of the prospectus to be published when transferable securities are offered to the public

Council Directive 89/592/EEC of 13 November 1989 coordinating regulations on insider dealing

Council Directive 85/611/EEC of 20 December 1985 on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS)

Council Directive 93/22/EEC of 10 May 1993 on investment services in the securities field

Directive 97/9/EC of the European Parliament and of the Council of 3 March 1997 on investor-compensation schemes

Council Directive 93/6/EEC of 15 March 1993 on the capital adequacy of investment firms and credit institutions

Chapter 6

Oversight of financial markets

Kimmo Virolainen – Kirsi Ripatti – Tommi Orpana

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6 Oversight of financial markets

6.1 Tasks of the Bank of Finland

Kimmo Virolainen
Financial Markets Department

6.1.1 Macroprudential analysis of the financial markets at the Bank of Finland

The tasks that the central bank performs to foster the stability and efficiency of the financial system have been called macroprudential analysis or oversight.[1] A stable and reliable financial system is an important prerequisite for sound and propitious overall economic developments. In addition, financial stability is of great importance to the conduct of monetary policy.

Macroprudential tasks generally refer to the responsibility of central banks for maintaining stability, especially in the banking sector. Ongoing surveillance and analysis of the markets in terms of stability and efficiency are also included in the concept of macroprudential analysis. The term 'oversight' is in turn related to the stability tasks of central banks in respect of the financial market infrastructure, ie payment and settlement systems.[2]

The macroprudential tasks of the Bank of Finland are laid down in the Act on the Bank of Finland, the Treaty establishing the European Community and the Statute of the European System of Central Banks and of the European Central Bank.[3] The Act on the Bank of Finland requires that the Bank of Finland contribute to maintaining the reliability and efficiency of the payment system and overall financial system and participate in their development. According to the Treaty establishing the European Community, the ESCB is required to contribute to the smooth conduct of policies pursued by the competent authorities relating to the prudential supervision of credit institutions and the stability of the financial system. National central banks may also perform functions other than those specified in the Statute of the ESCB unless the Governing Council of the ECB finds, by a majority of two thirds of the votes cast, that these interfere with the objectives

[1] See also Koskenkylä – Virolainen (1999).
[2] Section 6.2.2.
[3] For further details, see section 5.1.

and tasks of the ESCB. The national central banks perform these functions on their own responsibility and liability. This enables eg the performance of tasks by certain euro area central banks in the field of banking supervision. The concerned provision also refers to the potential role of a national central bank in the management of financial market crises. Exclusively national functions also include many initiatives concerning the overall development of the financial system in cooperation with other public authorities and financial market participants.

Macroprudential analysis by a central bank focuses primarily on financial markets and systems in terms of systemic risk. Prudential supervision of risks and activities of individual institutions is a task of the supervisory authorities. In addition to systemic risk considerations, macroprudential analysis is concerned with the efficiency of financial markets. Cooperation between central banks, supervisory authorities and ministries involved in regulation is of vital importance for fostering financial stability.

Systemic risks in the financial system

An efficient financial system is linked with the idea of capital flowing freely into the most productive investment outlets, which means essentially minimal regulation. However, financial markets have certain special features that necessitate regulation and official supervision. It is usually argued that regulation and supervision are necessary because of externalities associated with financial disturbances and the related market failures. Vulnerability and exposure of the financial system to serious disruptions – systemic crises – are exacerbated by three factors, in particular: (1) maturity mismatches between assets and liabilities in the banks' balance sheets, (2) significant interdependencies between financial institutions and (3) the intertemporal nature of financial contracts and asymmetric information.[4]

Deposit banks accept funds from the public subject to repayment on demand and lend them for long-term investment projects with uncertain profit outlook. Under normal circumstances, banks are able to satisfy depositors' requirements for withdrawal of funds, by using up relatively small amounts of liquid reserves. Under exceptional circumstances and, in particular, if depositors no longer trust in the

[4] For further details, see, for instance, De Bandt – Hartmann (2000).

bank's ability to repay all depositors, the bank may, in the case of a bank run, encounter liquidity problems despite being financially sound in the usual sense.

Dependencies between banks and between banks and other financial institutions have increased significantly along with internationalisation and development of large payment and settlement systems. Open intraday positions between banks are considerable, so that the insolvency of one market participant may jeopardise the solvency of many others and, in conjunction with second-round effects, lead to a systemic crisis.

The intertemporal nature of financial agreements refers to the fact that the value of an asset depends decisively on market participants' expectations of its future cash flows. Abrupt changes in expectations may lead to wide fluctuations in market prices of assets. Exposure to shocks is particularly pronounced for relatively non-transparent assets in which case there are major information asymmetries in the markets.

Owing to these features, disturbances in one part of the financial system (market participant, system or market segment) may spread to other parts of the system and at worst paralyse one or more of the basic functions of the financial system (financial intermediation, asset pricing, payment transmission). Systemic crises are linked to externalities in so far as the social cost of a crisis is higher than the individual costs incurred by market participants.[5] Because of externalities, market prices do not necessarily reflect the markets' systemic risks.

Macroprudential analysis

Regular surveillance and analysis of financial markets constitute a key area in a central bank's macroprudential tasks. Analysis focuses on monitoring financial behaviour, institutions and market developments in respect of stability and efficiency. It is important in macroprudential analysis that key financial stability indicators be identified for monitoring and forecasting the size and realisation probability of systemic risks in the financial system.

There are in essence two types of systemic crisis: (1) simultaneous exposure of several financial institutions to the same shock (correlated portfolios) and (2) spread of shocks from one market participant to

[5] For estimates of overall costs incurred in connection with systemic crises in the financial markets in various countries, see, for instance, Hoggarth – Reis – Saporta (2002).

others owing to large (real or apparent) interdependencies (figures 1 and 2).

Figure 1. **Systemic crisis caused by correlated portfolios**

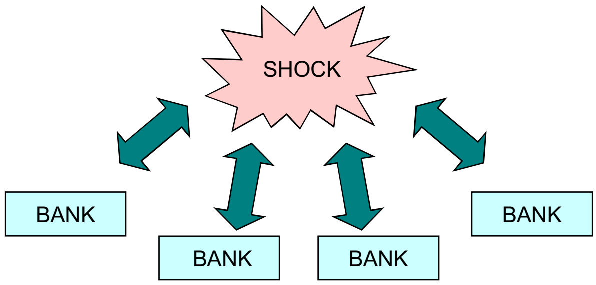
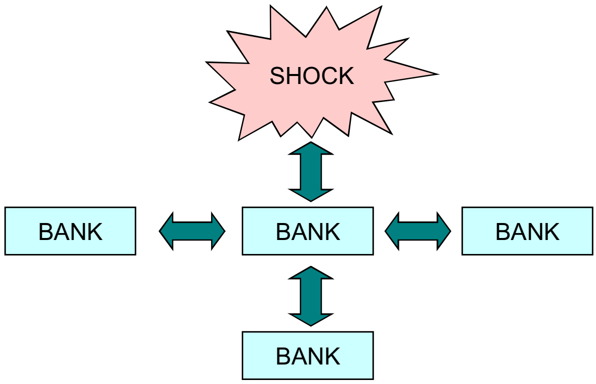


Figure 2. **Systemic crisis caused by interdependencies between banks**

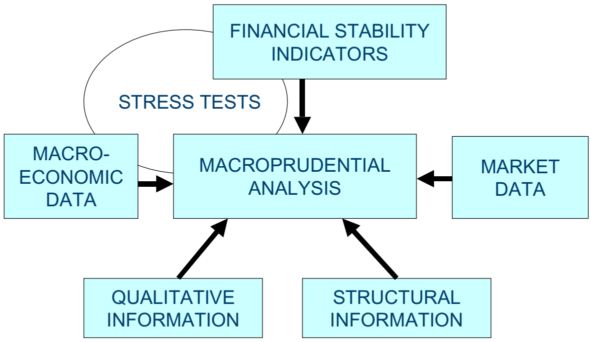


To prevent systemic crises, it is essential to identify and monitor particularly those factors that increase the financial system's vulnerability and exposure to shocks. Examples of these factors include an exceptionally strong economic upturn, robust growth in lending and a significant change in competitive conditions or in the regulatory and supervisory environment. Factors that may trigger shocks in the financial system include recession, abrupt changes in financial asset prices and pronounced increases in general uncertainty.

A third factor central to systemic crises concerns the propagation mechanisms for shocks. These are the channels through which the problems of a financial institution or market segment spread to the other parts of the financial system. Direct propagation mechanisms for shocks are financial interdependencies between financial institutions, which arise especially in connection with interbank transactions and banks' central role in payment and settlement systems. On the other hand, actions by market participants or customers may also cause shocks to spread from one financial institution or market segment to another, even in the absence of direct financial links.

One key aspect of macroprudential analysis is combining quantitative and qualitative information. Another aspect is aggregating information on the markets, overall economic developments and individual financial institutions (figure 3). Owing to the complexity of the subject matter, such analysis cannot be done mechanically.

Figure 3. **Information used in macroprudential analysis**



Source: IMF 2001.

An important tool in the Bank of Finland's macroprudential analysis is a bank forecasting model, which is used to forecast the profitability, capital adequacy and efficiency of the Finnish banking sector over a two-year horizon. Construction of the bank forecast model began at the Bank of Finland in early 1990s, to facilitate analysis of the banking crisis. Nowadays, the bank forecast is produced twice a year, in close connection with the Bank's macroeconomic forecast and in close cooperation with the Financial Supervision Authority.

In macroprudential analysis, it is much more important to conduct different types of sensitivity analyses and stress tests for the banking sector and the financial system as a whole than to produce point estimates for the bank forecast. Stress tests for the Finnish financial system were carried out eg in connection with the IMF's Financial

Sector Assessment Program (FSAP) for 2001. According to the assessment, the Finnish financial system was in sound condition.

Because of extensive structural changes in the financial markets, long-term scenario analysis of market trends and probable and potential structural changes has proved to be an important auxiliary tool in macroprudential analysis.

The Bank of Finland produces a number of regular internal reports and ad hoc studies for use in macroprudential analysis. Reporting transparency has also been clearly enhanced. Noteworthy here are the articles on financial stability published twice a year in the Bank of Finland bulletin. The article conveys to the public the Bank of Finland's assessment of the stability of the financial markets. The Bank also publishes separate articles on developments in the various segments of the financial markets, changes in regulation and supervision, and structural analyses. Analytical studies and reports appear in the Bank's publication series.

International cooperation

The home-country principle applied in financial supervision is one of the basic pillars of the EU's financial market regulation. Owing to the rapidly increasing international connections between banks, macroprudential analysis cannot be limited to national issues. Monitoring of the international financial system has been upgraded considerably over the last few years.

A significant part of the Bank of Finland's macroprudential analysis is carried out in the framework of the Banking Supervision Committee (BSC) of the ESCB and its working groups, in cooperation with the central banks and bank supervisors of the other EU countries and the ECB. The Governing Council of the ECB has defined two main practices with which the Eurosystem may support policies pursued by national supervisory authorities: cooperation between national supervisory authorities and active promotion of cooperation between national authorities and the Eurosystem. The main focus of the cooperation is on macroprudential issues concerning financial markets and systems.[6]

[6] If required, the EU Council may, under article 105.6 of the Treaty establishing the European Community and upon unanimous decision, confer upon the ECB specific tasks concerning policies relating to the prudential supervision of credit institutions and other financial institutions, with the exception of insurance undertakings.

The Banking Supervision Committee of the ESCB has developed a framework for the macroprudential analysis of problems and risks encountered by the EU area banking system. In addition, the Banking Supervision Committee monitors closely the development and risk positions of the EU area banking sector from a global perspective.[7]

Moreover, the Bank of Finland participates in international surveillance, notably via the IMF, OECD and BIS. The IMF contributes to developing macroprudential analysis of the financial sectors of the member countries through its FSAP programme, which is intended for implementation in all IMF member countries at intervals of about five years. Cooperation and exchange of information between the Nordic central banks is also extensive.

Participation in the development of regulation and supervision

Participation in financial market regulation and supervision is also part of the macroprudential tasks of central banks. The argument for central bank activity of this type is often based on the knowledge they obtain concerning the functioning of the markets in the course of pursuing their operational functions and on their extensive research work.

Apart from the oversight of payment and settlement systems, the Bank of Finland does not have formal regulatory or supervisory responsibilities. The Bank contributes to regulation and supervision mainly by issuing opinions and participating in various official working groups and other joint efforts. In addition, the Bank is represented on the boards of the Financial Supervision Authority and Insurance Supervision Authority. The main responsibility for the development of financial legislation is vested in the Ministry of Finance.

The ESCB contributes to regulation primarily via opinions issued by the ECB and initiatives taken up by the Banking Supervision Committee of the ESCB. Moreover, the Directorate General Research of the ECB conducts analyses that, besides stability issues, also deal briefly with regulation and supervision. Working together with ESCB and EU bodies enables the Bank of Finland to take part in the development of regulation and supervision at the international level. In this area, the key role is assumed by the European Commission's

[7] Several reports and analyses are published in the Monthly Bulletin of the ECB and as working papers.

Banking Advisory Committee (BAC), in whose work the Ministry of Finance, the Financial Supervision Authority and the Bank of Finland participate.

The Bank of Finland is also involved in the development of banking regulation and supervision organised by the BIS. In addition, the work done together with the Financial Markets Committee of the OECD and the IMF has interfaces with regulatory and supervisory development.

Participation in the development of the financial system

Owing to the relatively underdeveloped state of the Finnish financial markets and to financial deregulation, the Bank of Finland and other public authorities played active roles in developing the financial system in the 1980s and early 1990s. With the increased development of the financial markets, the need for active public sector involvement in the financial markets has now clearly diminished. The objective in all the development efforts is a market-based approach – intervention in market behaviour is warranted only if there is a distinct and justified need for public involvement (lack of markets, coordinator role, big risks, etc).

The Bank of Finland participates in the overall development of the financial system primarily from the perspective of enhancing stability and efficiency as well as promoting the functioning of the markets.

Crisis management

The Bank of Finland seeks to maintain confidence in the financial system without intervening in the functioning of the system. When instability threatens, the Bank may need to take a more active role in order to ensure the operational ability of the financial system. In the end, only the central bank can safeguard the liquidity of the financial system.

In serious crisis situations, the Bank of Finland participates in crisis management in cooperation with the other authorities. From the central bank's point view, the focus of attention must be on problems threatening the functioning of the financial system. The aim is to prevent a shock from spreading and leading into a systemic crisis, rather than to bail out individual institutions. Crisis management highlights the need for smooth cooperation between the authorities.

New challenges for cooperation

Macroprudential analysis conducted by the Bank of Finland provides information that may also be accessed by the other authorities for various purposes. Macroprudential analysis provides further material for decision-making by the authorities, ie central banks and those responsible for economic policy.

The Bank of Finland's activity in issues concerning the stability of the financial system is composed largely of influencing other authorities, market participants and the general public. The successful accomplishment of this task calls for knowledge of the current situation and future outlook of the Finnish banking sector and securities markets as well as the ability to disseminate this knowledge both at local and international level.

The introduction of the euro has, to a large extent, harmonised the financial system of the euro area. Pronounced structural changes in the financial sector have brought new challenges for macroprudential analysis. Cross-border mergers and other forms of cooperation have made it increasingly important for the authorities of different countries and sectors to work together in the this area. The Bank of Finland takes an active part in this cooperation.

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6.1.2 Oversight

Payment systems and securities settlement systems are central to operative financial markets and are cornerstones to the financial system. Oversight aims at supporting the stability, reliability and efficiency of the payment and settlement systems. The euro area's single currency and monetary policy, as well as the increasingly openlyintegrated financial markets require extensive consolidation of the systems, which in turn is reflected in the oversight function.

The Bank of Finland endeavours to ensure that risks associated with payment and settlement systems remain at an acceptably low level. The central bank's task is specifically to oversee payment and settlement systems in their entirety,[1] whilst the supervision of the risks of individual market participants falls within the purview of the Financial Supervision Authority (FSA). In order to improve the efficiency of the oversight function, a joint supervisory cooperation body with responsibility for the oversight of the payment and settlement systems, and that convenes on a regular basis, was established in 1999, between the Bank of Finland and the FSA.

One of the key tools available for the oversight function is the development of regulation and supervision. Under existing legislation, the Ministry of Finance must confer with the Bank of Finland and the Financial Supervision Authority on matters relating to the Finnish Central Securities Depository (APK) and on regulations concerning payment and settlement systems before ratification of these rules and regulations. The Bank of Finland's oversight includes requiring the operators of the payment and settlement systems to submit reports on any problems within the systems to the Bank, without delay. They are also required to submit regular detailed reports on the functioning of systems.

Difficulties experienced by one segment of the financial markets or by a single market participant may spread quickly via payment and settlement systems to the whole financial system and significantly impair the functioning of financial markets (systemic risk). Another danger is that risks and problems may be transmitted from country to country via international payment systems.

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[1] For more detail on the Bank of Finland's functions in payment system oversight refer, for example, to Leinonen – Pauli 1999.

The main objective of the oversight function is to prevent systemic risk from materialising (stability goal). In particular this is achieved through barriers limiting the spread of risks and risk surveillance. It is also important for oversight that the conditions for access to systems are open and equal and thus conducive to free competition (efficiency goal) and that the systems have a sound legal basis (reliability goal).

Oversight within the Eurosystem is divided into four main sectors: delineation of oversight policy, oversight policy implementation, continuous oversight as well as crisis and problem management. According to the agreed principles of the system, the delineation of the oversight policy and its contents are agreed on jointly within the ECB Governing Council. Oversight supports the efficient implementation of the Eurosystem's monetary policy operations. It also supports the stability and reliability of ESCB payment systems, and promotes the smooth functioning of the single market. The main forum for cooperation in the field of oversight within the ESCB is the Payment and Settlement Systems Committee and its working groups.

The central banks operate in cooperation with the banking supervisory authorities in their oversight activities. This was formalised in 2001, when the ESCB signed a Memorandum of Understanding on cooperation in supervisory activities with the banking supervisors of the EU countries. The primary aim of the agreement is to ensure the stability and reliability of the financial system.

Oversight of payment systems

The central bank's authority to oversee payment systems is laid down in the Treaty establishing the European Community and the Statute of the European System of Central Banks. In Article 105(2) of the Treaty on the EC, one of the basic tasks to be carried out through the ESCB is 'to promote the smooth operation of payment systems'. Article 22 of the Statute of the ESCB, the European Central Bank and the national central banks may provide the actual systems while the ECB may issue regulations on the maintenance of efficient and stable payment systems, both within the European Union as well as in relation to third countries. The Governing Council of the ECB defines the general principles of the oversight policies for both domestic and crossborder payment transfer systems.

Implementation of the oversight policies belongs to the national central banks when it is a question of domestic payment systems. According to Article 3 of the Act on the Bank of Finland, one of the

Bank’s main tasks is to contribute to maintaining the reliability and efficiency of payment and other financial systems and to take part in the development of these systems.

The Bank of Finland accomplishes its continuous oversight by monitoring the soundness of the payment transfer system based on the reports issued by the participating parties. All major banks operating in Finland are party to the interbank agreement on payments, which regulates the transfer of payments in the Finnish retail payment system PMJ and the POPS Finnish largevalue netting system for interbank express transfers and bank drafts. In December 1999 the Finnish Netting Act[2] entered into effect. This act implements the Directive on settlement finality in payment and securities settlement systems (98/26/EC)[3]. The provisions of this act require that payment systems and other settlement systems must have written rules covering the matters prescribed in the Act. From the oversight perspective, the most significant change that was connected with the Netting Act was the requirement that all systems referred to in the Act (POPS; PMJ, and the payment system services provided by the OKObank group and Aktia to their members) draw up written rules. These were then confirmed by the Ministry of Finance. The regulations define, for example, the point in time at which a system participant can no longer unilaterally cancel a payment order. This is important in the case of the insolvency of a participant.[4]

In addition, the Bank of Finland has assessed the domestic systems according to the principles laid down by the Bank for International Settlements (BIS) joint committee of the G-10 counties’ Committee on Payment and Settlement Systems (CPSS).[5] POPS, PMJ and the Bank of Finland’s BoF-RTGS fulfil the assessment criteria and have been allocated the SIPS (Systemically Important Payment Systems) classification. Within the ESCB there have also been discussions concerning the setting of standards relating to the oversight of small payments.[6] The role of the Eurosystem in matters relating to small-value payment systems continues to increase, while the Eurosystem emphasises the creation of clearly efficiency and security-biased objectives within the small-value, euro denomination payment

[2] 1084/1999.
[3] Settlement finality (98/26/EU).
[4] Bank of Finland 2000, 2001.
[5] BIS 2001.
[6] The Eurosystem is currently finalising its supervision policy concerning payment systems handling small payments. The draft document ‘Oversight of euro-denominated small-value payment systems’ was circulated for comments, until 30 September 2002.

systems and the payment methods and means by which these payments are made. The purpose of the expectations is to promote the formation of a common, euro-denominated payment zone.

In its oversight role the Bank of Finland has been actively involved in co-operating with the market participants in a clearing and settlement system steering committee (MJO), established in 1995, and a cooperative forum, the payment systems cooperation group (MJY). In spring 2001 Bank of Finland participated in a working group of representatives from various banks, called by the Finnish Bankers' Association, to determine and measure the risks related to clearing and payment systems. In addition to which, the Bank of Finland, as overseer, holds regular supervisory meetings with Automatia Electronic Purse Ltd.

Recently, the cooperation on payment systems involving the FSA has concentrated mainly on examining the risks associated with the Finnish payment systems and the compilation of their findings for publication. In autumn 2002 a descriptive survey on the oversight of the payment systems and the risks inherent in the systems was published[7]. In addition to which, the Bank continuously monitors and analyses the actions and structural development of the payment system sector.

In 2000, the Governing Council of the ECB adopted the policy statement on payment systems oversight principles[8] drawn up by the Payment and Settlement Systems Committee and applicable both to systems used for domestic and for cross-border payments. Oversight policy covers issues such as efficient implementation of monetary policy, financial stability, competitive neutrality and cross-border payments within the EU and with third countries.

The main responsibility for the oversight of international payment systems in the euro area rests with the national central bank of the country whose national legislation is applicable to the system, unless the features of the system give the Governing Council reason to decide otherwise. An example of this is the ECB bearing responsibility for the oversight of the EURO1 payment system, operated by the Euro Banking Association (EBA), as provided for by the provisions of the Maastricht Treaty.

The September terrorist attacks of 2001 forced attention to be focused on the importance of the oversight of payment systems, regardless of the relatively insignificant effect the attacks had on

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[7] Iivarinen – Leinonen – Lukka – Saarinen (Due to be released in the near future).

[8] ECB 2000.

payment systems in the euro area. An inquiry into increasing the effectiveness of the oversight function and reducing the potential effects of an equivalent disturbance or crisis has been initiated within ESCB circles.

Finnish payment systems were also examined under the Financial Sector Assessment Programme[9] (FSAP), launched as a joint project of the international Monetary Fund and the World Bank. The purpose of the assessment was to evaluate the risks to the Finnish payment systems, and their observance of international standards and codes of practice. The Finnish payment systems cleared the assessment without comment.

Oversight of the securities settlement systems

Generally, systems referred to as securities settlement systems are those handling both the clearing and settlement of securities trading. Oversight of the securities settlement systems (SSS) is based on the national legislation of the euro area countries. As a user of the securities settlement systems, the ESCB has nevertheless set minimum standards[10] for the systems and the links that exist between them, which are applied in the execution of monetary policy as well as in the delivery and custody of collateral for central banks. Compliance with the standards is monitored regularly by the ESCB. While the oversight of settlement systems is largely oriented towards the users' perspective, the oversight of clearing systems approaches from the point of view of maintaining stability and developing the marketplace. There have been discussions within the ESCB on the drawing up of an equivalent document on the principles of oversight, as already exists concerning payment systems.

There has been a notable growth in the significance of the securities market as related to international financial markets due to the integration that is currently taking place. With the realisation of this has come an increased interest by the central banks on the influence of clearing and settlement systems on both payment systems and the implementation of monetary policy as well as on general financial stability as much as on systemic risk and efficiency, particularly as regards cross -border operations.

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[9] IMF 2001. The Finnish report is based on the FSAP assessment, undertaken by the IMF at the start of 2001.

[10] EMI 1998.

The Bank of Finland is responsible for the reliable functioning of the entire financial system, a role that can be regarded as covering securities clearing and settlement systems. The Bank of Finland supervises and monitors the activities and systems of the Finnish Central Securities Depository (APK)[11] under the auspices of its role as overseer and user of the systems, for example by holding regular supervisory meetings and based on reports issued by the APK. Additionally, the Bank of Finland monitors and analyses the transactions and structural developments of the entire sector. Part of the work in this field is carried out by the ESCB's Payment and Settlement Systems Committee and its working groups.

The Bank of Finland undertakes active supervision in cooperation with the Financial Supervision Authority, thus bringing about development of the securities settlement systems. In September 2001, the FSA called together a clearing and settlement system steering committee (SJO) as well as a working group of experts in settlement systems (SJA) to work for the committee. Market participants were also invited to participate in the groups. The objective is both to develop securities settlement systems as a whole, to control settlement system risk and to promote the introduction of international minimum standards. The Bank of Finland has been involved in the operations of both bodies.

Behind oversight and supervision functions at the international level, are the recommendations on securities settlement systems that were published by a joint committee of the G10 countries' Committee on Payment and Settlement Systems (CPSS) and the technical committee of the International Organisation of Securities Commission (IOSCO), in November 2001[12]. The recommendations of the Committee and IOSCO are incorporated in the financial market assessments within the IMF's country reports. The recommendations serve as a basis for the Committee of European Securities Regulators (CESR)[13] and the ESCB cooperation relating to the European securities clearing and settlement systems. One objective of the cooperation is to examine whether parts of the euro area require stricter standards than those recommended by the Payment and Settlement Systems Committee and IOSCO, as well as bringing about

[11] For further details on the activities of the APK see the 'Securities settlement systems' section of this book.

[12] Committee of Payment and Settlement Systems (CPSS), International Organization of Securities Commissions (IOSCO) 2001.

[13] Committee established by the European Commission, 2001.

a framework of standards and recommendations governing the European settlement and delivery systems.

Preparation of oversight policies involves delineation of the common principles (ECB), which is then effected at national level via the Member States' own payment and settlement system institutions. It is clear that the future need for oversight will increase in the payment and settlement systems sector at both national and particularly at international levels as integration of the financial markets progresses[14].

[14] For further details, see, for instance, Ripatti 2001.

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Financial Supervision Authority, prudential supervision

6.2 The Financial Supervision Authority's role and responsibilities in the supervision of the Finnish financial system – the supervisor's perspective

6.2.1 Supervisory objectives and responsibilities

The primary objective of financial market supervision is to ensure financial stability. An integral element of this is supervision of the capital adequacy and risk-taking of individual institutions. In terms of financial stability, the key concern is systemic risk, which may materialise as a disruption of either institutions or the payment system. Promoting confidence in financial markets is another key supervisory objective. This highlights aspects of both customer and investor protection, including supervision of the code of conduct for contacts between service providers and their customers, ensuring access to adequate and accurate information for decision-making purposes, as well as prevention of abuse by market participants.

There are in principle three kinds of responsibilities in the context of financial supervision: a) enhancement of customer and investor protection, which mainly involves regulation and supervision of good banking and securities market practices and ensuring that customers and investors have adequate access to information, b) micro supervision, which refers to supervision of the credibility, risk exposures and capital adequacy of individual credit and financial institutions and c) macro supervision, which is designed to assess overall financial stability (control of systemic risk) and to monitor risk factors inherent in macroeconomic and financial market trends and market infrastructure.

In the early years of financial market legislation, public supervision of financial markets was primarily accounted for by the need to safeguard depositors' interests. The present understanding is that financial stability and financially sound institutions provide the best guarantee for depositors, too. In addition, there are deposit guarantee schemes designed to provide protection to individual depositors in the event of the insolvency of a credit institution.

In Finland three authorities are charged with supervisory responsibilities. The Ministry of Finance is responsible for legislation, crisis management and safety networks; the Bank of Finland attends to financial market oversight and the supervision of payment systems;

and the Financial Supervision Authority (FSA) supervises markets and market participants and promotes access to information and good market practices.[1]

The FSA's operating principles

The FSA's activities are designed to promote financial stability and confidence in the behaviour of supervised entities and financial markets. Under section 4 of the Act on the Financial Supervision Authority, the FSA has the duty to ensure that the supervised entities operate in accordance with the Acts and decrees, the regulations and guidelines issued by authorities and its own Articles of Association, bylaws or regulations. Within the limits of its statutory powers, the FSA is required to issue regulations and guidelines to the supervised entities and perform inspections of them. The FSA's responsibilities also include monitoring conditions in financial markets and proposing appropriate measures in response to such conditions. This section of law provides that the FSA must work in cooperation with the Insurance Supervision Authority and other authorities involved in the supervision of financial markets. Chapter 3a of the Act also obliges the FSA to cooperate with the supervisory authorities of the member states of the European Economic Area in the inspection of branches of Finnish credit institutions established in an EEA member state, and branches of credit institutions authorised in an EEA member state and established in Finland.

The FSA's vision reads: 'The FSA – a market-oriented and proactive supervisor'. In its market-oriented and proactive approach to regulation, the FSA highlights the accountability and transparency of individual market participants and the exercise of discretion by the supervisor, within the limits of generally recognised rules of conduct. In this context, adoption of a market-oriented approach especially means the following three things:

– *Supervised entities take primary responsibility for their own behaviour,* which provides the basis of financial market stability

[1] The predecessor of the FSA was the Banking Supervision Office, which was established in 1922 and operated under the auspices of the Ministry of Finance. In 1993 the Banking Supervision Office was reorganised and renamed the Financial Supervision Authority (FSA). The FSA is connected administratively with the Bank of Finland. For an account of the FSA's activities, see also its Annual Report 2001.

- *Market discipline enhances supervised entities' own responsibility.* Market discipline, which refers to the ability of investors to make informed and rational investment decisions affecting the behaviour of companies, requires well-functioning competitive markets, sound providers of financial services, and adequate disclosure and transparency of information.
- *Public supervision promotes and complements market discipline and the supervised entities' own responsibility,* but does not in any circumstances replace them. As part of its own role, the FSA advocates the proactive approach to supervision.

Proactive supervision means that the supervisor identifies general and specific problems as early as possible and takes appropriate action in a timely and credible fashion. Proactive supervision does not mean that the supervisor is able to foresee or prevent all financial market disruptions, let alone specific problems of individual supervised entities. The objective of proactive supervision is rather to ensure that disruptions do not take on such proportions as to pose a threat to financial stability and credibility.

The FSA's strategies:

- To foster *market access to information and sound market practices* in cooperation with domestic and foreign stakeholders. The FSA seeks to ensure that supervised entities publish material and adequate information on their activities, in accordance with international recommendations. The FSA also sees to it that offerers of securities and listed companies comply with information disclosure requirements. The FSA promotes good market practices both through direct guidance and by publishing its own supervisory measures, statements of opinion and general observations made in the course of inspections.
- To promote *the structural efficiency and reliable functioning of markets and good corporate governance practices in supervised entities*. Supervision mainly focuses on risk-prone institutions and systems of key importance for market stability and efficiency. The FSA contributes to good corporate governance in supervised entities, being particularly concerned with the effectiveness of internal control and risk management systems. The FSA upgrades cooperation with other supervisory authorities and improves supervisory measures in line with the requirements of proactive supervision and international recommendations.
- To foster *a supervisory and regulatory framework based on discretion, transparency and accountability*. The FSA actively

contributes to the harmonisation of legislation and procedures at EU level and, in its own activities, observes the requirement of supervisor accountability associated with proactive supervision. Self-regulation of market participants is promoted with a view to reducing the need for detailed legislation.

The FSA's organisational values are independence, openness, productivity and professional skills.

Market developments pose challenges

The declining importance of traditional lending, the globalisation of the financial and insurance business and more effective risk management and use of capital have precipitated significant structural changes in the banking and insurance sector both at home and abroad. The arrangements for mergers and closer cooperation are prompted not only by changes in the operating environment but above all by tightening competition for households' financial wealth. These developments have also induced cross-sector activities.

Only companies with the appropriate authorisation may provide financial and insurance products at their own risk. Thus significant expansions of product range have often meant that banks had to establish separate insurance companies as their subsidiaries. For the sake of flexibility and cost efficiency, groups also have set up their own fund management companies to carry on mutual fund business. Banks and insurance companies have also entered into cooperation agreements on the provision of each other's products from their respective branch offices. This trend culminates in the emergence of financial conglomerates, created for example through acquisitions.

Mergers of financial and insurance companies into financial conglomerates have made for more effective sharing of distribution channels and concentrated provision of similar services by the two sectors. Mergers between banks and insurance companies and other cross-sector cooperation are designed to guarantee adoption of the 'full-service principle', ensuring continuity of the customer relationship, irrespective of whether customer funds are invested in insurance, deposits or other financial products. Furthermore, major cost savings have been achieved through the sharing of distribution channels, as it has been possible to downsize branch networks by removing overlaps. However, packaging of the services provided by different parts of a financial conglomerate impairs comparability of products and transparency of pricing.

Electronic provision of financial and insurance services is becoming increasingly widespread, with Internet banks being perhaps the extreme case in point. There are several separate distribution channels allowing for flexible provision of these products. Use of an agent and outsourcing of major functions have been resorted to increasingly in recent years, but these new forms of service provision are generally not accounted for in existing regulations. As a consequence of these developments, ensuring there are no omissions in regulation and supervision poses an ever-increasing challenge.

The introduction of electronic financial services also facilitates cross-border provision of services. Cross-border mergers and acquisitions are increasingly resorted to as a means of gaining a competitive edge, eg through risk diversification and guaranteed growth prospects. These are favourable developments as regards the single European financial market. However, legislators and supervisors are faced with the challenge of ensuring a level playing field for all participants in a situation where there is still considerable divergence of national regulations eg concerning supervision, customer protection and taxation of financial services.

The European response to the challenges

EU level supervision is based on the principle of home country control. However, considering that legislation (directives) is drafted at EU (or rather EEA) level, as well as the conduct of supra-national monetary policy in the euro area, the feasibility of the home country control rule has been challenged, especially against the background of the growing trend towards cross-border mergers and multinational financial conglomerates. The competitiveness and efficiency of European financial markets is also adversely effected by national differences in regulations and supervisory practices and by the slow process of amending directives.

The Committee of Wise Men, also known as the Lamfalussy group[2], has put forward a proposal for a more flexible EU regulatory framework for securities markets to ensure that also the financial sector will gain from the benefits of the single market. This would entail wider reliance on the comitology procedure, which means that the directives would merely set out the key principles, whereas implementing rules would be contained in lower level regulations that

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[2] Lamfalussy et al 2001.

could be amended in the course of committee work and consultations. Implementation of the scheme proposed by the Lamfalussy group has been slowed by a disagreement among EU institutions on the role of the European Parliament in the comitology procedure. A similar framework has also been suggested for the banking sector as regards implementation of the New Capital Accord prepared by the Basel Committee on Banking Supervision.

Both of these proposals for framework legislation involve closer cooperation among supervisory authorities in moving towards convergence and gradual harmonisation of national regulation and supervision. Closer cooperation between authorities and gradual harmonisation of supervisory practices was also called for in the reports[3] on financial stability and crisis management in the EU prepared by the Brouwer working group and commissioned by the European Economic and Financial Committee at the request of ECOFIN.

6.2.2 The FSA as an organisation

The Financial Supervision Authority was established in October 1993 to carry on the activities of the former Banking Supervision Office and oversight was at the same time transferred from the Ministry of Finance to the Bank of Finland. The new authority was to be independent of the central bank in operational decision-making but administratively connected. The transfer, including the actual transfer procedure, was motivated by the banking crisis, above all by the need to strengthen financial supervision in order to prevent financial system problems from fomenting systemic risk. The central bank plays a key role in the overall supervision of financial markets in that it is responsible for the oversight of financial stability and for the supervision of the effectiveness and stability of payment and settlement systems. Close integration of oversight and prudential supervision was believed to entail synergies. Both the Bank and the FSA have flexible access to supervisory information and information on the structure and development of financial markets, which considerably enhances the quality and effectiveness of financial market supervision.

Being part of the Bank’s administrative structure brings the FSA another major advantage in the form of efficiency gains. The FSA

[3] European Commission (2000, 2001).

does not have its own administrative infrastructure but purchases from the Bank of Finland all administrative services, including IT maintenance services, purchasing services, real estate and security services, accounting, invoicing of supervision fees, personnel administration, publication and language services, training and research and the internal audit. Because of the FSA's administrative dependence on the Bank of Finland, its annual budget is submitted to the Bank's board for approval. The FSA finances its operations by levying supervision fees on supervised entities and issuers of securities.

At the end of 2001 the FSA had a staff of 125 persons, of whom 113 had permanent positions. A total of 56 employees worked in the Credit Institutions Department, 37 in the Capital Markets Department, 27 in the Support Services Department and 5 on the Director General's staff. The share of experts in the FSA staff was about 80%.

The Act on the Financial Supervision Authority stipulates that the FSA is to direct and supervise the activities of the savings bank inspectorate. The FSA, for example, defines the key areas of supervision entrusted to the savings bank inspectorate, exchanges information on the condition of savings banks and organises training courses. The cooperative bank inspectorate falls within the inspection services of the OKO Bank Group Central Cooperative and is responsible for supervising member cooperative banks, while the Group Central Cooperative is supervised by the FSA. The FSA reviews the reports of the cooperative bank inspectorate and makes its own inspections of member cooperative banks.

Administration

The FSA is a monocratic organisation, with the responsibility for operations resting with the board and the director general. Some responsibilities related to the FSA's administration have also been assigned to the Parliamentary Supervisory Council.

The Parliamentary Supervisory Council appoints the FSA's three board members and their personal deputies on the basis of the proposal of the Bank of Finland, the Ministry of Finance and the Ministry of Social Affairs and Health. The Council also appoints the chairman and deputy chairman of the board and, on the basis of the board's proposal, a deputy to the director general. It further confirms the FSA's rules of procedure on the basis of the board's proposal and decides on matters related to the employment contract of the director general.

The FSA's board comprises the director general of the FSA, the director-general of the Insurance Supervision Authority and representatives from the Ministry of Finance, the Bank of Finland and the Ministry of Social Affairs and Health. The board's duties include to confirm supervisory guidelines for the FSA concerning matters that are significant or important in principle or far-reaching from the point of view of supervision or that are otherwise of general significance. It also confirms those regulations and guidelines to be issued to the supervised entities which the board has not submitted to the director general for confirmation. The board decides on the supervision fees and works to enhance cooperation between the authorities involved in the supervision of financial markets and confirms the principles of cooperation with the Insurance Supervision Authority. It also decides on matters concerning the FSA's internal administration as stipulated in the rules of procedure. The board reviews the FSA's annual budget and provides the members of the Parliamentary Supervisory Council with the annual report on the FSA's activities. It also orders payment of conditional fines imposed by the FSA and decides on those far-reaching and important matters of principle which the director general submits to it for consideration. The board cannot itself require that a matter be submitted to it for consideration; this is for the director general to decide in the case of matters other than those expressly set out in law.

The FSA is headed by the director general, who is vested with the FSA's decision-making authority. The duties of the director general include all such matters as have not been expressly assigned to the board. The director general bears responsibility for ensuring that the FSA performs its tasks in an efficient, economical and appropriate manner.

The director general is assisted by an advisory management group which reviews the matters concerning the FSA's activities and the general guidelines for improvements before they are submitted for consideration to the director general or the board. The management group also reviews the matters which are important or far reaching in principle, as well as the FSA's action plan and annual report and related key issues.

6.2.3 Areas of supervision

Corporate governance[4]

The supervisory approach of the FSA is based on the idea that supervised entities take primary responsibility for their own behaviour. It is therefore crucial to ensure that supervised entities are managed in a professional manner and that they have in place business principles and practices of high ethical and professional standards.

Exercise of sound corporate governance promotes the stable development of the financial system and improves its economic efficiency. Sound corporate governance practices in supervised entities and financial markets also promote the efforts of the supervisor to ensure the sound operation and stability of credit institutions. Public supervisors therefore have a definite responsibility to see to it that supervised entities have in place corporate governance practices that are based on sound and transparent business and monitoring principles. It is of utmost importance for supervision that supervised entities set strategies for their operations and establish accountability for the execution of these strategies. The provision of adequate and transparent information on the organisation and on decisions and actions is integrally related to accountability.

Supervision and regulation of the company's corporate governance practices starts with the application for authorisation to engage in the provision of financial services[5]. Entry control, ie regulation and supervision before business start-up, is designed to ensure ex ante that financial market operations are only carried on by corporations with duly qualified and reliable management and the appropriate information systems. Entry control is also necessary for ensuring that the company has in place corporate structures and business practices that are transparent both to the markets and to the supervisor.

The FSA requires that applicants provide specific information on future business activity, capital adequacy, profitability, internal control processes, owners, management, directors and managers and other issues on the basis of which it will assess whether the criteria for authorisation are met. The corporation must continue to meet the criteria for authorisation as long as it remains in business.

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[4] The term *corporate governance* can be defined as involving a set of relationships between a company's management, its board, its shareholders and other stakeholders in the conduct of the company's business.

[5] The Ministry of Finance grants these companies authorisation but the FSA is responsible for the review of compliance with the authorisation criteria.

The FSA takes the approach that the executive bodies have special responsibility for ensuring that the company has in place sound corporate governance practices and a transparent organisational structure and that there is a clear division of duties and responsibilities between board and senior management and comprehensive internal control processes. The management of the company must therefore meet strict fit and proper criteria.

The FSA also emphasises the importance of supervised entities' own internal control processes. Supervised entities are required to have an organisational structure with a built-in system of adequate checks and balances to support operations and the decision-making process. Companies must have effective internal control and information systems to ensure that the board of directors and the chief executive can meet their corporate governance responsibilities. Internal control also involves the requirement to document decisions and the agreed division of responsibilities.

Capital adequacy and risk management

The FSA's regulations on capital adequacy and risk management are designed to ensure that

a) credit institutions and investment firms have the capital required for covering the risk exposures in their activities
b) risk management and internal control of supervised entities are adequate in relation to the character and scope of their activities.

The objectives are based on the Core Principles for Effective Banking Supervision put forward by the Basel Committee on Banking Supervision (Basel Committee)[6]. In addition, the Basel Committee has published a New Capital Accord providing recommendations for capital adequacy and risk management, the recommendations of which form the basis for the EU directives on capital adequacy. The International Organisation of Securities Commissions (IOSCO)[7] has also issued international standards on the risk management of investment firms. An internationally approved methodology for risk management forms the cornerstone of these recommendations, which lay down a minimum requirement for the activities of supervised

[6] Basel Committee on Banking Supervision (1997).
[7] IOSCO, 2002.

entities. In this way it is ensured that the activities of these entities adhere to sound practices and do not jeopardise financial market stability.

According to the Basel Committee, the supervisor must set a capital adequacy requirement for all banks. The minimum capital requirement is necessary in order to reduce the risk of loss to depositors, creditors and other stakeholders. Under the current provisions, banks' capital must represent 8% of risk-weighted items.

Under the New Capital Accord, which is to enter into force at the end of 2006, supervisors are required to set individual capital adequacy requirements for all banks. The requirement for a bank should reflect its overall risks. The supervisor must also define the components included in the capital, taking into account how well they can absorb losses. In addition, the supervisor should prepare an assessment of the adequacy of the bank's capital relative to its level of risk exposure and the quality of internal control and risk management systems. If necessary, the supervisor should also require the bank to increase its capital.

The analysis and planning of current and future capital needs in light of the supervised entity's strategic goals play an important role in the entity's monitoring and control system. The capital adequacy ratios must be appropriate to ensure smooth operation under different conditions.

The FSA's assessment of supervised entities' capital level, capital adequacy, internal control and risk management is key to its supervision of institutions. The FSA assesses supervised entities' capital strategies, risk taking, calculation of capital adequacy, and adequacy of internal control and risk management. In addition, the FSA assesses whether supervised entities can guarantee that they meet the stipulated capital adequacy requirement. The rules and regulations on capital adequacy and risk management form the foundation for supervision and the basis on which the FSA seeks to identify the problems of the supervised entities as early as possible. If, for example, there is a risk that the capital level will fall below the required minimum level, the FSA presupposes that the supervised entity will begin to take corrective measures.

Supervision of the code of conduct

In regulating conduct for the provision of financial services, the objective of the FSA is to promote freedom to provide services and high levels of customer and investor protection and thereby enhance customer's and investors' confidence in the financial markets and entities operating in the markets.

Providers of financial services must at all times observe the generally accepted code of conduct. This will promote and maintain the integrity, transparency and impartiality of the markets and equal opportunities for all participants. Compliance with these principles requires that a financial service provider:

– act honestly, fairly, professionally and carefully in the best interest of its customers and the integrity of the markets
– seek from its customers information regarding their financial standing, experience and objectives as regards the services requested
– make adequate disclosure of relevant material information on which customers can base their decisions
– attempt to avoid conflicts of interests and, when they cannot be avoided, ensure that its customers are fairly treated
– c omply with all regulatory requirements applicable to the conduct of business and, when rules are inadequate, act in compliance with underlying principles and generally accepted practices so as to promote the best interest of customers and the integrity of markets.

The FSA's monitoring of compliance with rules of conduct focuses on practices and procedures applied in dealings with customers. Hence, supervised entities are required to observe at all times the prevailing code of conduct for the financial markets. Confidence in the financial markets can only be enhanced and maintained if customers are convinced that supervised entities apply sound practices in their marketing activities, application of contractual terms and other dealings with customers.

Compliance with clear rules of conduct in the market facilitates participants' activities and decision-making. Moreover, conflicts are less likely to arise. Compliance with uniform rules also promotes a level playing field.

The FSA's issue and compliance monitoring of rules of conduct also safeguard confidence in the efficiency and impartiality of markets. There is free entry to impartial markets. In impartial markets, everyone has equal opportunity to obtain information on financial services and investments. By issuing and monitoring compliance with the rules of conduct, the FSA thus also seeks to prevent problems of imperfect and asymmetric information.

Freedom of choice enhances the efficiency of markets as they become more flexible and hence more competitive. It also guarantees that prices are formed in conditions of effective competition.

Product comparability is an important factor affecting buyers' decisions and competition. Customers must be able to compare different products and services, especially in terms of prices, yields and risks. Customers must therefore be provided with timely, adequate, relevant and accurate information on services offered and risks attached to different types of investments, and the information must be readily available at all times. In addition to customer protection, dissemination of information also facilitates competition in the financial markets.

The FSA's rules of conduct stress that a service provider must inform the customer of the risks associated with services offered and enter into a signed written agreement with the customer setting out the parties' rights and obligations. Agreements must also be reasonable in the sense that balance is maintained between rights and obligations.

Service users should keep in mind that the FSA, in regulating market conduct, affects the markets as a whole. Hence, FSA measures cannot ensure specific outcomes. Customers themselves are always responsible for their choices of financial products or services.

Market supervision

The FSA's regulations on disclosure of information (disclosure requirements) and overall market transparency are designed to reduce the problem of incomplete and asymmetric information, promote the reliable functioning of markets, improve the protection of investors and users of financial services and thereby instil confidence in the effectiveness and impartiality of markets. Together with upholding the rules of conduct, these regulations are designed to ensure that investors bear only the investment risk and not risks inherent in the service provider or trading system.

Public and transparent information refers to information that is

- continuous
- reliable
- comprehensive
- timely
- accurate and
- comparable.

The availability of public and transparent information is a key condition for market discipline. Disclosure of information also serves the information needs of the general public. Market discipline includes two related aspects

– rational decision-making and
– the operational implications of investment decisions.

Rational decision-making refers to the ability of investors to make informed investment decisions. This requires access to adequate, material and timely information on the company's operations, capital, performance, risk sensitivity, risk management system, management and other relevant factors.

Investors' sales and purchase decisions as well as lenders' credit decisions are reflected in the pricing and availability of financing and thus affect the company's behaviour and prompt it to take action to prevent developments that might be detrimental to itself (direct impact). To both market participants and the authorities, market prices may signal a deterioration of the company's financial position and may thus indirectly result in corrective action (indirect impact).

The FSA has the following responsibilities for improving market access to information and enhancing market transparency

– to decide and develop information disclosure obligations and related practices
– to regularly inform the market of key financial figures (aggregate data) related to supervised entities and, to the extent possible, provide the market with other detailed information on supervised entities that will promote the stability, reliability and effectiveness of markets
– to monitor compliance with disclosure requirements.

The FSA's regulations on disclosure requirements are designed to promote access to information (objective of complete information) and foster market discipline and consequently the effectiveness of the financial system and financial and securities markets. Continuous provision of high quality information strengthens the ability of market participants to distinguish between highly risk-prone vs sound credit institutions and investment firms and enables timely introduction of corrective market disciplinary measures. Provision of information and the related regulations also have implications for market stability, in that accurate and timely information better equips market participants to monitor companies' operations over the long term and is thus likely to prevent panicked responses (eg sudden withdrawal of assets from bank accounts) by participants who have only random information to rely on.

The FSA regularly publishes key financial figures (aggregate data) for credit institutions, investment firms and other supervised financial market participants, as well as other important details on supervised entities' financial position and business operations. The information published by the FSA better equips investors and users of financial services to assess the financial position of companies (safety and soundness).

As part of its compliance monitoring of statutory disclosure requirements, the FSA seeks to ensure that the disclosure of information fulfils, as well as possible, the qualitative criteria involved.

6.2.4 Practical supervision

Institution supervision

The FSA's key supervised entities are credit institutions, the stock exchange, clearinghouses and investment firms. In the course of practical supervision, the FSA assesses their financial standing, risk position, risk-bearing capacity and risk management systems. From a broader perspective, institution supervision also includes supervision of market infrastructure, including securities trading and settlement systems.

The FSA's practical supervision comprises continuous monitoring and on-site inspections. Continuous monitoring refers to the monitoring of activities and financial standing of supervised entities eg by analysing their regularly submitted reports and conducting supervision visits.

Continuous monitoring is supported by on-site inspections, which enable the supervisor to thoroughly assess the effectiveness of supervised entities' internal control and risk management.

Comprehensive inspections enable comprehensive assessment of supervised entities' financial standing, risk exposures and risk management, as well as the legality of their operations. Comprehensive inspections are generally undertaken only for small and medium-size supervised entities.

Thematic inspections concentrate on a particular function and often involve several supervised entities. These 'priority inspections' focus on areas specified in connection with action planning. Most

FSA inspections of major supervised entities are undertaken as thematic inspections.

Supervision is teamwork. One single assignment or inspection may involve experts of different groups, departments or other authorities. Prioritisation and coordination of supervisory tasks and resource allocation are undertaken in light of supervisory priorities defined in the process of action planning.

The FSA focuses its resources on the supervision of areas entailing the major potential risks to market stability (risk-oriented supervision). In this approach, appropriate risk identification plays a key role. The risks may be specific to individual supervised entities or may result from the pressure for change facing all supervised entities as a consequence of environmental changes. To facilitate risk identification, the FSA annually prepares a risk assessment report for all major supervised entities. Such a 'critical assessment' comprises a general scenario analysis and specific information obtained in the course of continuous monitoring and on-site inspections of individual supervised entities. The critical assessment represents a combined view of FSA inspectors as to the entity's operating prospects, risks and financial standing.

Payment systems oversight

The FSA supervises the transfer of interbank and customer payments by banks participating in payment transmission systems. Inspections of payment systems are undertaken to assess supervised entities' payment transfer strategies and objectives and the organisation and functioning of payment systems, including related risk management. Inspections do not generally reach to the product level but are more process oriented. The aim of an inspection is to obtain an understanding of the entire process of payment transmission, including related controls.

Payment systems oversight is based on on-site inspections of major banks, complemented by the banks' own reports. Inspections focus on interbank payment systems and related IT and internal control systems, particularly the risks inherent in payment transmission, as well as banks' own risk assessments and analyses and related risk management methods. Banks must be able to produce assessments of legal risks associated eg with payment transmission contracts, payment transmission legislation, and regulations issued by the authorities. Banks must also have in place backup and contingency plans as a precaution against possible disruptions and system failure (eg fires or bomb threats).

All new payment service products and related risks are subject to advance inspection by the FSA before they are offered to the public. Especially the standard terms of payment service products and changes therein are subject to advance approval by the FSA.

Securities market supervision

In the supervision of securities markets, the FSA focuses on maintaining market integrity. To this effect, the FSA supervises market practices, monitors issuers' compliance with information disclosure requirements, and investigates cases of suspected abuse of inside information, market manipulation and other securities market offences. The FSA also seeks to promote the smooth and reliable functioning of securities trading and clearing and settlement systems. The FSA pays attention to the conduct of supervised entities in financial markets by monitoring their marketing practices and standard contract terms.

With a view to ensuring investors' access to information, the Securities Markets Act sets out provisions on the information disclosure obligation applicable to securities issuers, the compliance monitoring of which is the responsibility of the FSA. The disclosure requirement refers to information that may have an impact on the value of the securities. Disclosure here means provision of information to the stock exchange and the appropriate media at the same time and without undue delay.

Issuers of publicly traded securities are required to publish their financial statements, financial statement announcements and interim reports. However, issuers of bonds are not obliged to prepare interim reports. Securities issuers are also required to provide information on matters that have a material impact on the value of their securities, such as major acquisitions, decisions on dividends or share issues and organisational changes. A disclosure obligation arises when the company has taken a decision or has been informed of a matter covered by the information disclosure requirement.

Issuers of securities must prepare offering prospectuses or listing particulars containing adequate details to enable investors to make informed assessments of securities and issuer. The FSA reviews the prospectus or listing particulars to ensure that the contents comply with legal requirements and approves them before they are published, but does not take any responsibility for the accuracy of the contents.

Investigations of insider trading are conducted in order to explore abuse of inside information in securities trading and identify the guilty parties, if any. Besides clearly suspicious transactions, also other transactions, such as major acquisitions, that are presumed to involve significant inside information and large numbers of insiders are investigated. The FSA receives tips on suspicious transactions from the stock exchange, market participants, the media, individual investors and foreign supervisory authorities. Investigators have access to a monitoring system employed eg to spot anomalies and identify securities intermediaries participating in the transactions.

One of the objectives of the insider investigations conducted by the FSA is to determine where the inside information originates and how widespread it has become. The company is requested to provide details of all those persons who have been involved in the matter under investigation (project-based insider register), as well as on the dates when these insiders received knowledge of the matter. The FSA has a statutory right to obtain information on the principals of the transactions. Where necessary, the FSA will contact foreign supervisory authorities for information on foreign owners registered under the name of a nominee.

On the basis of the findings of an investigation, the FSA assesses whether there are grounds to suspect a violation of the prohibition against abuse of inside information and, if so, refers the case to the police for investigation.

Anti-money laundering measures

In the context of anti-money laundering, the FSA focuses on measures to prevent money laundering. The FSA monitors that supervised entities consistently observe practices required by law by making inspection and supervision visits to review their anti-money laundering practices. These visits are designed to ensure that supervised entities have in place processes and internal risk management and control systems that enable timely identification and prevention of both internal and external criminal activities.

The FSA is obliged to notify the Anti-Money Laundering Clearing House, which operates in conjunction with the National Bureau of Investigation, if it is suspicious as to the legal origin of assets related to supervised entities' operations.

Supervision of financial conglomerates

The banking and insurance sector has undergone major structural change during the past few years. In response to market developments, harmonisation of certain products and closer sharing of distribution channels, the distinction between traditional banking and insurance businesses has become blurred. In a financial conglomerate, risk assessment covers the whole conglomerate and is not confined to individual members. The FSA and the Insurance Supervision Authority (ISA) have intensified their cooperation to ensure that no omissions occur in conglomerate supervision.

Financial conglomerates have implications both for money and capital markets and for payment and settlement systems. The operations and risk taking of a financial conglomerate constitute a comprehensive and multi-layered entity. The conglomerate structure may reduce costs arising from risk realisations in the banking and insurance sectors, as a cross-sector conglomerate is likely to have a more solid capital base than that of the separate companies.

Financial conglomerates are nevertheless often so large that the spread of their financial difficulties may disrupt the smooth operation of financial markets and consequently jeopardise the position of depositors and investors and insured interests. Where the merger allows for regulatory arbitrage, the conglomerate's risk position may exceed the combined operational risks of a separate bank and insurance company. The probability of systemic crisis may thus grow within the conglomerate. If a systemic crisis occurs, the serious difficulties of a financial conglomerate are more likely to spill over to other financial market participants as the systemic importance of the conglomerate is greater than that of its member companies. Risk factors other than contagion include conflicts of interest and the conglomerate's exploiting of regulatory and supervisory gaps.

The risk of contagion refers to the threat of spillover of financial difficulties from one company in the conglomerate to sound banks and insurance companies within the same conglomerate. The risk of contagion may have several causes. Firstly, if certain functions of all the conglomerate's member companies are concentrated in one company, difficulties experienced by this company may spill over into other companies in the conglomerate, if the companies fail to adequately monitor these outsourced functions. Contagion risks may also arise from intra-conglomerate lending and the practice of member companies making commitments on behalf of each other, as well as from insuring member companies' risks without taking out adequate reinsurance.

In a financial conglomerate a situation may arise where business decisions and operations run counter to the interests of a member company. The conglomerate's cash flow, mutual expenses or group subsidies may be channelled to a weaker member in an unfavourable manner. Furthermore, non-market-pricing may be applied in funds transfers between companies so as to compromise the depositors' position or insureds' interests. The transfer of risks between the companies may also be hidden via off-balance sheet commitments, thus keeping the company's risks off the balance sheet. Conflicts of interest may, however, also arise between the financial and insurance conglomerate and its customers, eg in the case where companies seek to invest customer funds in instruments that serve mainly the purposes of the financial and insurance conglomerate.

In the context of conglomerate supervision, one aim should be consistent assessment of the risk management systems of the conglomerate and its member companies. This in practice requires common guidance from the FSA and the ISA, which is currently under preparation. Other forms of cooperation between the two authorities are also being defined more precisely. For example, inspections will be jointly planned and implemented. Harmonisation of the regulatory framework and design of a related risk-oriented supervisory framework are important future challenges.

The FSA and the ISA have concluded a Memorandum of Understanding (MoU) designed to document and clarify the forms of cooperation between insurance and financial supervisors and supervisory practices in the various fields of supervision. A more detailed MoU was signed on the supervision of the Sampo Group, and a supervision group was appointed for the practical supervision of the Group.

The FSA, the ISA and the other Nordic supervisory authorities have signed an MoU on supervision of the financial and insurance conglomerate Nordea. A supervision group comprising representatives of all these supervisory authorities was also set up for the practical supervision of Nordea.

The MoUs are not however legally binding. The rights and responsibilities of supervisory authorities are determined solely in accordance with applicable laws.

The legislation on financial conglomerates introduced in Finland in February 2002 clarified the division of responsibilities and competencies between supervisory authorities in the supervision of financial conglomerates. The provisions applicable to financial conglomerates and financial holding companies acting as parent companies of financial conglomerates were also clarified and broadened. This legislation harmonised the provisions on disclosure of customer data by insurance companies and banks, which allows for cross-selling of banking and insurance products within financial conglomerates and other cooperative arrangements between banks and insurance companies. This revision also enabled reliable customer risk management.

However, national legislation cannot be used to address division of competencies between national supervisory authorities in the supervision of international financial conglomerates. The EU Directive on prudential rules for financial conglomerates, currently under preparation, will clarify international supervisory principles for example by introducing the concept of principal responsible supervisor for an international conglomerate and defining the legislation applicable to monitoring the financial standing of international conglomerates.

6.2.5 The FSA's powers and sanctions

The FSA's powers include both issuing powers, ie powers to issue regulations and guidelines that are generally applicable to supervised entities, and powers to make decisions on individual supervised entities. Provisions on these powers are set out in the Act on the Financial Supervision Authority and in principle apply equally to all FSA-supervised entities.

The FSA may intercede in the administration and operations of individual supervised entities. Such powers include the FSA's right to object to acquisition of a significant holding, the right to appoint an auditor under certain circumstances, and the right to issue a deadline for restoring the regulatory compliance of large exposures.

The FSA has the right to issue more detailed regulations on the application of the law. Examples of this are the FSA's right to issue more detailed provisions on the items eligible for the cash reserve, the reporting of large exposures, the application of capital adequacy provisions, and the preparation of interim and annual reports.

The FSA may grant supervised entities exemptions in individual situations as laid down by law. The FSA may eg grant a supervised entity permission not to prepare a consolidated financial statement or not to perform calculations of certain deductions from own funds and additional own funds.

To ensure availability of information to the FSA, a representative of the FSA has the right to attend the meetings of the decision-making and administrative bodies of supervised entities. The FSA can also convene such bodies when necessary.

The FSA is entitled to obtain for inspection at the place of business of a supervised entity documents and other records, including minutes, accounting records and commissions, that concern the supervised entity or its customer and are determined by the FSA to be necessary for the performance of its duty. Similarly, the FSA may also obtain from the auditor of a supervised entity all such information in the possession of the auditor as concerns the supervised entity and is necessary for the purpose of supervision.

Other major powers include the FSA's restricted right to

- order a *special audit* of the activities of the supervised entity
- prohibit the execution of a decision or other planned measure of a decision-making or administrative body of a supervised entity or a meeting of the owners of mutual fund **shares**, or any other action of such a body or meeting
- issue *accounting rules* to supervised entities
- propose to the Ministry of Finance that the Ministry *restrict the supervised entity's distribution of dividends or other disposal of profits for the year* for purposes other than strengthening the capital position of the supervised entity
- appoint *an attorney to supervise the activities of a supervised entity*
- *prohibit a deposit bank from accepting deposits* or restrict acceptance of deposits
- *prohibit an investment firm or credit institution from providing investment services* or safekeeping and administrative services
- *amend the conditions of an authorisation that it has granted or withdraw the authorisation*
- propose to the Ministry of Finance that the Ministry *amend the conditions of an authorisation granted by it or withdraw the authorisation*, eg a credit institution's authorisation
- conditionally impose or order payment of a *fine*.

Amendment of the Act on the Financial Supervision Authority

The FSA's current supervisory powers are largely reactive rather than proactive, highly irreversible and ungainly to use. Examples of these powers are appointment of an attorney, conditional imposition of a fine, motion to withdraw authorisation and introduction of a claim for damages. Some of the FSA's more proactive practical powers such as admonitions have no foundation in law and are therefore ineffective.

The FSA's existing supervisory powers are also inadequate in the light of international recommendations. The International Monetary Fund (IMF)[8] designated the absence of early intervention powers, ie powers to intervene before a supervised entity's capital adequacy or stability is jeopardised, as being the major deficiency.

Under the new Act on the Financial Supervision Authority, currently (summer 2002) under preparation, the licensing authority in respect of credit institutions, investment firms and pawnbrokers, especially the granting and withdrawal of authorisations, will be transferred from the Ministry of Finance to the FSA. The sanctions available to the FSA will also be extended to include new powers especially designed for minor offences that do not require withdrawal of authorisation or where conditional imposition of a fine is not appropriate. Under certain situations defined in the Act, the FSA will be entitled to issue to a supervised entity a public admonition or, in the case of a more serious offence, a public warning or to levy an administrative fine.

The proactive approach to supervision essentially involves the supervisor's own responsibility, which serves as a balance against the more effective and discretionary supervisory powers. In response to the FSA's broader competence and greater social influence, it is in the best interest of supervisory accountability, proactivity and transparency to introduce administrative changes in the FSA in the form of a redistribution of responsibilities and competence to reflect the new powers. To this effect, the legislative proposal would more definitely separate responsibility for the FSA's operative management (by director general and management group) from overall responsibility for policy formulation and strategic direction (board of directors). The proposal underlines the board of directors' role in setting overall objectives, deciding on strategic directions and taking major decisions. Responsibility for overseeing the administrative functioning of the FSA would rest with the Parliamentary Supervisory Council.

[8] International Monetary Fund, 2001.

6.2.6 The FSA's regulatory activities

The FSA's regulatory activities include participation in the drafting of financial market legislation at home and abroad as well as the issue of regulations and guidelines, opinions and statements. In its set of regulations, the FSA introduces the supervisory framework applicable to financial markets and supervisory practices and defines its own role vis-à-vis both supervised entities and other market participants. The FSA also closely integrates its regulations with international core principles.

In its issuances the FSA endeavours to clarify the nature of its a) binding obligations or b) recommendatory guidance addressed to supervised entities and market participants. The FSA's set of regulations includes legally binding provisions applicable to supervised entities as well as recommendatory provisions that serve as guidance for the behaviour of supervised entities and other financial market participants or provide interpretation of legal rules. Where necessary, the FSA issues such guidance on matters on which there is no legislation.

The FSA supports the EU objectives of increased flexibility in legislation, of more rapid response in the drafting of legislation and of improved enforcement coordination. In addition, the FSA in its regulatory work takes account of these objectives to the extent possible within the framework of the Finnish legislative structure.

Within the new set of regulations this approach will be reflected in clear and target-oriented regulations. This means that the purpose of a regulation and the obligations and recommendations that it entails for supervised entities and markets become apparent. If possible, regulations are drawn up avoiding too detailed provisions and leaving supervised entities room for manoeuvre in their choice of action. This allows for the self-regulation and market discipline of markets and market participants.

The premise of flexibility in FSA regulation is apparent particularly in the fact that, parallel to legally binding rules, recommendatory guidance is provided for the activities of supervised entities and markets and the interpretations of the FSA. Such guidance is given for example in FSA statements on the obligation to provide information to the markets. The flexibility also shows in the FSA's interpretative recommendations, such as the interpretations of the provisions on the business and outsourcing of the business of credit institutions and investment firms. Flexibility is also integral to the FSA's aim in introducing international recommendations as guiding procedures for the operations of markets and supervised entities, if they have not already been covered by legislation and do not contravene the law.

The FSA monitors market conditions and at its discretion proposes new financial legislation to the Ministry of Finance. The FSA also issues opinions on legislation under preparation, and its representatives participate in the drafting of EU legislation within various working groups of the European Commission. In drafting its regulations and guidelines, the FSA consults both in-house and external experts, maintains contacts with market participants and offers supervised entities the opportunity to take part in the drafting.

International cooperation

There is a growing need for cooperation between the financial market regulators of different countries. Cooperation is called for not only by the growing cross-border provision of services by international financial conglomerates but also by efforts to ensure a level playing field for national providers of financial services across countries. Especially within the European Union, it is important to promote the completion of an effective and fair single financial market by removing differences between national supervisory and regulatory practices.

International cooperation at the FSA focuses on Europe, with the Banking Advisory Committee (BAC) subordinate to the European Commission being the most important cooperative body. The BAC assists the European Commission in the preparation of EU legislation on financial institutions and provides advice and guidance on other matters related to EU banking regulation and supervision. It also assists the European Commission in the practical implementation of EU banking directives.

The FSA also takes part in the work of the Banking Supervision Committee (BSC) of the European System of Central Banks (ESCB). The BSC assists the ESCB in tasks related to supervision of credit institutions and financial stability. It also assists the ECB in the preparation of opinions requested by the European Council, the European Commission or member states and concerning proposals for financial legislation for the Community or member states.

The major task of these international bodies is to prepare common principles for the regulation and supervision of financial markets. They also act as fora for the mutual exchange of information on market developments, future prospects and supervisory challenges.

Numerous groups of experts working under these bodies prepare and support the work of these high-level bodies.

The mission of Groupe de Contact, the unofficial body for cooperation between the banking supervisory authorities of the EEA countries, is to promote cooperation and information exchange between regulators. Comparisons of national supervisory practices and working methods are undertaken with a view to harmonising supervisory practices between EEA members states. In recent years, Groupe de Contact has increasingly assumed the role of formulator of supervisory principles and best practices in the field of supervision.

The Committee of European Securities Regulators (CESR) was set up to carry on the work of FESCO, the Forum of European Securities Commissions. The mission of CESR is to promote cooperation between the authorities responsible for securities market supervision and to advise the European Commission on issues related to the development of EU legislation. Its primary activity is prior consultation with a broad range of interested parties during the preparatory stage. Member countries are represented by the directors of the securities regulators, with the FSA’s director general Kaarlo Jännäri acting as Vice Chairman of CESR in 2001. The FSA also takes part in the cooperation of international securities regulators within the framework of the International Organisation of Securities Commissions (IOSCO).

Of the foreign regulators, the FSA has the closest cooperation with the Nordic authorities. Continuous practical cooperation is exercised within the framework of eg the annual pan-Nordic meetings. Furthermore, the supervisory authorities of Norway, Sweden, Finland and Denmark are all involved in the inspections of Nordea (cf 6.2.4).

The key principles of supervisory cooperation are set out in Memoranda of Understanding (MoU). The FSA has signed such MoUs with the supervisors of twelve countries[9]. The FSA is also a party to the multilateral MoU between the members of FESCO and the MoU between the Nordic supervisory authorities. These MoUs have been supplemented by appendices providing details on the supervision of individual supervised entities. For example, the MoU between the Nordic authorities has been supplemented by the MoU on the supervision of Nordea. However, an MoU cannot be employed to regulate whether supervisory responsibility for an international

[9] Denmark, Estonia, France, Germany, Great Britain, Iceland, Latvia, Lithuania, Luxembourg, the Netherlands, Norway and Sweden.

financial conglomerate should rest with the insurance or the financial supervisor.

6.2.7 Future prospects

One of the key supervisory challenges to be addressed over the next few years is how to ensure effective supervision of future European companies (SE) under the home country control rule, while at the same time maintaining financial stability in individual member states. It will probably also be necessary to devise strategies for effective crisis management in response to problems of financial conglomerates operating across member states.

Although it is impossible at this stage to put forward concrete responses to these challenges, the following issues seem likely to surface:

– Greater focus on self-regulation, ie market discipline, with a stronger need for public disclosure of material information on markets and companies operating in the markets.
– Reassessment of the role of host authorities, especially as regards supervision of credit and market risk and distinguishing between systemic risk and specific problems of individual companies.
– Mounting pressure for closer supervisory cooperation and greater convergence of supervisory practices.
– Greater pressure for harmonisation of national legislations.
– Growing need for strategies for managing cross-border crises.

In connection with the ongoing Lamfalussy process regarding securities markets, reference has been made to the establishment of a single European regulatory authority in the event that cooperation between national authorities within the Committee of European Securities Regulators (CESR) and the European Regulatory Committee (ERC), which were set up on proposal of the Lamfalussy group, proves to be ineffective. In the field of banking supervision, the European Central Bank would like to assume an expanded supervisory role, which would however require amendments to the Maastricht Treaty. Both the Brouwer and the Lamfalussy working groups, nevertheless, came to the conclusion that there is no political or practical rationale for the establishment of supra-national supervisory authorities, nor necessarily any need for them. It is highly likely that the issue of EU level supervision will be addressed by the Intergovernmental Conference (IGC) of 2004. Considering the wide differences in powers and practices between national authorities, a pan-European approach may prove necessary in the long run.

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Appendix

Entities supervised by the FSA, 1997–2001

	LP	OPR	POP	SPY	SP	LL	VR	SPS	PLL	UE	ULS	AOJ	SIPA	MP	RY	Others	Total.	Branches total
1997	9	250	44	1	39	23	3	43	14	7	12	12	40	3	17	–	517	1,645
1998	9	251	43	1	39	19	3	–	14	6	14	11	46	3	22	15	496	1,591
1999	9	246	43	1	39	17	4	–	13	5	18	11	45	2	25	13	491	1,545
2000	9	244	43	1	39	17	4	–	13	6	18	12	48	1	26	13	494	1,550
2001	9	244	42	1	39	16	4	–	13	7	20	12	50	1	24	13	494	1,579

LP	Commercial banks
OPR	Amalgamation of cooperative banks
POP	Local cooperative banks
SPY	Limited liability savings banks
SP	Savings banks
LL	Credit institutions
VR	Security funds
SPS	Savings banks foundations
PLL	Pawnbrokers
UE	Finnish representative offices of foreign credit institutions
ULS	Finnish branches of foreign credit institutions
AOJ	Members of the book-entry system
SIPA	Investment firms
MP	Marketplaces
RY	Fund management companies
SK	Branches
Others	Deposit guarantee fund, Investor compensation fund, holding companies of investment firms (8), holding companies of credit institutions (2), Okobank Group Central Cooperative

Chapter 7

Insurance legislation and supervision

Juhani Turunen – Hely Salomaa

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Ministry of Social Affairs and Health

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Insurance Supervisory Authority

7 Insurance legislation and supervision

7.1 Legislation

7.1.1 General provisions

In Finland insurance business is undertaken by entities differing in organisational structure, all of which are subject to their own special laws. The main act governing insurance undertakings is the Insurance Companies Act (1062/1979), which includes provisions on the operation and supervision of insurance companies. Additional provisions on the operation and supervision of insurance companies providing statutory earnings-related pension schemes for employees or self-employed persons are set out in the Employee Pension Insurance Companies Act (354/1997).

Finnish insurance legislation has been revised in line with EU Directives on the insurance business. The directives are however not applicable to companies providing statutory earnings-related pension schemes.

Finnish insurance companies are either limited insurance companies or mutual insurance companies. In a mutual company, the members are the policyholders or holders of guarantee capital. Subject to the provisions of the Insurance Companies Act, both mutual insurance companies and limited insurance companies are also governed by the Companies Act (734/1978) and the Act on the Implementation of the Companies Act (735/1978). The Insurance Companies Act applies to both non-life and life insurers.

The Insurance Companies Act includes provisions on the incorporation of an insurance company, its licence, membership, management and administration, audit and financial statements and solvency requirements, as well as on life insurance and insurance supervision and insurance companies' liquidation, winding-up, merger and portfolio transfer.

Under the Insurance Companies Act, only insurance companies are allowed to undertake insurance business in Finland, unless otherwise provided in another act, such as the Foreign Insurance Companies Act

(398/1995) or Local Mutual Insurance Associations Act (1250/1987). Life insurance companies may not engage in insurance business other than life, accident and health insurance as well as reinsurance, and non-life insurers can engage only in non-life insurance business. Insurance companies may also engage in business that is related to insurance, as specified in the Act, including acting as representative of a publicly supervised credit institution and handling the marketing and sales of its products.

Licences for insurance companies are issued by the Ministry of Social Affairs and Health. A licence is issued if the information received on the insurance business envisaged and on the members of the company give sufficient grounds to determine that the insurance company will comply with sound and prudent business principles in its business, that the company's management meets the requirements of fitness, propriety and competence as set out in the Act and that the company's basic capital meets statutory requirements.

The operations of employee pension insurers are governed by the Employee Pension Insurance Companies Act (354/1997), which includes only special provisions applicable to employee pension insurers. Employee pension insurers are also subject to the Insurance Companies Act and the Companies Act. The Employee Pension Insurance Companies Act sets out special provisions for instance on the incorporation of an employee pension insurance company, its management, technical provisions, solvency margin, profit distribution and investment activities. Decisions on licences for employee pension insurers are taken in Council of State plenary sessions.

Other insurance institutions and corporations are currently representative offices of foreign insurance companies as referred to in the Foreign Insurance Companies Act (398/1995) and local mutual insurance associations as referred to in the Local Mutual Insurance Associations Act (1250/1987). The activities of employee benefit funds as referred to in the Employee Benefit Funds Act (1164/1992) and company pension funds as referred to in the Pension Funds Act (1774/1995) do not constitute insurance business, but the provision of benefits by them can be regarded instead as falling within the scope of social life insurance.

Key legislation governing insurance business is published in a special Finnish-language edition entitled Vakuutuslainsäädäntö 2002 (Insurance Legislation 2002).

7.1.2 Solvency provisions

An insurance company's solvency margin refers to the amount by which the company's assets at fair value exceed the company's liabilities and other comparable commitments. The items included in the solvency margin are set out in a decree (462/1995), the main ones being capital and reserves and the difference between assets' fair value and book value (per balance sheet). The Insurance Companies Act contains provisions on the minimum solvency margin for life and non-life insurers, while the Employee Pension Insurance Companies Act includes equivalent provisions for employee pension insurers.

Life and non-life insurers

The solvency margin provisions applicable to life and non-life insurers are based on the EU Life and Non-Life Insurance Directives. The minimum solvency margin for a life insurance company is based on the provision for unearned premiums and the claims provision for pensions in current payment as well as the capital at risk. For a non-life insurance company, the solvency margin is based on premiums written and claims incurred.

Under the provisions of the Insurance Companies Act, an insurance company's solvency margin, the company's reinsurance business, and other factors affecting the company's solvency must be handled in a manner that safeguards insured interests, taking account of probable variations in income and expenses and other estimable uncertainties. The Ministry of Social Affairs and Health has the authority to issue more detailed regulations on the application of this provision. Accordingly, the Ministry has issued a regulation on the solvency capital and equalisation provision, and their limits, applicable to non-life insurers (Ministry of Social Affairs and Health regulations to Finnish insurance companies, STM 1999:65).

An insurance company's solvency capital comprises the solvency margin and the equalisation provision. The equalisation provision, which represents an item in the claims provision, is risk-theoretically calculated to provide for years of high claims experience. The equalisation provision must be built up in years when the insurance company's loss ratio (claims incurred/premiums earned) is below the average of the preceding years and withdrawn when the loss ratio is higher. A target zone and an upper limit have been set for the equalisation provision.

The regulation defines minimum and targeted amounts for solvency capital. These amounts, like the target zone limits and upper limit for the equalisation provision, are to be calculated in light of the company's insurance-related risks. In the calculation of the minimum and targeted amounts of solvency capital, consideration must also be given to investment risks. Using risk theory methods, the minimum solvency capital is calculated to cover, with 99% probability, all losses incurred in a year due to fluctuations in insurance business and investment returns.

Employee pension insurers

Under the Employee Pension Insurance Companies Act, the minimum solvency margin for an employee pension insurer amounts to two-thirds of the solvency limit, which is risk-theoretically defined to cover the solvency margin requirement for one year, taking into account the distribution of investments by asset type. More details on calculating the solvency limit are set out in a Council of State decree (1281/1999).

If an employee pension insurance company's solvency margin falls below the solvency limit, the company is not allowed to make transfers to the provision for current bonuses included in the technical provisions. The provision for current bonuses may only be used for premium rebates. If the solvency margin exceeds the solvency limit but is less than twice the solvency limit, the company must increase the solvency margin by restricting transfers to the provision for current bonuses. If the solvency margin exceeds four times the solvency limit, the company is not allowed to make transfers to the provision for future bonuses included in the technical provisions. If the surplus can be regarded as being of a permanent nature, the company must rearrange its activities to ensure that the solvency margin falls back below the above- mentioned limit. The provision for future bonuses can be used to cover losses arising from changes in the method of calculating the technical provisions or other losses as specified by the Ministry of Social Affairs and Health.

7.1.3 Insurance guarantee schemes

There is no general guarantee scheme covering all forms of insurance in Finland; only guarantee schemes specifically for statutory insurance. Under the provisions of the Employees' Pensions Act

(TEL, 395/1961), all the pension institutions are jointly liable for any pensions left either totally or partially unsecured following the bankruptcy of such an institution, and for any other benefits payable under the Act, according to grounds specified by the Ministry of Social Affairs and Health.

There is also a guarantee scheme for statutory non-life insurance (incl. statutory workers' compensation insurance, motor insurance and patient insurance). The Workers' Compensation Insurance Act (608/1948), Motor Liability Insurance Act (279/1959) and Patient Injuries Act (585/1986) each includes provisions on the application of the guarantee scheme to cover compensation payable under the Act but left partially or totally unsecured following the winding up or bankruptcy of an insurance company.

The scheme is based on the joint liability of the insurance institutions providing insurance under these Acts and is thus comparable to that applied to the statutory earnings-related pension scheme. It however also includes some supplementary provisions requiring policyholders to pay an additional premium under certain conditions. This obligation does not however apply to consumers or to comparable persons carrying on a trade. The size of the additional premium payable by each policyholder is limited to his financial gain.

An additional premium becomes payable provided the policyholder has exercised a significant influence on the administration of the insurance company. It is further required that the insurance company, in undertaking statutory insurance under the Act, has substantially failed to comply with the applicable provisions and regulations or been guilty of criminal abuse that is not negligible. If the premiums on the insurance have, on average, been unreasonably low in comparison with the costs arising from the insurance policies and if this can be judged to have contributed substantially to the liquidation or bankruptcy of the insurance company, an additional premium may also become payable by other policyholders who have gained financially from the too low level of premiums.

7.2 Insurance supervision

7.2.1 Responsibilities of the Insurance Supervisory Authority

The Insurance Supervisory Authority (ISA), which commenced operations on 1 April 1999, works under the administrative auspices of the Ministry of Social Affairs and Health. The ISA is responsible for the supervision and inspection of insurance and pension institutions and other insurance market participants.

The supervision of insurance and pension institutions exercised by the ISA includes performance of operative supervisory duties, settlement of issues involving individual supervised entities and review of and decisions on applications for exemptions and other applications. However, due to the considerable social importance of the statutory earnings-related pension scheme, decisions on the grounds applicable to the scheme fall within the responsibility of the Ministry of Social Affairs and Health.

Provisions on the administration of the ISA are set out in the Act on the Insurance Supervisory Authority (78/1999) and the decree (102/1999) issued by virtue thereof. The Act also contains provisions on the supervised entities and key responsibilities of the ISA and on the composition of its board of directors.

There are however special acts governing each type of insurance institution and containing detailed provisions on the material content of the supervision of insurance institutions and the powers available to the supervisory authority.

> The ISA's basic duty in the context of insurance supervision and inspection is to safeguard the interests of the insureds and policyholders and to ensure the sound development of the insurance business. Supervision focuses on the solvency of supervised entities. The ISA's responsibilities also include seeing that insurance and pension institutions comply with the law and principles of good insurance practice and that terms of insurance contracts and marketing by insurance companies are appropriate.

Unlike supervision of credit institutions, supervision of insurance institutions does not take the form of consolidated supervision but is exercised on a company-by-company basis. However, the Directive (98/78/EC) of the European Parliament and of the Council on supplementary supervision of insurance undertakings in an insurance group provides for extended supervision of insurance undertakings. The provisions on supplementary supervision are designed to ensure that the responsible authorities are able to make an informed assessment of the financial position of an insurance undertaking that is part of an insurance group. In this context the special objective is to prevent the solvency of supervised insurance companies from being jeopardised because of multiple use of the capital of the companies in the group and to avoid related risks. Another objective is to prevent intra-group transactions from jeopardising the financial position of companies in the group.

Considering that an insurance group may include insurance undertakings operating in several member states of the European Economic Area (EEA), the supervisory authorities of the member states concerned must work in close cooperation in the supervision of such groups.

Under the Insurance Companies Act and the Foreign Insurance Companies Act, the ISA supervises the marketing and procedures of all insurance institutions, whether Finnish or foreign, operating in Finland, as well as the legality of the terms of their insurance contracts. Terms of insurance contracts are governed by the Insurance Contracts Act (543/1994). Under the Insurance Brokers Act (251/1993), the ISA examines whether insurance brokers comply with registration criteria, maintains a register of insurance brokers and supervises their activities.

The ISA also supervises pension institutions established by law, the investment activities of the State Pension Fund and the Local Government Pensions Institution as well as unemployment funds as referred to in the Unemployment Funds Act (603/1984), the Unemployment Insurance Fund and the Education and Redundancy Payments Fund (cf appendix).

> The ISA's key responsibilities for guidance and supervision of the payment of unemployment benefits include supervision of the finances and administration of unemployment funds and the Education and Redundancy Payments Fund and the finances of the Unemployment Insurance Fund. Supervision of unemployment funds also covers supervision and interpretation related to the application of provisions on benefits payable by the funds.
>
> With a view to promoting scientific research and training in the insurance sector, the ISA cooperates with the academic community and engages in insurance research.

7.2.2 The ISA's supervisory powers

An account of the supervisory provisions entailed in the Insurance Companies Act follows below. Other corporations and institutions undertaking insurance business are also governed by similar, albeit distinct, supervisory provisions.

The ISA has the right to inspect the business and other activities of insurance companies and insurance holding companies and their subsidiaries. For purposes of supervision, insurance companies must make available to the ISA information on their financial position. The ISA has the right to perform on-site inspections at the insurance company's facilities and attend meetings of the company's decision-taking bodies.

If an insurance company fails to comply with law, its licence, articles of association or regulations issued by the authorities, if it has resorted to practices that are contrary to the principles of good insurance practice or if malpractice has been identified in the company's activities, the ISA may issue the company an admonition, require it to remedy the matter or forbid it to continue practices that have been found inappropriate by the Ministry of Social Affairs and Health or the ISA. The ISA may order the company to fulfil its obligations under penalty of fine. If the insurance company fails to comply with the demand or violates the prohibition, the ISA may prevent the insurance company from issuing new policies until the matter has been remedied. The ISA may appoint a representative to supervise the activities of the supervised entity if it has identified deficiencies or malpractices in the company's activities that seriously jeopardise the interests of policyholders or insureds or the continuity of business.

The ISA may propose to the Ministry of Social Affairs and Health that the insurance company's licence be withdrawn or restricted where the ISA finds eg that the insurance company no longer meets the licence criteria.

7.2.3 International cooperation and cooperation with the Financial Supervision Authority (FSA)

Cooperation between the ISA and European insurance supervisors is mainly exercised within the framework of the Insurance Committee subordinate to the EU Commission and chaired by the Head of the Internal Markets Department of the Commission and in the twice-yearly Conference of the Insurance Supervisors of the EEA countries. Cooperation between insurance supervisors of EEA countries in the supplementary supervision of insurance groups is based on the applicable EU Directive. Supervisory practices are set out in the Helsinki protocol signed by the supervisors. According to the protocol, a coordinating committee is to be set up for the cooperation exercised in the supervision of each insurance group, with the insurance regulators of all the member countries involved in the supervision of companies in the group being represented in the committee. The Committee may elect a lead supervisor among its members. The Committee agrees on the practical arrangements for the supervision of the group as required by the Directive, distributes all supervisory information and discusses remedial measures where necessary.

Supervisory cooperation between the Nordic countries involves an annual meeting of financial and insurance supervisors and a separate annual meeting of insurance supervisors. Both the ISA and the FSA are party to the general Memorandum of Understanding between the Nordic supervisory authorities regarding cooperation in the oversight of insurance and financial markets. The supervisory authorities of Norway, Sweden and Denmark, together with the FSA and the ISA, have signed an MoU regarding supervision of the Nordea group, and the insurance supervision authorities of Sweden and Norway and the ISA have concluded an MoU on supervision of the If Group.

The ISA has concluded bilateral MoUs with the insurance supervision authorities of Estonia, Latvia and Lithuania. The ISA is also a member of the International Association of Insurance Supervisors IAIS.

Cooperation between the ISA and the FSA is based on the Act on the Insurance Supervisory Authority. The composition of the boards of directors of the two authorities is the same, save for one member. The contents of cooperation between the authorities are in broad outline set out in an MoU. The supervision of the Sampo Group is regulated in a separate MoU.

Insurance legislation

Insurance Companies Act (1062/1979)
Employee Pension Insurance Companies Act (354/1997)
Foreign Insurance Companies Act (398/1995)
Local Mutual Insurance Associations Act (1250/1987)
Employee Benefit Funds Act (1164/1992)
Pension Funds Act (1774/1995)
Employees’ Pensions Act (395/1961)
Workers’ Compensation Insurance Act (608/1948)
Motor Liability Insurance Act (279/1959)
Patient Injuries Act (585/1986)
Unemployment Funds Act (603/1984)
Insurance Contracts Act (543/1994)

Insurance Brokers Act (251/1993)
Act on the Insurance Supervisory Authority (78/1999)
Decree on the Insurance Supervisory Authority (102/1999)
Decree on the elements eligible for the solvency margin of an insurance company (462/1995)
Decree on the calculation of the solvency limit of an employee pension insurance company (1281/1999)
Ministry of Social Affairs and Health regulations to Finnish insurance companies, STM 1999:65
Directive of the European Parliament and of the Council on supplementary supervision of insurance undertakings in an insurance group (98/78/EC)
Vakuutuslainsäädäntö 2002 (Insurance Legislation 2002), Kauppakaari

Appendix

Entities supervised by the Insurance Supervisory Authority (as registered)

	31.12.2001	31.12.2000	31.12.1999
Supervised group			
Life insurers	**15**	15	15
Non-life insurers	**33**	34	34
Insurance holding companies	**1**		
Employee pension insurers	**6**	6	6
Company pension funds	**168**	208	222
Industry-wide pension funds	**18**	18	20
Employee health and other benefit funds[1)]	**167**	169	180
Pension institutions established by law	**4**	4	4
Local Government Pensions Institution and State Pension Fund	**2**	2	
The Finnish Centre for Pensions	**1**	1	1
Local mutual insurance associations	**116**	117	118
Insurance brokerage corporations	**57**	44	36
Individual insurance brokers	**215**	190	152
Unemployment funds	**43**		
Enemployment Insurance Fund + Education and Redundancy Payment Fund	**2**		
Others	**7**	5	5
Total	**855**	**813**	**793**
Representative offices of foreign EEA companies	**17**	14	12
Notifications under the freedom to provide insurance services filed by the representative offices of foreign EEA insurance companies	**323**	302	267
1) Inclusive of			
company pension funds	**67**	98	107
industry-wide pension funds	**2**	1	3
employee health and other benefit funds in liquidation	**12**	12	17

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