FINANCIAL STABILITY • 2008

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The cover portrays the work of
Liisa Ruusuvaara.

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Preface

Smooth functioning of financial markets is a crucial prerequisite for the operation of the economy in a modern society. It requires a stable financial system, beyond reproach, capable of handling its basic tasks, such as the transmission of finance and payments, pricing of financial instruments and distribution of risks. Furthermore, the risk-bearing capacity of financial market agents and public confidence in financial institutions and the infrastructure must be sufficient to endure disturbances in the operating environment.

The Bank of Finland contributes to the soundness and efficiency of Finland's financial system and participates in its development. The Bank's efforts are integrated with the objectives of the European System of Central Banks, and also require close cooperation with other authorities.

The Bank of Finland's task is to analyse financial system's stability, as a whole. The Bank evaluates the most significant threats to stability in the operating environment of financial institutions, the state of the principal borrower sectors, the risk-bearing capacity of financial market participants and the reliability and efficiency of the underlying systems. The Bank publishes its assessment biannually in the Bank of Finland Bulletin.

The Financial Stability Report is intended for all financial market agents, other authorities and the public to provide information and promote discussion on relevant topics. This serves the purpose of ensuring that these parties can take financial market conditions into account in their operation.

The central themes of this report comprise an analysis of the global financial market crisis and measures and assessments by the Bank of Finland to restore the stability of the system.

The crisis is exceptionally severe, since it is world-wide. In this situation, measures by the public sector also need to be radical. Central banks have fought off the acute lack of liquidity by injecting short-term finance into the markets and broadening eligible collateral. Many countries have taken extensive measures including granting loan guarantees and capital injections to banks.

The crisis is international in nature and Finland is not immune. The Bank of Finland, as an active agent, has ensured that operators in Finland have access to the Eurosystem's tools to alleviate the disruptions related to the financial market shock. In cooperation with domestic and foreign authorities, the Bank is also building a new supervision and regulation environment intended to ensure a more efficient and sound financial system.

The Bank of Finland has published its assessment on financial stability since 1998. Information presented in this report is based on data available on 28 November 2008.

Helsinki 30 November 2008

Pentti Hakkarainen
Deputy Governor of
the Bank of Finland

Summary

The global financial market crisis has proved more protracted and more severe than previously estimated. The events that started to unfold as a consequence of banks' liquidity problems triggered, in the course of the autumn, sizeable and still ongoing restructurings within the financial system. Fast leverage-based growth in banks' balance sheets and off-balance sheet items came to an end, and the process of unwinding overly large risks and exposures is currently under way.

In reducing their debt and strengthening their capital base, banks are tightening their lending standards. The situation for non-financial corporations in need of financing has become more difficult, with repercussions on the real economy. Accordingly, the worst near-term scenario threatening financial markets – both internationally and domestically – is protraction of the financial crisis at the same time as the state of the real economy rapidly worsens, which, in turn, would further weaken the financial sector. This negative spiral would be reflected in funding tightness, continued declines in asset valuations, risk premium growth, drifting of large actors into bankruptcy or detection of new contagion channels.

With the problems coming to a head, the authorities launched considerable measures in support of, and for the purpose of stabilising, the functioning of the financial system. The effectiveness and adequacy of the stabilisation measures in stemming the crisis will become apparent over the coming year. However, deleveraging is a process extending over several years. In addition to measures taken by the authorities, banks also need to work hard in order to ensure the maintenance of financial intermediation at adequate levels.

Despite the current stability of the domestic financial system and its continued resilience to comfortably withstand disruptions in the operating environment, Finland is not isolated from the international crisis. The Finnish banking sector has suffered less from the crisis than have banks globally. Overall, however, although banks' access to market-based funding has become more strained in Finland too, it has been possible to keep liquidity conditions broadly favourable. Banks' capital adequacy has remained good, but credit risks are on the increase amid waning real economic performance. The dire economic straits of the Baltic countries are reflected in Nordic banking groups. Companies' financial situation becomes increasingly difficult as the economy heads for recession. The short-term outlook for the insurance sector is weak because of unprofitable investment activity and lower premium income.

There are currently a number of initiatives under consideration for remedying weaknesses in the financial system and strengthening its structures in the long term. This development work should maintain a firm focus on ensuring a careful preparation of the reforms and their consequent implementation in a comprehensive manner. Development of international cooperation between relevant authorities, in both supervision and

crisis management, is of the essence. There is a need to increase the analysis of risks related to the financial system as a whole by means of macroprudential supervision exercised by central banks.

The financial market crisis has indicated that many of those arrangements that are operational under normal circumstances prove inadequate in crisis situations. Current EU legislation fails to provide authorities with adequately effective tools for intervening in distressed banks' operations early enough.

The EU deposit guarantee scheme is outdated in many respects and requires urgent overhaul. The European Commission's proposal for revision of the Capital Requirements Directive would improve supervision of internationally operating banking groups by enhancing collective action between supervisors. Even so, it is crucial for the directive to provide supervisors of branches and subsidiaries systemically relevant in the host country with the right to participate, if they wish to do so, in the activities of colleges of supervisors.

Payment and securities settlement systems have functioned fairly smoothly in the exceptional financial market conditions. However, their criticality has been understood better than before. As well as realising the significance of the stable functioning of a single system, we have come to gain insight into the deep interdependencies that prevail in financial markets and their infrastructures. Stronger emphasis needs to be placed on comprehensive approaches and system transparency in both development projects of market participants and requirements imposed by the authorities.

The priorities of infrastructure oversight are being upgraded with a view to making them consistent with market integration. The challenge lies in safeguarding the reliability and effectiveness of payment and settlement systems important for Finland at the same time as work is done to promote integration for achieving greater efficiency. The only way of meeting this challenge is still through closer cooperation between authorities and market participants across national borders.

The Finnish financial system is set to withstand the expected economic downturn. Significant risks and threats divergent from predicted developments are identified as comprising, in 2009:

1) Prolongation and deepening of the financial market crisis, with a simultaneous slide of the real economy into recession.
2) Realisation of banks' funding risks.
3) Materialisation of Nordic banks' Baltic-related risks on a larger scale than anticipated.
4) Disruptions in payment and settlement systems.
5) Data security risks.

Operating environment

The global financial markets crisis is more protracted and severe than previously estimated. The effectiveness and sufficiency of massive support efforts by governments and central banks in crisis management will gradually be revealed in the course of 2009. Finland is not isolated from the international crisis, although the impact in Finland has, so far, been limited. The worst threat both internationally and domestically is that the financial crisis continues and worsens concurrently with a rapid downturn in the real economy.

The price of finance available to Finnish corporations has increased and financing terms have been tightened. The financial situation of corporations will be compromised further as growth weakens. Households' debt servicing ability on the whole has remained solid, but risks related to indebtedness have increased. These risks include particularly future developments in interest rates, employment and house prices.

International financial markets in deep trouble

During the autumn, global outlook for the real economy rapidly grew gloomier. The economic outlook for Finland's neighbouring regions also weakened, and domestic economic growth is waning.

In 2009, the economies of many European countries are expected to be in recession. Challenges posed by the operating environment to the financial system increase as economic activity shrinks, since downturns are usually associated with a general decline of asset prices, such as equity and real estate prices.

The financial market crisis which was sparked by US housing loans has been shown to more protracted and severe than anticipated. The crisis rapidly has spread ever wider and deeper through the global financial markets. The problematic subprime loans were typically parts of bundled securities, or so-called securitised instruments. These securitised instruments could be used to diversify risks, but as losses grew and securities depreciated, they made up an extensive network of contagion channels, through which problems spread swiftly.

The severity of the crisis is related to the quest for quick profits, and too large risks taken by agents in the market for securitised items. On the other hand, also from the point of view of financial structures, exposure to disruptions in the operation of these structured markets, in some cases, became too large.

From the beginning of 2007 until the beginning of October 2008, before the recapitalisation decisions by different governments, banks made impairments amounting to about EUR 530 bn. Against these losses, banks were able to raise about EUR 400 bn in equity. Large impairments on securitised instruments made the markets nervous and increased concerns about the solvency of market participants.

In autumn 2008, the deep distrust prevailing in the markets worsened further, which was shown as considerable risk premia on short-term market rates and drying up of interbank liquidity. The situation was weakened materially by the investment bank

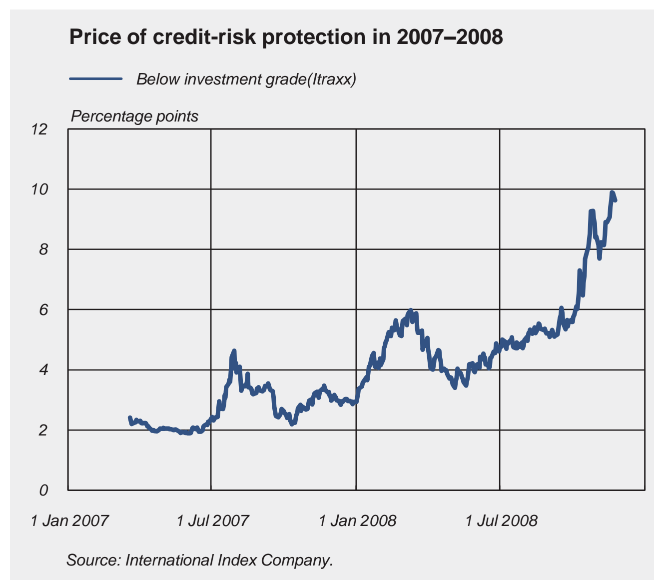
Lehman Brother's filing for protection from its creditors. In cases where banks have collapsed or ended in government possession, almost without exception the situation had evolved into a crisis, when bank- and institution-specific finance had run out or the price of finance had suddenly increased. As a result of the distrust, the risk premia required in the credit markets rose to new record heights (Chart 1).

The situation is problematic for banks that have to rely on market finance, since the availability of finance is clearly tighter than previously. The situation was further aggravated by information of a domestication of the problems in Europe: credit losses increased in countries that had witnessed a rapid rise of real estate prices and growth of housing loans. Real estate prices are in the midst of a steep correction, which exposes investors to ever increasing write-downs.

Fears of recession and finance constraints spread to the corporate sector, and also share prices declined very forcefully worldwide. Developments that have reduced security values internationally have also affected large institutional investors, such as insurance companies, whose difficulties have further exposed the financial markets to a deepening crisis.

In this context, governments and central banks launched hereto unprecedented financial market support measures (see Box 4). Initially the support measures were partial, but as the extent of troubles was revealed, they became co-ordinated and global. A significant example is the so-called

Chart 1.



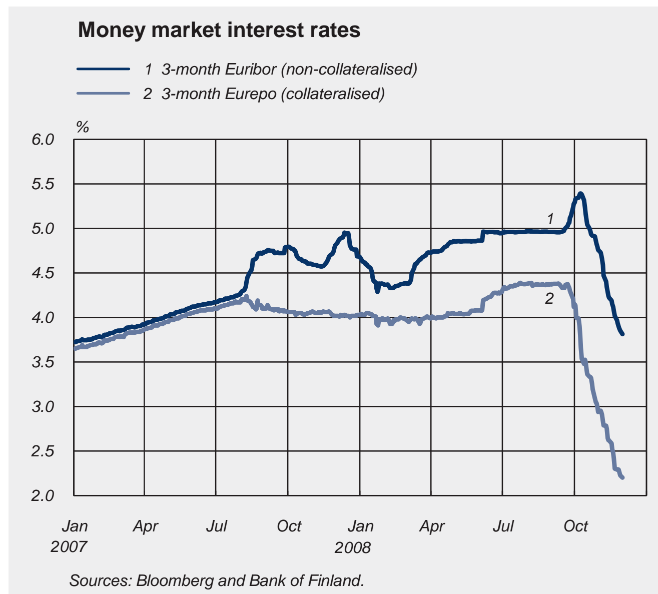
Paris Declaration of 12 October 2008 by euro area governments. The significance of the measures will be seen gradually in 2009.

Short-term market rates in the euro area decreased clearly in October–November due to reductions in the ECB's policy rate and expectations of future rate cuts (Chart 2). However, the exceptionally high risk premia included in the Euribor rates have declined only slightly (Chart 3).[1]

As a consequence of the crisis and support measures, operation of the financial markets will change as the structures become more centralised. In many countries, the public sector has already ended up as a bank owner due to recapitalisation. Markets are returning to simpler products and services. The model of banking where risks were resold and lending and

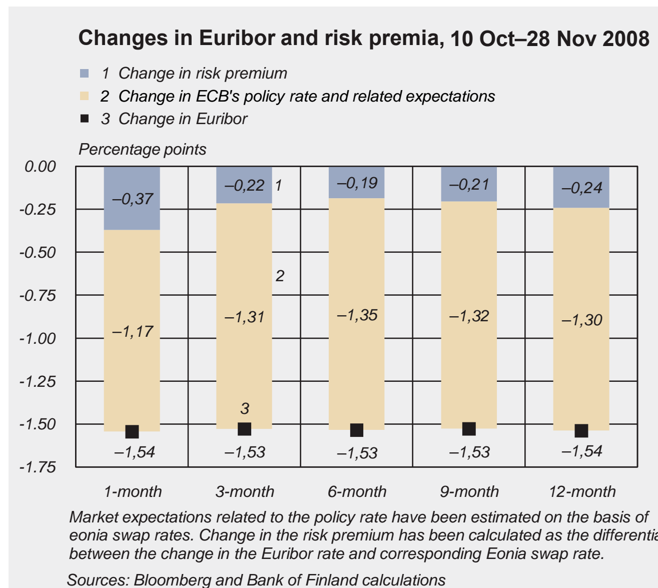
[1] The crisis has also revealed some problems in the determination of Euribor interest rates, spotlighted by the Bank of Finland in its comments.

Chart 2.



Sources: Bloomberg and Bank of Finland.

Chart 3.



Market expectations related to the policy rate have been estimated on the basis of eonia swap rates. Change in the risk premium has been calculated as the differential between the change in the Euribor rate and corresponding Eonia swap rate.

Sources: Bloomberg and Bank of Finland calculations

investments were primarily funded directly from the financial markets is also changing rapidly.

Prolonged international crisis and deepening recession as a threat

The worst near-term threat in the financial markets both internationally and domestically is that the international financial crisis continues and worsens concurrently with a further weakening of the real economy. This would show as scarcity of finance, continued decline of asset values, increased risk premia, bankruptcies of major market participants or disclosure of new contagion channels. In this case, the support measures decided by governments at the moment could prove insufficient.

Although the domestic financial system is stable at the moment, Finland is not isolated from the international crisis. The crisis will affect the domestic and Nordic operating environment through the common operating environment of the internationalised financial markets and through the macro economy. The availability and expensiveness of market finance are causing pressures to the corporate as well as the banking sector. Also in the domestic banking sector, lending has grown much more than deposits and the difference has been funded with the help of the international financial markets. Hence, financing is structurally dependent on the functionality of international funding.

If a bank winds up in difficulties or a foreign bank goes bankrupt, it may also have an impact on Finnish customers. A decrease in the value of investment assets, as well as exposures to high-risk mutual funds, has an impact on the capital adequacy of domestic agents. Also in Finland, the weakening of the real economy increases the problems faced by banks and other agents as credit losses increase. Furthermore, stability of the

Finnish financial markets in 2009 is crucially affected by the situation of general economy and financial market participants in other Nordic countries and the Baltics.

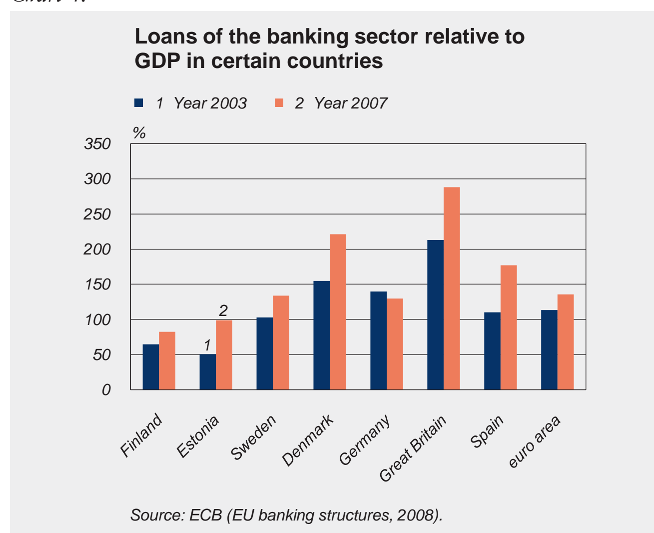
The present crisis affects the international financial markets where contagion channels and non-transparency have increased as a consequence of the adoption of new instruments. Many countries have in recent years experienced a rapid increase in housing prices in the context of very liquid credit markets. Credit expansion has been rapid (Chart 4). Fears of too low previous pricing of risks, too rapid expansion of balance sheets enabled by securitisation and their impact on lending are factors that may cause further heavy losses also in the European financial markets.

A deeper recession of the real economy or protracted period of weak growth may reveal new risks and amplify those already existing. Too slow a recovery in the credit markets or protracted tightness increase the risk of bankruptcies. A rapid market recovery is also slowed down by the deceleration of economic growth in countries outside the US and Europe that have so far grown rapidly – China and India in particular – and the liquidity crisis that has also hit the financial systems of these countries. The over-liquid situation in western countries boosted the growth of the credit markets in emerging countries. Now, however, investment flows seem to have turned, as investors in developed countries reduce their risk taking, which depletes the liquidity of financial markets in developing countries. In addition, even large investors, such as sovereign wealth funds, are now more cautious than before.

From the perspective of the stability and confidence in the international financial system, increasing payment defaults in new collateral items of structured securities, such as consumer credit and housing loans with high ratings, are detrimental. Concerns have also been aroused by the functionality of the credit default swap (CDS) markets in situations where a large number of agreements are triggered simultaneously. These have a potentially large significance in other structured securities investments, such as collateralised debt obligations (CDO).

Efforts by authorities to restore stability have been extensive. However, measures this extensive may contain the seed of new threats and problems. Increased liquidity must be removed from the markets when the situation so allows and requires. On the other hand, if the general decline of asset prices

Chart 4.



Box 1.

Controlled deleveraging

A crucial requirement in banking is capital adequacy, which in a simplified manner is the ratio of equity to total lending and investment assets. Thus, lending by the entire banking sector is based on the amount of equity. In bad times, credit losses and write-downs on assets reduce the amount of equity and undermine operating conditions. If leverage is high in the early stages of a crisis, future leeway is naturally reduced. Banks' slack has also been narrowed by an under-pricing of risk revealed by the crisis. This has caused distrust in the markets in traditional capital adequacy figures – equity as a ratio of risk-weighted assets.

At the beginning of October 2008, the International Monetary Fund (IMF) published an estimate that write-downs and losses due to the global financial crisis would amount to a total of USD 1,405 bn (EUR 1,115 bn). Banks would account for up to 80% of the losses booked. The estimate concerns losses on loans granted and securities issued in the United States. What complicates the overall assessment of the situation in Europe is the fear that write-downs and losses resulting from the economic downturn, particularly those relating to the real-estate finance, have just began.

At the global level, by the end of November, banks have recognised write-downs and losses totalling about USD 710 bn (EUR 570 bn). The amount of the total losses is still being updated.

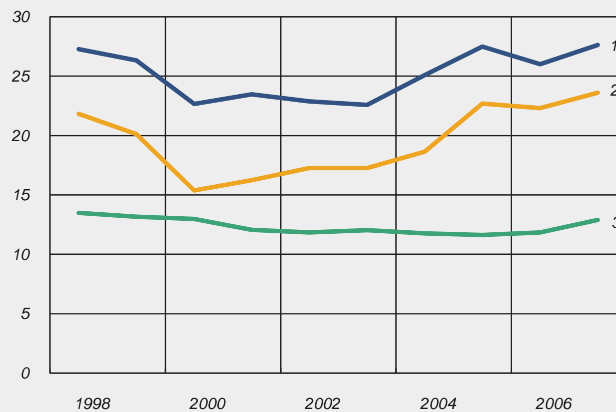
So-called leverage ratios based on banks' balance sheets – the ratio of balance sheet total and equity – indicate that large euro area banks are more leveraged than large UK and USD banks (Chart A). Particularly in the United States and partly also in the United Kingdom a considerable part of the leverage has been built off the banks' balance sheets by way of securitisation of loans. Especially in the United States, securitisation has been strong (Chart B). Therefore, to obtain an overall picture, in addition to the banking sector one must also take into account the growth of leverage in financial transmission outside the banking sector. The assessment is considerably obstructed by a lack of comprehensive data.

The scarcity of banks' equity restricts their lending and investment activities. This tightens the conditions and availability of credit finance. These developments are aggravated by the depletion, in the wake of the crisis, of the market finance channel which has offered an alternative to bank finance. The securitisation of loan assets has also been reduced to nearly non-existent levels during 2008. This will affect banks' capacity to grant credit, since the channel that has enabled the transfer of loans off the balance sheet has been closed.

Debt-driven growth has wound up in difficulties. Now we are facing a process of adjustment towards lower leverage both in banks and other parts of the

Chart A.

Banks' leverage (balance sheet total divided by equity)



Sources: Bloomberg and Bank of Finland's calculations.

financial sector. Impacts of the reduction of debt will be shown in addition to a slowdown of growth as increasing bankruptcies as the availability of finance is obstructed.

Measures by governments have aimed at alleviating financial constraints and preventing the emergence of a credit crunch. However, it is obvious that leverage will be reduced, since over the past few years, excessive indebtedness has accumulated in the economy. One point of departure for an assessment of the adjustment is provided by history. In the United States, the amount of debt held by different sectors relative to gross national product has increased in the 21st century exceptionally rapidly, particularly in the household and financial sectors. The accumulation of debt by the corporate sector has been more moderate partly due to the internal finance resulting from rapid economic growth. Relative to the historical trend, indebtedness of the household sector has been on the rise since the year 2000.

Indebtedness is not just a problem of the United States but the phenomenon has also been replicated in Europe and emerging economies. A review of indebtedness by sector in the euro area and the United Kingdom indicates that the debt of households, companies and monetary financial institutions relative to GDP has been higher in the UK than in the euro area in 1995–2007, and the growth of indebtedness has also been considerably stronger in all sectors.

Leverage may be unwound by increasing equity, selling assets or reducing the loan stock. If a bank can make a positive result, equity may also be increased by refraining from paying dividends.

At the global level, by the end of November 2008, banks have raised about USD 760 bn (EUR 610 bn) of new capital. As the crisis has deepened, the role of governments in the recapitalisation of banks has grown.

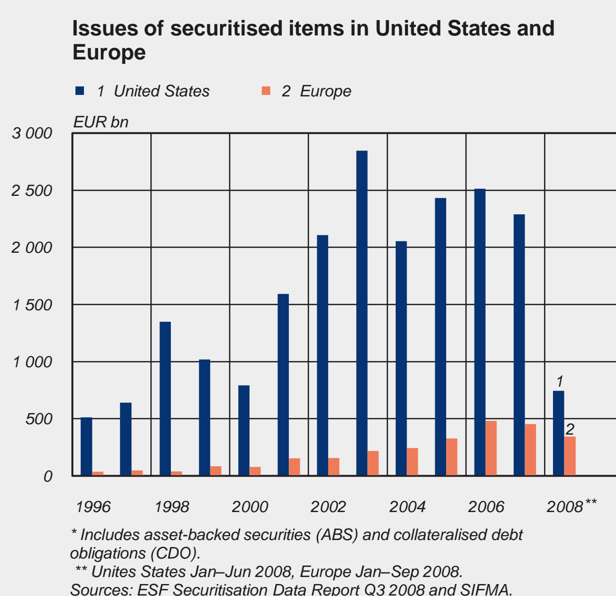
In the context of controlled deleveraging, recapitalisation of banks with solid capital adequacy and operational capability is also called for. This is intended to ensure that the financial sector does not wind up in a credit crunch.

Disposals of assets in the present market situation may cause a collapse of market prices and thus increase write-downs within the banking sector. In addition, disposals of assets reduce banks' opportunities to increase their capital by potential increases or rebounds in value.

Deleveraging in the global financial system will also have an impact in Finland through the international financial markets. It is crucial that leverage is reduced in a controlled manner so that lending that is vital for the conduct of sound business is maintained and the operation of banks continues to have private capital available.

Chart B.

Issues of securitised items in United States and Europe



* Includes asset-backed securities (ABS) and collateralised debt obligations (CDO).
** Unites States Jan–Jun 2008, Europe Jan–Sep 2008.
Sources: ESF Securitisation Data Report Q3 2008 and SIFMA.

continues, it could also fuel deflationary pressures in the economy and the financial system.

A phenomenon closely linked with this scenario is the unwinding of the inflated amount of leverage in the global financial system. At the same time as write-downs and credit losses undermine banks' capital, business operations previously transferred off balance sheet must be brought back to banks' balance sheets. In this case, the amount of equity restricts the opportunities for lending expansion. In the worst case, deleveraging, material weakening of the real economy, write-downs by banks and revelation of new contagion channels could create a vicious downward spiral in the financial markets.

Chart 5.

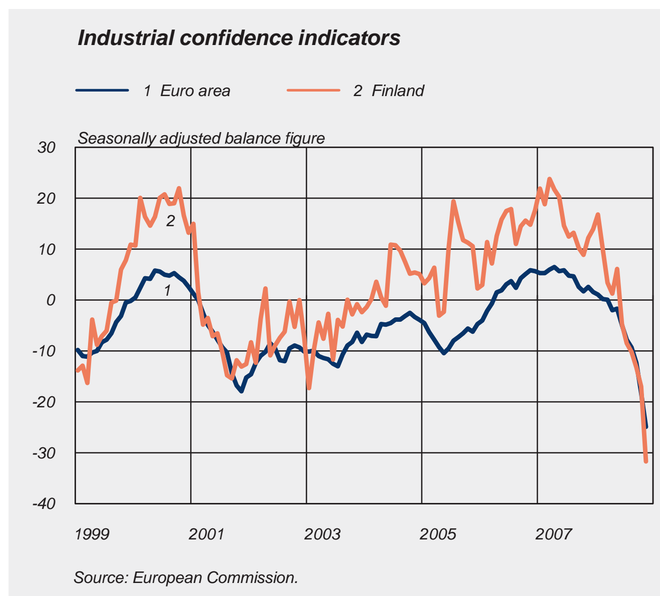
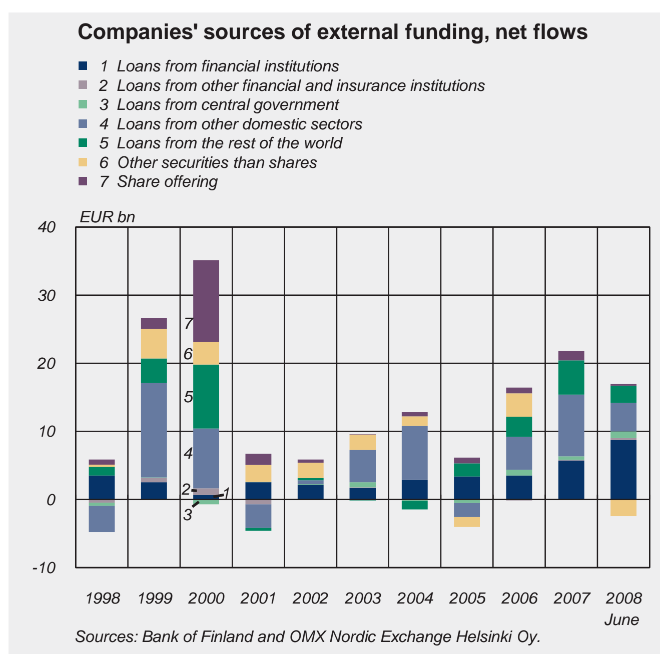


Chart 6.



Financing terms tightening for corporate sector

The crisis in the international financial markets clearly shows in the operating environment of Finnish companies. The order books of industrial companies have contracted and industrial confidence indicators have weakened rapidly (Chart 5). The crisis is reflected in companies' funding through many different channels. The amount of companies' bank loans has increased steeply as companies have turned increasingly to banks with their financing needs. In addition, the amount of insurance premium loans drawn from insurance companies, employment pension companies in particular, have increased. The costs of insurance premium loans are indeed more competitive than before, relative to bank loans. In contrast, practically no funding at all has been raised in the domestic money and capital markets (Chart 6).

The record growth of companies' bank loans is most likely due to preparation by companies for a tightening in the availability of finance

by drawing more loans than their immediate financing needs. Preparation is also seen as an increase in companies' liquid cash reserves. The cash reserves of listed companies in September 2008 were on average higher than a year ago, but the cash position of some companies is beginning to be worrisome.

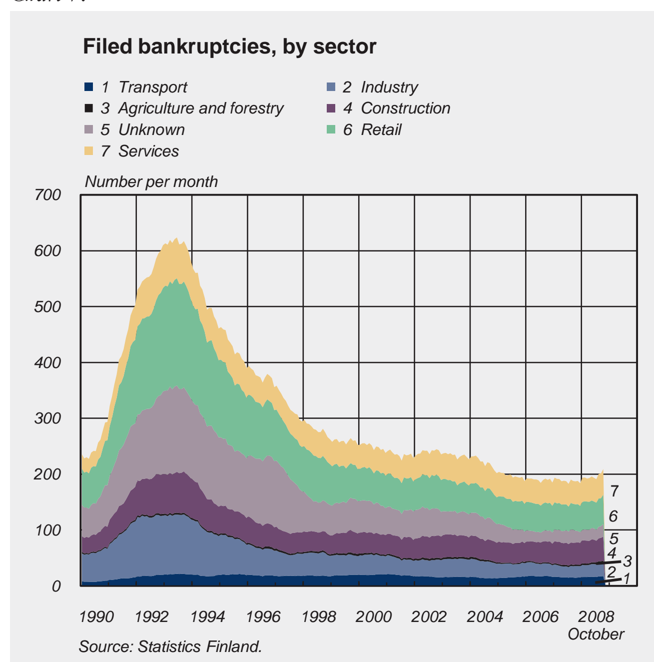
It is expected that the growth rate of corporate loans will slow down as banks tighten their lending criteria and lending in general. The margins on corporate loans have already widened due to the cyclical downturn as banks have began to price the risks associated with corporate loans more carefully than before.

The financial position of the corporate sector on average is still fairly solid, and companies' indebtedness is at a reasonable level following many years of good earnings. For example, only about a third of SMEs had drawn debt finance over the past year[2] and companies have been able to finance their operation with internal funding. However, the need for operating capital is increasing and due to the difficulties of the financial sector, its availability has been tightened.

According to a financing survey by the Confederation of Finnish Industries, the Bank of Finland and the Ministry of Employment and the Economy, the raising of external finance is increasing but its supply has become tighter. Particularly the availability of finance for small companies has become more difficult over the past year, but there are signs of a weakening also in the availability of finance to large corporations. Large corporations are forced to pay a higher price for their finance, and collateral requirements have also been tightened. According to the survey, the availability of finance was not yet considered a problem in early autumn.[3]

The number of defaults and bankruptcies filed by companies has begun to increase slightly this year (Chart 7). Also the EDF figures[4] (calculated on the basis of share prices and financial statement information indicating the probability of bankruptcy have began to increase this year (Chart 8). Increase of companies' difficulties has also been shown as growth in banks' non-performing assets.

Chart 7.



Source: Statistics Finland.

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[2] PK-Yritysten suhdannenäkemys (*Cyclical view of SMEs*), October 2008 Federation of Finnish Enterprises.

[3] Survey of business finances. Confederation of Finnish Industries, Bank of Finland and Ministry of Employment and the Economy.

[4] The EDF figure calculated on the basis of options pricing methods measures the probability that the market value of a company's assets decreases below the nominal value of its debts.

Due to the financial market crisis, equity investors' trust in companies' prospects already began to falter towards the end of 2007. Foreign investors have clearly reduced the weight of Finnish companies in their investments. Net subscriptions in domestic equity funds have been negative. Insurance institutions have also been under pressure to reduce their equity investments.

According to predicted economic developments,[5] debt-servicing problems in the corporate sector will increase, but probably not to any dramatic degree. Materially weaker than anticipated economic developments would compromise companies' standing and materially weaken their financial position as well as increase banks' credit losses. The strength of the banks under such weak economic circumstances has been examined using stress test analysis. The results are reported in Box 2.

Chart 8.

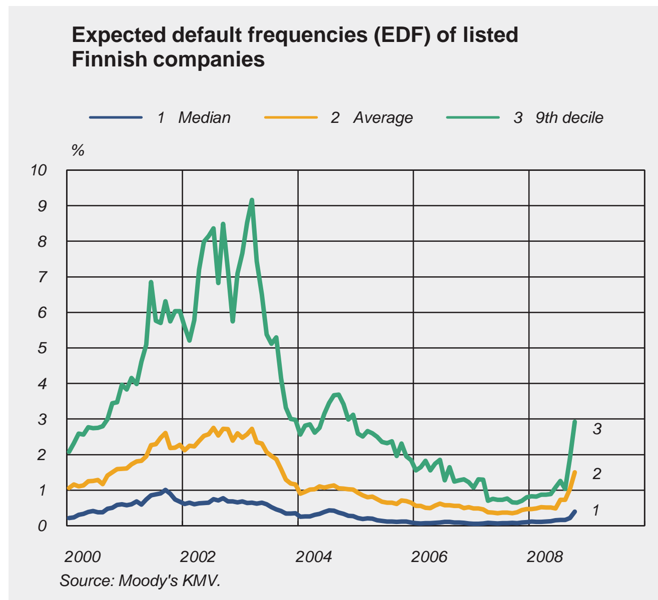
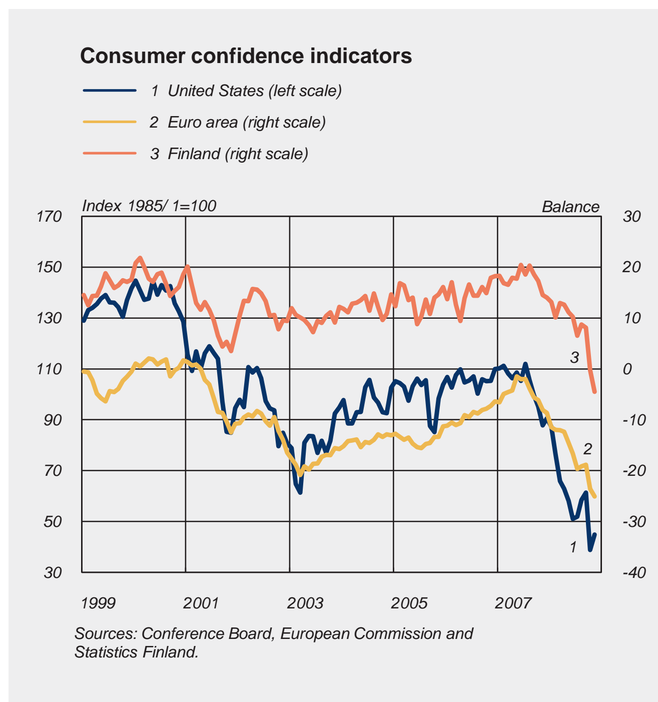


Chart 9.



Growth of households' loan stock slowed down

Consumers' confidence in the economy has weakened materially both in the United States and the euro area over the past year (Chart 9). In October–November 2008, confidence dipped to a level which was low even by historical standards. In Finland, consumer confidence has been weakened by more pessimistic expectations over economic and employment developments. Also expectations of consumers' own financial situation have become gloomier. On the other hand, households' present finances and future saving possibilities are still believed to be good in Finland.[6]

5 See the article Monetary policy and economic outlook in Bank of Finland Bulletin 4/2008.

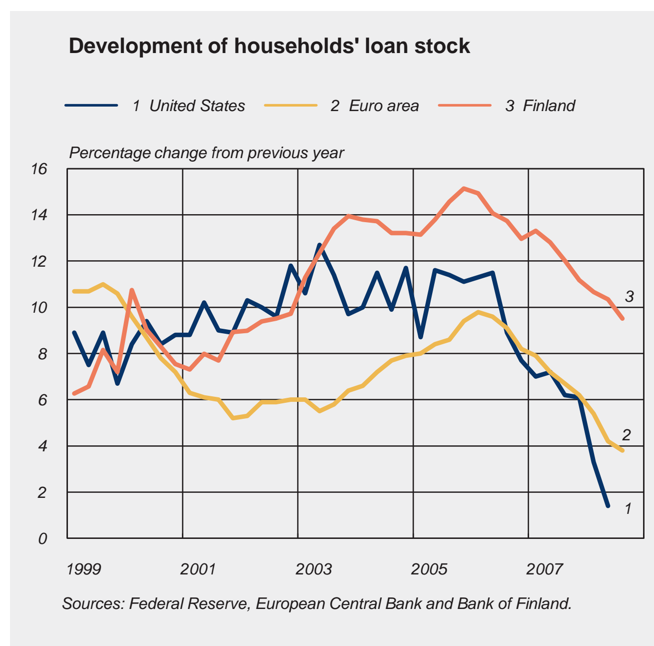
6 Statistics Finland's consumer survey (November 2008).

Household indebtedness in Finland continues to be moderate by international standards. However, the risks related to indebtedness have increased, since an increasing number of households have debt, and the amount of debt relative to income has increased steeply. In 2007, about 58% of Finnish households had debt, and households' average debt ratio – the amount of debt relative to disposable annual income – stood at a record 103%.

The growth rate of households' loan stock has slowed down steadily already for several years (Chart 10). Finnish consumers have assessed that the profitability of borrowing has decreased as interest rates on new loans have risen and economic uncertainty has increased. Nevertheless, growth of the lending stock in Finland continues to be fairly brisk. In October 2008, the housing loan stock grew by 9.7%, consumer credit by 9.2% and other household loans by 4.1%. According to a survey made at the beginning of September, an increasing number of bank managers expect the interest of households in loans to wane further over the following year.[7] There are also signs of tightening credit criteria both in Finland and elsewhere.

Any large-scale materialisation of risks related to household indebtedness in Finland is contingent on the development of interest rates, employment and house prices. Due to the growth of the debt burden, the household sector is increasingly vulnerable to economic disruptions. On the other hand, households' risk-awareness and means of hedging against risk have increased after the economic depression and banking crisis experienced at the beginning of the 1990s.

Chart 10.



Households' loans in Finland are primarily linked to variable rates, which means that, depending on the method of amortisation, a rise in interest rates either increases the monthly debt-servicing costs or slows down repayment. Households' interest expenses have increased in recent years due to the increase of reference rates, but relative to disposable income they are still considerably lower than at the beginning of the 1990s. The decrease of Euribor rates that began in October 2008 will ease the interest rate burden going forward. The international financial crisis has increased the fluctuation of interest rates, but the

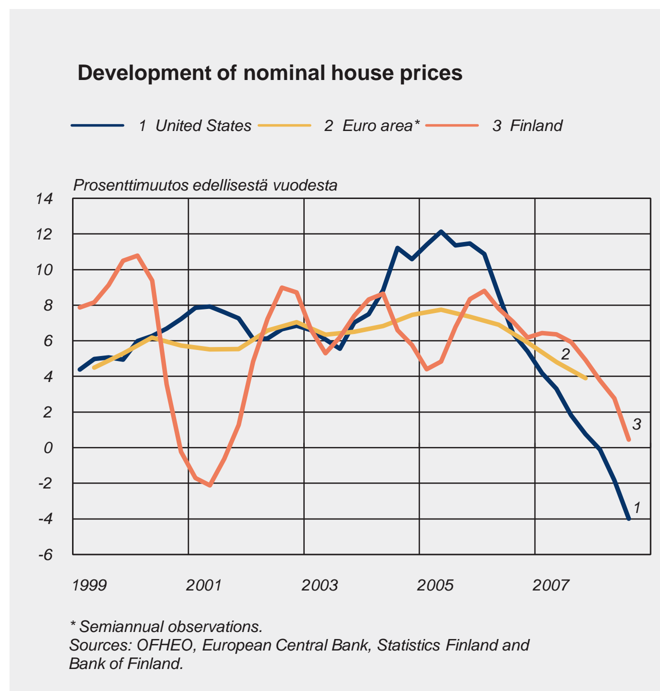
[7] The bank barometer of the Federation of Finnish Financial Services (3/2008).

popularity of fixed interest rates on loans has remained very limited in Finland. In contrast, the use of interest rate caps has increased.[8]

Employment in Finland has been improving for a long period, but the prospects have deteriorated markedly in autumn 2008. Increase of uncertainty related to the development of the economy and employment reduce households' income expectations, thus affecting households' consumption and borrowing decisions. With respect to the risks related to borrowers' income developments, it is positive that different types of payment protection insurance policies have become more common particularly in connection with large housing loans.

[8] Report entitled Saving and borrowing in Finland by the Federation of Finnish Financial Services (May 2008).

Chart 11.



Housing prices have turned to a decline in many countries after an extended rise. This is important, because a considerable proportion of households' wealth and loan collateral is linked to the value of dwellings. In Finland, the prices of old flats decreased in the third quarter of 2008 on average by 1.4% compared with the previous quarter, but they were still 0.8% higher than a year earlier (Chart 11). Relative to consumer prices, residential rents and wage-earners' income level, housing prices in Finland began to decline already in the second quarter of 2008. The development of housing prices depends, among other things, on interest rates and swings of the economy, and at the moment there is high uncertainty related to the developments.

Households' financial assets have contracted and the distribution of wealth has changed due to the financial crisis. The value of direct equity holdings, mutual fund units and insurance investments has decreased materially, which is due to both a decline of share prices and changes in households' investment behaviour. In contrast, the stock of fixed-term deposits has increased steeply, as households have transferred their assets to deposit accounts from riskier investments.

The amount of households' problem loans has increased markedly over the past year but is still low relative to households' loan stock. At the end of June 2008, the proportion of households' loan stock that were overdue by 30–90 days stood at 0.7%

and non-performing (overdue by more than 90 days) 0.4%. At the beginning of the 1990s, the proportion of non-performing loans was considerably higher – over 6% at the end of 1992.

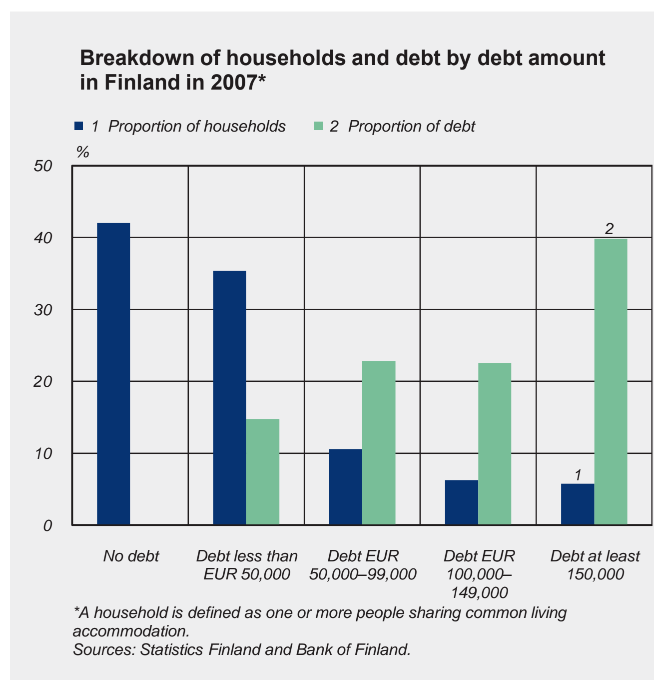
The number of payment difficulties has also remained at a reasonable level. In January–September 2008 the number of new payment defaults recorded to individuals was slightly lower than a year earlier. However, the number of persons with defaults in September stood at a slightly higher level than the comparable figure a year earlier.[9]

Households' debt-servicing ability in Finland has so far remained primarily good. However, the largest debts are concentrated in a fairly limited group whose risk-bearing capacity may be put to a tougher test than previously, as the economic outlook weakens. At the end of 2007, a considerable share of households' debt belonged to households whose debt exceeded EUR 150,000 (Chart 12). The Finnish Financial Supervision Authority has also pointed out that some households have an alarmingly high burden of debt.[10]

[9] Announcement by Suomen Asiakastieto (6 October 2008).

[10] Household credit survey by the Finnish Financial Supervision Authority (Autumn 2008).

Chart 12.



In light of the forecasted economic developments, households' debt-servicing capacity does not pose a threat to banks' stability. The main threat is a trend where the debt-servicing capacity of heavily indebted households would weaken due to a steep increase in unemployment. A concurrent crash in housing prices would cause problems particularly to those borrowers forced to sell their dwelling as a consequence of debt-servicing difficulties.

Banking and insurance sector

The Finnish banking sector has not been as exposed to the financial crisis as banks in the rest of the world. Other Nordic, European and US banks have not managed to avoid major loan losses and impairments. Although the direct consequences of the crisis on Finnish banks are negligible, indirect effects of the crisis are, however, also felt in Finland. Liquidity risk plays a key role but credit risk will increase in importance in the future. The major risks facing the Finnish insurance sector are equity risk and interest rate risk, and because of the fall in share prices preparations of amendments in the legislation governing employee pension institutions are already under way.

Higher business risks for the banking sector

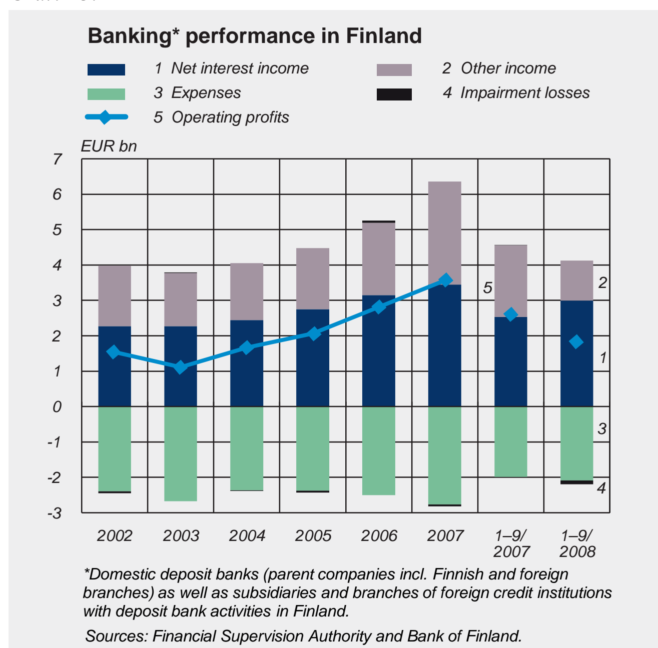
The Finnish banking sector has recorded positive performance during the past few years. Total operating profits for the Finnish banking sector amounted to approximately EUR 1.9 billion over the period January–September 2008. Although banks' financial results for the first three quarters were lower than in January–September 2007, the results are still reasonably good in light of the developments in the operating environment (Chart 13).

In the past year, Nordic, European and US banks have shown weaker performance capacity than Finnish banks (Chart 14). In the United States, in particular, banks' operating profits have fallen sharply in response to lower income and surging loan losses following the financial market crisis.

During the past years, the strategies of Finnish banks have become crystallised in the quest for rapid growth, higher market shares and expansion into the insurance and investment business. Accordingly, banks' business volumes have been growing. Despite slower lending growth, loans to the public increased by 13.0% in October 2008.

Business volume growth has earned banks more interest income. The sustained rise in market rates until the present days has also resulted in higher interest income from individual loans, as the majority of lending is tied to Euribor rates and banks' prime rates. Favourable economic development has bolstered the accumulation of household wealth, and banks' stocks of deposits have been steadily growing. Banks benefit from the growth in deposits, since it offers them a less expensive source of funding to complement more expensive market

Chart 13.



*Domestic deposit banks (parent companies incl. Finnish and foreign branches) as well as subsidiaries and branches of foreign credit institutions with deposit bank activities in Finland.

Sources: Financial Supervision Authority and Bank of Finland.

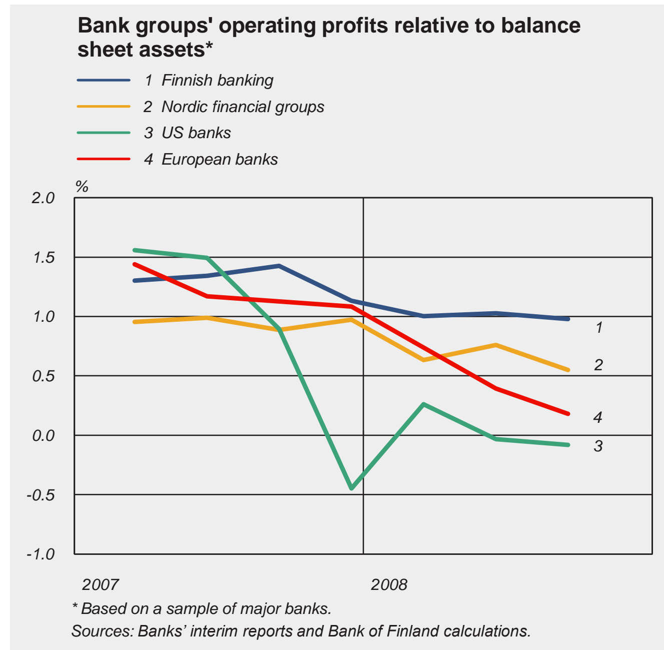
financing. Hence, in January–September 2008 banks' net interest income had grown by 19% from the year before.

The quest for rapid growth and higher market shares may prove a hazardous strategic approach if growth is achieved through unhealthy competition, ignoring loan losses. To attract new clients, banks lowered their margins on housing loans to a level below 0.5 percentage point (Chart 15). Also the margins on corporate loans have been reduced almost to the same level. Narrow margins represent a return risk to banks, considering that lending periods are often long and lending should be profitable for banks also in the long run. Impairment losses on loans have been growing although their profit impact remains quite small in Finland and their amount negligible in proportion to the stock of lending. Banks have started to broaden their margins to increase their income. Corporate loan margins, in particular, have already been widened and the terms and conditions of lending tightened overall.[1]

Expansion into the insurance and investment business has diversified the banks' income base. Currently, insurance is either part of the banking group, or the banking group has entered into a cooperation agreement with an insurance provider. By broadening the income base banks reduce their sole dependency on developments in net interest income. Cross-selling of products has been brisk, and other income as a proportion of total income has increased in recent years as the share of net interest income has fallen.

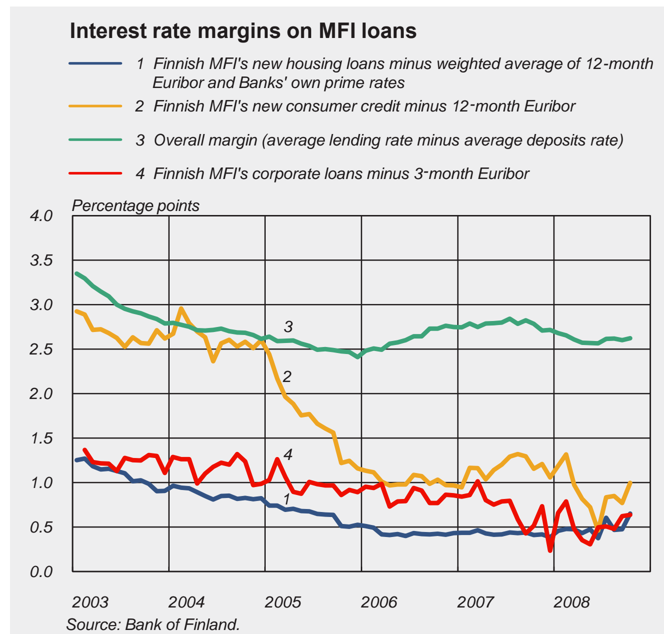
Following the expansion into new business, a shift in the relative weighting of risks has occurred, which, in the

Chart 14.



* Based on a sample of major banks.
Sources: Banks' interim reports and Bank of Finland calculations.

Chart 15.



Source: Bank of Finland.

1 Confederation of Finnish Industries, the Ministry of Employment and the Economy and Bank of Finland (December 2008) Business Financing Survey.

Banks' expenses increasing faster than income.

course of 2008, has been reflected in lower income from securities trading and falling securities values in response to adverse developments in the investment environment. Furthermore, net investment income from life and non-life insurance has declined considerably. Finnish banks have, nevertheless, exercised moderation in their risk taking. No major concentrations of risk in foreign financial companies that have run into financial difficulties have been reported.

Finnish banks' expenses have increased in step with the expansion and restructuring of the business. Staff expenses grew through new recruitments and higher levels of salary. In nearly all banks, total expenses increased faster than total income, thus reducing cost efficiency as measured by the cost-to-income ratio (Table 1). However, cost efficiency has also declined in the Nordic financial groups overall.

Finnish banks report lower rates of return on equity (ROE) than foreign financial groups. This is partly explained by the brisk investment activity of foreign banks, bringing high returns. Furthermore, Finnish banks typically hold higher levels of capital than foreign banks. As investment income declined and loan losses increased , the profitability of foreign financial groups has, nevertheless, declined. However, lower income and higher expenses also erode the profitability of Finnish banks.

The capital adequacy of Finnish banks has remained sound on average and is strong by international standards.

In the light of financial performance, competitiveness and capital adequacy, the strategic approach adopted by the Finnish banks seems to be successful. Amidst rapidly changing market conditions, strategic flexibility will be the key determinant of financial performance.

Slackening economic growth and the high cost of market funding represent challenges in terms of net interest income. The findings of the consumer survey[2] indicate that

[2] Statistics Finland's consumer survey (November 2008).

Table 1.

Nordic bank groups' profitability, cost efficiency and capital adequacy

	Profitability: return on equity, (ROE), %		*Cost efficiency: costs, % of income*		*Capital adequacy measured by core capital (Tier 1), %*	
	2007	*1–9/2008*	*2007*	*1–9/2008*	*31.12.2007*	*30.9.2008*
Nordea Group	*19.1*	*15.7*	*52*	*54*	*7.0*	*7.0*
Danske Bank Group	*15.1*	*8.9*	*56*	*61*	*6.4*	*10.0*
OP-Pohjola Group	*13.7*	*8.0*	*49*	*50*	*12.6*	*12.4*
SEB Group	*19.3*	*10.9*	*57*	*66*	*8.6*	*8.2*
Svenska Handelsbanken	*23.3*	*13.7*	*41*	*47*	*6.5*	*6.7*
DnB NOR	*22.0*	*15.5*	*51*	*51*	*7.2*	*6.3*
Swedbank	*18.9*	*17.0*	*51*	*50*	*8.5*	*8.7*
Jyske Bank	*23.6*	*15.0*	*59*	*71*	*8.1*	*10.3*

Source: Banks' interim reports.

households do not find the time right for taking a loan. At the same time, the economic slowdown reduces companies' need for funding. Nonetheless, the financial market crisis has forced companies to resort to banks for most of their funding in the course of 2008. Central banks have recently reduced their key rates, which is also reflected in banks' lending rates. Slower lending growth, in conjunction with lower lending rates, gradually reduces the increase in net interest income. The decline in lending rates is moderated by broader lending margins.

Non-performing assets, ie loans not serviced for 90 days, still account for only a low – albeit rising – proportion of the stock of lending. Higher failure to service loans has also been reflected in larger amounts of outstanding loans and payment defaults.

Increasing market volatility and gloomy prospects for the future cast their shadow over banks' other income. The market crisis has brought to light the risks related to mutual funds and other investments, undermining the sales of market-based vehicles and, thereby, reducing fee income. At the same time, banks' own investment income has decreased. In 2008, the market turmoil has also been reflected in the prices of securities and shares. The amount of actual losses depends on the size and diversification of the asset portfolio. The amendment of the International Financial Reporting Standards (IFRS) introduced within the EU will ameliorate some of the losses, in that it allows for the acquisition cost approach to be applied to the trading portfolio and available-for-sale instruments, instead of fair value accounting.

Banks have failed to keep their expenses in check to offset declining income. Payroll expenses are increasing and the availability of skilled staff will represent a challenge in the future, given the accelerating pace of retirement in the banking sector. Maintenance of cost efficiency will, therefore, require either an increase in income or clear expense cuts.

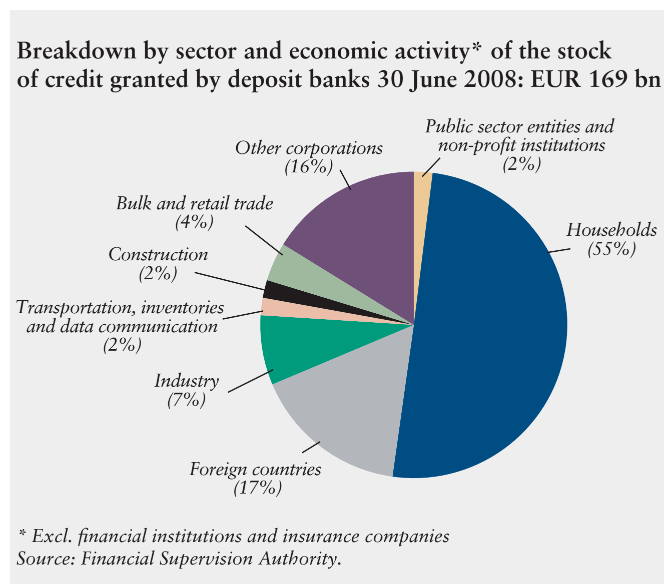
Other risks

Credit risks moderate

In response to lending growth, Finnish banks' credit portfolios increased as did their credit risks. In June 2008, the lending stock of deposit banking groups amounted to EUR 169 billion, which was 17% more than in the year before (Chart 16).

Chart 16.

Breakdown by sector and economic activity* of the stock of credit granted by deposit banks 30 June 2008: EUR 169 bn



* Excl. financial institutions and insurance companies
Source: Financial Supervision Authority.

The measures available for credit risk management include portfolio diversification by sector and avoidance of excessive individual concentrations of risk. Household lending, most of which consists of housing loans, accounts for half of the lending stock. This proportion has fallen by 5 percentage points in the course of the year. Declining economic prospects erode loan serviceability, which may hit people with large, long-term housing loans especially hard. So far, banks' household credit risks can, however, be regarded as moderate.

Rising credit risks in the corporate sector.

Corporate loans account for roughly 30% of the stock of lending. In the year, loans to the manufacturing industry have declined in volume, whereas the proportion of loans to other sectors of the economy has grown. The market crisis has made it more difficult for companies to raise funding on the bond market and they have therefore increasingly fallen back on bank loans. Despite the increase in problem loans originating in the corporate sector, such loans still account for only a small proportion of the stock of corporate lending granted by banks. In step with slowing economic growth, the challenges in the operating environment are also increasing. Banks' exposures to the corporate sector are therefore expected to grow and loan losses rise back to the normal level after an exceptionally favourable period.

Higher liquidity risks

In recent months, the whole world has faced a market liquidity crunch of record proportions. Very few loans have been made in the euro area interbank market in unsecured money market lending. Available financing has been of shorter maturity and more expensive than in the past.

Consequently, banks have been caught up in liquidity problems. A bank holding a high volume of liabilities payable today and assets receivable in a year may be illiquid even if its assets greatly exceed liabilities. When there is ample liquidity in the market, asset items may be sold and a capitally adequate bank may issue its own debt instruments. Sound liquidity in the banking sector, in turn, promotes market liquidity as liquid banks have the capacity to engage in active trading.

The current situation has been further exacerbated by the hoarding of liquidity: many banks have sought to store liquidity and become increasingly reluctant to lend to other market participants. This has meant higher liquidity risks for banks.

Banks that rely heavily on short-term market funding due to their small volume of deposits are especially prone to liquidity problems. Problems are the more likely to occur if the bank has a low credit rating or otherwise appears potentially non-reliable. The banking groups operating in Finland are not particularly vulnerable in light of these criteria, and their liquidity position has been better than that of many foreign banks.

In Finland the banks' liquidity position has been strengthened by a surge in deposits, which has relaxed the banks' dependence on the money market. This is reflected in a standstill and reversal of the long sustained

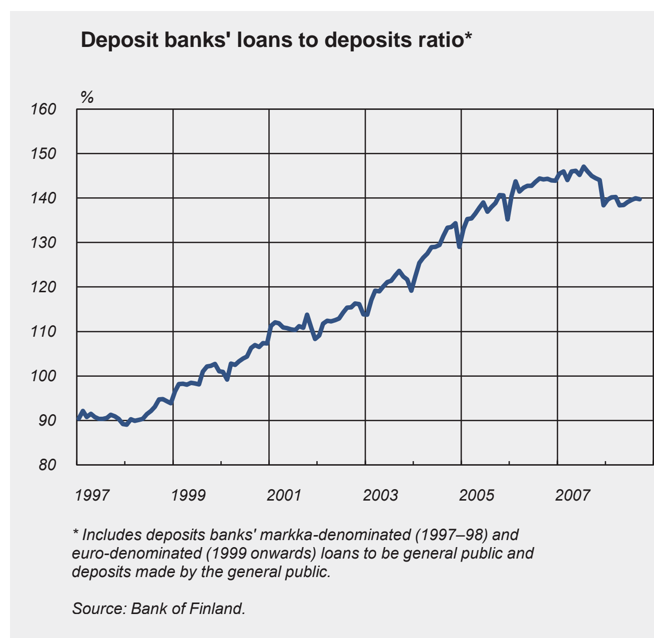
growth in the ratio of lending to deposits (Chart 17). In spring 2007, before the onset of the financial crisis, deposits with Finnish monetary financial institutions (MFIs) amounted to more than EUR 80 billion, exceeding EUR 100 billion in autumn 2008. Household deposits were growing at a fairly steady rate. Corporate deposits soared towards the end of 2007, at a rate of over 20% in six months, but in the course of 2008 the pace has moderated.

Most of the volume growth in deposits has been accounted for by fixed-term deposits. In the spring and summer months 2007, fixed-term deposits held by households and companies amounted to roughly EUR 20 billion. By early autumn 2008 the amount had already increased far beyond EUR 30 billion. Fixed-term deposits provide a more solid source of funding than deposits on transaction accounts, as clients are not entitled to make withdrawals whenever they like, at least not free of charge.

The increase in the deposit guarantee limit from EUR 25,000 to EUR 50,000 per depositor and bank is likely to pave the way for growth in deposits. The higher protection afforded highlights the nature of bank deposits as a 'safe haven' for investors shunning risk.

Besides deposit growth, portfolio structure is another factor underlying the improvement in the liquidity position of Finnish banks. Finnish and other Nordic banks have only minor holdings in structured financial instrument which have proved problematic in that they are not easy to sell under the prevailing circumstances. The low portfolio share of structured

Chart 17.



instruments also makes these banks appear as a relatively low risk in the eyes of the potential funder, as compared to the banks of many other countries. This helps the banks raise financing in money and capital markets.

Finnish banks have few problematic investments.

The claims of Finnish banks and Finnish branches of foreign banks on the public and public sector entities currently clearly exceed their deposits and other liabilities in respect of these groups. The difference represented around EUR 41 billion at the end of September 2008. Any additional funding required may be obtained from various other sources, above all the bond and money markets. Banks' own issuance of bonds and certificates of deposit (CDs) exceeded their holdings in other debt instruments by slightly over EUR 40 billion. The financial surplus raised in the market for debt instruments, thus, more or less equals

Government rescue measures have restored some of the confidence between banks.

the difference between lending and deposits. For example, equity plays a less significant role in the funding of banks. At the end of September, banks' claims on credit institutions exceeded their liabilities to credit institutions, implying that borrowing from foreign banks does not represent a net financing source for the Finnish banking sector.

The volume of CDs issued by the banks has remained stable at over EUR 50 billion during the crisis. Although several banks in the euro area experienced serious difficulties in obtaining unsecured credit from the money market, especially before introduction of the massive government rescue measures, Finnish banks' CD issuance has remained unchanged. The statistics of the Finnish Central Securities Depository show that turnover in money market instruments in September–October 2008 has been unchanged from autumn 2007, although activity in July and August 2008 was rather subdued.[3]

The rescue measures announced by the governments in October have restored some of the confidence between the banks and contributed to the recovery of money markets.

It is important for central banks to monitor the liquidity situation. Under the rules of the Eurosystem, central bank credit may only be obtained against adequate collateral. Following the change of Eurosystem tender practices in October, counterparties may now raise loans at the policy rate against appropriate collateral according to need. This removes some of the uncertainty surrounding tenders and increases banks' potential for raising funding.

The Bank of Finland's counterparties, ie the Finnish banks and Finnish branches of foreign banks, have not resorted to central bank financing to an unusual extent over the past few months. The Bank of Finland's monthly balance sheet shows that claims related to monetary operations on euro area credit institutions averaged EUR 2 billion in 2005–2006. In 2007 when the turbulence started, the Bank of Finland held an exceptionally low amount of these claims but the amount started to grow in the winter and spring months 2008, exceeding EUR 2.5 billion in September and standing at EUR 3 billion in October. Coinciding with this, overnight deposits from banks have soared. Lack of collateral is hardly the reason why banks have not availed themselves of central bank financing to a greater extent.[4] In addition to existing collateral, banks may presently use client loans as collateral, which increases the amount of potential collateral considerably.

For the Finnish banking sector, liquidity risks seem to represent a future threat rather than a pressing problem. The last quarter of the year is often most challenging in terms of liquidity, and the probability of problems may increase in December.

Higher contagion risks in money markets in the wake of globalisation

Banks both make deposits in and obtain financing from the interbank

[3] Money market instruments also include commercial papers, the volume of which is lower than that of CDs.

[4] Chart 22 illustrates the average monthly use of collateral by the Bank of Finland's counterparties.

market. Finnish banks operate in both domestic and international money markets. Typically, Finnish MFIs lend more money to their counterparties than receive deposits from them.[5] At the end of September 2008 the ratio of MFI lending to the balance sheet represented around 26% for Finnish MFIs, while the ratio of deposits to the balance sheet represented 24%.

On average, one-quarter of lending and deposits between MFIs has been made with a Finnish counterparty. Financing to and from abroad by MFIs exposes the Finnish financial sector to international disruptions. The foreign counterparties of Finnish MFIs are mostly banks located in Sweden, Germany and the UK.

Banks' equity risks growing

At the end of 2007, Finnish banks' holdings of publicly quoted shares amounted to approximately EUR 1.4 billion, but the portfolio value has declined in the current year. The decline in share holdings is largely due to a fall in share prices.

However, because of the heightened uncertainty in share markets, equity risks have not necessarily been reduced. Share price fluctuation has picked up in recent months. The volatility of share prices is measured for example on data from the derivatives market by calculating implicit volatilities reflecting market expectations of future share price fluctuations. The implicit volatility calculated on the derivatives of the Euro Stoxx50 index of European shares reached its all time high in October. The London stock exchange and the US stock markets also demonstrated record high volatility in October.

Banks often hold sizable equity derivatives positions. The effects of derivative contracts on the risk position often take on highly complex forms.

Market indicators point to higher risks.

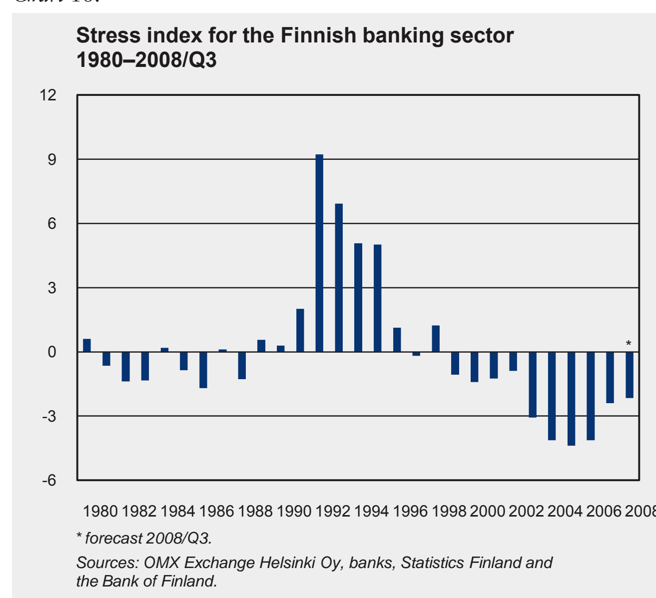
Banks' risk exposures in the light of indicators[6]

Bank share prices, interbank deposits, profitability, equity and loan losses make up the index denoting the banks' stress situation. In the index, each of the variables carries the same weight. A higher index value represents a higher risk. The index shows that the situation of the sector has deteriorated and risks have increased since 2007 (Chart 18).

[5] Here counterparty also includes parts of the banking groups other than Finnish MFIs.

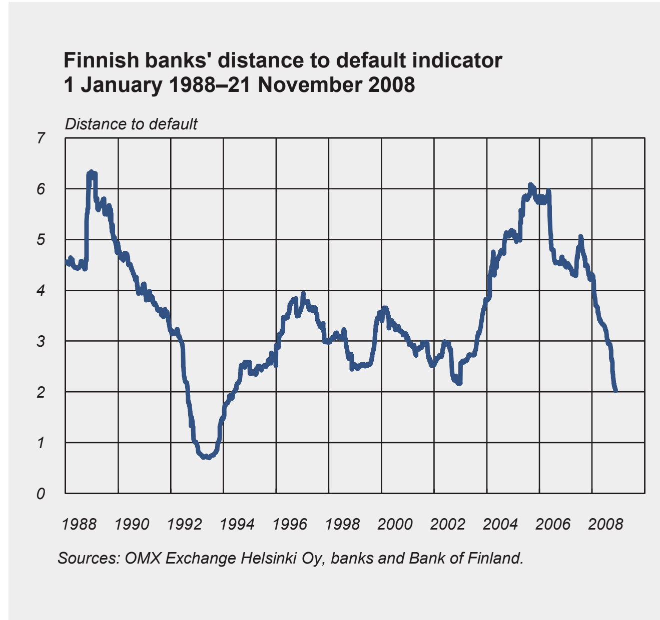
[6] For a more detailed account of the methods, see the 2006 Financial Stability issue, pages 44–46.

Chart 18.



* forecast 2008/Q3.
Sources: OMX Exchange Helsinki Oy, banks, Statistics Finland and the Bank of Finland.

Chart 27.



However, there is no cause for alarm, as the situation portrayed by the index is better than that witnessed during the past 20 years on average.

Bank share prices have fallen sharply over the past few months, which also points to faltering confidence in banks. An index denoting banks' average distance from default may be calculated on share market and balance sheet data (Chart 19). The indicator shows that banks have become clearly more exposed to risk in the current year, with the levels of risk exposure more or less equal to those witnessed in the years 2002–2003, after the bursting of the techno bubble.

Box 2.

Autumn 2008 stress test

In October–November 2008, the Bank of Finland and Financial Supervision Authority conducted joint calculations of banks' ability to cope with a deeper-than-expected recession. The calculations were made using Aino, the Bank of Finland's model, simulating the Finnish economy. The model was used to produce a fictitious macro-economic scenario in which GDP growth comes to a halt at the end of 2008 owing to weak export demand and pessimistic expectations. The situation would be at its worst in 2009, when GDP growth would drop by approximately 2.8%. In 2010, the last year of the scenario period, real GDP would start to grow again. Short interest rates were assumed to fall by 1.6 percentage points during the review period.

Deep recession and falling interest rates are a bad combination for banks' net interest income. The assessment of net interest income develop-ments was based on the used macroeconomic scenario and past statistical relations between GDP, interest rates and lending and funding. Net interest income developments were assumed to be slightly more unfavourable than those purported to the most likely scenario provided by the model. Based on these assumptions, net interest income would weaken throughout the whole forecast period and would be approximately 15% lower in 2010 than in 2008.

Fee income was expected to decrease throughout the entire review period. The decrease would be clearest in fees relating to securities trading and investment, which were assessed to fall by 30% in 2008–2009, after which they would remain unchanged.

Share prices were assumed to fall further at the end of 2008 and early 2009, leading to impairment losses in the early part of the review period. Investment property values would also fall.

Growth in expenses in 2009–2010 was assumed at about 1.5% per annum.

The development of loan losses was assessed on the basis of statistical relations between indebtedness, economic growth and interest rate changes as well as the macroeconomic scenario. Loan losses would increase fast even considering the scenario situation, growing throughout the review period and be manifold in 2010 compared with the initial situation.

The banking sector as a whole would cope with the assumed situation fairly satisfac-torily. Banks' profitability would weaken, but most banks would still record profits. Coping with the situation would be enhanced by the fact that the capital adequacy of most banks is good in the initial position and that the calculated operating losses would be relative small.

However, these stress calculations did not encapture all possible risks. For example banks' liquidity was not tested. Similarly, the calculations do not take into account the possibility that some major foreign counterpart would suddenly become insolvent.

Declining results in the insurance sector due to investment losses

Because of the negative return on investments, 2008 is expected to be a weak year for the Finnish insurance business. Growth in aggregate premiums written for the insurance sector remained below 1% already in 2007 and the same trend has continued this year.

Near-term prospects for the insurance business have deteriorated.

Premiums written on statutory pension insurance increased by more than 4% in 2007, reflecting higher levels of employment and growth of the wage bill, whereas non-life premiums declined somewhat on last year due to changes in accounting practice. In life insurance, premiums written fell by over 8% in 2007. The fall was most pronounced in endowment insurance. The sharp fall in share prices has reduced interest in unit-linked life insurance and accrued premiums written on unit-linked policies have fallen by half since last year. The proportion of guaranteed-return policies was again higher than that of unit-linked policies.

The performance of non-life and life insurers is expected to decline in 2008. Total results for employee pension insurers, with invested assets measured at fair value, declined in 2007 to less than one billion euro in response to lower returns on investment. Total results for January–June 2008 already showed a loss of EUR 4.7 billion, having shown a profit of EUR 2.3 billion in the same period a year earlier.

Insurance risks

The weights of the insurance risks carried by insurance companies vary by line of insurance. For long-term policies, such as life and pension policies, selection of appropriate underlying variables for the rate of contributions, including rate of interest, mortality, life expectancy or treatment cost, is key to business continuity. The price-setting behaviour of Finnish insurance companies does not show any unhealthy features. Rapid growth of new insurance companies or the market entry of new insurance vehicles may, however, expose the insurance sector to higher risks.

Price-setting risks relative to the Finnish employee pension scheme are lower than for personal life and pension plans, as the price setting of the pension scheme may be annually adjusted. Price-setting risks in the Finnish insurance business are also constrained by the statutory nature of two-thirds of premiums written, which is primarily being determined administratively.

Investment risks

Investment risks are the major risks currently facing the Finnish insurance business. The investment risks of insurance companies are largely similar to those in banking, but the relative weighting of individual risks clearly differs between banking and insurance. Liquidity risk is much more important in banking than in insurance as is credit risk, which is negligible in the insurance business as direct lending takes place on a small scale and only against solid collateral. Furthermore, eg counterparty risk does not carry the same weight as in banking. The weight of market risk is higher for insurance companies than for banks because of the massive

investment volume. The market risks of insurance companies vary according to the line of insurance. The investment risks faced by non-life companies are primarily interest rate risks. Shares account for a high proportion of the holdings of life and pension insurers, with the share holdings of pension companies nearly equalling holdings in fixed-income instruments.

The financial market turbulence that has continued for more than a year has reduced the solvency of Finnish pension and employee pension companies considerably. Share prices turned sharply down at the beginning of 2008, which caused the solvency margins of Finnish insurance companies to plummet (Table 2).

The solvency of Finnish non-life insurers has remained sound in spite of the financial market crisis. Companies have survived the share market collapse because of their high share of holdings in fixed-income instruments. Income from real estate markets has also remained on a relatively good level. In September 2008, shares accounted for a little under 15% of the insurance companies' asset portfolios.

Life insurance companies hold a higher proportion of shares in their asset portfolio; shares stood for over one-fifth of the portfolio value in June 2008. The solvency margins and solvency ratios of life insurers have declined over January–June 2008 following the collapse of the share market (Chart 20). Some life insurance companies have this year been capitalised by their owners to maintain the levels of capital adequacy.

Financial crisis tests the solvency of employee pension and life insurance companies.

The solvency margins of companies operating statutory employee pension schemes were substantially strengthened thanks to several good years of investment. This year solvency margins have plunged in response to the collapse of the value of shares and some other financial

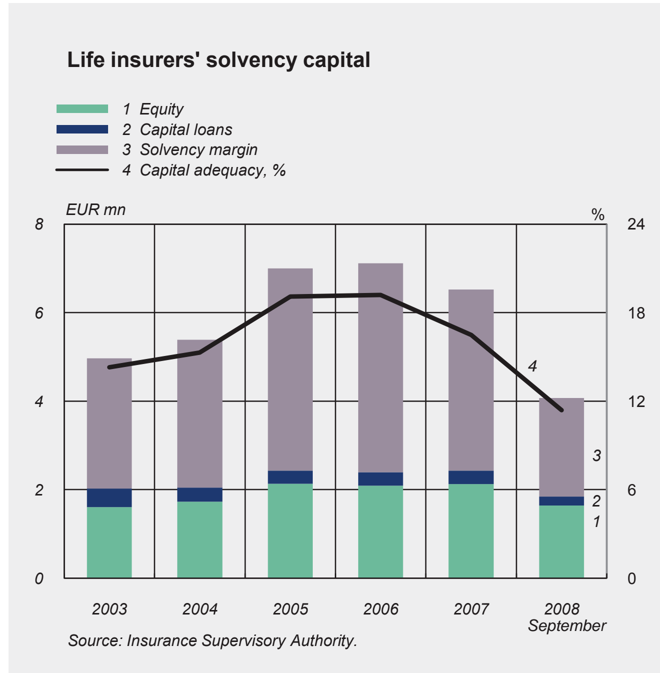
Table 2.

Solvency of life, pension and non-life insurers

	12/2005	12/2006	12/2007	09/2008
Life insurers				
Solvency margin, % of minimum amount	422.2	423.2	358.8	249.1
Solvency capital, % of technical provisions	19.1	19.2	16.5	11.4
Employee pension insurers				
Solvency margin, % of minimum amount	371.4	338.1	289.7	209.5
Solvency capital, % of technical provisions	29.1	31.3	29.9	14.5
Non-life insurers				
Solvency margin, % of minimum amount	388.7	353.9	374.8	314.9
Solvency capital, % of technical provisions	59.1	56.2	59.4	55.6
Solvency capital of premiums earned over 12 months, %	136.3	132.0	145.7	142.5

Source: Insurance Supervisory Authority.

Chart 20.



Source: Insurance Supervisory Authority.

Solvency of employee pension institutions temporarily strengthened.

instruments. Still last year, the average rate of return on the holdings of employee pension insurers was as high as 5.4%, but in the first half of this year it turned negative, to –4.4%. Over the corresponding period, the rate of return on share holdings stood at nearly –14%. Private-sector employee pension insurers will receive some temporary relief to ease their severe solvency situation if the proposal of the Ministry of Social Affairs and Health for introducing measures to strengthen the solvency margins of pension institutions is adopted by the Finnish parliament.[7] In addition, minimum solvency requirements were lowered and the dependence of solvency margins on the asset diversification applied was removed. These decisions served to stabilise the solvency position of employee pension institutions, which did not have to resort to, for example, forced sale of shares on any broader scale.

The short-term outlook for the insurance business is weak. The investment return will show a loss for 2008, and the favourable development in premiums written witnessed for many years has now made a downturn for most lines of insurance in face of heightened economic uncertainty.

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[7] The solvency position of employee pension institutions is eased for example by limiting the amount transferrable to pension reserve funds to 3%, ie the discount rate, in 2008. With a view to boosting solvency, the clearing reserve included in the technical provisions is temporarily subjected to the same treatment as the solvency margin. The proportion of technical provisions related to return from shares will be raised to 10% in the years 2008–2010. Furthermore, the minimum solvency requirement is lowered and made independent of the asset diversification of the pension provider. For closer details, see the Ministry of Social Health and Welfare press release No. 285/2008.

Financial market infrastructure

The financial market crisis has tested the sustainability of the infrastructure and its ability to function in exceptional conditions. Payment and settlement systems have thus far not encountered problems and the systems have maintained their liquidity. Concern has however risen on how to ensure the reliability and business continuity of the infrastructure as it undergoes integration and how to ensure that counterparties and users have access to transparent information on the operation of the systems.

The focus of the integration process of the Finnish infrastructure has shifted from the Nordic countries to Europe and beyond. Within the securities markets, global players are seeking a competitive edge both in trading and clearing. Authorities have supported various development projects, such as the introduction of central counterparty clearing, also as a means of improving risk management. The impact of the financial market crisis on integration remains to be seen. It may however slow down the integration process. For payment systems, this could mean a delay in the introduction of the Single Euro Payments Area, and the expected economies of scale and the benefits of the investments would not be reached.

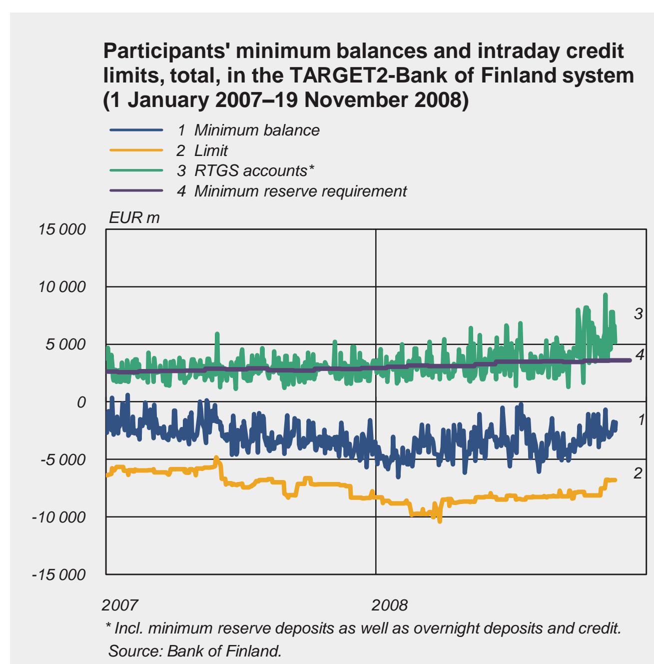
Both financial market integration and the ongoing crisis have highlighted the role of the authorities: the functioning and transparency of infrastructure must be ensured by enhancing supervision and regulation, and the realisation of the benefits of integration must be promoted with all means available.

Sufficient liquidity in payment and settlement systems

The financial market crisis has changed the payment practices of payment and securities systems' participants. With the intensifying loss in confidence, banks operating in Finland have sought to secure their payment capacity by preparing for an increasing need for intraday liquidity. The Finnish infrastructure has operated smoothly and therefore the operation of the Finnish payment and securities settlement systems has not been threatened at any point, despite the higher-than-normal fluctuation in the need for intraday liquidity. Banks operating in Finland have, as a rule, managed their liquidity risks carefully, and the amount of euro-denominated liquidity available to them has remained high throughout the financial market crisis (Chart 21).

Banks have protected their liquidity.

Chart 21.



* Incl. minimum reserve deposits as well as overnight deposits and credit.
Source: Bank of Finland.

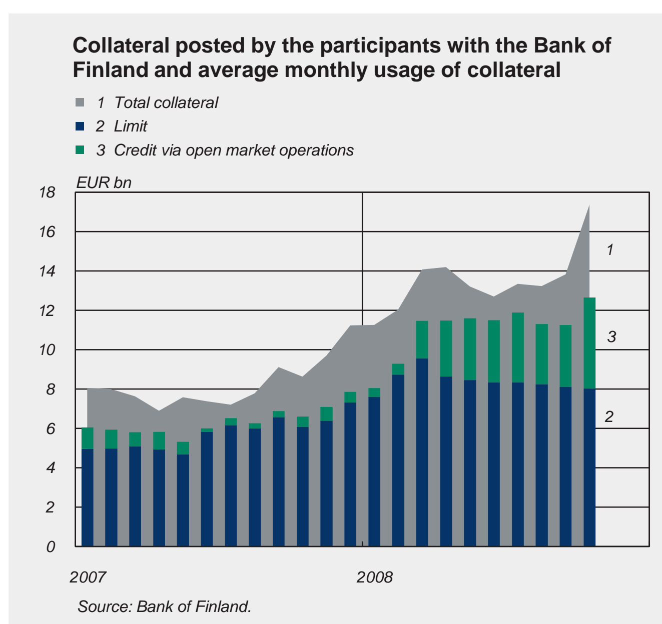
The liquidity available in the TARGET2 system[1] is made up of the balances on banks' central bank accounts and the collateralised credit limit available to them, which enables them to rely on intraday credit from the central bank. If payments are not processed smoothly, a bank may have to make a transfer before it has received the expected payments. Such fluctuations in payment flows, if heightened, may hinder a financially sound bank from executing payments, and in the worst case, paralyse the payment systems. Liquidity risk may also materialise in a situation in which a lack of eligible collateral or a strong decline in the value of eligible collateral hinders the banks from acquiring a sufficient amount of intraday liquidity.

Banks operating in Finland already started accumulating their intraday limits in spring 2007 when the first news about problems in the US mortgage market emerged.[2] This was accompanied by a growth in intraday minimum balances, which may reflect the tightening of participants' payment practices in international markets in parallel with the bad news. As activity in the interbank money market slowed, banks posted additional collateral with the Bank of Finland and used an increasing amount of the collateral to acquire additional liquidity in the central bank's open market operations. Banks nevertheless still have a collateral surplus, which enables them to further increase their limits (Chart 22).

Banks have been extremely cautious in their liquidity management: in the autumn, they have acquired central bank funding and – at the same time – posted part of the funds with the central bank as overnight deposits, the interest rate of which is significantly lower than the market interest rate.

During a period of market disruption, banks' payment forecasts may turn out to be too positive if their counterparties do not behave as expected. In a simulation performed by the Bank of Finland, a scenario was created which assumed that occasionally illiquid securities brokers do not transfer the required liquidity to the equities clearing system to fulfil their obligations. As a result, some of transactions remain unsettled. The liquidity needs of the other counterparties varies however only slightly if the purchases and sales to be netted are in balance.

Chart 22.



[1] TARGET2 is a centralised system for large-value payments in the euro area.

[2] In spring 2007, unlisted certificates of deposits were excluded from the list of assets eligible as collateral.

Liquidity risk can also be mitigated by financial market infrastructure functionalities and rules and regulations. In TARGET2, the optimisation of liquidity is facilitated by sophisticated clearing mechanisms and the possibility to schedule payments. The efficiency of liquidity usage in TARGET2 will be tested using a simulation model, in a project in which also the Bank of Finland will participate. The Finnish retail payment system's (PMJ) rules and regulations allow a counterparty to be excluded from clearing if the counterparty has not supplied payment data or liquidity in time. As a result, the inability of a counterparty to participate in clearing and settlement will at least not immediately prevent the other counterparties from proceeding with the transfer of payments.

In the Finnish Central Securities Depository (APK), trades are executed according to the delivery-versus-payment (DVP) principle. This enables the counterparties to quickly use their funds account balance for the settlement of the next trades. To prevent liquidity problems, the APK's clearing parties that are not entitled to intraday credit in the TARGET2 system are required a liquidity guarantee. As a result of these factors, the financial market infrastructure has successfully contributed to preventing the realization of liquidity risks in the systems. The complex corporate structures of the international players have however hampered the flow of information to those needing the information and thus their ability to react in a problem situation.

The impact of infrastructure development projects and integration on liquidity needs

The extensive systems related and process changes required by integration can be reasoned by economic efficiency and liquidity savings. To an individual counterparty, the savings can be significant if the counterparty is operating in several markets and is able to rationalise its overall liquidity usage.

Infrastructure supports risk management.

The already integrated large-value payment systems in Europe, TARGET2 and Euro1, have operated smoothly during the financial market crisis. In contrast, there is thus far little information on the impact of the integration of retail payment systems and eg the STEP2 system[3] on the liquidity management of banks operating in Finland. Even though the value of payments transferred in retail payment systems is significantly smaller than that of payments transferred in large-value payment systems, the lack of information hampers the assessment of the total liquidity needs and the efficiency of liquidity management.

The Finnish-Swedish central securities depository, NCSD, had only a minor impact on the liquidity risk management of the post-trading infrastructure or the efficiency of liquidity usage even though the Finnish and Swedish central securities depositories have more or less the same counterparties. Their functions remained separate because the system development projects were halted, due to the ongoing

[3] STEP2 is a payment transfer system maintained by EBA Clearing, offering pan-European services. Several Finnish banks also intend using STEP2 in future for the transfer of domestic payments.

Simulations show the benefits of integration.

consolidation of the post-trading infrastructure. Development and integration projects in the securities infrastructure based on netting and consolidated liquidity management would directly decrease the liquidity needs of Finnish counterparties. According to one assessment, the benefits of system consolidation and netting increase if the number of transactions is large and if the purchase and sale transactions are in balance. The assessment is based on a simulation of the impact of the consolidation of Finnish equities and debt instrument settlement systems.

The merger of NCSD and the Euroclear group[4] generates significant liquidity savings because eg the majority of brokers involved in equity trading in the Finnish market also use the services of the Euroclear group. Savings will be generated in stages, when the operations of the central securities depositories migrate to the single settlement platform and when the operations of all the securities settlement systems in the Euroclear group are based on a consolidated management of euro liquidity.

The Eurosystem's cooperation initiative TARGET2-Securities (T2S),[5] will, if completed successfully, provide counterparties operating in Finland significantly larger economies of scale than the Euroclear merger, due to eg multi-currency settlement. The benefits of the post-trading infrastructure can be achieved in full only if the players in the European countries outside the euro area join the T2S initiative.

[4] For more details, see http://www.ncsd.euand http://www.euroclear.com

[5] The common technical infrastructure of TARGET2-Securities enables central securities depositories to use central bank money for the settlement of securities transactions and execute securities and cash settlements using the single technical platform. For more information, see http://www.ecb.int/paym/t2s/html/index.en.html.

Continuity and reliability must be ensured

The financial market infrastructure consists of a network, the continuity and reliability of which is based on the reliable, sustainable and smooth functioning of all its parts. If, for some reason, one part is unable to function, it will often cause problems to the other parts of the network, problems that in the worst case spread through the infrastructure and paralyse the entire financial system.

When assessing the functioning of the network it is therefore not sufficient to analyse merely individual systems or participants, instead connections between the parts of larger entities should also be examined. If, for example, a participant is active in several systems, problems encountered by the participant in one system may render the participant unable to fulfil its obligations in the other systems.

The ECB's and the euro area central banks' continuity standards[6] which form the foundation of oversight do not fully cover the systemic level. They focus mainly on the reliable and smooth functioning of individual systems and participants – which indeed has an impact on the functioning of the infrastructure – but focusing only on these parts does not give a detailed enough picture of the entire infrastructure.

[6] ECB (2006) Business continuity oversight expectations for systemically important payment systems (SIPS).

Standards concerning individual participants focus mainly on continuity planning, eg the preparation of plans and testing, as well as communication in a crisis situation. The only principle that covers the entire infrastructure is the principle on the use of service providers. A typical example is the data transfer services and networks used in the infrastructure and the shared software platforms. The service provider, in Finland eg Elisa, IBM or TietoEnator, can provide the same services to parts of the infrastructure that may differ considerably. Problems in the provision of services may reflect simultaneously on several parts of the financial market infrastructure. This is one reason why more attention should be paid to the systemic level. Finnish payment systems have a decentralised structure and are based on the bilateral exchange of information. The continuity inspections of Finnish payment systems therefore fall under the responsibilities of the Financial Supervision Authority, in accordance with the division of responsibilities between the central bank and the supervisor.

The management of the systemic level is discussed from a slightly different perspective in the Government Decree on the objectives of maintenance readiness[7] issued in August 2008. According to the objectives, the joint preparation of a crisis overview should be developed in Finland. Cooperation in contingency planning should also be fostered between the participants, to foster the participants' understanding of how the other network participants would act in an emergency situation. The objectives also underline the importance of supervisors in contingency planning. Furthermore, the objectives emphasise the importance of EU level cooperation and cooperation between the authorities of the various countries.

The importance of managing the systemic level is also emphasised with the integration of markets. The provision of payment services is increasingly multinational. Also in the euro area, the focus of system development is on systems covering the entire euro area. The TARGET2 system is a centralised system, whereas the former TARGET system consisted of interlinked national systems. New types of entities operating on private commercial bank money are also being developed. Several banks are seeking service providers from abroad to reduce costs. Banks are also planning to transfer abroad the provision of system services. In these cases, the services are provided abroad even though the banks provide only domestic services. An example of a poorly managed change in services provision are the problems experienced by Sampo Bank last spring when it started to use Danske Bank's common platform located in Denmark.

Examining individual systems is not enough – market developments require a holistic approach.

Central securities depositories are also consolidating strongly, via mergers and the use of common systems. For example, as a result of a merger, the Finnish Central Securities Depository (APK) will start using the system of the multinational Euroclear. APK will however remain a Finnish company, and its continuity arrangements therefore remain important from the perspective of national supervision.

[7] See www.finlex.fi/fi/laki/kokoelma/2008/20080087.pdf (in Finnish only).

The design for the TARGET2-Securities (T2S) system should already at this stage include the reliable and smooth functioning of the entire system and the requirements related to business continuity. At least in the case of critical parties, the continuity arrangements of individual participants must also be taken into account to ensure the reliable functioning of the new system.

Common technical standards speed up the internationalisation of services provision, due to the significant decrease in information technology conversions required when transferring from one system to another. In payment services, internationalisation is facilitated by the common standards for the Single Euro Payments Area.[8] Common standards increase efficiency but may also enable a rapid spread of problems within the system.

Pan-European security principles must be established, end users however also have to meet their responsibilities.

Thus far the SEPA standards do not cover data security and customer identification. In this respect, the systemic level is not fully managed. The harmonization of payments involves the risk that a person starts using foreign services the level of security of which is not as high as in domestic systems. It is difficult for a payer to assess the quality and reliability of various foreign security solutions. Common data security standards should thus be prepared promptly. The lack of data security standards is a threat to the reliable functioning of retail payment services because an increasing number of payments are transferred using electronic instruments, such as online banking solutions. Saving costs by neglecting the security of services cannot be the way to compete.

Data security problems, eg identity frauds are increasing in Finland.[9] Stolen identity information has been used to apply for consumer credit and purchase goods. The problem will be exacerbated in future because identity fraud can be committed by collecting personal data from public databases, instead of physical documents. The Internet is full of social networking services that can be used for phishing for data necessary for committing identity fraud. Consumers should thus pay increased attention to safeguarding personal data and identifiers used in payments.

In terms of the reliability and continuity of financial markets infrastructure, the management of the entire infrastructure and market developments pose a challenge to the authorities. Even though the operation of systems is transferred abroad, all the authorities of the countries for which the system is systemically important should have adequate opportunities to participate in the drawing up of continuity plans and the organization of crisis management.

Geographical distance increases the challenges of continuity arrangements. In a problem situation, a cross-border system is, without doubt, more challenging to manage than one operating only in a single country. In a crisis situation, conflicts of interest may

[8] See Single Euro Payment Area: http://www.europeanpaymentscouncil.eu/content.cfm?page=sepa_components

[9] In America, the number of identity frauds has been significant throughout the current decade. In 2007, the misuse of stolen identity information cost USD 45 billion. See "Javelin Strategy's 2008 Identity Fraud Survey Report" http://www.javelinstrategy.com/2008/09/27/identity-fraud-part-1-a-45-billion-snowball/#more-1317

also escalate, and Finnish interests may not necessarily be taken into consideration. Differing practices, legislation and language issues are good examples of underlying potential problems. To resolve these challenges, cross-border cooperation between authorities and various parties must be increased because individual parties cannot independently solve all the reliability problems in the extensive international infrastructure of financial markets.

Transparency a challenge for market participants

Financial markets function most efficiently when the participants have all the relevant information on the risks related to their activities. In the current financial market turmoil, the infrastructure has functioned more or less reliably. A lack of transparency in the financial market is however one reason behind the loss of confidence between the participants. The accumulation of problems, due to new complex investment instruments and securitisation, shows that a lack of transparency and financial innovation can prove to be a dangerous combination.

Revision of the Investment Services Directive facilitated the entry of new players in securities clearing. Central counterparty clearing has become more widespread in Europe recently, not only in the derivatives markets but also in the conventional share market.[10] In Finland, NASDAQ OMX Helsinki Stock Exchange has announced that it will commence central counterparty clearing operations in 2009. Authorities usually support central counterparty clearing because eg, it boosts transparency, particularly in the traditionally closed, bilateral OTC market. In the share market, central counterparty has a relatively smaller impact on transparency.

The efficient functioning of the infrastructure requires transparency between the system operator and the counterparties. Official standards and recommendations[11] form a framework for ensuring adequate transparency in both normal and crisis situations. As the infrastructure changes with the global integration of markets, also system supervision must be transparent and based on cooperation between the authorities, both on the national and international level. In Finland, this is a topical issue.

Financial innovations and a lack of transparency are a dangerous combination.

The requirement of transparency is obvious, and affects payment and securities settlement systems as much as their counterparties. Sufficient transparency enables participants to better assess and anticipate their operative risk and the costs of participating in the system. In order for participants to better understand the requirements of the increasingly complex markets, the information should be up to date, correct and in a form which fulfils the requirements of the parties using it. International financial markets require global systems in which crossing

[10] See Box 5.

[11] Eg. Committee on Payment and Settlement Systems (2001) Core Principles for Systemically Important Payment Systems, Committee on Payment and Settlement Systems and Technical Committee of the International Organization of Securities Commissions (2001) Recommendations for securities settlement systems.

borders – between both countries and currency areas – is commonplace. Systemic interdependence will grow and it is worth asking whether the participants are even able to understand all the risks that they will incur as a result of the interdependences between systems.

Risk management requires a transparent infrastructure.

Transparency is a challenge also in the development of infrastructure. Currently, it is difficult for system users to estimate how their operating environment will be affected by the systems currently being developed in several projects, and to be launched in a few years. In the SEPA payment centre initiatives and central securities depositories' own development projects as well as in the Eurosystem's TARGET2-Securities initiative, the challenges concern eg pricing and system functionalities or their cost effect. For example in 2007, the rise in costs, due to the pricing of services, came as a surprise to many users of the TARGET2 ancillary system services.

Cost pressures threaten the efficiency of securities clearing and settlement in countries with a direct holding system, such as Finland. Countries are however eager to stick to the model of direct holding, due to its transparency and total investor protection. In a crisis situation, the position of holders of domestic equities is clear. The position of holders of foreign equities or fund units is however not unambiguous even in Finland if the service provider runs into difficulties, due to the fact that Finnish legislation does not recognise the indirect holding of securities.

Ownership structure also has an impact on the transparency of markets. If users own the infrastructure operator and have access to its governing bodies, the monitoring of the operator improves. By contrast, in a multilayer silo structure, transparency may easily not be achieved. If the operator is a listed company, it is also subject to disclosure provisions and therefore cannot disclose all, possibly even relevant, information to an individual party. The structure of supervision and the regulatory environment can also hamper or support the achievement of transparency in the market. In the EU countries, the harmonised regulatory and supervisory system forms a framework for parties operating under a banking license. Those parties that are not subject to similar external obligations, transparency is based on voluntary compliance, and possibly on the rules and practices agreed between the market participants. National legislation may also include obligations on the transparency of information.

With the Single Euro Payments Area, part of the Finnish payment infrastructure will be transferred to continental Europe, to a pan-European automated clearing house[12] owned by banks, and there is a danger that transparency weakens as distances grow. This underlines the need to ensure that the parties receive adequate information on the operation of the system through reporting to supervising authorities. The payment centre[13] established by a

[12] See also page 31 of this publication.

[13] ACH-Finland, see Appendix.

group of Finnish banks may contribute to increased transparency between the owners. In addition, information on the domestic infrastructure is usually more easily available to the authorities.

Up-to-date communication on the operation of the systems is of utmost importance. Moreover, the parties shall have the possibility to participate in systems development, eg as members of various user groups. Thus far it has been easy for Finland as a small country to develop its market infrastructure in cooperation with the market participants. At the European level, gaining influence becomes more challenging. Promoting development project nevertheless remains the responsibility of mainly the market participants. If participation of the authorities is required, it should focus on assessment and supporting the development projects in cooperation with the market participants. The main objective shall be to take in to consideration the needs of the end users of the systems or services and the possible benefits to be gained.

Box 3.

Global integration of infrastructure supercedes Nordic and Baltic initiatives

Financial institutions of the Nordic and Baltic countries consider the region as their home market. The integration of the financial market infrastructure significant to the region has however encountered problems, and developments in recent months suggest that a more extensive intra-EU and global integration is taking centre stage.

As a result of the merger between OMX and Nasdaq, the stock exchange activities which had been the engine of financial market integration in the area became part of the global Nasdaq OMX Group. The national exchanges of the Nordic and Baltic countries continue operating as before, at least for the present. In September, Nasdaq OMX Group however opened a new trading place in London (Nasdaq OMX Europe) for shares listed on the London Stock Exchanges and also for key Nordic shares, amongst others. The shares of the largest Nordic companies are traded also on many new multilateral trading facilities (MTF)[1] which have been established since the Directive on Markets in Financial Instruments (MiFID) entered into force.

Securities clearing is also heading towards European integration. In October, Nasdaq OMX signed a letter of intent on the purchase of a 22% stake in the Dutch company European Multilateral Clearing Facility N.V. (EMCF),[2] which clears trades executed eg on the Nasdaq OMX Europe exchange. Nasdaq OMX also announced that in future, all the equities trades on its Nordic exchanges will be cleared via this central counterparty clearing house.

The Directive on Markets in Financial Instruments and the Code of Conduct agreed between the market participants and the European Commission provides the parties to the transaction with a larger choice of central securities depositories where to receive the securities traded. Dreams of more extensive cooperation between Nordic central securities depositories were scattered when the Norwegian and Danish central securities depositories decided in spring 2008 to join a venture by eight European central securities depositories (Link Up Markets).[3] Moreover, a considerable proportion of the trades in Finnish securities are executed in financial centres of the EU. As a result, NCSD, the Nordic group of central securities depositories, merged with a European player, the Euroclear group. On the Nordic level, it was difficult to gain sufficient added value from integration.

Payment systems integration is also increasingly focused on the euro area. A common payment system has not been created in the Nordic and Baltic region. This is due at least to the fact that several currencies are used in the region. Moreover, multinational banks operating in these countries provide in their own network payment services which cover the entire region. The Baltic, Finnish and Danish central banks provide TARGET2 services for euro-denominated interbank payments. The Bank of Finland gained many new Swedish TARGET2 customers when the Swedish central bank decided not to join the TARGET2 system. In Norway, TARGET2 services are available via branch offices.

With the launch of the Single Euro Payments Area (SEPA), also in Finland interbank payment transfers are based on Europe-wide clearing and fund transfer solutions, the efficiency and reliability of which Finnish participants have actively sought to promote.

1 In less than a year, over 120 new MTFs have been registered in the EU, and the plan is to launch Burgundy, an MTF for Nordic listed shares in spring 2009 (http://www.burgundy.se/).

2 See http://www.merchantbanking.fortis.com/Solutions_Services/Transactions/European_Multilateral_Clearing_Facility.htm

3 See http://www.linkupmarkets.com/

Financial system policy

The authorities of various countries have decided on a number of actions for safeguarding the functioning of the financial system in the face of the global financial market crisis. Additionally, several initiatives are under way for the long-term strengthening of the financial system. It is worth ensuring careful preparation of the reforms and their consequent implementation in a comprehensive manner. Putting greater effort into enhancing international cooperation between the authorities, in the areas of supervision, crisis management and infrastructure development, is of the essence.

The dislocations that have plagued international financial markets since 2007 have led to the launch of a number of initiatives for the revision of financial system regulation and supervision and improvement of the authorities' capabilities for managing financial crises. The Financial Stability Forum (FSF)[1] presented its recommendations for enhancing market and institutional resilience to G7 industrial countries in April 2008. Also, private financial industry representatives, such as the Corrigan Group and the Institute of International Finance, have submitted proposals[2] for strengthening the international financial system.

Transformation of the disturbances into an acute crisis in the autumn of 2008 prompted the authorities of various countries to decide on a variety of measures for safeguarding the functioning of the financial system (see Box 4). Simultaneously, there were stronger demands for a reform of the financial system in support of its long-term stability. In November, the leaders of G20 countries agreed on the principles for financial market reform. These principles call for strengthening transparency and accountability, promoting integrity in financial markets, enhancing regulation and oversight, reinforcing international cooperation between the authorities, and reforming international financial institutions.

The financial market crisis is leading to regulatory reforms.

Financial systems need to be made globally more resilient so as to avoid future crises that may jeopardise financial intermediation, and to reduce their adverse impacts to a minimum. The implications of the reforms must be considered on the basis of a thorough preparatory agenda and, for example, drawing on work already undertaken within the FSF. As far as possible, such reforms need to be carried out comprehensively, rather than in isolation, in order to take account of interlinkages between improvements in various sub-areas (eg supervision and crisis management).

The reform work must clearly distinguish between the temporary steps taken to calm down the acute crisis and comprehensive approaches aimed at strengthening the long-term sustainability of the financial system. Governments' temporary action programmes,

1 An international forum, established between the authorities responsible for assessment of vulnerabilities in the international financial system and related corrective measures as well as for improvement of coordination and information exchange between the authorities in charge of financial stability. The Forum brings together representatives of national central banks, financial supervisors and ministries of finance, and of international institutions.

2 The Counterparty Risk Management Policy Group III (6 August 2008) Containing Systemic Risk: The Road to Reform, and the IIF Committee on Market Best Practices (July 2008) Principles of Conduct and Best Practice Recommendations, Financial Services Industry Response to the Market Turmoil of 2007–2008.

involving the possibility of bank debt guarantees and recapitalisation, have been necessary to reassure the markets, but there is no reason to overestimate their impacts in terms of speed and extent. Hopefully, it will be possible to keep the measures short-lived.

Temporary steps to stem the crisis need to be distinguished from long-term development work.

When it comes to the long-term development of the financial system, particular attention must be given to ensuring that the reforms will not distort the incentives of investors and other financial system participants to take risks and that various types of financial market risks are as transparent as possible.

The financial crisis has more clearly revealed how the reliability of the financial system can be threatened especially by large systemic risks not limited to individual institutions, or even to individual countries. Consequently, in reforming financial systems, efforts must be made to improve international cooperation between relevant authorities, in both supervision and crisis management. The need to particularly upgrade supervisory cooperation by means of colleges of supervisors, for example, is reflected, within the EU, in the European Commission's proposal, submitted in October, for revision of the Capital Requirements Directives, and, globally, in the FSF's recommendations and G20 countries' common principles.

Central banks' macroprudential analysis is gaining stronger emphasis.

Less attention has been paid to the fact that maintaining the stability of the financial system requires greater emphasis on the analysis of risks related to the financial system as a whole by means of macroprudential supervision exercised by central banks. Another question that needs to be considered is how the threats identified in macroprudential supervision could be better taken into account in the regulation and supervision of financial markets and institutions. Systemic risks created by credit risk transfer instruments, for example, are not adequately covered by current financial market regulation and supervision. This was one of the factors that contributed to the international financial market crisis.

The threats to the stability of the financial system that arise from new financial market structures and innovations respect borders between neither countries nor currency areas. Closer international cooperation is therefore crucial for identification and prevention of precisely these threats in macroprudential supervision, too.

EU needs new tools for banking regulation and supervision

The financial market crisis has indicated how many of those arrangements and supervisory powers that are operational under normal circumstances prove inadequate in crisis situations. Several EU countries had to resort to exceptional measures in order to stem crisis spillover. Above all, however, the current crisis has shown that banking is not ordinary business that can be guided by methods applicable elsewhere in corporate activity.

Banking has traditionally been one of the most strictly regulated forms of business. The rationale for tight regulation is that the bankruptcy of a bank not only involves creditors but also has spillover effects on households and the society at large. An essential element of banking is also the

maintenance of confidence. Even the slightest distrust in a bank's ability to meet its obligations may lead to a bank run or impair the bank's access to market funding. A wider propagation of the confidence gap between banks has very serious consequences. Lack of confidence is one of the root problems of the current crisis and among the most difficult to solve.

Despite its tightness, key banking regulation within the EU is still in part similar to other corporate legislation. An important area of this legislation consists of legislation concerning insolvency and bankruptcy. On top of this, authorities in a number of member states still have fairly limited opportunities for intervening in bank operations before insolvency.

Early intervention

The European Commission has paid attention to the current EU legislation's failure to adequately include effective tools for situations where a bank is clearly a problem bank, while still meeting the minimum legal criteria.[3] The introduction of an early intervention arrangement would provide authorities with improved means of intervening in failing banks' activities at an early stage. Delayed measures are usually ineffective, easily causing high costs to all parties involved. These types of early intervention systems are in use in the United States, Japan, Mexico and Korea. The UK will also introduce a new early intervention system in the near future. Especially the 'Prompt Corrective Action' (PCA)[4] method applied in the United States grants authorities extensive powers to implement structural arrangements in respect of problem banks, already prior to their heading for insolvency.

Early intervention by the authorities should be permitted.

The system applied in the United States is based on the obligation of the authorities to take action against a bank upon fulfilment of certain criteria. In planning the action to be taken, priority is given to safeguarding depositor assets. As soon as the position of depositors is secured, the authorities have a vast array of various tools at hand with which to organise the problem bank's operations or, if necessary, to close down the bank's business altogether. Experience garnered from the United States shows that, by acting appropriately, a bank can be taken over (or its business closed down) without causing major problems to overall confidence in the banking system.

The Commission's preliminary plans are based on the US PCA system, however, taking account of structural differences in the EU and partially divergent needs. The system would give authorities more time to make the necessary arrangements, thereby reinforcing all parties' confidence in banking. The moral hazard problem is also expected to diminish, as authorities become known for consistently taking action in respect of a bank causing problems.

The position taken by the Commission is highly topical, and would help remedy many of the defects identified in the current system. It is of utmost importance that the reform be

[3] The Commission is currently preparing a White Paper, due in 2009, on the subject.

[4] Federal Deposit Insurance Corporation Improvement Act (1991).

Overall reform of the deposit guarantee scheme is necessary at EU level.

carried out comprehensively, with simultaneous implementation of all requisite changes. Partial revisions could incur the danger of creating a system that functions no better than the existing one or even obstructs effective market operation.

One of the key features of the US PCA system is its close link with the deposit insurance scheme and supportive, separate insolvency regime and bankruptcy laws concerning the banking sector, in particular. Takeover of banks (or closing down of their business operations) through a legislative framework governing normal corporate activity provides no effective solution, but rather causes problems that can be avoided only by means of legislation giving appropriate attention to banks' special status. At the EU level, taking all these elements into account would require simultaneous, extensive revisions to legal provisions in a number of legislative areas. Capturing all these elements is, however, important for arriving at an effective overall outcome.

In Finland, preparations are under way for a proposal that, through enhancements to current legislation,[5] would provide authorities with better possibilities for taking over a distressed bank. The proposal, if materialised, would be a step in the right direction, as safeguarding the stability of financial markets should not (under current legislation) be dependent on consent of shareholders or bank management. Even so, the proposal cannot be regarded as sufficient, in providing no solution to problems related to financial crisis management on a wider scale. A better alternative would be a comprehensive reform package, including the deposit guarantee scheme, powers of the authorities and revision of insolvency regime and bankruptcy laws.

[5] Act on Government Guarantee Fund and Act on Credit Institutions.

Deposit guarantee scheme requires urgent overhaul

The deposit guarantee scheme constitutes an integral element of the banking system and adds to depositor confidence in banks' abilities to meet their obligations. If the deposit guarantee scheme were part of an early intervention system, it could also have a greater role to play in financial crisis management.

The EU's deposit guarantee scheme builds on the Directive on Deposit Guarantee Schemes, enacted in 1994. It laid the basis for creating an EU-level system (through minimum harmonisation) that leaves member states plenty of leeway in decisions concerning the structures and terms of deposit guarantee schemes. In practice, the most significant mandatory provision of the directive has consisted of determining the minimum coverage level.

The deposit guarantee scheme is based on banks' mutually bearing responsibility. Banks participating in the scheme are responsible for the deposits of a bank in financial distress. The scheme operates well as long as only relatively small banks drift into a bankruptcy. When a large bank heads for trouble, the entire deposit guarantee scheme will be up against difficulties, not necessarily being able to cope with the situation without government intervention.

The current Directive on Deposit Guarantee Schemes does not take a stand on the role of the government in national schemes. In some member states, the government is involved in ensuring the functioning of the deposit guarantee scheme under all circumstances; in other member states, the government has no official role in the scheme. The situation cannot be considered satisfactory from the viewpoint of the credibility of deposit guarantee schemes. Likewise, the situation causes problems for the requirement of a level playing field, especially because banks increasingly operate across borders in many member states.

The deposit guarantee scheme has an important role to play in the maintenance of financial stability and is used as an aid in searching for solutions to national banking-sector problems. Currently, however, the European deposit guarantee scheme is not yet adequately harmonised so as to be of assistance in cross-border crises. The latest proposals for upgrading the deposit guarantee scheme[6] are welcome, but still fail to make the scheme into an effective crisis management tool at the EU level. The deposit guarantee scheme requires an immediate overhaul to be able to function in an integrated Europe.

A European Commission survey of 2006 brought to light the major deficiencies of the deposit guarantee scheme. Two years ago, there was no political will to bring matters forward. Now, the situation is entirely different.

[6] Proposal for a directive of the European Parliament and of the Council amending Directive 94/19/EC on Deposit Guarantee Schemes as regards coverage level and payout delay.

The ECOFIN Council has announced that a proposal for new strategic priorities in EU deposit insurance will still be forthcoming this year. Hopefully, the timetable will hold and the partial revision to deposit protection that is under discussion will not postpone a comprehensive overhaul into an indefinite future.

Allocation of home and host country responsibilities

From the perspective of the Finnish financial system, the key question is how reform of the financial system will impact cooperation and the allocation of rights and responsibilities between banks' and banking groups' home and host country[7] authorities. Of large banks operating in Finland, Nordea Bank Finland and Sampo Bank are currently subsidiaries of foreign banking groups. Both banks are intended to be changed into branches, but the projects have been postponed until further notice.

In early October, the European Commission put forward a proposal for revision of the Capital Requirements Directives. Among other things, it would bring about a number of major changes to the supervision of banks with cross-border operations. The proposal includes the following:

– A college of supervisors needs to be established for each cross-border banking group or bank for information exchange and other cooperation between supervisors.

The deposit guarantee scheme constitutes an important element of the safety network.

[7] Home country refers to the country of location of a bank's head office, while host country refers to the country of location of a bank's foreign branch, and in respect of a banking group, also the country of location of a subsidiary.

– Those permitted to participate in colleges of supervisors will include supervisors of subsidiaries and systemically relevant branches, but ultimately the consolidating supervisor (the parent bank's home country supervisor) of a banking group will determine on supervisors entitled to take part in the meetings or other activities of the colleges.
– The Committee of European Banking Supervisors (CEBS) will be entrusted with the task of providing guidance to supervisors on the convergence of supervisory tools and practices and on the activities of colleges of supervisors, as well as mediating disagreements that may arise in the colleges.

Colleges of supervisors to be created to strengthen cooperation between relevant authorities.

The European Commission's directive proposal helps improve supervision of internationally operating banking groups by increasing cooperation between supervisors. Such cooperation is particularly supported by the proposed requirement to establish colleges of supervisors. Nevertheless, specification of the directive would be crucial so as to provide supervisors of branches and subsidiaries systemically relevant in the host country with continued right to participate in the activities of colleges of supervisors. The international financial market crisis has strongly highlighted the significance of information exchange between supervisors in managing crises and other problem situations. Information exchange should be based on regulation that is binding to the full extent possible, especially when banks relevant for the host country's financial system are at issue.

In modifying the responsibilities and information exchange in banking supervision at the micro level, the directive update would also impact other official measures in support of financial stability, such as macroprudential analysis by central banks and crisis management work among various authorities. It is of key importance that, irrespective of the allocation of supervisory responsibilities, authorities responsible for the stability of the countries of location of systemically relevant branches or subsidiaries have continued access to adequate and timely information on such a banking group or bank, in order to take action for safeguarding the stable functioning of the financial system in the case of a crisis or other strained conditions. A positive development is that the proposed directive revision supports supervisors' potential to transmit information on cross-border banks and banking groups to central banks and ministries of finance for the performance of their duties.

The more prominent role proposed for the Committee of European Banking Supervisors (CEBS) in the guidance of supervisors would improve supervisory efficiency and speed up convergence of supervisory practices within the EU. Changing the role of CEBS is also related to wider discussion of principle on the type of decision-making powers and legal obligations that should be assigned to supervisors' level 3 committees within the EU.

Box 4.

Measures to safeguard operations of the financial system

In many countries, the global financial market crisis has prompted authorities to take measures aimed at stabilising the functioning of the market. Central banks have tried to ward off the drying up of market liquidity caused by mistrust between banks by offering short-term financing to banks – and in exceptional cases to non-financial corporations, too. Various estimates indicate that central banks have, since summer 2007, funded banks' short-term markets via financing operations totalling more than EUR 2,000 billion. It has even been necessary to temporarily relax collateral requirements. Weakening prospects and uncertainty have gradually undermined the profitability and capital adequacy of banks and other financial institutions. Public authorities have participated in several rescue operations, as a result of which some institutions have been bailed out by the state. The measures taken to address the crisis have been increasingly targeted at boosting the capital adequacy of financial institutions and in exceptional cases temporarily relaxing the capital adequacy regulations. The support packages announced by the USA and UK in October, to consolidate capital in the financial sector, account for around 1.8% and more than 3% of GDP in 2007, respectively. The ratios of EU countries are similar. The table below lists key support measures taken in the EU area.

The euro area summit on 12 October 2008 took a long stride towards coordinating crisis management activities. The summit parties published the so-called Paris Declaration consisting of 13 temporary action points to be addressed by the euro area countries and the UK in order to restore stability of the financial market. Measures were recommended to safeguard banks' liquidity, alleviate financing problems of banks with a good financial standing and boost their capital adequacy, where necessary. In addition, it was emphasised that capital investment should be made in banks that are important for the financial system but are suffering from capital adequacy problems, thereby making them healthier. Taking care of problem banks must be done in such a way that tax payers' interests are secured and the responsibility of banks' owners and management materialises. All measures must give priority to the use of private capital.

The Finnish Ministry of Finance announced a plan of action, based on the above mentioned declaration, which can be implemented, if necessary, to support the financial system. Examples of actions on this plan include government guarantees to Finnish banks' unsecured funding and the possibility of the government to make capital investment in well-functioning banks with solid capital adequacy.

A voluntary guarantee system for loans with a maximum maturity of five years would remain in place until the end of 2009 at the most. The upper limit for guarantees would then be EUR 50 billion. The guarantee is aimed to be set at market fees applicable at normal times. Capital investment designed to improve banks' lending capacity earns interest that exceeds market interest rates, and its conditions are outlined in such a way that the state gets a reasonable compensation for its risk exposure and the exposure is limited in terms of time. Capital investment is included in banks' equity items. It has been estimated that the amount of capital investment is unlikely to exceed EUR 4 billion.

A good example of the use of private capital to protect depositors was seen in connection with the seizure of Kaupthing Bank by the Icelandic supervisory authorities in October. Three Finnish banks organised the required financing in order to ensure that the depositors of Kaupthing Bank's Finnish branch office would be able to withdraw their funds (see below). Public funding was not used in this arrangement.

Private sector solution to depositors at Kaupthing Bank's Finnish branch office

Following the seizure of Kaupthing Bank on 9 October 2008 by the Icelandic supervisory authorities (FME) as part of the measures designed to secure the Icelandic banking sector, operations at Kaupthing Bank's Finnish branch office were also discontinued by the FIN-FSA, on the approval of the FME. This meant that funds deposited at the branch office totalling, with interest, some EUR 115 million could not be withdrawn. Three Finnish banks – Nordea Bank Finland, OP-Pohjola Group and Sampo Bank – promptly worked out a solution to the problem to minimise any adverse impact on Finnish depositors and the Finnish financial market. The banks made a fixed-term commitment to arranging the required financing in order to ensure that the depositors of Kaupthing Bank's Finnish branch office (some 10,000 customers) would be able to withdraw their funds in full with interest. Assets of the branch office were pledged as collateral for the financing. Finnish and Icelandic supervisory authorities approved the arrangement, and the Finnish parliament passed an Act on the legal risk guarantees for the participating banks. After the banks, FIN-FSA and FME had drawn up the necessary agreements and agreed on the technical arrangements, the depositors received their deposits in full on 31 October 2008. The entire arrangement was financed by the above-mentioned Finnish banks; no government funds or those of the Deposit Guarantee Scheme were used.

Measures taken to support the banking sector in selected EU member states as of 30 November 2008

The date shown is the announcement day.

Country	*Liquidity and loan guarantee packages by country*	*Capitalisation packages by country*
United Kingdom	*8 Oct 2008; guarantees for short- and medium term (36 months at the maximum) credit instruments to meet maturing funding needs(estimated to amount to GBP 250 billion), available to institutions that fulfil the eligibility criteria and are committed to acquiring the required amount of own capital in Tier 1. The guarantee includes a ban on bonus payments to management for 2008 and the right of the board to limit dividend payments.*	*8 Oct 2008; GBP 50 billion capital investment in banks and building societies operating in the UK, of which 8 largest banks committed to withdrawing a total of GBP 25 billion by the end of the year. Capital investment involves acquisition of preferred shares primarily included in equity items (Tier 1). The remaining GBP 25 bn are earmarked to support the acquisition of ordinary shares by other institutions meeting the eligibility criteria.*
Germany	*12 Oct 2008; a stabilisation fund of EUR 400 bn, designed to guarantee interbank loans with a maturity of 36 months at the maximum as well as new credit instruments. Eligible to the guarantee are state-owned banks, commercial banks and German branches of foreign banks. Valid until the end of 2009.*	*12 October 2008; EUR 80 billion from the funds of the stabilisation fund will be used to finance capital support for institutions meeting the eligibility criteria and for the acquisition of problem liabilities. The conditions include ban on the payment of dividends and bonuses and restrictions on management bonuses. Valid until the end of 2009.*
France	*13 Oct 2008; EUR 320 bn for guaranteeing banks' new debt instruments (issue prior to the end of 2009 and with a maturity <5 years). The state can impose, on a case-by-case basis, certain ethical obligations (eg based on the amount of lending) on banks participating in the programme. The guarantee is available to French banks and is valid until the end of 2009.*	*13 Oct 2008, EUR 40 bn financing company, the purpose of which is to contribute to the provision of finance to banks that need capital by buying from them preferred shares or subordinated debt. Capital investment measures are designed to be temporary and available to eligible French banks.*

Country	Liquidity and loan guarantee packages by country	Capitalisation packages by country
Italy	*9 Oct 2008; Ministry of Economics and Finance (MEF) empowered to guarantee loans provided by the Italian central bank to Italian banks and branch offices of foreign banks; in addition guarantees to interbank deposits. MEF was authorised on 13 Oct 2008 to i) guarantee Italian banks' new debts with a maturity of less than 5 years ii) exchange government bonds on a temporary basis into banks' portfolios assets or to Italian banks' counterparty debts iii) provide government guarantees for contracts between Italian market counterparties and banks. Valid until the end of 2009.*	*9 Oct 2008, EUR 20 bn authorisation to the Ministry of Economics and Finance to contribute to the consolidation of Italian banks' capital assets. State-owned shares with limited voting rights are preferred when paying out dividends. Support measures are subject to a three-year stabilisation programme, presented by the institution and approved by the central bank.*
Spain	*7 Oct 2008; EUR 100 bn at the most reserved for guaranteeing banks' debts. The types of debts eligible include commercial paper and senior bonds traded in officially approved Spanish trading places (with a maximum maturity of 5 years). All Spanish banks and branch offices of major foreign banks are eligible. Valid until the end of 2009.*	*8 Oct 2008; pre-emptive authorisation to the government to buy, if necessary, preferred shares from willing banks.*
Netherlands	*12 Oct 2008; EUR 200 bn reserved for guaranteeing interbank deposits/loans with a maximum maturity of 36 months. Valid until the end of 2009.*	*10 Oct 2008; EUR 20 bn support fund available on market terms to banks that need capital mainly via preferred shares.*
Belgium	*Government guarantee to systemically important Belgian banks' deposits, obligations and institutional investment. The guarantee covers bulk financing issued or renewed prior to 31 Oct 2009 and that expires before 31 Oct 2011.*	*The government has contributed to the consolidation of primary capital through the purchase of ordinary shares.*
Austria	*19 Oct 2008; EUR 85 bn reserved for guaranteeing loans on interbank markets.*	*19 Oct 2008; EUR 15 bn reserved for banks' capital investment needs mainly through the acquisition of shares with special conditions.*
Sweden	*20 Oct 2008; max SEK 1,500 bn guarantee programme to support banks' and property financing companies' financing opportunities in the medium term. The programme will end on 30 April 2009. Applicable restrictions: freezing of salaries, no bonuses (not even previously earned).*	*20 Oct 2008; SEK 15 bn is invested in a stability fund to be set up with a deposit guarantee fund (SEK 18 bn). The purpose is to increase the aggregate size of the funds to 2.5% of GDP within 15 years through, for example, a stabilisation fee to be imposed on credit institutions. The funds are meant to be used to address possible capital adequacy problems affecting institutions important for the Swedish financial system. Capital investment is arranged in the form of acquisition of preferred shares with extensive voting rights and allows, where necessary, discontinuation of other owners' ownership through expropriation of their shares at market price. Possible restrictions to management salaries and bonuses.*

Sources: IMF (17 Nov 2008) Global policy responses to financial crisis, Credit Suisse (Oct 2008) Government policy initiatives, BNP Paribas (19 Nov 2008) To the rescue, European Commission (14 Oct 2008) State aid: Overview of national rescue measures and deposit guarantee schemes, CEBS Taskforce on crisis events - matrix mentioning rescue plans (18 Nov 2008), press releases by various countries' governments.

Specific issues regarding financial market infrastructure

Integration causes material parts of the Finnish financial market infrastructure to relocate abroad and thereby out of direct supervision and oversight by the Finnish authorities. Reliability and efficiency of retail payment systems take centre stage in the functioning of the economy, notably for private citizens and small and medium-size companies. Well-functioning securities clearing and settlement systems are key to financial institutions and companies, in particular. A central counterparty in securities enhances the operation of the markets from the viewpoint of liquidity management, and facilitates market participants' risk management by interposing itself as counterparty to trades. Given that the central counterparty constitutes a source of risk concentration, particular attention must be devoted to its risk management (see Box 5).

The Bank of Finland's oversight is being upgraded to meet market developments.

The Bank of Finland and the Financial Supervision Authority are liable to ensure, on their behalf, the reliability and efficiency of the infrastructure important for Finland. Reduced levels of influence resulting from integration can be mitigated by increasing cooperation and information exchange between relevant authorities and market participants. Matters need to be brought forward in a number of fora in accordance with jointly agreed rules.

The Bank of Finland has reviewed its oversight policy in order to preserve its influence within the changed market structure. The foreign retail payment system STEP2 falls within Eurosystem oversight cooperation, in which the Bank of Finland takes active part. Home country authorities of market participants involved in the international securities clearing and settlement institution and central counterparty activities – central banks and securities market regulators – cooperate in the areas of oversight and supervision on the basis of Memoranda of Understanding. The Bank of Finland and the Financial Supervision Authority aim at joining these collective frameworks, which should incorporate all necessary sub-areas, such as information exchange, assessment of systems against oversight and supervisory principles as well as crisis management.

Finland has recently witnessed the emergence of new cash dispenser networks. It has been decided to include these networks into the Bank of Finland's oversight with a view to fostering a smooth operation of cash dispensers and creating level playing field conditions for various service providers. The Bank of Finland's oversight levels and priorities, after revisions, are illustrated in chart 23.

Efforts to increase transparency should particularly focus on projects of infrastructure development. Otherwise, it will be difficult for infrastructure users to anticipate the implications of several development projects for their respective operating environments, for example, through pricing, functionalities or costs.

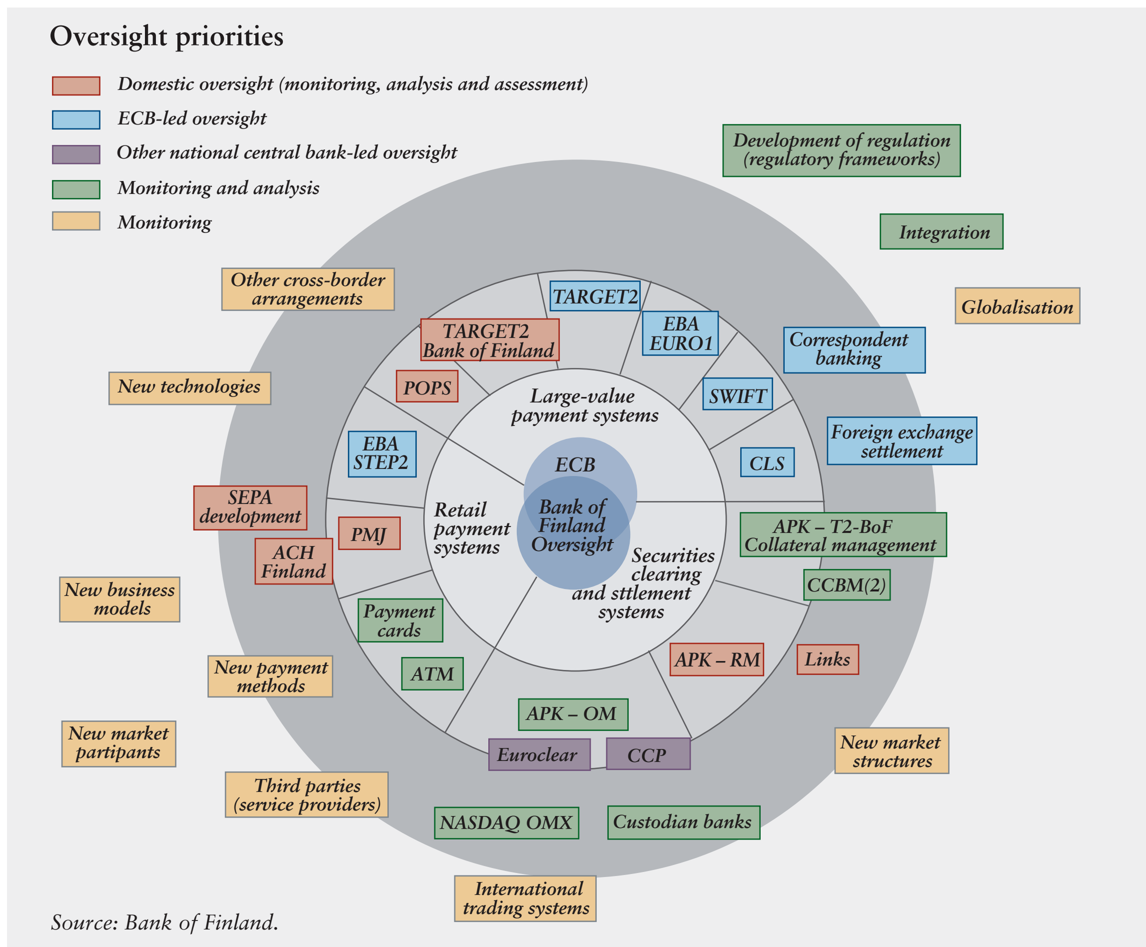
Infrastructure and financial crisis

EU payment and securities settlement systems have functioned smoothly

during the financial market turmoil, thereby helping support market operations during the crisis. Occasionally, however, problems have been detected in the realisation of collateral held with the systems. At worst, this may lead to clearing and settlement delays, causing liquidity risks and risks of loss to the rest of the participants or systems. Accordingly, particular emphasis needs be laid on the quality and management of eligible assets – an adequately prompt realisation of collateral must be possible.

Cooperation and support of authorities are increasingly needed for integration to unfold. Authorities must have adequate potential to exert influence, for example, on business continuity planning and organisation of crisis management, irrespective of the prospect of new restructuring arrangements and system location. The crisis may give incentives to keep infrastructures within national borders, which acts as a constraint on achieving efficiency gains induced by integration.

Chart 23.



Source: Bank of Finland.

Developments in oversight and supervisory cooperation, regulation

With systems becoming more international, the importance of well-functioning oversight and supervisory cooperation increases. Eurosystem central banks already have in place reasonably good arrangements for concerted action in respect of payment system oversight, but the functioning of such arrangements needs to be reviewed against the backdrop of market developments. Securities markets have typically seen official powers being divided between central banks and securities market regulators and supervisors. However, the diversity of these powers must not prevent the conduct of effective cooperation and its formalisation through Memoranda of Understanding, for instance. This enables to safeguard relevant authorities' possibilities of exerting influence within integrated market structures.

Regulation needs to be considered against the backdrop of the financial crisis and changed market structures.

EU legislation and self-regulation have freed competition in securities markets, whereas regulation of market participants themselves continues to be based on national laws. This may lead to discriminatory competitive opportunities and regulatory arbitrage. To alleviate this misalignment, the European System of Central Banks and securities regulators have issued common regulatory recommendations, which are currently on a market consultation round.[8] As regulation takes the form of recommendations, there is a danger of inadequate official supervisory convergence. Finnish legislation must be reconsidered, from the perspective of both the crisis and changes in market structures, in order to ensure adequacy of official monitoring and regulation and management of problem situations.

Effective organisation of supervision may prove challenging if actors in the markets lack clear legal status. In developing regulation, consideration should be given to the requirement that a market participant should have a legal presence in the form of a separate company in the euro area even though it might increase costs for the market participant.

[8] Draft recommendations for securities clearing and settlement systems and draft recommendations for central counterparties in the European Union; http://www.ecb.int/press/pr/date/2008/html/pr081023.en.html

Box 5.

Central counterparty clearing becoming common

One reason put forward for the financial market crisis is the complicated nature of investment instruments and particularly the credit derivatives market, with the euro as main currency, the value of which has grown to USD 54,600 bn.[1] The deficiencies in clearing practices in this market must be solved without delay owing to the threat of systemic risk. In the middle of October, the European Commission announced that the current practice in the OTC derivatives market cannot continue without an appropriate clearing function,[2] which in practice means a central counterparty (CCP).[3]

In spring 2008, the international Financial Stability Forum[4] recommended the establishment of adequate post-trade infrastructure for OTC derivatives. The Federal Reserve quickly assigned this task to key banks in the global market. The first step towards structuring the credit derivatives market was already taken in November 2006, when a trade register built by the US-based Depository Trust and Clearing Corporation[5] was introduced to facilitate the post-trade clearing work in particular. However, this was not considered sufficient to manage risks.

Several actors have voiced their willingness to construct the required global CCP. Many of the solutions currently put forward are based on the use of DTCC's American register. The proposals are a step in a better direction, but arranging sufficient supervision may prove to be a challenging task unless the actor has a clear legal position, such as a licence to operate in the EU area. The authorities of all countries require adequate information about the activities and impact of such supervised entities on the financial system of the country. Setting up separate central counterparty clearing in the euro area would increase costs, but the crisis has shown how challenging supervision is without such an entity.

The advantages of central counterparty clearing include management and reallocation of counterparty risk and improved use of liquidity resulting from the netting of transactions. Central counterparty clearing also boosts market operations by promoting the use of uniform international technical standards. On the other hand, central counterparty clearing is also a high-risk activity, the control of which is a key aspect of their operations. Essential to risk management are stringent membership criteria, a clearing fund and effective real-time IT systems for intra-day risk management. Central counterparty clearing is also selective with regard to eligible securities.

Main European market places use central counterparty clearing for securities clearing and settlement. Over the years, surveys have been conducted in the Nordic countries with a view to introducing central counterparty clearing to the market. Integration of trading has advanced rapidly, but progress in post-trade infrastructure development has been slower. Questions pertaining to the location of the CCP have also been challenging issues to address. Now plans are getting a more concrete shape. It is intended that from mid 2009 onwards, all trades executed on the Helsinki Stock Exchange will be cleared using the services of a Dutch-based CCP. The arrangements require establishment of supervisory cooperation between the Finnish and Dutch authorities. In the wake of operations being increasingly focused abroad, Finland is gradually losing control of the financial sector, thereby heightening risk exposure of the home market.

[1] ISDA 24 September 2008. http://www.isda.org/press/press092508.html

[2] Charlie McCreevy, Time for regulators to get a better view of derivatives, 17 October 2008

[3] A central counterparty is an entity operating between the parties to a trade in the post-transaction clearing process of a securities trade: as seller to the original buyer and as buyer to the original seller.

[4] http://www.fsforum.org

[5] http://www.dtcc.com/products/derivserv/

Appendix.

Infrastructure critical for the Finnish financial market

System	*Description*	*Oversight responsibility*	*Assessment*
TARGET2	*New generation of TARGET; technically centralised RTGS system based on a single shared platform.*	*ECB (lead overseer), Eurosystem.*	*Preliminary assessment in accordance with the Core Principles in autumn/winter 2006 and the first comprehensive assessment of the future system in summer 2007. Open questions will be addressed towards the end of 2008 after the system has been in use for approximately a year. Operations have been reliable.*
TARGET2 – Bank of Finland system	*Bank of Finland subsystem to TARGET2.*	*Bank of Finland oversight; adherence to joint principles with other Eurosystem TARGET2 parties.*	*Migration to TARGET2 progressed smoothly for the Bank of Finland and its customers. Operations have been very reliable apart from technical problems encountered in PMJ settlement.*
POPS	*Banks' online system for express transfers. Domestic large-value payment system.*	*Bank of Finland oversight*	*Assessment in 2004, in accordance with the Core Principles; system fulfils requirements. Operations have been reliable. Number of payments has stabilised.*
PMJ	*Domestic retail payment transfer system; operates as an ancillary system to TARGET2.*	*Bank of Finland oversight*	*Assessment in 2004, in accordance with the Core Principles; system fulfils requirements. Critical system for domestic retail payments. Some disturbances found in PMJ settlement but they were not reflected in domestic payment transmission.*
EBA Euro1	*EBA Clearing's transfer system for euro-denominated large-value payments.*	*ECB (lead overseer), Eurosystem.*	*Assessment in 2001, in accordance with the Core Principles. Assessed to be a systemically important large-value payment system. Operation reliable; no significant disruptions.*
EBA STEP2	*Pan-European automated clearing house (PEACH) for euro-denominated bulk payments.*	*ECB (lead overseer), Eurosystem.*	*Considered a prominently important retail payment system. Operation reliable; no significant disruptions. In the future, a systemically important retail payment system for Finland. Cooperation in oversight is further improved.*
CLS	*A significant settlement system for foreign exchange transactions that enables PvP settlement to eliminate settlement risk. In operation since 2002.*	*US Federal Reserve (lead overseer), ECB (overseer of settlement in euro), G10.*	*Operations of the system have expanded to the settlement of credit derivatives traded outside the stock exchange. Operations reliable, despite some minor disruptions. Heightened importance in the management of risks relating to foreign exchange transactions during the financial market crisis.*
ACH Finland	*A clearing house set up by some Finnish banks (in April 2008).*	*Bank of Finland oversight*	*An assessment will be made after the company has begun operative business.*
APK	*Finnish Central Securities Depository (APK).*	*Bank of Finland oversight (Merger of Euroclear and NCSD will change oversight cooperation).*	*The settlement system for debt securities (Ramses) and its collateral management services have been assessed based on the Eurosystem user standards; system fulfilled requirements in 2008. The predecessor of the current settlement system for equities trades (HEXClear) was reviewed by the IMF during Finnish FSAP. The liquidity of both systems has been assessed with the BoF-PSS2 simulator. Operations have been reliable.*
European Multilateral Clearing Facility, EMCF	*A possible provider of central counterparty clearing services to the Helsinki Stock Exchange.*	*An oversight group lead by the Dutch authorities.*	*Monitored and assessed jointly by national oversight and supervision authorities. The Bank of Finland intends to participate in this group.*
Euroclear	*A group of international securities depositories to which NCSD and APK were merged 30 October 2008.*	*An oversight group lead by the Belgian authorities.*	*Individual securities depositories belonging to the Euroclear group are monitored and assessed by national oversight and supervision authorities. National authorities are jointly responsible for monitoring and assessing the Euroclear group. The Bank of Finland intends to participate in this group.*
Information networks			
Pankkiverkko3	*Domestic closed interbank network used by PMJ and POPS.*	*Bank of Finland oversight*	*Subject to oversight monitoring. Operations have been reliable.*
SWIFT	*Most significant provider of messaging services to the financial markets; an entity managed by its members. SWIFT messaging services are widely used in payment transfers and the settlement of securities trades.*	*Oversight group headed by the central bank of Belgium (see NBB Financial Stability Review, June 2008, pp. 90–91).*	*SWIFT is a critical provider of services for financial market infrastructure. Its operation has been mainly reliable. In self-assessment, SWIFT has stated it meets the high-quality oversight requirements. Oversight pays special attention to ensuring IT security and the operational reliability of SWIFT and its individual counterparties.*
ATM networks	*Networks significant for the supply of cash to individual citizens.*	*Bank of Finland oversight*	*Subject to oversight monitoring to ensure acquisition of data and secure preparedness for crisis management.*

Organisation of the Bank of Finland

15 October 2008

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