



Financial Market Report

1 • 2011

- Worst is over in corporate finance
- Why were banks' credit losses in Finland less than expected?
- Finland giant-stepping into SEPA era
- New contingent capital instruments



Bank of Finland

Financial Stability and Statistics

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1 Financial intermediation

1.1 The worst is over in corporate finance

Jukka Vauhkonen

A survey of businesses shows that their financing problems eased substantially in 2010 compared to the recession year 2009. Financing problems eased most for microcompanies. In contrast, a fairly large portion of companies reported an increase in the interest rate margin on new loans.

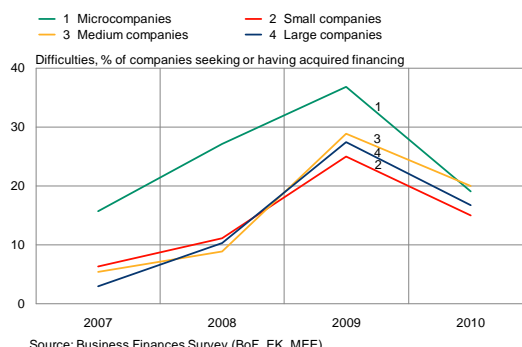
The availability of financing for Finnish companies deteriorated and financing conditions tightened in 2008–2009, which was reflected in eg surveys on businesses' financing conditions. Companies' financing conditions eased in 2010. Their external financing has however remained at a low level.¹

The Business Finance Survey 2010² by the Bank of Finland, the Confederation of Finnish Industries EK and the Ministry of Employment and the Economy shows that 15–20% of businesses seeking new finance found it difficult to tap external sources during the previous 12 months. The portion was smaller than in 2009, when the corresponding figure was 25–35% (Chart 1).

¹ See Bank of Finland's Financial Statistics – Annual Review 2011, http://www.suomenpankki.fi/en/tilastot/tase_ja_korko/Pages/Vuosikatsaukset.aspx.

² Survey available on the Bank of Finland website http://www.suomenpankki.fi/fi/julkaisut/selvitykset_ja_raportit/rahoituskyselyt/Pages/default.aspx (in Finnish only).

Chart 1. Companies' difficulties acquiring new external financing

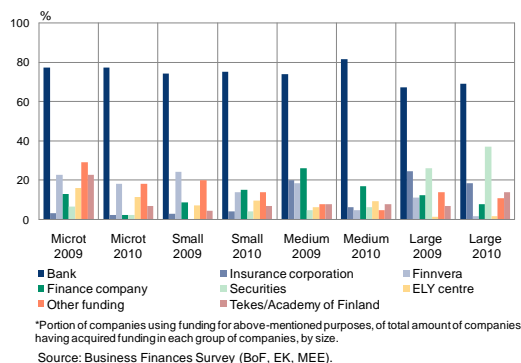


Companies' financing problems are however still more widespread than in the pre-crisis years when, of all small, medium and large companies seeking finance, at best only a couple of percent, and of the microcompanies, a slightly bigger portion, had difficulties in acquiring finance.

Particularly microcompanies' financing problems have eased recently. In 2007–2009, they still had significantly more financing problems than other companies, but in the 2010 survey the differences between companies were small.

Microcompanies are highly-dependent on bank financing. Nearly 90% of microcompanies seeking external funding were granted a bank loan.

Chart 2. Sources of planned external funding



Thus the easing of the availability of financing for microcompanies probably reflects mainly the easing of their bank funding.

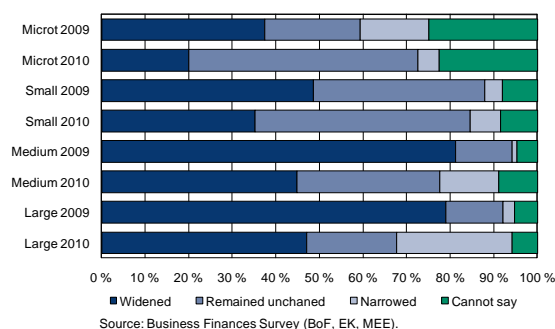
Particularly large companies often use other sources of finance besides banks. The financial crisis has hampered companies' funding via securities market instruments since autumn 2008. Companies' financing from the international financial markets started to ease gradually towards the end of 2009. According to the Business Finance Survey, the portion of companies that obtained funding via securities increased significantly in 2010, particularly for large companies (Chart 2). Based on funding plans, the popularity of funding via securities seems to be increasing again in 2011.

The most common financing problems differ depending on size of company. For micro and small companies, the typical problem is the lack of collateral and the fact that they are unable to acquire funding on any terms. The total drying-up of funding is rarer for medium and large companies. Their most common financing problems are the shorter-than-expected maturity of funding and the price of funding that they perceive unreasonable.

Although the availability of financing for companies has eased, a fairly large portion of companies report that the interest rate margin on their new bank loans has widened compared to old loans.

Interest rate margins widened for almost every second medium and large company (Chart 3). By contrast, only one-fifth of microcompanies reported a widening of interest rate margin.

Chart 3. Interest rate margin on new loans



The interest rate margins on old loans widened for one-fifth of companies that had old loans at the time of the survey.

2 Banks and insurance corporations

2.1 Finnish banks' loan losses smaller than expected – why?

Jarmo Pesola and Hanna Putkuri

Finnish banks' net impairment losses on loans and other receivables have been fairly small following the global financial crisis and recession of the Finnish economy. Compared to the recession in the early 1990s, this time the economy has started to recover rapidly. Low interest rates, better-than-expected employment and more contained developments in asset prices have also maintained debtors' repayment capacity.

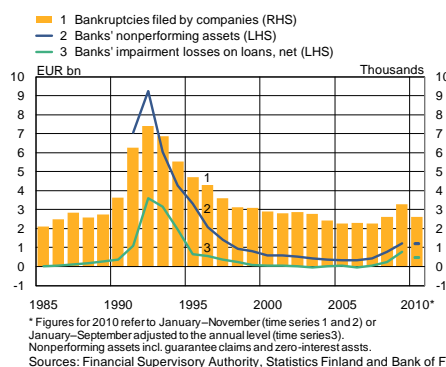
Domestic banks' net impairment losses on loans and other receivables increased in 2008–2009, due to the global financial crisis and subsequent deep recession of the Finnish economy (Chart 4). The losses however have been smaller than expected and as compared to the banking crisis of the early 1990s. In 2009, banks' net impairment losses totalled ca EUR 800 million, or less than 0.5% of the average lending stock. In 1993–1994, annual loan losses amounted to over 4% of the lending stock, and the number of bankruptcy applications was more than double that of 2009.

What causes loan losses?

A bank must record a loan or other asset as nonperforming if payment of interest or principal on

the asset (or part thereof) has been in arrears for 90 days. An exception to this is when the bank and debtor have agreed on a new payment schedule, eg an amortization-free period. Changes in repayment plans are usually more commonplace in times of financial difficulty; for example, an increasing number of households got behind in their loan repayments as a result of the economic slowdown in 2009.³

Chart 4. Bankruptcies and banks' loan losses and nonperforming assets in Finland



A bank must record impairment losses if there is objective evidence that a loan or receivable (or group thereof) is impaired. A typical case where impairment losses occur is the bankruptcy or significant financial difficulty of the debtor.

Based on history and empirical research, the extensive materialisation of bankruptcies, nonperforming assets and impairment losses is linked to a large number of macro and financial market variables, eg economic growth, indebtedness,

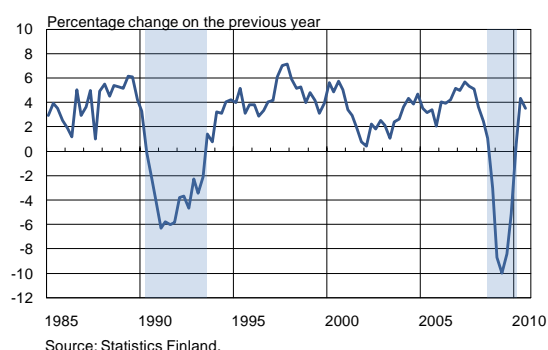
³ Federation of Finnish Financial Services (spring 2010), Saving, borrowing and payment methods in Finland.

financing costs, and asset prices.⁴ Below, we examine how certain key variables have developed since the mid-1980s, particularly during the recession in the early 1990s and the economic slowdown in 2009.

The recession in the early 1990s and the economic slowdown in 2009: a comparison

Finnish GDP declined in 2009 by as much as 8.2% (Chart 5). The collapse of aggregate output was dramatic compared to most of the developed countries. The unemployment situation however remained better than expected, as employers increasingly resorted to fixed-term layoffs instead of redundancies (Chart 6).⁵

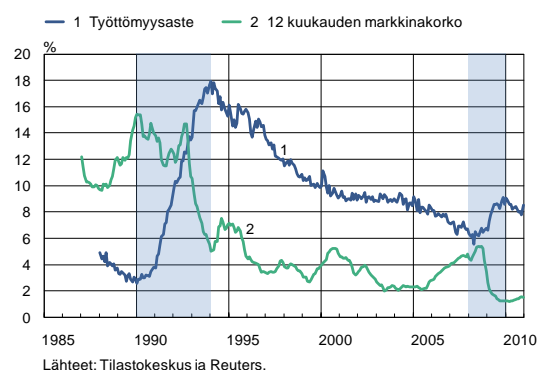
Chart 5. Finnish gross domestic product



⁴ See eg Jokivuolle, E. – Virén, M. – Vähämaa, O. (2009), Transmission of macro shocks to loan losses in a deep crisis: the case of Finland. Bank of Finland Discussion Papers 26/2009. Pesola, J. (2007) Financial fragility, macroeconomic shocks and banks’ loan losses: evidence from Europe. Bank of Finland Discussion Papers 15/2007.

⁵ See also Freystätter, H. – Mattila, V.-M. (2011) Finanssikriisin vaikutuksista Suomen talouteen. BoF Online 1/2011 (Impact of the financial crisis on the Finnish economy, in Finnish only).

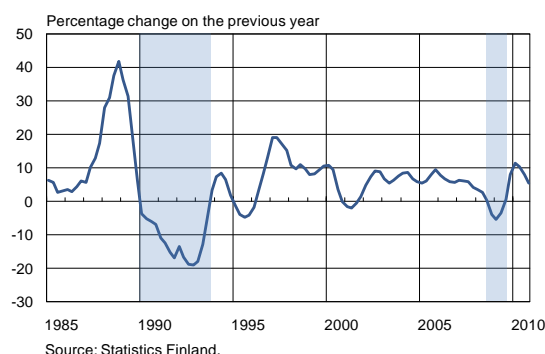
Chart 6. Unemployment rate and 12-month market interest rate in Finland



The economy seems to have started to recover at a considerably more rapid rate than after the early-1990s recession when output declined for a period of three years. One reason for the rapid recovery is the large stimulus measures taken virtually on a global scale.

The developments that led to the recession of the early 1990s stem from late 1980s: deregulation began in the tightly-regulated Finnish financial markets and banks’ lending was liberalized. Households and companies adjusted to the change by rapidly taking on debt, which increased the vulnerability of the private sector and enlarged banks’ credit risks. The simultaneous overheating of the economy resulted eg in an uncontrolled surge in housing prices (Chart 7).

Chart 7. Finnish housing prices



Unfortunately a series of macroeconomic risks hit Finland in the early 1990s. Finnish exports and terms

of trade declined significantly, followed by a decrease in domestic demand. Turbulence in the foreign exchange market led to devaluation and floating of the Finnish markka, which increased the distress of companies and households with foreign currency loans. In addition, interest rates rose rapidly amidst the battle to protect the markka (Chart 6). The combination of vulnerability and macroeconomic shocks pushed the Finnish economy into a recessionary spiral that was followed by an explosive increase in bankruptcies and loan losses, and a banking crisis (Chart 4). Public bank support may have had an impact on the amount and timing of the loan losses recorded.

In the economic slowdown of 2009, macroeconomic variables did not affect debtors as adversely as in the recession of the early 1990s. The economic slowdown and the decline in housing prices were short-lived. The relatively low corporate debt ratio (Annex Chart 6) and the low level of euro area interest rates helped the economy survive the difficult times, despite a shortage of financing in the worst stages of the financial crisis. In addition, exchange rate risk did not play as big a role as in the previous recession.

On the other hand, households are now more indebted than in the early 1990s (Annex Chart 6), and public sector debt is increasing rapidly. Thus far these sectors have not experienced significant loan losses.

In 2010, banks' net impairment losses were still bigger than before the financial crisis, but a turn for the better seems to have occurred. If recovery from the effects of the financial crisis continues, impairment losses will remain fairly small. A surprising setback to the macroeconomy or the financial markets could however turn things around again.

2.2 European bank restructuring efforts aim at breaking the adverse feedback loop between sovereign risk and banking sector

Eeva Alho

The delay in the complete restructuring of banks continues to undermine financial stability in Europe. Banks that have received state aid in the crisis are required to downsize their balance sheets. In some countries, the entire banking sector needs to be reorganised. Solutions have been slow in coming given all the political restrictions, and banks have been squeezed between public assistance and market pressure.

Ireland – banking sector shrinking and strengthening

Of the EUR 85 bn financing package drawn up to support the recovery and fiscal consolidation of the Irish economy, EUR 35 bn has been reserved for reorganisation of the banking sector. As part of the package, the EU and IMF require swift reorganisation of banking structures. The banking sector will be overhauled via the following three measures.

Strengthening of capital: The Irish central bank increased the minimum capital requirement to 10.5%. Viable banks are required to raise their capital ratio above 12% by the end of February 2011. Four banks have to strengthen their capital base by a total of EUR 13 billion. Of the assistance package, EUR 10 bn is for

the immediate recapitalization of banks, financed from the National Pensions Reserve Fund. Of that amount, EUR 3.7 bn will be injected into Allied Irish Banks (AIB), as a result of which state-ownership in the bank will increase to 93%. EUR 25 bn of the assistance package is available on a contingency basis to cover banks' unexpected losses. The need for a loan commitment will be defined after the central bank has completed capital adequacy and liquidity assessments in March. Capital is acquired primarily from private sources. Banks seek to cover their capital deficit with a bond exchange offer, where part of the subordinated debt is nulled.

Downsizing balance sheets: The banking sector is downsized by selling problem assets and operations that are not part of core business. This reduces exposure to credit and financing risks. All Irish banks must submit a restructuring plan to the EU commission in February.

Winding down of banks: The terminally unviable banks, Anglo Irish Bank and Irish Nationwide Building Society, will be wound down. The government has given them a total of EUR 35 bn of new capital.

Spain – more efficient savings bank sector

The interest rates on Spanish government bonds reflect investors' fears that banks will incur considerable losses, due to the country's economic stress and the property markets. The concerns relate particularly to the savings bank sector, which has now been almost completely reorganised. The aim is to reduce overcapacity and achieve synergy with larger units.

The number of savings banks has decreased from 45 to 17, via mergers. In eight of the mergers, banks have used a total of EUR 10.6 bn from the FROB

fund⁶ established to support the restructuring. The government is prepared to support the banking sector restructuring at a total of EUR 99 bn. The support programme is not restricted to savings banks, but cooperative and commercial banks have not applied for support. To be eligible for capital support from the FROB fund, banks have to start cutting costs. A new act allows savings banks to acquire from private investors equity capital with voting rights, but the rigid administrative structure of the sector has kept investors away. The administration of savings banks is improved by the regulations, and the representation of politicians and general government on the boards is restricted.

To restore creditworthiness, the Spanish government is increasing the pressure for reform of the savings banks. It requires banks to meet the minimum capital requirement of 8% by September, and the capital adequacy requirement is even higher for unlisted banks and banks with money market funding in excess of 20%. If banks are unable to obtain private funding, they will be capitalised with public funds from the FROB and the government will become a temporary shareholder. According to government estimates, the banks will need to raise up to EUR 20 bn of additional capital. The central bank has requested a report on banks property risks. In a previous survey in June, the banks' problem assets in the property sector were estimated at EUR 181 bn.

Greece – state guarantee improves liquidity

The IMF in December determined that the liquidity of the Greek banking sector is precariously tight.⁷ The funding problems have culminated in exposures to Eastern European risks, the maturing of bonds, the shrinking of deposits, and the higher price of finance,

⁶ Fondo de Reestructuración Ordenada Bancaria.

⁷ IMF Country Report No. 10/372, December 2010.

following the downgrading of the government's credit rating.

To support liquidity, the Greek government extended its state guarantee by EUR 25 bn. In 2008, a EUR 28 bn government support package was drawn up, consisting of EUR 5 bn in capital support, EUR 15 bn in state guarantee and EUR 8 bn in liquidity support. Nine banks have obtained a total of EUR 3.8 bn in capital support. Of the international support package of EUR 110 bn drawn up in May 2010, EUR 10 bn comprises capital support to banks, to safeguard the stability of the banking system. The IMF assessed the Greek banking sector as resilient in terms of capital adequacy and that the funds allocated to support it will be sufficient. Under Greek law, the programme will run until the end of 2017, but the EU commission will approve extensions on a biannual basis. The terms of the support mechanism mainly encourage looking for solutions for viable units via mergers that achieve cost savings and improve liquidity.

Reorganisation is underway in the state-controlled banks. ATEbank (state-ownership 77%) embarked on extensive cost-cutting programme in December, and it will merge with Loan and Consignment Fund (LCF) and Hellenic Postbank. Public funds are saved, as capital will probably be bolstered by LCF reserves. The private banks NBG and Piraeus acquired market funding and avoided merger arrangements. The biggest bank, NBG, is in the process of exiting from the government support mechanism.

Germany – regional banks still anaemic

Despite the strong performance of the German economy, its banking system needs restructuring. The profitability of the banking sector has suffered from a rigid structure that does not allow private banks to purchase state-owned banks. Regional banks (*Landesbank*) have played a significant role in

corporate lending, but also in local politics. Because they are implicitly backed by states, they are considered to distort banking competition. The government guarantee is being dismantled by a decision of the EU commission, but with a long transition period. Following the shrinking of their main business, regional banks began to invest in high-risk instruments, making use of financial support. Four regional banks had to be recapitalized by the state, as major losses were realized on structured investments.

Following the recapitalisation of individual banks, the Financial Market Stabilisation Fund of Germany (SoFFin)⁸ was established in October 2008. It is authorised to grant guarantees up to EUR 400 bn and to use EUR 80 bn for recapitalization and asset purchases. According to the OECD⁹, the use of support has been minor, partly due to the fact that it is voluntary, and the restructuring of balance sheets and governance structures should progress more vigorously. The reorganisation of the biggest SoFFin customer, Hypo Real Estate – which suffered heavy losses from its property and Irish business units – has moved forward. Its loan and securities receivables worth EUR 173 bn have been transferred to an asset management company. Hypo's bonds worth EUR 124 bn, guaranteed by the SoFFin fund, were transferred to the asset management company and they will be replaced by unguaranteed bonds. The majority of Hypo's financing is in covered bonds.

Discussion has been rekindled on the drawn-out process of restructuring the regional banks. WestLB is looking for imminent purchase offers because the bank has to submit a restructuring plan to the EU commission by 15 February 2011. The bank considers

its only options to be sale of the entire bank or merger with a regional bank. The bank has not attracted purchasers due to its problem units, which it has been unable to detach. The merging of ailing banks has raised doubts and even fear as regional banks are dependent on market financing. The state-owned regional bank BayernLB thus dropped its plan to merge with WestLB.

Regional banks are in the process of divesting their holdings in Deka Bank, which operates as their central bank. Municipally-owned savings banks will have 100% ownership in the bank. This will free up regional banks' capital, and the reorganisation may facilitate merger discussions.

Belgium – major risks of contagion

The recapitalisation of large banks has contributed to the expansion of Belgium's debt burden. Banks must be reorganised, as it is a prerequisite for bank support. Belgian banks' exposure to Belgian sovereign debt has made investors nervous. In addition, the banks have major business and investment risks abroad, eg in Ireland and Eastern Europe.

Dexia is particularly dependent on capital markets because its retail banking business is fairly small. Its challenge is to replace the state-guaranteed debt financing that will mature in the next few years. Dexia's loan-to-deposit ratio (funding gap) is highest among the European banks. Nor has KBC repaid its state aid. It did not have to separate its insurance operations, but it has sold part of its Eastern European business. According to analysts, the sales do not generate enough to repay the state aid, and a share issue is a difficult option, as the bank's major shareholders oppose the dilution of their holdings.

⁸ Sonderfonds für Finanzmarktstabilisierung.

⁹ The German banking system: Lessons from the financial crisis, ECO/WKP(2010)44.

United Kingdom – time to refinance the financial support

Lloyds and Royal Bank of Scotland have to replace large amounts of government-guaranteed debt financing. Banks aim to reduce their financing deficit in order to lessen their dependency on market financing.

In 2009, an APS programme¹⁰ was established in the United Kingdom to provide protection against credit losses. Lloyds has exited the APS with the help of private funding. Part of RBS' assets is still insured by the APS, for which the bank pays a fee to the government. Not all RBS' risky assets are included in the APS; instead, the bank eg carries its Irish risks itself.

Another challenging part of restructuring is curtailing the real estate exposures, as several European banks are currently trying to do.

¹⁰ Asset Protection Scheme.

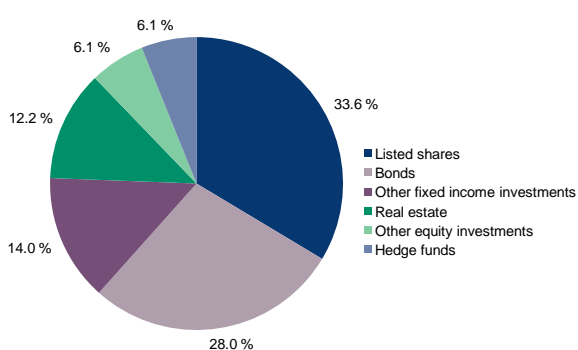
2.3 Rising share prices boost employee pension insurers' return on investment

Pertti Pylkkönen

Employee pension insurers' return on investments rose to just under 11% in 2010. Due to the high returns, their solvency margins improved relative to technical provisions.

Employee pension insurers' stock of investment grew in 2010 by just under 11%, to nearly EUR 87 bn. As a result of the strong rise in share prices, the composition of the investment portfolio changed over the year, with added weight for equities. The portion of listed shares in the investment portfolio of employee pension insurers increased to slightly less than 34%, ie to pre-financial crisis levels. In addition, capital investments and investments in unlisted shares each accounted for ca 6% of total investments (Chart 8).

Chart 8. Breakdown of employee pension insurers' investments in 2010



Source: Finnish Pension Alliance TELA.

Fixed-income investments decreased by ca EUR 4 bn as a result of the sale of bond investments. There were no significant changes in other fixed-income investments. For example, the growth in TyEL premium loans came to a halt – after strong growth in 2008 and 2009. At the end of 2010, they accounted for 6% of total investments. The portion of fixed-income investments in total investments decreased to slightly over 40%.

The regional distribution of employee pension insurers' investment portfolio changed slightly. Investments in Finland continued to account for 41% of total investments at the end of the year, but the portion of investments in the other euro area countries decreased slightly, and an increasing portion were non-euro area investments.¹¹

The key objective of employee pension insurers' investment activities is to increase the accumulation of pension contributions, for payment of current and future employee pensions. The long-term objective is thus to achieve the highest possible real return at a risk level defined by regulations. A high real return in the long term eases the upward pressure on pension contributions. The provisions on the solvency of the employee pension system and investment activities have been revised a couple of times in the past 15 years, to boost the real return on investments. One of the key elements of the revision has been to increase the share of equity investments, while keeping the risk level reasonable.

The first revisions occurred in 1997 and the latest ones took effect on 1 January 2007. In connection with the latest revisions, employee pension insurers' risk-bearing capacity was improved by introducing a new liability item to serve as a risk buffer, ie supplementary

¹¹ Finnish Pension Alliance TELA.

insurance liability linked to the return on equity investments. The revision was based on the assumption that the portion of listed shares in employee pension insurers' investment portfolio would be 35% on average.

The average real yield assumption for investment assets was increased in connection with the 2007 revision, from 3.5% to 4%. This assumption has been used to assess the pressure to adjust future pension contributions.¹² Employee pension insurers' average real return on investment since 1997 varies between companies, around the 4% yield assumption, which accords with the actual aggregate weighted average real return.

The provisions on solvency margin are aimed at ensuring that employee pension insurers are able to fulfil their pension liabilities, ie pay current and future pensions.

Investment regulations steer the allocation of investments in the same direction. The provisions however allow employee pension insurers to have slightly differing investment strategies. There is a difference in eg the weight of equity investments or hedge fund investments in the investment portfolio. Also in the fixed-income investments portfolio, the portion of corporate bonds may vary. Differences in investment strategies also diversify the investment risks of the pension system as a whole.

Despite uncertainties in the operating environment, 2010 was a good investment year for employee pension insurers. Employee pension insurers' average nominal return on investments rose to just under 11%. The return on investments varied between 8.3% and

11.4%. The return on investment was boosted particularly by equity investments, where the return exceeded 20%. Investments in hedge funds and capital funds also generated fairly high returns. In contrast, the bond markets were extremely challenging in 2010, due to the sovereign debt crisis in several European countries. The return on pension insurers' fixed-income investment portfolios varied depending on eg their investments in bond markets or sovereign debt markets of the countries experiencing difficulties. Due to the high returns on investment, employee pension insurers' solvency margin relative to technical provisions improved in 2010.

Employee pension insurers' solvency in accordance with the temporary act, ie relative to the solvency limit calculated based on investment risk, declined slightly in 2010. The weight of equities in the investment portfolio increased as a result of favourable price developments. Despite the slight decline, solvency remains good.

¹² Elo, K, Klaavo, T, Risku, I. and Siivonen, H. (2009). Lakisääteiset eläkkeet. Pitkän aikavälin laskelmat 2009. Eläketurvakeskuksen raportteja 2009:4. (Statutory pensions. Long-term projections 2009, Finnish Centre for Pensions, in Finnish only).

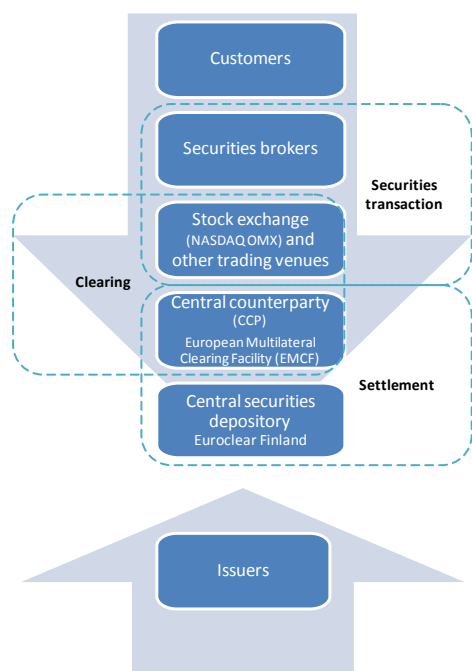
3 Securities markets

3.1 Structural change in the value chain of domestic securities trading

Päivi Heikkinen and Marko Myller

Financial market integration has changed the structures of the securities trading value chain. European regulation has facilitated cross-border trading and mergers and enhanced competition, particularly in trading. Market participants have utilised the new opportunities. How does this show up in the Finnish securities market?

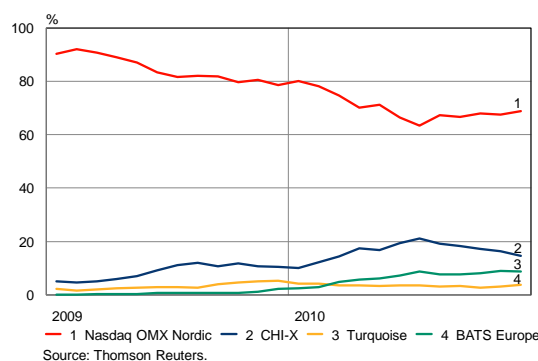
Chart 9. Value chain of securities trading



Source: Bank of Finland.

Securities trading traditionally takes place on stock exchanges; when a company lists, its shares become subject to public trading. The development of stock exchanges is characterized by integration. At the same time trading venues with lighter structures, ie multilateral trading facilities (MTF)¹³, have been established in Europe. They have challenged the stock exchanges, conquered markets and listed some of the most-traded shares. A portion of the trading by large brokers has moved to dark pools, where brokers execute trades on behalf of their customers, unseen by other brokers. Chart 10 shows that MTFs have a major role also in the trading of Finnish shares. The playing field of trading facilities may continue to change since the European Commission has suggested also organised trading facilities (OTF)¹⁴ as part of the review of the markets in financial instruments directive (MiFID). Organised trading facilities would be more restricted trading venues than MTFs. Tailored regulation would cover also unofficial trading venues that specialise in the trading of shares in SMEs.

Chart 10. Market share of Finnish equities (HEX 25) in various trading facilities



¹³ MTF, Multilateral Trading Facility.

¹⁴ OTF, Organised Trading Facility

Brokers have traditionally traded securities in large batches, on behalf of several customers. Technological advances and the significant increase of algorithmic trading¹⁵ have reduced the size of trades and contributed to the growth in trading volumes.

Although trading and trading facilities are probably the most visible and best-known part of the value chain of securities trading, in terms of functioning and the reliability, the most important stages are in the post-trading operations. A trade executed on a stock exchange or other trading facility is actually only a commitment to deliver either money or securities within three days. From the stock exchange, data on the trades are transferred to a central counterparty¹⁶. A central counterparty is a market participant specialising in the management of counterparty risk. It is an intermediary that places itself as a party to the trade, acting as a buyer to the seller and a seller to the buyer and guarantees execution of the trade. The central counterparty sums up the trades executed during the day, as a result of which the opposing trades executed by one broker with a single security are netted, leaving only one trade per security. Before the introduction of central counterparty clearing, the risks to the broker and its client were greater than the other party to the trade would fail to settle its obligation as agreed within three days. Currently, only one central counterparty is operating in Finland, ie the Dutch company EMCF.

The commitments made on a stock exchange and modified by the central counterparty are settled finally

¹⁵ Algorithmic trading or high-frequency trading (HFT), computerised trading, using special investment software.

¹⁶ Eg on the Helsinki Stock Exchange, trades on Large and Mid Cap shares are transferred to the central counterparty of the Dutch company European Multilateral Clearing Facility N.V. Central counterparty clearing was launched at the Helsinki Exchange in November 2009.

at a central securities depository¹⁷, three days after the trade date. In the clearing process of a central securities depository, the buyer receives the securities and the seller the money, with settlement finality and irrevocably – delivery versus payment. The Finnish central securities depository is part of a major European group, Euroclear, which is responsible for providing central securities depository services in Finland, Sweden, France, Belgium, the Netherlands, and the United Kingdom and Ireland.

In addition to the above mentioned reform of the regulation of trading facilities (MiFID), EU regulations will be issued on central counterparties and central securities depositories. The aim is also to promote competition in the post-trading part of the value chain. The proposals for a regulation that have been published for market consultation include eg the idea of the issuer having the possibility to choose the central securities depository. The provision of cross-border central securities depository services has also been proposed. The aim is to bring an increasing portion of investment instruments into regulated trading facilities and central counterparty clearing and to increase the transparency of the process.

There are still grounds for enhancing competition. Particularly small investors have felt that mainly large institutional investors have benefited from the reforms thus far¹⁸. There are however many parties in the securities trading value chain, and it is not simple to create the right kinds of incentives.

Promoting European-wide integration and competition is also the intention of the Eurosystem's TARGET2-Securities initiative¹⁹. The aim is to create a single shared IT system which will settle all the

¹⁷ In case of Finnish shares, at Euroclear Finland.

¹⁸ See eg <http://www.ft.com/cms/s/0/0442e42c-2a52-11df-b940-00144feabdc0.html#axzz1Car0nxdQ>

¹⁹ <http://www.t2s.eu>

securities transactions of the countries in the system.

T2S will go live in 2014.

4 Infrastructure

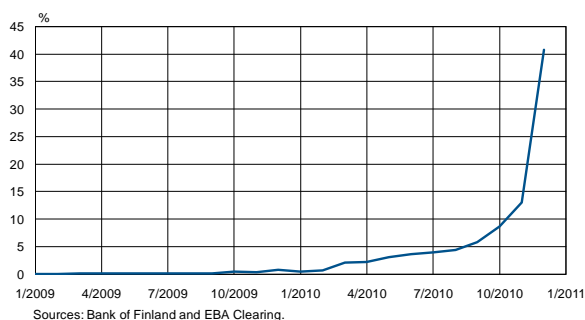
4.1 Finland leaping into the SEPA era

Marianne Palva

The final phase in migration to SEPA has begun. The domestic credit transfer will be discontinued by the end of the year. Private customers will then have to use International Bank Account Numbers (IBAN) in all credit transfers. For companies the change is bigger, due to the revised standards for payment data.

The SEPA credit transfer is rapidly replacing the traditional domestic credit transfer (Chart 11). In December, SEPA credit transfers accounted for over 40% of total interbank credit transfers of banks operating in Finland.

Chart 11. Interbank SEPA credit transfers of banks operating in Finland; % of total credit transfers



And this is how it should be. The domestic credit transfer will be gone by the end of 2011. The actual

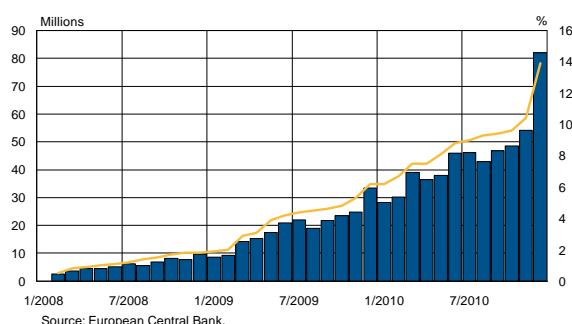
transition period ended already at the turn of the year, but banks will continue to receive legacy payments until the end of October. As of 1 November, banks will accept only SEPA credit transfers. For private customers, this essentially means that they have to start using the International Bank Account Number (IBAN) in all payments. For corporate customers, the change is a much bigger one. In addition to the account number, migration to SEPA will entail changes in data elements of the payment messages of batch transfers. The return data sent by the banks will also change. The new standards require changes in companies' financial administration systems. In parallel with SEPA changes, banks have also revamped their banking connections, and this too has forced companies to make changes.

Towards the end of 2010, a growing number of companies completed their SEPA changes. The majority of banks also updated their online banking solutions to the SEPA era, as a result of which customers' payment forms and lists of payment recipients are in line with the new requirements. Following the updates, payments made on line became SEPA payments. This was reflected in a surge of SEPA credit transfers in December. If they continue to increase at the same pace, SEPA credit transfers will account for nearly 70% of total credit transfers in January. Even if this figure is not quite reached, data for December confirm that the SEPA migration plan for Finland is on schedule. By the end of the year, SEPA credit transfer will be the only credit transfer

used in Finland. Finland is a forerunner in migration to SEPA credit transfer in Europe.

An examination of developments in the euro area shows that in payment systems operating in the euro area, the portion of SEPA credit transfers has grown more steadily than in Finland (Chart 12). From the start of the review period until the end of October 2010, the portion of SEPA credit transfers in Finland was smaller than in euro area payment systems in general. In October 2010, the portion of SEPA credit transfers had increased slightly. The actual turnaround took place in December. Although the share of SEPA credit transfers in euro area payment systems increased much faster than before it remained at slightly over 13%.

Chart 12. SEPA credit transfers as % of total credit transfers in euro area payment systems



The take-up of SEPA credit transfer varies considerably. In some of the smaller euro area countries (Luxembourg, Slovenia and Cyprus) the share of SEPA credit transfers was already in early 2010 well over 50%, in Belgium over 20%, and in Spain slightly under 20%. In the remaining countries it was under 10%.

The changes required by SEPA migration have been costly for companies and banks. Rapid changeover however reduces the costs, as there is no need to maintain two parallel systems. When banks and companies have completed the changes, they can start

exploiting the opportunities provided by the new standards, developing new services and enhancing financial administration processes. Services based on SEPA credit transfer and e-invoice are already being planned in Finland. They were discussed eg at the Bank of Finland's Payments Forum in May 2010.²⁰

SEPA increases competition. The introduction of uniform standards will remove the borders between intra-SEPA payments. A company with cross-border operations can centralise its payment flows in one bank and force various foreign banks to compete against each other. Uniform standards will also increase competition between software suppliers.

However, not all countries see the benefits to be gained from SEPA. There is strong resistance to change in some countries. But the benefits from SEPA can be fully reaped only when migration is completed throughout SEPA. Therefore the European Commission has already for some time been preparing regulation to complete SEPA. In December 2010, the Commission finally published a proposal for a regulation²¹ to ensure completion of SEPA. The aim is to have the regulation in force soon, but thus far it is uncertain when the regulation will be adopted. The Commission proposes that the end-date of migration to SEPA credit transfer would be 12 months and that of migration to SEPA direct debit 24 months after entry into force of the regulation. In practice, this would mean the end of 2012 for credit transfers and the end of 2013 for direct debit, at the earliest.

²⁰ Detailed information on the Payments Forum is available at http://www.suomenpankki.fi/fi/rahoitusjarjestelman_vakaus/km_yhteisty/Pages/maksufoorumi_2010.aspx

²¹ Proposal for a regulation of the European Parliament and the Council establishing technical requirements for credit transfers and direct debits in euros and amending Regulation (EC) No 924/2009.

As markets integrate, barriers are removed and practices change. The single payments area requires, in addition to uniform standards, uniform regulation. The role of the Commission and the European Parliament will expand, and room for manoeuvre in national legislation will shrink. The role of national authorities responsible for supervision and oversight will also change as domestic systems are replaced by international systems.

Finland's changeover to SEPA will thus also affect the Bank of Finland's oversight duties. Domestic credit transfers have been transmitted via the interbank retail payment system for banks operating in Finland, ie PMJ, for which the Bank of Finland has oversight responsibility. Interbank SEPA credit transfers between banks operating in Finland are transmitted via the international STEP2 system for which the European Central Bank currently has oversight responsibility. Initially STEP2 was only a cross-border payment system, and therefore it was natural that the oversight responsibility would lie with the European Central Bank. The situation has now changed, as STEP2 is replacing the Finnish and some other domestic systems.

The Eurosystem is thus currently discussing oversight arrangements for a system that is crucial for the flow of payments in several countries. It is in the interest of each national central bank to participate in the oversight of a system that is crucial for the flow of its national payments also when the payments are transferred via a system located in another country.

4.2 Slow progress in electronic invoicing in Finland

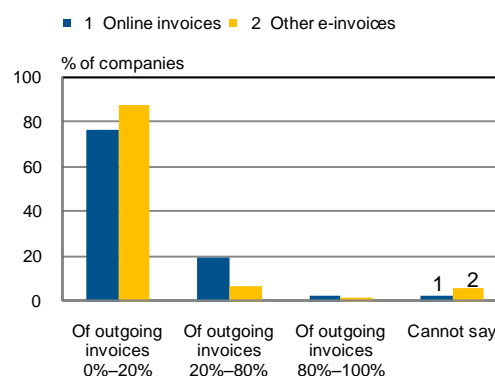
Eveliina Nyandoto

The introduction of online invoices and other e-invoices has progressed slowly in Finland despite the savings in terms of time, resources and the environment. Measures must be taken, as Finland lags far behind the top European countries in all areas of electronic invoicing.

According to a press release by Itella²², 44% of Finnish companies are equipped to use e-invoices in business-to-business invoicing. Slightly over half of Finnish companies receive e-invoices. Finland, known as a forerunner in technology, ranks with the average for European countries, and the gap between Finland and the leaders in electronic invoicing is already considerable. For example in Estonia, 82% of companies send e-invoices to their corporate customers, and nearly 95% receive e-invoices. Of Danish companies, 68% send e-invoices and nearly all companies receive them. Of Finnish consumers, ca 51% receive e-invoices, whereas in Norway and Denmark, the figure is close to 80%.

²² Itella Information surveyed the popularity of online invoicing in 16 countries, press release, in Finnish only http://www.itella.fi/group/tiedotteet/2010/20101112_tutkimus.html and Kauppalehti: Suomi on sähköisen laskutuksen kehitysmaa (Finland is a developing country in electronic invoicing, in Finnish only), 27 October 2010.

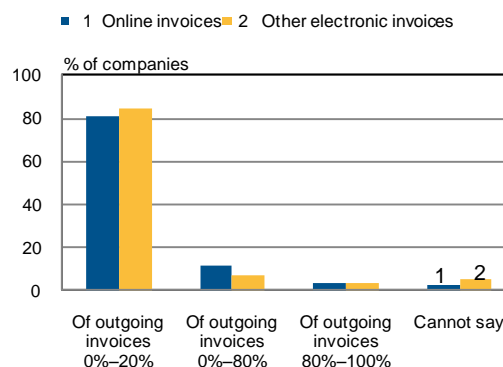
Chart 13. E-invoices paid by companies



Source: Business finance Survey (BoF, EK, MEE)

In Finland, only ca 2% of all companies pay over 80% of their invoices online²³. The portion of other electronically sent invoices²⁴ is even lower (Chart 13). In business-to-business invoicing, the portion is only slightly higher. Ca 4% of companies send over 80% of their bills as electronic invoice (Chart 14).

Chart 14. E-invoices in business-to-business invoicing



Source: Business Finance Survey (BoF, EK, MEE).

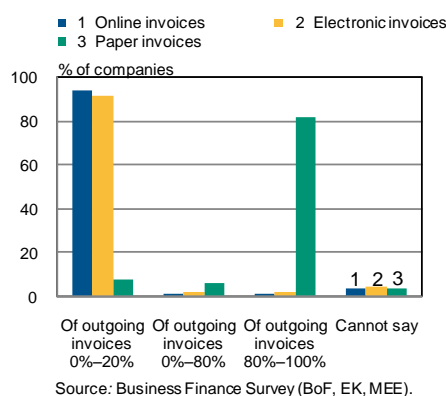
The use of online invoices improves work efficiency and reduces emissions. An electronic invoice is on average four times more environmentally friendly than

²³ Online invoice: an invoice sent from the invoicer's system to the customer's system or to an online bank.

²⁴ Other electronically sent invoices are for example invoices sent by email.

a paper invoice.²⁵ In addition, the number and probability of invoicing errors will decrease considerably with the automation of the invoicing process. Despite the benefits of electronic invoicing, paper invoicing is still the most common form of billing in Finland. Only ca 15–20% of invoices are e-invoices.²⁶ Of companies, 82% send the majority of their bills (over 80%) as paper invoices, and 94% use electronic invoicing in less than 20% of consumer invoicing (Chart 15).

Chart 15. Invoices sent by companies to consumers



One reason for Finland's weak showing is the lack of interest in invoices sent by email²⁷. Fixing this problem would be the first step in raising the rate of electronic invoicing. Another cause of problems is the incompatibility of systems. Companies that already use electronic invoicing are forced to receive or send paper invoices if the other party lacks the ability to

²⁵ Federation of Finnish Financial Services: Environmentally-friendly electronic invoice study

http://www.fkl.fi/www/page/fk_www_3626

²⁶ Helsinki Region Chamber of Commerce: Pk-yritysten tietotekniikan ja sähköisen liiketoiminnan tarpeet (SMEs' IT and electronic business needs, in Finnish only).

http://www.helsinki.chamber.fi/index.phtml?1011_m=3241&s=2

²⁷ Kauppalehti: Suomi on sähköisen laskutuksen kehitysmää (Finland is a developing country in electronic invoicing, in Finnish only), 27 October 2010.

process electronic invoices. Companies and consumers should be encouraged to introduce electronic invoicing, eg by launching campaigns, issuing information bulletins and supporting companies using electronic invoicing. Many consumers are still unfamiliar with electronic invoicing. They should also be provided more and, easily accessible information. The easier and clearer banks make it for customers to start receiving e-invoices, the more the customers will start using them.

Electronic invoicing at the Bank of Finland

The Bank of Finland has received electronic invoices since 2005. It has announced that as of 1 July 2010 it will accept only e-invoices. The target is for all incoming invoices to be e-invoices. This has not yet been fully achieved because not all suppliers are yet able to send e-invoices and there are incompatibility issues in electronic invoicing by foreign suppliers. In 2010, ca 60% of incoming invoices at the Bank of Finland were e-invoices.

For outgoing invoices, the Bank of Finland has used electronic invoicing since 2009. The number of sales invoices is low at the Bank of Finland, and outgoing invoices are very heterogeneous. This has posed a challenge for the electrification of outgoing invoices, and the use of e-invoices has not increased as expected. Also on this side, problems relate to the inability of the other party to receive e-invoices, incompatibility with foreign parties' electronic invoicing solutions, and the transferring of attachments. Attaching files to the system is difficult, and some of the counterparties are unable to receive them. The aim however is to raise the rate of electrification also for outgoing invoices.

5 Key regulatory and supervisory initiatives

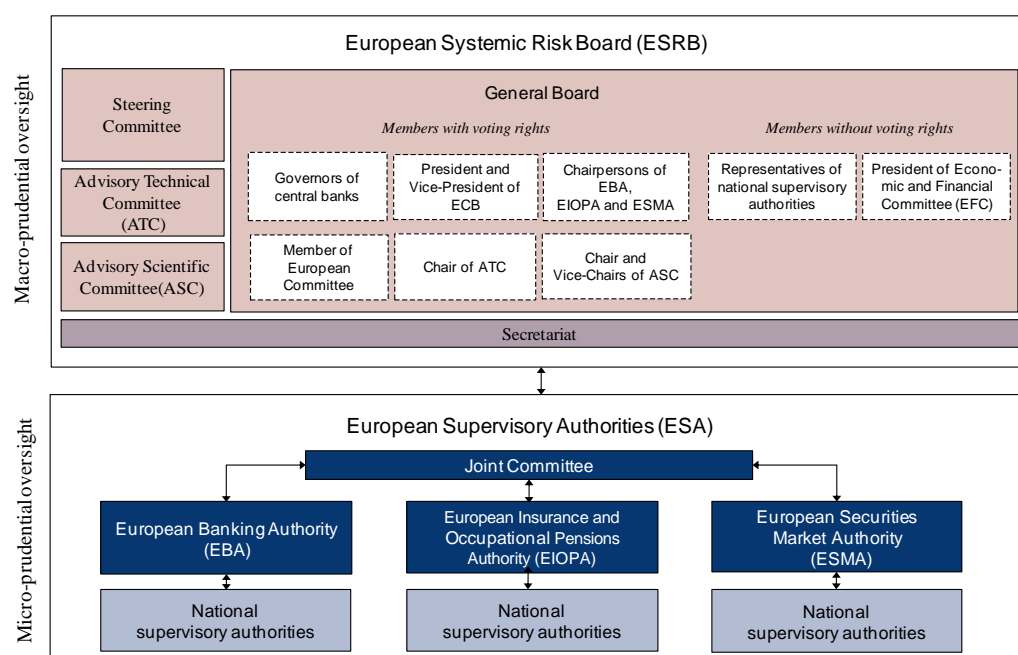
5.1 European Systemic Risk Board (ESRB)

The European Systemic Risk Board (ESRB) is part of the European System of Financial Supervision (ESFS). The new EU body responsible for the macro-prudential oversight of the financial system. Its most important task is to identify systemic risk and issue warnings. The aim is to prevent systemic risks by issuing recommendations and to mitigate the costs of risks that have materialised.

The decision-making body of the ESRB, the General Board, meets four times a year. The Steering

Committee makes preparations for the meetings of the General Board, guides the Advisory Committees and supervises the work of the Secretariat. The task of the Advisory Technical Committee is to review financial stability conditions, identify systemic risks and review the use of macro-prudential oversight tools. The most important task of the Advisory Scientific Committee is to provide assistance in the development of analytical tools used by the ESRB. The Secretariat coordinates the analytical work conducted at the European Central Bank and liaises with the European supervisory authorities and international institutions, eg the International Monetary Fund (IMF) and Financial Stability Board (FSB).

Chart 16. European System of Financial Supervision



5.2 Basel III and contingent capital instruments

Hanna Westman

The key objectives of the reform of financial market regulation are to strengthen financial institutions' capital structure and ensure that the costs of crises need not be borne by taxpayers. To support these objectives, new types of contingent capital instruments are being developed.

Debt securities that under pre-defined conditions can be converted into equity capital or written down in value are called contingent capital instruments. If authorities decide when and on what terms conversion takes place, the debt securities are called bail-in capital. If the fulfilment of terms defined in the debt contract is verified based on market indicators, the instrument is called a Contingent Convertible (CoCo) bond.

The current Basel II framework has allowed banks to classify as own capital supporting regulatory capital a certain amount of contingent capital instruments, ie hybrid capital. In a situation of financial stress, a bank should be able to cover its losses by deferring repayment of hybrid capital. During the recent financial crisis, financial institutions however avoided the deferring of repayment, in fear of market reactions. Authorities were powerless if a bank's capital adequacy ratio did not fall below the minimum requirement – in some cases due to state aid. In the Basel III framework, this type of hybrid capital is no longer included in regulatory capital, as the capital included in the capital adequacy calculations must be

truly available for covering a financial institution's losses.

Contingent convertible bonds can be used to strengthen a bank's capital structure in an extremely difficult market situation, reduce the need for a forced sale of assets, and ensure that the private sector, particularly creditors, participate in carrying the losses. Contingent convertible bonds are also seen to provide incentive to enhance risk management and improve market discipline. This however requires that contracts are carefully designed.

Firstly, the contract should define **the trigger for conversion**. This may be an event affecting the entire financial system (eg systemic crisis), an institution-specific event (eg the falling of capital adequacy below a pre-defined threshold), or a combination of the two. Authorities can also play a role in conversion of a contingent convertible bond: the trigger mechanism can be a decision by authorities to declare the entire system to be in crisis or an individual financial institution to be nonviable. It is difficult to use an event embracing the entire system as a trigger, because such an event is open to interpretation, which may hamper the pricing of the debt instrument. In addition, common events do not encourage financial institutions to improve risk management. An institution-specific event presents a clearer case. Possible key figures include ratios based on capital structure, market-based indicators (eg value of a share or price of a credit default swap, CDS), and an assessment by authorities as to the financial institution's viability. Ratios based on income statements or balance sheets are available with some delay, so that conversion based on them may take too long. Market prices are forward looking, but the possible impact of speculation and short selling on price formation may distort investors' and financial institutions' incentives.

In defining the **critical level of the trigger**, it should be noted that the aim of a contingent convertible bond may be to strengthen the banks' capital structure in a precautionary manner or only when the bank no longer meets the minimum capital requirement. A precautionary contingent convertible bond is designed so that conversion would take place at a relatively early stage, before major financial problems occur.

A contingent convertible bond that is converted only when the bank is close to collapse ensures an orderly winding down and forces creditors to bear part of the costs. If the critical level of the trigger is publicly known, there is a danger of negative market reactions as the critical level is approaching. This on the other hand restricts a financial institution's access to the financial markets. Conversion only when the crisis has hit may aggravate the stressed situation further. This is why the critical level of the trigger should be relatively high.

The ratio at which debt securities are converted to equity affects creditors' and shareholders' incentives. At one extreme, creditors obtain equity capital at the full value of the debt, at the other extreme, they do not obtain shares, and the value of the debt securities is written down. In the first example, the value of current shareholders' holdings is diluted, which gives them an incentive to refrain from conversion by strengthening the capital structure at an earlier stage or to improve risk management. A weaker position for creditors, in contrast, provides an incentive for more efficient monitoring. The

conversion rate is defined either when the contract is drawn up or when the conversion takes place.

Creating markets may be challenging. Traditional investors in the bond market probably want to avoid the uncertainties related to the potential conversion of contingent convertible bonds. Converting a contingent convertible bond of an individual financial institution may cause a chain reaction if the debt securities are owned by other financial institutions. This is why the restriction of cross holdings has been considered, which would reduce the number of investors. The restrictions on cross holdings in the liquidity ratios of the Basel III framework may however be sufficient.

Despite the numerous challenges, there are already examples of the use of contingent convertible bonds. The British bank Lloyds and the Dutch bank Rabobank have already issued these new types of capital instruments. In Switzerland, for systemically important banks (UBS and Credit Suisse), a minimum capital requirement of 19% is proposed, of which 9% may be in the form of contingent convertible bonds. Of that, 3% would be early-stage contingent convertible bonds, converted when core Tier 1 (CT1) falls below 7%. The remaining 6% would be contingent convertible bonds converted at a CT1 ratio of 5%. Contingent convertible bonds can also be used for remuneration. Barclays announced recently that it considers using contingent convertible bonds as part of the bonuses to be paid to 1,000 employees in senior positions. The aim is to strengthen the bank's capital structure and ensure that senior management incentives are in line with business risks.