



Financial Market Report

2 • 2012

- Major cross-country divergences in financial intermediation
- Low market rates undermining Finnish banks' net interest income
- High-level Expert Group proposes separation of activities within banking groups
- Target2-Securities project progressing according to schedule



Bank of Finland

Financial Stability and Statistics

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1 Financial intermediation

1.1 Lack of confidence increased capital movements in Italy and Spain

Kristiina Karjanlahti and Kimmo Koskinen

Since the latter part of 2011, foreign capital has been flowing out of Spain and Italy, which has hampered banks' funding, especially in Spain. In Italy, the flight of capital eased already in spring 2012. The data for September suggest that the situation has now improved in Spain, too.

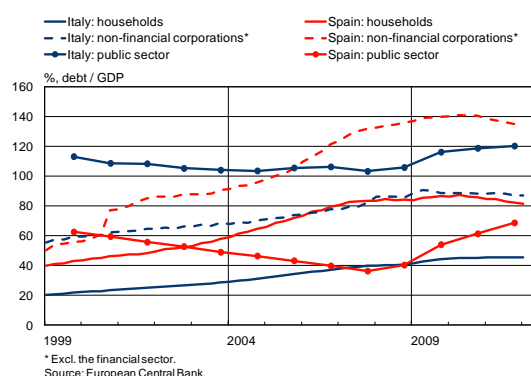
Confidence crises driven by differing factors

In Spain, the private sector became heavily indebted during the upswing that preceded the crisis in confidence (Chart 1). As a result of the global financial crisis and bursting of the housing bubble, Spain's economic growth plunged, leaving the country in a situation where the private sector was indebted, the banking sector was suffering from capital adequacy problems and the level of public sector debt was rising rapidly.

In Italy, the crisis was founded on protracted weak growth, losses in relative competitiveness and a rapid rise in the level of government debt (Chart 1). As the euro crisis deepened, market confidence in the economic outlook for Italy, and hence the solvency of the public sector, began to deteriorate. Tensions in sovereign bond markets resulting from the crisis in

confidence have tightened funding conditions in the crisis countries and led to divergence in financial intermediation in the euro area.

Chart 1. In Spain, there was an increase in private sector debt, while Italy was burdened by public sector debt



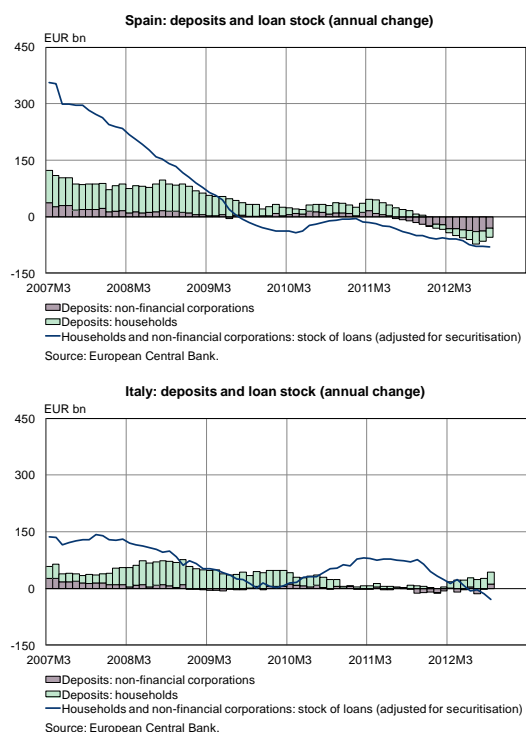
The share of central bank finance on bank balance sheets has grown

Retail deposits are the basic source of funding for banks. Deposit developments generally remain stable during times of economic uncertainty, since in most countries deposits are at least partly covered by various deposit guarantee systems. Before the crisis, deposit growth relative to bank lending was substantially stronger in Spain than in Italy. Although retail deposits constitute a large share of Spanish banks' balance sheets, they were not sufficient to cover the growth in bank lending during the economic upswing (Chart 2). Banks also financed lending significantly via market-based funding. In Spain the majority of market-based funding originated from securitisation and the issuance of covered bonds (cédulas hipotecarias), whereas in Italy, besides

deposits, banks were largely financed via interbank short-term market paper and debt emissions.

There have also been differences in the development of deposit and lending stocks since the crisis (Chart 2). In Spain, the stock of loans granted by banks to the private sector has decreased since 2009, as has the stock of deposits since 2011. In addition to the contraction in deposits, the availability of market-based funding has also decreased with the collapse of confidence in the banks. Spanish banks have sought to replace these funding sources with increased central bank funding. This already accounts for 12% of the banking sector's balance sheet, albeit the pace of growth has decelerated during the summer. Spain has also experienced a turnaround in deposits in September, as household deposits increased compared with August.

Chart 2. Private sector deposit stock has contracted in Spain, but not in Italy



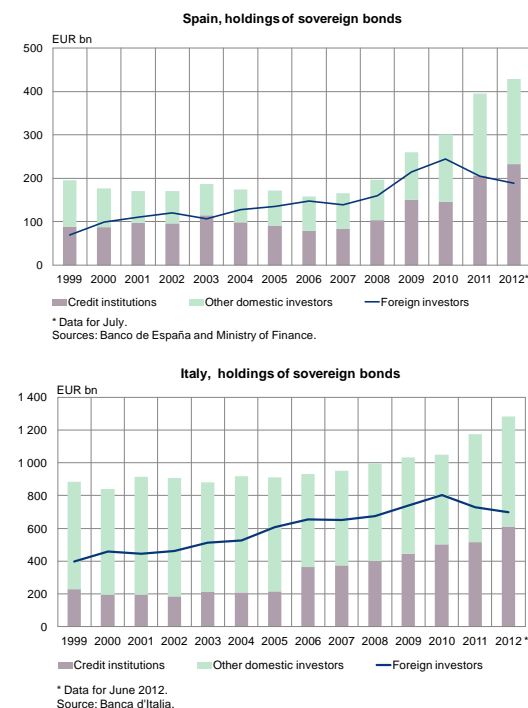
Unlike Spain, in Italy the banking sector has retained the confidence of domestic depositors. This is reflected

in growth in private sector deposits in the past 12 months. The annual rate of growth in the lending stock has not turned negative until recent months. (Chart 2). In Italy, the share of wholesale funding and extra-euro area deposits in bank finance has declined due to the crisis in confidence, and Italian banks, too, have therefore had to have recourse to central bank funding. However, the amount of central bank funding has decreased during August–September. Its share in the aggregate balance sheet of Italian banks was 6.6%, which is considerably smaller than the share recorded for Spanish banks.

Foreign investors have been selling their holdings of sovereign bonds

Foreign investors' confidence in the solvency of the Italian and Spanish governments deteriorated in 2011. Within a year (June 2011–June 2012), foreign investors sold as much as EUR 100 billion in Italian and over EUR 40 billion in Spanish sovereign loans (Chart 3).

Chart 3. Sovereign bonds have shifted from foreign investors to domestic banks



However, it should be noted that, since April, foreign investors have started to increase their holdings of Italian sovereign bonds again, and the situation in Spain has also shown signs of stabilising.

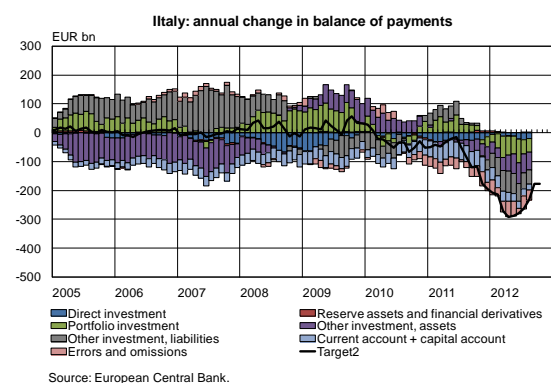
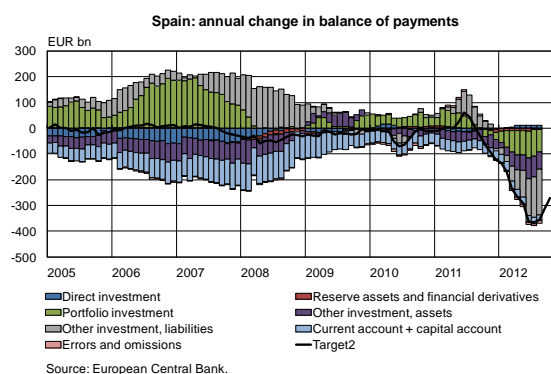
Supported by Eurosystem measures, domestic banks in both countries have replaced foreign investments with purchases of sovereign instruments. This has increased domestic banks' share of public sector debt and, at the same time, increased the interconnectedness of the risks of these sectors.

Capital outflows have come to a halt

Balance sheet developments in Italy and Spain illustrate the reasons behind the crisis in confidence (Chart 4). Prior to the crisis, Spain posted a high current account deficit and buoyant capital inflows that were used to finance growth stemming from consumption and overheating of the financial markets. At the same time, Spanish banks' operating models shifted from traditional retail deposit-based banking towards operating models that rested heavily on global capital markets. This is reflected in the growth in portfolio liabilities in Spain's balance of payments. Most of this growth was linked to mortgage-backed structured instruments. In Italy, capital flows were more balanced prior to the crisis, mainly comprising flows associated with interbank and wholesale markets. However, Italy also suffered from a current account deficit, public sector indebtedness and structural growth challenges.

Lack of confidence led to a rise in sovereign loans and capital flight in both countries in the latter part of 2011. As market-based funding has dried up, Spanish and Italian banks have had to increasingly have recourse to Eurosystem lending, which is reflected in growing imbalances in the Target2 balances between euro area countries. Outflows of foreign capital were most pronounced in the first half of 2012.

Chart 4. Crisis in confidence led to capital flight, but outflows came to a halt Italy in the spring and were reversed in Spain in September



In Italy, capital flows were smaller prior to the crisis, and outflows seem to have halted in the spring, which is also reflected in a halt in the growth of Target2 liabilities. Italian banks' funding base has weakened due to the crisis, but has remained stronger than the funding base of Spanish banks. However, public sector indebtedness and the fragility of the private sector may undermine banks' capital adequacy, particularly if the growth base of the economy cannot be restored and confidence does not recover.

In Spain, the crisis induced a stronger adjustment of imbalances and outflow of foreign capital. This substantially increased banks' dependence on central bank finance. There have been positive signs of a recovery in confidence in September and October. The current account deficit has contracted and foreign capital outflows have reversed, which is also reflected

in a reduction in cumulative Target2 liabilities. The recovery in confidence has been supported by announced new ECB measures and progress in banking sector reforms.

1.2 Diverging developments in euro area housing markets

Hanna Putkuri

Diverging economic developments and funding conditions within the euro area are reflected in substantial cross-country differences in the euro area retail and housing loan markets. In the crisis countries, lending to households is contracting, house prices are falling and interest rates on new housing loans are higher than in the euro area on average.

The annual growth rate of MFI loans to households¹ remained just under 1% in September (Chart 5).

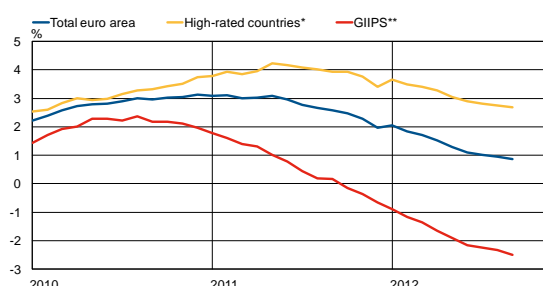
However, cross-country differences in the euro area are considerable. Over the past 12 months, lending has contracted in the countries at the centre of the debt crisis, ie the GIIPS countries², whereas in countries with high credit ratings³ the stock of loans to households has increased further, albeit at a slower pace than before.

¹ Adjusted for loan sales and securitisation.

² Greece, Ireland, Italy, Portugal and Spain.

³ Germany, France, the Netherlands, Belgium, Austria and Finland.

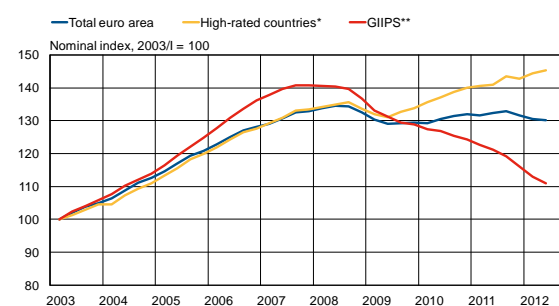
Chart 5. Loans to households in the euro area



Annual growth rate of loan stock adjusted for loan sales and securitisation.
* Germany, France, Netherlands, Belgium, Austria and Finland.
** Greece, Ireland, Italy, Portugal and Spain.
Sources: European Central Bank and calculations by the Bank of Finland.

Prior to the crisis, private sector debt growth was substantially faster in the GIIPS countries than in many other euro area countries.⁴ House prices also increased faster in the GIIPS countries than in the euro area on average (Chart 6). The latest data indicate that house prices are still rising at a moderate pace in the high-rated countries, whereas in the GIIPS countries the sharp fall in prices triggered by the crisis has continued.

Chart 6. House prices in the euro area



* Germany, France, Netherlands, Belgium, Austria and Finland.
** Greece, Ireland, Italy, Portugal and Spain.
Sources: European Central Bank and calculations by the Bank of Finland.

The protraction of the debt crisis and increased uncertainty in the euro area economy have affected banks' willingness and ability to grant new loans. According to bank lending surveys by the European Central Bank⁵, euro area banks have over the course of the year tightened credit standards for borrowers

⁴ See eg Bank of Finland Bulletin 4/2012, articles 'Monetary policy and the global economy' and 'Bursting of the housing price bubble and the economic policy challenges for Spain'.

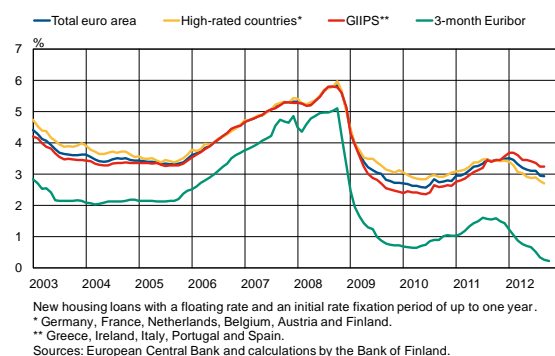
⁵ The euro area bank lending survey.

taking out housing loans and also loan terms and conditions. This has been mainly due to banks' increased funding costs and balance sheet constraints as well as weaker economic and housing market prospects. Banks have tightened loan terms and conditions mainly by increasing the margins on new loans.

Loan demand has also decreased during the crisis. Bank lending surveys suggest that this has been mainly due to the weaker housing market outlook and the decline in consumer confidence. However, the relative importance of demand-related and supply-related factors is difficult to estimate.

There are also considerable country-specific differences in the evolution and level of retail interest rates. Interest rates on new housing loans with a floating rate have fallen in all countries⁶, but at the same time loan margins have widened. Funding conditions have tightened, particularly in the GIIPS countries, where the situation in the banking sector has deteriorated and banks' funding costs have increased due to the crisis (Chart 7).

Chart 7. Interest rates on new housing loans in the euro area



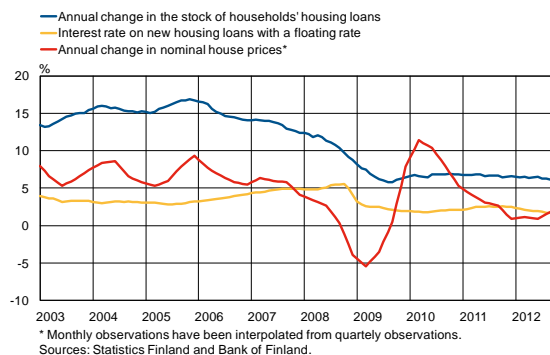
⁶ The importance of these interest rates varies by country, since in some countries most new loans are tied to a fixed interest rate (loans with an initial interest rate fixation period of over 1 year).

Moderate developments in Finland – interest rates exceptionally low

In Finland, the pace of rise in house prices has shown signs of moderation. In July–September, house prices were 1.8% higher than a year earlier in nominal terms (Chart 8).⁷ In real terms, house prices were below the peak level of autumn 2010.

The annual growth rate of loans to households for house purchase has remained at over 6% in recent years. In September, the average interest rate on new housing loans with a floating rate was 1.70%, by far the lowest in the euro area. The implications of a low interest rate level for domestic banks are discussed in more detail in section 2.1.

Chart 8. Housing loans and house prices in Finland



⁷ Statistics Finland's preliminary data.

1.3 Financial crises often preceded by excessive indebtedness in the economy

Eero Savolainen⁸

Financial crises cause substantial costs to society. The costs from losses in output often prove to be higher than the subsidies granted to financial institutions. To ensure financial stability, it is important to identify in good time the risk factors that, if realised, could lead to a financial crisis. History shows that financial crises have often been preceded by a protracted rise in indebtedness. This highlights the importance of indicators of excessive indebtedness.

In recent years, central banks have developed macroprudential analysis aimed at safeguarding the stability of the financial markets. The ultimate objective of macroprudential analysis is to ensure the proper functioning of the financial markets under all circumstances. This ultimate objective is being pursued via intermediate objectives, eg by tapping into various indicators in the assessment of indebtedness.

Excessive indebtedness, or a strong rise in indebtedness, is generally considered a threat to the financial system. A protracted rise in indebtedness

⁸ This article is largely based on Patrizio Lainà's report 'Liihallisen velkaantumisen ehkäiseminen: ennakoivat indikaattorit ja vastasyklinen pääomapuskuri Suomessa' (Preventing excessive indebtedness: leading indicators and the countercyclical capital buffer in Finland) that was drawn up in the Bank of Finland in 2012. The report examines the indicators that have best predicted excessive indebtedness in Finland over the years 1900–2011.

may lead to asset prices diverging from levels consistent with economic fundamentals. A disorderly bursting of such price bubbles causes substantial economic losses, eg via forced asset sales and a contraction in economic activity.

Based on different sources, financial crises can be defined in a number of ways. It is justifiable to say that Finland has experienced financial crises in 1900, 1921, 1931, 1939, 1991–1994 and 2008–2009. The latest crisis was most strongly reflected in contracting exports and waning international funding, which also affected domestic financial intermediation. However, Finnish banks' capital adequacy and profitability remained sound relative to developments in the operating environment.

Indicators foreshadowing excessive indebtedness

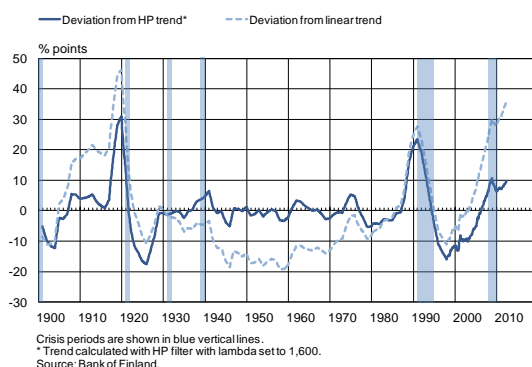
As a rule, indicators of indebtedness are measured relative to GDP over a given period. Household indebtedness is generally measured by adding in disposable income. In the case of Finland, it is useful to assess the level of debt relative to the five-year moving average of GDP.⁹ Use of the moving average smoothens the temporary, and at times considerable, fluctuations in output which are typical for a small open economy such as Finland. Debt ratios that are calculated using moving averages are better indicators of indebtedness.

The ratio of loans granted by banks to other sectors – ie the public – to smoothed GDP proves to be a useful indicator of indebtedness in Finland. Trend deviations¹⁰ in this ratio are a good predictor of financial crises (Chart 9). They precede a crisis by about 2–3 years.

⁹ Karlo Kauko (2012) Triggers for countercyclical capital buffers. BoF Online 7/2012.

¹⁰ Hodrick-Prescott filtered and linear trend.

Chart 9. Trend deviation of loan stock



The stock of credit¹¹, which is broader than the stock of loans, is also a good indicator of credit to the public when measuring the deviation from trend of the ratio of credit stock to GDP. For example, trend deviations in this ratio preceded the crisis of the 1990s by three years. The ratio of household credit stock to disposable income also signals financial crises about three years in advance. By contrast, corporate indebtedness does not seem to be a very useful indicator of financial crises in Finland.

In addition to debt indicators based on trend deviations, attention should also be given to the level of indebtedness. Financial crises generally coincide with high indebtedness ratios. The bursting of asset price bubbles may lead to a financial crisis if the bubble bursts in times of high indebtedness. A typical example is a collapse in collateral values resulting from the bursting of a housing price bubble, leading to forced mortgage sales and hence also to loan losses.

In future, excessive indebtedness in the economy may require banks to increase their capital buffers

The key macroprudential tool of the Basel III framework is the countercyclical capital buffer

¹¹ In addition to banks, the stock of credit also covers other financial institutions and general government. In addition to loans, it also includes credit via marketable debt securities.

(changing additional capital requirement)¹² aimed at mitigating the procyclical nature of bank lending and reinforcing banks' capacity to absorb losses. The authorities responsible for macroprudential stability may, as necessary, use this discretionary instrument to increase banks' capital adequacy requirements. The Basel Committee on Banking Supervision recommends that any analysis regarding the imposition of an additional capital buffer be based on as comprehensive an indebtedness indicator as possible.

¹² See also section 4.3 of this report.

2 Banks and insurance companies

2.1 Solid capital adequacy and improved profitability in domestic banking sector

Eero Savolainen

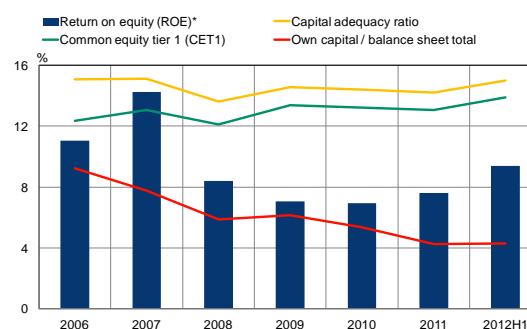
The capital adequacy of the Finnish banking sector has remained strong. Banking sector profitability improved in the first half of 2012 due to increased net income from trading and investment activities. The protracted low level of interest rates has been reflected in a sluggish development of net interest income.

At the end of June 2012, the capital adequacy ratio of the Finnish banking sector stood at 15.0% (Chart 10). This is well above the present minimum requirement of 8%. Furthermore, the equity is mainly of the highest quality, ie non-restricted primary equity capital (Core Tier 1), the most suitable type of capital for covering potential losses. The average capital adequacy ratio calculated on the basis of these figures (13.9%) is well above the level of 9% set by the European Banking Authority (EBA) for large European banks in its capitalisation initiative completed in June 2012. The protracted decline in the ratio of equity to the non-risk-weighted balance sheet bottomed out, as the combined balance sheet total of the banking sector remained during the first half of 2012 at the same level as at the turn of the year.

The combined operating profit of EUR 1.5 bn of the banking sector in January–June was 18% higher than a year earlier. The improved profitability was also reflected in the return on equity, which rose to 9.4% in the first half of the year. The return on equity has not been higher than this at an annual level since 2007.¹³

The favourable profitability development in early 2012 rested on the three largest banking groups¹⁴, as the combined operating profit of other domestic banks decreased by 2%. Income from trading and investment activities typically accounts for a significant proportion of the largest banks' income, and in the early part of the year it was on a clear upward trajectory on the back of favourable market developments. The income structure of other banks reflects to a larger extent the other traditional cornerstone of banking, net interest income.

Chart 10. Banks' profitability and capital adequacy



* Income in 2006–2007 reflects certain extraordinary income items due to restructuring in the banking sector.
Source: Financial Supervisory Authority.

¹³ In 2007, income was boosted by certain extraordinary items, particularly the sales gains received by Sampo Bank in connection with its restructuring.

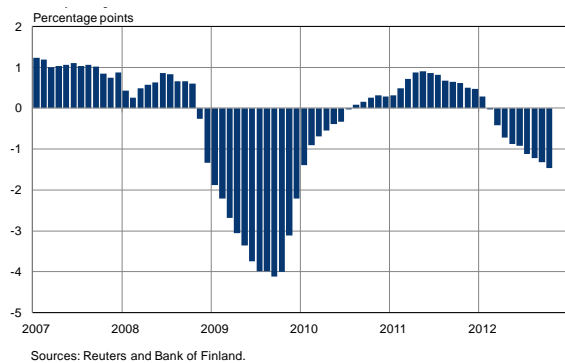
¹⁴ Nordea Bank Finland Group, OP-Pohjola Group and Sampo Bank Group.

Low market rates undermining net interest income

The level of market rates has remained exceptionally low for several years, which has kept the development of net interest income sluggish. The Finnish banking sector is characterised by a high proportion of variable-rate loans, and therefore any changes in market rates are channelled quite rapidly into customer rates.

During the present year, market rates have continued to decline further, to historical lows. For example, in September 2012, the 12-month Euribor stood on average 1.3 percentage points lower than a year earlier (Chart 11). Correspondingly, the interest rates on loans linked to the 12-month Euribor decreased on average by 1.3 percentage points, if the rate-fixing date was in September. In the context of a low interest rate level, deposit rates decrease less than loan rates, since deposit rates have a floor at 0% that has not been breached, at least not by retail deposits.

Chart 11. Year-on-year change in 12-month Euribor



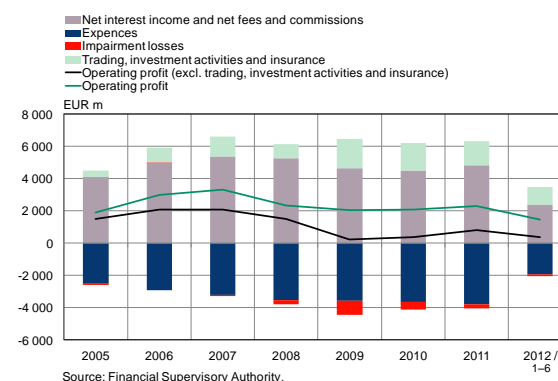
Income structure of core banking activities

Banks' income can be roughly broken down, on one hand, to income related to core banking activities and, on the other hand, to income related to investment and insurance activities. In addition to the demand for loans and deposits, the most important income item in the banking sector, net interest income, is affected by

the aggregate margin formed by the differential between loan and deposit rates. Fees and commissions reflect the demand for core banking services. Net income from trading and investment activities, on the other hand, depends largely on conditions in the investment markets, and this type of income is more volatile by nature than core banking income.

In Finland, the overall income of the banking sector has developed relatively steadily in recent years, and in the first half of 2012 it rose to the highest level in the review period due to net income from trading and investment activities (Chart 12). However, net interest income has declined, and is now lower than in 2006–2008.

Chart 12. Profitability of banking in Finland



In addition to the operating profit overall, it is interesting to review the imputed operating profit from core banking activities, which is calculated by subtracting expenses and impairments from net interest income and net fees and commissions. Whereas operating profit across the entire range of activities has developed relatively steadily, with the exception of 2007, the profitability of core banking has been much weaker. However, in interpreting this, we should bear in mind that the operating profit of core banking activities underestimates the profitability of these activities, since it also includes the administrative expenses of trading, investment and insurance activities.

2.2 Weaker position for holders of banks' unsecured bonds

Pertti Pylkkönen

The structure of funding for European banks has changed, with a rapid increase in the proportion of balance sheet items encumbered as collateral, particularly in the crisis countries. This weakens the position of holders of uncovered bonds if a bank goes into liquidation.

The proportion of market-driven short-term funding on the balance sheets of European banks – in practice interbank money market paper – has decreased, and many banks have had to look beyond the interbank money market due to their problems. In addition to decreasing in size, the structure of short-term funding has also changed. The secured interbank market (repo market) has held its ground, while unsecured markets have contracted significantly.¹⁵

The crisis has also changed the structure of banks' long-term funding in many countries. Unsecured funding for banks experiencing difficulties has dried up almost completely. Practically the only source of longer-term market funding for these banks has been funding secured by housing and other forms of real estate. The core of the secured funding has been covered bonds. As a result of the growth in the proportion of covered bonds, the encumbrance of many banks' balance sheets has increased materially.

In addition to the growth in the repo markets and covered bonds, the encumbrance of banks' balance sheets has been further increased by greater use of

¹⁵ European Central Bank. Money Market Survey. September 2012.

central counterparties in the derivatives markets. The changes to the regulation of OTC derivatives¹⁶ further increases the use of central counterparties in derivatives transactions, also increasing the encumbrance of banks' assets as collateral required by the central counterparties.

In addition, the significance of central bank finance has increased materially in the banking sector of the crisis countries in the euro area. The longer-term financing operations of the Eurosystem have substituted for market-driven long-term funding for the problem banks and banks with weak credit ratings. This has also served to increase the need of the crisis banks for new balance sheet items eligible as collateral.

Reforms are being planned in bank regulation (Basel 3) that will also steer banks more and more towards secured funding.¹⁷ At the same time, changes in the regulation of insurance companies' investment activities (Solvency 2) will increase demand for covered bonds.

The increase in balance sheet encumbrance weakens the position of depositors outside the scope of the deposit guarantee and holders of uncovered bonds, if a bank goes into liquidation. Therefore, as the encumbrance of a bank's balance sheet items increases, the cost of its uncovered bonds rises.

Weakening of the quality of the encumbered assets increases the need for collateral in the repo, covered bond and derivatives markets. For example, as the quality of real estate loans weakens, credit rating agencies require supplementation of the collateral pool of covered bonds in order for the bonds to keep their

¹⁶ The European Market Infrastructure Regulation (EMIR Regulation) entered into force in July 2012.

¹⁷ European Central Bank. Changes in bank financing patterns. April 2012.

rating. A potential downgrading of a bank accelerates the downward spiral of encumbrance and hinders its return to the unsecured market due to increased funding costs.

Long-term collateralised funding in selected countries

The stock of covered bonds outstanding globally at the end of 2011 stood at almost EUR 2,700 billion, with euro area countries accounting for EUR 1,700 billion of the total.¹⁸ The largest amount of covered bonds has been issued in Germany, where the tradition dates back to the latter half of the 18th century, when the first law on mortgage bonds entered into force in Prussia. However, the volume of covered bonds issued by German banks has declined rapidly, with the collapse in the volume of issues guaranteed by the public sector due to the crisis over mortgage banks. However, German covered bonds still account for a third of all covered bonds issued in the euro area.

The overheating of the Spanish real estate market in the 2000s was largely financed by covered bonds issued by banks. Their volume has continued to increase, since Spanish banks have been unable to obtain long-term unsecured funding to any large extent during the crisis triggered by the savings banks (cajas). Spanish banks account for approximately a quarter of all covered bonds issued in the euro area. As a consequence of the financial crisis, the proportion of covered bonds has also grown rapidly in the funding of French banks.

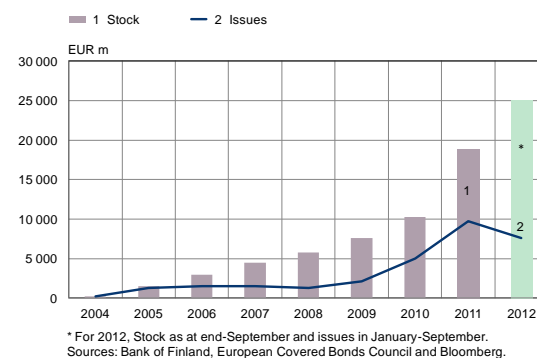
In addition to Spanish banks, crisis banks in other euro area countries have also become increasingly dependent on secured funding in recent years, as unsecured funding has faced difficulties and the volume of deposits has contracted.

¹⁸ European Covered Bond Council. Fact Book 2012.

In countries other than the crisis countries, the proportion of secured funding on bank balance sheets has increased rather slowly, and banks have also been able to fund their activities with uncovered bonds. In addition, deposits have grown relatively rapidly in many countries as deposits have migrated from the crisis countries into countries with higher credit ratings.

In Finland, growth in covered bonds has been exceptionally rapid (Chart 13). However, the market was previously relatively small, and only mortgage banks were allowed to issue covered bonds. Deposit banks and Municipality Finance Plc were not granted the legal right to issue covered bonds until 2010. Despite the rapid growth, the proportion of covered bonds on Finnish banks' balance sheets at the end of 2011 was among the lowest in the euro area, at around only 3%. At present, there are five issuers of covered bonds in Finland, and the stock outstanding at the end of October stood at around EUR 25 bn.

Chart 13. Finnish banking groups' covered bonds



2.3 More stringent capital requirements for banks support economic growth

Jarmo Pesola

Impact assessments on the Basel III banking regulation reform show in general that the reform will have a positive impact on economic growth. However, the estimates are rough due to the uncertainty of the underlying assumptions.

One of the core aspects of the ongoing extensive regulation reform known as Basel III is a tightening of the capital adequacy requirements for banks. In Basel III, the amount of capital is increased and the quality is improved in comparison with the present regulatory framework (Basel II).¹⁹ Basel III enters into force over a relatively long transition period extending to 2019.

The long-term macroeconomic impacts of the reform can be divided into two categories. On one hand, equity is generally considered to have higher financing costs than outside capital. As a consequence, tightening of the capital adequacy requirements is estimated to increase the interest rates on bank lending, reduce investments and slow down economic growth. On the other hand, it also decreases the probability of banking crises and related recessions, which supports economic growth in the long term.

The benefits and costs of the reform have been analysed in many studies either separately or from the viewpoint of cost-benefit analysis. The latter category can also be considered to encompass studies seeking to

¹⁹ See for example the article 'Basel Committee on Banking Supervision tightens banks' capital adequacy requirements considerably' in Bank of Finland, Financial Market Report 3/2010.

determine the optimal amount of bank capital. The following is a presentation of a few key studies made both in the public sector and academia on the long-term macroeconomic impacts of Basel III (excl. costs in the transitional period).

Long-term benefits and costs

A report by the Basel Committee on Banking Supervision²⁰ has analysed the long-term benefits and costs of the reform. The benefits of tightening regulation have been studied using six different macroeconomic models. According to the models, the probability of a banking crisis decreases from its historical average of 4.6% to 3% when the average risk-weighted capital ratio of banks is raised from 7% to 8%.

Costs are evaluated in the report using 13 different models. According to the model results based on relatively conservative assumptions, each one percentage point increase in the capital ratio increases loan rates by 0.13 of a percentage point. According to the models, the downward impact on gross domestic product varies between 0.02% and 0.35% (median 0.09%) for each percentage point of increase in the capital ratio.

The BCBS report estimates that the regulatory reform will generate a considerable net benefit in the long term. A very conservative estimate indicates, at a capital ratio of 10%, as the net benefit an annual increase of 0.33% in gross domestic product. This estimate is based on the assumption that banking crises do not result in permanent losses. A more realistic estimate assuming that banking crises also have

²⁰ Basel Committee on Banking Supervision: An assessment of the long-term economic impact of stronger capital and liquidity requirements, August 2010. The report by the Committee is a sort of basic study commonly referred to in other comparable studies and whose methods and approaches are also applied by others.

permanent negative effects on output would indicate comparable net benefits amounting to almost 2%. This would occur at a capital ratio of 13%.

A comparable relatively extensive study has been made at the Bank of Canada.²¹ Canada is an open economy and its banks are in relatively good shape. Hence, most of the benefits of the regulatory reform are based on a reduction in foreign banking crises. For example, a universal 2 percentage points increase in capital ratios would generate Canada a net benefit of approximately 1% in its annual gross domestic product. According to a corresponding rough estimate made at the Bank of Finland, the regulatory reform would increase the expected value of Finnish GDP by 1.1%.²² The greatest benefit results from a reduction in Finland's relatively high cyclicalities.

A study looking solely into the costs was recently carried out at the International Monetary Fund.²³ The approach is balance-sheet-based and utilises a loan pricing formula for banks where loan interest must cover capital costs and other financing costs, expected credit losses and administrative expenses. The study assumes that only 50% of the cost impact of a rise in the capital ratio is transferred to the bank's lending rates. The justification is that investors will settle for a lower return requirement due to a perceived safer capital structure. Banks are also assumed to streamline their administrative expenses. The long-term impact of a rise in the capital ratio on lending rates by European banks is slightly below 0.1 of a percentage point. The

²¹ Bank of Canada: Strengthening International Capital and Liquidity Standards: A Macroeconomic Impact Assessment for Canada, August 2010.

²² Special edition of the Bank of Finland Bulletin, Financial Stability, Box 4 'Long-term impact of regulatory reforms probably positive in Finland'. December 2010.

²³ André Oliveira Santos and Douglas Elliott: Estimating the Costs of Financial Regulation, IMF staff discussion note SDN/12/11, September 2012.

corresponding figure for US banks is 0.2 of a percentage point.

Optimal level of capital

At the Bank of England, the analysis has been taken somewhat further in that, in addition to the long-term benefits and costs, attempts have been made to outline the optimal level of bank capital.²⁴ At the optimal capital level, the marginal benefits and costs are of equal amount. The optimal capital found as a result would be 10–15% of the risk-weighted assets, which would clearly exceed the Basel III requirement. The finding can be considered indirect support for the argument that the reform will generate a net macroeconomic benefit.

Miles, Marcheggiano and Yang have conducted an academic study on the determination of optimal bank capital.²⁵ The study tests the cost transfers on lending rates and GDP growth resulting from alternative changes in the capital structure. The impacts were found to be minor. For example, a doubling of the capital would increase lending rates by less than 0.5 of a percentage point. Such costs resulting from banking crises that hinder economic growth have been studied with data covering many countries and extending far into the past. The study concludes that the growth-maximising amount of bank capital would be in the range of 16–20% of risk-weighted assets.

Uncertainty in the estimates

As a summary of the studies conducted, we can state in general that, in a long-term perspective, increasing banks' capital ratio promotes economic growth. The estimated costs are generally relatively minor, whereas

²⁴ Bank of England Financial Stability Report, Box 7, 'The long-term economic impact of higher capital levels'. June 2010.

²⁵ David K Miles, Gilberto Marcheggiano and Jing Yang: Optimal Bank Capital, CEPR DP no. 8333, August 2011.

the benefits resulting from reduced banking crises are much greater. The findings on the optimal level of bank capital point in the same direction. The results of the calculations also seem to tolerate relatively large fluctuations in the assumptions, for example concerning the extent of the impacts of crises.

In reviewing research findings, we should bear in mind that the costs of the transitional period have not been addressed. Along the lines of the familiar problem from investment calculations, the majority of costs accrue almost instantly, whereas the benefits occur later in an uncertain future. In addition to increased administrative costs, a sudden increase in banks' capital may also increase the return requirement for banking stocks. If, on the other hand, banks adapt to the new regulations by reducing their lending, this would probably entail impacts that would reduce production growth. Neither have the tightening liquidity requirements belonging to the Basel III reform been addressed in this context. These have also been generally estimated to produce a net macroeconomic benefit.

All in all, the impact calculations are partly based on assumptions made on the basis of past developments. Whether they hold in the future economic environment remains to be seen, and therefore any impact assessments constitute rough estimates at best.

3 Infrastructure

3.1 TARGET2-Securities moving ahead on schedule

Risto Koponen

TARGET2-Securities (T2S) is a single joint platform for securities settlement provided by euro area central banks. The T2S platform will be launched on a pan-European scale, as the majority of CSDs in the EU – including the Finnish national CSD – are committed to it. Euroclear Finland is planning to migrate to T2S in the second half of 2016, applying a layered account model.

The basic idea of T2S is that national CSDs will outsource their securities accounts, for the settlement of securities trades, to the T2S platform, where the cash accounts of their participants will also be located. This will enable delivery versus payment in central bank money. T2S will initially settle only euro-denominated securities transactions, but other currencies can also be connected to the platform.

The short-term objective of the single technical platform is to generate economies of scale and thereby lower the settlement costs in cross-border securities transactions, and in the long term also in domestic securities settlement. Other potential benefits of the single platform include savings in CSD participants' collateral and liquidity management, harmonisation of market practices and technical standards, and tighter competition between CSDs and their participants.

T2S is expected to go live in summer 2015. The project is well on schedule. The biggest current risk to keeping to the schedule are the requests from the markets for changes that have to be dealt with before the platform goes live. In order to stay on schedule, the number of requests for changes will be minimised. The primary objective is to find roundabout ways of implementing the functionalities described in the requests. Non-critical requests in terms of migration to T2S will be dealt with after the implementation phase.

T2S will have fairly extensive coverage, as 23 national CSDs signed the T2S Framework Agreement in spring and summer 2012. Euroclear Finland, the Finnish national CSD, is one of the signatories and is therefore committed to migrating to T2S. In addition, the Danish central bank has signed the Currency Participation Agreement, allowing securities transactions in Danish krone to be settled in T2S. The Danish krone will join the euro in 2018 as a settlement currency. CSDs that are not yet part of T2S may join the platform later.

National CSDs are expected to migrate to T2S in stages, between summer 2015 and late 2016. A contingency migration wave has been planned for spring 2017, and it will be used if there are problems in the timely launch of T2S. More detailed plans on migration waves and the CSDs involved will be prepared in autumn 2012. Based on current information, Finland will join T2S in the second half of 2016.

The signing of the Framework Agreement has moved T2S on to a governance structure that will apply in the planning and operation of the platform. Only CSDs that have signed the Framework

Agreement and their communities will participate in the governance of T2S. Finland has fairly extensive representation on all levels of T2S governance. In Finland, the national governance of the project is based on close cooperation between the relevant bodies²⁶.

The main national policy issue has recently been the choice of account model between direct model (all accounts in T2S) or layered model (commission accounts in T2S, investor accounts in CSDs).

Euroclear Finland has assessed the advantages and disadvantages of the various account models and the recommendation of the markets to choose the direct account model, and has decided to opt for the layered model. The matter has been discussed with the market participants, so that all parties understand the rationale behind each others' choices. When this policy issue has been resolved, Finland will move to the actual implementation phase of T2S.

²⁶ Euroclear Finland; the T2S national user group FIN NUG; Euroclear Finland's Market Advisory Committee; MIG – a market standards group operating under the auspices of the Federation of Finnish Financial Services – and the central bank's operational user group.

3.2 European Central Bank examined costs of retail payments

Kari Kemppainen

As the Single Euro Payments Area moves ahead the considerable differences between countries in the costs of retail payments have become a subject of public debate. To increase knowledge on these costs, the European Central Bank conducted a pan-European cost study, the results of which were published in early October.²⁷

The comprehensive study conducted by the European Central Bank (ECB) analysed the aggregated costs of making retail payments in 13 EU countries.²⁸ A key discovery of the study is that the social costs of making retail payments are substantial, amounting to around EUR 45 billion, or almost 1% of the countries' combined GDP. Extrapolated to cover the entire EU27, the social costs of making retail payments are EUR 130 billion.

The study finds that cash payments account for nearly half of the total costs, but cash has the lowest social costs per transaction (EUR 0.42). The second lowest costs are with debit cards (EUR 0.70), while the most expensive form of payment are cheques (unit costs EUR 3.35).

²⁷ See ECB press release of 1 October 2012

(<http://www.ecb.int/press/pr/date/2012/html/pr121001.en.html>) and ECB Occasional Papers No 137, September 2012 (<http://www.ecb.int/pub/pdf/scpops/ecboep137.pdf?c277dfa30424b3dbf69bccdb4c62bee6>).

²⁸ Netherlands, Spain, Ireland, Italy, Greece, Latvia, Portugal, Romania, Sweden, Finland, Denmark, Hungary and Estonia.

The study did, however, emphasise that there are substantial differences between countries in the relative expensiveness of payment instruments: in five of the countries covered (incl. Finland²⁹), the social costs were lowest for debit cards. The sometimes large differences between country results are due to factors such as the characteristics of the national payment system, market size and development, and national payment behaviour established over the years.

The study made a distinction between 'private costs' and 'social costs'. Private costs are those incurred by individual participants in the payments chain, whereas social costs are the aggregate costs to society as a whole (excl. fees and tariffs for participants in the payment chain). About half of the total social costs are incurred by banks and interbank infrastructure providers, while retailers bear 46%.

In connection with the release of the report, Benoît Cœuré, a member of the ECB Executive Board, emphasised the importance of the pan-European cost study. 'Its results underline how much retail payment services matter for European society and the economy as a whole. The study will shed light on the debate about how the European market for payment services will look in the future and how overall cost efficiency can be improved even further.'

²⁹ The results for Finland on the costs of retail payments for banks were published in Eveliina Nyandoto's article in BoF Online 7/2011, in Finnish only. See

http://www.suomenpankki.fi/fi/julkaisut/selvitykset_ja_raportit/bof_online/Pages/BOF_ONL_07_2011.aspx.

3.3 Innovations in electronic mediums of exchange

Eero Tölö

Bitcoin, the innovative electronic medium of exchange, is becoming increasingly popular within Internet subcultures. Bitcoin cannot be counterfeited, and issuance takes place automatically. The market for Bitcoin is limited, however, as only a few Internet services accept it as a means of payment.

Bitcoin, the electronic medium of exchange launched in 2009, has recently been widely covered in the media, both in Finland and abroad. What makes Bitcoin interesting is its built-in encryption technology that makes it virtually impossible to counterfeit and also enables its use as a currency-like electronic medium of exchange without a specific issuer, such as a central bank. Bitcoin does not have legal status as a currency or payment instrument and is therefore referred to as a medium of exchange.

Using Bitcoin can be compared to sending e-mail. As e-mail messages can be sent from any Internet-connected computer to e-mail addresses all over the world, by the same principle Bitcoins can be sent as easily to a Bitcoin wallet via the Internet. Just like e-mail accounts, Bitcoin accounts consist of an e-mail address-linked character string and password that is needed for transferring money from a Bitcoin wallet. Bitcoin transactions are in principle anonymous, as personal details are not asked at any stage.

The market value of the approximately 10 million Bitcoins issued by October 2012 totals slightly under EUR 100 million, and the number of Bitcoin users in the world is estimated at some 10,000. Bitcoins can be

used for paying purchases in some online stores and as an anonymous medium of exchange in web forums, or for making donations. For example, WikiLeaks accepts Bitcoin donations, whereas some traditional payment intermediaries have refused to transfer donations to WikiLeaks. Even though, relative to the size of the financial markets, Bitcoin is a small phenomenon in terms of market value and exchange volumes, its encryption features, anonymity and independence from issuer have awakened and maintained the interest of at least a small Internet subculture.

Technically, Bitcoin is based on a decentralised peer-to-peer (P2P) network, instead of a central bank, and each computer connected to the network is part of the Bitcoin payment system. The P2P network stores the payment system's entire transaction history, which is open to anyone. In other words, the system shows the public anonymous Bitcoin addresses, transaction amounts and dates, and other payment transfer-related information. The fact that Bitcoins cannot be counterfeited is based on the unambiguity of the transaction history, guaranteed by a verification process based on power-intensive computing in the P2P network ('proof of work').

The user of the P2P network who is the first to solve the validation problem is rewarded for the CPU work used for the validation by being allowed to charge voluntary transaction fees that speed up the transaction, and with a small amount of new Bitcoins. This is also the only way to create new money in the Bitcoin scheme. Bitcoin is programmed to geometrically decrease the number of Bitcoins issued until the supply of coins reaches a limit of 21 million.

The user can choose whether to hand over his computing power to the validation process. In practice, Bitcoins have to be purchased from exchange

platforms or by other means from those that already have Bitcoins as it is impossible for a basic user to obtain a significant amount of Bitcoins by only validating transactions.

Currencies can be exchanged for Bitcoins and Bitcoins can be exchanged back to the original currency mainly in exchange-like but unregulated exchange platforms operating on the Internet. The exchange rate is based on supply and demand and depends on the prevailing confidence in Bitcoin's future. During its three-year history, Bitcoin's exchange rate has peaked at USD 30 (currently approx. USD 12). Bitcoin has been subject to exchange rate shocks and news headlines, due to several successful cyber attacks on exchange platforms, with large amounts of Bitcoins being stolen.

The European Central Bank published in October 2012 an extensive paper entitled *Virtual Currency Schemes*³⁰, with the aim of providing a basis for a discussion on virtual currency schemes from the perspective of a financial authority. The report concluded that in the current extent of their use, the instability and other possible drawbacks of virtual currency schemes are limited to their small user group. Due to the degree of anonymity, low transaction costs and fast clearing and settlement, the importance of virtual currencies is, however, expected to grow with the spread of electronic commerce and digital goods.

³⁰ ECB (October 2012), *Virtual Currency Schemes*, see <http://www.ecb.europa.eu/pub/pdf/other/virtualcurrencyschemes201210en.pdf>.

4 Key regulatory and supervisory initiatives

4.1 High-level Expert Group proposes separation of activities within banking groups

Hanna Westman

The High-level Expert Group appointed by European Commissioner Michel Barnier and chaired by Bank of Finland Governor Erkki Liikanen on reforming the structure of the EU banking sector submitted its final report at the beginning of October 2012.³¹ The Group's recommendation consists of five proposals, of which the most important is the separation of activities within banking groups.

In January 2012, Commissioner Michel Barnier, responsible for the EU's internal market and services, appointed Erkki Liikanen, Governor of the Bank of Finland, as chairman of a High-level Expert Group. The Commissioner and the Governor together chose the other members of the Group with extensive experience of retail and investment banking, industry, consumer protection and academic research.

³¹High-level Expert Group on reforming the structure of the EU banking sector, Final Report, 2 October 2012 (http://ec.europa.eu/internal_market/bank/docs/high-level_expert_group/report_en.pdf).

The Group was entrusted with the task of considering whether structural reforms of EU banks would strengthen financial stability and improve banks' ability to fulfil their role to the benefit of the general public, European growth and the internal market. The assignment was rendered challenging by the diversity of the banking sector across 27 Member States and the seriousness and heterogeneity of the sector's problems.

The Group was to take all ongoing significant regulatory reforms into account in its evaluation. The final report includes the Group's assessments of EU-level initiatives, but highlights the following as the key reforms: 1) capital adequacy and liquidity requirements according to the Basel III regulatory framework, which are being implemented in the EU via a Regulation and a Directive, and 2) the recovery and resolution measures proposed by the European Commission in summer 2012. These regulatory reforms address EU banking sector problems by strengthening banks' capacity to absorb losses, reducing incentives for excessive risk-taking and leverage, facilitating the resolution of problem banks and lowering the social costs of bank failures.

Proposal for separation of activities

According to the Group, the regulatory reforms already carried out and currently in progress are not sufficient to remove the problems that the financial crisis had revealed in banking. Banking structures need to be changed in order to make banks easier to

manage, instil a sound culture with regard to risk-taking, protect basic banking and facilitate bank recovery and resolution. The Group's proposals are also aimed at reining in banks' excessive risk-taking, eg by restricting the use of cheap deposits to fund trading, and reducing implicit government guarantees (the assumption that public support will be available in the event of distress). This will help increase market discipline and the risk sensitivity of funding costs. The Group's proposals will also indirectly curb excessive growth in bank size.

The proposal would obligate banks to separate, within their banking groups, proprietary trading and other high-risk trading activities from basic banking funded by deposits. Accordingly, a 'deposit bank' and a 'trading entity' would operate separately within a banking group. Banking groups would be required to assign to their trading entity 1) proprietary trading, 2) market making and 3) loans, loan commitments or other unsecured exposures to hedge funds and structured investment vehicles (SIVs), among other things. The trading entity would not be permitted to fund its operations by insured deposits nor provide retail payment services. Otherwise, banking groups could assign activities to their trading entity if deemed appropriate, for example, from the viewpoint of efficiency or smooth provision of customer services. The deposit bank could also operate on a relatively wide basis for the benefit of customers. It would be allowed to engage in activities such as securities underwriting and client-driven trading, provided the positions are hedged.

In order for deposit banks to be sufficiently protected against trading risks and prevent deposits, and the explicit and implicit government guarantees related to them, from directly supporting high-risk trading, the Group proposed the setting of limits in

respect of funding and capital requirements. Both units should meet capital adequacy and liquidity requirements on a stand-alone basis. Intra-group transfers should be subject to the same limits as applied to the regulation of large counterparty risk exposures. The units may pay dividends provided that they satisfy the capital requirements.

Separation of the above trading activities would be mandatory if these activities represented a significant share of a bank's business. As no public information is available on the scope of trading activities to be separated, the Group proposed that this be assessed in two stages. In the first stage, an assessment would be conducted to determine whether a bank's assets held for trading and available for sale exceed 15–25% of the bank's total assets or whether such assets amount to at least EUR 100 billion. In the examination stage, the supervisor would evaluate, on the basis of non-public information, whether the activities to be separated amount to a significant share of the bank's business. The Group suggested that the Commission refine the thresholds.

The Group's proposal is not targeted at any specific business model, as no particular business model fared particularly well, or particularly poorly, in the financial crisis. By contrast, the Group considers the diversity of business models in the EU as a benefit and a resource. If the proposal were to materialise, the traditional universal banking model would continue to serve end-customers well, or even better, and would ensure financial intermediation in Europe, where banks play a central role.

Three proposals for reforming bank structures – close or distant?

One way of analysing the High-level Expert Group's proposal for reforming bank structures is to compare it with similar proposals made earlier in the United

States and the United Kingdom. There are two dimensions to be considered in the analysis: the focusing of structural changes on a scale from low-risk basic banking to high-risk trading, and the ‘depth’ of required structural changes.

In the United States, the Volcker Rule prohibits banks from engaging in proprietary trading in securities, but permits, for example, trading in US treasury bonds and trading related to securities underwriting, market making and, in certain respects, risk management. The Volcker Rule also restricts bank investments in hedge and private equity funds.

In the United Kingdom, the Independent Commission on Banking (ICB) led by Sir John Vickers proposed in September 2011 that retail banking – relatively narrowly defined – ought to be separated from other banking legally, financially and operationally by a ring fence and that capital requirements on ring-fenced activities should be tightened. The UK government (HM Treasury) has given its support to the proposal, but suggests that a ring-fenced bank should have an opportunity to provide simple risk management services to its customers.

The Group proposes separation of both proprietary trading and market making into a trading entity, as differentiating these from one another would be challenging.³² Thus, the proposal would make deposit banks somewhat narrower than the definition under the Volcker Rule. Another important difference relates to the depth of separation. The proposed mandatory separation of activities in the EU may take place within a banking group, whereas the Volcker Rule prohibits proprietary trading from the entire banking group.

³² See eg Duffie (2012): Market Making Under the Proposed Volcker Rule.

In terms of the depth of separation, the proposal of the Group is similar to that put forward in the ICB report in the United Kingdom, meaning that separation within a banking group is allowed. The Group suggests that deposit banks be allowed to engage in securities underwriting and client-driven trading, provided the positions are hedged. This would probably enable deposit banks to operate on a slightly broader basis than banks subject to the ICB recommendations in the United Kingdom.

The Group’s four other proposals

In addition to the separation of activities, the Group’s recommendation includes four other proposals. Two of these are related to the Commission’s proposal for a Bank Recovery and Resolution Directive published in June. Firstly, according to the Group, the recovery and resolution plans envisaged in the Commission’s draft Directive are indispensable in order to resolve the too-big-to-fail problem. A more extensive separation may be necessary for the credibility of the plans.

Secondly, the Group fully supports the proposal that, in addition to bank shareholders, other providers of funding to banks should also be responsible for losses in a bank resolution process (bail-in). The Group also recommended the use of specific bail-in instruments to ensure investor involvement. The position of these instruments in the hierarchy of a bank’s debt commitments should be clearly defined in advance. Bail-in instruments improve banks’ loss absorbing capacity and risk pricing and reduce incentives for risk-taking. To mitigate the risk of contagion, the Group suggests that such instruments should not be held within the banking sector.

Thirdly, the Group supports the review of trading-book capital requirements currently being conducted by the Basel Committee on Banking Supervision and encourages the European Commission to evaluate the

sufficiency of proposed changes for covering risks in the EU banking sector. The tightening of capital requirements may also be used for implementing structural changes, as it can provide banks with incentives to withdraw from certain activities. The Commission should also review the capital requirements on real estate loans. Finally, the Group would expect to see a strengthening of banks' corporate governance and internal control procedures.

Work will continue in the Commission

At the press conference (2 October), Commissioner Barnier formally opened a six-week consultation on the Group's final report.³³ The Commission has also begun work to calibrate the thresholds and conduct an impact assessment. Potential legislative proposals will be announced only after completion of the consultation and impact assessment.

³³ Consultation on the recommendations of the High-level Expert Group on Reforming the structure of the EU banking sector (http://ec.europa.eu/internal_market/consultations/2012/hleg-banking_en.htm).

4.2 Banking union

Jyrki Haajanen

Banking union is one of the most important and urgent current EU projects. The aim of efforts to enhance banking supervision, bank crisis resolution and deposit insurance is to improve the stability of the financial markets and ensure broader involvement of creditors.

The plan for banking union published by the European Commission in September 2012 is predicated on the need to shift three areas of relevance to the stability of the financial markets from national to EU level: banking supervision, bank crisis management – ie the bank recovery and resolution framework – and deposit insurance schemes. All these activities are currently being carried out nationally, and this causes difficulties especially in the supervision of large cross-border banks and the resolution of related problems.

The Commission seeks to establish banking union in such a way that, at the first stage, a single banking supervision mechanism will be built around the European Central Bank and, subsequently, attention will be focused on bank recovery and resolution regimes and on deposit insurance schemes. The original aim of the Commission was to have a single banking supervision mechanism up and running from the beginning of 2013. However, the EU summit in October decided to specify the timetable to the effect that decisions on the legal framework will be made by the end of 2012 and on the practical preparations during 2013. According to current estimates, about 6,000 banks would fall within the scope of single banking supervision. The supervisory authority will be the European Central Bank, but supervision will be

organised in such a way as to keep it separate from the conduct of monetary policy.

Banking union constitutes an integrated whole and cannot operate effectively without the reorganisation of the frameworks for recovery and resolution and for deposit insurance. Development of the recovery and resolution process is particularly important. In June 2012, the Commission submitted a Directive proposal for a new recovery and resolution framework³⁴, which is currently before the European Parliament. The Directive envisages a largely harmonised national-level resolution system, which would provide a good basis for the establishment of banking union.

The new resolution framework is particularly seminal, as it accepts the fact that banks' problems cannot be resolved in the same way as those of other enterprises. As envisaged, the new Directive would provide authorities with extensive powers to address banks' problems in a timely manner, before it is too late. Moreover, the Directive includes a range of important reforms that enable more extensive allocation of losses to creditors. A further aim is that large banks can also be wound down without causing significant disruptions to financial stability or costs to taxpayers.

The aim of development work in the area of deposit insurance schemes is to increase depositor confidence in the functioning of the systems in the event of more extensive crises. A supra-national deposit insurance scheme would effectively reduce pressures on the banking sectors and economies of Member States in economic difficulties.

³⁴ Directive establishing a framework for the recovery and resolution of credit institutions and investment firms.

4.3 Working group proposes powers for FIN-FSA to limit maximum size of housing loans

Jukka Vauhkonen

In Finland, new tools are being introduced to stave off financial crises. A binding maximum loan-to-value ratio will rein in excessive lending for house purchase and household debt accumulation, while a countercyclical capital buffer requirement will mitigate the effects of credit crunches caused by financial crises.

At the beginning of November, an official working group set up by the Ministry of Finance and led by Minister Antti Tanskanen submitted its proposal for new tools for the Finnish authorities to stave off systemic risks.³⁵ The expression ‘systemic risks’ refers to collective risks that emerge within, or are amplified by, the financial system and, if materialised, would cause serious damage to the financial system as a whole and the national economy.

The working group proposes that the Financial Supervisory Authority (FIN-FSA) be empowered to restrict the maximum size of new housing loans relative to the value of the housing property to be acquired and used as collateral for the housing loan. FIN-FSA would be allowed to impose 80% as the strictest limit for a maximum loan-to-value (LTV) ratio for new housing loans or refrain from such imposition. The FIN-FSA Board would decide on the

³⁵ http://www.vm.fi/vm/fi/04_julkaisut_ja_asiakirjat/01_julkaisut/07_rahoytusmarkkinat/20121106Finans/Finanssimarkkinoiden.pdf (in Finnish only).

setting of the maximum LTV ratio and its level on a quarterly basis according to the cyclical situation, among other factors.

FIN-FSA is currently authorised to issue non-binding recommendations to credit institutions regarding LTV ratios for housing loans. Since spring 2010, it has recommended to Finnish banks that they should exercise caution in respect of LTV ratios over 90% in their lending for house purchase. Another FIN-FSA recommendation is that banks should assess whether loan applicants would be able to service their loans in a situation where loan interest rises to 6% and the loan repayment period is a maximum of 25 years.

The working group considers that excessive growth in lending for house purchase and a resultant increase in household debt may in a worst-case scenario pose a serious systemic risk that the authorities should be able to address with more robust tools than recommendations. Recommendations are not necessarily sufficient, especially in economic upswings and in an environment of tight banking competition. Strong growth in lending for house purchase has also been connected with episodes of housing and property market overheating and collapse, as witnessed in various countries in recent years. For these reasons, the working group takes the view that the authorities should be able to set a binding maximum LTV ratio in Finland.

Some countries restrict the size of housing loans (instead of or in conjunction with setting a maximum LTV ratio) by linking the maximum size of new housing loans with the borrower’s disposable income (loan-to-income (LTI) ratio). The working group did not, however, propose statutory lending restrictions tied to customer income. It considered that critical assessments of customers’ repayment capacity already constitute a key element of banks’ credit granting process and that banks have sufficient internal incentives to conduct such assessments, especially if

provisions concerning the maximum LTV ratio are to be enacted as proposed by the working group.

To safeguard banks' lending capacity, FIN-FSA should also be authorised to set a capital buffer requirement

One of the key tasks of the working group was to bring into force in Finland countercyclical capital buffer requirements as required by the EU's Capital Requirements Directive. A countercyclical capital buffer requirement is included in the international reform of capital requirements for banks prepared by the Basel Committee on Banking Supervision and will thus be widely introduced in various countries around the world.

Development of the countercyclical capital buffer requirement has been driven by extensive evidence that financial and economic crises tend to be most serious when they have been preceded by particularly strong credit growth. The aim of the countercyclical capital buffer requirement is to induce banks to strengthen or maintain their capital adequacy already in good economic times when credit growth is strong. The aim is to ensure that banks have adequate levels of equity capital to cover losses that may be incurred in a downturn without the need to cut lending sharply in order to safeguard their capital adequacy.

The working group proposes that FIN-FSA, exercising its discretion, could set for credit institutions a countercyclical capital buffer requirement of 0–2.5% of each institution's risk-weighted assets. The main justification for setting the requirement would be, in compliance with the draft Directive, the presence of a significant positive deviation of the credit-to-GDP ratio from its long-term trend. To support its decision-making, FIN-FSA could also use other indicators that warn of excessive credit growth.

Working group's other proposals and recommendations

Both the maximum LTV ratio and the countercyclical capital buffer requirement are by nature macro-prudential tools that can be used on a discretionary basis for the purpose of safeguarding the stability of the financial system as a whole, not just individual financial institutions or their customers. According to the working group, decisions on the setting and release of these tools can thus be prepared in a manner different from other FIN-FSA decision-making.

Consequently, the working group proposes that decisions on the imposition or modification of both the binding maximum LTV ratio and the countercyclical capital buffer requirement should be taken by the FIN-FSA Board, on which the other authorities responsible for the stability of the Finnish financial system – the Bank of Finland, the Ministry of Finance and the Ministry of Social Affairs and Health – are represented, rather than by FIN-FSA's executive management. Another proposal of the working group is that FIN-FSA should consult the above authorities prior to deciding on the maximum LTV ratio and the countercyclical capital buffer requirement.

Moreover, the working group suggests that the FIN-FSA Board could also set a binding maximum LTV ratio on credit institutions' securities-backed lending. The lowest level for this requirement could be 60%. The working group also considers that Finland should review at a later date the need to set an additional systemic risk buffer requirement on systemically important financial institutions. Owing to timetable constraints, the working group was unable to submit a proposal for this requirement, which will likely be included in the EU's forthcoming Capital Requirements Directive.

4.4 Additional capital requirements recommended for domestic systemically important banks

Jukka Vauhkonen

The recommendations of the Basel Committee on Banking Supervision provide authorities with a high degree of discretion in the identification of domestic systemically important banks and in setting the capital buffers required of them.

In October 2012, the Basel Committee on Banking Supervision published its recommendations for tightening the capital requirements of domestic systemically important banks (D-SIBs).³⁶ Systemically important banks are banks whose failure or other major distress could seriously damage the economy as a whole. To mitigate this risk, the Basel Committee recommends that the loss absorbency of systemically important banks be strengthened by imposing tighter capital requirements on them than on other banks. Banks are required to meet these requirements by using Common Equity Tier 1 or corresponding capital items. The requirements are scheduled to be phased in between 2016 and 2019.

According to the recommendations, national authorities should establish a methodology for assessing the degree to which banks are systemically important in a domestic context. The level of a bank-specific additional loss absorbency requirement (D-

³⁶ <http://www.bis.org/publ/bcbs233.pdf>

SIB requirement) should be determined by the degree of the bank's estimated systemic importance.

The recent recommendation of the Basel Committee constitutes part of the global overhaul of capital regulation for banks. The Committee already previously issued recommendations for tightening capital adequacy and liquidity requirements in respect of all banks (the Basel III regulatory reform)³⁷ and for additional loss absorbency requirements on global systemically important banks (G-SIB requirements).³⁸

The Basel Committee's principle-based D-SIB recommendations provide authorities with a high degree of discretion in the identification of domestic systemically important banks and in calibration of the level of additional loss absorbency requirements. Hence, the D-SIB requirements differ substantially from the G-SIB requirements based on precise calculation rules. However, it remains to be resolved at a later date how the D-SIB requirements will finally be implemented in EU banking legislation and Finnish national legislation.

The D-SIB recommendations concern two areas: (i) identification of domestic systemically important banks and (ii) calibration of additional loss absorbency requirements for these banks.

How do we identify systemically important banks?

A bank's systemic importance can be interpreted as being the higher, the larger the negative externalities from the bank's failure would be for a country's

³⁷ See article 'Basel III -uudistus parantaa pankkien riskinkantokykyä' ('Basel III will enhance banks' capacity to bear risk'), Euro & talous 3/2010 (in Finnish only).

³⁸ See article 'Systemically important banks to face tighter requirements', Financial Market Report 2/2011. Bank of Finland.

financial system and national economy.³⁹ According to the Basel Committee, in assessing the size of such negative externalities, consideration should be given at least to a bank's (i) size, (ii) complexity and (iii) interconnectedness with the rest of the domestic banking and financial system, and (iv) the substitutability of the services provided by the bank. In addition to these bank-specific variables, authorities are also allowed to take account of other variables illustrating the structure of the country's banking sector, such as the degree of concentration in the sector or its size relative to the size of the country's economy.

In assessing a bank's systemic importance, national authorities may decide how the various factors are weighted. The authorities should publicly disclose information on the methodology employed in their evaluation. Banks' systemic importance should be assessed regularly, and especially when the structure of the banking system changes, for example as a consequence of bank mergers. The Basel Committee will conduct peer reviews of the methods applied in various countries.

The authorities of the home country of a banking group operating in many countries are to assess the systemic importance of the entire banking group and to impose a D-SIB requirement on the group as a whole. Assessment of the systemic importance of a bank's foreign subsidiaries and the imposition of the D-SIB requirement on such subsidiaries are, in turn, the responsibility of the authorities of the country of location of the subsidiary (host country).

³⁹ Conceptually, this method can be interpreted as an estimate of the size of the national economy's loss given default (LGD).

Loss absorbency of systemically important banks to be improved

The Basel Committee's guidance for the level of D-SIB capital requirements is very general in nature: the Committee, for example, does not give a recommendation on the range of the additional loss absorbency requirement.⁴⁰ Even so, the level of this additional requirement should reflect the bank's estimated systemic importance and be based on a transparent analytical methodology. Authorities may also exercise discretion in support of their decisions.

The D-SIB requirements must also be calculated for banks that the Basel Committee has identified as global systemically important banks and for their subsidiaries. If a bank's G-SIB and D-SIB requirements calculated at group level differ, the higher requirements are to be complied with. A G-SIB requirement set on a banking group does not restrict the right of a subsidiary's host country authorities to impose a D-SIB requirement on the subsidiary. The host country authorities must, however, cooperate with the bank's home country authorities in the imposition of D-SIB requirements on the subsidiary.

Going forward, banks' capital adequacy requirements will be composed of two main elements: a binding minimum capital requirement and supplementary capital buffer requirements. Non-compliance with the binding minimum capital requirement will be prohibited under penalty of withdrawal of authorisation. By contrast, with certain limitations, banks may use capital buffers accumulated in excess of the minimum requirement for covering their losses. The D-SIB requirements will constitute part of the capital buffer requirements to be imposed on banks in the future.

⁴⁰ The level of G-SIB requirements is 0–3.5% of the bank's risk-weighted assets.