Systemic importance of financial institutions

14 January 2008

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Suspension of the activities of a systemically important financial institution would in all probability by seriously detrimental to the financial system and, indeed, the economy as a whole. Authorities seek to identify systemically important financial institutions in advance, during normal times, before the emergence of crisis situations. Financial market integration means that the problems of an individual financial institution are more likely than before to have a knock-on effect on the financial systems and economies of more than one country. To enhance cross-border cooperation in crisis management authorities need a common view of the systemic importance of cross-border banking groups and their constituent parts in different countries.

The financial sector is one of the most regulated and supervised of economic sectors, the primary aim being to prevent banking crises that could impose enormous costs on national economies. Studies indicate that the cumulative costs of banking crises could be as much as several tens of percents of a country's annual GDP. A well-known study estimates that the Finnish economic and banking crisis of the early 1990s cost the country's economy some 22–45% of GDP in terms of the value of lost output.[1]

The potentially high social costs of crises and the need to develop readiness for crisis management make it vital to identify systemically important financial institutions. There is no firmly established definition of what actually constitutes a systemically important financial institution. In this article it is taken to mean a financial institution the disruption of whose operations would with a high degree of probability cause serious problems for the financial system and the economy as a whole. Systemically important financial institutions are most often banks or banking groups. It is, however, possible that problems with insurance companies or hedge funds, for example, could in extreme situations trigger a systemic financial crisis with serious macroeconomic implications.

The responsibility for saving a bank in crisis lies primarily with its owners. However, the authorities charged with supervising the stability of the financial system, primarily central banks, financial supervisors and finance ministries, also have to be prepared for the sort of systemic crisis for which no private sector solution can be found. In October 2007, the Ecofin Council adopted common operating principles for the management of cross-border financial

[1] Hoggart – Reis – Saporta (2002) Costs of banking system instability: some empirical evidence. Journal of Banking and Finance. Vol. 26, p. 825–855.

The use of tax payers' money for crisis management can only be considered under very exceptional circumstances.

crises within the EU.[2] These indicate that the use of public funds in the resolution of financial crises cannot under any circumstances be taken for granted. The use of tax payers' money to manage a crisis is possible only if no private solution can be found and the crisis seriously threatens to destabilise the entire economy. It is, however, not possible to define in advance under precisely what conditions and at what stage of a crisis public funds would be used in crisis management; it would, however, be an issue only under very exceptional circumstances.[3]

As a result of cross-border restructuring in the banking sector, subsidiaries and branch offices of foreign banks have gained a significant position in the banking market in many countries. In Finland, for example, two of the three major banking groups operating in the country, Nordea Bank Finland and Sampo Bank, are owned by foreign banks. If these banks, or their foreign parents, were to go into crisis, this would pose a serious threat to the stability of the financial system in Finland.

Management of cross-border banking and financial crises requires cooperation between the authorities in all the affected countries. However, there is not much current legislation at EU level in this area. The situation is a problem, particularly for those countries where subsidiaries or branches of foreign banks are systemically important. The Bank of Finland has suggested that EU legislation on financial crisis management should be developed with a view to reinforcing the position of host country authorities in crisis management concerning systemically important subsidiaries and branches of foreign banks.[4] The development of EU legislation brings us back to the need for a definition of systemically important financial institutions. Cross-border cooperation in crisis management is easier if the authorities already have in advance a shared view of the systemic importance of a banking group or its constituent parts.

We shall look next at the methods developed in recent years for identifying those banking groups whose collapse would have serious implications for the entire European financial system. After that we shall consider the channels through which the collapse of systemically important banks would impact on the rest of the financial system and the real economy. Finally, we shall look at the EU's new common analytical framework for assessing the systemic implications of cross-border financial crises.

[2] Ecofin Council press release 9 October 2007.

[3] Overly generous use of public funds in managing financial crises could lead to the problem of moral hazard whereby financial institutions could take excessive risks in their business operations if their senior management and shareholders were to receive large rewards for success while at the same time believing the tax payer would cover the costs of unsuccessful risk-taking.

[4] Bank of Finland Bulletin special issue, Financial stability 2007, p. 56.

Large and complex banking groups

The European banking sector has recently gone through a period of rapid consolidation, particularly in the last ten years. This process is reflected in the faster growth in the balance sheets of the largest credit institutions at national level in EU member states relative to average balance sheet growth for credit institutions as a whole (Chart 1).

Suspension of operations by a large banking group operating in several countries would pose a considerable threat to financial system stability in more than one country. We therefore need a methodology that can identify those banking groups in respect of which the probable harmful effects of operational disruption would be the largest.

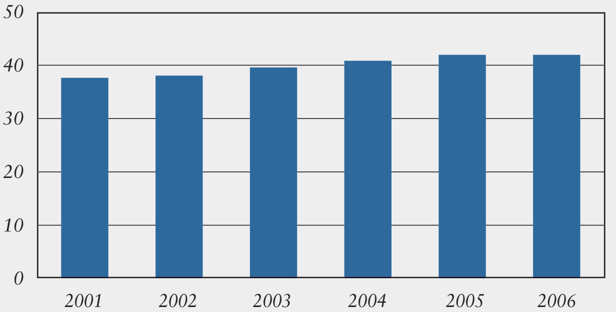
The most commonly used indicator of the size of a banking group is its balance sheet. This is, however, a rather imperfect indicator when it comes to gauging a banking group's systemic importance. It could, for example, be prominent in retail banking, but if it has few connections with the rest of the financial system its systemic importance could be limited. On the other hand, a banking group with a smaller balance sheet could be systemically more important if it has a lot of links with other banks. In addition, a growing share of banks' income comes from off-balance-sheet operations in fields such as derivatives trading. When identifying systemically important banking groups, it is important to use other indicators as well as the balance sheet so as to gauge their significance in different business areas.

The European Central Bank has developed a method for identifying large and complex banking groups (LCBGs) operating in the euro area, so they can be given special attention in the ECB's monitoring of the banking sector.[5] For identifying these types of banking group, the ECB uses 19 commonly defined indicators based on publicly available data. These provide a fairly comprehensive description of the scope of banking groups' operations in retail banking and securities-based activities as well

[5] ECB (December 2006) Financial Stability Review, Identifying large and complex banking groups for financial system stability.

Chart 1.

Combined balance sheets of an individual country's five largest credit institutions relative to the balance sheets of all credit institutions in the country (weighted average of euro area countries)



Source: ECB (October 2007) EU banking structures.

as on the interbank lending and deposit markets. Using advanced statistical methodology, the ECB has identified 36 LCBGs operating in the euro area. In 21 cases the home country of the group is a member of the euro area. The other 15 are from outside the euro area, primarily from the United States and the United Kingdom.

The ECB's list includes only a very small proportion of the over 6,000 financial institutions operating in the euro area. When identifying the banks and banking groups that are systemically important to the financial systems of Finland and the other Nordic countries, we should focus attention on the largest banking groups in these countries.

Consequences of suspension of operations by a banking group

In Finland, as in many other countries of Europe, the national banking system is highly consolidated. For example, the combined share of retail deposit and lending markets held by the three largest banking groups operating in Finland (Nordea Bank Finland, OP-Pohjola Group and Sampo Bank) is close to 80%.

Operational disruption at a bank with a large share of the market would probably have serious implications for the bank's retail customers.

Suspension of operations by a bank with a large share of the market would probably have serious implications for the bank's retail customers. For example, survey data indicates that almost 70% of Finnish micro-enterprises with less than 10 employees and around 45% of small companies with 10–49 employees use to a significant degree the services of just a single bank.[6] It is likely that a large proportion of these companies would experience difficulties in quickly finding an alternative source of finance if their main bank was to suspend operations. Suspension of the bank's payments traffic would also make it hard for consumers to pay for their daily purchases of goods and services if they were unable to use their debit/credit cards or ATMs. In addition, termination of a bank's operations would lead to losses for its creditors and for those depositors with deposits not covered by a deposit guarantee scheme. Depositors with deposits covered by a guarantee scheme would probably also suffer, as there could be a fairly substantial delay between the bank going into liquidation and the repayment of deposited funds. Under Finnish law, the Deposit Guarantee Fund must meet the claims of protected depositors within three months of a bank's going into liquidation.

The macroeconomic impact of suspension of operations by an individual financial institution is most severe when it also leads to the failure of other financial institutions or to a serious weakening of either their capital adequacy or their liquidity. When identifying systemically

[6] Confederation of Finnish Industries, Ministry of Trade and Industry and Bank of Finland report Yritysten rahoituskysely 2007 (Business finance survey, in Finnish only), www.suomenpankki.fi/fi/julkaisut/selvitykset_ja_raportit/rahoituskyselyt/index.htm.

important financial institutions it is essential to examine the links between different institutions, particularly on the interbank credit market and in payment systems. We should also ideally seek to assess the direct or indirect real economic impacts, for instance on output, employment and central government finances.

During the past ten years or so, numerous empirical studies have been conducted in different countries on the spread of problems, ie contagion, between banks. These studies identify two categories of contagion. Direct contagion is, for example, when a bank in trouble is unable to repay loans it has taken from other banks. Direct contagion can also spread between banks via payment and settlement systems. Contagion is classified as indirect if problems at one bank cause investors and depositors to suspect other banks are suffering from similar problems and to withdraw their investments or deposits from these banks.

The majority of studies in this area examine direct contagion between banks via the credit markets. Credit markets are particularly susceptible to the spread of problems, as interbank loans are often both large and unsecured. The studies are based on either real or simulated data on bilateral interbank exposures in the country in question. They typically look at a situation where an individual bank group suddenly ceases trading. Other banks that have lent to it will then suffer loan losses, or, in the worst case, collapse themselves. The scale of a bank's systemic importance is arguably reflected in the proportion of the country's bankíng system that would collapse as a result of this sort of contagion.

It is very rare that the suspension of trading by a banking group comes as a surprise to other banks. There are admittedly some exceptions, the best-known being the bankruptcy of the British bank Barings in 1995. In most crisis situations, the problems of the bank in difficulties become known gradually, which allows other banks to reduce their risks relating to exposures to the problem bank. The results of these studies should be treated with some caution, not least because the available data on the interbank credit market is often very inadequate. Nevertheless, they are presumably at least indicative of the overall picture. In the scenarios studied, contagion from the collapse of an individual banking group rarely causes the collapse of other banks. However, at least in some countries contagion can have an extremely detrimental effect on the stability of the country's financial system.[7] An internal report by the Bank of Finland has examined the risk of interbank contagion via the Finnish

[7] A summary and critical assessment of research results in the area of contagion on the interbank loan markets is provided in Christian Upper (August 2007) Using counterfactual simulations to assess the danger of contagion in interbank markets. BIS Working Papers, No. 234.

domestic payment systems POPS and PMJ. The preliminary results indicate that the risk of contagion via these channels is small.

The studies on contagion could be underestimating the real risk of direct interbank contagion and hence the systemic importance of the banks studied, as they typically study just one path of contagion at a time. At the same time, the indirect risk from damage to market confidence is very hard to quantify. The recent serious disturbances on the interbank loan market suggest the risk of indirect contagion could be considerable. Moreover, economic history shows that most banking crises have been the result of macroeconomic shocks. In macroeconomic crises, several banks can experience serious problems simultaneously, which increases the risk of contagion.

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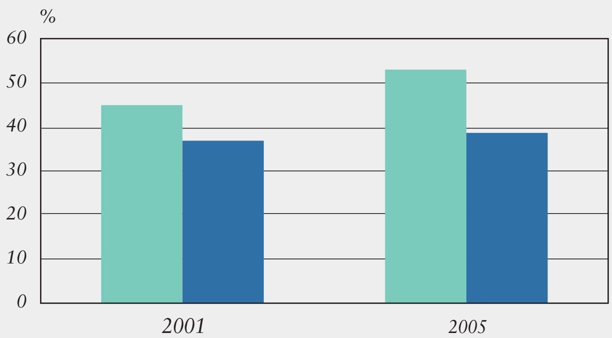
Chart 2.

Combined balance sheet of large banks as a proportion of the balance sheets of all banks in the euro area



1. Banking groups (33) with significant business in several EU countries
2. Banking groups (16) with significant business in more than half of all euro area countries

Source: ECB.

The analytical framework for assessing the impacts of cross-border banking crises

Future bank crises are more likely than in the past to affect several European countries at once as the number and size of large cross-border financial groups continue to grow. It is possible to identify at least 33 large banking groups with significant business operations in several EU countries.[8] Of these, 16 have significant business in more than half of all member states of the euro area. These banks' combined balance sheet has grown rapidly as a proportion of the balance sheets of all banks in the euro area (Chart 2), which makes it all the more important for authorities to prepare for managing cross-border banking crises.

Management of a rapidly progressing crisis can demand prompt action from the authorities. In this sort of situation it is vital that official assessments of the possible impact of the crisis on the financial systems and economies of different countries are as accurate as possible and the authorities all have a similar understanding of what the likely systemic impacts in different countries will be.

The cooperative organs of the central banks and banking supervisors of EU countries have drafted a common analytical framework for assessing the systemic implications of cross-border financial

[8] ECB (March 2007) Financial integration in Europe.

crises. The Ecofin Council has set a target for EU central banks, banking supervisors and finance ministries that the framework be adopted nationally by the end of 2008. The framework presents issues such as the possible channels through which financial crises can have an impact and key indicators that the authorities in different countries are expected to discuss and exchange information on in assessing the impacts of a financial crisis. The common framework provides a structure for discussions between authorities and makes it easier to compare impact assessments by the different authorities. This systematic assessment framework also serves as a check list that can assist authorities to take account of at least most of the possible impacts and channels of impact in their assessments. Comprehensive impact assessments enable more effective crisis management and the minimisation of related costs to society.

The framework also present numerous criteria that can be used in identifying systemically important banks. These do not allow the preparation of a definitive list of systemically important banks for all crisis situations, as the seriousness of a crisis depends on a number of factors, eg the macroeconomic situation. They do, however, make it possible to identify those banks whose serious problems would with a high degree of probability have systemic effects. The criteria and their complementary indicators relate to factors such as the size of a bank and its market share in different markets, the replaceability of the services it provides to its retail customers, its links with other financial corporations, particularly via the interbank loan market, and its importance to the functioning of specific financial market segments and infrastructures.

Summary

The largest banking groups operating in Finland are probably systemically important due to their large share of the market. Suspension of their operations would have an immediate very negative effect on their retail customers and, by extension, on the country's economy as a whole.

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It is important to bear in mind that the primary responsibility for saving a bank in crisis lies with its owners. Public funds are used in managing a crisis only if no private sector solution can be found and the likely macroeconomic costs of the crisis are very high. The primary purpose of using public money is not to save the bank, but to minimise the costs to society.

Recent years have seen the development of methods for identifying systemically important financial institutions and assessing the systemic impacts of financial crises, and the publication of numerous studies on the contagion effects of bank collapses. The new methods and research can be applied in a number of ways. These include stress testing, the targeting of limited supervisory resources and the development of cross-border crisis management cooperation. There is, however, still a lot to be done in further development of methods for assessing the impacts of financial crises. There is a particular need for more research to develop methods to help authorities make more reliable assessments of the potential impacts of crisis situations on the real economy.

Keywords: banking crises, large and complex banking groups, contagion, crisis management