Resolving the stability trilemma

By Dirk Schoenmaker

A Group, chaired by De Larosière, will look at the arrangements for financial supervision and financial stability in Europe. The current financial crisis shows that the European Central Bank (ECB) lacks a European counterpart for financial supervision. To resolve that, a similar structure as for the European System of Central Banks could be created for the supervisors of the stability of financial firms (prudential supervisors). A European System of Prudential Supervisors could be established with a new European Prudential Supervisory Agency at the centre working in tandem with the national prudential supervisors.

Financial stability trilemma

What is the theoretical underpinning of a move to European arrangements? We put forward the idea of the trilemma of financial stability. The financial stability trilemma states that (1) a stable financial system, (2) an integrated financial system and (3) national financial stability policy are incompatible. Any two of the three objectives can be combined but not all three; one has to give. Figure 1 illustrates the financial stability trilemma.

Figure 1. The trilemma in financial stability

1. Stable financial system
2. Integrated financial system
3. National financial stability policy

The classical trilemma in economics relates to monetary policy. It states that (1) a fixed exchange rate, (2) capital mobility and (3) and national independence in monetary policy cannot be achieved at the same time. The monetary policy trilemma is built on the Mundell-Fleming model of an open economy under capital mobility. The logical conclusion of the monetary trilemma is drawn with the establishment of a supranational institution, the ECB in 1998. Even a strong form of coordination of national policies

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within the Exchange Rate Mechanism (ERM) appeared to be insufficient to keep exchange rates fixed. The exchange rate crisis of September 1992 brought this message home to politicians.

Moving to the financial stability trilemma, the first objective is a stable financial system. The ECB uses the following definition: “Financial stability can be defined as a condition in which the financial system – comprising of financial intermediaries, markets and market infrastructures – is capable of withstanding shocks and the unraveling of financial imbalances, thereby mitigating the likelihood of disruptions in the financial intermediation process which are severe enough to significantly impair the allocation of savings to profitable investment opportunities”. In this paper, we focus on the capacity of financial institutions to provide financial services (notably the allocation function from savings to investments) without major disruptions.

The second objective of the trilemma relates to integration. Promoting integration is one of the key objectives of the EU’s Internal Market Program. We take the degree of cross-border penetration in European banking as a measure of financial integration. This measure is defined as the assets of banks from other EU Member States as a percentage of the country’s total banking assets. Average cross-border penetration in the EU has gradually increased from 11 percent in 1995 to 21 percent in 2007 (Figure 2). Turning to individual banks, the ECB has conducted a mapping exercise of EU banking groups with significant cross-border activity. While the number of the banks included in the analysis increased only slightly - from 41 to 46 between the years 2001 and 2005 - the consolidated assets of the sample as a whole increased from around 54% to 68% of overall consolidated EU banking assets. This indicates that cross-border banks hold a sizable - and rising - share of total EU banking assets.

**Figure 2. Cross-border penetration in European banking**

The financial stability trilemma suggests that the logical conclusion of ongoing financial integration is to move from national to European arrangements for financial stability. So, the third objective - national financial stability policy - has to give.
Current financial crisis

The current financial crisis is instructive to see how the financial stability trilemma applies in practice. In a historical summit of the euro-area leaders, Sarkozy presented an impressive concerted European action of the euro-area countries to face the challenges of the financial crisis. The declaration of this euro area summit introduced an action plan with three main measures:

1. Ensuring appropriate liquidity conditions for banks. The ECB provides ample liquidity to banks against adequate collateral.
2. Facilitating the funding of banks. National governments provide a guarantee for medium term funding of banks. These government guarantees cover medium term bank debt issuance with a maturity ranging from 3 months up to 3 to 5 years.
3. Recapitalising banks. Governments provide capital injections to restore Tier 1 capital at an appropriate level. Furthermore, governments may allow for an efficient recapitalisation of distressed banks.

How does the institutional framework in the EU cope with this action plan? On the first measure, the ECB has been very successful to ensure appropriate liquidity in the euro-area interbank market throughout the financial crisis. In this crisis, surplus banks have become unwilling to lend to deficit banks because of worries about their solvency related to losses on sub-prime mortgages. The ECB is pro-active and provides short-term funds to deficit banks and absorbs funds from surplus banks. In this capacity of general lender of last resort, the ECB provides liquidity to the banking system as a whole against adequate collateral.

The second measure is about to start at the time of writing. Although individual governments will provide the funding guarantees, the ECB managed to broker a common fee across the EU. The market for bank funding is integrated and a common fee ensures a level playing field. For maturities up to 1 year, there is flat fee of 50 basis points. The fee for maturities from 1 year up to 3 to 5 years is based on the credit default swap spread of the involved bank plus 50 basis points.

The third measure is the most intriguing. To recapitalise banks, supervisors and governments have to cooperate. Supervisors have the information on the severity of the problems at the banks in trouble, while governments have the deep pockets (based on their fiscal powers) to provide capital if needed. These supervisory and fiscal functions are currently executed at the national level. Supervisors and governments have been effective in dealing with troubled banks with a primarily national orientation. The summit declaration has been successful in fostering some consistency between the national approaches though there are some differences.

The main problem has been with truly cross-border banks. The institutional setting with national authorities was not capable to reach a collective approach for Fortis, a cross-border bank with its main operations in the Benelux countries. The crisis management was done on national lines. When Fortis was first recapitalised, the Belgian, Dutch and Luxembourg governments provided capital injections to the national banking parts (Fortis Bank, Fortis Bank Netherlands and Fortis Bank Luxembourg.
respectively) and not to the Fortis Group as a whole. When the first recapitalisation of EUR 11 bn proved to be insufficient, Fortis was torn apart along national lines: the Dutch parts nationalised by the Dutch government and the solvent Belgian/Luxembourg parts sold to BNP Paribas.

So, what do we learn from the financial crisis? The ECB has established itself as an effective European crisis manager. In its field of responsibility, the ECB has acted persuasively: keeping the interbank market liquid and fostering a common fee for medium term bank funding. However, the ECB is lacking a European counterpart for supervision and recapitalisation to deal with cross-border banks.

**New Financial Stability Framework**

Crisis management requires effective cooperation between central banks, supervisors and governments. While we have a European Central Bank, supervisors and governments are still operating at the national level. We propose a three pillar approach to establish a European financial stability framework:

1. **Establish a European System of Prudential Supervisors.** A similar structure as for the European System of Central Banks could be created for the supervisors of the stability of financial firms (prudential supervisors). A European System of Prudential Supervisors could be established with a new European Prudential Supervisory Agency at the centre working in tandem with the national prudential supervisors.

2. **Create European institutions to ensure financial stability.** Intensive cooperation between the ECB and the new European Prudential Supervisory Agency could be established to have an ongoing overview of cross-border banks and an adequate arrangement for dealing with cross-border financial institutions during a crisis.

3. **Arrange burden sharing between national governments.** Ex ante burden sharing rules could be designed to deal with the recapitalisation of cross-border financial institutions.

**1. A European System of Prudential Supervisors**

To establish a more effective supervisory organisation of cross-border financial institutions, the following considerations are relevant. First, there needs to be a European wide focal point which takes care of the increasingly European and integrated nature of these cross-border financial firms. Second, supervision is primarily a micro-policy as day-to-day supervision needs to be conducted close to the supervised firms. Supervisors must remain physically close to the financial firms. This calls for a decentralised system of supervision, which combines the advantages of a European framework with the expertise of national supervisors.

Figure 3 illustrates such a decentralised European System of Prudential Supervisors. A European Prudential Supervisory Agency at the centre is responsible for key supervisory decisions (for example, granting of licences, approval of internal models, capital and liquidity reviews, stress tests, prudential assessment of potential cross-border mergers and acquisitions, and crisis management decisions) as well as the design of policy. Day-to-day prudential supervision is delegated to the national supervisors close to the financial firms. Cross-border financial firms are supervised by the lead supervisor from the home country (e.g. the Netherlands Bank (DNB) for ING). This home supervisor is the single point of
contact for the cross-border financial firm (for example, on reporting schemes, and on-site inspections). The home supervisor can ask host supervisors to perform on-site inspections of the host country operations. The home supervisor feeds its information into a common database of the System. This common database enables the European Prudential Supervisory Agency to have an overall view of the stability of cross-border financial firms across Europe and, subsequently, prepare supervisory actions when needed.

The System would deal with financial firms that operate cross-border. These are predominantly the large financial groups. Small and medium-sized financial firms (banks and insurance companies) that are primarily nationally oriented, are supervised by the national prudential supervisors.

**Figure 3. A decentralised European System of Prudential Supervisors**

2. **European institutions to ensure financial stability**
Crisis management should be done on a European basis. While the national supervisor in the home country is at the forefront during a crisis at an individual firm (gathering information), the European Prudential Supervisory Agency is directly in charge to make an assessment of the situation and ensure an adequate European wide solution. When a crisis hits more (large) financial firms at the same time, the European Prudential Supervisory Agency can foster a common response.

In this set-up, two European institutions are responsible for financial stability: the European Central Bank (producing a half-yearly Financial Stability Review and providing emergency liquidity assistance to the banking system) and the European Prudential Supervisory Agency (responsible for the stability of cross-border financial firms). The intensive cooperation between these two bodies is illustrated in figure 4 and can be in the form of cross-board appointments and joint inspection teams.
cooperation covers monitoring system exposures (e.g. exposures of the banking system to housing), avoiding certain system exposures (e.g. impact of monetary policy on asset price bubbles, building of appropriate payment and settlement structures), and crisis management.

Separate from stability, a European Financial Market Authority could be created at a later stage as financial markets are also becoming more European (e.g. Euronext in France, Netherlands, Belgium, Portugal and UK and the OMX in the Scandinavian countries). This European Financial Market Authority would work in tandem with the national financial market authorities (such as Autorité des Marchés Financiers (AMF) in France) and be responsible for the oversight of European financial markets.

Adequate accountability arrangements are needed for these European agencies. The agencies are accountable to the ECOFIN Council and to the European Parliament. The chairmen report periodically to the ECOFIN and the EP. The agencies also cooperate closely with the European Commission, for example, on state aid and competition issues.

**Figure 4. Financial stability framework**

3. **Rules for burden sharing**
Collective action is needed to recapitalise cross-border financial firms. Such a recapitalisation should only be done when the social benefits (preserving systemic stability) exceed the cost of recapitalisation. Otherwise, the financial firm should be closed. The deep pockets of the governments (fiscal authorities) are needed for recapitalisation. It would be tempting to propose a European government with such fiscal powers, but *realpolitik* dictates more modest alternatives. We propose ex ante burden sharing rules between national governments.

In such a burden sharing arrangement, countries in which a failing bank is present share the burden of recapitalisation. A key can be designed to reflect the relative presence of the problem bank in the various countries across Europe. A possible key for burden sharing is the geographical spread of the assets reflecting the size of the failing bank in each country. During a crisis, the involved countries
would meet (e.g. in the format of the European Financial Committee with high-level Treasury officials or the ECOFIN with finance ministers) and vote collectively on the possible recapitalisation of one or more ailing banks. The funds for recapitalisation become available for the banking group as a whole.

A legal basis is needed to create binding ex ante burden sharing arrangements. We believe that Memoranda of Understanding (MoUs) will not be sufficient because MoUs (soft law) are not enforceable. A legal basis (hard law) can be readily provided within the EU. Clear and hard-edged ex ante rules are helpful during a crisis when speed of decision-making is crucial. By contrast, ex post principles on burden sharing leave themselves open to interpretation delaying the decision-making process.

Conclusions
Summing up, financial stability is a public good and does not stop at national borders. The current financial crisis has highlighted this. The lack of an adequate European structure for financial stability could undermine further financial integration through the Internal Market. The ECB has acted persuasively during the crisis, but must have felt lonely at the European battlefield. We propose to send a European Prudential Supervisory Agency into the field. The third soldier, a European body with fiscal powers, is beyond the realm of political reality. As an alternative, we propose ex ante burden sharing rules to ensure appropriate collective action, if and when cross-border banks need to be recapitalised.

References

Author
Dirk Schoenmaker is Professor of Finance, Banking and Insurance at the VU University in Amsterdam. He has done extensive research on European banking and financial supervision. He has just finished a new textbook titled European Financial Markets and Institutions with Cambridge University Press (co-authors Jakob de Haan and Sander Oosterloo).
Annex: What is the deal for the New Member States?

The degree of cross-border penetration is very uneven across the EU Member States. While the average cross-border penetration in the EU is 21 percent, the banking systems of the new Member States (NMS-12) are dominated by foreign banks. The cross-border penetration of the NMS-12 is 65 percent (Table 1). It is nearly impossible for the NMS-12 to manage the stability of their financial system at the national level. They are only host to the major banks (mainly coming from Western Europe) in their territory and are dependent on the action (or lack of it) of the respective home country authorities of these banks to preserve the stability of their national financial system.

As a way forward, the EU (and also the G-20) has proposed to form colleges of supervisors for cross-border banks. In these colleges, home and host supervisors meet under the leadership of the home supervisor. In this way, the host supervisors of the NMS-12 would get a role in supervision. Although the idea is sympathetic, these colleges will not work in a basically national setting. The incentive structure is wrong. In so-called Memoranda of Understanding (MoUs), the lead supervisor from the home country is required to share information with the host supervisors. However, the home supervisor has no incentive to reveal bad information. In a crisis, the home supervisor has even an incentive not to give information, as host supervisors will start ring-fencing the host operations as soon as they hear about problems in the banking group. In the national setting, each supervisor will preserve the bank’s local assets for its local depositors cumulating in a sub-optimal overall solution for a crisis-hit banking group.

Our proposed European System of Prudential Supervisors will solve the incentive problem. As the System operates on a European-wide mandate and is accountable at the European level, the home supervisor is required to share information with the rest of the System (including the host supervisors). As the home supervisor has now an exclusively European mandate instead of a national mandate, he has no longer an incentive to keep information at the national level. Next, the European Prudential Supervisory Agency will enforce a solution which is optimal for the overall European operations of the banking group. The working of the European System of Central Banks is instructive. The governors of the national central banks (NCBs) participate in the meetings of the ECB’s Governing Council setting the interest rate. Although it may be tempting for them to vote on the basis of the inflation outlook in their country, the Maastricht Treaty requires the governors to base their vote on the inflation outlook for the euro-area as a whole. This has also been the practice in the Governing Council.

Finally, host supervisors from the NMS-12 will have a better deal in the System, as they would fully participate in the decision-making. Currently, they are dependent on the (in)action of the home supervisor. Again, that is similar to the ECB. In the old Exchange Rate Mechanism (ERM), the Bundesbank set the interest rate in line with the German inflation outlook and only informed (not consulted!) the other central banks about interest rate changes. The latter had no choice but to follow the German interest rate change. The ‘host’ central banks have now a vote in the setting of the euro interest rate.
Table 1. Cross-border banking penetration in the New Member States (in %)

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<tr>
<th>Country</th>
<th>%</th>
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<tbody>
<tr>
<td>Bulgaria</td>
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<tr>
<td>Cyprus</td>
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<tr>
<td>Latvia</td>
<td>56</td>
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<tr>
<td><strong>NMS-12</strong></td>
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<tr>
<td>Lithuania</td>
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<td>Malta</td>
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