**EUROPEAN ECONOMY**
BANKS, REGULATION, AND THE REAL SECTOR

# SINGLE SUPERVISION AND CROSS-BORDER BANKING



)15.3

European Economy
Banks, Regulation, and the Real Sector
2015.3

# Single Supervision and cross-border banking

# What is European Economy

*European Economy – Banks, Regulation, and the Real Sector* (www.european-economy.eu) is a new on line journal to encourage an informed and fair debate among academics, institutional representatives, and bankers on the regulatory framework and its effects on banking activity and the real economy. It is an independent journal, sponsored by Unicredit Group.

The journal aims at becoming an outlet for research and policy based pieces, combining the perspective of academia, policy making and operations. Special attention will be devoted to the link between financial markets and the real economy and how this is affected by regulatory measures. Each issue concentrates on a current theme, giving an appraisal of policy and regulatory measures in Europe and worldwide. Analysis at the forefront of the academic and institutional debate will be presented in a language accessible also to readers outside the academic world, such as government officials, practitioners and policy-makers.

The Single Supervisory Mechanism (SSM) is the first pillar of the European Banking Union. The third issue of European Economy - Banks, Regulation, and the Real Sector examines the design of the SSM, the major issues concerning its implementation, and the main future challenges ahead, focusing on how far the SSM is an effective enabler of cross border banking and the single European banking market.

**EUROPEAN ECONOMY**
BANKS, REGULATION, AND THE REAL SECTOR
YEAR 1 - ISSUE 3



European Economy – Banks, Regulation, and the Real Sector
is an online publication of the Review of Economic Conditions in Italy magazine.
Accessible free of charge at: www.european-economy.eu

Registrazione del Tribunale di Roma n. 13977 del giugno 1971

PUBLISHED BY
Europeye srl
via Gregorio VII 368 - 00165 Roma
t. 06 3700556 - www.europeye.com

ISSN 2421-6917

# Table of Contents

# From the Editorial Desk

# Sand in the wheels: Implementing the Single Supervisory Mechanism and Multinational Banking in Europe

by Giorgio Barba Navaretti, Giacomo Calzolari and Alberto Franco Pozzolo[1]

## 1. Introduction

The fast increase in cross-border banking claims between 1999 and 2007 had raised hopes that the single financial market was becoming a reality. But the financial crisis proved that it was a foggy and cloudy dawn, with many dangerous spots still in the shade. Although banking markets were rapidly integrating, institutions kept them pretty ring fenced along national borders; the regulatory framework aimed at harmonizing the actions of national supervisors left in fact very large degrees of freedom to its implementation in member states; measures and resources to recover or resolve banks in trouble were national with no institutional framework to mutualize them. Banks, consequently, were international in life, but national in disease and death, even though the consequences of such casualties could not be contained within national borders, precisely because their activities were large, spread across several countries and because of the perverse interaction between banking and sovereign debt.

The Banking Union is the response to this geographical mismatch between markets and the rules overseeing them. As convincingly argued by Schoenmaker (2011 and this issue), it is impossible to have international financial integration and financial stability if supervision remains national. And it is impossible to break the perverse link between banking and sovereign balance sheets if the resolution and guarantee framework and funds

1. University of Milan, University of Bologna, University of Molise

are not integrated and mutualized. The objective of the Banking Union is therefore to guarantee an integrated and resilient European banking sector.

As reported below and in the Numbers section of this issue, there is only limited evidence of a retrenching of banking activities within national borders as a consequence of the crisis (Figures 4, 5, 8 and 9). In other words the crisis has only partially discouraged EU banks from operating in other EU countries through branches and subsidiaries. Will the Banking Union strengthen this pattern by providing an effective levelled playing field to finally achieve the transition of the integrated financial market from its shady dawn to a full sunshine?

This issue of European Economy addresses this question by mostly dealing with the Single Supervisory Mechanism (SSM). The SSM is a daunting task of institutional harmonization and supervisory centralization the Eurosystem is undertaking. It involves: defining and implementing a coherent harmonized legal and regulatory framework for banks, based on the CRR/CRDIV; building up an effective central supervisory apparatus, defining its legal framework, governance and procedures; coordinating the operations of national competent authorities (NCAs) within a single rule-book in a coherent arbitrage between the union and national legal frameworks; implementing a thorough assessment of the balance sheets and activities of the 122 large systemic banks, subject to the central supervision by the ECB, which account for 25 trillion in assets (80% of the euro area total).

The complexity of hammering a single supervisory mechanism across such a broad and diverse legislative and institutional space has produced a yet imperfect, even though we deem extremely necessary, scheme. *Our bottom line is that the SSM is a fundamental step forward towards a single European banking market. But there are still many grains of sand in the wheels. Part of them will be blown away with time, fine tuning and adaptation, part are structurally there to stay.*

Transient conflicting items should be removed and smoothed out as rapidly as possible, as they could render the transition to a fully functioning SSM painful, with conflicts of power and unclear signals given to stakeholders, especially the supervised entities and the markets.

Yet some of the issues have inherent structural problems that will be lifted with difficulty, perhaps smoothed through practice, but still persistent. A first grain of sand comes from the interface between the single supervisory mechanism and national supervisors. The crucial role that national supervisors still play in overseeing the operations of their home based banking activities in joint supervisory teams, even for the 122 banks under the direct supervision of the ECB, raises a key issue of information sharing and of the national implementation of the directives from the single supervisor. A second grain is fed by the potentially conflicting objectives of micro and macro prudential regulation. Finally, sand is produced by the interaction between countries which are inside and those outside the union, especially for what concerns the supervision of banks based in both groups of countries.

*These impediments provide a serious challenge to the full implementation of the SSM* and these early years of transition are especially delicate as national and central supervisors practice their joint exercise and fine tune the difficult balance of powers that it involves. The second and third pillars of the Banking Union will only be addressed superficially here, for questions connected and pertaining to the SSM. This does not mean that supervision and resolution and deposit guarantee can be seen as separate matters. In our view they constitute intricate and inseparable parts of a whole. A key problem in the first stages of the Union is precisely the different pace of implementation that the three pillars are following, with many ingredients of the third, but also of the second pillar, yet to be defined, primarily at a political level. All the same, the SSM in itself poses a set of conceptual and policy issues that require a careful and deep assessment, hence our choice to adopt a targeted focus of analysis *In the end the SSM and the full banking Union are crucial preconditions for achieving an effective integrated banking market, and for making such market financially stable and sustainable both from a micro and macro perspective. But the attritions in its mechanism may constitute a still important obstacle to cross border and multinational banking and a challenge to maintaining financial stability in the euro area.*

## 2. A daunting institutional endeavour

The Institutions section of this issue of the journal and the very thorough piece by Ignazio Angeloni discuss all the main ingredients of the SSM. Its implementation has already been largely undertaken at light speed, since the political decision to launch the banking union in June 2012. The SSM at the ECB has assumed supervisory powers since November 2014. It is useful to briefly recall here its main ingredients so as to substantiate the discussion of the following sections.

The first step has been the adoption of SSM Regulation and the incept of the preparatory work to actually set up the SSM: establishing a governance framework and operational procedures and internal arrangements for the functioning of the SSM; setting up the supervisory structures and recruiting staff; carrying out a comprehensive assessment of the conditions of the 122 banks supervised by the ECB, through stress tests and an asset quality review, which led to the recapitalisation of banks with capital shortfalls; developing common methodologies and a Supervisory manual to standardise procedures across the Union.

The second step has been the harmonisation of the legal framework in terms of capital requirements and other matters. Discrepancies between member countries were large because of large degree of "options" and "discretion" national authorities could enjoy in applying the Capital Requirement Directive (CRD) IV and the Capital requirements Regulation (CRR). This gave rise to a regulation specifying the legal obligations for the banks under the SSM and a guide for the supervisory teams on how to treat individual cases.

A final step has been the development of the SREP (Supervisory Review and Evaluation), an SSM specific methodology for assessing and measuring risk of individual banks. This is a very comprehensive assessment exercise, on top of the initial Asset Quality Reviews and of the Stress tests, including the assessment of the business model of internal governance and risk management, and of risks to capital and to liquidity and funding.

This complex exercise of supervisory and legal harmonization still faces some limits, as very lucidly discussed by Ferrarini in this issue. In particular, the fact that the SSM operates in the Eurozone, whereas the regulatory framework applies at the EU level, introduces an element of geographically asymmetric sovereignty, implying that the single supervisor "is subject to EU prudential regulation and national law provisions, often unduly limiting its supervisory discretion". Therefore, the SSM, always according to Ferrarini, can be defined as a "semi-strong" form of centralization, as it necessarily relies on supervisory coordination with National Competent Authorities. The need for coordination is further enhanced by the fact that the ECB has limited sanctioning powers on national banks, as it lacks *locus standi* in front of national courts. This limits the ECB ability to impose administrative sanctions on banks, as well as to achieve the effective enforcement of its rulings, without the full support of the NCAs.

Moreover, the fact that the SSM is focused on the Eurozone implies that the ECB has to continuously interact and cooperate with other EU authorities, like the European Banking Authority (EBA) and all the European Supervisory Authorities, forming the European System of Financial Supervisors (EFSF).

## 3. Grains of sand in the wheels: potential conflicts and problems in implementation

A number of frictions arise from the institutional design of semi-strong centralization combined with a geographical mismatch in sovereignty between supervision and regulation.

### *3.1 Central vs local supervision*

The first core question is the interaction between the central (SSM) and the peripheral supervisors (NCAs), as discussed by several contributions to this issue. In other words, how far the incentive system inbred in the institutional design of the SSM may favour or discourage an effective cooperation between NCAs and the central authority. The difficulties of a decentralized system of supervision of banks operating in Europe were debated well ahead of the crisis, which, however, was the tilting event forcing European institutions to embrace some form of centralization.

In complex environments, like the international financial market, there are pros and cons for centralizing relevant activities such as banking supervision. The possibility that centralization also involves cons may not seem obvious prima facie and it is worth discussing it together with its benefits.

Supervising a bank involves (at least) three main activities: collecting information, processing this information, and consequently acting (or don't). In principle one could argue that centralizing all these activities at the European level could not "make things worse" than having all or some of them decentralized to national authorities. The simple argument is that, in the worst case scenario, a supranational entity, that has been attributed the authority to perform all the activities previously performed by local supervisors, can always mimic and replicate the outcome that a decentralized system would implement.

This argument is at the same time simple and wrong, because it does not account for the actual incentives to perform the three activities of supervision that systematically take us far away from an ideal first best environment. Since the process of supervising a bank is certainly not perfect (or efficient as economists would say), the effects of some sand in the wheels are debatable and it is thus important to identify the sources of inefficiency and properly understand their interactions.[2] This is particularly important when considering a hybrid centralization framework as the one currently operating in Europe.

The presence of externalities of supervisory acts that may spill-over to other countries is certainly a strong plus in favour of centralizing the supervisory process. For example, in the event of distress of a bank, the home country supervisor in charge would likely primarily care about the consequences of supervisory acts on the home country, but not on those foreign countries in which the bank operates or where it might generate systemic spillovers. Furthermore, the systemic impact of a supervisory decision to act or not to act on a distressed bank in a large home market may be much smaller than the impact generated on a relatively small foreign market, where the bank operates with a large market share (Hüttl and Schoenmaker in this issue present a full characterization of the relevant cases.)

The consequences of these externalities in a decentralized system of supervision are lucidly discussed by Dell'Ariccia in this issue: higher supervisory standards in one country not only make that banking system more stable, but they also benefit foreign banking systems. If national supervisors fail to account for this external positive effect, they act sub-optimally, with consequences that are more relevant the more internationally integrated are national banking sectors. This may easily lead to "under-supervision" if supervision is perceived as a burden for banks which reduces their profitability (at least in the short run) and supervisors care about local banks' profits. In this environment, independent supervisors may end up in a race-to-the-bottom, lowering supervisory standards in order to provide domestic banks with competitive ad-

2. This is a general principle well known in economics. In a first best environment, i.e. one in which decisions are efficient, adding any type of inefficiency, for example in terms of the organization of the decision process, is necessarily detrimental. This is no longer always the case in a second best environment. When decisions are in any case suboptimal (i.e. second best), additional distortions may actually improve the overall outcome. In these cases though the optimal design of the environment must rely on details and their possibly complex interactions.

vantages. The endpoint may well be a very weak banking system that the very same countries evaluate as suboptimal. Centralization may eliminate these perverse incentives and sort countries out of this prisoners' dilemma.

At the same time, there is no reason to centralize the supervision of small non systemic banks, precisely because in this case there are no international externalities. The Banking Union is designed accordingly, leaving this responsibility to NCAs.

Transferring supervisory responsibility to a central supranational authority that does care for all involved countries internalizes these externalities, thus apparently eradicating the issue from its roots. However, this fully desirable outcome of centralization should not be taken for granted. In fact, consider the SSM as an application of a specific type of centralization of supervision. The ECB performs its supervisory tasks within the SSM, and still relies on information on banks' activities that is at least in part produced by local competent authorities. Deprived with their supervisory powers on large banks, these authorities may have limited incentive to acquire information effectively, for example failing to investigate a national champion potentially in trouble or not transferring the full information to the central body. By avoiding to collect precise information on the bank that would be transferred and used by the ECB or simply by slowing down the process of information acquisition, national authorities may be still in the position to affect the supervisory process even if this has been advocated by the ECB.

This issue is investigated in Carletti et al. (2015), Calzolari et al. (2015), and Faia and Weder (2015), who show that indeed centralization does not come with only pros even in very simple and realistic environments. Clearly, an obvious solution would be to centralize also information acquisition, thus avoiding to rely on biased national authorities. However, information is a complex object. Indeed, dealing with information, both in terms of acquiring and transferring it, is far from being a simple task, and centralizing this process is not necessarily an optimal solution. For example, several theoretical and empirical analyses have convincingly shown that information acquisition benefits a lot from (geographical and cultural) proximity, in our case between the authority supervising and collecting the information and the bank, the object of supervision. The quality of information and its timeliness are difficult to specify ex-ante with full detail. And the transmission of information is also problematic when one deals with "soft", i.e. not-easily codifiable, information. These difficulties in dealing with information show that we may expect that the SSM will continue to rely on locally generated information, thus leaving the door open to significant agency issues.

A second possible issue with centralization is "regulatory or supervisory capture". On the one hand it is generally believed that taking supervisory powers away from local inbreeding allows supervisors to act more independently. This is probably true when dealing with large but still national banks that may invest and target many resources to affect the supervisory process at the national level. However, the effect for large and cross border banks is less obvious, because in a banking union these banks have to deal with one single supervisor rather than many national and independent supervisors.

With a metaphor, centralizing the storage of valuable data in a cloud storage service does not necessarily guarantee a safer storages system even if companies offering cloud computing are specialized and use safer and better technologies. In fact, these large cloud storage systems are clearly of larger value for hackers who may concentrate and target more resources in breaching these systems rather than hacking a few computers of a single company.

What will be the effect of banking union in terms of pressure exerted by large cross-border banks on the ECB is of course too early to state, but European institutions will have to devote a great deal of attention in limiting concerted pressure efforts of large cross-border banks. It is also worth mentioning that larger international liabilities may strengthen a national regulator's commitment not to bail out a troubled bank, and this would act as a disciplining device that is significantly weakened in presence of the centralized supervisor of a banking union.

### *3.2 Insiders vs. outsiders*

Another, often mentioned, limit of centralized supervision is the lack of flexibility and the reduced ability to tailor the standards of supervision to countries' economies and their banks. Although tailoring supervision has the flip side of a more likely capture of supervisors by large banks, it is clear that centralization works best for countries with similar and similarly developed financial systems, as discussed by Dell'Ariccia in this issue.

The decision of limiting centralization to homogenous national banking systems opens the door to another significant issue, namely how to deal with "outside" countries that are not currently part of the SSM, and their banks. This is addressed in Ferrarini, Hüttl and Schoenmaker and De Haas in this issue.

The SSM enforces mandatory participation for Euro-area countries, and contemplates voluntary and subsequent entry by other European Union members, currently Bulgaria, Croatia, Czech Republic, Hungary, Poland, Romania, Denmark, Sweden and the United Kingdom. The presence of these two groups, ins and outs, calls for an investigation of the actions of the SSM that may affect the out-countries and their incentive to join the SSM.

In light of the previous discussion, it is clear that both these dimensions depend on the level of financial integration and of financial flow between the two groups of countries. Scandinavian countries are deeply involved in outgoing flows in terms of banking activities towards SSM participating countries, and new accession countries are instead dependent on inward flows of banking activities from SSM countries (Hüttl and Schoenmaker in this issue). Hence, both these groups will likely benefit from the enhanced stability generated by SSM although on different dimensions. It is thus conceivable that for the "outs" the urgency to enter the SSM declines with its implementation. These countries may thus prefer to remain "outs" also to avoid losing their independence in supervising banks operating within their boundaries, even though there are large asymmetries in the costs and benefits of joining for individual countries depending on the extent and the direction of their links with the Union. The case is even more special for the UK because, although the international financial integration of its banking sector is significant, it is more related to third countries than to European Union countries.

A significant opportunity for all out-countries from joining the SSM would currently be the participation in the SSM's governing bodies and the timely access to precise and complete information regarding the foreign activities of financial institutions that operate in their countries. Since these benefits largely depend on the actual functioning of the SSM, which is currently in its infancy, it is reasonable to foresee that we will not have many new accessions in the near future. And also that the possible negative externalities of the "outs" on the Eurozone will not be mitigated by the Single Supervisory mechanism.[3]

3. Also, it should be taken into account that the Single Resolution Mechanism has a broader geographical application than the SSM, as it involves all countries in the European Union except Sweden and the UK. Clearly membership of the SRM makes the case for staying outside the SSM different and possibly weaker.

### *3.3 Microprudential vs. Macroprudential*

Last, but certainly not least, a smooth functioning of the SSM requires to disentangle the possibly conflicting relationship between microprudential (MIP) and macroprudential (MAP) supervision. As argued by Angeloni in this issue, the main aim of the SSM is "to ensure the safety and soundness of European banks, both individually and as a system". As such, "the SSM possesses both microprudential and macroprudential powers", although the latters are shared between the ECB and national authorities of the member states.

In principles, MIP decisions aiming at addressing institution specific concerns may conflict with MAP objectives. In particular, system-wide MIP interventions, such as the Supervisory Review and Evaluation Process (SREP), can affect aggregate credit supply and therefore have first order MAP effects. Indeed, prescriptions may even go in opposite directions across the economic cycle: for example, during a downturn, with growing stress in banking markets, MIP might prescribe an increase in capital requirements, whereas MAP may suggest a reduction. Disentangling the relationship between MIP and MAP requires the definition of a clear and transparent ordering of possibly alternative policy objectives. Alessandri and Panetta make a strong case that MAP goals should precede MIP objectives, since "MAP authorities internalise the trade-off between capital and credit, whereas MIP authorities operating on individual institutions do not". Aggregate welfare is therefore maximized by first addressing MAP concerns and then MIP problems.

However, this ordering introduces an additional reason for potential institutional conflicts between the ECB and the national authorities. Under the SSM, the ECB has full MIP responsibilities and, through the European Systemic Risk Board, retains some MAP powers to adjust the policy stance adopted by individual national authorities. In the case of MAP interventions, member states are left nonetheless a number of degrees of freedom, since the ECB has only the right to increase countercyclical capital buffers if it deems it necessary, but not to reduce them. In theory, one could even envisage a situation in which the ECB forces some MAP decisions, that are not taken by individual member states through, system-wide MIP interventions. A clear institutional setting and a strong coordination between the ECB and the national MAP authorities is therefore crucial, so that banks can foresee the supervisory stance that they are likely to face.

## 4. Impact on cross border and multinational banks

What will be the impact of the SSM on the European banking industry and on the European economy in general? With still so many inherent uncertainties and frictions in the SSM and even more in the implementation of the SRM and in the coordination of national deposit guarantee schemes, answering such a question at this early stage of the of the path to the Banking Union is a bit like tea-leaf reading. But it is an exercise that is worth trying, if anything, to uncover and address the possible pitfalls that may lay ahead.

A first issue is that the set-up of the SSM is instrumental to the implementation of the second and the third pillars of the banking union, which involve an increasing mutualisation of the resolution funds and, in perspective, probably also of the national deposit guarantee schemes. While with the SRM, in equilibrium, the burden of saving weak banks will be left to investors and to the industry itself, the SSM is certainly a precondition if some form of mutualised fiscal-back stops to banking crisis will ever be set up, and a proper European Guarantee Scheme will be forged in the future.

Even if we look backward, we can say that the launch of the banking union has been instrumental to the implementation of any serious structural mutualised fiscal fund like the ESM in the past. Therefore there is no doubt that the SSM has enhanced the capability of the European banking system to build up adequate weapons to face banking crisis. *A first result of the SSM has been to strengthen the European banking industry with respect to what would have been otherwise*, i.e. fragmented supervisory and resolution institutions and mechanisms.

A second issue relates to the financial trilemma. As convincingly argued by Schoenmaker (2011 and in this issue), it is impossible to have international financial integration and financial stability if supervision remains national. The objective of the SSM is therefore to guarantee an integrated and resilient European banking sector. A counterfactual exercise of what might happen without the SSM clearly points towards a retrenchment, a balkanization of the European banking industry.

If we take a step backward, a careful reading of the data during the crisis provides a very nuanced overall picture. It is difficult to conclude that either multinational banking (as defined by the activities of branches and subsidiaries based in foreign countries) or cross border-banking (as defined by cross border loans and deposits) seriously retrenched during the crisis with respect to domestic banking activities. They declined in absolute terms, but not much more than domestic banking.

Financial intermediaries have four major ways to expand abroad: direct lending to foreign non-banking clients, interbank lending to foreign banks, purchase of foreign assets such as government bonds, and setting up a foreign subsidiary, possibly capable of funding locally its lending activities (multinational banking). In all major euro area countries, in the aftermath of the financial crisis the share of assets of branches and (less so) of subsidiaries of banks from other members of the euro area registered a sharp contraction (Figures 4 and 5). On the other hand, even during the crisis, in all major countries the number of bank branches from other euro area countries continued to increase, although at a slower pace (Figures 1 and 2), while that of subsidiaries was relatively stable (with the visible exception of a decline in France, but which started in 2001, long before the crisis, see Figure 3).

Also for cross-border banking the picture is quite muddled. The value of loans to both other financial intermediaries and the real sector remained broadly stable (with the only noticeable exception of those made by Italian banks to banks in other euro area member states during the peak of the sovereign debt crisis; Figures 8 and 9). In contrast, there is some more evidence of a partial retrenchment of cross-border banking activities coming from the share of deposits from banks of other euro area member states in Italy and in France (Figures 10 and 11).

*The evidence, even though rather blurred, shows therefore a structural resilience of cross border and especially multinational banking within the EU during the crisis. We still live in a fairly integrated banking market. The banking union, with all its problems and limits, will strengthen this pattern, although possibly not in a neutral way for all forms of international banking.*

As argued by De Haas in this issue, cross-border banking certainly benefits from the SSM, but this may somehow crowd-out multinational banking. The renewed trust on the conditions of the balance sheet of foreign banks provided by SSM supervision will favour a revival of cross-border interbank lending. *A second result of the SSM may therefore be a reversal of the recent increase in multinational banking and an expansion of cross-border lending.*

A third issue relates to the average stance of supervision. As argued by Dell'Ariccia in this issue, supranational supervision may have tighter standards than national supervision. In the transition period, this may cause a drop in credit supply, hampering the still weak European recovery. In addition, since national authorities had different supervisory styles before the SSM, the centralization of supervision may have heterogeneous effects across the euro area. In other words, the tightening of the supervisory framework will be different in each country, depending on the initial distance from the 'supervisory frontier'. And the playing field scenario can become even more uneven if, as argued above, national authorities can thwart the activities of the SSM by limiting its access to information.

However, in the long run banks will adapt to the new standards, the SSM will improve its ability to collect information, and the effect of the higher standards of supranational supervision are likely to prevail, reducing the possibility of opportunistic behaviours and regulatory arbitrage and, in turn, the likelihood of individual bank defaults and financial crises. *A third result of the SSM should therefore be to increase the resilience of the banking sector, at least in the long run.*

A related issue is that of the possible differences between the supervisory stance that will be faced by the 122 banks directly supervised by the ECB and that of all the other smaller financial intermediaries. Despite the centralization of bank supervision at the ECB level, a common SREP and a unique Guide to Banking Supervision, as explained by Angeloni in this issue, it is unlikely that a small bank in Finland will be supervised by the Finnish authorities in the same way as a small bank in Spain will be supervised by the Spanish authorities. The SSM will therefore have an asymmetric effect: it will level the playing field for the 122 large banks supervised from Frankfurt, but it will leave a more uneven playing field between small and large banks, because of the dual system that will emerge within each country. While a different treatment of Evli Pankki Oyj in Finland and Caja Rural de Villar in Spain is unlikely to cause bilateral competition concerns, this is not the case for the relationships between Nordea, a large multinational bank operating in Finland and supervised from Frankfurt, and the small Evli Pankki Oyj. The tighter standards of supranational supervision will add to the increasingly different burdens faced by large banks, possibly reducing their competitiveness with respect to smaller financial institutions.

This effect can be balanced by the fact that large European banks can capture the regulator, at least to a certain degree. In this sense, the likelihood for a small bank supervised at the national level that it will be let go bankrupt is still higher than that of a large bank supervised from Frankfurt. But the difference between the likelihoods of these two events is still smaller with the SSM than it was when all banks were supervised nationally. *All in all, a fourth result of the SSM seems therefore be to that small banks will face a relatively more favourable environment than without and before the SSM.*[4]

The next important issue is the lack of flexibility of a common supervisor with respect to national specificities. As argued by Dell'Ariccia and above, centralization will have a smaller impact on countries with similar financial systems. This is certainly true in the transition period, when the structure of the financial system is a given.

But in the long run the financial system responds and adapts to new regulations. Financial systems across Europe will therefore become more similar as a result of the SSM. This, in turn, may have two additional effects. First, since the structure of the financial system affects that of the nonfinancial sector (Cetorelli and Strahan, 2006), the SSM may also have a sizeable impact on the real economy, levelling the playing field for firms' access to the banking market and reducing the impact of national characteristics on the characteristics of European firms (e.g., size and leverage). Second, since banks are by and large the most important players in the European financial sector, a more similar banking system will de facto mean a more similar financial system. Non-bank intermediaries will face similar conditions in each European country, becoming themselves more similar across borders. The overall financial sector will become more uniform across Europe, and integration among similar players will become easier. *During the transition period, the lack of flexibility of the SSM may indeed be a relevant issue. But in the long run it seems likely that the single supervisor will increase the convergence of the financial sectors of the European countries. This may be the fifth result of the SSM.*

Finally, unified supervision may remove some hidden constraints that limit international bank integration and internal (within firms) capital markets (Focarelli and Pozzolo, 2001). As argued by Ferrarini in this issue, this may foster consolidation in the European banking sector. Bank profitability has not yet re-

4. Of course, the large confusion in the sharing of power between national and supranational authority during the transition period can make this case rather unclear, as shown by the institutional uncertainty and the broader financial turmoil that emerged during the recovery of four small Italian banks at the end of 2015.

covered after the crisis but, as shown also recently in the January 23rd issue of the Economist, there is no clear link between the drop in returns and bank size. Low profitability is pushing the whole sector towards a rather slow but relentless reorganization, mostly aimed at reducing operational and international diversification. However, as argued by De Haas, banks are not retreating uniformly from foreign countries and they are maintaining their closer and more strategic affiliates. *The levelling of the playing field and the convergence of the European banking and financial sectors favoured by the SSM may trigger a cross-border consolidation process where more efficient and operationally focused banks acquire the activities of less efficient and excessively diversified banks abroad. This may be the sixth result of the SSM.*

Summing up we are in a challenging new era for European banking. The ark of the Banking Union will probably provide help in sailing through difficult waters. But details need to be observed carefully, to prevent vicious waters sinking in unchallenged. We hope this issue of European Economy will be helpful to avoid them being even unnoticed.

**References**

Carletti, E., Dell'Ariccia, G., and Marquez, R., (2015). Supervisory Incentives in a Banking Union, IMF unpublished manuscript.

Calzolari, G., Loranth, G., and Colliard, J. E., (2015). Monitoring a multinational bank, Working Paper.

Cetorelli, N., and Strahan, P. E., (2006). Finance as a Barrier to Entry: Bank Competition and Industry Structure in Local U.S. Markets, American Finance Association, vol. 61(1), pages 437-461, 02.

Faia, E., and Weder, B., (2015). Cross-Border Resolution of Global Banks, SAFE Working Paper No. 88. Available at SSRN: http://ssrn.com/abstract=2572882 or http://dx.doi.org/10.2139/ssrn.2572882

Focarelli, D., and Pozzolo, A. F., (2001). The patterns of cross-border bank mergers and shareholdings in OECD countries, Journal of Banking & Finance, Elsevier, vol. 25(12), pages 2305-2337, December.

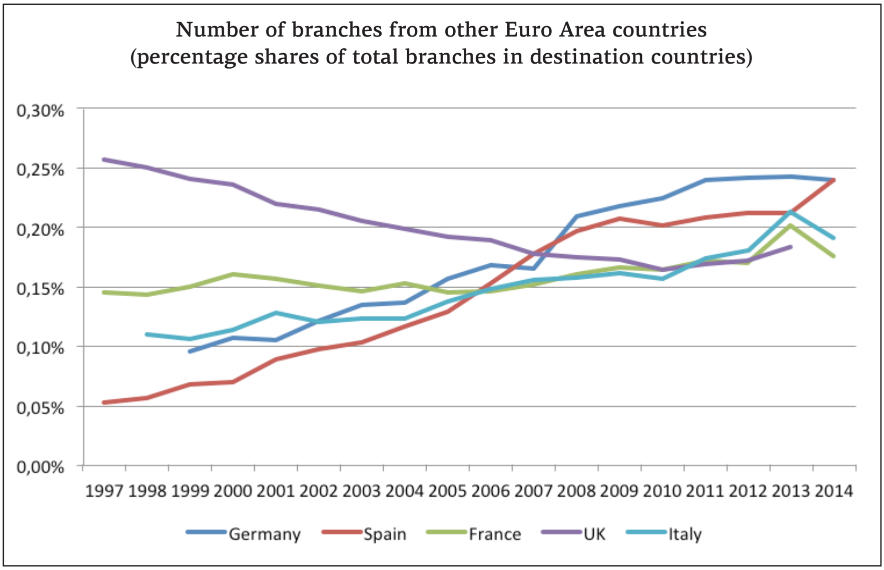
Schoenmaker, D., (2011). The financial trilemma, Economics Letters, Elsevier, vol. 111(1), pages 57-59.

# Numbers

by Maria Teresa Trentinaglia[5]

## Multinational Banking

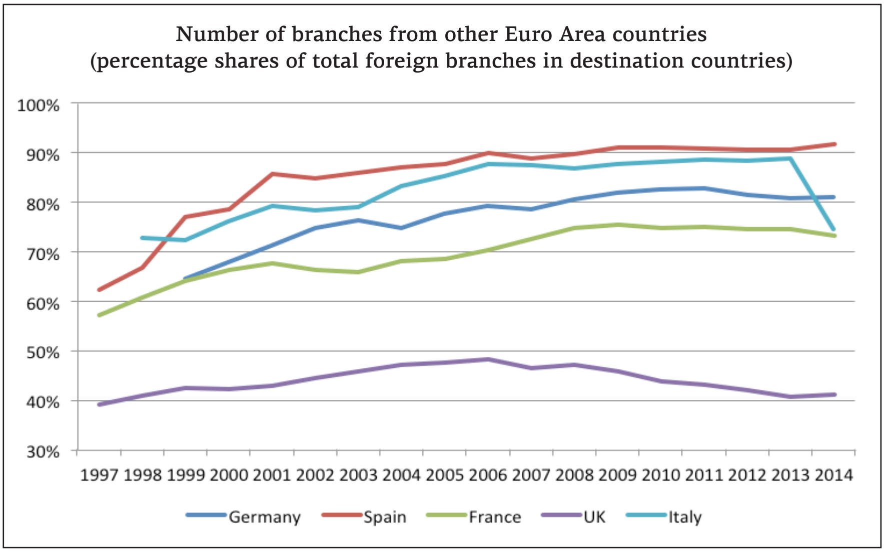
**Figure 1**




Source: *ECB, Structural Financial Indicators. Total branches in destination countries are defined as the sum of branches of domestic banks, branches of banks from other EU member states, and branches of banks from all areas other than the EU.*

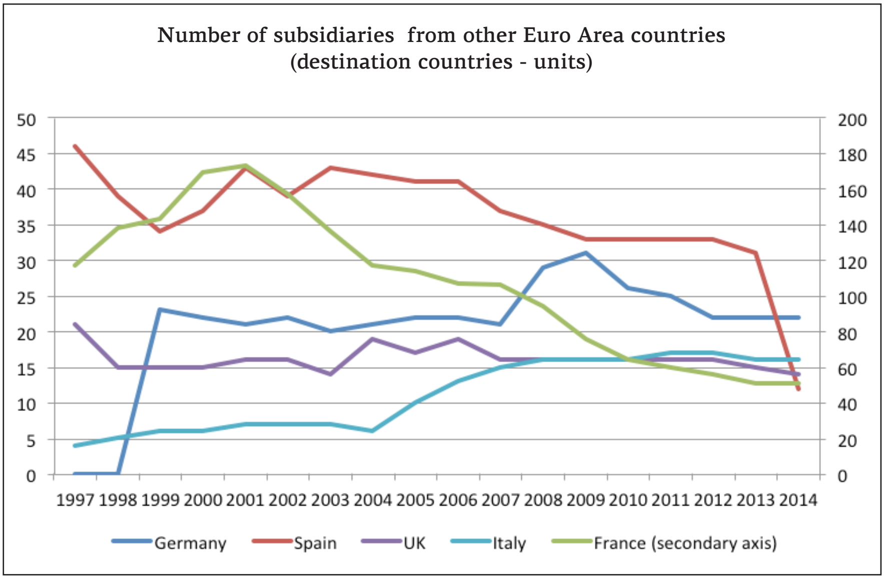
5. University of Milan

Figure 2



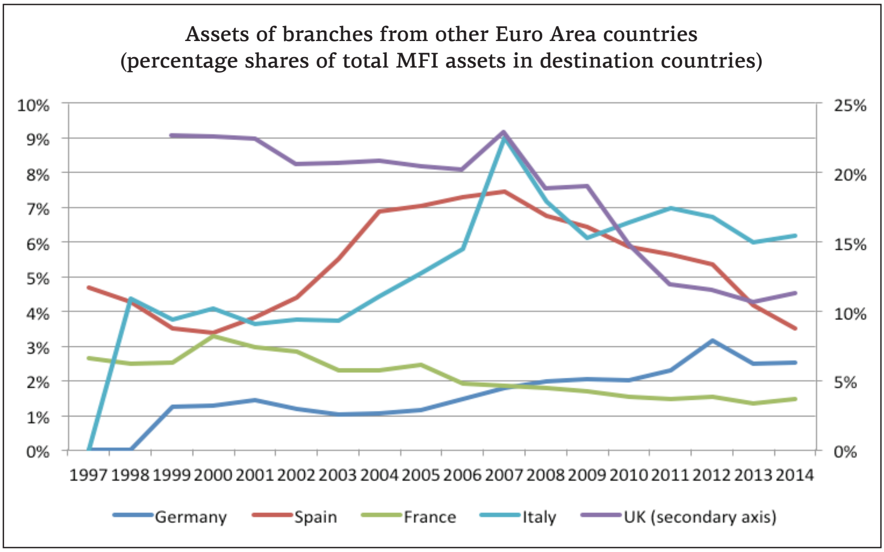

Source: *ECB, Structural Financial Indicators. Total foreign branches in destination countries are defined as the sum of branches of banks from other EU member states and branches of banks from all areas other than the EU.*

Figure 3



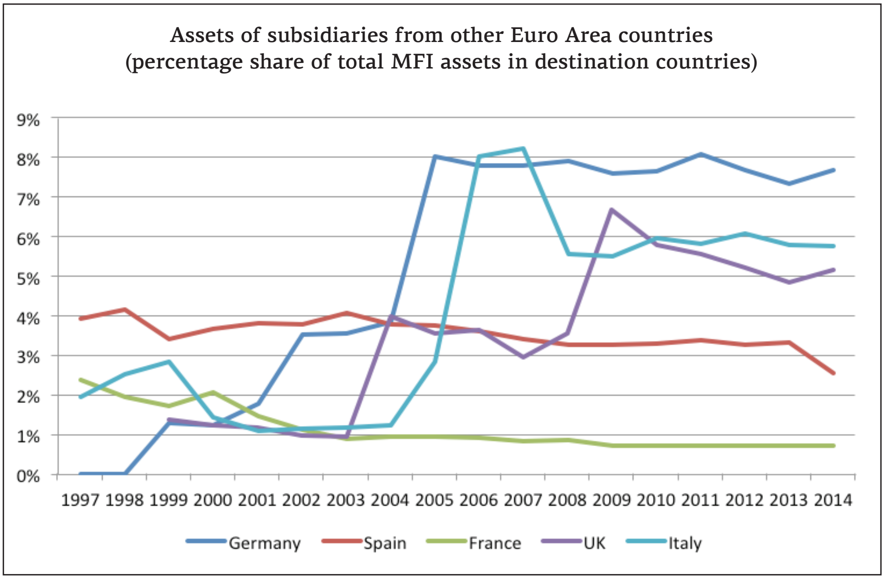

Source: *ECB, Structural Financial Indicators.*

Figure 4




*Source: ECB, Structural Financial Indicators and MFI Balance Sheet. Ratio between total assets of branches from other Euro Area countries and total assets of MFIs in destination countries.*

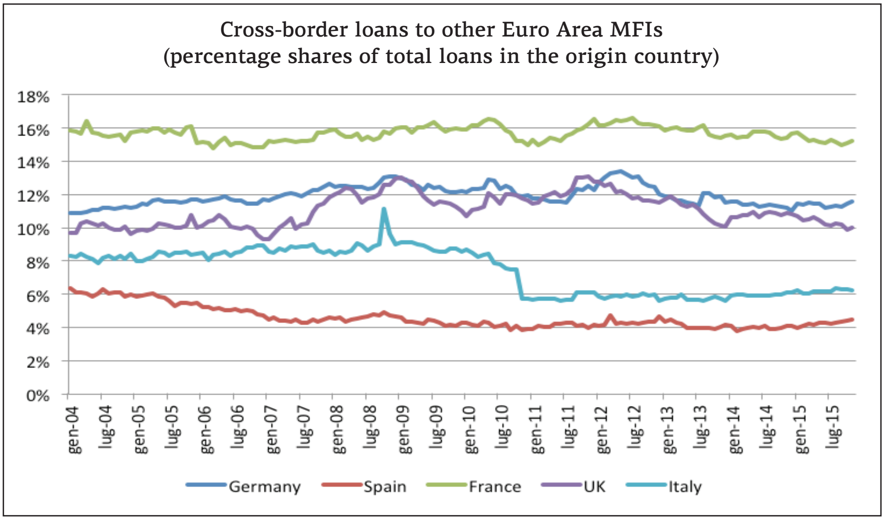
Figure 5




*Source: ECB, Structural Financial Indicators and MFI Balance Sheet. Ratio between total assets of subsidiaries from other Euro Area countries and total assets of MFIs in destination countries.*

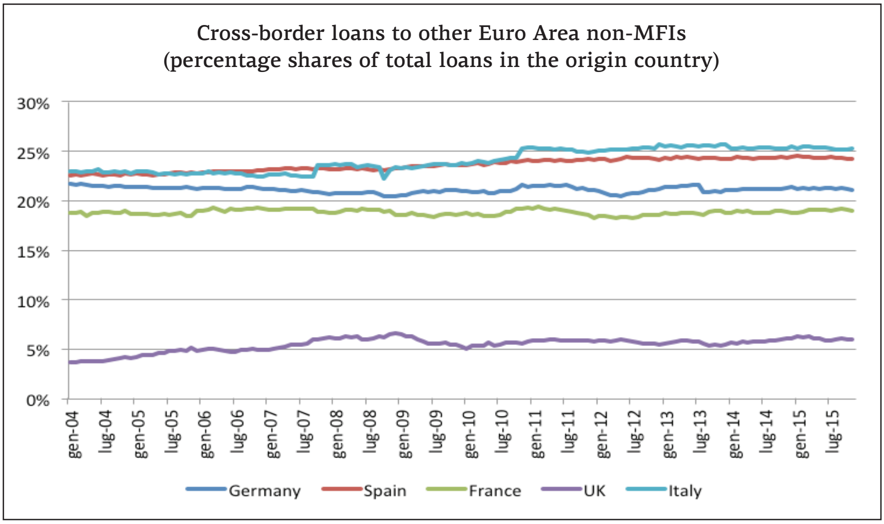
## Cross-border banking

Figure 6



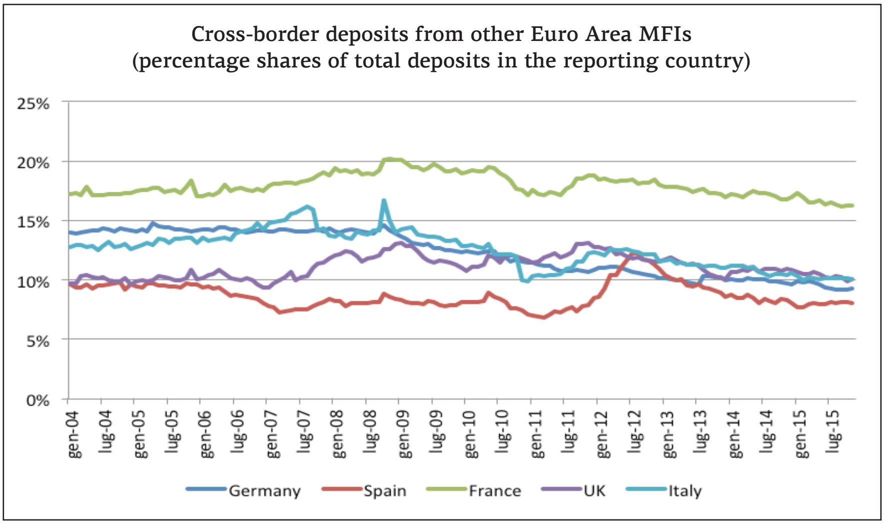

Source: *ECB, Balance Sheet Item. Loans (end of period, outstanding amount) by national MFIs vis-à-vis MFIs resident in the Euro Area (changing composition) as a share of total loans of national MFIs in originating countries.*

Figure 7



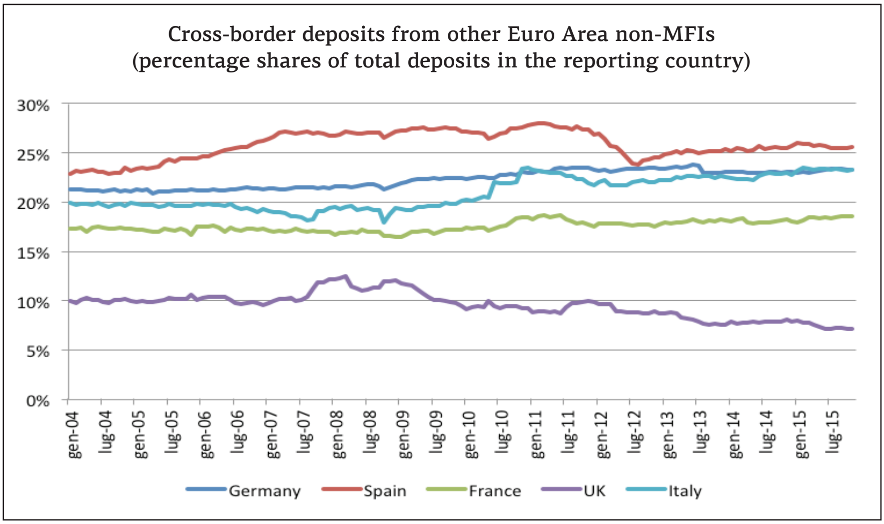

Source: *ECB, Balance Sheet Item. Loans (end of period, outstanding amount) by national MFIs vis-à-vis non-MFIs resident in the Euro Area (changing composition) as a share of total loans of national MFIs in originating countries.*

Figure 8




Source: *ECB, Balance Sheet Item. Deposit liabilities (end of period, outstanding amount) to national MFIs from MFIs resident in the Euro Area (changing composition) as a share of total deposit liabilities received by national MFIs in destination countries.*

Figure 9




Source: *ECB, Balance Sheet Item. Deposit liabilities (end of period, outstanding amount) to national MFIs from non-MFIs resident in the Euro Area (changing composition) as a share of total deposit liabilities received by national MFIs in destination countries.*

# Institutions

by Maria Teresa Trentinaglia

The realization of a European Banking Union accomplishes a twofold task: first of all, it is an essential step towards the completion of the European and Monetary Union Project, and then, it is the response to the disruption of the 2007-2008 financial crises. The Banking Union currently applies to all the 28 Member States, covering approximately 6000 banks. Also countries not belonging to the euro area may become members, although no non-euro area country has joined it yet.

The foundation of the Banking Union relies on the implementation of the Single Rulebook, which includes provisions for capital regulation, deposit protection, and for banks' recovery and resolution.

To implement the Banking Union, three pillars are being gradually introduced: these are setting up a Single Supervision Mechanism (SSM), a Single Resolution Mechanism (SRM), and a European scheme for Deposit Insurance (EDIS). This Section will only focus on the establishment of the SSM throughout the Banking Union, in line with the main subject of this Issue. Further details on the Single Rulebook, as well as on the SRM and EDIS can be found on the European Commission website. Angeloni (2016) in this issue provides an overwhelming description of the foundations of the Banking Union, and specifically focuses on the implementation of the SSM.

### The Single Supervision Mechanism

The SSM bestows the European Central Bank (ECB) as the central prudential supervisor, ultimately responsible of financial stability and supervision related tasks. Also, the ECB is directly in charge of monitoring the largest banks, whereas national institutions are responsible for the remaining ones.

This single supervision scheme was included in the proposal of the European Commission,[6] which conferred specific tasks, in terms of financial stability and banking supervision, to the ECB, thus giving rise to the principle of a Single Supervisory Mechanism. According to this Scheme, officially implemented from January 2014, all the 6000 active banks in the euro area will operate within the supervisory framework defined by the SSM.[7] Still, supervisory duties can be allocated to different authorities, depending on banks' size and significance, as discussed later in this section.

The recital of Article 4.2.1[8] of the 2012 Council Proposal states that the ECB "*will be exclusively competent for key supervisory tasks which are indispensable to detect risks for banks' viability and require them to take the necessary action*".

On March 2013, a political agreement was reached by the European Parliament and Council on the 2012 package. Later in 2013, the European Union formally set forth the creation of the SSM by approving these two regulations: Council Regulation (EU) No. 2014/2013, conferring specific powers and tasks to the ECB, and Regulation (EU) No. 1022/2013 of the European Parliament and Council, establishing a European Supervisory Authority. Article 4 of Council Regulation (EU) No. 1024/2013[9] describes in detail the final specific tasks conferred to the ECB. Among other tasks, the ECB will be in charge of authorizing credit institutions and verify their compliance with existing capital requirements and with provisions on leverage and liquidity. Also, ECB will be in charge of undertaking early intervention measures if banks fail to comply with the above mentioned requirements. Recently, as further described later in this section, a draft regulation, together with a draft guideline for ECB, have undergone a public consultation process.

6. Available at http://ec.europa.eu/finance/general-policy/docs/committees/reform/20120912-com-2012-511_en.pdf.
7. Also banks outside the euro area can partially join the SSM, upon the ECB's final approval.
8. Available at http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52012PC0511&from=EN
9. http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:287:0063:0089:EN:PDF

Although national supervisors will no longer be in charge of financial stability related tasks, they will be assigned with specific and residual tasks that are not contained in the list of tasks to be carried out by the ECB. Also, these national supervisors will perform an integral part of SSM activities by, for instance, preparing and implementing ECB acts, assessing the compliance of new banks' requests, assisting banks from third countries in the establishment of a foreign branch or subsidiary, and so on.

Despite this task allocation, the Article 6 of the Council Regulation (EU) 1024/2013, on "*Cooperation within the SSM*", lays out specific guidelines for implementing cooperation between central and peripheral supervisors. Among others, this article distinguishes between two different sets of banks. Larger and more significant banks, depending on their size, role in the economy, and cross-border activities, will be in fact under the direct supervision of ECB. Less significant institutions will be instead under the supervision of the National Competent Authorities (NCAs). As reported by Angeloni (2016) in this issue, under this single mechanism with a dual direct mandate, 122 banking groups, accounting from 80% of euro banks' assets, are directly supervised by the ECB. The remaining 3500 banks are instead subjected to NCAs.

The establishment of a single supervisory body will also change the way cooperation occurs between home and host banks' supervisors. More specifically, banks from the outside the euro area will be subject to both the ECB supervision, acting as a host authority, and the home regulator supervision. Hence, the ECB will have to closely cooperate with foreign national supervisors. To this purpose, Regulation 1024/2013 claims that the ECB and the competent authorities of other Member States shall agree upon a memorandum that includes cooperation guidelines.[10] As for euro area banks instead, the ECB will act as both the home and host supervisor.

As for the options and discretion that can be exercised by the ECB, the impact assessment carried out by the Supervisory Board, as stressed by Angeloni

10. More specifically, the introductory comment (14) on page 2 claims that "The ECB and the competent authorities of Member States that are not participating Member States ('non-participating Member States') should conclude a memorandum of understanding describing in general terms how they will cooperate with one another in the performance of their supervisory tasks under Union law in relation to the financial institutions referred to in this Regulation. The memorandum of understanding could, inter alia, clarify the consultation relating to decisions of the ECB having effect on subsidiaries or branches established in the nonparticipating
*Member State whose parent undertaking is established in a participating Member State, and the cooperation in emergency situations, including early warning mechanisms in accordance with the procedures set out in relevant Union law. The memorandum should be reviewed on a regular basis."*

(2016) in this issue, originated two new legal instruments, which were subject to a public consultation in November 2015. The first, legally binding instrument is a *Public Consultation on a draft regulation of the European Central Bank on the exercise of options and discretions available in Union law*,[11] that defines the leading principles for those significant credit institutions under the direct supervision of the ECB in terms of own funds, capital requirements, large exposures, and liquidity provisions. The second instrument is a *Public Consultation on a draft ECB Guide on options and discretions available in Union law*,[12] setting out the guidelines for ECB in its exercising the options and discretions, when performing the supervisory tasks within the SSM, as set forth in Regulation (EU) 575/2013 of the European Parliament and of the Council1 (CRR) and in Directive 2013/36/EU of the European Parliament and of the Council (CRD IV). In this way, this guide aims at ensuring a coherent, effective, and transparent approach as well as at assisting the Joint Supervisory Team in assessing individual requests and/or decisions that involve the exercise of option/discretion. More specifically, these guidelines refer to the application of CRR and CRD IV Regulation, thus providing best practices and standards for the evaluation of, among others, own funds, capital requirements, large exposures related issues. As stressed by Angeloni (2016) in this issue, both these instruments are expected to become fully enforced during spring 2016.

11. Available at https://www.bankingsupervision.europa.eu/legalframework/publiccons/pdf/reporting/pub_con_draft_regulation_options_discretions.en.pdf?c1addc53eb2856b5805b1e75a6adb3af
12. Available at https://www.bankingsupervision.europa.eu/legalframework/publiccons/pdf/reporting/pub_con_options_discretions_guide.en.pdf?f21cdb7b53b7fa1265e88c4643d09c10

# A bird eye (re)view of key readings

by Maria Teresa Trentinaglia

This section of the journal indicates a few and briefly commented references that a non-expert reader may want to cover to obtain a first informed and broad view of the theme discussed in the current issue. These references are meant to possibly provide an extensive, though not exhaustive, insight into the main issues of the debate. More detailed and specific references are available in each article published in the current issue.

## On Banking Union

An extensive stream of research investigates the spillovers associated with the establishment of a Banking Union. Berglöf et al. (2012), Goyal et al. (2013) and Goodhart (2011) provide a general account of the issues and the details of an European banking union also considering the intricacies related to macro and micro prudential supervision.

As stressed by Ferrarini (2016) in this issue, Constâncio (2014) and Véron (2015), among others, describe the positive externalities that could emerge in Europe following the implementation of the Banking Union. Among these, the authors report that improved capital and liquidity management, together with a greater and reciprocal trust among banks, may lead to a better functioning of cross-border banking activities. Also, the efficiency gains resulting from the implementation of the Banking Union may lead to a potential consolidation phase of the European banking sector. Last but not least, a Banking Union may also enhance the role played by capital markets as providers of alternative financing instruments.

As stressed by Dell'Ariccia (2016) in this issue recalling the contribution of Fahri and Tirole (2014) and Goyal et al. (2013), other externalities may emerge. For instance, a Banking Union may contribute to the stability of the financial system as a whole, by managing more efficiently financial and banking crisis, by avoiding sovereign bank spirals, and by improving cross border resolution. Banking Unions could also lead to a more efficient cross-border banking by limiting inefficient risk-fencing.

Still, some obstacles may interfere with the capitalization of all the above mentioned positive externalities, as reported by Ferrarini (2016) in this issue. Among other issues, Ferrarini and Chiodini (2012), Ferrarini (2015) and Ferrarini and Recine (2015) identify in the separation of regulation from supervision, resulting from the SSM implementation, a major threat since decentralized, though harmonized, regulation and national law provisions may limit the single supervisory discretion and powers.

The benefits resulting from a deeper cross border market integration may be offset by the consequently rising governance issues. Hence, this trade-off, that will be discussed below in economic terms, is worth considering also from a juridical point of view, as it emerges in Ferrarini (2016) in this issue: first of all, the coordination between the ECB and supervisors not belonging to the Euro Area may give rise to agency problems, and the above mentioned separation of regulation from supervision may further hinder the effectiveness and efficiency of the Banking Union (see Hüttl and Schoenmaker in this issue).

## On the regulatory and governance challenges

Schoenmaker (2011) and Obstfled (2011) investigate the financial trilemma that accounts for the impossibility to balance financial stability, free capital flows, and fragmented regulation and supervision. See also Rodrik (2000) for an early account of related issues in managing financial stability.

Dell'Ariccia and Marquez (2006) consider an international banking system with national regulators and supervisors that also take into account the externalities, abroad, stemming from a higher regulation at home. This framework allows the authors to investigate under which circumstances a Banking Union is more likely to emerge, and they observe that countries with a greater degree of financial integration and similar regulation should have greater incentives to join, since a centralized agency, not interested in the banking system of a specific country, will take into account the above mentioned joint externalities and will pose higher regulatory standards, enhancing the stability of the union financial system, but at the cost of reducing banks' competitiveness against the countries outside the union.

A second challenge is related to the choice of the governance model. Carletti et al. (2015) observe that, under the realistic assumption of different utility functions, central and local supervisors may be subject to a principal agent problem, which could ultimately result in laxer local regulations (see Agarwal et al., 2014, Acharya et al., 2013, and Bolton and Jeanne, 2011). In Colliard (2015), central and local supervisors internalize to different degrees the externalities generated from a given regulation level: if, on one side, central regulation may more properly take into account the spillovers abroad, on the other side, this takes place at the cost of losing the comparative advantage of local supervisors, that may in fact more closely monitor the behaviour of their banking system. Calzolari et al. (2015) show that centralization of supervision does not come with only pros even in very simple and realistic environments.

## On the regulation and supervision of Multinational Banks

The previous section stressed how different governance supervisory structures, with local and central supervisors having more or less diverging interests that institutions fail to coordinate, may give rise to the principle-agent problem. Hence, this challenge is also at the core of the rising literature of Multinational Banks and their regulation and supervision. See Calzolari and Loranth (2003) for an early view of these issues and Houpt (1999) Buch and Golder (2011) and Federal Reserve Board (2002) for first investigations on the relevance of multinational banking.

The role of regulation in determining the shape and representation structure of multinational banks has been investigated by Calzolari and Loranth (2011), and by Focarelli and Pozzolo (2006) which study the choice between foreign subsidiary and branch representation respectively from a theoretical and empirical viewpoint. Loranth and Morrison (2007) investigate the additional issue of deposit insurance and, finally, the risk and consequences of ring fencing are discussed in De Haas et al. (2015).

## References

Acharya, V., Drechsler, I., and Schnabl, P. (2014). A pyrrhic victory? Bank bailouts and sovereign credit risk. The Journal of Finance, 69(6), 2689-2739.

Agarwal, S., Lucca, D., Seru, A., and Trebbi, F. (2012). Inconsistent regulators: Evidence from banking (No. w17736). National Bureau of Economic Research.

Berglöf, E., De Haas, R., and Zettelmeyer, J., (2012), Banking union: the view from emerging Europe, in T. Beck (ed.) "Banking Union for Europe: Risks and Challenges", Centre for Economic Policy Research (CEPR), London.

Bolton, P., and Jeanne, O. (2011). Sovereign default risk and bank fragility in financially integrated economies. IMF Economic Review, 59(2), 162-194.

Buch, C.M., and Golder, S.M., (2001). Foreign versus domestic banks in Germany and the US: a tale of two markets? Journal of Multinational Financial Management, 11, 341–361.

Calzolari, G., and Loranth, G., (2003). On the Regulation of Multinational Banks, Antitrust, Regulation and Competition: Theory and Practice, Lambertini, L. (Ed.), Palgrave Macmillan, pp. 265–290.

Calzolari, G., and Loranth, G., (2011). Regulation of multinational banks: A theoretical inquiry. Journal of Financial Intermediation, 20(2), 178-198.

Calzolari, G. Colliard, J. E., and Loranth, G., (2015). Multinational Banks and Supranational Supervision, working paper.

Carletti, E., Dell'Ariccia, G., and Marquez, R., (2015). Supervisory Incentives in a Banking Union, IMF unpublished manuscript.

Colliard, J. E., (2015). Optimal supervisory architecture and financial integration in a banking union, ECB Working Paper, No. 1786, April.

Constâncio, V. (2014), Banking Union and European integration. In Speech at the OeNB Economics Conference, Vienna (Vol. 12). https://www.ecb.europa.eu/press/key/date/2014/html/sp140512.en.html

D'Hulster, K., (2015). Cross-Border Banking Supervision: Three Papers on International Supervisory Coordination and Ring-Fencing, PhD Thesis, Free University Brussels.

De Haas, R., Korniyenko, Y., Pivovarsky, A., and Tsankova, T., (2015). Taming the Herd? Foreign Banks, the Vienna Initiative and Crisis Transmission, Journal of Financial Intermediation, 24 (3), 325-355.

Faia, E., and Weder, B., (2015). Cross-Border Resolution of Global Banks, SAFE Working Paper No. 88. Available at SSRN: http://ssrn.com/abstract=2572882 or http://dx.doi.org/10.2139/ssrn.2572882

Federal Reserve Board, (2002). Structure and share data for U.S. offices of foreign banks. Available from <http://www.federalreserve.gov/releases/iba/>.

Ferrarini, G., (2015). Single supervision and the governance of banking markets: Will the SSM deliver the expected benefits? European Business Organization Law Review (EBOR), 16, 513 - 537.

Ferrarini, G., and Chiodini, F., (2012). Nationally fragmented supervision over multinational banks as a source of global systemic risk: a critical analysis of recent EU reforms. In: Wymeersch E, Hopt KJ, Ferrarini, G., (eds) Financial regulation: a post crisis analysis. Oxford University Press, 193-231.

Ferrarini, G., and Recine, F., (2015). The single rulebook and the SSM: should the ECB have more say in prudential rule-making? In: Busch, D., and Ferrarini, G., (eds) European Banking Union, Oxford University Press, 118-154.

Focarelli, D., and Pozzolo, A.F., (2006). Where do banks expand abroad? An empirical analysis. The Journal of Business, 76, 563–582.

Goodhart, C. A. (2011). The macro-prudential authority: powers, scope and accountability. OECD Journal, 97.

Goyal, R., Brooks, P. K., Pradhan, M., Tressel, M. T., Dell'Ariccia, M. G., and Pazarbasioglu, C. (2013). A banking union for the Euro area. International Monetary Fund Staff Discussion Notes No. 13/1.

Holthausen, C., and Rønde, T. (2004). Cooperation in international banking supervision, ECB Working Paper No. 316.

Houpt, J.V., (1999). International activities of U.S. banks and in U.S. banking markets. Federal Reserve Bulletin, September, 599–615.

Loranth, G., and Morrison, A., (2007). Deposit insurance, capital regulation and financial contagion in multinational banks. Journal of Business Finance & Accounting,. 34, 917–949.

Obstfeld, M. (2009). Lenders of Last Resort in a Globalized World, CEPR Discussion Paper No. DP7355.

Rodrik, D. (2000). How Far Will International Economic Integration Go?, Journal of Economic Perspectives, 14, 177–186.

Schoenmaker, D., (2011). The Financial Trilemma, Economics Letters, 111, 57-59.

Schoenmaker, D., (2013). Governance of international banking: the financial trilemma, Oxford University Press.

Véron, N., (2015). The economic consequences of Europe's Banking Union. In: Busch, D., Ferrarini, G., (eds) European Banking Union, Oxford University Press, 33-55.

# Leading Articles

# The Single Supervisory Mechanism

by Ignazio Angeloni [13]

**Abstract**

This article describes the actions undertaken by the European Union towards the establishment of a Single Supervisory Mechanism (SSM), with a special focus on its rationale, on its priorities to promote the soundness and stability of the banking system across the Euro Area. This work also discusses the need to implement an harmonised regulatory framework in the estimation of bank risk and in the calibration of prudential requirements.

The global financial crisis triggered financial reforms in all major economies, but nowhere was the change as comprehensive and radical as in the euro area. In 2008, as the crisis reached its peak in the United States, the euro area still had national banking regulatory frameworks (for supervision, regulation and crisis management), with only a mild overlay of harmonisation arrangements provided by European directives and supervisory "committees" without binding powers. At the time of writing (December 2015) a euro area-wide banking supervisor has been in charge for more than a year at the European Central Bank (ECB), with the mandate of ensuring banking soundness, stability and a level playing field in the whole euro area. A single bank resolution authority is about to take responsibility for crisis management, supported by a single resolution fund. There is a le-

13. ECB. I am grateful to Cécile Meys for excellent drafting support. The views expressed here are my own and should not be attributed to the ECB. This article draws largely on a speech held in Dublin on 27 November 2015, available at https://www.bankingsupervision.europa.eu/press/speeches/date/2015/html/se151127.en.html.

gal framework for conducting supervision, the Capital Requirements Regulation (CRR), which is directly applicable to all banks in the euro area without the need for national transposition, as well as EU-wide crisis management rules, the Bank Recovery and Resolution Directive (BRRD). The launch of a European deposit guarantee scheme is still being discussed, but in the meantime the rules guiding the operation of the national schemes have largely been harmonised.

The aim of this article is not to describe all the elements of the European Banking Union. It focuses on its supervisory arm, the Single Supervisory Mechanism (SSM). In particular, it elaborates on the establishment of the SSM and the rationale behind it, as well as its priorities during its first year of operation. Special focus is placed on what the SSM has accomplished in the area of regulatory harmonisation to give rise to an effective level playing field, and on the methods it uses to assess bank risks and calibrate the prudential requirements, namely the Supervisory Review and Evaluation Process (SREP). Finally, the article provides an overview of the priorities of the SSM for the immediate future.

## 1. Banking Union: why and how

The original design of the European monetary union, codified in the Maastricht Treaty, did not foresee that banking supervisory powers would need to be centralised at the Union level. Yet shortly after the creation of the monetary union in 1999, a number of observers and policy-makers warned that the new monetary architecture would be incomplete, and therefore fragile, without at least some coordination of supervisory policies among euro members.[14] The response to this concern was the creation of three fora, the so-called Lamfalussy committees, aimed at fostering supervisory convergence and best practices in the areas of banking, securities markets and non-bank intermediaries. The effectiveness of these committees was severely limited, however, because they had no decision-making powers and their activity was limited to exchanges of views and information among national authorities, thereby issuing non-legally binding guidance.

14. Padoa-Schioppa, T., "EMU and banking supervision", lecture at the London School of Economics, 1999, available at https://www.ecb.europa.eu/press/key/date/1999/html/sp990224.en.html and Bini Smaghi, L. and Gros, D., "Open Issues in European Central Banking", Palgrave Macmillan, 2000.

The euro crisis, from 2010 onwards, dramatically exposed the limitations of the existing arrangements. The experience of banking crises in Ireland, and subsequently in Spain, clearly showed that crises originating in national banking sectors could, in the absence of effective euro area-wide crisis management frameworks, rapidly transmit across countries through a variety of contagion channels, endangering the very confidence in the stability of the euro. A first attempt to strengthen the banking framework was made in 2011 by transforming the three committees into permanent agencies.[15] But that step immediately proved to be insufficient.

The shortcomings of the financial framework were in fact exacerbated by the very existence of the euro, as a result of the strong interdependencies among national economies and banking sectors generated by the single currency. An important manifestation of this was the adverse feedback loop between banks and public finances at the national level; banking sector weaknesses rapidly transmitted to public budgets, via the backstop that states provided to the bank safety nets, and conversely, weak public finances eroded the market confidence in banks, notably due to the large exposure of banks to domestic sovereigns (the so-called "home bias" in bank portfolio holdings). Addressing this shortcoming, and the need for a strong crisis management and prevention framework, were the key arguments for the creation of the Banking Union. The proposal to create an integrated banking framework was first mentioned in the June 2012 report by the President of the European Council, prepared in close collaboration with the European Commission, the Eurogroup and the European Central Bank.[16] At almost the same time, euro area political leaders decided at the summit held at the end of June 2012 to ask the Commission to prepare the blueprint of a single supervisory authority within the ECB.

The Banking Union consists of three pillars. The first pillar is the establishment of a single supervisory authority in the ECB, the SSM, responsible for banking supervision. The main aim of this mechanism is to ensure the safety and soundness of European banks, both individually and as a system, in order to increase financial integration and stability and to ensure consistent super-

15. For more detail, see Angeloni, I. and Beretti, T., "Harmonising banking rules in the Single Supervisory Mechanism", *Law and Economics Yearly Review*, Vol.4, Part 1, October 2015.
16. "Towards a genuine Economic and Monetary Union", available at https://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ec/134069.pdf

vision. As such, the SSM possesses both microprudential and macroprudential powers, the latter being shared with the Member States. In particular, the ECB is responsible for the effective and consistent functioning of the SSM and exercises oversight over the functioning of the system, based on the distribution of responsibilities between the ECB and the national supervisory authorities, as stipulated by the SSM Regulation.[17]

Based on the differentiation that the SSM Regulation makes between banks that are deemed "significant" and those that are deemed "less significant", the ECB directly supervises banks of significant relevance, according to their size, importance for the economy and cross-border activities, as well as any bank which receives assistance directly from the European Stability Mechanism. At present, the SSM directly supervises 122 banking groups, whose balance sheets account for €25 trillion in assets (over 80% of euro area banks' assets). Subject to the oversight of the ECB, the national competent authorities (NCAs) continue to directly supervise less significant institutions, of which there are around 3,500.

The second pillar of the Banking Union is the establishment of the Single Resolution Board (SRB). Its mission is to ensure an orderly resolution of failing banks with minimum impact on the real economy and public finances of the participating Member States. It will also be in charge of the Single Resolution Fund, which is financed by banking sector contributions to ensure that funding support is available during the restructuring of a bank. The SRB has been operational since 1 January 2015 and will be fully operational, with a complete set of resolution powers, as of January 2016.

The third pillar is the establishment of a European Deposit Insurance Scheme, which is yet to be created. On 24 November 2015, the European Commission made a proposal for a European Deposit Insurance Scheme (EDIS). The EDIS would be built on the existing system of national deposit guarantee schemes and introduced gradually. It would start with a re-insurance approach which would last for three years, until 2020. Afterwards, the EDIS would progressively become a mutualised system. Once the EDIS assumes 100% risk, the EDIS will fully insure national DGS. This should be in 2024, at the same time when the Single Resolution Fund and the requirements of the DGS Directive

17. Council Regulation (EU) No 1024/2013 of 15 October 2013 conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions (OJ L 287, 29.10.2013, p. 63).

will be fully phased in.[18] However, it should be underlined that the EDIS is an essential component of the Banking Union, as the establishment of a common safety net for deposit protection will underpin confidence, stabilise the banking system by preventing deposit outflows and contribute to a level playing field. Only the same level of confidence in deposit protection across the Banking Union will lead to a truly single banking framework.

## 2. The setting-up of the SSM (2012-2014)

Following the decision taken in June 2012 to launch the SSM, the European Commission prepared a draft regulation, which was in effect the "charter" of the new supervisory authority. After intensive consultation and revisions in the European Council and the European Parliament, the SSM Regulation was finally adopted in October 2013. The regulation stipulated that the SSM should assume its supervisory powers and responsibilities in November 2014.

At the ECB, the work to set up the SSM lasted 28 months, from July 2012 to October 2014. The preparatory phase was divided, broadly speaking, into three strands of work.

The first strand was the establishment of the SSM governance framework and the methodologies to be used by the SSM. The establishment of a governance framework consisted of the creation of its governing bodies: the Supervisory Board and its steering committee, the Administrative Board of Review, and the Mediation Panel.

The Supervisory Board is the core of the SSM decision-making process. It is composed of a chair and vice-chair, representatives of each NCA, as well as four ECB representatives. The Supervisory Board prepares and approves complete draft supervisory decisions, which are subsequently sent to the Governing Council – the sole final decision-maker of the ECB, according to the EU Treaties – for final approval via a non-objection procedure. Such a procedure means that draft decisions prepared by the Supervisory Board are deemed adopted unless the Governing Council opposes them, normally within a two-week period. In the case of emergencies this period can be shortened.

18. See http://europa.eu/rapid/press-release_IP-15-6152_en.html.

Supervisory Board meetings are prepared by a steering committee, whose participation is limited to eight members of the Supervisory Board and five of the NCA representatives on the Supervisory Board. The national participation follows a rotation scheme. Another important body is the Administrative Board of Review, which carries out internal administrative reviews of the decisions taken by the ECB. It consists of five regular and two alternate members who are academics and former policy-makers with expertise in legal and supervisory matters. Finally, a Mediation Panel was established to resolve differences of views in the event of an objection by the Governing Council to a draft decision prepared by the Supervisory Board. Its members are chosen from among the members of the Governing Council and the Supervisory Board, one per Member State.

In addition to establishing the governance framework, the preparatory work also included drafting internal arrangements for the functioning of the SSM, including the functioning of the governing bodies, the relationship with the "central banking wing" of the ECB and the relationship between the ECB and the national supervisory authorities. These rules are enshrined in the SSM Framework Regulation and the Rules of Procedure of the Supervisory Board of the ECB.[19] In addition, a Supervisory Manual was drafted to guide the supervisory teams in the conduct of day-to-day supervision. The Supervisory Manual is an internal document that describes the processes and methodology for the supervision of credit institutions, as well as the procedures for cooperation within the SSM and with authorities outside the SSM.

The second strand consisted of setting up and organising the supervisory structures and recruiting staff. More than 1,000 new ECB staff members were recruited, representing a mix of nationalities, ages and gender, as well as different professional backgrounds. The majority (around 800) are supervisors, with the rest, including statisticians, lawyers and IT experts, providing support services. The supervisory staff are organised into four large departments, plus a secretariat assisting the Supervisory Board. Two of these departments directly supervise the significant banking groups, the third is responsible for coordinating the NCAs which supervise the less significant institutions, and the fourth

19. The main documents describing the legal framework of the SSM are available on the ECB's website at https://www.bankingsupervision.europa.eu/legalframework/ecblegal/framework/html/index.en.html.

offers technical expertise to the other areas and provides the methodological standards which guarantee the singleness of the supervisory approach and its horizontal consistency. Supervisors from the first two departments, supported by staff from the national supervisory authorities, contribute to specialised teams, known as Joint Supervisory Teams. Each team, headed by a coordinator from the ECB, is responsible for the supervision of a single banking group.

The third strand was the comprehensive assessment, which provided a health check of the banks for which the ECB would become directly responsible. This assessment was conducted for 130 banking groups, covering about 85% of the euro area banking sector in total. It consisted of two components. First, an asset quality review (AQR) that provided a risk-based analysis of the main components of the banks' assets, and second, a stress test which calculated the sensitivity of the banks' balance sheets to two macroeconomic scenarios, a consensus scenario and an adverse scenario. These components were then brought together to produce a measure of the capital required to satisfy certain prudential criteria.

The results of the comprehensive assessment are described in detail in a public report.[20] To mention only a few key numbers, the overall impact of the exercise on the banks' aggregate Common Equity Tier 1 (CET1) capital, i.e. its high-quality capital, was equal to €262.7 billion. The AQR resulted in an upward adjustment in the estimated amount of non-performing exposures in the euro area as a whole of €136 billion, or 18%. Overall, relative to the pre-set minimum benchmarks (capital ratios equal to 8.5% for the AQR and base scenario of the stress test, and 5.5% for the adverse scenario of the stress test) a total shortfall of €24.6 billion was identified across 25 banks. As several banks had already covered the shortfalls before the end of the exercise, in the end 13 banks were asked to additionally replenish their capital by a total amount of €9.5 billion.

By providing a wealth of information on all significant banks, not just those whose balance sheets needed strengthening, the assessment provided a stimulus and a starting point for further supervisory actions that were undertaken during the SSM's first year of operation.

20. The report is available at https://www.bankingsupervision.europa.eu/banking/comprehensive/html/index.en.html. For a summary, see Angeloni, I., "Countdown to the start of the SSM", speech held in Madrid on 31 October 2014, available at https://www.bankingsupervision.europa.eu/press/speeches/date/2014/html/se141031.en.html.

## 3. The first year of operation (2014-2015)

Following the comprehensive assessment, one of first priorities was to ensure the recapitalisation of the banks that were identified as having a shortfall. More broadly, the comprehensive assessment demonstrated that there were major differences in the quantity and quality of capital across all supervised banks, not systemically related to the nature or extent of the underlying risks. This led to the launch an important work stream, described in more detail in Section 3.1, whose aim was to harmonise the options and discretions contained in the regulation.

Another priority during 2015 was to ensure that banks have proper management control, as only then can the risk management of a bank be effective. With a focus on banks' management and risk management framework, the SSM assessed banks' business models, profitability drivers, governance, risk-taking behaviour, capital adequacy and credit risk.

A further important strand of work has aimed at developing common methodologies. These methodologies are included in the Supervisory Manual and ensure that the same procedures are followed when performing a supervisory assessment. The methodologies build on previous experience and best practices, treating all banks consistently while taking into account differences in business models. These methodologies cover all supervisory areas, ranging from remuneration practices to an assessment of the issuance of a Tier 2 instrument by a bank. Section 3.2 describes in more detail the common methodology developed for the SREP.

### *3.1 Harmonising the legal framework*

As mentioned above, an important finding of the comprehensive assessment was the existence of unjustified major discrepancies across the supervised banks in terms of capital requirements. Many of these discrepancies, which impede fair competition and the existence of a level playing field, are based on the manner in which the EU's legal framework – composed of the Capital Requirements Directive (CRD IV) and the Capital Requirements Regulation (CRR) – is applied across countries. Discrepancies originate partly from the transposition of the Directive into national law and partly from diverging application of the many flexible provisions (the options and discretions) contained in the legislation. “Option” means that there are alternative ways to apply a given provision and “discretion” means that the possibility exists to apply or not to apply a given provision. Before the SSM, those decisions were made by the national authorities. As a new competent authority, the SSM now needs a single coherent framework on how to apply those provisions.

The Supervisory Board identified around 120 options and discretions which can be exercised by the ECB, for which a single approach has been agreed. That package covers important areas such as capital, liquidity, large exposure requirements for cross-border groups, the phasing-out of capital components not included in the Basel framework and the prudential treatment of insurance participations. In conducting this work, the guiding principle was to promote harmonisation with prudence and with the appropriate degree of gradualism considering the legitimate expectations generated by previous treatment by the national authorities. An impact assessment was conducted to measure the likely effect of the policy.

This gave rise to two legal instruments: a regulation (a legally binding instrument) laying down the legal obligations for the significant banks related to the prudential treatment of options and discretions that are of a general nature, and a guide (a non-legally binding instrument) that provides guidance to supervisory teams on how to treat individual cases. The guide contains case-by-case provisions, whose application is bank-specific. Both documents were submitted to a public consultation and are expected to enter into force in spring 2016.

For some other options and discretions, which are exercised directly by Member States and not by supervisory authorities, adjustments in national legislation will be necessary. This follow-up work is scheduled to start after the current work is concluded in 2016.

### *3.2 Setting the prudential requirements*

A second important strand of work has been the development of an SSM-specific methodology for assessing and measuring the risks relevant to each bank, and for setting the prudential requirements. In 2015 the SSM conducted this process – the SREP – using a unified methodology for the first time. This methodology combines quantitative and qualitative elements and treats all banks consistently, while accounting for different business models.

The SREP methodology of the SSM follows banks' internal strategies and decision-making processes and is structured along four components: business model assessment, internal governance and risk management, risks to capital, and risks to liquidity and funding. Each component is assessed both quantitatively and qualitatively. The quantitative assessment is based on a broad range of data covering, among other things, own funds, financial reporting, large exposures, and credit and operational risk. The data, which are provided by the banks on the basis of harmonised standards, give rise to numerical risk scores.

The qualitative component involves supervisory judgements regarding factors such as risk controls, risk culture and governance. It is important to form an articulate opinion on how these risks develop and on what impact they may have within each specific institution. This analysis requires internal knowledge and relies to some extent on the subjective judgement and experience of the supervisor. Within the SSM, the Joint Supervisory Teams, possessing this knowledge and experience, are responsible for providing the qualitative input. The judgement cannot be mechanical, but it can and should be reasoned.

In order to ensure consistency across banks, certain principles are followed. One of these is "constrained judgement", meaning that the subjective element can only influence the quantitative result to a certain extent. Another key principle is proportionality, which means that the level of supervisory engagement (i.e. its frequency or intensity) should be linked to the complexity and systemic relevance of the bank's activities.

Following the 2015 SREP, the Pillar 2 requirements for the major institutions directly supervised by the ECB increased on average by 30 basis points relative to the previous year. Including the phasing in of the macroprudential buffers, the average increase totals around 50 basis points. This moderate increase is adequate from both a micro and a macroprudential perspective, allowing a gradual transition towards the "fully loaded" Basel III requirements – that is, the requirements set by the Basel III framework after the completion of the transitional phase.

### *3.3 Communication issues*

One aspect deserving attention is the communication strategy surrounding the SREP. Different considerations come into play here. On the one hand, enhancing public information about supervised entities, part of which is of a proprietary nature, can have undesired effects. One line of thought maintains that in order to preserve an open and productive dialogue between the supervisory authority and the bank, all information exchanged should remain confidential. The possibility of proprietary information being released, especially to competitors, may discourage openness and deprive the supervisor of critical information. In some cases, supervisory judgements placed in the public domain without proper caution may increase the uncertainty surrounding individual (weaker) institutions, with risks to financial stability.

These arguments carry weight but must be compared to the advantages of transparent communication. Ultimately, the SREP aims to ensure that banks have adequate prudential safeguards in relation to their level of risk. Investors' decisions need to be supported by adequate information on the returns and risks involved. Some knowledge of supervisory requirements can help in this respect. First, the SREP provides information on future capital plans, which in turn influence future returns on capital instruments. Second, it acts as a benchmark, indicating whether a bank is judged to be "safe and sound" by the supervisor. This helps with the calculation of risk. Therefore, an appropriate degree of disclosure may enhance market confidence and encourage investment decisions, actually reducing uncertainty. This was, in fact, the rationale behind the very high degree of transparency that characterised the ECB's comprehensive assessment in 2014.

When thinking about communication regarding the SREP, it is important to distinguish between the transparency of the process and the disclosure of the outcomes. The former relates to public knowledge of the methodology employed and the latter relates to public communication of the results. A transparent process helps to ensure that results are properly internalised by supervised banks and prevents misunderstandings. In the SSM, the Joint Supervisory Teams, which engage in a continuous dialogue with the banks, are the appropriate channel to convey this type of information. It should remain clear at all times that the SREP is not a mechanical process: a degree of reasoned discretion must always be preserved. Nevertheless, the dialogue between the Joint Supervisory Team and the bank limits the risk of "unpleasant surprises" at the end of the process, which facilitates proper public disclosure of the outcome. Such disclosure should, in any event, always be agreeable to the bank concerned.

Recent international experience is informative in this regard. While somewhat diverse, supervisory practices have evolved towards more transparency in recent years. The Comprehensive Capital Analysis and Review (CCAR) in the

United States and the SREP processes in some non-euro area EU countries provide examples of this kind of development.

In the United States, the Federal Reserve publishes its annual assessment of the capital planning processes and capital adequacy of the largest bank holding companies. It does not publish its stress test methodology in order to avoid herding behaviour in risk model building and prevent activities being shifted to areas not captured by the stress testing models, but it does disclose its qualitative assessment of banks' capital plans.

In Europe, the CRD IV requires supervisors to publish the general criteria and methodologies used in the SREP. The Prudential Regulation Authority (PRA) in the United Kingdom publishes the methodology for its "Pillar 2A" capital requirements. The Danish FSA also publishes methodologies, including the benchmarks for assessing risk in several areas. Thus far, the SSM has provided a broad description of the common methodology for the SREP in its Guide to Banking Supervision. As the SREP methodology becomes more established, steps towards greater methodological transparency will be possible.

The detail in the disclosure of the outcome differs across Member States. As regards Pillar 2 requirements, under the CRD IV the decision to publish is left to the supervisory authorities. The Danish FSA publishes SREP capital add-ons for all banks, plus summaries of on-site supervisory examinations. Sweden's Finansinspektionen has published plans for a detailed supervisory methodology and discloses SREP capital add-ons. A general tendency towards greater transparency is also underway in this area. The United Kingdom has adopted a practice of allowing capital requirements to be disclosed after the competent authority has been notified. Following the introduction of this practice, a number of firms have voluntarily disclosed their capital requirements after notifying the PRA.

## 4. Conclusion: the priorities ahead

Business models and profitability drivers will continue to be key priority in the foreseeable future. In 2015 business model classification tools for conducting peer group analysis were developed and a survey of banks' profitability forecasts was conducted. Building on this work, the drivers of banks' profitability at firm level and across business models will be reviewed in depth in 2016. One area of interest is how banks are coping with the protracted low interest rate environment and incoming new regulations.

A further priority is credit risk, because of the persistently high level of non-performing loans. In this context, a taskforce has been established to develop a consistent approach to banks with high levels of non-performing loans. High levels of non-performing loans dampen banks' ability to lend and fuel concerns regarding forbearance and under-provisioning. The SSM will also conduct work on excessive concentrations of risk, as well as on exposure to sovereigns and to commercial and residential real estate.

A major multi-year project presently ongoing aims at fostering comparability and quality of internal models. Given the large number and wide diversity of internal models and specific expertise required, this is a challenging task. A targeted review of internal models will be carried out to ensure that they comply with regulatory standards and in order to foster consistency across institutions.

Another important area is capital adequacy. Of particular relevance in this regard is banks' internal capital adequacy assessment process (ICAAP), i.e. their internal processes for assessing capital adequacy, and their internal stress testing capabilities. With a view to the implementation of the new "gone concern" loss-absorbing requirements,[21] banks' preparations for resolution scenarios will be scrutinised, as will the measures that they are undertaking in order to comply with those requirements.

Finally, banks' governance and risk appetite will remain a priority. The financial crisis clearly showed that banks' governing boards often lacked all the information needed to make good business decisions. In 2015 the organisation and composition of banks' management have been reviewed, focusing on the profiles of board members so as to ensure that the relevant expertise is available at board level. A task force on behaviour and culture has been created. Building on this information, scrutiny of this key aspect of banks' corporate governance will be enhanced.

21. These are the total loss-absorbing capital (TLAC) requirements, for which guidelines have recently been issued by the Financial Stability Board and its European counterparts, and the minimum requirement for own funds and eligible liabilities (MREL).

# Cross-border Banking and the SSM

by Guido Ferrarini[22]

**Abstract**

In this article, I try to assess the likely impact of the Single Supervisory Mechanism (SSM) on cross-border banking in Europe. Firstly, I analyse the limits of the SSM, which is grounded on supervisory cooperation even though the ECB has powers of direction and substitution with respect to national supervisors. Indeed, the SSM represents a system of semi-strong centralisation, which may give rise to agency problems, particularly in the relationships with supervisors of non-euro area countries. Secondly, I examine the decoupling of supervision from regulation, which derives from the fact that the ECB lacks sufficient regulatory powers when acting as a supervisor of the Eurozone banking systems. The separation of regulation – which is harmonised at EU level – and supervision – which is centralised in the euro area – may create problems to the extent that the single supervisor cannot issue a prudential rulebook for the Eurozone but is subject to EU prudential regulation and national law provisions, often unduly limiting its supervisory discretion.

## 1. Introduction

Economists predict three types of positive effects of the Banking Union (Constâncio 2014; Véron 2015). Firstly, cross-border banking groups should function better, as they will be able to optimise their internal management of capital and li-

22. University of Genoa, University of Nijmegen, and European Corporate Governance Institute (ECGI)

quidity and reduce compliance costs. Unified supervision should also create greater trust among banks. Secondly, consolidation should occur in the European banking sector. Indeed, the weak profitability and excess capacity of this sector suggest that efficiency gains could derive from more consolidation. This and the repair of bank financial accounts should set the stage for a new phase of mergers and acquisitions. Thirdly, the role of capital markets should be enhanced. Corporate bond financing is becoming an important alternative to bank financing also in Europe. The shift towards more capital market-based intermediation should go forward, also considering regulatory incentives for banks to hold liquid instruments rather than loans. The European Commission pursues a strategy in this direction through the launch of a Capital Markets Union project (European Commission 2015).

In this article, I try to understand how likely it is that these predictions will be confirmed by future developments of the Banking Union. In particular, I assess the likely impact of the Single Supervisory Mechanism (SSM) on cross-border banking in the Eurozone by analysing possible shortcomings which may hinder the materialization of the Banking Union's positive effects highlighted above (Ferrarini and Chiodini, 2012 review the regulatory framework prior to the SSM). Firstly, I analyse the organization of the SSM, which is still grounded on supervisory cooperation even though the ECB has powers of direction and substitution with respect to national supervisors. Secondly, I examine the decoupling of supervision from regulation, which derives from the fact that the ECB lacks sufficient regulatory powers when acting as a supervisor of the Eurozone banking systems. The separation of regulation – which is harmonised at EU level – and supervision – which is centralised in the euro area – may create problems to the extent that the single supervisor cannot create a prudential rulebook for the Eurozone, but is subject to EU prudential regulation and national law provisions, often unduly limiting its supervisory discretion (Ferrarini 2015 and Ferrarini and Recine 2015 treat these topics more extensively).

## 2. The SSM in a Nutshell

The Single Supervisory Mechanism (SSM) is the first pillar of the European Banking Union, consisting of the European Central Bank (ECB) and the national supervisory authorities of the euro area. The tasks conferred on the ECB include the following: to authorise credit institutions and withdraw their authorisations; to assess applications for the acquisition and disposal of qualifying holdings in credit institutions; to ensure compliance with prudential requirements on credit institutions (in areas like own funds requirements, large exposure limits, liquidity, leverage, etc.) and with requirements to have in place robust governance arrangements; to carry out supervisory reviews.

The ECB is provided with the same powers as those available to competent supervisory authorities under EU law. To the extent necessary to carry out its tasks the ECB may, by way of instructions, require national authorities to make use of their powers where the SSM Regulation does not confer such powers on the ECB. In addition, the ECB is vested with broad investigatory powers which include requiring credit institutions and other legal or natural persons to provide information; conducting all necessary investigation of any relevant person; and conducting all necessary on-site inspections at the business premises of the relevant legal persons (after being authorised by a judicial authority if national law so requires).

Moreover, the ECB is vested with specific supervisory powers for the exercise of which it is assisted by national authorities, in the areas of authorisation of credit institutions and assessment of acquisitions of qualifying holdings. Furthermore, the ECB is empowered to require institutions to hold funds in excess of capital requirements; to reinforce arrangements, processes, mechanisms and strategies; to present a plan to restore compliance with supervisory requirements; to apply a specific provisioning policy; to restrict or limit the business, operations or network of institutions; to limit variable remuneration; and to use net profits to strengthen own funds. The ECB is also provided with a sanctioning power, but only where institutions breach a requirement under directly applicable acts of Union law (and only with regard to legal persons). In other cases, the ECB – where necessary for carrying out the tasks conferred upon it by the Regulation – may require national competent authorities to open proceedings with a view to taking action in order to ensure that appropriate sanctions are imposed in accordance with relevant EU law and national legislation.

The SSM covers - either directly or indirectly - all credit institutions established in participating countries. The criteria under which banks fall under the direct supervision of the ECB include size, importance for the economy of the

EU or of a Member State, and significance of cross-border activities. In practice, 122 banking groups (possibly 130 next year) are subject to direct supervision, with balance sheets accounting for €25 trillion euro in assets (Nouy 2015).

The SSM is largely grounded on delegation to national authorities and supervisory cooperation. Indeed, the ECB performs its supervisory tasks within the SSM, which is also comprised of national competent authorities. Both the ECB and these authorities are subject to a duty of cooperation and a duty to exchange information. However, this model is not simply one of enhanced cooperation between supervisors, given that the ECB has responsibility for the system, together with powers of direction and substitution with respect to national supervisors.

An architecture based on cooperation and delegation under the direction and control of a central authority is to some extent unavoidable, given that more than 6000 banks are based in the euro area, of which the top 150 groups cover 80 per cent of banking assets. The largest institutions (and the ones to be identified according to special criteria) are under direct ECB supervision. However, national authorities provide the latter with all information necessary and assist it in the preparation and implementation of acts relating to its supervisory tasks. The remaining institutions are supervised by the national authorities and only indirectly by the ECB. Reference to national authorities was dictated by resource constraints and political expediency, but also by the existence in the Eurozone of different legal, accounting and taxation frameworks, as well as of many languages and business contexts. Full centralisation was not an option, even with regard to cross-border banks, given that supervisory resources are mainly national and firm proximity is important in supervision. However, decentralisation should not reduce the role of the single supervisor to the mere validation of decisions taken locally, given the need for supervisory consistency with respect to the entire banking system of the euro area.

## 3. Semi-strong Supervisory Centralisation

Whether this complex model of delegation and cooperation will work in practice is early to assess. Nevertheless, I would argue that the SSM, despite being a remarkable step towards a single supervisor model, still represents a semi-strong form of centralisation for it still relies, to some extent, on supervisory cooperation. Cooperation mechanisms tend to fail in case of a crisis, as supervisors pursue their national interest rather than the European one, while delegation allows the delegated authority to exploit its informational advantage. Cooperation and information duties are insufficient to counter such difficulties, for the national supervisors' incentives often go in the opposite direction, particularly when facing a crisis. Moreover, the ECB's direction and substitution powers may be impaired by the non-cooperation of local supervisors, including non-compliance with their information duties. In addition, enforcement of national legislation against credit institutions may be difficult to the extent that the ECB lacks *locus standi* before the national courts. While recourse to the European Court of Justice may be too slow for effective enforcement, the alternative of the ECB asking national supervisors to bring the relevant claims in national courts may encounter procedural difficulties, in addition to creating agency problems in the relationship between the central and the delegated supervisor.

Similar comments also apply to the regime included in the SSM Regulation with respect to administrative sanctions. From an organisational perspective, it would be difficult for the ECB to run proceedings for the imposition of administrative sanctions under the different domestic laws that may be applicable in individual cases. From a legal perspective, the ECB's sanctioning power under national law and its *locus standi* in national courts would appear to be problematic. This explains the recourse in the Regulation to two different sanctioning regimes, depending on whether the relevant breaches refer to EU law or to national law. However, the limits of the choice made are obvious, for the delegation to national authorities carries agency problems that might impair the effectiveness of enforcement, particularly considering that these authorities would run the relevant proceedings under their own responsibility and would be free not to impose sanctions as a result.

An additional and difficult question is whether the national authorities keep their power of initiative in relation to sanctioning proceedings, so as to be able to impose sanctions even if not required by the ECB. Art. 18(5) does not exclude this possibility, which would, however, run against the logic of the SSM and the responsibilities of the ECB, at least in the case of banks that are directly supervised by the latter.

## 4. Cooperation with Other Authorities

The SSM focus on the Eurozone determines the need for the ECB to cooperate with other authorities in the EU. These are, first of all, the European Supervisory Authorities (ESAs) forming the European System of Financial Supervisors (ESFS), including the European Banking Authority (EBA). The amended EBA Regulation effects 'a rebalancing' of the position of EBA vis-à-vis the ECB, strengthening EBA in an effort to avoid 'centrifugal forces'. Firstly, the Regulation establishing EBA has been modified to ensure that EBA can carry out its tasks in relation to the ECB by clarifying that the notion of 'competent authorities' also includes the latter. Secondly, the amended Regulation confirms EBA's powers to harmonise technical standards for regulation and supervision. Thirdly, EBA's governance has been changed in order to effect a rebalancing of powers between member States. An independent panel will make proposals to the Supervisory Board, whose decisions will be taken by a majority including a simple majority of its members from participating member States and a simple majority of its members from non-participating member States. The ECB shall continue to participate in EBA's Board of Supervisors through a non-voting representative. It also participates in colleges of supervisors without prejudice to the involvement of national competent authorities of participating Member States in these colleges.

With reference to the Member States not participating in the single currency, the ECB and the competent authorities of those Member States may enter into cooperation through a memorandum of understanding that outlines the terms for their collaboration in carrying out their respective supervisory duties under Union law (the 'close cooperation' regime of Art. 7 SSMR).

As a result, the SSM does not substantially modify the general framework of EU banking supervision, save for what provided with respect to EBA's position vis-à-vis the ECB. Indeed, the introduction of the SSM does not affect the models of enhanced cooperation and lead supervision on which the EU general framework is based. These models still characterise bank supervision in Europe, while a model of semi-strong centralisation is in place for Eurozone countries. Of course, this picture could change substantially if a sufficient number of non-euro countries adhere to the system of 'close cooperation' foreseen by the Regulation. By opting into close cooperation with the ECB, a non-euro country shall become a participating Member State and will be subject to a regime similar to that applicable to euro countries. Assuming that the great majority of EU Member States participate in the SSM, as a result of many non-euro countries opting in, the problems of cooperation with EBA and the competent authorities of non-participating countries would be substantially reduced.

However, the incentives for a non-euro country to participate in the Banking Union are unclear. No doubt, extending common supervision to all EU countries would work in the interest of systemic stability, as argued throughout this paper. However, the theoretical soundness of this argument will not necessarily determine its acceptance in practice. Indeed, by participating in the SSM, a Member State will give up most of its supervisory powers in favour of the ECB. The incentives for politicians to proceed along a similar route are doubtful. While the loss of sovereignty is clearly visible, the gains in terms of systemic stability and financial integration would be difficult to explain to the average voter. Moreover, these benefits will depend on a sufficient number of non-euro countries opting in. If this number is low, the incentive to participate will be modest, pointing to a collective action problem which is not easily solved. Furthermore, non-participating Member States shall enjoy some voting power within EBA's Supervisory Board, which might create a sufficient incentive not to join the SSM. Therefore, recent efforts to rebalance the voting power within EBA's Supervisory Board – which are officially justified by reference to the need to protect the financial interests of the Union – paradoxically reduce the incentives for non-euro countries to participate in the SSM.

## 5. The Single Rulebook and the SSM

The new CRD/CRR package brought about two important innovations for EU prudential rule-making. Firstly, despite being rather detailed, the CRR and CRD foresee that further provisions will be adopted at Level 2 through regulatory and implementing technical standards. Secondly, a large part of the new prudential requirements have, for the first time, been enacted through a EU regulation (CRR), i.e., an instrument that is directly applicable in the Member States. Moreover, the whole package was inspired by the principle of maximum harmonisation, so as to avoid uneven implementation by Member States, which has been considered as a key ingredient in the run-up to the crisis.

However, the EU regulatory arena today sees many players acting under often unclear and overlapping mandates. In addition, reforms of the EU regulatory framework have produced several layers of rules, with no clear accountability for the final output. At Level 1, the EU institutions set out the main rules. These rules were originally conceived as high-level principles, but today they tend to be very detailed, mainly pursuing a maximum harmonisation approach. At Level 2, the Commission and EBA make rules on the basis of mandates, which are set out in Level 1 directives and regulations and provide for the issuance of delegated acts and regulatory technical standards under 'comitology' procedures. When directives are adopted at either level, Member States provide for their implementation through national rules which are adopted by parliaments, governments or regulators. At Level 3, EBA issues guidelines and recommendations specifying the rules set at the other two levels.

Art. 4(3), first paragraph, of the SSM Regulation states that, for the purpose of carrying out its supervisory tasks, the ECB shall apply all relevant Union law and, where Union law is composed of directives, the national legislation transposing them. Where the relevant Union law is composed of regulations and those regulations explicitly grant options to Member States, the ECB shall also apply the national legislation providing for those options. However, as specified by Recital 34 of the SSM Regulation, "such options should be construed as excluding options available only to competent or designated authorities". The question therefore arises (and is briefly analysed in the following section) whether similar options should be exercised by the national competent authorities or by the ECB, at least with respect to institutions directly supervised by the same.

The ECB has only limited rule-making powers as to prudential supervision. According to Art. 4(3), second paragraph, the ECB shall adopt guidelines and recommendations, and take decisions subject to and in compliance with the relevant Union law. It shall in particular be subject to binding regulatory and implementing technical standards developed by EBA and adopted by the Commission in accordance with the EBA Regulation, and to that Regulation's provisions on the European supervisory handbook developed by EBA. The ECB may also adopt regulations, but only to the extent necessary to organise or specify the arrangements for carrying out the tasks conferred on it by the SSM

Regulation. Before adopting a regulation, the ECB shall conduct open public consultations and analyse the potential related costs and benefits. In addition, the ECB should 'exercise powers to adopt regulations in accordance with Art. 132 of the Treaty on the Functioning of the European Union (TFEU) and in compliance with Union acts adopted by the Commission on the basis of drafts developed by EBA and subject to Art. 16 of Regulation (EU) No 1093/2010'.

## 6. The consultation on O&Ds

Interesting developments are taking place with the ECB consultation on the options and discretions (O&Ds) which are granted to supervisors by the Capital Requirements Regulation (CRR) and by the Commission Delegated Regulation on the Liquidity Coverage Ratio (LCR Delegated Act). Some of these O&Ds are applied in a general manner, while some are applied following a case-by-case approach. The Explanatory Memorandum clarifies that "for general O&Ds, the decision of the supervisor applies to all banks, whereas for case-by-case O&Ds supervisory decisions are bank specific" (ECB 2015a). Accordingly, the ECB is consulting on two related documents: a draft ECB regulation on the exercise of 35 general O&Ds (ECB 2015b) and a draft ECB Guide on the exercise of 82 case-by-case O&Ds (ECB 2015c).

The ECB's power to issue guidelines for specific O&Ds derives from Article 4(3), second paragraph, of the SSM Regulation, providing that the ECB can adopt guidelines for the purpose of carrying out its tasks. The power to issue a regulation on general O&Ds is not specifically mentioned in the SSM Regulation, which on the contrary states that the ECB can adopt regulations only to the extent necessary to organise or specify the arrangements for carrying out the tasks conferred on it by the Regulation.

However, the ECB seems to rely on Article 9 (1) of the SSM Regulation stating in its first paragraph that, for the purpose of carrying out its supervisory tasks, the ECB shall be considered, as appropriate, the competent authority or the designated authority in the participating member States as established by the relevant Union law. Art. 9(1), second paragraph, further specifies: "For the same exclusive purpose, the ECB shall have all the powers and obligations set out in this Regulation. It shall also have all the powers and obligations, which competent and designated authorities shall have under the relevant Union law, unless otherwise provided for by this Regulation. In particular, the ECB shall have the powers listed in sections 1 and 2 of this Chapter." These are the investigatory powers and other specific supervisory powers.

Indeed, the ECB Explanatory Memorandum to the current Consultation indicates the legal basis for the draft ECB Regulation and the draft ECB Guide as follows: "Since becoming the competent authority for the significant institutions within the euro area on 4 November 2014, the ECB has had the power to determine the most appropriate way to exercise the supervisory O&Ds for the institutions under its direct supervision. Recital 2 of the SSM Regulation states that it is essential to intensify the integration of banking supervision in order to bolster the Union, restore financial stability and lay the basis for economic recovery ... In addition, the ECB has the mandate to ensure the consistent functioning of the SSM (Article 6 of the SSM Regulation)".

The Preamble of the draft ECB Regulation further specifies that the O&Ds granted by a regulation for which the ECB should apply the national implementing legislation (Article 4 (1) SSM Regulation) "do not include those available only to competent authorities, which the ECB is solely competent to exercise and should exercise as appropriate" (Recital 7). Furthermore, "in exercising options and discretions, the ECB, as the competent authority, should take account of the general principles of Union law, in particular equal treatment, proportionality and the legitimate expectations of supervised credit institutions" (Recital 8).

However, the provisions of the SSM Regulation cited in the Preamble do not specifically refer to a regulatory power of the ECB for the implementation of general O&Ds. In particular, Article 4 (3) constrains the ECB regulatory power to organizational matters, so that the power to regulate prudential matters is in principle excluded. Moreover, Article 9 (1) clearly refers to supervisory powers, which are different from rule-making ones (although the policies relating to prudential supervision could include rule-making, as argued in the following section). Presumably in order to overcome similar difficulties, the Explanatory Memorandum makes recourse to a functional reading of the SSM Regulation, arguing that the ECB regulatory power is needed for the proper functioning of the SSM. Which is true on policy grounds, as I explain below, but is a thin legal basis for the ECB's regulatory power.

## 7. A Single Rulebook for the Eurozone?

There is clearly an asymmetry between the ECB's monetary and supervisory roles. On the one hand, the ECB is a fully fledged EU institution with exclusive competence regarding monetary policy and strong regulatory powers in its area of competence. On the other hand, it is a prudential supervisor replacing national authorities on the basis of a delegation by EU institutions. As a banking supervisor, the ECB enjoys limited regulatory powers, being subject to both Union law and national law. Moreover, the ECB is subject to the powers of EBA as to dispute settlement, emergency decisions and breach of EU law. In addition, it is subject to the procedures provided for by the CRR when implementing macro-prudential measures. In some cases, the ECB has an even more limited status than national authorities, lacking, e.g., voting rights within EBA's Board of Supervisors.

However, a proper reading of the Treaty would already allow the delegation of regulatory powers to the ECB in its role as a prudential supervisor. Indeed, Art. 127(6) of the TFEU states that specific tasks may be conferred upon the ECB 'concerning policies relating to the prudential supervision of credit institutions and other financial institutions with the exception of insurance undertakings'. The notion of 'policies' could no doubt include some rule-making powers in the areas of prudential supervision that the Council could very well specify in its mandate to the ECB grounding the SSM.

The reasons supporting the current regulatory approach, including a single supervisor for the euro area without rule-making powers, are easily understood. Promoting the single market whilst assuring a level playing field requires a single set of rules across the EU. If the ECB became the rule-setter for all EU banks, non-euro Member States would clearly be concerned that bank regulation was biased to Eurozone banks. Nonetheless, the present decoupling of regulation (which is made at EU level) from supervision (which is performed at either national or Eurozone level) makes the ECB appear like Janus Bifrons, the Roman god whose head had two faces (one oriented to the future and the other to the past). Even assuming that the ECB's features as a central bank were rightly set aside when constructing the SSM, we should still consider whether the present approach, resulting from hard political compromises, leads to efficient and effective supervision. On the one side, rule-making powers are generally considered as an important tool for supervisory authorities, which can regulate either the structure of firms or their conduct with a view to reducing the probability of bank failures and safeguarding financial stability. On the other side, regulatory independence, i.e., a high degree of autonomy of independent supervisors in rule-making, is a well-established international financial standard and crucially includes equipping supervisors with large discretion to set and change the rules flexibly. I wonder whether such an objective is fulfilled by the complex interaction between different layers of rules concerning the SSM, which make regulatory change a very cumbersome process involving several players.

To sum up, the present EU regime for prudential regulation – which is characterised by maximum harmonisation, several layers of regulation, multiple rule-makers and excessively detailed rules – may be suboptimal for the SSM and hinder its flexibility. Moreover, the countries participating in the SSM do not face the problem of regulatory competition, which maximum harmonisation is aimed to solve. Rather, the SSM will need a consistent and homogenous regulatory framework in order to make supervision uniform in the Eurozone. This is not to say that EU harmonisation will become irrelevant from the Banking Union perspective. Indeed, harmonisation will still be needed vis-à-vis the countries that do not participate in the SSM; furthermore, EU-wide banking groups clearly benefit from harmonisation of the rules in all countries where they are established.

## 8. Conclusions

In this paper, I have tried to assess the likely impact of the Banking Union and particularly of the SSM on cross-border banking. After briefly analysing the predictions made by economists and policy-makers with regard to the deeper integration of financial markets that may derive from the Banking Union, I highlighted the organizational limits of the Single Supervisory Mechanism. I argued, moreover, that the SSM could give rise to agency problems also in the relationship between the ECB and the supervisors of non-euro area countries. I then examined the decoupling of supervision from regulation within the Banking Union and the negative consequences which may derive from it in terms of efficiency and effectiveness of supervisory action. The limits discussed in this paper with respect to the SSM and to the single rulebook help understanding the degree of uncertainty characterising the predictions commonly made by economists and policy-makers with respect to the impact of the Banking Union on cross-border banks.

**References**


Constâncio, V. (2014, May). Banking Union and European integration. In Speech at the OeNB Economics Conference, Vienna (Vol. 12). https://www.ecb.europa.eu/press/key/date/2014/html/sp140512.en.html

European Central Bank, (2015a). Public consultation on a draft Regulation and Guide of the European Central Bank on the exercise of options and discretions available in Union law: Explanatory memorandum. https://www.bankingsupervision.europa.eu/legalframework/publiccons/html/reporting_options.en.html

European Central Bank, (2015b). Public consultation on a draft regulation of the European Central Bank on the exercise of options and discretions available in Union law. https://www.bankingsupervision.europa.eu/legalframework/publiccons/html/reporting_options.en.html

European Central Bank, (2015c). Public consultation on a ECB Guide on options and discretions available in Union law. https://www.bankingsupervision.europa.eu/legalframework/publiccons/html/reporting_options.en.html

European Commission, (2015). Communication to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Action Plan on Building a Capital Markets Union, Brussels, 30.9.2015 COM(2015) 468 final. http://ec.europa.eu/finance/capital-markets-union/docs/building-cmu-action-plan_en.pdf

Ferrarini, G., (2015). Single supervision and the governance of banking markets: Will the SSM deliver the expected benefits? European Business Organization Law Review (EBOR), 16, pp. 513 - 537.

Ferrarini, G., and Chiodini, F., (2012). Nationally fragmented supervision over multinational banks as a source of global systemic risk: a critical analysis of recent EU reforms. In: Wymeersch E, Hopt KJ, Ferrarini, G., (eds) Financial regulation: a post crisis analysis. Oxford University Press pp 193-231.

Ferrarini, G., and Recine, F., (2015). The single rulebook and the SSM: should the ECB have more say in prudential rule-making? In: Busch, D., and Ferrarini, G., (eds) European Banking Union, Oxford University Press pp 118-154.

Nouy, D,. (2015, November). The Single Supervisory Mechanism after one year: the state of play and the challenges ahead, 24 November 2015, Speech at Banca d'Italia conference "Micro and macroprudential banking supervision in the euro area", Università Cattolica, Milan, 24 November 2015, https://www.bankingsupervision.europa.eu/press/speeches/date/2015/html/se151124.en.html

Véron, N., (2015). The economic consequences of Europe's Banking Union. In: Busch, D., Ferrarini, G., (eds) European Banking Union, Oxford University Press pp 33-55

# Governance and Policy Challenges of Forming and Running a Supervisory and Regulatory Union: A Theoretical Perspective[23]

by Giovanni Dell'Ariccia[24]


**Abstract**

During the global financial crisis integrated markets and financial institutions operating across borders clashed with supervisory and regulatory architectures that remained largely nation bound. This spurred a debate on the costs and benefits of more internationally integrated and coordinated prudential policies. This paper presents theoretical explorations of the policy and governance challenges associated with forming and running a regulatory and supervisory union when national prudential authorities have different objective functions.


## 1. Introduction

The crisis has brought international financial linkages to the centre stage of the economic policy debate. Internationally integrated markets and financial institutions operating across borders clashed with supervisory and regulatory architectures that remained largely nation bound. This regulatory fragmentation hindered effective policy action both before and during the crisis. Before the crisis, it limited the monitoring and understanding of cross-border linkages

23. The views in this paper are those of the author and should not be attributed to the IMF, its Executive Board, or its management. I would like to thank Elena Carletti and Robert Marquez for several discussions on the issues in this paper.
24. IMF and CEPR.

and hindered efforts to contain growing imbalances. After the crisis started, it led to often locally-driven and globally-inefficient policy actions; especially in the context of bank resolution (IMF, 2010; BIS, 2010).

Against this background, some observers have argued that (akin to the traditional trilemma of international economics between monetary policy independence, fixed exchange rates, and free capital flows) a "financial trilemma" exists between financial stability, free capital flows, and fragmented regulatory and supervisory architecture with nation bound safety nets (Schoenmaker, 2011, Obstfeld, 2014). In response, there have been renewed efforts to improve cross-border cooperation and information flows (see for instance, initiatives such as the Financial Stability Board); but also greater acceptance of capital flow measures as a tool to preserve macro-financial stability.

Tensions between the prudential architecture and market structure were particularly evident in the euro area where common markets and the single currency stood in stark contrast to a fragmented supervision and bank safety net. The result was strengthened links between a country's banking system stability and fiscal health. During the boom, in several countries, banks grew to a scale that challenged national supervisory capacities. After the bust, the implicit and explicit liabilities associated with the size of these banking systems overwhelmed national fiscal resources (Goyal et al. 2013).

The euro area has answered these challenges with the nascent Banking Union based on a Single Supervisory Mechanism, a Single Resolution Mechanism, and an agreement for the mutualisation of at least a portion of the safety net. These reforms will hopefully provide more effective and coherent supervision and help to weaken sovereign-bank-real-sector spirals.

However, supervisory/regulatory unions also present costs and challenges. For instance, it may become harder to tailor policies to an individual country's needs; and it may be difficult to design effective internal governance for a supranational regulator. This begs the question of how far should a Banking Union extend. Can we achieve enough stability through international cooperation? If not, what are the main factors one should look at to decide whether countries should join into supervisory/regulatory unions? And conditionally on a partial union being formed, how do incentives to join in change for the countries left out? Finally, what are the governance challenges in a union where the original independent supervisors/regulators maintain significant power and functions?

We are very far from a formal theory of what constitutes an optimal regulatory area.

What follows are explorations of some of the relevant issues guided by recent theoretical papers on the topic. In particular, we discuss the challenges of forming and running a regulatory and supervisory union when country regulators/supervisors have heterogeneous objective functions.

## 2. Challenges in forming a Banking Union

In recent years, technological progress and regulatory changes have led to the progressive integration of international financial markets. As a result, banks' cross-border activities have become increasingly important, raising new challenges for regulators that have remained country bound. In this environment, prudential regulation and supervision generates cross-border externalities that neither regulators nor the financial institutions they are supposed to oversee might take into account. This section explores the implications of these externalities for the benefits and costs of switching to a centralized supervisory agency. And, in a multi-country setting, it discusses how the formation of a Banking Union by a subset of countries affects other countries' incentives to join in.

### *2.1 A simple theoretical framework*

Here we follow the stylized model proposed in Dell'Ariccia and Marquez (2006). Consider a setup in which banks compete internationally, but are regulated and supervised by domestic agencies. These domestic regulators/supervisors' mandate includes domestic financial stability and bank profitability. The latter may be the reflection of regulatory capture or more generally of the fact that supervisors care about all domestic stakeholders in the banks. Critically, this entails a trade-off. Tighter regulation/supervision will make the domestic banking system safer. But it will represent somewhat of a burden for the banks and reduce their profitability. Further, since banks compete internationally, these policy actions will entail externalities. Safer banks at home will improve stability abroad (for instance, by reducing counterparty risk). But more intrusive regulation and supervision may decrease bank competitiveness vis-à-vis foreign institutions, increasing its impact on bank profits.

Under these assumptions, domestic agencies acting independently (non-cooperatively) are likely to reach an inefficient outcome. In this model, both externalities tilt regulators' behaviour in the direction of laxer standards. Indeed, each domestic agency will not take into account the benefit that tighter standards bring to the other country (through its banks' interaction with a safer banking system). But they will be concerned with the increased negative effect that tighter standards have on domestic banks' profits because of the loss of international competitiveness. The outcome (in a Nash equilibrium) is one with excessively lax standards: a race to the bottom; or, more precisely, standards that are laxer than those that would prevail if the two domestic agencies were to fully take into account the cross-border effects of their policies.

Now compare this setup (in which national agencies concerned solely with their respective domestic banking system set policies non-cooperatively) to one in which an international regulator sets uniform standards for all banks. The benefit of centralizing regulation is that it internalizes any externalities that may exist due to the integration of financial systems. From that standpoint, it is immediate from the discussion above that a centralized agency will impose tighter standards than independent regulators. The shortcoming is that centralization reduces flexibility in designing policy; at least to the extent that political economy considerations limit the regulator's ability to tailor standards to individual countries under its jurisdiction. Then, there is a cost, if regulatory needs (and thus the optimal policy design) differ across markets because of institutional and structural reasons.

Under these assumptions, a Banking Union is more likely to emerge (to offer a Pareto improving solution) between countries that exhibit a greater degree of financial integration and relatively similar regulatory needs. The degree of inefficiency under the "independent" solution is likely to increase with financial integration. And the cost of switching to a centralized agency is likely to be smaller when country needs are not too far apart. In practice, this means that a Banking Union is more likely to be beneficial (and politically acceptable) among countries with a greater foreign bank presence, cross-border flows, etc.; and countries with relatively similar financial structures in terms of bank design (for instance universal banks versus narrow banks) and market structure. The nascent Eurozone Banking Union is in line with this prediction.

### *2.2 Incentives to join partial unions*

The model also speaks to the incentives to form a Banking Union among a subset of countries when multiple financial linkages exist, and to how the formation of such a union changes the incentives to join for those left out. Relative to the simpler two-country case discussed above, the analysis of a multi-country setting offers two additional insights.

First, the formation of a union among any country pairs is affected by the existence of financial links with other countries. As discussed above, the main benefit of joining a union is that the centralized agency will take into account regulatory externalities and, hence, standards will be tighter than under independent domestic supervisors. However, in the presence of financial linkages with "third-party" countries, this benefit will be tempered by a decrease in bank competitiveness vis-à-vis financial institutions from countries that did not join the union. This means that the existence of financial linkages with multiple countries makes the formation of unions among a subset of partners more challenging.

Second, the formation of a union among a subset of countries reduces the incentives for those left out to join it. The intuition is immediate from the forces in this model. The union will reduce the race to the bottom among participating countries and tighten their standards. This reduces the potential benefits from joining in for those outside.

In practice this means that countries that have strong financial linkages with third-party countries will find joining a partial union less attractive. Further, from the limited point of view of a model based on regulatory externalities, a partial union does not necessarily represent a pole of attraction that will naturally evolve into a more comprehensive one.

## 3. Governance challenges in a Banking Union

The nascent Banking Union within the euro zone has inspired a set of recent studies focusing on the potential governance challenges in a "hub-and-spokes" supervisory regime: one where bank supervision is centralized but local supervisors provide the "boots on the ground," being the parties more in touch with local financial institutions and thus in the best position to evaluate local banks' portfolios.

In Carletti et al. (2015), we explore, with a theoretical model, the tensions inherent in a supervisory framework in which a supranational agency has legal power over all decisions regarding banks; but local supervisors are in charge of collecting the information necessary for regulatory actions to be implemented. In particular, the paper focuses on how the governance design of the supervisory regime affects supervisors' incentives to collect information when the local supervisor is "softer" than the central one; and, in turn, on how banks respond to changes in the regulatory regime. Colliard (2015) proposes a related model in which a centralized agency takes into account all the externalities related with a local bank failure, while the local supervisor takes less into account losses accruing to foreigners. In that model, the trade-off stems from the fact that the local supervisor has a comparative advantage in conducting on-site inspections.

The frameworks in both papers are inspired by the supervisory reform in Europe. However, no stylized model can do justice to the many checks and balances and corrective procedures existing in a real-world supervisory mechanism. Rather, the analysis in these studies should be interpreted as identifying some of the tensions that the new supervisory regime will have to take into account in order to operate effectively. What follows summarizes the findings in these studies and provides a simplified example of the model in Carletti et al. (2015) to highlight the governance challenges in a hub-and-spoke regime and their potential effects on bank risk taking.

In Carletti et al. (2015), banks are protected by limited liability and operate under asymmetric information. Thus, absent effective supervision, they tend to take on excessive risk. As in several previous models, leverage leads banks not to take into account the losses they impose on depositors and debt holders (and taxpayers when deposits are insured) when they fail (e.g., Hellmann et al., 2000, Matutes and Vives, 2000, Repullo, 2004). Bank risk taking is not directly observable and the associated asymmetric information prevents investors from pricing risk at the margin. The outcome in equilibrium is that banks engage in riskier behaviour than what is socially optimal. This market failure provides a justification for bank supervision aimed at containing risk taking (for instance, by enforcing capital regulation) so as to improve over this laissez-faire equilibrium.

Start from the case with independent supervision. Local supervisors invest resources to collect information about a bank's portfolio. This is meant to capture the process of learning about the assets and liabilities of a bank through on-site inspections and of estimating the potential risks associated with that structure. Upon obtaining such information, the local supervisor can let the bank continue to operate undisturbed. Or it can intervene it and force it to change its portfolio toward that deemed optimal by the supervisor (typically a safer portfolio). Intervention, however, comes at a cost. This can be seen as a reputational cost for the supervisor, the loss associated with the removal of a national (and private) champion, and/or it could represent a loss in efficiency associated with the transfer of the bank to the public sector.

Under centralized supervision, local supervisors retain control of information collection, but are mandated to transmit to the central agency what they learn. The central supervisor can act on the information and has full control over the decision of whether or not to intervene a bank. Further, she chooses what portfolio to implement conditional on intervention.

The critical assumption in the paper is that local supervisors have utility functions that are different from that of the central agency. The interesting case is one where they are less inclined to intervene in banks. Such reluctance to intervene may stem from greater costs that are borne at the local level for the supervisor, such as the aforementioned reputational costs and/or fiscal costs, or may reflect some degree of regulatory capture to which a central supervisor would not be subjected (see Agarwal et al., 2014, Acharya et al., 2013, and Bolton and Jeanne, 2011). This conflict results in a principal-agent problem between the central and local supervisors, in addition to that between supervisors and banks.

When this conflict is severe enough, it may distort the local supervisor's incentives to collect actionable information about banks' balance sheets. The reason is that local agencies will, in some states of the world, prefer to remain ignorant rather than having to provide to the centre information that would lead to decisions that are against their own interests. Then, in equilibrium, less accurate information might be collected than under fully independent local supervisors or under a centralized agency that collects information directly.

This poorer information collection entails costs. The central agency may be unable to enforce regulation on non-compliant banks. This, in turn, leads to poorer ex ante incentives for regulated banks which will tend to take greater risk than under alternative supervisory frameworks. A lower probability of having their actions discovered will make it more attractive for banks to take risk in excess of that desired by the regulator.

In contrast, when the agency problem introduced by the split responsibility between local and central supervisors in not "too large," the presence of the tougher central supervisor will reduce risk taking. To the extent that enforcement remains credible (that is to the extent that local supervisors continue to exert sufficient effort to collect actionable information), a centralized supervisor that imposes tighter standards (tolerates less risk taking) than local ones will increase regulatory discipline on banks. Put differently, banks will be induced to adhere to higher prudential standards if central supervision represents a greater threat of regulatory intervention.

### *3.1 A simple example*

Consider the following example based on a highly simplified version of the model in Carletti et al. (2015). Assume banks in a certain country have access to three investment opportunities, characterized by "high", "medium" and "low" risk. Each investment project, i, is characterized by the pair $(R_i,q_i)$, where $R_i$ is the return of the investment when it succeeds and qi the associated probability of success (with $q_h < q_m < q_l$). Let us rank the three investments so that the expected return is inversely related to risk: $R_h\, q_h < R_m\, q_m < R_l\, q_l$. From which it follows that "low" is the socially preferred investment.

Banks are protected by limited liability and use their own capital and deposits to fund their risky investment. For simplicity, assume that deposits are fully insured, so that they return an exogenous gross interest rate equal to the gross risk-free rate, $r$. Also assume that the relative proportions of capital and deposits are exogenously determined as $k$, $1\text{-}k$. Because of limited liability banks only repay depositors when their project succeeds. Then, we can write banks' expected profits as:

$$q_i\,(R_i - (1 - k)r) - k\; re)$$

Where $re$ is the opportunity cost of capital.

It is now easy to rig the model to generate a conflict between the individually optimal choice of banks and the socially optimal allocation of capital. For instance assume that:

$$q_l\,(R_l - r) < q_m\,(R_m - r) < q_h\,(R_h - r)$$

So that fully levered banks, banks with zero capital, would prefer to invest in the riskier asset rather than the intermediate or the safe ones. This is a simple example of the classic risk shifting associated with limited liability. Essentially, banks do not take into account the losses associated with their failure. This provides them with incentives to take excessive risk. It is also immediate that one can rig the model so that, as bank capital increases (leverage decreases), banks first switch from the high-risk to the medium-risk project, and then for sufficiently high capitalizations from the medium-risk to the low-risk one.[25] In this case, we can partition the line representing bank leverage in three zones: "high", "medium" and "low" corresponding to a bank's equilibrium choice of investment.

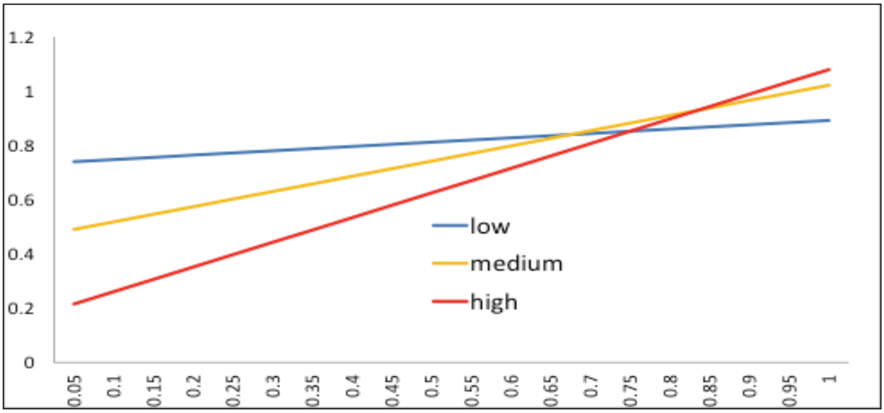
It is immediate from this setup that, depending on bank capitalization, the laissez-faire equilibrium may or may not deliver the socially optimal allocation. When banks are highly capitalized, their individually optimal choices deliver the social first best. However, when they are not, the risk shifting stemming from limited liability and deposit insurance leads them to invest in socially suboptimal projects.[26]

Now consider a local supervisor/regulator that can inspect a bank under her jurisdiction;[27] learn about the bank's investment portfolio with some probability; and upon obtaining this information, intervene the bank and force it to invest in the socially optimal, "low" risk, project. Intervention, however, entails a cost, IL. Think about this as reputation costs or the costs associated with regulatory capture. In her inspections, the supervisor can choose to be "aggressive", in which case there is a "high" probability of discovering actionable information; or "passive," in which the probability of discovery is "low".

We can model the regulatory objective function as social welfare (in this case equated to the project's net return) minus the cost of intervention. Then, upon learning a bank's investment project, the regulator's decision of whether to intervene the bank will be predicated on the increase in social welfare associated with a switch in projects exceeding the cost of intervention.

25. For instance, consider the set of projects $((R_i, q_i)$ depicted in the chart: "low" (2, 0.9), "medium" (3.1, 0.5), and "high" (8.5, 0.15).
26. Note that risk shifting would emerge even in the absence of deposit insurance as long as bank risk is not priced at the margin (see Dell'Ariccia et al., 2014).
27. For simplicity assume that there are no costs associated with inspection effort; or, more realistically, that costs are low enough that in equilibrium the independent supervisor exerts sufficient effort to make the regulatory threat credible.

**Figure - Expected profits as a function of project risk and leverage**




It is immediate that, keeping everything else constant, a lower intervention cost implies a tougher supervisor/regulator, one that is more likely to intervene a bank. We can, then, map the intervention cost into the kind of bank/portfolio that the supervisor will intervene in equilibrium by checking the following inequality for each project

$$q_l R_l - q_i R_i - IL > 0$$

Assume that there are three types of supervisor/regulator. The tough type has a low cost of intervention; make it zero, for simplicity. It follows that she intervenes any bank that does not invest in the socially optimal low-risk project. The medium type has a moderate cost of intervention. This is such that it exceeds the benefits from switching a bank from the medium-risk project to the low-risk project. But it is sufficiently low to make it worthwhile intervening a bank that invests in the high-risk project. Finally, the easy type supervisor has such a high cost of intervention that it never finds it optimal to intervene.

Assume that bank owners/managers attach some idiosyncratic disutility to intervention. Further, assume that when the probability that of discovery is "high", (that is when the supervisor is aggressive), for most owners (but not all), the disutility from being intervened is sufficient to induce banks to invest according to the supervisors' preferences. Since, in this simplified example, inspections are free to the regulator, the credibility of the regulatory threat depends exclusively on the supervisor's decision being time-consistent. It follows that the supervisor will always choose to be aggressive and the behaviour partition according to regulator types described in the previous paragraph fully characterizes what credible regulatory actions are. We can, then, summarize the equilibrium of the game according to regulator/supervisor and bank type in the following table 1.

Now we can ask how this equilibrium changes when the local regulator/supervisor transfers the authority to intervene to a supranational agency. In particular, consider the case in which inspections remain under the responsibility and control of the local supervisor, perhaps because of local expertise and logistical constraints. But the decision to intervene upon obtaining actionable information is up to the supranational agency.

This governance structure may introduce an agency problem within the supervisory architecture when the objectives of the central and local supervisors differ. As in Carletti et al. (2015) on which this example is based, assume that the local supervisor has to transmit to the centre any actionable information she obtains. However, since, in the model, the quality and intensity of inspections is not observable, the central agency cannot affect the probability that information is actually obtained. Put differently, it is up to the local supervisor to choose whether to be aggressive or passive.

Also assume that, upon intervention, the central supervisor suffers a cost IC, while the local agency continues to bear its intervention costs, IL. Here the

**Table 1 - Equilibrium projects by supervisor and bank types**

| **Equilibrium projects by supervisor and bank types** | | | |
|---|---|---|---|
| **Regulator**<br>**Bank** | **Easy** | **Medium** | **Tough** |
| **High capital** | Low | Low | Low |
| **Medium capital** | Medium | Medium | Low<br>Medium |
| **Low capital** | High | Medium<br>High | Low<br>High |

difference between IC and IL fully summarizes the discrepancy between the two agencies' utility functions. Obviously, one could consider a more complex model in which differences go beyond the cost of intervention. For instance, local and central supervisors may internalize to different degrees the spillover and contagion costs associated with bank failure (Colliard, 2015; Carletti et al., 2015; Calzolari and Loranth, 2011; Holthausen and Ronde, 2004).

Now consider how the equilibrium changes as a result of this new governance structure. It is immediate that when the two supervisors' intervention costs are close enough that they choose to intervene the same types of banks/projects, the equilibrium remains the same as in the baseline model. Put differently, if the two agencies' preferences are "close enough", the change in structure does not introduce any agency conflict in the model. However, when the costs are sufficiently apart that the two agencies choose to intervene different types of banks/projects, things may be different. Since the narrative of the Banking Union has been about strengthening regulatory action, take the case of a central supervisor that is tougher than the local one.

In this case, the balance of two opposite forces will determine how the equilibrium changes relative to the single supervisor case. On the one hand, a tougher supervisor in charge of intervention decisions will increase the threat of intervention and impose greater discipline on banks. On the other, the agency conflict introduced by the split governance structure may undermine the credibility of supervisory action and decrease discipline. Essentially, the local supervisor may choose to be passive rather than aggressive. These effects are best demonstrated by an example with a "tough" supranational agency and a "medium" local supervisor.

First, consider what happens in a system entirely consisting of low-capital/high-risk banks. In the baseline model, the threat represented by the local supervisor induced these banks to switch from their laissez-faire high-risk project to the medium-risk one (see Table 1). Here there is no conflict between the two supervisors when it comes to these banks. Since in order to prevent the high-risk project the local supervisor has to exert sufficient effort to make the threat credible, the switch to a centralized structure will not alter its behaviour. It follows that the local supervisor will benefit from the greater discipline imposed by the central agency and low-capital banks will switch to the low-risk project.

Next, examine what happens with medium-capital banks. For these banks the two supervisory agencies are in conflict. The local supervisor is "happy" with the banks' laissez-faire choice since her cost of intervention exceeds the welfare benefits from switching to the low-risk projects. In contrast, the central supervisor's intervention costs are low enough that upon observing a medium-risk portfolio she would intervene the banks to impose the low-risk project. Then, from the local supervisor's standpoint, since intervention entails costs that she considers excessive, it would be better not to obtain actionable information from the inspection and prevent regulatory action.

Finally, put it all together in a setup with both types of banks. Assume that the supervisor cannot discriminate across banks before inspection. Then, when deciding her inspection effort (determining the probability of discovering actionable information), the local supervisor will have to balance the benefits from disciplining low-capital banks with the costs of (what she sees as unnecessary) intervention of medium-capital ones. This means that the relative weight of low- and medium-capital banks in the system determines the result. When the system is primarily populated by low-capital banks, she will maintain her baseline effort. And as a result of the greater discipline imposed by the central regulator, average project risk will diminish. But when medium-capital banks are sufficiently prevalent, the local supervisor will find it best not to learn their type (she will choose zero effort). In response, there will be less discipline (relative to the baseline case) on low-capital banks, and average risk will increase. Table 2 summarizes how banks portfolio choices change with the supervisory/regulatory architecture.

**Table 2 - equilibrium projects, bank distribution, and supervisory structure**

| **Equilibrium projects, bank distribution, and supervisory structure** | | | | |
|---|---|---|---|---|
| **System composition** / **Bank** | **Low-capital banks prevalent** | | **Medium-capital banks prevalent** | |
| | Local | central | local | central |
| **High capital** | Low | Low | Low | Low |
| **Medium capital** | Medium | Low / Medium | Medium | Medium |
| **Low capital** | Medium / High | Low / High | Medium / High | High |

In essence, Table 2 shows that when the objective functions of the local and central supervisors differ sufficiently, the effects of supervisory centralization on banks risk taking are ambiguous. In this simple example, the result is a function of the distribution of banks, which in turns determines how the local supervisor chooses to balance the trade-off between the greater discipline provided by the tougher centralized agency and the loss of control over banks she does not want to intervene. In practice, obviously things are more nuanced and complicated. Yet, several of the insights from the theory remain valid.

### *3.2 When is the conflict likely to be more severe?*

The starting point of the analysis in Carletti et al. (2015) and Colliard (2015) is that the local and the central supervisors have different utility functions and, consequently, can take different decisions. Put differently, there are some states of the world for which the local supervisor would allow certain banks to operate while the central agency would prefer to intervene and resolve them. A second important tenet of these theoretical frameworks is that the agency problem between supervisors cannot be fully resolved through legal means (rules and regulations), compensation (side transfers between countries), or by the central supervisor taking over inspections and information collection directly.[28]

In practice, the severity and relevance of the agency problem between supervisors will likely depend on several factors. First, banks may be systemic at the national but not the supranational level. If this is the case, the way a local and a centralized supervisor may decide to deal with lack of regulatory compliance may be very different. For instance, they will perceive the costs and benefits of a bail-in very differently; and, consequently, they will have a different approach to prompt corrective action and resolution strategies. Related, central supervisors internalize the cost of resolution, which may have negative externalities for other international institutions, more than the local agency. As discussed extensively in Colliard (2015), this may lead local regulators to be too forbearing (in the setup of our example, they have too high a cost of intervention) as they do not take into account the spillovers a bank's failure may have on foreign creditors.

28. This last point is assumed away in Carletti et al (2015) and it entails a loss of supervisory efficiency in Colliard (2015).

Finally, the ability of the central supervisor to inspect banks directly and to condition the action of local agencies will evolve across types of banks and over time. It might be more severely hindered for nationally specialized banks for which local information and culture is essential to evaluate risks. But it might be less of an issue for banks operating internationally. Further, as the centralized agency gains experience and develops a deeper infrastructure, it will likely increase its ability to monitor banks directly and, thus, implicitly to enforce its preference on local supervisors.

Based on these considerations, we expect the conflict between supervisors to be greater for: 1) Regional banks that are systemic for individual countries but not for the broader Banking Union as a whole; 2) Banks with significant cross-border activities; 3) Local supervisors in fiscally weak countries (these might be more reluctant to bear the cost of resolution and thus may be more forbearing); 4) More concentrated banking systems, as they are more likely to host locally systemic but not globally systemic banks (this might not be true in large countries); 5) Banks with regionally specialized characteristics.

## 4. Conclusions

Two caveats before we conclude. First, this paper deals solely on issues of regulatory externalities and governance of a Banking Union. But Banking Unions may provide a host of other benefits, such as improved crisis management, avoiding sovereign-bank spirals, limiting inefficient ring fencing, and improving cross-border resolution (Farhi and Tirole, 2014; Goyal et al. 2013). It follows that our findings should not be taken as the outcome of a full-fledged analysis of the costs and benefits of joining a supervisory/regulatory union. Second, as for any other model, one could question how the building assumptions of our framework translate into practice. While we find the assumptions reasonable and the results relatively robust, there are obviously possible exceptions.

That said, the analysis summarized in this paper provides valuable insights in the policy challenges faced by regulatory and supervisory unions. From that standpoint, it bears on the current debate on the implementation of the Single Supervisory Mechanism (SSM) in the Eurozone. In that context, it shows that centralization is likely to raise supervisory standards and deal with the perceived laxness and unwillingness to intervene banks that preceded the recent crisis.

However, our analysis also brings into focus the governance challenges inherent in a hub-and-spoke supervisory framework. When the agencies in charge of information collection and implementation have sufficiently different objectives, absent corrective mechanisms, the switch to a centralized system may reduce bank discipline and consequently increase the risk of systemic problems. Further, the agency conflict at the source of the problem will be larger for laxer local regulators; exactly the cases that could in principle benefit the most from centralized supervision.

The design of the SSM implicitly recognizes these challenges and provides countervailing measures. First, the ECB may take any bank in its jurisdiction under direct supervision. This will provide discipline on local regulators. Second, the choice of banks under central direct supervision (all locally and euro-zone wide systemic banks) is consistent with the degree of potential conflicts. Indeed, banks that are locally systemic but not systemic for the euro zone as a whole are among those for which views are most likely to differ. The fact that all euro-level systemic banks will also be under direct supervision has a similar effect, since these are the banks for which the externality from failure is likely to be valued differently by local and central supervisors. Finally, internal governance practices such as having ECB employees heading on-site inspection teams and rotating staff of different nationality on these teams will contribute to limit conflicts.

**References**

Acharya, V., Drechsler, I., and Schnabl, P. (2014). A pyrrhic victory? Bank bailouts and sovereign credit risk. The Journal of Finance, 69(6), 2689-2739.

Agarwal, S., Lucca, D., Seru, A., and Trebbi, F. (2012). Inconsistent regulators: Evidence from banking (No. w17736). National Bureau of Economic Research.

Basel Committee on Banking Supervision, (2010), Report and Recommendations of the Cross-border Bank Resolution Group, BIS.

Bolton, P., and Jeanne, O. (2011). Sovereign default risk and bank fragility in financially integrated economies. IMF Economic Review, 59(2), 162-194.

Calzolari, G., and Loranth, G. (2011). Regulation of multinational banks: A theoretical inquiry. Journal of Financial Intermediation, 20(2), 178-198.

Carletti, E., Dell'Ariccia, G., and Marquez, R., (2015). Supervisory Incentives in a Banking Union, IMF unpublished manuscript.

Colliard, J. E., (2015). Optimal supervisory architecture and financial integration in a Banking Union, ECB Working Paper, No. 1786, April.

Dell'Ariccia, G., and Marquez, R. (2006). Competition among regulators and credit market integration. Journal of Financial Economics, 79(2), 401-430.

Dell'Ariccia, G., Laeven, L., & Marquez, R. (2014). Real interest rates, leverage, and bank risk-taking. Journal of Economic Theory, 149, 65-99.

Farhi, E., and Tirole, J. (2014). Deadly embrace: Sovereign and financial balance sheets doom loops. Unpublished working paper, Harvard University and Toulouse School of Economics.

Goyal, R., Brooks, P. K., Pradhan, M., Tressel, M. T., Dell'Ariccia, M. G., and Pazarbasioglu, C. (2013). A Banking Union for the Euro area. International Monetary Fund Staff Discussion Notes No. 13/1.

Hellmann, T. F., Murdock, K. C., and Stiglitz, J. E. (2000). Liberalization, moral hazard in banking, and prudential regulation: Are capital requirements enough?. American economic review, 147-165.

Holthausen, C., and Rønde, T. (2004). Cooperation in international banking supervision, ECB Working Paper No. 316.

IMF, (2010). Resolution of Cross-Border Banks—A Proposed Framework for Enhanced Coordination.

Matutes, C., and Vives, X. (2000). Imperfect competition, risk taking, and regulation in banking. European Economic Review, 44(1), 1-34.

Obstfeld, M. (2015). Trilemmas and trade-offs: living with financial globalisation. mimeo UC Berkeley.

Repullo, R. (2004). Capital requirements, market power, and risk-taking in banking. Journal of financial Intermediation, 13(2), 156-182.

Schoenmaker, D. (2011). The financial trilemma. Economics Letters, 111(1), 57-59.

# Should the ‘outs’ join the Banking Union?

by Pia Hüttl and Dirk Schoenmaker [29]

**Abstract**

The Single Market stimulates cross-border banking throughout the European Union. This paper documents the banking linkages between the 9 ‘outs’ and 19 ‘ins’ of the Banking Union. We find that some of the major banks, based in Sweden and Denmark, have substantial banking claims across the Nordic and Baltic region. We also find large banking claims from banks based in the Banking Union to Central Eastern Europe. These findings indicate that these ‘out’ countries could profit from joining the Banking Union, because it would provide a stable arrangement for managing financial stability. From a political perspective, member states’ opinion on joining the Banking Union ranges from an outright “no” towards considering Banking Union membership.

## 1. The rationale for Banking Union

The decision to initiate Banking Union in June 2012 was a reply to tackle one of the root-causes of the European debt crisis, namely the sovereign-banking loop. The vicious circle between the solvency of nation states in the euro area and the solvency of these nation states’ banks contributed to the crisis.

29. Pia Hüttl is an Affiliate Fellow at Bruegel and Dirk Schoenmaker is a Senior Fellow at Bruegel and a Professor of Banking and Finance at Rotterdam School of Management, Erasmus University. They would like to thank Angus Armstrong, Zsolt Darvas, Katia D’Huster, Nicolas Véron and Guntram Wolff for useful comments.

The sovereign-banking loop works in both directions. First, banks carry large amounts of bonds of their own government on their balance sheet (Merler and Pisani-Ferry, 2012; Battistini et al, 2014). So, a deterioration of a government's credit standing would automatically worsen the solvency of that country's banks. Second, a worsening of a country's banking system could worsen the government's budget because of a potential government financed bank bailout, and because of lower tax revenues due to the subsequent economic downturn (Angeloni and Wolff, 2012). Alter and Schüler (2012) and Erce (2015) provide evidence of interdependence between government and bank credit risk during the crisis.

The sovereign-banking loop argument relates to the euro area, where national central banks have given up the control over the currency in which their debt is issued, putting the European Central Bank (ECB) in charge. To break the loop, a summit of Euro area heads of states and governments decided in June 2012 to move the responsibility for banking supervision to the euro-area level as a pre-condition for direct bank recapitalisation by the European Stability Mechanism (ESM). Moreover, the ECB was particularly exposed since it was forced to provide liquidity to euro area banks without supervisory control. As pointed out by Goodhart and Schoenmaker (2009), if ex-post rescues are to be organised at the European level, ex-ante supervision should also be moved in tandem to minimise the need for such rescues. The essence of the Banking Union, therefore, is supervision and resolution of banks at the euro-area level.

However, Constâncio (2012) and Schoenmaker (2013) highlight that the deeper rationale for the Banking Union is cross-border banking. The financial trilemma (Schoenmaker, 2011) indicates that the combination of cross-border banking and national supervision and resolution leads to a coordination failure between national authorities, which do not take into account cross-border externalities of their supervisory practices. This coordination failure might in turn result in an under provision of financial stability as a public good. To overcome this financial stability challenge, supranational policies have been adopted. The coordination failure argument is related to the Single Market, which allows unfettered cross-border banking, and thus to the European Union as a whole. Furthermore, the Banking Union encourages further cross-border banking integration and hence reinforces the Single Market, a point raised by Asmussen (2013) and Mersch (2013). The Banking Union could be an advantage for countries outside the euro, which are characterised by a high degree of cross-border banking. The Regulations for the Single Supervisory Mechanism (SSM) and the Single Resolution Mechanism (SRM) state that it is possible to join at a later stage, as participation is mandatory for euro-area member states, and optional for non-euro area European Union members.

The purpose of this paper is twofold. First, we aim to provide a theoretical background on policy coordination, followed by an empirical part on the cross-border banking links that characterise both the 'ins' and the 'outs' in the Banking Union.[30] We present evidence of strong banking integration in the Nordic region, where Denmark and Sweden are on the outside and Finland and the Baltics on the inside. It also appears that the vast majority of the large inward banking claims for the 'outs' in Central and South Eastern Europe is coming from the Banking Union.

Second, we discuss the pros and cons of joining Banking Union for the 'outs'. For the connected countries, joining Banking Union would allow for an integrated approach towards supervision (avoiding ring-fencing of activities and therefore a higher cost of funding) and resolution (avoiding coordination failure). Next, the national supervisory and resolution authorities get a seat at the Banking Union table.[31] In the meantime, countries can preserve the sovereignty over their banking system outside the Banking Union. Nevertheless, the 'outs' located in Central Eastern Europe have already partly lost the sovereignty, as they are highly dependent on the Banking Union for their stability.

This paper is organised as follows. Section 2 discusses the potential for coordination failure in international banking. Section 3 provides an overview of the new Banking Union landscape and analyses the inward and outward banking claims of the 'outs'. It also provides a cost-benefit analysis on joining the Banking Union for the 'outs'. Section 4 discusses the political state of play in the single member states outside the Banking Union and Section 5 concludes.

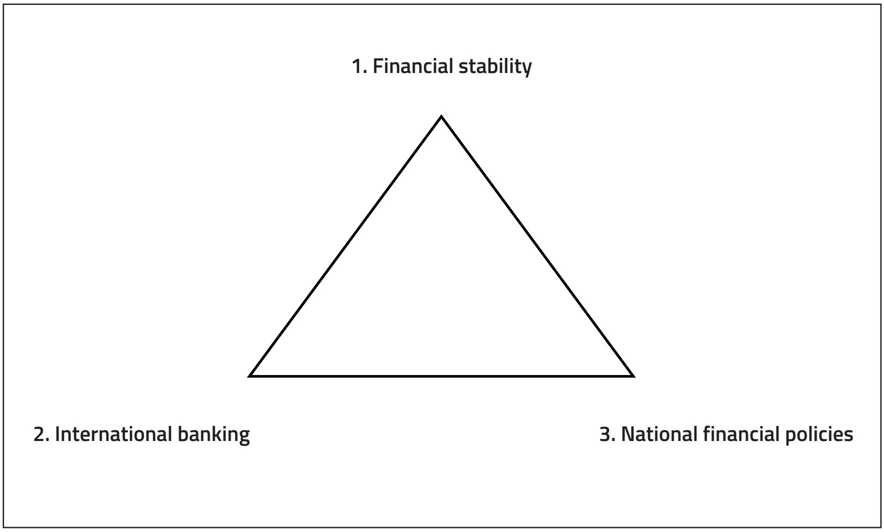
30. The term 'outs' refers to the 9 European Union countries outside Banking Union as of January 2015, namely Bulgaria, Croatia, Czech Republic, Denmark, Hungary, Poland, Romania, Sweden and the United Kingdom.
31. However, a differentiation emerges, as non-euro countries are not members of the ECB's Governing Council that is charged with adopting supervisory decisions drafted by the Supervisory Board.

## 2. Theory of policy coordination

Financial stability is a public good. A key issue is whether governments can still provide this pubic good at the national level with today's globally operating banks. The financial trilemma states that (1) financial stability, (2) international banks and (3) national financial policies are incompatible (Schoenmaker, 2011). Any two of the three objectives can be combined but not all three; one has to give. Figure 1 illustrates the financial trilemma. The financial stability implications of cross-border banking are that international cooperation in banking bailouts is needed.

Financial stability is closely related to systemic risk, which is the risk that an event will trigger a loss of economic value or confidence in a substantial portion of the financial system that is serious enough to have significant adverse effects on the real economy. Acharya (2009) defines a financial crisis as systemic if many banks fail together, or if one bank's failure propagates as a contagion causing the failure of many banks. The joint failure of banks arises from correlation of asset returns and the externality is a reduction in aggregate lending and investment.

**Figure 1 - The financial trilemma**




Source: *Schoenmaker (2011)*

The 2007-2009 financial crisis illustrates the financial trilemma, with the handling of Lehman Brothers and Fortis as examples of coordination failures (Claessens, Herring and Schoenmaker, 2010). During the rescue-efforts of Fortis, cooperation between the Belgian and Dutch authorities broke down despite a long-standing relationship in ongoing supervision. Fortis was split along national lines and subsequently resolved by the respective national authorities at a higher overall fiscal cost.

Rodrik (2000) provides a lucid overview of the general working of the trilemma in an international environment. As international economic integration progresses, the policy domain of nation states has to be exercised over a much narrower domain and global federalism will increase (e.g. in the area of trade policy). The alternative is to keep the nation state fully alive at the expense of further integration. The domestic orientation of the financial safety net is a barrier to cross-border banking, as national authorities have limited incentives to bail out an international bank. This is visible in the results of Bertay, Dermirguc-Kunt and Huizinga (2011), who find that an international bank's cost of funds raised through a foreign subsidiary is higher than the cost of funds raised by a purely domestic bank.

How to solve the financial trilemma? The literature on international policy coordination distinguishes two main strands. The first solution is to develop supranational solutions (Obstfeld, 2009). In this case, national financial policies are replaced by an international approach for supervision and resolution. Participating countries have to share the burden in case of a bank bailout, resulting in a loss of sovereignty, which is politically controversial (Pauly, 2009). The Banking Union members have chosen this approach. The second is to segment national markets through restrictions on cross-border flows (Eichengreen, 1999). In the case of international banks, the segmentation can be done through national regulations, which favour a network of fully self-sufficient, stand-alone national subsidiaries, as opposed to a network of branches (Cerutti *et al.*, 2010). The 'outs' have adopted the latter approach, safeguarding national sovereignty.

### *2.1 Geographical ring fencing*

National policies which curb international banking both at the home and in the host country are for example prudential tools such as ring fencing, which separate part of a cross-border banking group from its parent or subsidiaries, on a permanent or temporary basis (D'Hulster and Ötker-Robe, 2015). This geographic segmentation works through constraints on intra-group liquidity and capital movements, thereby decreasing the risk of cross-border contagion. The establishment of a network of fully self-sufficient subsidiaries could be the final outcome of such ring fencing (Schoenmaker, 2013).

Cerutti et al. (2010) provide arguments in favour of and against ring fencing. For a host country supervisor, the decision to impose ring fencing would typically be driven by macro-financial stability considerations, such as the need to protect the domestic banking system from negative spill-overs from the rest of the group. Vice versa, the home country supervisor may wish to limit foreign exposures affecting the parent bank. It may do so by requiring local funding for foreign operations in separately capitalised and funded subsidiaries. The exposure for the parent bank is then limited to the capital invested in the foreign subsidiary, applying the concept of limited liability. Another argument for ring fencing is to limit the exposure of national deposit insurance schemes. While foreign branches would fall under the home country deposit insurance schemes, foreign subsidiaries could participate in the respective host country deposit insurance schemes.

By contrast, the arguments in favour of centralised international bank structures and against ring fencing rely on efficiency and financial stability considerations (for example, benefits of diversification across country-specific shocks). From an international bank's perspective, the ability to freely reallocate funds across its affiliates is essential for achieving the most efficient outcome. International bank structures may also yield benefits for the host country economies. De Haas and van Lelyveld (2010), for example, show that the ability of international banks to attract liquidity and raise capital allows them to operate an internal capital market within their bank. This internal capital market provides their subsidiaries with better access to capital and liquidity than what they would have been able to achieve on a stand-alone basis. This may in turn help to reduce the pressure to scale back lending during economic downturns in the host country - a stabilising property for the host country.

During the crisis, national ring fencing activities happened across the euro area (and beyond). One example is the case of Germany, where its regulator BaFin banned Italy's UniCredit from transferring excess capital in the form of dividends from its German subsidiary back to Milan headquarters. BaFin feared that the transfer could leave German depositors exposed to supporting UniCredit.[32] Arguably, with the establishment of the Banking Union, ring fencing - as a crisis response - should occur less, as the ECB is the supervisor of both the parents (including the branches) and the subsidiaries in the participating member states, and the Single Resolution Board (SRB) the resolution authority. The ECB and SRB have a Banking Union wide mandate and thus take into account all activities of a bank within the Banking Union. This decreases the need for ring fencing responses in the case of the resolution of a cross-border banking group.

However, coordination failures can still occur when the parent bank or one of its subsidiaries operate outside the Banking Union.

### *2.2 National interests*

Herring (2007) states that cross-border coordination fails when national interests do not overlap, which might be due to three different asymmetries. First, there could be supervisory asymmetries, as the supervisory authorities may differ in terms of staff skills and financial resources. Second, there might be an asymmetry in accounting, legal and institutional infrastructure. Third, different national resolution regimes may prompt non-coordinated behaviour in the case of cross-border bank resolution. The key issue in overcoming these asymmetries in national interests is whether the banks are systemically important in either or both countries (see Table 1).

**Table 1 - Alternative patterns of asymmetries**

| | **HOME country/parent bank** | |
|---|---|---|
| **HOST country entity** | ***Systemic*** | ***Non-systemic*** |
| ***Systemic*** | (a) Potential for coordination | (b) Conflicts of interest and potential for coordination problems |
| ***Non-systemic*** | (c) Conflicts of interest and potential for coordination problems | (d) Not a big problem |

Source: *Herring (2007)*

32. http://www.reuters.com/article/ecb-banks-tests-idUSL6N0S23TB20141012

Only when a major bank's activities are systemic in the home and host countries, there is potential for coordination (see case a), which is for example the case for the Vienna initiative. The Vienna Initiative in 2009 was successful in coordinating international actors operating in Central Eastern Europe to avoid massive capital retrenchment at the height of the financial crisis (see Box 1 for a more detailed description). De Haas et al. (2015) show that even though both foreign and domestic banks curtailed credit during the crisis, banks that signed the Vienna initiative were more stable lenders to the region than banks that did not participate. Here, the banking problems in both the home and host countries were systemic and the relevant authorities had thus a joint interest to address the banking problems.

Nevertheless, coordination is not always achieved in case a. Fortis is an example of a bank which was systemically important both in Belgium and in Netherlands. Notwithstanding the alignment of interests, the Belgian and Dutch authorities decided to split the bank along national lines, before resolving it, leading to fiscal costs which went far beyond the minimum necessary as deemed by EU State aid rules (see Schoenmaker (2013) for a full description of the Fortis rescue).

In the intermediate cases (case b and c in Table 1), the potential coordination failure is linked to the extent of inward or outward banking. Inward banking is defined as banking claims from abroad towards the country in question, while outward banking captures the exposure of multinational banking groups to other countries, beyond the domestic market.

Focusing on the 'outs', from a host country perspective, a high level of inward banking indicates a high share of systemically important banks in the host country, which might or might not be systemic for the home country (case a and b). This limits the capacity of the host authority to manage the stability of its financial system, including the lending capacity to its economy. From a home country perspective, a high level of outward banking indicates the presence of major international banking groups which are systemic for the home country, and might be systemic or non-systemic for the host countries (case a and c). This poses challenges for the home authority to manage the stability of its international banks and thereby its financial system, especially in the case of cross-border resolution.

The next section will provide an empirical analysis of the extent of inward and outward banking in the 'outs'.

## Box 1 - The Vienna Initiative

### *Causes*

When the global financial crisis swept the world in 2008, many countries in emerging Europe proved vulnerable because of their high levels of private debt to local subsidiaries of foreign banks. The debt to foreign and domestic banks was often denominated in foreign currencies. Policymakers in the region became increasingly concerned that foreign-owned banks, despite their declared long-term interest in the region, would seek to cut their losses and run. The banks themselves were also getting worried. Uncertainty about what competitors were going to do exacerbated the pressure on individual banks to scale back lending to the region or even withdraw, setting up a classic collective action problem. Under these circumstances, bank behavior was clearly key to macroeconomic stability.

### *Systemic importance*

A number of western European banks had major subsidiaries that were of systemic importance in central and eastern Europe. Most of the western European banks were also of systemic importance in their home countries.

### *Cooperation*

In the face of these risks, the European Bank for Reconstruction and Development (EBRD), the IMF, the European Commission, and other international financial institutions initiated a process aimed at addressing the collective action problem, starting in Vienna in January 2009. In a series of meetings, the international financial institutions and policymakers from home and host countries met with some systemically important EU-based parent banks with subsidiary banks in central and eastern Europe. The meetings were held with 15 systemically important European banks with major subsidiaries in central and eastern Europe and their home and host country supervisors, fiscal authorities, and central banks from Austria, Belgium, France, Germany, Greece, Italy, and Sweden, as well as Bosnia Herzegovina, Hungary, Latvia, Serbia, and Romania.

The European Bank Coordination Initiative has played a major role in averting a systemic crisis in the region (EBRD, 2012). This initiative, which combined appropriate host government policies, massive international support, and parent bank engagement, has helped stabilize the economies in the region. Furthermore, in order to underpin the Vienna initiative's efforts, the region received 42.7 bn EUR through the first and second joint International Financial Institutions Action Plan. The objective was to support banking sector stability and lending to the real economy.

***Impact***

The coordinated response has fostered stability of the European banking system, both in western Europe (where the parent banks are located) and in central and eastern Europe (where major subsidiaries are located). The setting offered a typical coordination problem with high stakes. By setting all parties together, including relevant western and eastern European governments and banks as well as several multilateral financial institutions, a win-win situation could be created. The financial support of the multilateral financial institutions worked as an effective lubricant to get the deal done. However, bank deleveraging during the crisis still hit the region, as documented in the quarterly CESEE deleveraging and credit monitors.[1] Only recently the reports point to a relaxation, stating that cross-border deleveraging at the group level is slowing down, but banks are more selective in their country strategies.

[1] Accessible under: http://vienna-initiative.com/type/quarterly-deleveraging-monitors/

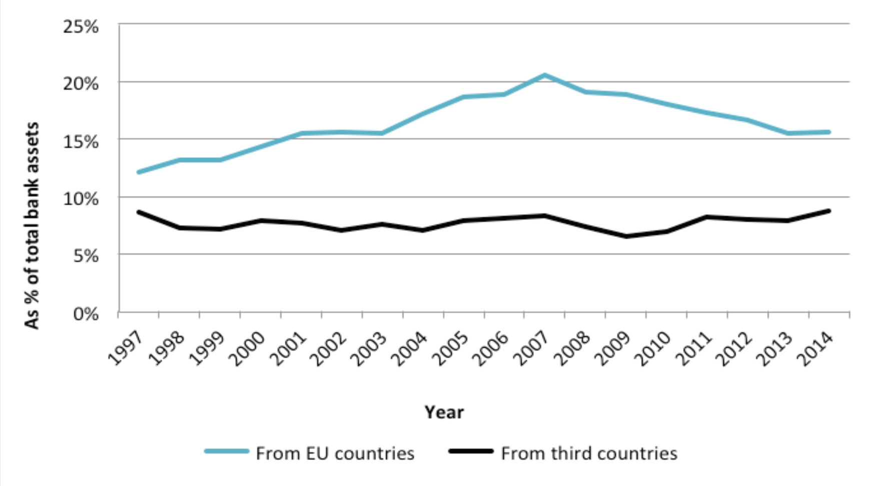
Source: *Schoenmaker (2013)*

## 3. The European Banking landscape

This empirical section starts with an overview of cross-border trends in the European banking system. The Single Market allows banks to establish branches in other European Union countries, based on home country control. Host countries have only some limited powers related to liquidity supervision over cross-border branches. Figure 2 shows the percentage of total banking system assets coming from branches or subsidiaries of banks headquartered in other European Union or third countries. This allows us to capture the extent of cross-border banking penetration in European banking.

Cross-border banking within the European Union had been rapidly increasing to 20 per cent in the run up to the global financial crisis. Figure 2 illustrates the rise of cross-border penetration from EU countries and subsequent decline since 2007, continuing its trend with the start of the European sovereign debt crisis in 2010-2011. The geographical breakdown of cross-border banking activity reflects a retrenchment on the back of the global financial crisis. Moreover, banks that received state aid were often pressured by national authorities to maintain domestic lending, cutting down on foreign lending. More recent data for 2014 suggest that cross-border deleveraging process is bottoming out.

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




Source: *Bruegel based on ECB data. Note: Share of assets held by banks headquartered in other EU countries and third countries over total banking assets in the European Union. The share is calculated for the aggregated EU-28 banking system.*

Cross-border penetration from third countries was more stable at about 8 per cent throughout the period, but also showed a temporary decline after 2007.

The remainder of this section provides first data on the Banking Union Area, which started in November 2014. Next, outward banking from the 'outs' is illustrated: the cross-border branches and subsidiaries in the Banking Union Area from banks headquartered in the 'outs'. Finally, inward banking to the 'outs' is analysed: the cross-border branches and subsidiaries in the 'outs' from banks headquartered in the Banking Union Area.

### *3.1 The Banking Union Area*

As discussed before, the deeper rationale for the Banking Union is cross-border banking in the Single Market. We expect therefore for a genuine Banking Union market to develop, where cross-border banking groups can transfer excess capital and liquidity across the group, and supervision is done at the consolidated level.

The international orientation of a country's banking sector can be captured by the outward banking claims of the largest banks. Splitting the assets of these banks into the home country, other EU countries and third countries allows gauging the potential for coordination failure between national authorities in crisis management.

The basic source for the geographical split of assets is banks' annual reports. When information on the geographical segmentation of assets is not available, we use the segmentation of credit exposures of the loan book, the most important asset class, as a proxy. Further information on credit exposure is available in the published stress test results for 2014 of the European Banking Authority. The full methodology for measuring geographic segmentation is described in Schoenmaker (2013). Under the new Capital Requirements Directive (CRD IV), financial institutions must disclose, by country in which it operates through a subsidiary or a branch, information about turnover, number of employees and profit before tax. This extra information allows us to refine the geographical split at country level.

Table 2 shows the top 25 banks in the Banking Union by end-2014. In terms of assets, 74% of assets are held within the Banking Union Area (the columns home and Banking Union combined), 17% in the rest of the world, and only 9% of assets are held in other EU countries. While 59% of assets were held with the respective home countries before entry to the Banking Union, this 'home' percentage increased to 74% when the home base expanded to the Banking Union Area. Only a few Banking Union Area banks have substantial activities in other EU countries. Examples are UniCredit with 23%, KBC Group with 24% and Erste Group with 37% (all three mainly in Central Eastern Europe) and Banco Santander with 32% (mainly in the United Kingdom).

### *3.2 Outward banking*

Moving from the Banking Union Area to the 'outs', Table 3 indicates the geographic segmentation of the top 10 banks outside the Banking Union. Overall, these banks hold 50% of assets in their home country, 10% in the Banking Union market, 8% in other EU countries and 32% in the rest of the world. On a bank level, Barclays (UK) holds 22% of assets in the Banking Union, mainly in Italy (5.1%), Spain (3.7%), Germany (3.4%) and France (2.9%).[33]

33. It should be noted that Barclays is divesting its retail banking activities in Italy, Spain and Portugal and is thus reducing its presence in the Banking Union Area (FT, 2015).

**Table 2 - Top 25 banks in Banking Union, end-2014**

| | Market share in Banking Union | Total assets | Of which: Home | Banking Union | Rest of Europe | Rest of world |
|---|---|---|---|---|---|---|
| Banking Group | in % | in € bn | In % | in % | in % | in % |
| Crédit Agricole (FR) | 5.1% | € 1,762 | 80% | 7% | 3% | 10% |
| BNP Paribas (FR) | 4.7% | € 2,077 | 34% | 34% | 10% | 22% |
| Groupe BPCE (FR) | 3.7% | € 1,223 | 90% | 2% | 1% | 8% |
| Société Générale (FR) | 3.3% | € 1,308 | 72% | 5% | 9% | 14% |
| Deutsche Bank (DE) | 2.7% | € 1,708 | 29% | 19% | 8% | 43% |
| Crédit Mutuel (FR) | 2.3% | € 706 | 89% | 8% | 1% | 3% |
| ING Bank (NL) | 2.0% | € 828 | 36% | 38% | 12% | 14% |
| Intesa Sanpaolo (IT) | 2.0% | € 646 | 87% | 6% | 5% | 3% |
| UniCredit (IT) | 2.0% | € 844 | 43% | 28% | 23% | 6% |
| Rabobank (NL) | 1.8% | € 681 | 75% | 4% | 3% | 19% |
| Banco Santander (ES) | 1.4% | € 1,266 | 26% | 8% | 32% | 34% |
| Commerzbank (DE) | 1.3% | € 557 | 50% | 19% | 16% | 16% |
| DZ Bank (DE) | 1.1% | € 402 | 76% | 9% | 6% | 8% |
| ABN AMRO (NL) | 1.1% | € 387 | 75% | 12% | 3% | 9% |
| BBVA (ES) | 1.1% | € 632 | 43% | 11% | 5% | 42% |
| La Caixa Group (ES) | 1.1% | € 339 | 89% | 5% | 4% | 2% |
| Landesbank Baden-Würt (DE) | 0.8% | € 266 | 76% | 13% | 3% | 8% |
| Bankia (ES) | 0.8% | € 242 | 86% | 9% | 4% | 1% |
| Banque Postale (FR) | 0.7% | € 213 | 93% | 5% | 2% | 0% |
| Bayerische Landesbank (DE) | 0.7% | € 232 | 77% | 10% | 5% | 8% |
| Nord LB (DE) | 0.6% | € 198 | 84% | 9% | 3% | 4% |
| Banca Monte dei Paschi Siena (IT) | 0.6% | € 183 | 94% | 4% | 1% | 1% |
| KBC Group (BE) | 0.6% | € 245 | 52% | 20% | 24% | 5% |
| Belfius (BE) | 0.6% | € 194 | 71% | 17% | 8% | 5% |
| Erste Group (AT) | 0.4% | € 196 | 46% | 15% | 37% | 2% |
| **Top 25 banks in the Banking Union** | **42.2%** | **€ 17,335** | **59%** | **15%** | **9%** | **17%** |

Source: *Bruegel based on annual reports. Notes: Top 25 banks are selected on the basis of total assets (as published in The Banker). The market share in the Banking Union is defined as the share of total assets in the Banking Union of the respective banking group over total banking assets in the Banking Union. The geographical breakdown refers to the share of assets in the home market, the Banking Union, the rest of Europe and the rest of the world over the total assets of the respective banking group. The home and Banking Union shares add up to the total Banking Union share. The last line of the top25 banks is calculated as a weighted average (weighted according to assets).*

Nordea (Sweden), SEB Group (Sweden) and Danske Bank (Denmark) have assets amounting to 18%, 14% and 12% in the Banking Union (particularly in Finland and in the Baltics)[34], respectively. These last three banks are pan-Nordic banks.

This indicates that the 'outs' are characterised by a large share of outward banking claims to the rest of Europe, especially the Scandinavian countries. If all of the 'outs' were to join Banking Union, the potential improvement would be the 10% of assets held in the Banking Union and the 8% of assets held in other EU countries that are not yet part of the Banking Union.

**Table 3 - Top 10 banks outside Banking Union, end-2014**

| | Market share in Banking Union | Total assets | Home | BU | Rest of Europe | Rest of world |
|---|---|---|---|---|---|---|
| **Banking Group** | **in %** | **in € bn** | **in %** | **in %** | **in %** | **in %** |
| HSBC (UK) | 0.5% | € 2,170 | 33% | 6% | 3% | 58% |
| Barclays (UK) | 1.3% | € 1,745 | 37% | 22% | 2% | 38% |
| Royal Bank of Scotland (UK) | 0.2% | € 1,350 | 74% | 5% | 0% | 21% |
| Lloyds Banking Group (UK) | 0.0% | € 1,099 | 96% | 1% | 1% | 1% |
| Nordea (SE) | 0.4% | € 669 | 24% | 18% | 57% | 1% |
| Standard Chartered (UK) | 0.1% | € 598 | 12% | 3% | 1% | 84% |
| Danske Bank (DK) | 0.2% | € 465 | 62% | 12% | 26% | 0% |
| Svenska Handelsbanken (SE) | 0.1% | € 300 | 59% | 8% | 18% | 14% |
| SEB Group (SE) | 0.1% | € 281 | 60% | 14% | 18% | 8% |
| Swedbank (SE) | 0.1% | € 226 | 76% | 10% | 9% | 5% |
| **Top 10 banks outside the Banking Union** | **2.9%** | **€ 8,902** | **50%** | **10%** | **8%** | **32%** |

Note: *see Table 2. The top 10 is ranked by total assets.*

34. In this context, Estonia sees, for example, the two Swedish subsidiaries as systemically important (accessible under https://www.esrb.europa.eu/pub/pdf/other/2015-12-02_ESRB_notification_Eesti_Pank.pdf?9f2dcdc41d0b84b7226e67323033cb56).

In countries characterised by an extensive part of outward banking, the resolution of these multinational banks poses an important challenge. The famous quote 'banks are international in life, but national in death' by Mervyn King captures best what is at stake (quoted in Turner, 2009, p.36). In the case of multinational banks, if supervision and resolution are national, home-country authorities only take the domestic share of a bank's business into account when considering a bank rescue, without paying much attention to the cross-border externalities of their actions (Schoenmaker, 2011; Zettelmeyer, Berglöf and De Haas, 2012). In this context, the eventual burden sharing will be contentious between the home and the host country, inducing outcomes that are both inefficient and detrimental for systemic stability (Goodhart and Schoenmaker, 2009). The abortive rescue of Fortis, which put national interests first, is a good example of this coordination failure (Schoenmaker, 2013). While the SRM is a complicated coordination mechanism involving the national finance ministers in addition to the Single Resolution Board, the SRM Regulation mandates a Banking Union wide perspective for the resolution of Banking Union banks (Schoenmaker, 2015). This Banking Union wide mandate should prevent the splitting of banks along national lines in the resolution process.[35]

### *3.3 Inward banking*

Moving from outward to inward banking, Table 4 reports the foreign-owned assets in EU countries as a percentage of total assets of that country's banking sector, domestic and foreign-owned. It emerges that non-Banking Union countries are characterised by high inward claims from other European Union countries, as the extent of inward claims coming from the European Union is actually higher in the 'outs' (19%) compared to the 'ins' (14%).

In the non-Banking Union countries, the cross-border share in total assets of a country's banking sector is particularly high in Central Eastern Europe, which exhibits shares between 45% and 90%. By contrast, Sweden and Denmark report only moderate inward claims of around 10% and 18%, respectively. The United Kingdom is a special case. It is the only EU country which experiences more claims coming from banks in the rest of the world (32%) than from banks headquartered in the rest of the European Union (17%). Major US and Swiss (investment) banks

35. Note that Article 6(1) of the SRM Regulation forbids discrimination against entities on national grounds.

form a substantial part of the share coming from the rest of the world. These banks use their London office as a spring plank to conduct business across the European Union. This reflects the importance of London as an international financial centre.

**Table 4 - Cross-border share in % of total assets of a country's banking sector, end-2014**

| Countries | Total assets (EUR bn) | home | other EU | third country |
|---|---|---|---|---|
| Austria | 880 | 75% | 18% | 7% |
| Belgium | 1,101 | 34% | 52% | 14% |
| Bulgaria | 47 | 23% | 74% | 3% |
| Croatia | 57 | n.a. | n.a. | n.a. |
| Cyprus | 91 | 70% | 13% | 16% |
| Czech Republic | 196 | 12% | 88% | 0% |
| Denmark | 1,082 | 82% | 17% | 1% |
| Estonia | 22 | 10% | 84% | 6% |
| Finland | 576 | 32% | 67% | 1% |
| France | 7,890 | 91% | 8% | 1% |
| Germany | 7,799 | 88% | 10% | 2% |
| Greece | 397 | 98% | 2% | 0% |
| Hungary | 110 | 55% | 42% | 4% |
| Ireland | 1,008 | 63% | 28% | 9% |
| Italy | 4,016 | 87% | 12% | 1% |
| Latvia | 31 | 42% | 44% | 14% |
| Lithuania | 26 | 23% | 73% | 4% |
| Luxembourg | 893 | 23% | 59% | 18% |
| Malta | 53 | 70% | 20% | 11% |
| Netherlands | 2,451 | 93% | 5% | 2% |
| Poland | 380 | 34% | 59% | 7% |
| Portugal | 467 | 79% | 20% | 1% |
| Romania | 91 | 31% | 69% | 0% |
| Slovakia | 64 | 4% | 96% | 0% |
| Slovenia | 44 | 67% | 33% | 0% |
| Spain | 2,966 | 92% | 6% | 2% |
| Sweden | 1,245 | 90% | 9% | 1% |
| United Kingdom | 8,990 | 52% | 17% | 32% |
| **Banking Union** | **30,715** | **83%** | **14%** | **3%** |
| **Non-Banking Union** | **12,253** | **57%** | **19%** | **24%** |
| **EU** | **42,968** | **76%** | **16%** | **9%** |

Source: *Bruegel based on ECB Structural Financial Indicators. Note: Share of business from domestic banks, share of business of banks from other EU countries, and share of business of banks from third countries are measured as a percentage of the total banking assets in a country. Banking Union, Non-Banking Union and EU are calculated as a weighted average (weighted according to total assets).*

Zooming in on the 'outs' in Central Eastern Europe, table 5 reports a further breakdown of their banking assets from banks coming from other countries according to where their headquarters are based: in the Banking Union, the non-Banking Union Area or the rest of the world. On aggregate, the banking sector in the Central Eastern European countries is characterised by 70% cross-border claims, where 65% operate as subsidiaries and only 5% as branches. The subsidiaries can be broken down further into whether their parents are located in the Banking Union Area or outside. An overwhelming 93% of the subsidiaries have their parent bank located in the Banking Union Area, compared to 1% coming from the non-Banking Union Area and 6% from the rest of the world.

A look at the country-level confirms the importance of claims coming from the Banking Union Area: with 99% and 97% respectively, the Czech Republic and Croatia report by far the most extensive share of foreign owned subsidiaries coming from the Banking Union Area, followed by positions of Romania, Hungary and Poland of around 90% to 95%. Bulgaria exhibits slightly lower claims, with 82% coming from the Banking Union Area. On aggregate, all 'outs' in Central Eastern Europe, except Hungary, have more than half of their banking assets coming from subsidiaries of banks headquartered in the Banking Union Area. For Hungary, this number is 37% (95% of the 39% via subsidiaries).

**Table 5: BU and non-BU share in % of total assets in the CEE's banking sector, end-2014**

| Countries | Total assets | Cross border | Branches | Subsidiaries | BU | Non-BU | RoW |
|---|---|---|---|---|---|---|---|
| Czech Rep. | 195.5 | 88% | 10% | **78%** | 99% | 0% | 1% |
| Croatia | 56.6 | 80%* | 0% | **80%*** | 97% | 0% | 3% |
| Bulgaria | 47.4 | 77% | 7% | **71%** | 82% | 17% | 1% |
| Romania | 90.5 | 69% | 9% | **60%** | 91% | 3% | 6% |
| Poland | 379.6 | 66% | 2% | **64%** | 90% | 0% | 10% |
| Hungary | 109.6 | 45% | 7% | **39%** | 95% | 0% | 5% |
| **Non-BU** | **879.2** | **70%** | **5%** | **65% (100%)** | **(93%)** | **(1%)** | **(6%)** |

Source: *Bruegel based on ECB and SNL financials (data on (BU) Banking-Union, (non-BU) non-Banking Union and (RoW) Rest of World). Note: * the data for Croatia is taken entirely from SNL. Non-Banking Union is calculated as a weighted average (weighted according to total assets) for CEE. The sum of SNL calculated data does not add up completely to the data provided by the ECB due to different methods of collection.*

During the financial crisis, supervisors tightened restriction on intra-group cross-border transfers, limiting the ability of multinational banking groups to re-allocate capital and liquid assets from subsidiaries with an excess to those in need of capital and/or liquidity. Hence, there is a tendency for higher capital and liquidity for subsidiaries on a stand-alone basis, which translates into a higher cost of capital for the host country (IMF, 2015).

Moreover, even though the Vienna Initiative was successful in coordinating policy during the recent financial crisis, Banking Union membership could substitute for such ad-hoc arrangements. First, this would allow consolidated supervision, as opposed to sub-entity stand-alone supervision. Darvas and Wolff (2013) note that in the central and eastern European countries, national authorities had a hard time addressing credit booms through national supervisory action, since banks used supervisory arbitrage. By the same token, national authorities had difficulties in preventing a massive withdrawal by Western European banks; the Vienna Initiative was in the end decisive to maintain the lending capacity in Central Eastern Europe. In the case of Banking Union membership, these issues could be more easily addressed. Second, it would give more regulatory certainty in times of crisis, as it can be seen as a permanent 'lock-in' coordination tool for all the participating countries, avoiding ad-hoc measures.

Summing up, we can ask what the numbers are telling us. As we have shown, the Nordics are characterised by extensive outward banking towards the Banking Union Area, while inward banking from the Banking Union is particularly important for Central Eastern Europe. Taken together, this indicates that these 'outs' might benefit from Banking Union membership. That leaves the United Kingdom, which as an international financial centre has more outward banking towards the rest of the world than to the Banking Union. For the United Kingdom, the option of Banking Union membership thus seems to be partly relevant. But Banking Union is also important for London's position as gateway to Europe for international banks.

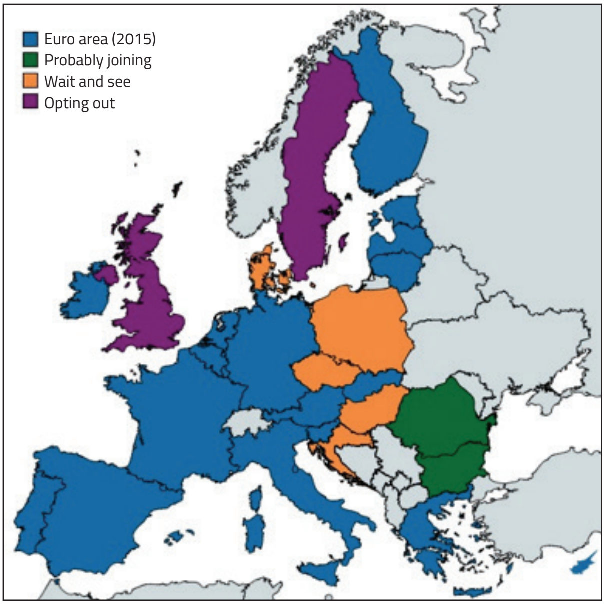
### *4. 4. The political dimension*

When confronted with cross-border banking, the financial trilemma states that policymakers face a choice between supranational policies and national restrictions. The supranational option is supervision and resolution within the Banking Union. The alternative of national restrictions includes the emerging practice of requiring the subsidiary form cross-border banking business, as witnessed in Central Eastern Europe. Through the separate licence for these subsidiaries and subsequent supervision, the host country can control these subsidiaries. But such stand-alone subsidiaries experience a higher cost of funding, as discussed earlier.

While the empirical findings in the previous section suggest that the Banking Union might be beneficial for the 'outs', this is not reflected in the political discussions in the 'outs' about joining Banking Union. Figure 3 indicates that opposite opinions emerge. In the Nordics, Sweden declared in 2014 that it will not join Banking Union in foreseeable time, and has not since changed substantially idea on this matter,[36] remaining the United Kingdom's most sceptical ally. By contrast, the Danish government declared in April 2015 that it wants the Scandinavian state to become a part of the Banking Union, as it views it as being in the interest of its financial sector (Østergaard and Larsen, 2015). However, a referendum on 3 December 2015 rejected closer ties with the European Union on a range of issues, and might be an indicator of a less positive stance with respect to the Banking Union membership.[37] In central and eastern Europe, the Czech Republic remains sceptical of an eventual participation in the Banking Union, and Hungary and Poland adopted also a "wait" and "see" approach. For Hungary, the findings from the National Bank by Kisgergely and Szombati (2014) summarise the topic well. Bulgaria and Romania are more positive about joining the Banking Union. In July 2014, Bulgaria announced that it would seek to join the Banking Union, by mid-2016, as poor supervision led to the collapse of its fourth biggest lender.[38] Romania too has embraced the idea of joining the Banking Union from early on (Isărescu, 2013).

36. http://www.government.se/sweden-in-the-eu/eu-policy-areas/economic-and-financial-affairs/
37. http://www.bloomberg.com/news/articles/2015-12-02/eu-skepticism-rife-in-denmark-as-referendum-polls-signal-nej-
38. http://www.reuters.com/article/us-bulgaria-cenbank-idUSKCN0RO22B20150924#3HLqIKc7c1qM4KjW.97

**Figure 3 - Member State's standpoint on the Banking Union**




Source: *Press releases and National Central Banks, as of Dec. 2015.*

These "wait" and "see" positions are often motivated by the following considerations. First, joining the Banking Union might imply joining the Economic and Monetary Union beforehand. However, as highlighted in section 1, the rationale for the Banking Union is two-fold. At the height of the European debt crisis in 2012, Banking Union emerged as a remedy against the sovereign-banking loop in the euro area. This loop is linked to the single currency. In the long-term, we have argued that the Banking Union's ultimate rationale is more linked to cross-border banking in the Single Market, which goes beyond the single currency. Following the latter argument, the debate surrounding the question of opting-in is not necessarily a debate about joining the full package, e.g. joining both the Economic and Monetary Union and the Banking Union.

The 'outs', in particular those in the Nordics and Central and Eastern Europe, could join the SSM and the SRM on a bilateral basis, which is advantageous given their large share of outward and inward banking as observed in section 3. The SSM and SRM Regulations explicitly allow for this opting-in. The 'outs', except for Sweden and the United Kingdom, have already signed up to the intergovernmental agreement on the Single Resolution Fund. The benefit of opting in is enhanced coordination of supervision and resolution. Moreover, it would give the 'outs' a seat at the table at the Supervisory Board of the ECB and at the Single Resolution Board, as well as some safeguards for non-euro area opt-ins, such as the reasoned disagreement procedure and the exit clause.[39] However, an opting-in country has more limited influence in the decision-making process within the SSM compared to a euro area country, as the former has no seat in the Governing Council of the ECB. The Governing Council is the highest decision-making body within the SSM. Also, liquidity provision by the ECB is not automatic (IMF, 2015).

Second, there are still misalignments between supervision and burden sharing. Nevertheless, joining the ESM for indirect and direct bank recapitalisation should also be made feasible on a bilateral basis. During the Irish banking rescue in 2010, the Western European 'outs', the United Kingdom, Denmark and Sweden, joined the rescue package by providing bilateral loans, following the ECB capital key, as some British banks were exposed to Ireland and would thus also benefit from enhanced financial stability in Ireland (Gros and Schoenmaker, 2014). This is a good example that burden sharing among the euro area countries can be expanded if and when needed.

Third, the wait and see approach is an answer to the short track record of Banking Union so far. The SSM has one year of operation, while the Single Resolution Board has started its mandate in January 2016, and has not yet handled a resolution case.

## 5. Conclusions

In this paper, we have argued that the deeper rationale for the Banking Union is related to cross-border banking in the Single Market. The large and substantial outward banking claims to the Banking Union Area, which characterise some of the major banks in the Nordics, and the large inward banking claims from the Banking Union to Central Eastern Europe indicate that these countries

39. The exit clause means that non euro-area European Union members, unlike the euro-area members, are actually allowed to terminate their participation in the Banking Union.

could profit from joining the Banking Union. These countries have strong banking linkages with the Banking Union Area.

Joining the Banking Union would imply less cross-border coordination failures, especially when it comes to resolution, and a lock-in tool, to increase regulatory certainty in times of market turmoil. For the Nordics, a membership in the Banking Union would increase the effectiveness and efficiency of the supervision and resolution of the larger European cross-border banks allowing supervision and resolution on a consolidated level. For Central Eastern Europe, the Banking Union would be a more stable arrangement for managing financial stability and maintaining lending capacity than the ad-hoc Vienna Initiative. Finally, the United Kingdom, as an international financial centre, is a special case with both international and European cross-border banking claims.

From a political perspective, member states' opinion on joining the Banking Union ranges from an outright "no" towards considering Banking Union membership. Experiences of the 'ins' with the Single Supervisory Mechanism and the Single Resolution Mechanism, for better or worse, will shape the willingness of the 'outs' to join. As cross-border banking is related to the Single Market and not to the single currency, countries could join the Banking Union without joining the Economic and Monetary Union.

**References**

Acharya, V. (2009). A Theory of Systemic Risk and Design of Prudential Bank Regulation, Journal of Financial Stability 5, 224-255.

Battistini, N., Pagano, M., and Simonelli, S., (2014). Systemic risk, sovereign yields and bank exposures in the euro, Economic Policy 29, 203–251.

Bertay, A.C., Demirguc-Kunt, A., and Huizinga, H., (2011). Is the Financial Safety Net a Barrier to Cross-Border Banking?, EBC Discussion Paper No. 2011-037, Tilburg: European Banking Center.

Cerutti, E., Ilyina, A., Makarova, Y., and Schmieder, C., (2010). Bankers without Borders? Implications of Ring-Fencing for European Cross-Border Banks, in P. Backé, E. Gnan and P. Hartmann (editors): Contagion and Spillovers: New Insights from the Crisis, SUERF Study 2010/5.

Claessens, S., Herring, R., and Schoenmaker, D., (2010). A Safer World Financial System: Improving the Resolution of Systemic Institutions, 12th Geneva Report on the World Economy, London: CEPR.

Constâncio, V. (2012). Towards a European Banking Union, Lecture delivered at the Duisenberg School of Finance, 7 September, Amsterdam.

D'Hulster, K., and Ötker-Robe, I., (2015). Ring-fencing cross-border banks: An effective supervisory response?, Journal of Banking Regulation 16, pp. 169–187, July.

Darvas, Z., and Wolff, G., (2013). Should Non-Euro Area Countries Join the Single Supervisory Mechanism?, DANUBE: Law and Economics Review 4(2), 141-163.

De Haas, R., and van Lelyveld, I., (2010). Internal Capital Markets and Lending by Multinational Bank Subsidiaries, Journal of Financial Intermediation 19, pp. 1–25.

De Haas, R., Korniyenko, Y., Pivovarsky, A., and Tsankova, T., (2015). Taming the Herd? Foreign Banks, the Vienna Initiative and Crisis Transmission, Journal of Financial Intermediation, 24 (3), 325-355.

EBRD, (2012). Vienna Initiative – moving to a new phase, Factsheet, April.

Eichengreen, B. (1999). Towards A New International Financial Architecture: A Practical Post-Asia Agenda, Washington, D.C.: Institute for International Economics.

Erce, A., (2015). Bank and Sovereign Risk Feedback Loops, ESM Working Paper Series No. 1, European Stability Mechanism, Luxembourg.

European Systemic Risk Board (2015) 'ESRB Report on the Regulatory Treatment of Sovereign Exposures', European Systemic Risk Board, Frankfurt.

Financial Times, (2015), Barclays to lose £200m on Italian retail bank sale, 3 December, London.

Goodhart, C., and Schoenmaker, D., (2009). Fiscal Burden Sharing in Cross-Border Banking Crises, International Journal of Central Banking, 5, 141-165.

Gros, D., and Schoenmaker, D., (2014). European Deposit Insurance and Resolution in the Banking Union, Journal of Common Market Studies, 52, 529-546.

Herring, R., (2007). Conflicts between Home and Host Country Prudential Supervisors' In D. Evanoff, J. Raymond LaBrosse and G. Kaufman, eds., International Financial Instability: Global Banking and National Regulation. Singapore: World Scientific, 201–220.

IMF, (2015). Opting into the Banking Union before Euro adoption, Chapter in: Staff report on cluster consultations – common policy frameworks and challenges, Country Report No. 15/97, April.

Isărescu, M., (2014). Relations between Euro and Non-Euro Countries within the Banking Union, Speech at the 15th International Advisory Board of UniCredit, Rome.

Kisgergely, K., and Szombati, A., (2014), Banking Union through Hungarian eyes – the MNB's assessment of a possible close cooperation, MNB Occasional Papers 115.

Obstfeld, M. (2009). Lenders of Last Resort in a Globalized World, CEPR Discussion Paper No. DP7355.

Østergaard, M., (2015). Comments on the report on possible Danish participation in the Banking Union, accessible under https://www.evm.dk/english/news/2015/15-05-11-banking-union

Pauly, L. (2009). The Old and the New Politics of International Financial Stability, Journal of Common Market Studies 47, pp. 955–975.

Rodrik, D. (2000). How Far Will International Economic Integration Go?, Journal of Economic Perspectives 14, pp. 177–186.

Schoenmaker, D., (2011). The Financial Trilemma, Economics Letters 111, 57-59.

Schoenmaker, D., (2013). Governance of international banking: the financial trilemma, Oxford University Press.

Schoenmaker, D., (2015). Firmer Foundations for a Stronger European Banking Union, Bruegel Working Paper, 2015/13.

Turner, A., (2009). The Turner Review: A Regulatory Response to the Global Banking Crisis. London: Financial Services Authority.

Véron, N., (2015). Europe's radical Banking Union, Bruegel essay series.

Zettelmeyer, J., Berglöf, E., and De Haas, R., (2012). Banking Union: The view from emerging Europe, in Beck, Thorsten (ed) Banking Union for Europe: Risks and Challenges, Centre for Economic Policy Research, London.

# The Coordination of Micro and Macro-Prudential Supervision in Europe[40]

by Piergiorgio Alessandri and Fabio Panetta[41]

**Abstract**

With the creation of the Banking Union and the launch of a new macroprudential policy framework, banking supervision in Europe has become significantly more complex than it used to be. The coexistence of micro- and macro-prudential regimes that rely on similar tools to pursue different objectives may at times give place to conflicting policy interventions. This risk is structurally higher in bank-based economies with highly concentrated banking sectors. It may be further heightened in the contractionary phase of the cycle, when policymakers face a short-run trade-off between the resilience of the financial sector and the speed of the recovery. Coordination is thus a critical issue today in the euro area. In order to deal with it, supervisors need to agree on a ranking between their policy objectives, internalise the interactions between micro and macroprudential tools, and consider the general equilibrium effects of their interventions on the economy of the area.

Banking supervision has undergone two radical reforms in Europe over the last four years. The first one was the creation of the Banking Union. The bailout of Dexia in October 2011 demonstrated that large 'systemic' institutions are both hard to supervise and difficult to wind down for national authorities. With

40. JEL Classification: G21; G28. Keywords: prudential policy, bank supervision, policy coordination, euro area.

41. Piergiorgio Alessandri is in the Financial Stability Directorate at Banca d'Italia. Fabio Panetta is Deputy Governor at Banca d'Italia. The article is based on Alessandri and Panetta (2015). The opinions expressed herein do not necessarily reflect those of the Banca d'Italia

the creation of the Single Supervisory Mechanism (SSM) and the Single Resolution Mechanism (SRM), these tasks have been transferred into the hands of supra-national agencies. The SSM, formed by the European Central Bank (ECB) and national supervisory authorities, is now the chief microprudential supervisor of the euro area. The second important novelty was the launch of a "macroprudential" policy framework. The crisis demonstrated that the resilience of a financial system does not boil down to that of its individual components (the 'fallacy of composition' of *e.g.* Danielsson *et al.* 2013); this pushed regulators in Europe and elsewhere to introduce new macroprudential tools that operate on the financial sector as a whole, aim specifically at controlling systemic risks, and can be used counter-cyclically to smooth both the expansionary and contractionary phases of the financial cycle (ESRB, 2014).

The overhaul of the traditional microprudential policy framework (henceforth MIP) and the introduction of a new macroprudential regime (henceforth MAP) thus find equally strong motivations in the history of the last decade. Their combination, however, has made banking supervision significantly more complex than it used to be. The coexistence of decision makers that have different scopes and objectives but operate on the same set of tools poses a question: how, if at all, should they coordinate[42]?

What makes coordination an interesting problem is primarily the link between capital requirements, credit and economic activity.[43] As long as a variation in capital requirements affects credit supply, and this feeds through to output and prices, MAP and MIP authorities have a structural reason to disagree on how the requirements should change over the business cycle. MAP authorities internalise the trade-off between capital and credit, whereas MIP authorities operating on individual institutions do not. Hence, the 'shadow value' they attach to an additional unit of bank capital is different: raising capital in a recession is naturally more costly for a MAP authority.[44] A further complication is that

42. The view that MIP and MAP differ in terms of objectives rather than tools is shared e.g. by Bank of England (2011) and Angelini *et al.* (2013).
43. We focus on bank capital requirements because it is the instrument that micro and macro supervisors are working with most intensely and probably the one for which their interaction is most direct. The coordination problem we highlight however is a general one, and may in principle also arise when regulating liquidity, maturity transformation or market activity.
44. The nature of the linkage between capital requirements and credit supply is of course hard to gauge and has been intensely scrutinized over the last few years. Cecchetti (2014) argues that the connection is at best tenuous; but Aiyar *et al.* (2014) and Jimenez *et al.* (2015) provide microeconometric evidence that UK and Spanish banks tightened lending significantly in response to changes in regulatory requirements in the past.

'micro' policies are not restricted to operate on individual institutions but are sometimes implemented simultaneously on the entire banking system: an example in the Euro area is the Supervisory Review and Evaluation Process (SREP) provided for in CRD IV. System-wide MIP interventions are *de facto* equivalent to a MAP intervention, and are likely to affect aggregate credit and economic activity. Since in this case MIP and MAP authorities operate through the same transmission mechanisms, in principle they should attach the same 'shadow value' to bank capital and agree naturally on how the requirements should be set. However, policies can still diverge. In fact, their mandate typically induces MIP supervisors to focus on a shorter time horizon or simply to overlook the macroeconomic implications and the systemic implications of their choices.

If one looks at the coordination problem through this lens, the reasons why it is critical in Europe today become immediately clear. On the one hand, the need to support the recovery by stimulating credit supply ranks high in policy-makers' agenda (Draghi, 2014). On the other hand, the link between capital requirements and aggregate credit – and hence the contractionary spillover of a regulatory tightening – is likely to be stronger in the bank-based economies of the euro area than in countries, such as the US or the UK, where households and firms have access to a number of alternative funding sources. A further complication stems from the high level of concentration of European banking markets. To see why concentration matters, think of a one-bank economy hit by a sudden recession. The MIP authority would presumably raise capital requirements to protect the bank from increasing credit risks, while the MAP authority could lower the (countercyclical) 'systemic' capital requirement to avoid a credit crunch that would make the recession worse. Since the system *is* the bank, these interventions neutralise one another leaving the overall supervisory stance unchanged. In an economy with $N$ smaller and heterogeneous banks the problem is less severe. In this case a fall in the systemic requirement can be combined with an increase in microprudential requirements for the $k<N$ banks the MIP supervisors identify as fragile. Capital requirements fall in net terms for $N$-$k$ sound banks, so MAP is somehow diluted by MIP, but the dilution is only partial and it stimulates a desirable reallocation of credit from fragile to sound institutions.

As Figure 1 shows, Europe is closer to the one-bank case than to the $N$-banks case. The figure focuses on the four largest economies of the euro area plus Great Britain, and reports two measures of banking concentration: the Herfindhal index calculated on all domestic credit institutions, and the share of total assets held by the five largest domestic banking groups. The indicators have been on an upward-sloping trend since 1997, and the crisis clearly has not changed the picture. Furthermore, the two indicators are strongly correlated within each country, which suggests that concentration is primarily driven by the increasing importance of a handful of large players. This means that European supervisors have a structural reason to take coordination problems very seriously.[45]

The governance structure of the euro area is conceptually appealing because it puts authorities in a good position to insure coordination between MIP and MAP at both the European and the national level. The crucial feature of the framework is that, under the SSM, the ECB retains both MIP responsibilities and MAP powers to adjust the policy stance adopted by individual national authorities, in coordination with the European Systemic Risk Board (through CRR/CRD IV). The ultimate decision maker is thus the Governing Council, which interacts closely with the Supervisory Board of the SSM and is called to form a judgment on draft decisions submitted by the latter on both micro and macroprudential matters. Hence, the Council should be able to internalise any tensions between MIP and MAP and enforce a well-defined hierarchy between the two. But how should such a hierarchy be defined *in principle*? And how can we make sure that it is credible and that it works *in practice*?

The MAP objective of reducing systemic risk appears to be logically prior to the MIP objective of preventing idiosyncratic bank failures. This ranking arises for three complementary reasons. First, no individual bank can be safely deemed to be sound if significant systemic risks loom large in the economy. As we learned in 2008-2009, even liquid and well-capitalised banks can quickly be cornered by the sudden seizure of funding markets or by asset depreciations caused by fire sales. Second, idiosyncratic bank failures are harmful mainly because of their systemic spillovers: a given bank's default may or may not constitute a serious problem depending on whether or not its counterparties are able to withstand its demise. This means that an effective management of MAP can make the *ex-ante* cost associated to MIP mistakes much smaller – and, symmetrically, a misuse of MAP can hugely increase the burden on MIP au-

45. A broader international comparison may also be instructive: between 2005 and 2011, the market share of the three largest banks in the European Union as a whole increased from 46% to over 60%; in the US it went from 20% to 30%, while in Japan it remained stable at about 40% (Bijlsma and Zwart, 2013).

thorities. Third, experience shows that big, well-diversified banks are resilient to idiosyncratic shocks and are unlikely to become insolvent without a systemic shock. In other words, systemic fire sales and liquidity shortages may be both necessary and sufficient conditions for large banks to fail. Since MAP is designed precisely to prevent events of this kind, the individual resilience of these institutions ultimately depends on MAP as much as on MIP. It follows that, by and large, MIP should work to fine-tune regulatory requirements for individual institutions subject to MAP providing an adequate level of financial stability at the aggregate level (ECB, 2014).

Once a ranking of micro and macroprudential objectives has been agreed, the issue arises of how it can be implemented and rendered credible from the public's perspective. This takes us into a political economy arena where the agency problems associated to the (largely implicit) contract between the supervisors and their constituencies become important. One aspect of this problem that has received significant attention is the possibility of an *inaction bias* in supervision. While the costs of restrictive MAP measures may appear rapidly, their benefits in terms of systemic risk mitigation may accrue only in the future and might be harder to gauge both for the regulator and for the general public. Hence, MAP authorities may be unwilling to take restrictive actions in a boom, undermining the counter-cyclicality of the MAP regime. This argument has been often advanced in policy and research circles.[46] In this sense, the difficulty of 'taking the punch bowl away during a party' is an important and well-understood lesson from the financial crisis.

However, supervision might also be affected by a bias that operates in the opposite direction. Although evaluating a supervisor's performance is generally difficult for outsiders, this difficulty is clearly asymmetric: the negative implications of lax supervision (bank failures) are easier to verify than those of an overly restrictive one (an inefficiently low rate of credit or economic growth). A suboptimal growth rate is not only harder to identify but also easier to blame onto somebody else – for instance the government, the monetary policy authority, or international competition. Hence, supervisors are ultimately in the spotlight if banks fail and not, or not nearly as much, if growth is weak. This asymmetry may generate an *"accountability bias"* of sorts, twisting the regulatory regime towards a sub-optimally restrictive stance. The most extreme manifestation of this problem would

46. Knot (2014), Freixas and Parigi (2009), Goodhart (2011).

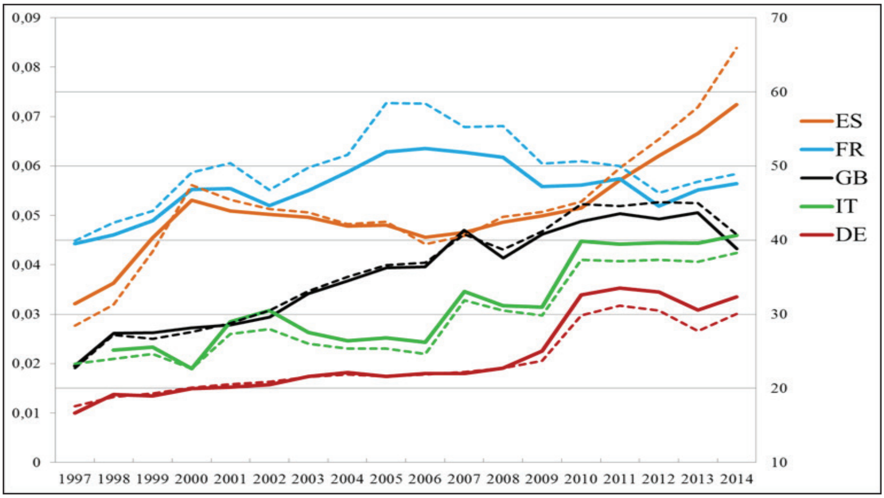
occur in a situation where (i) supervisors care mostly about their own reputation, and (ii) the public's only source of information on their effectiveness is banks' actual ability to withstand negative shocks.[47] In this case supervisors would certainly tighten regulatory requirements beyond the socially optimal point, because this would allow them to maximise their private payoff (reputation) at the expense of public outcomes (optimal levels of credit or economic growth).[48] Since private incentives cannot be changed by simply creating new labels and policy frameworks, MIP and MAP authorities may be equally likely to fall foul to behavioural biases of this kind despite having different objectives. This means that even if the authorities agree in theory that MAP should work counter-cyclically, and prevail over MIP when there is a conflict between the two, there is no guarantee that such a set up will be maintained in practice. As in other areas of public policy, agency problems can force a (large) wedge between theory and practice.

In conclusion, in the concentrated bank-based economies of the euro area the coordination of micro and macroprudential policies is, in our view, crucial to the overall success of the new supervisory framework. We argue that it can be achieved under two conditions: supervisors should (i) place macroprudential policy at the centre of the framework and (ii) internalise the interactions between micro and macroprudential tools and their general equilibrium effects on the economy of the area. Above all, they should acknowledge that there is a coordination issue that needs to be dealt with. Being clear on the relation between micro and macroprudential supervision today is at least as important as getting the policy interventions right. The costs of setting a bad precedent, weakening the credibility of macroprudential policy or creating uncertainty on the overall logic of the supervisory framework, could be extremely large. To contain them, supervisors should make sure that their decisions are derived from first principles, rest on sound economic analysis and are clearly linked to their mandates.

47. Banks' actual survival is a noisy signal on the quality of the underlying supervision: it is informative, because good supervision enhances a bank's probability of emerging unscathed from a stress situation, but noisy, because this correlation is not perfect.

48. An early formulation of a similar problem can be found in Boot and Thakor (1993). In their model supervisors monitor banks' portfolio choices and decide whether or not banks are viable. As in our example, the supervisors' monitoring ability cannot be observed by outsiders, which gives them an incentive to build up their reputation. Boot and Thakor show that supervisors can boost their reputation by keeping bad banks afloat: since a foreclosure signals a previous supervisory fault, supervisors let insolvent banks operate longer than they should, hoping that positive shocks will allow them to recover. Our example illustrates that the same reputational motive can also distort regulatory requirements: higher requirements (*ex-ante*) and a lax bank closure policy (*ex post*) can be seen as alternative ways for supervisors to protect their reputation.

**Figure 1 - Increasing concentration in European banking sectors.**




Source: *ECB Statistical Data Warehouse. For each country, the continuous line is the Herfindhal index calculated on all domestic credit institutions (left axis) and the dashed line is the share of assets held by the five largest domestic banking groups (right axis, in percentage points).*

## References


Alessandri, P., and Panetta F., (2015). Prudential policy at times of stagnation: a view from the trenches, Bank of Italy Occasional Paper n.300, December.

Angelini, P., Nicoletti-Altimari, S., & Visco, I. (2012). Macroprudential, microprudential and monetary policies: conflicts, complementarities and trade-offs, in Dombret, A., Lucius, O. (eds.), Stability of the Financial System - Illusion or Feasible Concept?, Elgar Edwards Publishing.

Aiyar, S., Calomiris, C. W., & Wieladek, T. (2014). Does Macro-Prudential Regulation Leak? Evidence from a UK Policy Experiment. Journal of Money, Credit and Banking, 46(s1), 181-214.

Bank of England, (2011). Instruments of Macroprudential Policy, Discussion Paper, December.

Bijlsma, M. J., & Zwart, G. T. (2013). The changing landscape of financial markets in Europe, the United States and Japan (No. 2013/02). Bruegel Working Paper.

Boot, A. W., & Thakor, A. V. (1993). Self-interested bank regulation. The American Economic Review, 206-212.

Cecchetti, S., (2014). The jury is in, CEPR Policy Insight n.76

Danielsson, J., Shin, H.S. and Zigrand J-P., (2013). Endogenous and systemic risk, chapter 2 in Joseph G. Haubrich and Andrew W. Lo eds., Quantifying Systemic Risk, University of Chicago Press, November.

Draghi, M., (2014). Monetary Policy in a Period of Prolonged Inflation, speech delivered at the ECB Forum on Central Banking, Sintra, May.

European Systemic Risk Board, (2014). Flagship report on macroprudential policy in the banking sector, March.

Freixas, X., and Parigi, B.M., (2009). Rules vs discretion in times of financial liberalization, manuscript.

Goodhart, C. A. (2011). The macro-prudential authority: powers, scope and accountability. OECD Journal, 97.

Jiménez, G., Ongena, S., Peydrò, J.L., and Saurina, J., (2015). Macroprudential policy, countercyclical bank capital buffers and credit supply: evidence from the Spanish dynamic provisioning experiments, European Banking Center Discussion Paper No. 11.

# Questions & Answers

In this section two contributors address questions raised by the editors. These contributions analyse the evolution of Multinational Banking in Europe and the effects on the integration of the European Banking sector (Davies, De Haas). The last section (De Haas) also discusses the main regulatory challenges for the implementation of a Banking Union.

# The European Banking Union: Challenges ahead

by Howard Davies[49]

**Abstract**

This Q&A Section discusses the evolution of Multinational Banking in Europe, focusing on the halt to the integration process that occurred after the recent financial crises. How could institutions learn from the past and revitalize the integration process?

## Questions on Multinational Banking and the Banking Union

***How has multinational banking evolved in Europe since the EU Directives on financial market integration of the 1990s?***

The single market programme in the 1990s gave a further boost to the integration of Europe's financial markets, which had been under way for some time. Cross-border acquisitions became fashionable, and banks began to use the European passport to open branches and take deposits in other member states.

Integration accelerated around the turn of the century and cross-border banking claims in Europe grew by 14 per cent a year from 1999 to 2007, to reach a peak of €5.7 trillion by the end of 2007. It seemed that the single financial market, long dreamt of by European Commission officials, was at last becoming a reality, in spite of the many obstacles of policy and practice put in the way of pan-European firms by member state governments and regulators.

49. Sciences Po, Royal Bank of Scotland.

But it proved to be a false dawn. The financial crisis revealed serious flaws in the construction of the monetary union, in particular, but also of the single financial market. UK and Netherlands depositors in Icescave, owned by the Icelandic bank Kaupthing, found themselves unable to recover their funds for the Icelandic authorities (Iceland is part of the single market, if not of the EU). Investors in, and lenders to Greek banks found that their security was not as strong as they had believed, when the Greek government proved unable to back them.

These and other problems put the integration process into reverse. EU banks claims on other European banks fell from €5.7 trillion to under €3 trillion from 2007 to 2012, a drop of 8 per cent a year. In effect, EU banks would only lend to each other via the intermediary of the European Central Bank. In 2007 ECB cross-border flows were only 1 per cent of the total: By 2012 they were 35%. At the same time, banks began to sell or close their subsidiaries in other EU countries, so as to concentrate scarce capital on their home market.

The Banking Union was conceived as a response to this headlong retreat from integration. It was understood that one of the underlying causes was a lack of confidence in the regulatory system, which was still based on national regulators. They had been proved to be over-optimistic about the financial health of the institutions in their care. Objectivity was in short supply. Only a centralised pan-European supervisor, it was thought, could rebuild investor and depositor confidence.

The impact was not immediate, and was moderated by the fact that the Banking Union is not yet complete, there have been some signs of stabilisation, and cross-border lending is no longer in free-fall, but there is little indication yet that any movement towards the creation of genuine pan-European banks will re-emerge. The crisis has demonstrated the risks of trying to manage sprawling global or regional networks, and investors are rewarding simpler, more focussed institutions.

***What have the major temporary and long-term effects of the global financial crisis on the integration of the European banking sector been? How did the operating costs and the business and regulatory risks associated to multinational banking activities in Europe change after the financial crisis?***

It seems clear, therefore, that the Banking Union so far constructed will not in itself create the conditions for a fully integrated banking market, let alone a completed single financial market. While there is now a single supervisory mechanism based in Frankfurt, there is no resolution fund of a size that would be needed to cope with the failure of a large Eurozone bank. Perhaps more importantly, deposit protection remains a national responsibility, and it is little comfort to a depositor in a Greek bank to be told that she is backed by other Greek banks, all of whom in turn depend on a distressed sovereign, and one unable to create its own currency.

Filling these gaps is politically extremely difficult, but unless they are filled there is little chance that further banking integration will occur, and domestic banking markets will not be exposed to open competition.

So further efforts to complete the Banking Union are required. In a vivid metaphor, Nicolas Véron of the Bruegel institute has described the current structure as a 'timber-framed' union, while a steel frame will be needed to support a genuinely integrated banking market.

But we should recall another lesson from the crisis. Europe and especially European business, is very heavily dependent on the banking sector, perhaps unhealthily so. Banking assets total just over 300 per cent of EU GDP, against only around 100 per cent in the US (and about 180 per cent in Japan). By contrast, the total size of European equity markets equates to around 50 per cent of GDP, against around 150 per cent in the US. That is the background to the more recent initiative to promote a Capital Markets Union, championed by the financial market commissioner, Lord Hill.

He has put forward some sensible pragmatic proposals, to introduce standardised securitisation structures, for example. But the CMU will take far longer to establish than the BU. There are deep-rooted behavioural issues to address. For example, European savers on average hold 40 per cent of their financial assets in the form of bank deposits. American households have only 15 per cent of their assets in banks. So it will not be enough to work on the mechanics of the debt and equity markets, a major public education initiative will be required together, perhaps, with tax changes – always hard to agree at European level. It makes little sense to offer tax incentives to encourage saves to keep their money in banks, as some European countries do.

In summary, the long-term dream of an integrated European financial market remains alive, but it has endured a major setback in the financial crisis and its aftermath. We need to be realistic about what can be achieved in the next decade. Re-stabilising the banking system, and beginning a long-term process of diversifying funding sources for companies, to reduce Europe's vulnerability to financial crisis, may be the most realistic aims.

# The Banking Union: a Panacea for Eastern Europe?

by Ralph De Haas[50]

**Abstract**

This Q&A Section starts with the evolution of Multinational Banking in Europe and discusses the effectiveness of the actual regulatory framework in favouring the transition to the Banking Union in Europe. What are the main challenges ahead, and is the three-pillar strategy sufficient to favour the implementation of the single banking market?

## Questions on Multinational Banking and the Banking Union

***How has multinational banking evolved in Europe since the EU Directives on financial market integration of the 1990s?***

After the fall of the Berlin Wall in 1989, many Western banks acquired former state banks or established new greenfield subsidiaries in Eastern Europe. Eastern European financial institutions were in desperate need of fresh capital and state-of-the-art know-how. Western banks, confronted with relatively saturated home markets, were eager to invest. As a result about 70 percent of all bank assets in Eastern Europe are nowadays owned by Western parent banks. These multinational parents hold most of their Eastern European subsidiaries on a tight financial leash and operate very active internal capital markets.

50. EBRD, Tilburg University.

The picture is very different in Western Europe, where cross-border banking acquisitions were either less attractive or met with explicit or tacit political opposition. Only about 12 percent of all bank assets in Western Europe are therefore owned by foreign banks at the moment. Instead, cross-border bank integration in Western Europe mainly takes the form of branches or cross-border lending. This has of course been facilitated by the European Capital Requirements Directives and the so-called 'European Passport' which allows banks licensed in one EU country to set up a branch or conduct cross-border business in other EU countries.

***What have been the major temporary and long-term effects of the global financial crisis on the integration of the European banking sector?***

In the short term, we have witnessed a rapid process of cross-border deleveraging. Western multinational banks have reduced their exposures to Eastern Europe in particular, both in terms of cross-border lending to local counterparts (especially to other banks) and in terms of intra-bank exposures to their own local subsidiaries. At the height of the 2008-09 global financial crises, ad hoc international policy coordination in the form of the so-called Vienna Initiative was able to stem this retrenchment to same extent (De Haas et al., 2015). Deleveraging has nevertheless continued during and in the aftermath of the subsequent Eurozone crisis. On the upside, most multinational banking groups have so far remained committed to Eastern Europe as a 'second home market'. Only few subsidiaries have been closed down or sold. These divestitures mainly concerned relatively recent acquisitions in more peripheral countries: 'last in, first out'.

In the longer term, the global financial crisis has made supervisors and regulators more aware of the nature of the risks associated with financially integrated banking groups. Multinational banks' internal capital markets are a double-edged sword: they stabilize foreign-bank subsidiaries during local financial crises but they also expose host countries to external shocks. This realisation has led to calls for a gradual rebalancing of bank-funding models in Emerging Europe away from cross-border and wholesale funding and towards more local deposit funding (EBRD, 2015). To the extent that local deposits are local-currency denominated, this will also help banks in the region – both domestic and foreign-owned ones – to gradually reduce FX lending.

Against this background, it will be interesting to see whether the new bank-resolution regimes that will come into force over the next couple of years will help or hamper this financial rebalancing process. Subsidiaries of European G-SIBs – globally systemically important banks such as BNP Paribas, Nordea and UniCredit – as well as banks that are domestically systemically relevant (D-SIBs) may be required to issue more liabilities with high loss-absorbing capacity. This will in particular be the case for subsidiaries of multinational banks that will follow a multiple point of entry approach. Such subsidiaries will need to take care of their own external TLAC (Total Loss Absorption Capacity) rather than get internal TLAC allocated to them by their parent banks (as would happen in a single point of entry approach where the parent is part of a global resolution plan). The availability of internal TLAC should in principle give host countries enough confidence that when a subsidiary gets into serious trouble, they can trigger the internal TLAC that the parent bank has pre-committed to the subsidiary. In such as approach, subsidiaries would not need to issue their own TLAC-eligible instruments and this may help them to move towards a balance sheet with more deposit and less wholesale funding.

***How did the operating costs and the business and regulatory risks associated to multinational banking activities in Europe change after the financial crisis?***

One major change has been a sharp increase in funding costs, in particular for foreign-owned banks. Before the crisis these subsidiaries had easy access to ample and cheap parent-bank funding. Parents actively supported their subsidiaries with intra-group funding in order to help them reach specific market shares in host countries. With the onset of the crisis, parent banks have become more conservative and have significantly increased the pricing of internal liquidity.

***Will cross-border and multinational banking expand or shrink under the Banking Union?***

Over the past couple of years we have seen a clear trend from cross-border to multinational banking in Europe as cross-border lending turned out to be much more sensitive to economic uncertainty than lending through brick-and-mortar foreign-bank subsidiaries. Countries that before the crisis relied a lot on cross-border bank lending – for instance because they had not allowed foreign strategic investors to buy local banks – experienced relatively sharp reductions in the supply of credit to local firms and households. This trend will probably level off over the next couple of years, as cross-border lending slowly picks up again and foreign-bank subsidiaries may to some extent be held back by ring-fencing initiatives.

### Questions on the regulatory framework

***What features and/or national laws have so far hindered the development of a single banking market in Europe (e.g., different bankruptcy procedures and laws, limitations on cross-border liquidity transfers within multinational banks, lack of coordination among national supervisors)?***

An important unresolved problem is the unwillingness and sometimes legal inability of supervisors in home and host countries to actively share information on multinational banks. At a more fundamental level there remains a misalignment between the incentives of home country supervisors and host-country supervisors. This limits the ability of authorities to share accurate information in a timely manner. Efficient information sharing may only emerge if a bank subsidiary has systemic relevance in the host country *and* that host country is also significant from the perspective of the bank group. If both conditions are not met, cooperation will most likely break down (D'Hulster, 2015).

Regulatory cooperation may be particularly challenging for host countries *outside the EU* (see Lehmann and Nyberg, 2014). For these countries, the European Banking Authority (EBA) will be the key counterpart to facilitate access to the "core" supervisory colleges of EU bank groups. It remains to be seen, however, whether the EBA will be able to play this connector role effectively. It also still remains to be seen to what extent common ECB supervision will be an adequate replacement for previous regulatory mechanisms for countries *outside the Eurozone but inside the EU*. Host countries had built op cooperation with the main EU supervisor responsible for large systemic bank subsidiaries in their country (such as Austria and Italy) and this has now been replaced by common ECB supervision.

Another issue is the still substantial leeway for national authorities to resort to ring-fencing measures. In particular during home-country crisis episodes, such as the recent global financial crisis, host-country supervisors have a strong incentive to ring-fence subsidiaries to prevent capital or liquidity from 'escaping' the country in support of the parent bank. Typical measures include restrictions on paying (super) dividends to parent banks or limiting intra-group funding more generally. Such ad hoc and unilateral ring-fencing measures were introduced in various Eastern European countries when deleveraging by parent banks continued during the global and Eurozone crises (EBRD (2012), Box 3.4). In addition to such formal measures, informal moral suasion by local regulators plays a role as does the slightly more formal 'guidance' permitted under the second supervisory pillar.

***Would the full establishment of the three pillars of the Banking Union – Single Supervisory Mechanism, Single Resolution Mechanism and Harmonized Deposit Guarantee schemes – effectively allow for the creation of a single banking market in Europe?***

Among other things, this will depend on how both non-Eurozone EU countries and non-EU countries will be linked up to the Single Supervisory Mechanism (SSM). Opting in may provide benefits for EU countries outside the Eurozone, such as Poland, in terms of better access to information and a more transparent framework for crisis management. By opting to 'cooperate closely' with the SSM, and effectively tie their own hands, non-Eurozone countries can buy some credibility at the cost of basically accepting supervisory instructions from the ECB. Unlike euro area members, however, these countries will have much less impact on the decision-making process within the ECB.

The overall balance of pros and cons will differ on a country-by-country basis. So far only Romania has announced that it intends to 'opt in'. A worry shared by many countries is that the ECB might devote less attention to the supervision of a small country's banking sector than a national supervisor (Zettelmeyer, Berglöf and De Haas, 2012). In practice the ECB may focus its supervision on large banking groups – even though it has explicit supervisory responsibility for individual financial institutions, including subsidiaries.

For non-EU countries in the Eurozone's periphery (such as Serbia) the options for cooperation are more limited, though the interests in close collaboration may be equally strong (as Eurozone banks also hold large stakes in some of the main systemic banks in these non-EU countries).

## Questions on the implementation of Multinational Banking in Europe

***Will the European Banking Union work effectively even before a Common Deposit Guarantee Scheme is established?***

Most likely not. Without some form of mutualisation of bank risk, and as long as national governments and domestic deposit schemes remain the ultimate back-stop in case of severe banking problems, countries remain exposed to the 'death loop' in which sovereigns are exposed to domestic banking losses and banks remain (in)directly exposed to sovereigns. In many European countries, the domestic deposit base covered by some form of insurance is very sizable. This suggests that in case of a potential failure of a systemic bank it is highly likely that governments still need to provide some kind of backstop, especially when paid-in resources are low. Some form of European deposit insurance will therefore be necessary to complement the Banking Union. This could be done in various ways though. There could be either a fully-fledged European deposit insurance system or, alternatively, national deposit systems could re-insure themselves through a European fund (and potentially a fiscal backstop through the ESM).

**References**

Berglöf, E., De Haas, R., and Zettelmeyer, J., (2012), Banking Union: the view from emerging Europe, in T. Beck (ed.) "Banking Union for Europe: Risks and Challenges", Centre for Economic Policy Research (CEPR), London.

D'Hulster, K., (2015). Cross-Border Banking Supervision: Three Papers on International Supervisory Coordination and Ring-Fencing, PhD Thesis Free University Brussels.

De Haas, R., Korniyenko, Y., Pivovarsky, A., and Tsankova, T., (2015). Taming the Herd? Foreign Banks, the Vienna Initiative and Crisis Transmission, Journal of Financial Intermediation, 24 (3), 325-355.

EBRD, (2012). Transition Report 2012: Integration Across Borders, European Bank for Reconstruction and Development, London.

EBRD, (2015). Transition Report 2015-16: Rebalancing Finance, European Bank for Reconstruction and Development, London.

Lehmann, A., and Nyberg, L., (2014). Europe's Banking Union in the Global Financial System: Constructing Open and Inclusive Institutions, EBRD Working Paper No. 175, European Bank for Reconstruction and Development, London.

ISSN 2421-6917

PUBLISHED BY
Europeye srl
via Gregorio VII 368 - 00165 Roma
t. 06 3700556 - www.europeye.com